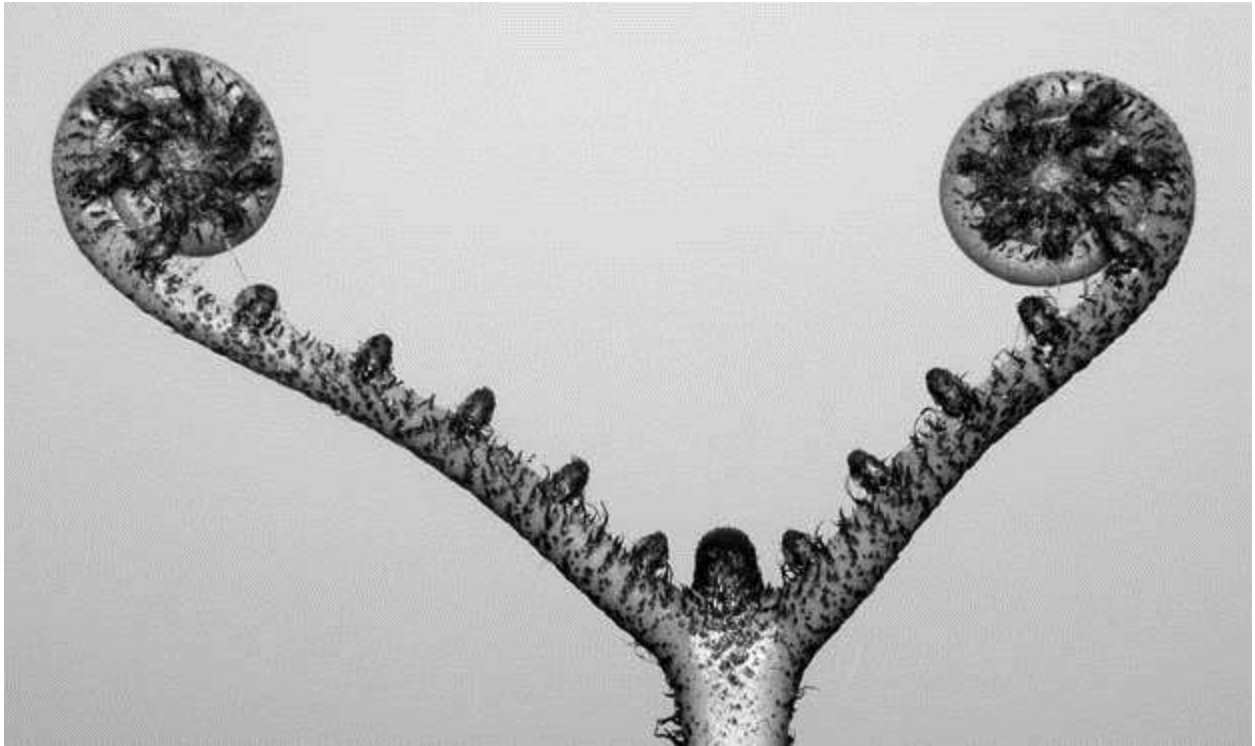

Annual Review of Pteridological Research



Volume 28 2014

ANNUAL REVIEW OF PTERIDOLOGICAL RESEARCH

VOLUME 28 (2014)

Compiled by
Klaus Mehltreter & Elisabeth A. Hooper

Under the Auspices of:
International Association of Pteridologists

President

Maarten J. M. Christenhusz, Finland

Vice President

Jefferson Prado, Brazil

Secretary

Leticia Pacheco, Mexico

Treasurer

Elisabeth A. Hooper, USA

Council members

Yasmin Baksh-Comeau, Trinidad

Michel Boudrie, French Guiana

Julie Barcelona, New Zealand

Atsushi Ebihara, Japan

Ana Ibars, Spain

S. P. Khullar, India

Christopher Page, United Kingdom

Leon Perrie, New Zealand

John Thomson, Australia

Xian-Chun Zhang, P. R. China

AND

Pteridological Section, Botanical Society of America

Kathleen M. Pryer, Chair

TABLE OF CONTENTS

Introduction.....	2
Literature Citations for 2014.....	7
Index to Authors, Keywords, Countries, Genera, Species	61
Research Interests	93
Directory of Respondents (addresses, phone, fax, e-mail)	101

Cover photo: *Diplopterygium pinnatum*, Oahu, Hawai'i (Klaus Mehltreter)

INTRODUCTION

In 2014 research of ferns and lycophytes continued at a fast pace. A large number of publications came once more from phytochemical studies in search of antibiotics and treatments against diseases such as cancer (e.g., *Cibotium barometz*, *Macrothelypteris torresiana*) and Alzheimer's (e.g. *Huperzia serrata*) or even remediation against hair loss (e.g., *Adiantum capillus-veneris*). Interestingly, studies indicated that in some plants endophytic fungi might be responsible for some bioactive chemical constituents (e.g., Gutam et al. 2014, Shu et al. 2014). Also on the medical front, empty spores of *Lycopodium clavatum* were investigated to serve as shells for oral vaccination (Atwe et al. 2014). Some ferns were intensively studied because of their biosorption capabilities for wastewater treatment (e.g., *Azolla*, *Salvinia*) or for phytoremediation of heavy metal polluted soils (e.g., *Pteris vittata*). One surprising new result was a study showing that terrestrial ferns acquired a new photoreceptor from bryophytes by horizontal gene transfer (Li et al. 2014), presumably as an adaptation for survival in low-light conditions in the dark understory where they were forced when angiosperms became dominant on our planet. Another interesting paper showed that while herbivores are often seen as enemies of plants, preferential feeding on angiosperms by deer in the upper Midwest (USA) may have increased the abundance of some fern species (Frerker et al. 2014). On the other hand, some ferns are regularly eaten by animals such as gorillas (Reiner et al. 2014) and grizzly bears (Gunther et al. 2014). Finally, a wonderful example of long-distance dispersal and spore longevity was shown by Lewis-Smith (2014), who grew a species of *Elaphoglossum* collected from detritus of an Antarctic glacier. We are sure that you will find other interesting references in this edition of ARPR, which will help you with your own research and stimulate your imagination. Ferns are fun, indeed!

This *Annual Review of Pteridological Research* (ARPR, ISSN 1051-2926) provides a comprehensive list of 946 literature citations on ferns and lycophytes published during 2014, an index to authors and keywords, and a description of research interests and contact information of pteridologists who answered our annual questionnaire.

Joanne M. Sharpe supported this year's issue by contributing database searches. Elisabeth Hooper took charge of the annual questionnaire, directory and research interests of respondents. Klaus Mehltreter compiled and formatted the literature citations and index. We hope that the continuous publication of ARPR will enhance access to information published about ferns and lycophytes worldwide and stimulate further collaboration among pteridologists.

If you are not on our mailing list but would like to receive information about how to be included in future issues, or if you would like to obtain back issues of the *Annual Review of Pteridological Research* please contact Elisabeth A. Hooper, Treasurer, International Association of Pteridologists, Biology Department, Truman State University, 100 E Normal Street, Kirksville MO 63501-4221 USA (iapferns@gmail.com). For feedback on this year's issue, please contact Klaus Mehltreter, Instituto de Ecología, A. C., Red de Ecología Funcional, carretera antigua a Coatepec No. 351, El Haya, 91070 Xalapa, Ver., Mexico (klaus.mehltreter@inecol.mx). On-line access to the literature from back issues since 1994 is available on the website of the American Fern Society (www.amerfernsoc.org).

Klaus Mehltreter, Xalapa
Elisabeth Hooper, Kirksville

1. Abu Baker, M. A. & Brown, J. S. 2014. Foraging and habitat use of common duikers, *Sylvicapra grimmia*, in a heterogeneous environment within the Soutpansberg, South Africa. *African Journal of Ecology* 52(3): 318-327. [herbivory].
2. Acock, P. 2014. Starting in ferns. *Pteridologist* 6(1): 34-35.
3. Adams, S. A. & Morse, D. H. 2014. Condition-dependent mate choice of a parasitoid wasp in the field. *Animal Behaviour* 88: 225-232. [Herpetogramma theseusalis, Maine, *Onoclea sensibilis*, plant-insect interactions].
4. Aguilar, M. I., Benitez, W. V., Colin, A., Tovar, A. & Calzada, F. 2014. Evaluation of the diuretic activity in two Mexican medicinal species: *Selaginella nothohybrida* and *S. lepidophylla*. 55th Annual Meeting of the American Society of Pharmacognosy (ASP), Oxford, MS, p. 817. [medicinal plants].
5. Aguilar-Dorantes, K., Mehlreter, K., Vibrans, H., Mata-Rosas, M. & Esqueda-Esquivel, V. A. 2014. Repeated selective cutting controls neotropical bracken (*Pteridium arachnoideum*) and restores abandoned pastures. *Invasive Plant Science and Management* 7(4): 580-589. [invasive species, land management, mechanic control].
6. Aguirre, H. & Shaw, S. R. 2014. *Meteorus* Haliday (Hymenoptera: Braconidae) parasitoids of Pyralidae: description and biology of two new species and first record of *Meteorus desmiae* Zitani, 1998 from Ecuador. *Journal of Natural History* 48: 2375-2388. [*Diplazium costale*, Ecuador, herbivory, insects, wasps].
7. Ajaib, M., Haider, S. K., Zikrea, A. & Siddiqui, M. F. 2014. Ethnobotanical studies of herbs of Agra valley, Parachinar, Upper Kurram Agency, Pakistan. *International Journal of Biology and Biotechnology* 11(1): 71-83.
8. Alagador, D., Cerdeira, J. O. & Araujo, M. B. 2014. Shifting protected areas: scheduling spatial priorities under climate change. *Journal of Applied Ecology* 51(3): 703-713. [conservation, *Marsilea quadrifolia*].
9. Alday, J. G. & Marrs, R. H. 2014. A simple test for alternative states in ecological restoration: the use of principal response curves. *Applied Vegetation Science* 17(2): 302-311. [methods, *Pteridium aquilinum*, restoration].
10. Allen, J. L., Clusella-Trullas, S. & Chown, S. L. 2014. Thermal tolerance of *Cyrtobagous salviniae*: a biocontrol agent in a changing world. *BioControl* 59(3): 357-366. [biological control, *Salvinia molesta*, South Africa].
11. Alves, F. E. & Neto, L. M. 2014. Vascular epiphytes in a forest fragment of Serra da Mantiqueira and floristic relationships with Atlantic high altitude areas in Minas Gerais. *Brazilian Journal of Botany* 37(2): 187-196. [floristics].
12. Aly, C. & Fischer, H. J. 2014. Hilpertsau, a new nature reserve in Baden-Wurttemberg, Germany. *Carolina* 72: 143-156. [*Pteridium aquilinum*, weed control; German].
13. Ameri, H., Khalilizade, H. & Zamani, F. 2014. Four new *Equisetites* species (Sphenophyta) from the Hojedk Formation, Middle Jurassic (Bajocian-Bathonian), the North of Kerman, Iran. *Journal of Sciences-Islamic Republic of Iran* 25(3): 253-264.
14. Amoroso, V. B., Lagumbay, A. J. D., Mendez, R. A., De La Cruz, R. Y. & Villalobos, A. P. 2014. Bioactives in three Philippine edible ferns. *Asia Life Sciences* 23(2): 445. [*Diplazium esculentum*, *Marsilea crenata*, *Stenochlaena palustris*].
15. Anjum, N. A., Gill, S. S., Khan, I. & Gill, R. 2014. Environmental change, and plant amino acids and their derivatives - an introduction. In: Anjum, N. A., Gill, S. S. & Gill, R. (eds.). *Plant adaptation to environmental change: significance of amino acids and their derivatives*. CABI Publishing, Wallingford, Oxon, UK, pp. 1-17. [*Selaginella lepidophylla*].
16. Anonymous 2014. PM 9/19 (1) Invasive alien aquatic plants. *Bulletin OEPP* 44(3): 457-471. [*Salvinia molesta*].
17. Antony, R. 2014. Some comments on the paper "Natural apospory in *Pteris argyraea* T. Moore from South India". by Raju Antony, S M Shareef and N Mohanan in *Indian Fern Journal* 29: 148-152 Reply. *Indian Fern Journal* 31(1-2): 153.

18. Antony, R., Fraser-Jenkins, C. R., Mohanan, N. & Koshy, C. P. 2014. *Tectaria puberula* (Desv.) C. Cur. (Dryopteridaceae : Pteridophyta), a new record for Asia. *Indian Fern Journal* 31(1-2): 139-142.
19. Arana, M. D., Reinoso, H. & Oggero, A. J. 2014. Morphology and anatomy of caulinar axes, lycophylls and sporangia of *Phlegmariurus phyllicifolius*: a contribution to the systematics of neotropical Lycopodiaceae. *Revista de Biología Tropical* 62(3): 1217-1227. [Spanish].
20. Arana, M. D., Yanez, A. & Schwartsburd, P. B. 2014. An updated synopsis of *Hypolepis* Bernh. (Dennstaedtiaceae) from Argentina. *Phytotaxa* 188(2): 91-102.
21. Aranha, P. C. R., Hansen, H. C. B., Rasmussen, L. H., Strobel, B. W. & Friis, C. 2014. Determination of ptaquiloside and pterosin B derived from bracken (*Pteridium aquilinum*) in cattle plasma, urine and milk. *Journal of Chromatography B* 951: 44-51. [cancer, ptaquiloside].
22. Assis, F. C. & Zimmer, B. 2014. Notes concerning the nomenclature of *Polypodium ptiloton* and its correct spelling in Pecluma. *Taxon* 63(3): 641-642.
23. Atwe, S. U., Ma, Y. & Gill, H. S. 2014. Pollen grains for oral vaccination. *Journal of Controlled Release* 194: 45-52. [*Lycopodium clavatum*, spores].
24. Azuma, M., Yoshikawa, T., Kogure, N., Kitajima, M. & Takayama, H. 2014. Biogenetically inspired total syntheses of *Lycopodium* alkaloids, (+)-flabellidine and (-)-lycodine. *Journal of the American Chemical Society* 136(33): 11618-11621.
25. Baas, P., Hovenkamp, P. H. & Veldkamp, J. F. 2014. Hans Nooteboom 80 years. *Blumea* 59(1): I-II.
26. Babu, D. J., Sumalatha, B., Venkateswarulu, T. C., Das, K. M. & Kodali, V. P. 2014. Kinetic, equilibrium and thermodynamic studies of biosorption of chromium (VI) from aqueous solutions using *Azolla filiculoides*. *Journal of Pure and Applied Microbiology* 8(4): 3107-3116.
27. Bach, H. G., Wagner, M. L., Ricco, R. A. & Fortunato, R. H. 2014. Sale of medicinal herbs in pharmacies and herbal stores in Hurlingham district, Buenos Aires, Argentina. *Revista Brasileira de Farmacognosia-Brazilian Journal of Pharmacognosy* 24(2): 258-264. [*Equisetum giganteum*].
28. Badarudeen, A., Sajan, K., Srinivas, R., Maya, K. & Padmalal, D. 2014. Environmental significance of heavy metals in leaves and stems of Kerala mangroves, SW coast of India. *Indian Journal of Geo-Marine Sciences* 43: 1021-1029. [*Acrostichum aureum*].
29. Baeten, L., Warton, D. I., Van Calster, H., De Frenne, P., Verstraeten, G., Bonte, D., Bernhardt-Roemermann, M., Bernhardt-Roemermann, M., Decocq, G., Eriksson, O., Hedl, R., Heinken, T., Hermy, M., Hommel, P., Kirby, K., Naaf, T., Petrik, P., Walther, G. R., Wulf, M. & Verheyen, K. 2014. A model-based approach to studying changes in compositional heterogeneity. *Methods in Ecology and Evolution* 5(2): 156-164. [*Dryopteris carthusiana*, plant communities, *Pteridium aquilinum*, species turnover].
30. Bagniewska-Zadworna, A., Barakat, A., Lakomy, P., Smolinski, D. J. & Zadworny, M. 2014. Lignin and lignans in plant defense: Insight from expression profiling of cinnamyl alcohol dehydrogenase genes during development and following fungal infection in *Populus*. *Plant Science* 229: 111-121. [genetics, *Selaginella moellendorffii*].
31. Baker, K., Lambdon, P., Jones, E., Pellicer, J., Stroud, S., Renshaw, O., Niissalo, M., Niissalo, M., Clubbe, C. & Sarasan, V. 2014. Rescue, ecology and conservation of a rediscovered island endemic fern (*Anogramma ascensionis*): *ex situ* methodologies and a road map for species reintroduction and habitat restoration. *Botanical Journal of the Linnean Society* 174: 461-477. [Ascension Island, conservation].
32. Balazi, P., Hrivnak, R. & Ot'ahelova, H. 2014. The relationship between macrophyte assemblages and selected environmental variables in reservoirs of Slovakia examined for the purpose of ecological assessment. *Polish Journal of Ecology* 62(3): 543-558. [*Azolla filiculoides*, land management, plant communities].
33. Balestri, M., Bottega, S. & Spano, C. 2014. Response of *Pteris vittata* to different cadmium treatments. *Acta Physiologiae Plantarum* 36(3): 767-775.

34. Balestri, M., Ceccarini, A., Forino, L. M. C., Zelko, I., Martinka, M., Lux, A. & Castiglione, M. R. 2014. Cadmium uptake, localization and stress-induced morphogenic response in the fern *Pteris vittata*. *Planta* 239(5): 1055-1064. [phytoremediation].
35. Bandyopadhyay, M. 2014. Loss of fern diversity by proverbial dictum of 'Khana'. National Seminar on Cryptogamic Botany, Amazing Cryptogams: learning to know. Department of Botany, University of Kalyani, West Bengal, India. p. 29-30. [conservation].
36. Bao, J., Cao, J., Wang, Q. & Dai, X. 2014. Microstructural observation on the development of gametophytes and oogenesis in the fern *Stenoloma chusanum*. *Acta Botanica Boreali Occidentalia Sinica* 34(7): 1352-1357. [germination; Chinese].
37. Barbhuiya, H. A. & Singh, S. K. 2014. Pteridophytes of Thorangtlang Wildlife Sanctuary, Mizoram, India. *Journal of Threatened Taxa* 6(9): 6249-6268. [floristics].
38. Barcelona, J. F. & Pelsner, P. B. 2014. *Phanerosorus* (Matoniaceae), a new fern genus record for the Philippines. *Phytotaxa* 170(2): 133-135.
39. Barkan, A. & Small, I. 2014. Pentatricopeptide repeat proteins in plants. *Annual Review of Plant Biology* 65: 415-442. [genetics, *Selaginella*].
40. Barros, I. C. L., Cantarelli, L. C., Farias, R. D. P., de Novaes Pereira, A. F. & Araujo da Silva, I. A. 2014. Vertical distribution of epiphytic ferns in a fragment of the Atlantic forest in the Brazilian Northeast. *Iheringia Serie Botanica* 69(1): 143-153. [Portuguese].
41. Barta, J., Slajsova, P., Tahovska, K., Picek, T. & Santruckova, H. 2014. Different temperature sensitivity and kinetics of soil enzymes indicate seasonal shifts in C, N and P nutrient stoichiometry in acid forest soil. *Biogeochemistry* 117(42065): 525-537. [*Athyrium alpestre*, Bohemia, nutrients, soil chemistry].
42. Barth, G., Franz, M., Heunisch, C., Kustatscher, E., Thies, D. & Vespermann, J. & Wolfgramm, M. 2014. Late Triassic (Norian-Rhaetian) brackish to freshwater habitats at a fluvial-dominated delta plain (Seinstedt, Lower Saxony, Germany). *Palaeobiodiversity Palaeoenvironments* 94(4): 495-528. [fossils].
43. Bashforth, A. R., Cleal, C. J., Gibling, M. R., Falcon-Lang, H. J. & Miller, R. F. 2014. Paleocology of early Pennsylvanian vegetation on a seasonally dry tropical landscape (Tynemouth Creek Formation, New Brunswick, Canada). *Review of Palaeobotany & Palynology* 200: 229-263. [Canada, Carboniferous, fossils, New Brunswick, Pennsylvanian].
44. Bautista Cruz, A., Arias, N. M., Camargo Ricalde, S. L. & Pacheco, L. 2014. Hongos micorrizógenos arbusculares y nutrimentos del suelo asociados a cuatro especies de helechos en dos ecosistemas de Oaxaca, México. *Revista Chapin Serie Ciencias Forestales y del Ambiente* 20(3): 199-212. [Spanish, English].
45. Bell, N. E., Boore, J. L., Mishler, B. D. & Hyvonen, J. 2014. Organellar genomes of the four-toothed moss, *Tetraphis pellucida*. *BMC Genomics* 15: 383. [genetics, *Huperzia squarrosa*].
46. Benca, J. P. 2014. Cultivation techniques for terrestrial clubmosses (Lycopodiaceae): conservation, research, and horticultural opportunities for an early-diverging plant lineage. *American Fern Journal* 104(2): 25-48.
47. Benca, J. P. 2014. Erratum: Cultivation techniques for terrestrial clubmosses (Lycopodiaceae): conservation, research, and horticultural opportunities for an early-diverging plant lineage (vol 104, pg 25, 2014). *American Fern Journal* 104(3): 179.
48. Benca, J. P., Carlisle, M. H., Bergen, S. & Stroemberg, C. A. E. 2014. Applying morphometrics to early land plant systematics: a new *Leclercqia* (Lycopsidea) species from Washington State, USA. *American Journal of Botany* 101(3): 510-520. [fossils].
49. Bennert, H. W., Sonneborn, I. & Horn, K. 2014. The Least Moonwort (*Botrychium simplex*, Ophioglossaceae) in Germany. *Tuexenia* (34): 205-232. [German].
50. Bennett, T., Brockington, S. F., Rothfels, C., Graham, S. W., Stevenson, D., Kutchan, T., Rolf, M., Rolf, M., Wong, G. K. S., Leyser, O., Glover, B. J. & Harrison, C. J. 2014. Paralogous radiations of PIN proteins with multiple origins of noncanonical PIN structure. *Molecular Biology and Evolution* 31(8): 2042-2060. [auxin, evolution, hormones, *Selaginella*].

51. Bergeron, A. & Pellerin, S. 2014. Pteridophytes as indicators of urban forest integrity. *Ecological Indicators* 38: 40-49. [Canada, Quebec].
52. Bernardi, J., Roig-Villanova, I., Marocco, A. & Battaglia, R. 2014. Communicating across generations: the B-sister language. *Plant Biosystems* 148(1): 150-156. [genetics, MADS-box gene, proteins].
53. Bigelow, N. H., Edwards, M. E., Elias, S. A., Hamilton, T. D. & Schweger, C. E. 2014. Tundra and boreal forest of interior Alaska during terminal MIS 6 and MIS 5e. *Vegetation History and Archaeobotany* 23: 177-193. [fossils, Pleistocene, spores].
54. Birri, M. A., Franco, M. A., Vallejo, M. G., Carro-Juarez, M. & Agnese, A. M. 2014. *Huperzia saururus* Lam. Trevis. (Lycopodiaceae) facilitates ejaculation in spinal cord transected male rats. *Journal of Ethnopharmacology* 157: 38-44. [medicinal plants].
55. Bissegger, S., Rodriguez, M., Brisson, J. & Weber, K. P. 2014. Catabolic profiles of microbial communities in relation to plant identity and diversity in free-floating plant treatment wetland mesocosms. *Ecological Engineering* 67: 190-197. [carbon balance, *Salvinia molesta*].
56. Blackham, G. V., Webb, E. L. & Corlett, R. T. 2014. Natural regeneration in a degraded tropical peatland, Central Kalimantan, Indonesia: Implications for forest restoration. *Forest Ecology and Management* 324: 8-15. [*Blechnum indicum*, *Nephrolepis hirsutula*, *Pteridium esculentum*, *Stenochlaena palustris*].
57. Blake, P. 2014. Ticks, Borrelia and Lyme disease. *Pteridologist* 6(1): 22-23. [*Pteridium*].
58. Bleich, M. E., Fernandez Piedade, M. T., Knopki, P. B., Duarte de Castro, N. G., Jati, S. R. & de Sousa, R. N. 2014. Influence of the habitat conditions on the structure of aquatic herbaceous in the Catalao Lake region, Manaus, AM. *Acta Amazonica* 44(4): 481-489. [plant communities, *Salvinia auriculata*; Portuguese].
59. Bobach, C., Schurwanz, J., Franke, K., Denkert, A., Tran, V. S., Kuster, R., Mutiso, P. C., Seliger, B. & Wessjohann, L. A. 2014. Multiple readout assay for hormonal (androgenic and antiandrogenic) and cytotoxic activity of plant and fungal extracts based on differential prostate cancer cell line behavior. *Journal of Ethnopharmacology* 155(1): 721-730. [*Cibotium barometz*, *Cyrtomium falcatum*, *Nephrolepis exaltata*].
60. Bomfleur, B., McLoughlin, S. & Vajda, V. 2014. Fossilized nuclei and chromosomes reveal 180 million years of genomic stasis in Royal ferns. *Science* 343(6177): 1376-1377. [chromosomes, Jurassic, *Osmunda*, Sweden].
61. Bonacheva, V. M. & Botirov, E. K. 2014. Kaempferol and its glycosides from *Equisetum silvaticum* L. from the Khanty-Mansi autonomous area. *Russian Journal of Bioorganic Chemistry* 40(7): 777-780. [medicinal plants].
62. Borokini, T. I. 2014. A systematic compilation of endemic flora in Nigeria for conservation management. *Journal of Threatened Taxa* 6(11): 6406-6426. [floristics].
63. Borrueal-Abadia, V., Belen Galan-Abellan, A., Kustatscher, E., Dieguez, C., Lopez-Gomez, J., De la Horra, R., Barrenechea, J. F. & Arche, A. 2014. Palaeoenvironmental reconstruction of the early Anisian from sedimentology and plant remains in the SE Iberian Range (E Spain). *Palaeogeography Palaeoclimatology Palaeoecology* 414: 352-369. [fossils].
64. Boudrie, M. & Cremers, G. 2014. Taxons de ptéridophytes décrits par Aublet dans son Histoire des plantes de la Guiane française 1775. *Journal de Botanique de la Société Botanique de France* 65: 85-90. [French Guiana; French].
65. Boudrie, M. 2014. Les ptéridophytes du mont Itoupé – Sommet tabulaire (Parc Amazonien de Guyane – Guyane française). Rapport interne Parc Amazonien de Guyane, pp. 33. [floristics, French Guiana; French].
66. Brana, S., Vukovic, N. & Kaligarić, M. 2014. Least adder's-tongue (*Ophioglossum lusitanicum* L.) in Croatia - distribution, ecology and conservation. *Acta Botanica Croatica* 73(2): 471-480.
67. Breen, A. L. 2014. Balsam poplar (*Populus balsamifera* L.) communities on the Arctic slope of Alaska. *Phytocoenologia* 44(42036): 1-17. [*Cystopteris montana*, floristics].

68. Broadbent, E. N., Zambrano, A. M. A., Asner, G. P., Field, C. B., Rosenheim, B. E., Kennedy-Bowdoin, T., Knapp, D. E., Knapp, D. E., Giardina, C. & Cordell, S. 2014. Linking rainforest ecophysiology and microclimate through fusion of airborne LiDAR and hyperspectral imagery. *Ecosphere* 5(5): 57. [*Cibotium glaucum*, Hawaii, leaf traits, modelling, remote sensing].
69. Brodersen, C., Jansen, S., Choat, B., Rico, C. & Pittermann, J. 2014. Cavitation resistance in seedless vascular plants: the structure and function of interconduit pit membranes. *Plant Physiology* 165(2): 895-904. [*Athyrium filix-femina*, conduits, *Psilotum nudum*, water transport].
70. Brouwer, P., Braeutigam, A., Kuelahoglu, C., Tazelaar, A. O. E., Kurz, S., Nierop, K. G. J., van der Werf, A., Weber, A. P. M. & Schlupepmann, H. 2014. *Azolla* domestication towards a biobased economy? *New Phytologist* 202(3): 1069-1082. [*Azolla filiculoides*, *Azolla pinnata*].
71. Brownsey, P. J. & Perrie, L. R. 2014. Taxonomic notes on the New Zealand flora: recognition of two subspecies in *Dicksonia lanata*. *New Zealand Journal of Botany* 52(3): 343-351.
72. Brownsey, P. J. & Perrie, L. R. 2014. Taxonomic notes on the New Zealand flora: types in the fern family Psilotaceae. *New Zealand Journal of Botany* 52(2): 267-269. [*Bernhardia novaehollandiae*, *Psilotum heterocarpum*, *Tmesipteris fowerakeri*].
73. Brownsey, P. J. & Perrie, L. R. 2014. Taxonomic notes on the New Zealand flora: lectotypes in Marsileaceae and Salviniaceae (water ferns). *New Zealand Journal of Botany* 52(2): 270-271. [*Azolla pinnata*, *Azolla rubra*, *Pilularia novaehollandiae*, *Salvinia*].
74. Bruhn, D., Albert, K. R., Mikkelsen, T. N. & Ambus, P. 2014. UV-induced N₂O emission from plants. *Atmospheric Environment* 99: 206-214. [*Asplenium nidus*].
75. Bulfon, C., Volpatti, D. & Galeotti, M. 2014. *In vitro* antibacterial activity of plant ethanolic extracts against fish pathogens. *Journal of the World Aquaculture Society* 45(5): 545-557. [*Equisetum arvense*, medicinal plants].
76. Burrows, M. A., Fenner, J. & Haberle, S. G. 2014. Testing peat humification analysis in an Australian context: identifying wet shifts in regional climate over the past 4000 years. *Mires and Peat* 14: 5. [*Blechnum*, Holocene].
77. Bushart, T. J., Cannon, A., Clark, G. & Roux, S. J. 2014. Structure and function of CrACA1, the major PM-type Ca²⁺-ATPase, expressed at the peak of the gravity-directed trans-cell calcium current in spores of the fern *Ceratopteris richardii*. *Plant Biology* 16: 151-157. [space behavior].
78. Bystriakova, N., Ansell, S. W., Russell, S. J., Grundmann, M., Vogel, J. C. & Schneider, H. 2014. Present, past and future of the European rock fern *Asplenium fontanum*: combining distribution modelling and population genetics to study the effect of climate change on geographic range and genetic diversity. *Annals of Botany* 113(3): 453-465. [refugia].
79. Caceres, A., Michel, J. L., Doyle, B. J., Locklear, T. D. & Mahady, G. B. 2014. Estrogenic and progestagenic effects of medicinal plants used for women's reproductive health in Guatemala. 55th Annual Meeting of the American Society of Pharmacognosy (ASP), Oxford, MS, p. 758. [medicinal plants, *Phlebodium pseudoaureum*].
80. Cacharani, D. A., Ramos, M. & Martinez, O. G. 2014. Two new fern records from Northwestern Argentina. *Darwiniana Nueva Serie* 2(2): 277-283. [*Adiantum peruvianum*, *Serpocaulon polystichum*; Spanish].
81. Caluff, M. G. & Shelton, G. 2014. Two new species and a new hybrid species of *Selaginella* (Selaginellaceae) from W Cuba. *Willdenowia* 44(3): 311-319. [*Selaginella cavernaria*, *Selaginella dualis*, *Selaginella striata*].
82. Calvo, M. I. & Cavero, R. Y. 2014. Medicinal plants used for cardiovascular diseases in Navarra and their validation from official sources. *Journal of Ethnopharmacology* 157: 268-273. [*Equisetum telmateia*].
83. Campanella, J. J., Smalley, J. V. & Dempsey, M. E. 2014. A phylogenetic examination of the primary anthocyanin production pathway of the Plantae. *Botanical Studies* 55: 10.

84. Campos, N. V., Pereira, T. A. R., Machado, M. F., Guerra, M. B. B., Tolentino, G. S., Araujo, J. S., Rezende, M. Q., da Silva, M. C. N. A. & Schaefer, C. E. G. R. 2014. Evaluation of micro-energy dispersive x-ray fluorescence and histochemical tests for aluminium detection in plants from high altitude rocky complexes, southeast Brazil. *Anais da Academia Brasileira de Ciencias* 86(1): 285-296. [*Lycopodium clavatum*].
85. Campos, V., Souto, L. S., Medeiros, T. A. M., Toledo, S. P., Sayeg, I. J., Ramos, R. L. & Shinzato, M. C. 2014. Assessment of the removal capacity, tolerance, and anatomical adaptation of different plant species to benzene contamination. *Water Air and Soil Pollution* 225(8): 2033. [phytoremediation, *Pteris vittata*].
86. Canestraro, B. K., Moran, R. C. & Watkins, J. E., Jr. 2014. Reproductive and physiological ecology of climbing and terrestrial *Polybotrya* (Dryopteridaceae) at the La Selva Biological Station, Costa Rica. *International Journal of Plant Sciences* 175(4): 432-441. [*Polybotrya caudata*, *Polybotrya osmundacea*].
87. Caneva, G., Savo, V. & Kumbaric, A. 2014. Big messages in small details: nature in Roman archaeology. *Economic Botany* 68(1): 109-115. [*Pteridium aquilinum*].
88. Cao, J., Xia, X., Dai, X., Wang, Q. & Xiao, J. 2014. Chemical composition and bioactivities of flavonoids-rich extract from *Davallia cylindrica* Ching. *Environmental Toxicology and Pharmacology* 37(2): 571-579. [*Davallia cylindrica*].
89. Carpenter, D. N., Bockheim, J. G. & Reich, P. F. 2014. Soils of temperate rainforests of the North American Pacific Coast. *Geoderma* 230: 250-264. [*Blechnum spicant*].
90. Carvajal-Hernandez, C. I., Kroemer, T. & Vazquez-Torres, M. 2014. Species richness and floristic composition of ferns in humid montane forest and associated environments of central Veracruz, Mexico. *Revista Mexicana de Biodiversidad* 85(2): 491-501. [Spanish].
91. Cascales-Minana, B. & Meyer-Berthaud, B. 2014. Diversity dynamics of Zosterophyllopsida. *Lethaia* 47(2): 205-215. [Devonian, fossils, lycophytes].
92. Cash, B. M., Prevost, N., Wagner, F. F. & Comins, D. L. 2014. Studies toward the total synthesis of dihydrolycolucine. Preparation of AB and CEF ring fragments. *Journal of Organic Chemistry* 79(12): 5740-5745. [alkaloids, *Lycopodium lucidulum*].
93. Casimiro-Soriguer Solanas, F., Perez Latorre, A. V. & Cabezudo, B. 2014. Flora and vegetation of a unique suburban area: Mount San Antom (Malaga, Spain). *Acta Botanica Malacitana* 39: 179-205. [*Asplenium petrarchae*, *Polypodium cambricum*; Spanish].
94. Chaboureau, A. C., Sepulchre, P., Donnadieu, Y. & Franc, A. 2014. Tectonic-driven climate change and the diversification of angiosperms. *Proceedings of the National Academy of Sciences of the United States of America* 111(39): 14066-14070. [continental drift, evolution].
95. Chacon-Labela, J., De la Cruz, M., Vicuna, R., Tapia, K. & Escudero, A. 2014. Negative density dependence and environmental heterogeneity effects on tree ferns across succession in a tropical montane forest. *Perspectives in Plant Ecology Evolution and Systematics* 16(2): 52-63. [*Alsophila engelii*, *Cyathea caracasana*, Ecuador, plant communities, tree ferns].
96. Chae, L., Kim, T., Nilo-Poyanco, R. & Rhee, S. Y. 2014. Genomic signatures of specialized metabolism in plants. *Science* 344(6183): 510-513. [evolution, *Selaginella moellendorffii*].
97. Chaichana, R. & Sumpan, T. 2014. The potential ecological impact of the exotic snail *Pomacea canaliculata* on the Thai native snail *Pila scutata*. *ScienceAsia* 40(1): 11-15. [herbivory, *Salvinia cucullata*].
98. Chakraborti, K., Sadhukhan, R. & Bandyopadhyay, M. 2014. Potential ornamental ferns of gangetic West Bengal. National Conference on 'Modern Approaches to Pteridophytes: Biology, Biodiversity and Bioresources', CSIR-Institute of Himalayan Bioresource Technology, Palampur, p. 85-86.
99. Chandran, G. & Muralidhara. 2014. Insights on the neuromodulatory propensity of *Selaginella* (sanjeevani) and its potential pharmacological applications. *CNS & Neurological Disorders-Drug Targets* 13(1): 82-95. [biflavonoids, medicinal plants, *Selaginella delicatula*].

100. Chang, Y. F., Li, J., Lu, S. G. & Schneider, H. 2014. Systematic position and polyploid origin of the fern *Asplenium kiangsuense* (Aspleniaceae). *Plant Diversity and Resources* 36(1): 7-12. [Chinese].
101. Chang, Y. H., Chiou, W. L., Huang, Y. M., Shen, B. N., Lin, C. Y. & Hsu, T. C. 2014. New additions to the fern flora of Taiwan (2). *Taiwan Journal of Biodiversity* 16(3): 263-272.
102. Chao, Y. S., Rouhan, G., Amoroso, V. B. & Chiou, W. L. 2014. Molecular phylogeny and biogeography of the fern genus *Pteris* (Pteridaceae). *Annals of Botany* 114(1): 109-124.
103. Chappuis, E., Gacia, E. & Ballesteros, E. 2014. Environmental factors explaining the distribution and diversity of vascular aquatic macrophytes in a highly heterogeneous Mediterranean region. *Aquatic Botany* 113: 72-82. [*Isoetes echinospora*].
104. Charbonnier, S. 2014. Synthesis on the flora from the nodules of the Montceau-les-Mines Lagerstätte (Late Carboniferous, France). *Annales de Paleontologie* 100(2): 103-117. [fossils, tree ferns; French].
105. Chau, M. M. & Reyes, W. R. 2014. Effects of light, flooding, and weeding on experimental restoration of an endangered Hawaiian fern. *Restoration Ecology* 22(1): 107-116. [conservation, *Marsilea villosa*, weed control].
106. Cheema, H. K. 2014. Some comments on the paper "Natural apospory in *Pteris argyraea* T. Moore from South India". by Raju Antony, S M Shareef and N Mohanan in *Indian Fern Journal* 29: 148-152. *Indian Fern Journal* 31(1-2): 152-153.
107. Chen, B., Zheng, Z., Huang, K., Zheng, Y., Zhang, G., Zhang, Q. & Huang, X. 2014. Radionuclide dating of recent sediment and the validation of pollen-environment reconstruction in a small watershed reservoir in southeastern China. *CATENA* 115: 29-38. [*Dicranopteris*].
108. Chen, C. W., Ebihara, A., Chiou, W. L. & Li, C. W. 2014. *Haplopteris yakushimensis* (Pteridaceae, Vittarioideae), a new species from Yakushima Island, Japan. *Phytotaxa* 156(4): 229-234.
109. Chen, C. W., Ngan, L. T., Hidayat, A., Evangelista, L., Nootboom, H. P. & Chiou, W. L. 2014. First insights into the evolutionary history of the *Davallia repens* complex. *Blumea* 59(1): 49-58. [apogamy, hybrids, polyploidy].
110. Chen, C. Y., Liaw, C. C., Chen, Y. H., Chang, W. Y., Chung, P. J. & Hwang, T. L. 2014. A novel immunomodulatory effect of ugonin U in human neutrophils via stimulation of phospholipase C. *Free Radical Biology & Medicine* 72: 222-231. [*Helminthostachys zeylanica*, medicinal plants].
111. Chen, G., Yang, B., Deng, T. & Xia, S. 2014. Progress in understanding several issues of the floristic geography of the pteridophytes in China. *Acta Botanica Boreali Occidentalia Sinica* 34(10): 2130-2136. [Chinese].
112. Chen, H., Hao, Z. Y., Wang, X. L., Zheng, X. K., Feng, W. S. & Wang, Y. Z. 2014. Sinensioside A, a new sesquilinear glycoside from *Selaginella sinensis*. *Chinese Journal of Natural Medicines* 12(2): 148-150. [medicinal plants].
113. Chen, J., Song, H., Ruan, J. & Lei, Y. 2014. Prostatic protective nature of the flavonoid-rich fraction from *Cyclosorus acuminatus* on carrageenan-induced non-bacterial prostatitis in rat. *Pharmaceutical Biology* 52(4): 491-497. [China, medicinal plants].
114. Chen, S., Song, F. & Chen, Y. 2014. Dynamic change of total flavonoids content in different parts of *Dicranopteris pedata* at different collection times. *Journal of Plant Resources and Environment* 23(4): 102-104. [Chinese].
115. Chen, W., Foy, N., Olthof, I., Zhang, Y., Fraser, R., Latifovic, R., Poitevin, J., Zorn, P. & McLennan, D. 2014. A biophysically based and objective satellite seasonality observation method for applications over the Arctic. *International Journal of Remote Sensing* 35(18): 6742-6763. [Canada, *Equisetum*, phenology, remote sensing].
116. Chen, X., Chan, W. L., Zhu, F. Y. & Lo, C. 2014. Phosphoproteomic analysis of the non-seed vascular plant model *Selaginella moellendorffii*. *Proteome Science* 12: 16.

117. Cheng, D., Zhang, Y., Gao, D. & Zhang, H. 2014. Antibacterial and anti-inflammatory activities of extract and fractions from *Pyrrhosia petiolosa* (Christ et Bar.) Ching. *Journal of Ethnopharmacology* 155(2): 1300-1305.
118. Cheng, D., Zhang, Y., Xin, X. & Gao, D. 2014. Comparative pharmacognosy of *Pyrrhosia petiolosa* and *Pyrrhosia davidii*. *Revista Brasileira de Farmacognosia-Brazilian Journal of Pharmacognosy* 24(4): 368-380. [bronchitis, medicinal plants, nephritis].
119. Cho, H. J., Bae, W. J., Kim, S. J., Hong, S. H., Lee, J. Y., Hwang, T. K., Choi, Y. J., Hwang, S. Y. & Kim, S. W. 2014. The inhibitory effect of an ethanol extract of the spores of *Lygodium japonicum* on ethylene glycol-induced kidney calculi in rats. *Urolithiasis* 42(4): 309-315. [medicinal plants].
120. Choo, C. Y., Sahidan, N. & Latiff, A. 2014. Metabolic fingerprinting of the Lycopodiales species for chemotaxonomy and quality control. In: Jayprakash, G. K., Patil, B. S. & Pellati, F. (eds.). *Instrumental methods for the analysis and identification of bioactive molecules*. American Chemical Society: Washington, D. C., pp. 353-360. [*Huperzia serrata*, Malaysia].
121. Choo, T. Y. S., Matos, F. B. & Moran, R. C. 2014. The gametophytes and young sporophytes of *Elaphoglossum decursivum* (Dryopteridaceae) in Costa Rica. *American Fern Journal* 104(2): 49-57.
122. Christenhusz, M. J. M. & Chase, M. 2014. Trends and concepts in fern classification. *Annals of Botany* 113(4): 571-594.
123. Christopoulou, A., Fyllas, N. M., Andriopoulos, P., Koutsias, N., Dimitrakopoulos, P. G. & Arianoutsou, M. 2014. Post-fire regeneration patterns of *Pinus nigra* in a recently burned area in Mount Taygetos, Southern Greece: The role of unburned forest patches. *Forest Ecology and Management* 327: 148-156. [fire ecology, *Pteridium aquilinum*, succession].
124. Cifuentes, D. A., Vallejo, M. G., Ortega, M. G., Cabrera, J. L., Martin, V. S., Tonn, C. E., Agnese, A. M. & Ardanaz, C. E. 2014. Mass spectrometry studies of lycodine-type *Lycopodium* alkaloids: sauroxine and N-demethylsauroxine. *Rapid Communications in Mass Spectrometry* 28(24): 2690-2694. [*Huperzia saururus*].
125. Ciurli, A., Lenzi, L., Alpi, A. & Pardossi, A. 2014. Arsenic uptake and translocation by plants in pot and field experiments. *International Journal of Phytoremediation* 16: 804-823. [*Pteris vittata*].
126. Clauson-Kaas, F., Jensen, P. H., Jacobsen, O. S., Juhler, R. K. & Hansen, H. C. B. 2014. The naturally occurring carcinogen ptaquiloside is present in groundwater below bracken vegetation. *Environmental Toxicology and Chemistry* 33(5): 1030-1034. [ptaquiloside, *Pteridium aquilinum*].
127. Cleal, C. J. & Cascales-Minana, B. 2014. Composition and dynamics of the great Phanerozoic evolutionary floras. *Lethaia* 47(4): 469-484. [fossils].
128. Clericuzio, M., Burlando, B., Gandini, G., Tinello, S., Ranzato, E., Martinotti, S. & Cornara, L. 2014. Keratinocyte wound healing activity of galactoglycerolipids from the fern *Ophioglossum vulgatum* L. *Journal of Natural Medicines* 68(1): 31-37. [medicinal plants].
129. Cochran, A. T., Prado, J. & Schuettpelz, E. 2014. *Tryonia*, a new taenitoid fern genus segregated from *Jamesonia* and *Eriosorus* (Pteridaceae). *PhytoKeys* 35: 23-43.
130. Cohen, M. F., Gurung, S., Fukuto, J. M. & Yamasaki, H. 2014. Controlled free radical attack in the apoplast: a hypothesis for roles of O, N and S species in regulatory and polysaccharide cleavage events during rapid abscission by *Azolla*. *Plant Science* 217: 120-126. [leaf abscission].
131. Contreras, S. A. & Lutz, A. I. 2014. First record of *Equisetites* sp. (Equisetaceae) in Quaternary sediments on the Bermejo River (Formosa, Argentina). *Boletín de la Sociedad Argentina de Botánica* 49(3): 381-392. [fossils; Spanish].
132. Corvez, A. & Grand, A. 2014. Enabling comparisons of characters using an Xper2 based knowledge-base of fern morphology. *Phytotaxa* 183(3): 145-158. [databases].

133. Cox, C. J., Li, B., Foster, P. G., Embley, T. M. & Civan, P. 2014. Conflicting phylogenies for early land plants are caused by composition biases among synonymous substitutions. *Systematic Biology* 63(2): 272-279. [*Equisetum*, *Huperzia*, *Isoetes*, *Psilotum*, *Selaginella*].
134. Crausbay, S., Genderjahn, S., Hotchkiss, S., Sachse, D., Kahmen, A. & Arndt, S. K. 2014. Vegetation dynamics at the upper reaches of a tropical montane forest are driven by disturbance over the past 7300 years. *Arctic Antarctic and Alpine Research* 46: 787-799. [*Cibotium*, fire ecology, indicator species, *Sadleria*].
135. Crawford, A. J. & Belcher, C. M. 2014. Charcoal morphometry for paleoecological analysis: the effects of fuel type and transportation on morphological parameters. *Applications in Plant Sciences* 2: 1400004. [charcoal, *Equisetum telmateia*, fire ecology, *Pteridium aquilinum*].
136. Creese, C., Oberbauer, S., Rundel, P. & Sack, L. 2014. Are fern stomatal responses to different stimuli coordinated? Testing responses to light, vapor pressure deficit, and CO₂ for diverse species grown under contrasting irradiances. *New Phytologist* 204(1): 92-104.
137. Cremers, G. & Boudrie, M. 2014. Pteridophyte taxa associated to a Plumier's plate and to a specimen from the Mascarene Islands - lectotypification of *Polypodium punctulatum* Poir. *Adansonia* 36(2): 171-183. [French].
138. Ctvrtlikova, M., Znachor, P. & Vrba, J. 2014. The effect of temperature on the phenology of germination of *Isoetes lacustris*. *Preslia* 86(3): 279-292.
139. Cuneo, N. R., Gandolfo, M. A., Zamalao, M. C. & Hermsen, E. 2014. Late Cretaceous aquatic plant world in Patagonia, Argentina. *PLoS One* 9(8): e104749. [*Azolla*, fossils, *Regnellidium*, *Salvinia*].
140. Cuthbert, R. J., Cooper, J. & Ryan, P. G. 2014. Population trends and breeding success of albatrosses and giant petrels at Gough Island in the face of at-sea and on-land threats. *Antarctic Science* 26(2): 163-171. [birds, *Blechnum palmiforme*, habitat, *Histiopteris incisa*].
141. da Silva, I. A. A., Pereira, A. F. D. N. & Barros, I. C. L. 2014. Fragmentation and loss of habitat: consequences for the fern communities in Atlantic forest remnants in Alagoas, north-eastern Brazil. *Plant Ecology & Diversity* 7(4): 509-517.
142. Dai, X. L., Cao, J. G., Li, X. G. & Wang, Q. X. 2014. Ultrastructural observations on the formation of spore ornamentation in *Asplenium sarelii*. *Bulletin of Botanical Research* 34(2): 159-163. [Chinese].
143. Dai, X. L., Shen, Z. Y., Wang, J. & Ye, W. T. 2014. Comparative studies on gametophyte morphology and development of four species of Athyriaceae. *Bulletin of Botanical Research* 34(3): 317-321. [*Acystopteris japonica*, *Athyrium fimbriatum*, *Athyrium longius*, *Athyrium vidalii*; Chinese].
144. Dakskobler, I., Martincic, A. & Rojsek, D. 2014. Phytosociological analysis of communities with *Adiantum capillus-veneris* in the foothills of the Julian Alps (Western Slovenia). *Hacquetia* 13(2): 235-258.
145. Daoud-Bouattour, A., Bottollier-Curtet, M., Ferchichi-Ben Jamaa, H., Ghrabi-Gammar, Z., Ben Saad-Limam, S., Rhazi, L. & Muller, S. D. 2014. Effects of hydrology on recruitment of *Pilularia minuta* Durieu (Marsileaceae), an endangered plant of Mediterranean temporary pools. *Aquatic Botany* 112: 76-83.
146. Das, B., Dey, A., Das Talukdar, A., Nongalleima, K., Choudhury, M. D. & Deb, L. 2014. Antifertility efficacy of *Drynaria quercifolia* (L.) J. Smith on female Wister albino rats. *Journal of Ethnopharmacology* 153(2): 424-429.
147. Dauphin, B., Vieu, J. & Grant, J. R. 2014. Molecular phylogenetics supports widespread cryptic species in moonworts (*Botrychium* s.s., Ophioglossaceae). *American Journal of Botany* 101(1): 128-140.
148. Dazart, A., Allen, C., Huskins, S. & Delahoussaye, J. 2014. A quantitative study of the vegetation surrounding populations of *Uvularia sessilifolia* (Colchicaceae) Fort Polk in west central Louisiana, USA. *Journal of the Botanical Research Institute of Texas* 8(1): 261-266. [competition, plant communities, *Woodwardia areolata*].

149. Davies, J., Arthur, D. & White, S. 2014. Effects of variation in breeding habitat on Ring Ouzel *Turdus torquatus* productivity and chick condition. *Bird Study* 61(2): 162-170. [birds, nesting habitat, *Pteridium*, UK].
150. de Albuquerque, L. P., Santana, G. M. D. S., Napoleao, T. H., Breitenbach Barroso Coelho, L. C., da Silva, M. V. & Guedes Paiva, P. M. 2014. Antifungal activity of *Microgramma vacciniifolia* rhizome lectin on genetically distinct *Fusarium oxysporum* f. sp. *lycopersici* races. *Applied Biochemistry and Biotechnology* 172(2): 1098-1105. [Deuteromycetes, medicinal plants].
151. de Araujo Goes-Neto, L. A. & Pirotbom, M. R. 2014. Cyatheales (Polypodiopsida) from the corredor de biodiversidade do norte do Para, Brazil. *Hoehnea* 41(3): 401-409. [*Metaxya*, tree ferns; Portuguese].
152. de Gasper, A. L., Vibrans, A. C., Funez, L. A., Rigon, M. J., Bittencourt, F. & Vieira, C. 2014. Dr. Roberto Miguel Klein Herbarium (FURB), Blumenau, Southern Brazil. *PhytoKeys* 42: 21-37.
153. de Haan, M., Cocquyt, C., Tice, A., Zahn, G. & Spiegel, F. W. 2014. First records of protosteloid amoebae (Eumycetozoa) from the Democratic Republic of the Congo. *Plant Ecology and Evolution* 147(1): 85-92. [host plants, *Microsorium punctatum*, substrate].
154. de Menezes Butakka, C. M., Trivinho-Strixino, S., Pinha, G. D. & Takeda, A. M. 2014. Emergence of Chironomidae (Insecta: Diptera) in a floodplain lake of the upper Parana river, Mato Grosso do Sul State, Brazil. *Acta Scientiarum Biological Sciences* 36(1): 51-58. [*Salvinia auriculata*].
155. de Novaes Pereira, A. F., da Silva, I. A. A., Santiago, A. C. & Barros, I. C. L. 2014. Edge effects on fern community in an Atlantic Forest remnant (Bonito, Pernambuco, Brazil). *Interciencia* 39(4): 281-287. [Spanish].
156. de Oliveira, L. M., Ma, L. Q., Santos, J. A. G., Guilherme, L. R. G. & Lessl, J. T. 2014. Effects of arsenate, chromate, and sulfate on arsenic and chromium uptake and translocation by arsenic hyperaccumulator *Pteris vittata* L. *Environmental Pollution* 184: 187-192. [phytoremediation].
157. de Paiva, J. D. R. A., Matias, L. Q., Martins, F. R. & Becker, H. 2014. Does distance between aquatic plant assemblages matter in defining similarity between them during high water-level periods? *Lakes & Reservoirs Research and Management* 19(1): 37-45. [*Salvinia auriculata*].
158. de Souza, M. M., Pires, E. P., Elpino-Campos, A. & Cassa Louzada, J. N. 2014. Nesting of social wasps (Hymenoptera: Vespidae) in a riparian forest of Rio das Mortes in southeastern Brazil. *Acta Scientiarum Biological Sciences* 36(2): 189-196. [epiphytes].
159. de Vargas, I. B. & Droste, A. 2014. *In vitro* propagation of *Cyathea atrovirens* (Cyatheaaceae): spore storage and sterilization conditions. *Revista de Biologia Tropical* 62(1): 299-308.
160. Degen de Arrua, R. & Gonzalez, Y. 2014. Plants used as anti-inflammatory in Paraguayan folk medicine. *Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromaticas* 13(3): 213-231. [ethnobotany; Spanish].
161. Deil, U. 2014. Rock communities and succulent vegetation in Northern Yemen (SW Arabia) - ecological, phytogeographical and evolutionary aspects. *Phytocoenologia* 44: 193-234. [*Actiniopteris*, *Asplenium*, *Cheilanthes*, *Selaginella*].
162. Del Carmen Lavalle, M. & Rodriguez, M. 2014. Spore morphology of *Elaphoglossum* (Dryopteridaceae) species from North-West Argentina. *Boletín de la Sociedad Argentina de Botanica* 49(3): 373-379. [Spanish].
163. Del Olmo-Ruiz, M. & Arnold, A. E. 2014. Interannual variation and host affiliations of endophytic fungi associated with ferns at La Selva, Costa Rica. *Mycologia* 106(1): 8-21. [ascomycetes, host plants].
164. Delahoussaye, J., Allen, C., Huskins, S. & Dauzart, A. 2014. A quantitative study of the vegetation surrounding populations of *Zigadenus densus* (Melianthaceae) at Fort Polk in west Central Louisiana, USA. *Journal of the Botanical Research Institute of Texas* 8(1): 253-259. [competition, *Osmunda regalis*].

165. Deng, G., Li, M., Li, H., Yin, L. & Li, W. 2014. Exposure to cadmium causes declines in growth and photosynthesis in the endangered aquatic fern (*Ceratopteris pteridoides*). *Aquatic Botany* 112: 23-32. [China].
166. Devi, N. 2014. Conservation of bio-diversity of Subhankhata under Baska District, Manas Biosphere Reserve, Assam through community conservation programme. *Advances in Plant Sciences* 27(2): 387-390.
167. Devi, T. S. & Das, A. K. 2014. *Adiantum hispidulum* Swartz - a new report from Senapati District, Manipur. *Indian Fern Journal* 31(1-2): 40-45.
168. Diaz, F., Torreyas, S. R. S., Spinelli, G. R. & Ronderos, M. M. 2014. A new species of *Dasyhelea* from Brazilian Amazonas and the description of the male of *D. paulistana* (Diptera: Ceratopogonidae). *Acta Entomologica Musei Nationalis Pragae* 54(2): 715-728. [*Azolla*, herbivory, *Salvinia*].
169. Ding, H. H., Chao, Y. S., Callado, J. R. & Dong, S. Y. 2014. Phylogeny and character evolution of the fern genus *Tectaria* (Tectariaceae) in the Old World inferred from chloroplast DNA sequences. *Molecular Phylogenetics and Evolution* 80: 66-78.
170. Ding, R., Fu, J. G., Xu, G. Q., Sun, B. F. & Lin, G. Q. 2014. Divergent total synthesis of the *Lycopodium* alkaloids huperzine A, huperzine B, and huperzine U. *Journal of Organic Chemistry* 79(1): 240-250. [alkaloids, *Huperzia serrata*, medicinal plants].
171. Ding, Y. M., Liu, Z. & Li, F. Q. 2014. Application of a sensitive and accurate LC-MS/MS method for determination of dryocrassin ABBA in rat plasma for a bioavailability study. *Biomedical Chromatography* 28(9): 1205-1211. [*Dryopteris crassirhizoma*, medicinal plants].
172. Dong, L. B., Wu, Y. N., Jiang, S. Z., Wu, X. D., He, J., Yang, Y. R. & Zhao, Q. S. 2014. Isolation and complete structural assignment of *Lycopodium* alkaloid cernupalhine A: theoretical prediction and total synthesis validation. *Organic Letters* 16(10): 2700-2703. [*Palhinhaea cernua*].
173. Dong, L. H., Fan, S. W., Ling, Q. Z., Huang, B. B. & Wei, Z. J. 2014. Identification of huperzine A-producing endophytic fungi isolated from *Huperzia serrata*. *World Journal of Microbiology & Biotechnology* 30(3): 1011-1017. [medicinal plants].
174. Dong, S. Y. 2014. Nomenclatural novelties in the fern genus *Tectaria* (Tectariaceae). *Phytotaxa* 178(3): 225-228.
175. dos Santos, V. V., Barros, I. C. L., Moura Junior, A. M., Severi, W. & Magalhaes, K. M. 2014. Freshwater ferns along a river basin in northeast Brazil. *Neotropical Biology and Conservation* 9(1): 42-48. [*Salvinia*; Portuguese].
176. Dou, L., Zhang, X., Pang, C., Song, M., Wei, H., Fan, S. & Yu, S. 2014. Genome-wide analysis of the WRKY gene family in cotton. *MGG Molecular Genetics and Genomics* 289(6): 1103-1121. [*Selaginella moellendorffii*].
177. Doucek, J. & Mikulas, R. 2014. Cambrian trace fossil *Zoophycos* from the Czech Republic. *Geologica Carpathica* 65(6): 403-409. [Lycopodiaceae].
178. Douglas, S. J. & Newton, A. C. 2014. Evaluation of Bayesian networks for modelling habitat suitability and management of a protected area. *Journal for Nature Conservation* 22(3): 235-246. [conservation, habitat, *Pilularia globulifera*].
179. Duan, J., Liu, Y., Zhang, C., Wei, X., Zong, Z., Yao, H. & Li, Y. 2014. Flavonoids from the Chinese fern *Polypodium hastatum* Thunb. and relevant antioxidative activity. *Latin American Journal of Pharmacy* 33(4): 696-700.
180. Duan, Y. F. & Zhang, L. B. 2014. *Megalastrum oppositum* and *Ctenitis canacae* (Dryopteridaceae): a new combination and a new synonym, respectively, for Mascarene fern flora. *Phytotaxa* 159(4): 295-297.
181. Duan, Y. F. & Zhang, L. B. 2014. Nomenclatural notes on *Tectaria blepharorachis* (comb. nov.) and *T. fibrillosa* (Tectariaceae; Pteridophyta) for Malagasy fern flora. *Phytotaxa* 162(2): 107-110. [Madagascar].

182. Dubal, K. & Kale, M. 2014. GC-MS profile of *Lygodium flexuosum* L. (Lygodiaceae) a medicinal fern from north Western Ghats. Indian Fern Journal 31(1-2): 112-117.
183. Dubuisson, J. Y., Hennequin, S. & Robert, Y. 2014. *Crepidomanes inopinatum* var. *tamonii* (Hymenophyllaceae), a new lowland variety endemic to semi-dry forests in La Reunion. Phytotaxa 173(2): 163-167. [La Reunion Island].
184. Dudani, S. N., Mahesh, M. K., Chandran, M. D. S. & Ramachandra, T. V. 2014. *Cyathea nilgirensis* Holttum (Cyatheaceae: Pteridophyta): a threatened tree fern from central Western Ghats, India. Journal of Threatened Taxa 6(1): 5413-5416.
185. Dyer, A. & Laue, B. 2014. The Fern Gazette is evolving. Pteridologist 6(1): 8-9.
186. Dyer, A. 2014. Patrick Neill Fraser - Victorian fern enthusiast. Pteridologist 6(1): 48-54.
187. Dyer, A. 2014. *Polystichum munitum*, the Bird's nest fern. Pteridologist 6(1): 60.
188. Dyer, A. 2014. The Buchanan fern, *Athyrium filix-femina* 'Victoriae' - the story of a Victorian fern variety. Pteridologist 6(1): 64-73.
189. Ebihara, A., Nakato, N., Matsumoto, S., Chao, Y. S. & Kuo, L. Y. 2014. Cytotaxonomic studies on thirteen ferns of Taiwan. Bulletin of the National Museum of Nature and Science, Series B, 40: 19-28.
190. Ebihara, A., Nakato, N., Saito, Y., Oka, T. & Minamitani, T. 2014. New records of *Asplenium varians* (Aspleniaceae) and two new hybrids in Japan. APG Acta Phytotaxonomica et Geobotanica 65(2): 53-65.
191. Edouard, M. J., Miao, L., Fan, G. W., Ojong, B. B. O., Zhen, H., Zhang, J., Gao, X. M. & Zhu, Y. 2014. Yang-tonifying traditional Chinese medicinal plants and their potential phytoandrogenic activity. Chinese Journal of Natural Medicines 12(5): 321-334. [*Cibotium*, *Drynaria*].
192. Eeckhout, S., Leroux, O., Willats, W. G. T., Popper, Z. A. & Viane, R. L. L. 2014. Comparative glycan profiling of *Ceratopteris richardii* 'C-Fern' gametophytes and sporophytes links cell-wall composition to functional specialization. Annals of Botany 114: 1295-1307.
193. Efendi, M., Chikmawati, T. & Darnaedi, D. 2014. New cytotypes of *Pteris ensiformis* var. *victoriae* from Indonesia. Reinwardtia 14(1): 133-135.
194. Ekman, J. 2014. Are swamp moonwort in Sweden? Svensk Botanisk Tidskrift 108(5): 228-231. [*Botrychium simplex*, *Botrychium tenebrosum*; Swedish].
195. Elliott, W. S. & Foster, J. D. 2014. Petrified wood of southwestern Oregon: Implications for Cenozoic climate change. Palaeogeography Palaeoclimatology Palaeoecology 402: 1-11. [*Cibotium oregonensis*, fossils, Oligocene].
196. Elliott-Kingston, C., Haworth, M. & McElwain, J. C. 2014. Damage structures in leaf epidermis and cuticle as an indicator of elevated atmospheric sulphur dioxide in early Mesozoic floras. Review of Palaeobotany & Palynology 208: 25-42. [microclimate, *Osmunda regalis*].
197. Erickson, H. E. & Perakis, S. S. 2014. Soil fluxes of methane, nitrous oxide, and nitric oxide from aggrading forests in coastal Oregon. Soil Biology & Biochemistry 76: 268-277. [*Polystichum munitum*].
198. Esaete, J., Eycott, A. E., Reinioe, J., Telford, R. J. & Vandvik, V. 2014. The seed and fern spore bank of a recovering African tropical forest. Biotropica 46(6): 677-686. [Uganda].
199. Evkaikina, A. I., Romanova, M. A. & Voitsekhovskaja, O. V. 2014. Evolutionary aspects of non-cell-autonomous regulation in vascular plants: structural background and models to study. Frontiers in Plant Science 5: 31. [*Ceratopteris richardii*, micro RNA, plasmodesmata, *Selaginella kraussiana*].
200. Ewald, J., Braun, L., Zeppenfeld, T., Jehl, H. & Heurich, M. 2014. Estimating the distribution of forage mass for ungulates from vegetation plots in Bavarian Forest National Park. Tuexenia (34): 53-70. [deer, Germany, herbivory].
201. Fabiani, A. C., Burry, L. S. & Escalante, A. H. 2014. Pollen and microalgae in sediments at southern margin of Colhue Huapi Lake, Chubut, Argentina. An insight to among shore

- comparison. *Anales del Instituto de la Patagonia* 42(1): 35-51. [*Azolla*, fossils, Holocene, *Lycopodium clavatum*, spores].
202. Falinski, K. A., Yost, R. S., Sampaga, E. & Peard, J. 2014. Arsenic accumulation by edible aquatic macrophytes. *Ecotoxicology and Environmental Safety* 99: 74-81. [*Diplazium esculentum*, Hawaii].
203. Fang, X. M., Chen, F. S., Hu, X. F., Yuan, P. C., Li, J. & Chen, X. 2014. Aluminum and nutrient interplay across an age-chronosequence of tea plantations within a hilly red soil farm of subtropical China. *Soil Science and Plant Nutrition* 60(4): 448-459. [*Dicranopteris dichotoma*].
204. Farmer, E. E. 2014. Leaf defence. Oxford University Press: New York, NY. [herbivory, leaf traits, *Selaginella*].
205. Favas, P. J. C., Pratas, J., Varun, M., D'Souza, R. & Paul, M. S. 2014. Accumulation of uranium by aquatic plants in field conditions: prospects for phytoremediation. *Science of the Total Environment* 470: 993-1002. [*Azolla caroliniana*, phytoremediation, Portugal].
206. Fazalullah, A. U. & Ali, U. 2014. Pteridophytic flora of Maidan Valley Dir (L) Khyber Paichtunkhwa, Pakistan. *International Journal of Biology and Biotechnology* 11(4): 649-653.
207. Fedrigo, M., Kasel, S., Bennett, L. T., Roxburgh, S. H. & Nitschke, C. R. 2014. Carbon stocks in temperate forests of south-eastern Australia reflect large tree distribution and edaphic conditions. *Forest Ecology and Management* 334: 129-143. [tree ferns].
208. Feher, A., Halmova, D. & Koncekova, L. 2014. Evaluation of biodiversity of ground flora in short rotation coppice: positive and negative externalities. In: Hoffman, C., Baxter, D., Maniatis, K., Grassi, A. & Helm, P. (eds.). *Papers of the 22nd European Biomass Conference: setting the course for a biobased economy*. ETA Florence: Florence, Italy, pp. 342-345. [*Equisetum arvense*, land management, Slovakia, weedy plants].
209. Feng, T., Lin, H., Guo, Q. & Feng, Y. 2014. Influence of an arsenate-reducing and polycyclic aromatic hydrocarbons-degrading *Pseudomonas* isolate on growth and arsenic accumulation in *Pteris vittata* and removal of phenanthrene. *International Biodeterioration & Biodegradation* 94: 12-18.
210. Feng, T., Lin, H., Tang, J. & Feng, Y. 2014. Characterization of polycyclic aromatic hydrocarbons degradation and arsenate reduction by a versatile *Pseudomonas* isolate. *International Biodeterioration & Biodegradation* 90: 79-87. [*Pteris vittata*].
211. Ferchichi-Ben Jamaa, H., Muller, S. D., Ghrabi-Gammar, Z., Rhazi, L., Soulie-Maersche, I., Gammar, A. M., Ouali, M., Ben Saad-Limam, S. & Daoud-Bouattour, A. 2014. Influence of grazing on structure, composition and dynamics of vegetation in Mediterranean temporary pools (northern Tunisia). *Revue d'Ecologie* 69(42097): 196-213. [*Pilularia minuta*; French].
212. Ferlian, O., Cesarz, S., Marhan, S. & Scheu, S. 2014. Carbon food resources of earthworms of different ecological groups as indicated by C-13 compound-specific stable isotope analysis. *Soil Biology & Biochemistry* 77: 22-30. [*Dryopteris dilatata*].
213. Fernandes, R. S., Yesilyurt, J. C. & Salino, A. 2014. New species and combinations in *Meniscium* (Thelypteridaceae). *Phytotaxa* 184(1): 1-11.
214. Ferreira de Sant'Ana, F. J., Reis Junior, J. L., Freitas Neto, A. P., Moreira Junior, C. A., Scalla Vulcani, V. A., Rabelo, R. E. & Terra, J. P. 2014. Toxic plants for ruminants in Southwestern Goias, Brazil. *Ciencia Rural* 44(5): 865-871. [*Pteridium aquilinum*; Portuguese].
215. Ferroni, L., Angeleri, M., Pantaleoni, L., Pagliano, C., Longoni, P., Marsano, F., Aro, E. M., Aro, E. M., Baldisserotto, C., Giovanardi, M., Cella, R. & Pancaldi, S. 2014. Light-dependent reversible phosphorylation of the minor photosystem II antenna Lhcb6 (CP24) occurs in lycophytes. *Plant Journal* 77(6): 893-905. [*Adiantum capillus-veneris*, *Lycopodium squarrosom*, *Platyserium grande*, *Selaginella martensii*].
216. FitzJohn, R. G., Pennell, M. W., Zanne, A. E., Stevens, P. F., Tank, D. C. & Cornwell, W. K. 2014. How much of the world is woody? *Journal of Ecology* 102(5): 1266-1272. [Cyatheaceae, morphology, tree ferns].

217. Fletcher, M. 2014. The dead of winter? Keeping tree ferns alive in the U. K. *Pteridologist* 6(1): 46-47. [frost damage, frost tolerance, horticulture, UK].
218. Fletcher, T. L., Greenwood, D. R., Moss, P. T. & Salisbury, S. W. 2014. Paleoclimate of the late Cretaceous (Cenomanian-Turonian) portion of the Winton formation, Central-Western Queensland, Australia: new observations based on clamp and bioclimatic analysis. *Palaios* 29(3): 121-128. [*Equisetum*, fossils].
219. Flexas, J., Carriqui, M., Coopman, R. E., Gago, J., Galmes, J., Martorell, S., Morales, F. & Diaz-Espejo, A. 2014. Stomatal and mesophyll conductances to CO₂ in different plant groups: Underrated factors for predicting leaf photosynthesis responses to climate change? *Plant Science* 226: 41-48.
220. Flinn, K. M., Loiacono, M. M. & Groff, H. E. 2014. Low reproductive success of hay-scented fern (*Dennstaedtia punctilobula*) regardless of inbreeding level or time since disturbance. *Botany* 92(12): 911-915.
221. Floyd, S. K., Ryan, J. G., Conway, S. J., Brenner, E., Burris, K. P., Burris, J. N., Chen, T., Chen, T., Graham, S. W., Leebens-Mack, J., Pires, J. C., Rothfels, C. J., Sigel, E. M., Stevenson, D. W., Stewart, C. N., Jr., Wong, G. K. S. & Bowman, J. L. 2014. Origin of a novel regulatory module by duplication and degeneration of an ancient plant transcription factor. *Molecular Phylogenetics and Evolution* 81: 159-173.
222. Forzza, R. C., Pifano, D. S., Oliveira Filho, A. T., Meireles, L., Faria, P. L., Salimena, F. R., Mynssen, C. M. & Prado, J. 2014. Flora vascular da Reserva Biológica da Represa do Grama, Minas Gerais, e sua relação florística com outras florestas do sudeste brasileiro. *Rodriguesia* 65: 275-292. [Portuguese].
223. Franca, M. C., Francisquini, M. I., Cohen, M. C. L. & Pessenda, L. C. R. 2014. Inter-proxy evidence for the development of the Amazonian mangroves during the Holocene. *Vegetation History and Archaeobotany* 23(5): 527-542. [*Acrostichum aureum*, fossils].
224. Fraser, W. T., Watson, J. S., Sephton, M. A., Lomax, B. H., Harrington, G., Gosling, W. D. & Self, S. 2014. Changes in spore chemistry and appearance with increasing maturity. Review of Palaeobotany & Palynology 201: 41-46. [Carboniferous, fossils, *Lycopodium clavatum*, Mississippian, sporopollenin, UK].
225. Frerker, K., Sabo, A. & Waller, D. 2014. Long-term regional shifts in plant community composition are largely explained by local deer impact experiments. *PLoS One* 9(12): e115843. [herbivory].
226. Friel, C. E., Finkelstein, S. A. & Davis, A. M. 2014. Relative importance of hydrological and climatic controls on Holocene paleoenvironments inferred using diatom and pollen records from a lake in the central Hudson Bay Lowlands, Canada. *Holocene* 24(3): 295-306. [*Equisetum*, fossils, spores].
227. Fu, R. H., Wang, Y. C., Liu, S. P., Shih, T. R., Lin, H. L., Chen, Y. M., Tsai, R. T., Shyu, W. C. & Lin, S. Z. 2014. Dryocrassin suppresses immunostimulatory function of dendritic cells and prolongs skin allograft survival. *Cell Transplantation* 23(42128): 641-656. [*Dryopteris crassirhizoma*, medicinal plants].
228. Fuentes, I. I., Espadas-Gil, F., Talavera-May, C., Fuentes, G. & Santamaria, J. M. 2014. Capacity of the aquatic fern (*Salvinia minima* Baker) to accumulate high concentrations of nickel in its tissues, and its effect on plant physiological processes. *Aquatic Toxicology (Amsterdam)* 155: 142-150.
229. Fujiwara, A. U., Kitajima, J., Iwashina, T., Matsumoto, S. & Watano, Y. 2014. Genkwanin 4'-O-glucosyl-(1-2)-rhamnoside from new chemotype of *Asplenium normale* in Japan. *Natural Product Communications* 9: 1-2.
230. Furlan, F. H., da Costa, F. L., Torres, S. C. S., Jr., Kerber, F. L., Damasceno, E. D. S., Salino, A. & Riet-Correa, F. 2014. Profile of farms with pastures invaded by *Pteridium arachnoideum* in northern Mato Grosso and prevalence of bovine enzootic hematuria. *Pesquisa Veterinaria Brasileira* 34(8): 753-759. [Portuguese].

231. Furlan, F. H., Mendes, E. R. S., Ducatti, K. R., Marcon, G. C., Dombrosky, T., Amorim, T. M. & Riet-Correa 2014. Acute poisoning by *Pteridium arachnoideum* and *Pteridium caudatum* in cattle and distribution of the plants in Mato Grosso. *Pesquisa Veterinaria Brasileira* 34(4): 343-348. [Portuguese].
232. Gabarayeva, N. I. 2014. Role of genetic control and self-assembly in gametophyte sporoderm ontogeny: Hypotheses and experiment. *Russian Journal of Developmental Biology* 45(4): 177-195. [*Alsophila setosa*].
233. Gairola, S., Sharma, J. & Bedi, Y. S. 2014. A cross-cultural analysis of Jammu, Kashmir and Ladakh (India) medicinal plant use. *Journal of Ethnopharmacology* 155(2): 925-986.
234. Galbraith, J. A., Clout, M. N. & Hauber, M. E. 2014. Nest-site use by an introduced parrot in New Zealand. *Emu* 114(2): 97-105. [tree ferns].
235. Gallegos, S. C., Hensen, I. & Schleuning, M. 2014. Secondary dispersal by ants promotes forest regeneration after deforestation. *Journal of Ecology* 102(3): 659-666. [Bolivia, *Pteridium arachnoideum*].
236. Galtier, J. & Phillips, T. L. 2014. Evolutionary and ecological perspectives of late Paleozoic ferns. Part III. Anachoropterid ferns (including *Anachoropteris*, *Tubicaulis*, the Sermayaceae, Kaplanopteridaceae and Psalixochlaenaceae). *Review of Palaeobotany & Palynology* 205: 31-73. [fossils].
237. Ganem, M. A., Arana, M. D., Luna, M. L., Ahumada, O. & Giudice, G. E. 2014. First record of *Asplenium harpeodes* (Aspleniaceae) for the Argentinian flora. *Darwiniana Nueva Serie* 2(2): 237-242. [Spanish].
238. Garces Cea, M., Claverol, S., Alvear Castillo, C., Rabert Pinilla, C. & Bravo Ramirez, L. 2014. Desiccation tolerance of Hymenophyllaceae filmy ferns is mediated by constitutive and non-inducible cellular mechanisms. *Comptes Rendus Biologies* 337(4): 235-243.
239. Gast, P., Broeren, F. G. J., Sottini, S., Aoki, R., Takashina, A., Yamaguchi, T., Kohzuma, T. & Groenen, E. J. J. 2014. The type 1 copper site of pseudoazurin: axial and rhombic. *Journal of Inorganic Biochemistry* 137: 57-63. [*Dryopteris crassirhizoma*, plastocyanin].
240. Gechev, T. S., Hille, J., Woerdenbag, H. J., Benina, M., Mehterov, N., Toneva, V., Fernie, A. R. & Mueller-Roeber, B. 2014. Natural products from resurrection plants: Potential for medical applications. *Biotechnology Advances* 32: 1091-1101. [desiccation tolerance, medicinal plants, *Selaginella tamariscina*].
241. Gerrienne, P., Meyer-Berthaud, B., Yang, N., Steemans, P. & Li, C. S. 2014. *Planatophyton* gen. nov., a late Early or Middle Devonian euphyllrophyte from Xinjiang, North-West China. *Review of Palaeobotany & Palynology* 208: 55-64.
242. Ghazali, S. Z., Md-Zain, B. M., Maideen, H., Maimon, A. & Yaakop, S. 2014. A first record of gregarious moth pest, *Herpetogramma platycapna* (Meyrick) of fern species, *Angiopteris evecta* (G. Forst.) Hoffm. from Malaysia. *Malaysian Applied Biology* 43(2): 105-109.
243. Ghosh, D. K. & Chakraborti, K. 2014. Performance of *Azolla pinnata* and its effect on turmeric cultivation in red lateritic zone of West Bengal. National Conference on 'Modern Approaches to Pteridophytes: Biology, Biodiversity and Bioresources', CSIR-Institute of Himalayan Bioresource Technology, Palampur, p. 90-91.
244. Giacosa, J. P. R., Giudice, G. E., Pipo, L. & Luna, M. L. 2014. Spore morphology, gametophyte development and conservation of *Thelypteris abbiattii* and *T. hispidula* (Thelypteridaceae) in Punta Lara Natural Reserve, Buenos Aires. *Boletín de la Sociedad Argentina de Botánica* 49(2): 217-226. [Spanish].
245. Gibby, M. 2014. Dr Jacobus P. Roux 1954-2013 OBITUARY. *Fern Gazette* 19: 272-274.
246. Gil da Costa, R. M., Oliveira, P. A., Bastos, M. M. S. M., Lopes, C. C. & Lopes, C. 2014. Ptaquiloside-induced early-stage urothelial lesions show increased cell proliferation and intact Beta-catenin and E-cadherin expression. *Environmental Toxicology* 29(7): 763-769. [*Pteridium aquilinum*].

247. Girdhar, M., Sharma, N. R., Rehman, H., Kumar, A. & Mohan, A. 2014. Comparative assessment for hyperaccumulatory and phytoremediation capability of three wild weeds. 3 Biotech 4(6): 579-589. [*Pteris vittata*].
248. Gleicher, S. C., Chamecki, M., Isard, S. A., Pan, Y. & Katul, G. G. 2014. Interpreting three-dimensional spore concentration measurements and escape fraction in a crop canopy using a coupled Eulerian-Lagrangian stochastic model. Agricultural and Forest Meteorology 194: 118-131. [*Lycopodium*, spore dispersal].
249. Goetz, A. E. & Ruckwied, K. 2014. Palynological records of the early Permian postglacial climate amelioration (Karoo Basin, South Africa). Palaeobiodiversity Palaeoenvironments 94(2): 229-235.
250. Gola, E. M. 2014. Dichotomous branching: the plant form and integrity upon the apical meristem bifurcation. Frontiers in Plant Science 5: 263. [*Selaginella kraussiana*].
251. Golokhvast, K. S., Seryodkin, I. V., Chaika, V. V., Zakharenko, A. M. & Pamirsky, I. E. 2014. Phytoliths in taxonomy of phylogenetic domains of plants. Biomed Research International : 648326. [*Equisetum*].
252. Gomez-Noguez, F., Perez-Garcia, B., Mendoza-Ruiz, A. & Orozco-Segovia, A. 2014. A pluviometric fern spore, fungal spore, and pollen trap. American Fern Journal 104(1): 1-6. [spore dispersal, spore trap].
253. Gomez-Rey, M. X., Garcia-Marco, S., Fernandez, C., Couto-Vazquez, A. & Gonzalez-Prieto, S. J. 2014. Effects of post-fire soil stabilisation techniques on trace elements lost by erosion. International Journal of Wildland Fire 23(1): 93-103. [*Pteridium aquilinum*, Spain].
254. Gomez-Zurita, J. & Cardoso, A. 2014. Systematics of the New Caledonian endemic genus *Taophila* Heller (Coleoptera: Chrysomelidae, Eumolpinae) combining morphological, molecular and ecological data, with description of two new species. Systematic Entomology 39(1): 111-126. [herbivory].
255. Goncharov, A. A., Khramova, E. Y. & Tiunov, A. V. 2014. Spatial variations in the trophic structure of soil animal communities in boreal forests of Pechora-Ilych nature reserve. Eurasian Soil Science 47(5): 441-448. [*Dryopteris dilatata*, Russia].
256. Gonzalez-Jurado, G. 2014. A low-altitude new location for *Equisetum palustre* L. (Equisetales: Equisetaceae) in Jaen province (Spain). Anales de Biologia 36: 19-21.
257. Gonzalez-Orozco, C. E., Ebach, M. C., Laffan, S., Thornhill, A. H., Knerr, N. J., Schmidt-Lebuhn, A. N., Cargill, C. C., Cargill, C. C., Nagalingum, N. S., Mishler, B. D. & Miller, J. T. 2014. Quantifying phytogeographical regions of Australia using geospatial turnover in species composition. PLoS One 9(3): e92558.
258. Gonzalez-Roman, R. D., Lopez-Victoria, M. & Silverstone-Sopkin, P. A. 2014. Terrestrial flora of Malpelo Island, Colombia, eastern tropical Pacific. Revista de Biologia Tropical 62(1): 327-336. [floristics, *Pityrogramma calomelanos*, *Pityrogramma dealbata*; Spanish].
259. Goswami, H. K. 2014. *Helminthostachys zeylanica* populations need serious attention: disclosures from unpublished observations. Indian Fern Journal 31(1-2): 132-135.
260. Goswami, H. K. 2014. Heterosporangium: a new category of sporangium in Lycopsida. Acta Botanica Hungarica 56(42036): 77-92. [*Isoetes pantii*].
261. Goutam, J., Sharma, V. K., Verma, S. K., Singh, D. K., Kumar, J., Mishra, A., Kumar, A. & Kharwar, R. N. 2014. Optimization of culture conditions for enhanced production of bioactive metabolites rich in antimicrobial and antioxidant activities isolated from *Emericella quadrilineata* an endophyte of *Pteris pellucida*. Journal of Pure and Applied Microbiology 8(3): 2059-2073.
262. Grabovskaya-Borodina, A. E., Illarionova, I. D. & Yang, T. Y. A. 2014. Collection of S. Yano's specimens from Taiwan in the Herbarium of the Komarov Botanical Institute (LE). Taiwania 59(2): 164-189. [Russia].

263. Gramzow, L., Weilandt, L. & Theissen, G. 2014. MADS goes genomic in conifers: towards determining the ancestral set of MADS-box genes in seed plants. *Annals of Botany* 114(7): 1407-1429. [*Selaginella moellendorffii*].
264. Grandova, M. A. 2014. Aquatic Heteroptera of great rivers of the Ukrainian steppe zone and seasonal changes of abundance and biomass. *Vestnik Zoologii* 48(5): 441-450. [*Salvinia natans*].
265. Green, W. A. 2014. The Parichnos problem and the function of aerenchyma in the Lycopsidea. *Bulletin of the Peabody Museum of Natural History* 55(2): 191-200.
266. Grodowitz, M. J., Johnson, S. & Schad, A. N. 2014. Efficiency of sampling to determine population size of *Cyrtobagous salviniae* (Coleoptera: Curculionidae). *Florida Entomologist* 97(3): 1213-1225. [biological control, herbivory, Louisiana, *Salvinia*].
267. Grusz, A. L., Windham, M. D., Yatskievych, G., Huiet, L., Gastony, G. J. & Pryer, K. M. 2014. Patterns of diversification in the xeric-adapted fern genus *Myriopteris* (Pteridaceae). *Systematic Botany* 39(3): 698-714. [*Cheilanthes*].
268. Guatimosim, E., Pinto, H. J., Barreto, R. W. & Prado, J. 2014. *Rhagadolobiosis*, a new genus of Parmulariaceae from Brazil with a description of the ontogeny of its ascomata. *Mycologia* 106(2): 276-281. [ascomycetes, *Rhagadolobiosis thelypteridis*, *Thelypteris serrata*].
269. Gunther, K. A., Shoemaker, R. R., Frey, K. L., Haroldson, M. A., Cain, S. L., van Mame, F. T. & Fortin, J. K. 2014. Dietary breadth of grizzly bears in the Greater Yellowstone Ecosystem. *Ursus* 25(1): 61-73. [*Equisetum*, herbivory].
270. Guo, Y. D., Cao, J. G., Dai, X. L. & Wang, Q. X. 2014. Gametophyte development and apogamy of the fern *Cheilosoria chusana*. *Bulletin of Botanical Research* 34(3): 322-327. [Chinese].
271. Guo, Y. D., Cao, J. G., Li, X. G. & Wang, Q. X. 2014. Development of gametophyte and oogenesis of the fern *Lygodium japonicum*. *Bulletin of Botanical Research* 34(2): 164-169. [Chinese].
272. Guo, Y. D., Wang, Q. X., Li, B. G. & Cao, J. G. 2014. Studies on the development of gametophyte and oogenesis of the fern *Microlepia platyphylla*. *Plant Diversity and Resources* 36(6): 747-754. [Chinese].
273. Gupta, S., Hore, M. & Biswas, S. 2014. An overview of the study of soil spore bank of ferns: need for suitable exploitation in India. *Proceedings of the Indian National Science Academy Part B Biological Sciences* 84(3): 779-798.
274. Gureyeva, I. I. 2014. Peculiarities of biomorphology of the *Matteuccia struthiopteris* (L.) Tod. sporophyte. *Modern Phytomorphology* 5: 135-142. [Russian, English summary].
275. Gureyeva, I. I., Kreshchenok, I. A. & Kuznetsov, A. A. 2014. Rare ferns of the Amur region (Russia). *Bioscience Biotechnology Research Asia* 11: 269-275. [conservation].
276. Gureyeva, I. I., Romanova, S. B. & Page, C. N. 2014. Morphological features of the frond pinnulets of *Pteridium* taxa. *Proceedings of the International Scientific Conference "Introduction, conservation and monitoring of plant diversity"*, Kiev, p. 172-173. [Russian, English summary].
277. Gurung, S., Cohen, M. F. & Yamasaki, H. 2014. Azide-dependent nitric oxide emission from the water fern *Azolla pinnata*. *Russian Journal of Plant Physiology* 61(4): 543-547.
278. Guterres-Pazin, M. G., Marmontel, M., Rosas, F. C. W., Pazin, V. F. V. & Venticinque, E. M. 2014. Feeding ecology of the Amazonian manatee (*Trichechus inunguis*) in the Mamiraua and Amaná sustainable development reserves, Brazil. *Aquatic Mammals* 40(2): 139-149. [*Azolla caroliniana*, herbivory].
279. Gutierrez, J. & Solano, E. 2014. Floristic and phytogeographical affinities of the vegetation in the municipality of San Jose Iturbide, Guanajuato, Mexico. *Acta Botanica Mexicana* 107: 27-65. [*Osmunda regalis*; Spanish].

280. Gutierrez, M. F. & Paggi, J. C. 2014. Chemical repellency and adverse effects of free-floating macrophytes on the cladoceran *Ceriodaphnia dubia* under two temperature levels. *Limnology* 15(1): 37-45. [*Salvinia biloba*, zooplankton].
281. Hanley, T. A., Gillingham, M. P. & Parker, K. L. 2014. Composition of diets selected by Sitka black-tailed deer on Channel Island, central southeast Alaska. U S Forest Service Pacific Northwest Research Station Research Note PNW-RN (570): 1-21. [*Dryopteris expansa*, herbivory].
282. Hanusova, K., Ekrt, L., Vit, P., Kolar, F. & Urfus, T. 2014. Continuous morphological variation correlated with genome size indicates frequent introgressive hybridization among *Diphasiastrum* species (Lycopodiaceae) in Central Europe. *PLoS One* 9(6): e99552. [flow cytometry, morphometry].
283. Haratym, W., Weryszko-Chmielewska, E. & Dmitruk, M. 2014. An analysis of the content of Pteridophyta spores in aeroplankton of Lublin (2013-2014). *Acta Agrobotanica* 67(3): 21-27. [aerobiology, allergies, Poland, spore dispersal].
284. Haufler, C. H. 2014. Ever since Klekowski: testing a set of radical hypotheses revives the genetics of ferns and lycophytes. *American Journal of Botany* 101(12): 2036-2042. [chromosomes].
285. Hayes, P. A. & Collinson, M. E. 2014. The flora of the insect limestone (latest Eocene) from the Isle of Wight, southern England. *Earth and Environmental Science Transactions of the Royal Society of Edinburgh* 104(42097): 245-261. [*Acrostichum*, *Azolla*, fossils, UK].
286. Hayward, M. 2014. A fan of Jamaican ferns. *Pteridologist* 6(1): 19.
287. Heery, S., Moorkens, E. & Campbell, C. 2014. An account of tufa-forming (petrifying) spring habitats in the Slieve Bloom Mountains, Ireland. *Biology and Environment* (1): 1-11. [*Equisetum telmateia*].
288. Hellquist, C. E., Hellquist, C. B. & Whipple, J. J. 2014. New records for rare and under-collected aquatic vascular plants of Yellowstone National Park. *Madrono* 61(2): 159-176. [conservation, floristics, *Isoetes echinospora*, Montana, Wyoming].
289. Henares, M. N. P. & Camargo, A. F. M. 2014. Treatment efficiency of effluent prawn culture by wetland with floating aquatic macrophytes arranged in series. *Brazilian Journal of Biology* 74(4): 906-912. [*Salvinia molesta*, wastewater treatment].
290. Hennequin, S., Kessler, M., Lindsay, S. & Schneider, H. 2014. Evolutionary patterns in the assembly of fern diversity on the oceanic Mascarene Islands. *Journal of Biogeography* 41(9): 1651-1663. [*Ctenitis*, island biogeography].
291. Henry, T. A., Bainard, J. D. & Newmaster, S. G. 2014. Genome size evolution in Ontario ferns (Polypodiidae): evolutionary correlations with cell size, spore size, and habitat type and an absence of genome downsizing. *Genome* 57(10): 555-566. [Canada, phenotypes, polyploidy].
292. Hermsen, E. J., Gandolfo, M. A. & Ruben Cuneo, N. 2014. New marsileaceous fossils from the late Cretaceous of South America and a reevaluation of *Marsileaceaephyllum*. *Plant Systematics and Evolution* 300(2): 369-386. [aquatic plants, Argentina, Cretaceous, Chubut, fossils, spores].
293. Hernandez-Cardenas, R. A., Cerros-Tlatatilpa, R. & Flores-Morales, A. 2014. Vascular plants and vegetation of the Tepecapa gully in the municipality of Tlayacapan, Morelos, Mexico. *Acta Botanica Mexicana* 108: 11-38. [*Selaginella basipilosa*, *Selaginella hoffmanii*; Spanish].
294. Hernandez-Hernandez, V., Segovia-Ramirez, M. G. & Arguelles-Marmolejo, S. 2014. A new record for Guanajuato: *Psilotum nudum* (Psilotaceae). *Revista Mexicana de Biodiversidad* 85(2): 610-612. [*Psilotum nudum*; Spanish].
295. Hettiarachchi, N., Kryukov, K., Sumiyama, K. & Saitou, N. 2014. Lineage-specific conserved noncoding sequences of plant genomes: their possible role in nucleosome positioning. *Genome Biology and Evolution* 6(9): 2527-2542. [*Selaginella moellendorffii*].
296. Higa, T., Suetsugu, N. & Wada, M. 2014. Plant nuclear photorelocation movement. *Journal of Experimental Botany* 65: 2873-2881. [*Adiantum capillus-veneris*].

297. Higo, M., Isobe, K., Drijber, R. A., Kondo, T., Yamaguchi, M., Takeyama, S., Suzuki, Y., Suzuki, Y., Matsuda, Y., Ishii, R. & Torigoe, Y. 2014. Impact of a 5-year winter cover crop rotational system on the molecular diversity of arbuscular mycorrhizal fungi colonizing roots of subsequent soybean. *Biology and Fertility of Soils* 50(6): 913-926. [*Equisetum arvense*, Japan].
298. Hines, H. B. 2014. Kroombit Tops: endemism and outliers. *Queensland Naturalist* 52(42064): 4-31. [Australia, *Blechnum watsii*, conservation].
299. Hirai, R. Y. & Prado, J. 2014. Cryptogams of Parque Estadual das Fontes do Ipiranga, Sao Paulo, Sao Paulo State, Brazil. Pteridophyta: 3. Cyatheaceae. *Hoehnea* 41(2): 173-180. [*Cyathea corcovadensis*, *Cyathea delgadii*, tree ferns; Portuguese].
300. Hirai, R. Y., Sundue, M. A. & Prado, J. 2014. *Adiantum alan-smithii* (Pteridaceae), a new maidenhair fern from Chiapas, Mexico. *Systematic Botany* 39(2): 380-383.
301. Hirano, T., Kusin, K., Limin, S. & Osaki, M. 2014. Carbon dioxide emissions through oxidative peat decomposition on a burnt tropical peatland. *Global Change Biology* 20(2): 555-565. [*Blechnum*, fire ecology, Indonesia, Kalimantan, *Lygodium*, *Stenochlaena*].
302. Hirasawa, Y., Kato, Y., Wong, C. P., Uchiyama, N., Goda, Y., Hadi, A. H. A., Ali, H. M. & Morita, H. 2014. Hupermine A, a novel C16N2-type *Lycopodium* alkaloid from *Huperzia phlegmaria*. *Tetrahedron Letters* 55(11): 1902-1904. [medicinal plants].
303. Hirata, R., Takagi, K., Ito, A., Hirano, T. & Saigusa, N. 2014. The impact of climate variation and disturbances on the carbon balance of forests in Hokkaido, Japan. *Biogeosciences* 11(18): 5139-5154. [climate change, *Dryopteris austriaca*, *Dryopteris crassirhizoma*, Japan].
304. Hirayama, Y., Okuzumi, K., Masubuti, H., Uekusa, H., Girault, J. P. & Fujimoto, Y. 2014. Stereochemical assignment of C-24 and C-25 of amarasterone A, a putative biosynthetic intermediate of cyasterone. *Journal of Organic Chemistry* 79(12): 5471-5477. [*Microsorium scolopendria*].
305. Hori, K., Tono, A., Fujimoto, K., Kato, J., Ebihara, A., Watano, Y. & Murakami, N. 2014. Reticulate evolution in the apogamous *Dryopteris varia* complex (Dryopteridaceae, subg. Erythrovariae, sect. Variiae) and its related sexual species in Japan. *Journal of Plant Research* 127(6): 661-684.
306. Horton, R. 2014. A role for instant porridge in pteridoculture. *Pteridologist* 6(1): 13. [horticulture, propagation].
307. Hsu, R. C. C., Oostermeijer, J. G. B. & Wolf, J. H. D. 2014. Adaptation of a widespread epiphytic fern to simulated climate change conditions. *Plant Ecology* 215(8): 889-897. [*Asplenium antiquum*].
308. Hsu, T. C., Lin, C. Y. & Chang, Y. H. 2014. New additions to the fern flora of Taiwan. *Taiwania* 59(1): 86-92. [new records, new species, *Polystichum chunii*, *Polystichum tenuius*].
309. Hsu, T. C., Lin, C. Y., Chen, C. W., Chiou, W. L. & Chang, Y. H. 2014. Confirmation of the occurrence and distribution of three fern species in Taiwan. *Taiwan Journal of Forest Science* 29(2): 157-167. [biogeography, conservation, floristics].
310. Hu, C., Liu, X., Li, X. & Zhao, Y. 2014. Evaluation of growth and biochemical indicators of *Salvinia natans* exposed to zinc oxide nanoparticles and zinc accumulation in plants. *Environmental Science and Pollution Research International* 21(1): 732-739.
311. Hu, J., Shi, X., Mao, X., Li, H., Chen, J. & Shi, J. 2014. Ecdysteroids from the ethanol extract of *Diplazium rufopilosum*. *Phytochemistry Letters* 8: 73-76.
312. Hu, N., Ding, D., Li, G., Zheng, J., Li, L., Zhao, W. & Wang, Y. 2014. Vegetation composition and Ra-226 uptake by native plant species at a uranium mill tailings impoundment in South China. *Journal of Environmental Radioactivity* 129: 100-106. [*Dryopteris scottii*, *Pteridium aquilinum*, *Pteris multifida*].
313. Hu, S. & Taylor, D. W. 2014. Floristics and paleoecology of an early Cretaceous flora from Jordan. *Bulletin of the Peabody Museum of Natural History* 55(2): 153-170. [fossils].

314. Huang, B. 2014. Other designs for wetland restoration project. In: An, S. & Wang, L. (eds.). Wetland Restoration: Shanghai Dalian Lake Project. Springer-Verlag: Berlin, pp. 83-108. [land management, *Salvinia natans*].
315. Huang, J., Chen, Z., Li, J. & Shang, H. 2014. Genetic diversity of *Huperzia serrata* (Huperziaceae) in Wuling mountains area detected by AFLP. Acta Botanica Boreali Occidentalia Sinica 34(1): 83-92. [medicinal plants, population genetics; Chinese].
316. Huang, K., Zheng, Z., Liao, W., Cao, L., Zheng, Y., Zhang, H., Zhu, G., Zhang, Z. & Cheddadi, R. 2014. Reconstructing late Holocene vegetation and fire histories in monsoonal region of southeastern China. Palaeogeography Palaeoclimatology Palaeoecology 393: 102-110. [*Dicranopteris*, fossils, Holocene].
317. Huang, Q., Li, W., Fan, R. & Chang, Y. 2014. New MADS-box gene in fern: cloning and expression analysis of DfMADS1 from *Dryopteris fragrans*. PLoS One 9(1): e86349. [MADS-box gene].
318. Huang, X. T., Qian, Z. M., He, X., Gong, Q., Wu, K. C., Jiang, L. R., Lu, L. N., Lu, L. N., Zhang, H. Y., Yung, W. H. & Ke, Y. 2014. Reducing iron in the brain: a novel pharmacologic mechanism of huperzine A in the treatment of Alzheimer's disease. Neurobiology of Aging 35(5): 1045-1054. [*Huperzia serrata*, medicinal plants].
319. Huang, Y., Kang, R., Ma, X., Qi, Y., Mulder, J. & Duan, L. 2014. Effects of calcite and magnesite application to a declining Masson pine forest on strongly acidified soil in Southwestern China. Science of the Total Environment 481: 469-478. [*Dicranopteris pedata*, *Dryopteris fuscipes*, fertilization, habitat, *Woodwardia japonica*].
320. Huebers, M., Bomfleur, B., Krings, M., Pott, C. & Kerp, H. 2014. A reappraisal of Mississippian (Tournaisian and Visean) adpression floras from central and northwestern Europe. Zitteliana Reihe A 54: 39-52. [fossils].
321. Hughes, G., Cohan, A., White, M. & Brown, E. 2014. Subalpine vegetation change 14 years after feral animal removal on windward East Maui, Hawai'i. Pacific Science 68(1): 19-31. [goats, land management, Maui, pigs, restoration].
322. Huhta, A. P. & Rautio, P. 2014. Flood meadows in Finland - their development during the past century. Nordic Journal of Botany 32(6): 858-870. [*Equisetum fluviatile*].
323. Hunyadi, A., Martins, A., Danko, B., Chang, F. R. & Wu, Y. C. 2014. Protoflavones: a class of unusual flavonoids as promising novel anticancer agents. Phytochemistry Reviews 13: 69-77. [*Cyclosorus*, *Equisetum*, *Macrothelypteris*, medicinal plants, *Pseudophegopteris*].
324. Husby, C. E., Delatorre-Herrera, J., Oberbauer, S. F., Grau, A. & Novara, L. 2014. Stomatal conductance patterns of *Equisetum giganteum* stems in response to environmental factors in South America. Botany 92(10): 701-712. [Argentina].
325. Hussain, M. M., Ahmad, B., Rashid, E., Hashim, S., Marwat, K. B. & Jan, A. 2014. *In vitro* antibacterial activity of methanol and water extracts of *Adiantum capillus-veneris* and *Tagetes patula* against multidrug resistant bacterial strains. Pakistan Journal of Botany 46(1): 363-368. [medicinal plants].
326. Hussner, A. 2014. Long-term macrophyte mapping documents a continuously shift from native to non-native aquatic plant dominance in the thermally abnormal River Erft (North Rhine-Westphalia, Germany). Limnologica 48: 39-45. [*Azolla filiculoides*, invasive species].
327. Hutchinson, J. T. & Langeland, K. A. 2014. Tolerance of *Lygodium microphyllum* and *L. japonicum* spores and gametophytes to freezing temperature. Invasive Plant Science and Management 7(2): 328-335. [frost tolerance].
328. Iglay, R. B., Leopold, B. D. & Miller, D. A. 2014. Vegetation responses to fire and herbicide in intensively managed, mid-rotation pine. Forest Ecology and Management 328: 69-78.
329. Iliadou, E., Panitsa, M., Raus, T. & Dimopoulos, P. 2014. Flora and factors affecting species diversity in protected "Natura 2000" sites of the Ionian area: the Echinades islet group (Greece). Willdenowia 44(1): 121-136. [island biogeography].

330. Ingham, C. S. 2014. Himalaya blackberry (*Rubus armeniacus*) response to goat browsing and mowing. *Invasive Plant Science and Management* 7(3): 532-539. [*Blechnum spicant*, invasive species, land management, Oregon, *Polystichum munitum*, *Pteridium aquilinum*].
331. Isaka, Y. & Sato, T. 2014. Molecular phylogenetic and divergence time estimation analyses of the sawfly subfamily Selandriinae (Hymenoptera: Tenthredinidae). *Entomological Science* 17(4): 435-439. [coevolution, plant-insect interactions].
332. Ishaq, M. S., Hussain, M. M., Afridi, M. S., Ali, G., Khattak, M., Ahmad, S. & Shakirullah, S. 2014. *In vitro* phytochemical, antibacterial, and antifungal activities of leaf, stem, and root extracts of *Adiantum capillus-veneris*. *Scientific World Journal* : 269793. [medicinal plants].
333. Ivanova, A. A., Kopylova-Guskova, E. O., Shipunov, A. B. & Volkova, P. A. 2014. Post-fire succession in the northern pine forest in Russia: a case study. *Wulfenia* 21: 119-128. [*Equisetum silvaticum*].
334. Ivanova, E. A., Anishchenko, O. V., Glushchenko, L. A., Gaevsky, N. A. & Kolmakov, V. I. 2014. Contribution of different groups of autotrophs to the primary production of the mountain Lake Oiskoe. *Contemporary Problems of Ecology* 7(4): 397-409. [*Equisetum fluviatile*, Russia].
335. Jackson, C. M. 2014. Bracken and the glassmaker's art. *Fern Gazette* 19: 281-294. [ash, glass manufacture, *Pteridium aquilinum*].
336. Jadulco, R. C., Koch, M., Kakule, T. B., Schmidt, E. W., Orendt, A., He, H., Janso, J. E., Janso, J. E., Larson, E. C., Pond, C., Matainaho, T. K. & Barrows, L. R. 2014. Isolation of pyrrolocins A-C: cis- and trans-decalin tetramic acid antibiotics from an endophytic fungal-derived pathway. *Journal of Natural Products* 77(11): 2537-2544.
337. Jamrichova, E., Hajkova, P., Horsak, M., Rybnickova, E., Lacina, A. & Hajek, M. 2014. Landscape history, calcareous fen development and historical events in the Slovak Eastern Carpathians. *Vegetation History and Archaeobotany* 23(5): 497-513. [palynology].
338. Janiak, A., Galej, K., Parusel, J. B. & Szarejko, I. 2014. A study of the genetic variation of the aquatic fern *Marsilea quadrifolia* L. preserved in botanical collections in Poland and originated from natural populations in Europe. *Flora* 209(11): 655-665. [France, Germany, Poland, population genetics, Slovakia].
339. Janko, K. 2014. Let us not be unfair to asexuals: their ephemerality may be explained by neutral models without invoking any evolutionary constraints of asexuality. *Evolution* 68(2): 569-576. [*Astrolepis*, polyploidy, reproductive biology].
340. Jassey, V. E. J., Lamentowicz, L., Robroek, B. J. M., Gazbka, M., Rusinska, A. & Lamentowicz, M. 2014. Plant functional diversity drives niche-size-structure of dominant microbial consumers along a poor to extremely rich fen gradient. *Journal of Ecology* 102(5): 1150-1162. [Poland, *Thelypteris palustris*].
341. Jeong, E. K., Oh, C., Kim, K., Paik, I. S., Philippe, M., Kim, H. J. & Lim, J. D. 2014. Co-occurrence of *Xenoxylon meisteri* Palib. et Jarm. and fossil tree ferns within the lower Cretaceous Nakdong formation at Mt. Geummubong, Korea and its palaeoclimatic implications. *Cretaceous Research* 50: 120-125.
342. Jeong, K. Y., Choi, J. Y. & Jeong, K. S. 2014. Influence of aquatic macrophytes on the interactions among aquatic organisms in shallow wetlands (Upo Wetland, South Korea). *Journal of Ecology and Environment* 37(42095): 185-194. [*Salvinia natans*].
343. Jeong, S., Moon, H. S. & Nam, K. 2014. Enhanced uptake and translocation of arsenic in Cretan brake fern (*Pteris cretica* L.) through siderophore-arsenic complex formation with an aid of rhizospheric bacterial activity. *Journal of Hazardous Materials* 280: 536-543.
344. Ji, Y., Qin, Z., Wang, Q. & Dai, X. 2014. Development of gametophytes of *Tectaria decurrens* and *Tectaria fauriei*. *Acta Botanica Boreali Occidentalia Sinica* 34(4): 689-694. [Chinese].
345. Jia, R. D., Guo, C. C., Xu, G. X., Shan, H. Y. & Kong, H. Z. 2014. Evolution of the cyclin gene family in plants. *Journal of Systematics and Evolution* 52(5): 651-659. [*Selaginella moellendorffii*].

346. Jiang, F. S., Huang, Y. H., Wang, M. K., Lin, J. S., Zhao, G. & Ge, H. L. 2014. Effects of rainfall intensity and slope gradient on steep colluvial deposit erosion in southeast China. *Soil Science Society of America Journal* 78(5): 1741-1752. [*Dicranopteris dichotoma*, slope].
347. Jiang, M., Shen, M. X., Shen, X. P. & Dai, Q. G. 2014. Effect of long-term fertilization pattern on weed community diversity in rice field. *Chinese Journal of Ecology* 33(7): 1748-1756. [*Ceratopteris thalictroides*; Chinese].
348. Jiang, S. Z., Lei, T., Wei, K. & Yang, Y. R. 2014. Collective total synthesis of tetracyclic diquinane *Lycopodium* alkaloids (+)-paniculatine, (-)-magellanine, (+)-magellaninone and analogues thereof. *Organic Letters* 16(21): 5612-5615.
349. Jiang, W. W., Liu, F., Gao, X., He, J., Cheng, X., Peng, L. Y., Wu, X. D. & Zhao, Q. S. 2014. Huperserines A-E, *Lycopodium* alkaloids from *Huperzia serrata*. *Fitoterapia* 99: 72-77. [medicinal plants].
350. Jiao, Y. & Guo, H. 2014. Prehistory of the angiosperms: characterization of the ancient genomes. In: Paterson, A. H. (ed.). *Genomes of herbaceous land plants*. Academic Press: London, pp. 223-245. [chromosomes, genomes, RNA editing, *Selaginella moellendorffii*].
351. Jimenez Bautista, L., Damon, A., Ochoa-Gaona, S. & Clark Tapia, R. 2014. Impact of silvicultural methods on vascular epiphytes (ferns, bromeliads and orchids) in a temperate forest in Oaxaca, Mexico. *Forest Ecology and Management* 329: 10-20. [conservation, land management].
352. Jivad, N. & Rabiei, Z. 2014. A review study on medicinal plants used in the treatment of learning and memory impairments. *Asian Pacific Journal of Tropical Biomedicine* 4(10): 780-789. [*Huperzia serrata*, medicinal plants].
353. Johnson, T. & Siegel, D. 2014. Complianadine A, a selective agonist for the Mas-related G protein-coupled receptor X2. *Bioorganic & Medicinal Chemistry Letters* 24(15): 3512-3515. [alkaloids, antihyperalgesics, *Lycopodium complanatum*].
354. Jones, M. M., Cicuzza, D., van Straaten, O., Veldkamp, E. & Kessler, M. 2014. Determinants of fern and angiosperm herb community structure in lower montane rainforest in Indonesia. *Journal of Vegetation Science* 25(5): 1216-1224. [microhabitat, Sulawesi].
355. Joyce, B. L., Eda, S., Dunlap, J. & Stewart, C. N., Jr. 2014. Morphology and ploidy level determination of *Pteris vittata* callus during induction and regeneration. *BMC Biotechnology* 14: 96. [tissue culture].
356. Jud, N. A. 2014. Morphotype catalog of a zone I (Aptian-Earliest Albian) flora from Fairlington, Virginia, USA. *Bulletin of the Peabody Museum of Natural History* 55(2): 135-152. [*Acrostichum*, Cretaceous, fossils].
357. Jumadi, O., Hiola, S. F., Hala, Y., Norton, J. & Inubushi, K. 2014. Influence of *Azolla* (*Azolla microphylla* Kaulf.) compost on biogenic gas production, inorganic nitrogen and growth of upland Kangkong (*Ipomoea aquatica* Forsk.) in a silt loam soil. *Soil Science and Plant Nutrition* 60(5): 722-730. [fertilizer].
358. Jung, J. E., Pandit, S. & Jeon, J. G. 2014. Identification of linoleic acid, a main component of the n-hexane fraction from *Dryopteris crassirhizoma*, as an anti-*Streptococcus mutans* biofilm agent. *Biofouling* 30(7): 789-798. [antibiotics].
359. Jung, J., Ryu, Y., Won, H. & Choi, H. K. 2014. Morphological and molecular characterization of a new record of *Isoetes coromandelina* subsp. *coromandelina* from Cambodia. *Plant Systematics and Evolution* 300(1): 43-50.
360. Jung, J., Singh, S. K., Pande, H. C., Srivastava, G. K. & Choi, H. K. 2014. Genetic diversity and population structure of Indian *Isoetes dixitei* Shende based on amplified fragment length polymorphisms and intron sequences of LEAFY. *Aquatic Botany* 113: 1-7. [endemism, population genetics].
361. Kalluri, J., Cosey, W., Gonzalez, R., Hartman, P., Loni, A., Canham, L. T. & Coffey, J. L. 2014. Sustainable routes to porous silicon manufacture for drug delivery. 247th National Spring Meeting of the American-Chemical-Society (ACS), Dallas, TX, p. 657.

362. Kang, S. N., Lee, J. S., Park, J. H., Cho, J. H., Park, J. H., Cho, K. K., Lee, O. H. & Kim, I. S. 2014. *In vitro* anti-osteoporosis properties of diverse Korean *Drynariae rhizoma* phenolic extracts. *Nutrients* 6(4): 1737-1751. [antioxidants, medicinal plants, pharmacognosy].
363. Kanther, R. P. & Gena, D. 2014. Ethno-medico-botanical studies on some pteridophytes of Rajasthan. *Indian Fern Journal* 31(1-2): 46-52. [medicinal plants].
364. Kao, T. T., Chiou, W. L., Hsu, S. Y., Chen, C. M., Chao, Y. S. & Huang, Y. M. 2014. Hybrid origin of *Nephrolepis X hippocrepicis* Miyam. (Nephrolepidaceae). *International Journal of Plant Reproductive Biology* 6(1): 1-14.
365. Karger, D. N., Weigelt, P., Amoroso, V. B., Darnaedi, D., Hidayat, A., Kreft, H. & Kessler, M. 2014. Island biogeography from regional to local scales: evidence for a spatially scaled echo pattern of fern diversity in the Southeast Asian archipelago. *Journal of Biogeography* 41(2): 250-260. [Indonesia, Philippines].
366. Kaur, P., Kaur, V., Kumar, M. & Kaur, S. 2014. Suppression of SOS response in E-coli PQ37, antioxidant potential and antiproliferative action of methanolic extract of *Pteris vittata* L. on human MCF-7 breast cancer cells. *Food and Chemical Toxicology* 74: 326-333. [India, medicinal plants].
367. Kawai, Y., Ono, E. & Mizutani, M. 2014. Expansion of specialized metabolism-related superfamily genes via whole genome duplications during angiosperm evolution. *Plant Biotechnology* 31(5): 579-584. [evolution, genetics, *Selaginella moellendorffii*].
368. Keeley, J. E. 2014. Aquatic CAM photosynthesis: a brief history of its discovery. *Aquatic Botany* 118: 38-44. [Andes, aquatic plants, *Isoetes*, Peru].
369. Kelly, R., Leach, K., Cameron, A., Maggs, C. A. & Reid, N. 2014. Combining global climate and regional landscape models to improve prediction of invasion risk. *Diversity and Distributions* 20(8): 884-894. [aquatic plants, *Azolla filiculoides*, invasive species, Ireland, niche modelling, *Salvinia molesta*].
370. Kelly, R., Lundy, M. G., Mineur, F., Harrod, C., Maggs, C. A., Humphries, N. E., Sims, D. W. & Reid, N. 2014. Historical data reveal power-law dispersal patterns of invasive aquatic species. *Ecography* 37(6): 581-590. [*Azolla filiculoides*, biogeography].
371. Kenrick, P. & Strullu-Derrien, C. 2014. The origin and early evolution of roots. *Plant Physiology* 166(2): 570-580. [fossils, lycophytes].
372. Kessler, M., Guedel, R., Salazar, L., Homeier, J. & Kluge, J. 2014. Impact of mycorrhization on the abundance, growth and leaf nutrient status of ferns along a tropical elevational gradient. *Oecologia* 175(3): 887-900. [Andes, Ecuador].
373. Kessler, M., Salazar, L., Homeier, J. & Kluge, J. 2014. Species richness-productivity relationships of tropical terrestrial ferns at regional and local scales. *Journal of Ecology* 102(6): 1623-1633. [Ecuador, environmental gradients].
374. Khan, A., Islam, M. H., Islam, M. E., Al-Bari, M. A. A., Parvin, M. S., Abu Sayeed, M., Islam, M. N. & Haque, M. E. 2014. Pesticidal and pest repellency activities of rhizomes of *Drynaria quercifolia* (J. Smith) against *Tribolium castaneum* (Herbst). *Biological Research* 47: 51.
375. Kholia, B. S. & Fraser-Jenkins, C.R. 2014. Rediscovery of *Ophioglossum pendulum* L. from eastern Himalaya, with a note on historical background and new distribution record to Sikkim. *Indian Journal of Forestry* 37(3): 347-354.
376. Kholia, B. S. 2014. *Cheilanthes tibetica* Fraser-Jenk. & Wangdi, a new fern to India. *Indian Journal of Forestry* 37: 179-182.
377. Kholia, B. S. 2014. Ferns and fern-allies of Sikkim Himalaya –a pictorial handbook, Part-II. Department of Forests, Environment, Wildlife management, Government of Sikkim and Botanical Survey of India Gangtok. pp. i-ix, 1-291.
378. Kholia, B. S. 2014. Traditional uses of pteridophytes in Sikkim Himalaya. In: Kumar, S. (ed.) *Ethanobotanical Studies in India*. Deep Publications: New Delhi, pp. 291-302.
379. Kholia, B. S., Das, P. & Pradhan, S. 2014. On the occurrence of *Athyrium nakanoi* Makino (Woodsiaceae) in Sikkim Himalaya. *Indian Journal of Forestry* 37: 81-86.

380. Khullar, S. P. & Verma, S. 2014. Some additions to the pteridophyte flora of Himachal Pradesh (W. Himalaya). *Indian Fern Journal* 31(1-2): 102-111. [*Cryptogramma stelleri*, *Leptochilus ellipticus*, *Microlepia setosa*, *Oleandra wallichii*, *Tomophyllum donianum*, *Vittaria linearifolia*].
381. Kim, D. G., Kang, F. J., Baek, M. J., Lee, C. Y., Kim, J. G. & Bae, Y. J. 2014. Analyses of benthic macroinvertebrate colonization during the early successional phases of created wetlands in temperate Asia. *Fundamental and Applied Limnology* 184(1): 35-49. [habitat, Korea, *Marsilea quadrifolia*].
382. Kim, H. R., Shin, J. H., Jeong, H. M. & You, Y. H. 2014. Effects of environmental factors on the growth response of above- and below-ground parts of *Mankyua chejuense*, endangered endemic plant to Jeju province, in Korea. *Journal of Ecology and Environment* 37(42095): 61-67. [ecological niche, microhabitat].
383. Kim, H. T. & Kim, K. J. 2014. Chloroplast genome differences between Asian and American *Equisetum arvense* (Equisetaceae) and the origin of the hypervariable trny-trne intergenic spacer. *PLoS One* 9(8): e103898.
384. Kim, H. T., Chung, M. G. & Kim, K. J. 2014. Chloroplast genome evolution in early diverged leptosporangiate ferns. *Molecules and Cells* 37(5): 372-382. [*Diplazium glaucum*, *Lygodium japonicum*, *Osmunda cinnamomea*].
385. Kiontke, S., Gnau, P., Haselsberger, R., Batschauer, A. & Essen, L. O. 2014. Structural and evolutionary aspects of antenna chromophore usage by class II photolyases. *Journal of Biological Chemistry* 289(28): 19659-19669. [biochemistry, photolyase].
386. Kirschner, R. & Liu, L. C. 2014. Mycosphaerellaceous fungi and new species of *Venustosynnema* and *Zasmidium* on ferns and fern allies in Taiwan. *Phytotaxa* 176: 309-323. [*Dicranopteris linearis*, *Pseudocercospora*, *Selaginella moellendorffii*].
387. Knoke, T., Bendix, J., Pohle, P., Hamer, U., Hildebrandt, P., Roos, K., Gerique, A., Gerique, A., Breuer, L., Tischer, A., Silva, B., Calvas, B., Aguirre, N., Castro, L. M., Windhorst, D., Weber, M., Stimm, B., Guenter, S., Palomeque, X., Mora, J., Monsandl, R. & Beck, E. 2014. Afforestation or intense pasturing improve the ecological and economic value of abandoned tropical farmlands. *Nature Communications* 5: 5612. [Andes, Ecuador, *Pteridium*].
388. Knox, E. B. 2014. The dynamic history of plastid genomes in the Campanulaceae sensu lato is unique among angiosperms. *Proceedings of the National Academy of Sciences of the United States of America* 111(30): 11097-11102. [endosymbiotic transformation, genetics].
389. Koeniger, M. 2014. Chloroplast movement in higher plants, ferns and bryophytes: a comparative point of view. In: Hanson, D. T., & Rice, S. K. (eds.). *Photosynthesis in bryophytes and early land plants*. Springer-Verlag: Dordrecht, Netherlands, pp. 131-150. [*Adiantum capillus-veneris*].
390. Komatsu, A., Terai, M., Ishizaki, K., Suetsugu, N., Tsuboi, H., Nishihama, R., Yamato, K. T., Wada, M. & Kohchi, T. 2014. Phototropin encoded by a single-copy gene mediates chloroplast photorelocation movements in the liverwort *Marchantia polymorpha*. *Plant Physiology* 166(1): 411. [*Adiantum capillus-veneris*].
391. Kong, S. G. & Wada, M. 2014. Recent advances in understanding the molecular mechanism of chloroplast photorelocation movement. *Biochimica et Biophysica Acta* 1837: 522-530. [*Adiantum capillus-veneris*].
392. Korall, P. & Pryer, K. M. 2014. Global biogeography of scaly tree ferns (Cyatheaceae): evidence for Gondwanan vicariance and limited transoceanic dispersal. *Journal of Biogeography* 41(2): 402-413.
393. Kosaka, N., Kawahara, T. & Takahashi, H. 2014. Vegetation factors influencing the establishment and growth of the endangered Japanese orchid, *Cypripedium macranthos* var. *rebunense*. *Ecological Research* 29(5): 1003-1023. [*Equisetum arvense*, *Equisetum hyemale*].
394. Kosesakal, T. 2014. Effects of seasonal changes on pigment composition of *Azolla filiculoides* Lam. *American Fern Journal* 104(2): 58-66. [phenology, Turkey].

395. Koyanagi, T. F., Yamada, S., Yonezawa, K. I., Kitagawa, Y. & Ichikawa, K. 2014. Plant species richness and composition under different disturbance regimes in marginal grasslands of a Japanese terraced paddy field landscape. *Applied Vegetation Science* 17(4): 636-644. [indicator species, plant communities].
396. Kraft, C. E., Gordon, E. R. L. & Angert, E. R. 2014. A rapid method for assaying Thiaminase I activity in diverse biological samples. *PLoS One* 9(3): e92688. [new methods, toxic plants].
397. Krauczuk, E. R. & Keller, H. A. 2014. On the presence and conservation status of *Cyathea delgadii* (Cyatheaceae) in Argentina. *Lilloa* 51(2): 242-245.
398. Krauspenhar, P. M., Carvalho, M. A., Fauth, G. & Lana, C. C. 2014. Albian palynostratigraphy of ODP Leg 207 (Holes 1257A, 1258C and 1260B), Demerara Rise, Equatorial Atlantic. *Revue de Micropaleontologie* 57(1): 1-13. [Cretaceous, *Crybelosporites*, *Elaterosporites*, fossils, *Inaperturopollenites*, Suriname].
399. Kredics, L., Hatvani, L., Naeimi, S., Koermoczi, P., Manczinger, L., Vagvoelgyi, C. & Druzhinina, I. 2014. Biodiversity of the genus *Hypocrea/Trichoderma* in different habitats. In: Gupta, V. K., Schmoll, M., Herrera-Estrella, A., Upadhyay, R. S., Druzhinina, I. & Tuohy, M. G. (eds.). *Biotechnology and biology of Trichoderma*. Elsevier: Amsterdam, Netherlands, pp. 3-24. [ascomycetes, Deuteromycetes, *Huperzia serrata*].
400. Kreshchenok, I. A., Nesterova, S. V., Gureyeva, I. I. & Kuznetsov, A. A. 2014. Cryopreservation of chlorophyllous spores of East Asian ferns. *Tomsk State University Journal of Biology* 2(26): 42-52. [Russian, English summary].
401. Krieger, J. D. 2014. A protocol for the creation of useful geometric shape metrics illustrated with a newly derived geometric measure of leaf circularity. *Applications in Plant Sciences* 2: 1400009. [leaf geometry, morphometry].
402. Krippel, Y. & Colling, G. 2014. Notes floristiques. Observations faites au Luxembourg (2012-2013). *Bulletin de la Societe des Naturalistes Luxembourgeois* 115: 109-124. [*Ceterach officinarum*, *Lycopodium clavatum*].
403. Krishna, K. 2014. Wet land rice agroecosystem. In: Krishna, K. R. (ed.). *Agroecosystems: soils, climate, crops, nutrient dynamics, and productivity*. Apple Academic Press: Oakville, ON, Canada, pp. 53-64. [*Azolla*, fertilizer].
404. Kuklova, M., Kukla, J. & Simkova, I. 2014. The changes of energy and carbon in top soil and aboveground part of *Dryopteris filix-mas* species along the succession of beech forest. *Polish Journal of Ecology* 62(3): 467-478. [Slovakia].
405. Kulus, D. & Zalewska, M. 2014. Cryopreservation as a tool used in long-term storage of ornamental species - A review. *Scientia Horticulturae* 168: 88-107. [*Asplenium cuneifolium*, conservation, cryopreservation, *Cyathea australis*, spore bank].
406. Kumari, A., Pakade, Y. B., Chand, P., Prasad, M. N. V. & Lal, B. 2014. Comparative accounts of chromium accumulation in three ferns under hydroponic system. *Indian Journal of Scientific & Industrial Research* 73: 553-558. [*Diplazium esculentum*, *Polystichum squarrosum*, *Pteris cretica*].
407. Kumari, M. & Tripathi, B. D. 2014. Effect of aeration and mixed culture of *Eichhornia crassipes* and *Salvinia natans* on removal of wastewater pollutants. *Ecological Engineering* 62: 48-53. [biosorption, phytoremediation].
408. Kuschel, G. 2014. The blind weevils of *Myrtonymina* in New Caledonia and Australia (Curculionidae: Curculioninae: Eriirhinini: *Myrtonymina*). In: Guilbert, E., Robillard, T., Jourdan, H. & Grandcolas, P. (eds.). *Zoologia Neocaledonica* 8: Biodiversity Studies in New Caledonia. Muséum national d'Histoire naturelle, Paris, pp. 165-180. [herbivory, host plants].
409. Kustatscher, E., Bauer, K., Butzmann, R., Fischer, T. C., Meller, B., van Konijnenburg-van Cittert, J. H. A. & Kerp, H. 2014. Sphenophytes, pteridosperms and possible cycads from the Wuchiapingian (Lopingian, Permian) of Bletterbach (Dolomites, Northern Italy). *Review of Palaeobotany & Palynology* 208: 65-82. [fossils].

410. Kustatscher, E., Dellantonio, E. & Van Konijnenburg-Van Cittert, J. H. A. 2014. The ferns of the late Ladinian, middle Triassic flora from Monte Agnello, Dolomites, Italy. *Acta Palaeontologica Polonica* 59(3): 741-755. [*Dipteridaceae*, fossils, Matoniaceae].
411. Kuz'mina, V. V. 2014. Effect of macrophytes on the activity of digestive enzymes in fish intestinal mucosa. *Inland Water Biology* 7(1): 82-87. [*Ceratopteris pteridoides*, herbivory].
412. Labiak, P. H., Sundue, M., Rouhan, G., Hanks, J. G., Mickel, J. T. & Moran, R. C. 2014. Phylogeny and historical biogeography of the lastreopsid ferns (Dryopteridaceae). *American Journal of Botany* 101(7): 1207-1228. [*Coveniella*, *Lastreopsis*, *Megalastrum*, *Oenotrichia*, *Rumohra*].
413. Laenen, B., Shaw, B., Schneider, H., Goffinet, B., Paradis, E., Desamore, A., Heinrichs, J., Villarreal, J. C., Gradstein, S. R., McDaniel, S. F., Long, D. G., Forrest, L. L., Hollingsworth, M. L., Crandall-Stotler, B., Davis, E. C., Engel, J., Von Konrat, M., Cooper, E. D., Patino, J., Cox, C. J., Vanderpoorten, A. & Shaw, A. J. 2014. Extant diversity of bryophytes emerged from successive post-Mesozoic diversification bursts. *Nature Communications* 5: 6134.
414. Lake, E. C., Smith, M. C., Pratt, P. D., Boughton, A. J. & Pemberton, R. W. 2014. Dispersal and establishment of new populations of the biological control agent *Floracarus perrepae* (Acariformes: Eriophyidae) on Old World climbing fern, *Lygodium microphyllum* (Polypodiales: Lygodiaceae). *Florida Entomologist* 97(2): 827-829. [invasive species].
415. Landi, M., Zoccola, A., Bacaro, G. & Angiolini, C. 2014. Phenology of *Dryopteris affinis* ssp. *affinis* and *Polystichum aculeatum*: modeling relationships to the climatic variables in a Mediterranean area. *Plant Species Biology* 29(2): 129-137. [Italy, modelling].
416. Lang, S. I., Aerts, R., van Logtestijn, R. S. P., Schweikert, W., Klahn, T., Queded, H. M., van Hal, J. R. & Cornelissen, J. H. C. 2014. Mapping nutrient resorption efficiencies of subarctic cryptogams and seed plants onto the tree of life. *Ecology and Evolution* 4(11): 2217-2227. [nitrogen, phosphorus].
417. Langhammer, A. J. & Nilsen, O. G. 2014. *In vitro* inhibition of human CYP1A2, CYP2D6, and CYP3A4 by six herbs commonly used in pregnancy. *Phytotherapy Research* 28(4): 603-610. [*Equisetum arvense*, medicinal plants].
418. Lanyon, F. 2014. Raising ferns from spores using plastic milk bottles. *Pteridologist* 6(1): 10-13. [horticulture, propagation, spore germination].
419. Lara-Perez, L. A., Noa-Carrazana, J. C., Hernandez-Gonzalez, S., Alarcon-Gutierrez, E., Sanchez-Velasquez, L. R., Zulueta-Rodriguez, R., Lara-Capistran, L. & Andrade-Torres, A. 2014. Diversity and colonization of arbuscular mycorrhizal fungi in the tree fern *Alsophila firma* in rainy and dry season. *Symbiosis* 62(3): 143-150. [Mexico, Veracruz].
420. Lara-Perez, L. A., Noa-Carrazana, J. C., Landa Lopez, A. J., Hernandez-Gonzalez, S., Oros-Ortega, I. & Andrade Torres, A. 2014. Colonization and structure of arbuscular mycorrhizal fungi community in *Alsophila firma* (Cyatheaales: Cyatheaceae) from a tropical montane cloud forest in Veracruz, Mexico. *Revista de Biología Tropical* 62(4): 1609-1623. [Spanish].
421. Lastrucci, L., Foggi, B., Ferretti, G., Guidi, T., Geri, F. & Viciani, D. 2014. The influence of taxonomic revisions on species distribution assessment: the case of three *Asplenium* species on Tuscan ultramafic soils. *Webbia* 69(2): 295-300. [herbaria, Italy, rarefaction].
422. Lautenschlager, A. D., Matthews, T. G. & Quinn, G. P. 2014. Utilization of organic matter by invertebrates along an estuarine gradient in an intermittently open estuary. *Estuarine Coastal and Shelf Science* 149: 232-243. [Australia, *Azolla filiculoides*].
423. Leao, G. A., Oliveira, J. A., Farnese, F. S., Gusman, G. S. & Felipe, R. T. A. 2014. Sulfur metabolism: Different tolerances of two aquatic macrophytes exposed to arsenic. *Ecotoxicology and Environmental Safety* 105: 36-42. [*Salvinia minima*].
424. Lebrao, C., Coelho, C. B. & Esteves, L. M. 2014. Morphology of spores of pteridophyte from the Parque Estadual das Fontes do Ipiranga (Sao Paulo, Brazil) Family: 21-Tectariaceae. *Hoehnea* 41(1): 103-108. [Portuguese].

425. Lee, A. S., Liau, B. B. & Shair, M. D. 2014. A unified strategy for the synthesis of 7-membered-ring-containing *Lycopodium* alkaloids. *Journal of the American Chemical Society* 136(38): 13442-13452.
426. Lee, C. W., Seo, J. I., Youn, H. J. & Kim, K. 2014. Effectiveness of rehabilitation treatments on a slowly revegetating hillslope in a recently burned coastal forest, Republic of Korea. *Landscape and Ecological Engineering* 10(1): 249-260. [fire ecology, *Pteridium aquilinum*].
427. Lee, S. H., Ji, W., Lee, W. S., Koo, N., Koh, I. H., Kim, M. S. & Park, J. S. 2014. Influence of amendments and aided phytostabilization on metal availability and mobility in Pb/Zn mine tailings. *Journal of Environmental Management* 139: 15-21. [heavy metals, *Pteridium aquilinum*, restoration].
428. Lee, S. J. & Park, C. W. 2014. Spore morphology of the genus *Dryopteris* Adans. (Dryopteridaceae) in Korea. *Journal of Plant Biology* 57(5): 302-311.
429. Lee, Y. E., Liu, H. C., Lin, Y. L., Liu, S. H., Yang, R. S. & Chen, R. M. 2014. *Drynaria fortunei* J. Sm. improves the bone mass of ovariectomized rats through osteocalcin-involved endochondral ossification. *Journal of Ethnopharmacology* 158: 94-101.
430. Legrand, J., Yamada, T. & Nishida, H. 2014. Palynofloras from the upper Barremian-Aptian Nishihiro Formation (Outer Zone of southwest Japan) and the appearance of angiosperms in Japan. *Journal of Plant Research* 127(2): 221-232. [Cretaceous, fossils].
431. Lehnert, M. 2014. Do you know *Cyathea divergens* (Cyatheaceae-Polypodiopsida)? *Phytotaxa* 161(1): 1-42. [hybrids, tree ferns].
432. Leitao, F., Leitao, S. G., da Fonseca-Kruel, V. S., Silva, I. M. & Martins, K. 2014. Medicinal plants traded in the open-air markets in the State of Rio de Janeiro, Brazil: an overview on their botanical diversity and toxicological potential. *Revista Brasileira de Farmacognosia-Brazilian Journal of Pharmacognosy* 24(2): 225-247. [ethnobotany, *Selaginella convoluta*].
433. Lessl, J. T., Luo, J. & Ma, L. Q. 2014. *Pteris vittata* continuously removed arsenic from non-labile fraction in three contaminated-soils during 3.5 years of phytoextraction. *Journal of Hazardous Materials* 279: 485-492. [phytoremediation].
434. Lestari, W. S., Adjie, B., Jaruwatanaphan, T., Watano, Y. & Pharmawati, M. 2014. Molecular phylogeny of maidenhair fern genus *Adiantum* (Pteridaceae) from Lesser Sunda Islands Indonesia based on rbcL and trnL-f. *Reinwardtia* 14(1): 143-156.
435. Letelier V., S., Baez R., P., Rebolledo U., A. & Fabres C., A. 2014. Native and exotic terrestrial molluscs of the Juan Fernandez archipelago (AJF) (Mollusca: Gastropoda). *Museo Nacional de Historia Natural Boletín* 63: 187-199. [*Blechnum*, Chile, herbivory; Spanish].
436. Lewis-Smith, R. I. 2014. A fern cultured from Antarctic glacier detritus. *Antarctic Science* 26(4): 341-344. [dispersal, *Elaphoglossum hybridum*, spore bank].
437. Lewis-Smith, R. I. 2014. A fern cultured from Antarctic glacier detritus. *Pteridologist* 6(1): 58-60. [dispersal, *Elaphoglossum hybridum*, spore bank].
438. Li, F. W., Villarreal, J. C., Kelly, S., Rothfels, C. J., Melkonian, M., Frangedakis, E., Ruhsam, M., Ruhsam, M., Der, J. P., Pittermann, J., Burge, D. O., Pokornyk, L., Larsson, A., Chen, T., Weststrand, S., Thomas, P., Carpenter, E., Zhang, Y., Tian, Z., Chen, L., Yan, Z., Zhu, Y., Sun, X., Wang, J., Stevenson, D. W., Crandall-Stotler, B. J., Shaw, A. J., Deyholos, M. K., Soltis, D. E., Graham, S. W., Windham, M. D., Langdale, J. A., Wong, G. K. S., Mathews, S. & Pryer, K. M. 2014. Horizontal transfer of an adaptive chimeric photoreceptor from bryophytes to ferns. *Proceedings of the National Academy of Sciences of the United States of America* 111(18): 6672-6677. [gene transfer, neochrome, phytochrome, *Pteridium aquilinum*].
439. Li, J. T., Li, S. P., Chen, Y. J., Jia, P., Hua, Z. S., Wang, S. L., Song, Y. S., Liao, B. & Shu, W. S. 2014. Phylogenetic structures of soil nematode communities along a successional gradient in an unreclaimed copper mine tailings site. *Soil Biology & Biochemistry* 77: 179-186. [*Hippochaete ramosissimum*].
440. Li, S., Liu, W. Y., Li, D. W., Li, Z. X., Song, L., Chen, K. & Fu, Y. 2014. Slower rates of litter decomposition of dominant epiphytes in the canopy than on the forest floor in a subtropical

- montane forest, southwest China. *Soil Biology & Biochemistry* 70: 211-220. [*Phymatopteris connexa*].
441. Li, S., Zhao, M., Li, Y., Sui, Y., Yao, H., Huang, L. & Lin, X. 2014. Preparative isolation of six anti-tumour biflavonoids from *Selaginella doederleinii* hieron by high-speed counter-current chromatography. *Phytochemical Analysis* 25(2): 127-133. [cancer, medicinal plants].
442. Li, W. J. & Guan, K. Y. 2014. Valid publication of the name *Cyclogramma costularisora* (Thelypteridaceae), endemic to Yunnan, China. *Annales Botanici Fennici* 51(6): 407-408.
443. Li, X., Yin, X., Xi, H. C., Zhou, X. M. & Yang, Y. P. 2014. Investigation and analysis of impact from high frost on vascular plants in the Kunming Botanical Gardens. *Plant Diversity and Resources* 36(5): 639-652. [China, frost damage, frost tolerance; Chinese].
444. Li, Y. & Shi, L. 2014. Effect of desiccation level and storage temperature on green spore viability of *Osmunda japonica*. *Cryobiology* 68(3): 446-450. [conservation].
445. Liao, Z. & Wang, M. 2014. Study on the spore morphology of *Cystopteris* Bernh. In China. *Acta Botanica Boreali Occidentalia Sinica* 34(6): 1138-1142. [Chinese].
446. Libertin, M., Bek, J. & Drabkova, J. 2014. New sphenophyllaleans from the Pennsylvanian of the Czech Republic. *Review of Palaeobotany & Palynology* 200: 196-210. [*Bowmanites*, Carboniferous, fossils, new species, *Sphenophyllum*].
447. Lim, H. J., Kwon, J. & Jeon, H. 2014. *Pyrrosia lingua* reduces nociception in Mouse. *Natural Product Sciences* 20(4): 285-289. [medicinal plants].
448. Lin, C. H., Xu, H. L., Sun, W. L., Li, F. & Lin, G. Z. 2014. *Equisetum sylvaticum* base reduces atherosclerosis risk factors in rats fed a high-fat diet. *Bangladesh Journal of Pharmacology* 9(3): 257-261. [medicinal plants].
449. Lin, Y., Zhang, X. B., Yang, Z. R., Wu, T. T., Du, Q. & Song, L. 2014. Lectotypifications of ten names in ferns. *Bulletin of Botanical Research* 34(3): 292-294. [China].
450. Lindsay, K. C. 2014. The ferns of Antigua and Barbuda: a case of resurgence and resilience. *Pteridologist* 6(1): 14-18. [floristics].
451. Lindsay, S. & Chen, C. W. 2014. Three new combinations in *Haplopteris* (Pteridaceae subfam. Vittarioideae). *Gardens' Bulletin (Singapore)* 66(2): 169-171. [*Haplopteris alternans*, *Haplopteris dareicarpa*, *Haplopteris humblotii*].
452. Liu, B., Jin, H., Sun, Z., Miao, Y., Su, Z. & Zhang, C. 2014. Evidence of Holocene millennial-scale climatic change from Gonghe Basin peat deposit, northeastern Qinghai-Tibet Plateau. *Journal of Arid Environments* 106: 1-10. [*Lycopodium clavatum*].
453. Liu, D., Sun, W., Yuan, Y., Zhang, N., Hayward, A., Liu, Y. & Wang, Y. 2014. Phylogenetic analyses provide the first insights into the evolution of OVATE family proteins in land plants. *Annals of Botany* 113(7): 1219-1233. [*Selaginella moellendorffii*].
454. Liu, G., Cornwell, W. K., Pan, X., Cao, K., Ye, X., Huang, Z., Dong, M. & Cornelissen, J. H. C. 2014. Understanding the ecosystem implications of the angiosperm rise to dominance: leaf litter decomposability among magnoliids and other basal angiosperms. *Journal of Ecology* 102(2): 337-344. [nutrient absorption].
455. Liu, H. M., He, L. J. & Schneider, H. 2014. Towards the natural classification of tectarioid ferns: confirming the phylogenetic relationships of *Pleocnemia* and *Pteridrys* (eupolypods I). *Journal of Systematics and Evolution* 52(2): 161-174.
456. Liu, J., Zhang, X. H., Li, T. Y., Wu, Q. X. & Jin, Z. J. 2014. Soil characteristics and heavy metal accumulation by native plants in a Mn mining area of Guangxi, South China. *Environmental Monitoring and Assessment* 186(4): 2269-2279. [*Dicranopteris linearis*, *Pteris vittata*, restoration].
457. Liu, S., Ju, J. & Xia, G. 2014. Identification of the flavonoid 3'-hydroxylase and flavonoid 3',5'-hydroxylase genes from Antarctic moss and their regulation during abiotic stress. *Gene* 543(1): 145-152.
458. Liu, X., Chi, Z., Herzsuh, U., Wang, Y., Ni, J. & Xu, Q. 2014. A MIS 3 charcoal and pollen record and quantitative precipitation inferences from the Jingerwa section of the Nihewan

- Basin, north-central China. *Journal of Paleolimnology* 51: 211-221. [climate change, fossils, Pleistocene, spores].
459. Liu, X., Luo, H. B., Huang, Y. Y., Bao, J. M., Tang, G. H., Chen, Y. Y., Wang, J. & Yin, S. 2014. Selaginulvilins A-D, new phosphodiesterase-4 inhibitors with an unprecedented skeleton from *Selaginella pulvinata*. *Organic Letters* 16(1): 282-285.
460. Loetter, M. C., Mucina, L. & Witkowski, E. T. F. 2014. Classification of the indigenous forests of Mpumalanga Province, South Africa. *South African Journal of Botany* 90: 37-51.
461. Lomax, B. H., Hilton, J., Bateman, R. M., Upchurch, G. R., Leitch, I. J., Cromwell, A. & Knight, C. A. 2014. Reconstructing relative genome size of vascular plants through geological time. *New Phytologist* 201: 636-644. [evolution].
462. Longley, M. 2014. A trip to the Blue Mountains near Sydney, NSW, Australia. *Pteridologist* 6(1): 55-57.
463. Looy, C. V. & Hotton, C. L. 2014. Spatiotemporal relationships among late Pennsylvanian plant assemblages: palynological evidence from the Markley Formation, West Texas, USA. *Review of Palaeobotany & Palynology* 211: 10-27. [fossils].
464. Looy, C. V., Stevenson, R. A., Van Hoof, T. B. & Mander, L. 2014. Evidence for coal forest refugia in the seasonally dry Pennsylvanian tropical lowlands of the Illinois Basin, USA. *PeerJ* 2: e630. [fossils, spores].
465. Lopez Cabrera, M. I. & Olivero, E. B. 2014. *Ophiomorpha irregulaire* and associated trace fossils from the upper Cretaceous of Patagonia, Argentina: palaeogeographical and ethological significance. *Spanish Journal of Palaeontology* 29(1): 33-43. [fossils, Patagonia].
466. Lopez, R. A. & Renzaglia, K. S. 2014. Multiflagellated sperm cells of *Ceratopteris richardii* are bathed in arabinogalactan proteins throughout development. *American Journal of Botany* 101(12): 2052-2061.
467. Lopez-Gutierrez, B. N., Perez-Escandon, B. E. & Villavicencio Nieto, M. A. 2014. Sustainable use and conservation of medicinal plants in Cantarranas, Huehuetla, Hidalgo, Mexico, as a way for improving the quality of live in the community. *Botanical Sciences* 92(3): 389-404. [Spanish].
468. Loriga, J., Schmidt, A. R., Moran, R. C., Feldberg, K., Schneider, H. & Heinrichs, J. 2014. The first fossil of a bolbitidoid fern belongs to the early-divergent lineages of *Elaphoglossum* (Dryopteridaceae). *American Journal of Botany* 101(9): 1466-1475. [Miocene].
469. Loriga, J., Vasco, A., Regalado, L., Heinrichs, J. & Moran, R. C. 2014. Phylogeny and classification of the Cuban species of *Elaphoglossum* (Dryopteridaceae), with description of *Elaphoglossum* sect. *Wrightiana* sect. nov. *Plant Systematics and Evolution* 300(5): 937-951.
470. Loss, S. R. & Blair, R. B. 2014. Earthworm invasions and the decline of clubmosses (*Lycopodium* spp.) that enhance nest survival rates of a ground-nesting songbird. *Forest Ecology and Management* 324: 64-71. [birds, North America].
471. Lumbres, R. I. C., Palaganas, J. A., Micoso, S. C., Laruan, K. A., Besic, E. D., Yun, C. W. & Lee, Y. J. 2014. Floral diversity assessment in Alno communal mixed forest in Benguet, Philippines. *Landscape and Ecological Engineering* 10(2): 361-368.
472. Luo, C., Chen, M., Xiang, R., Liu, J., Zhang, L., Lu, J. & Yang, M. 2014. Modern pollen distribution in marine sediments from the northern part of the South China Sea. *Marine Micropaleontology* 108: 41-56. [China, *Dicranopteris*, spore, Taiwan].
473. Luque, G. M., Bellard, C., Bertelsmeier, C., Bonnaud, E., Genovesi, P., Simberloff, D. & Courchamp, F. 2014. The 100th of the world's worst invasive alien species. *Biological Invasions* 16(5): 981-985. [invasive species, *Salvinia molesta*].
474. Luu, T. D., Truong, P., Mammucari, R. & Foster, N. 2014. A critical review of the arsenic uptake mechanisms and phytoremediation potential of *Pteris vittata*. *International Journal of Phytoremediation* 16(5): 429-453.

475. Ma, Y., Yao, Y., Yin, X., Yan, Y. & Dai, X. 2014. Study on the characteristics of leaf epidermis of 16 species of Thelypteridaceae. *Acta Botanica Boreali Occidentalia Sinica* 34(10): 2020-2027. [Chinese].
476. Maddi, F. A. & Cremers, G. 2014. Revision of typifications among some taxa of pteridophytes of Guadeloupe described by A. L. A. Fee upon F. J. L'Herminier's specimens. *Adansonia* 36(2): 185-203. [*Selaginella mollis*; French].
477. Madhusoodanan, P. V., Prakashkumar, R., Sreerenjini, V. K. & Smitha, R. B. 2014. Ecology of South Indian pteridophytes. *Indian Fern Journal* 31(1-2): 173-186. [*Azolla pinnata*, conservation, *Cyathea crinita*, *Salvinia molesta*].
478. Madhusoodanan, P. V., Sreerenjini, V. K., Smitha, R. B. & Prakashkumar, R. 2014. Invasion of *Salvinia molesta* D.S. Mitchell (African Payal) in Kerala and its management. *Indian Fern Journal* 31(1-2): 162-172. [biological control, invasive species].
479. Magrath, A., Rodriguez-Perez, J., Campbell, M. & Laurance, W. F. 2014. Edge effects shape the spatial distribution of lianas and epiphytic ferns in Australian tropical rain forest fragments. *Applied Vegetation Science* 17(4): 754-764. [biogeography].
480. Maharachchikumbura, S. S. N., Guo, L. D., Chukeatirote, E. & Hyde, K. D. 2014. Improving the backbone tree for the genus *Pestalotiopsis*; addition of *P. steyaertii* and *P. magna sp. nov.* *Mycological Progress* 13(3): 617-624. [decomposition, France, fungi, *Pteridium*, saprophytes].
481. Mallmann, I. T. & Schmitt, J. L. 2014. Richness and floristic composition of the fern community in riparian forest of the river 'Cadeia', in Rio Grande do Sul state, Brazil. *Ciencia Florestal* 24(1): 97-109. [biodiversity; Portuguese].
482. Mandal, A., Purakayastha, T. J. & Patra, A. K. 2014. Phytoextraction of arsenic contaminated soil by Chinese brake fern (*Pteris vittata*): Effect on soil microbiological activities. *Biology and Fertility of Soils* 50(8): 1247-1252. [phytoremediation].
483. Mandal, C., Ghosh, N., Dey, N. & Adak, M. K. 2014. Effects of putrescine on oxidative stress induced by hydrogen peroxide in *Salvinia natans* L. *Journal of Plant Interactions* 9(1): 550-558.
484. Manubolu, M., Goodla, L., Ravilla, S., Thanasekaran, J., Dutta, P., Malmlof, K. & Obulum, V. R. 2014. Protective effect of *Actinopteris radiata* (Sw.) Link. against CCl₄ induced oxidative stress in albino rats. *Journal of Ethnopharmacology* 153(3): 744-752. [medicinal plants].
485. Mao, X. X., Liu, X. & Zhang, G. M. 2014. Taxonomic revision of *Adiantum* ser. *venusta* Ching (Pteridaceae) from Pan-Himalayas. *Plant Diversity and Resources* 36(4): 453-467. [Chinese].
486. Marcon, C., Silveira, T. & Droste, A. 2014. Germination and gametophyte development of *Cyathea corcovadensis* (Raddi) Domin (Cyatheaceae) from spores stored at low temperatures. *Acta Scientiarum Biological Sciences* 36(4): 403-410. [Brazil, conservation, spore bank].
487. Marcon-Tavares, A. B., Felinto, F., Feitoza, L., Barros e Silva, A. E. & Guerra, M. 2014. Different patterns of chromosomal histone H3 phosphorylation in land plants. *Cytogenetic and Genome Research* 143(42064): 136-143. [*Acrostichum danaeifolium*].
488. Marmi, J., Vila, B., Martin-Closas, C. & Villalba-Breva, S. 2014. Reconstructing the foraging environment of the latest titanosaurs (Fumanya dinosaur tracksite, Catalonia). *Palaeogeography Palaeoclimatology Palaeoecology* 410: 380-389. [dinosaurs, fossils, herbivory].
489. Martinez, O. G., Chambi, C. J. & Aviles, Z. 2014. Gametophytic phase of two neotropical ferns, *Dennstaedtia globulifera* (Poir.) Hieron and *Hypolepis poeppigii* Mett. ex Maxon (Dennstaedtiaceae). *Plant Systematics and Evolution* 300(5): 909-915. [antheridiophore].
490. Martinez, O. G., Tanco, M. E., Prada, C. & Guerra, R. 2014. Gametophytic phase of *Alsophila odonelliana* (Cyatheaceae). *Nordic Journal of Botany* 32(1): 92-97. [tree ferns].
491. Martinez-Salas, E. & Ramos, C. H. 2014. Biodiversity of pteridophyta in Mexico. *Revista Mexicana de Biodiversidad* 85: S110-S113. [Spanish].
492. Maruyama, M., Bartolozzi, L., Inui, Y., Tanaka, H. O., Hyodo, F., Shimizu-Kaya, U., Takematsu, Y., Hishi, T. & Itioka, T. 2014. A new genus and species of myrmecophilous brentid beetle (Coleoptera: Brentidae) inhabiting the myrmecophytic epiphytes in the Bornean

- rainforest canopy. *Zootaxa* 3786(1): 73-78. [ant-plant interactions, *Lecanopteris ridleyi*, Malaysia, *Platyserium crustacea*, Sarawak].
493. Masetto, E. & Lorscheitter, M. L. 2014. Palynomorphs in Holocene sediments from a paleolagoon in the coastal plain of extreme southern Brazil. *Acta Botanica Brasilica* 28(2): 165-175. [spores].
494. Mathews, K. & Collins, B. 2014. Plant and pollinator communities of high elevation rock outcrops. *Natural Areas Journal* 34(3): 300-309. [competition, North Carolina, *Selaginella*].
495. Matos, F. B. & Mickel, J. T. 2014. The Brazilian species of *Elaphoglossum* section *Polytrichia* (Dryopteridaceae). *Brittonia* 66(4): 371-395.
496. Matos, F. B. 2014. Typification of some species names in *Elaphoglossum* sect. *Polytrichia* (Dryopteridaceae) from Brazil. *Acta Botanica Brasilica* 28(3): 404-407.
497. Maumus, F., Epert, A., Nogue, F. & Blanc, G. 2014. Plant genomes enclose footprints of past infections by giant virus relatives. *Nature Communications* 5: 4268. [*Selaginella moellendorffii*].
498. Mayer, V. E., Frederickson, M. E., McKey, D. & Blatrix, R. 2014. Current issues in the evolutionary ecology of ant-plant symbioses. *New Phytologist* 202(3): 749-764. [ant-plant interactions, coevolution].
499. Mayser, M. J. & Barthlott, W. 2014. Layers of air in the water beneath the floating fern *Salvinia* are exposed to fluctuations in pressure. *Integrative and Comparative Biology* 54(6): 1001-1007. [aquatic plants, biophysics].
500. Mayser, M. J., Barthlott, W. & Gilet, T. 2014. The hairy, superhydrophobic surfaces on the water fern *Salvinia* - underwater air retention and raindrop impacts. Annual Meeting of the Society for Integrative and Comparative Biology, Austin, TX, e135.
501. Mazumdar, J. 2014. A new combination in *Arachniodes* (Dryopteridaceae). *Phytotaxa* 159(1): 26-28. [*Arachniodes polyodon*].
502. Mazumdar, J. 2014. Nomenclatural note on three ferns from India. *Phytotaxa* 158(3): 297-298. [*Davallodes squamata*, *Didymoglossum henzaianum*, *Tectaria nayarii*].
503. McAdam, S. A. M. & Brodribb, T. J. 2014. Separating active and passive influences on stomatal control of transpiration. *Plant Physiology* 164(4): 1578-1586. [abscisic acid].
504. McHenry, M. A. & Barrington, D. S. 2014. Phylogeny and biogeography of exindusiata Andean *Polystichum* (Dryopteridaceae). *American Journal of Botany* 101(2): 365-375.
505. McLean, K. L., Dodd, S. L., Minchin, R. F., Ohkura, M., Bienkowski, D. & Stewart, A. 2014. Non-target impacts of the biocontrol agent *Trichoderma atroviride* on plant health and soil microbial communities in two native ecosystems in New Zealand. *Australasian Plant Pathology* 43(1): 33-45. [*Asplenium gracillimum*].
506. McLoughlin, S., Jansson, I. M. & Vajda, V. 2014. Megaspore and microfossil assemblages reveal diverse herbaceous lycophytes in the Australian Early Jurassic flora. *Grana* 53(1): 22-53. [Australia, fossils, Jurassic, *Paxilitriletes rainei*, *Selaginella*].
507. McPherson, T. Y. 2014. Landscape scale species distribution modeling across the Guiana Shield to inform conservation decision making in Guyana. *Biodiversity and Conservation* 23(8): 1931-1948.
508. Meena, K., Hussain, S. & Yadav, B. L. 2014. Photosynthetic pigments and their degradation under hyperthermia in two species of *Selaginella* Beauv. from Rajasthan. *Indian Fern Journal* 31(1-2): 118-123. [*Selaginella ciliaris*, *Selaginella repanda*].
509. Mehltreter, K. 2014. New frontiers of fern ecology. *Indian Fern Journal* 31(1-2): 1-9.
510. Meinard, Y. & Quetier, F. 2014. Experiencing biodiversity as a bridge over the science-society communication gap. *Conservation Biology* 28(3): 705-712. [*Polypodium vulgare*].
511. Melendez-Camargo, M. E., Contreras-Leon, I. & Silva-Torres, R. 2014. Diuretic effect of alkaloids fraction extracted from *Selaginella lepidophylla* (Hook. et Grev.) Spring. *Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromaticas* 13(1): 92-99.

512. Mendes, M. M., Dinis, J., Pais, J. & Friis, E. M. 2014. Vegetational composition of the early Cretaceous Chicalhao flora (Lusitanian Basin, western Portugal) based on palynological and mesofossil assemblages. *Review of Palaeobotany & Palynology* 200: 65-81. [fossils].
513. Mendoza-Ruiz, A. & Ceja-Romero, J. 2014. Atlas de briofitas y pteridofitas, 1. ed. Universidad Autónoma Metropolitana, Iztapalapa: México, D.F. pp. 124. [anatomy, morphology, systematics; Spanish]
514. Meunier, J. D., Keller, C., Guntzer, F., Riotte, J., Braun, J. J. & Anupama, K. 2014. Assessment of the 1% Na₂CO₃ technique to quantify the phytolith pool. *Geoderma* 216: 30-35. [*Equisetum*].
515. Miao, J., Zhou, C. Y., Li, S. J. & Yan, J. H. 2014. Accumulation of soil organic carbon and total nitrogen in *Pinus yunnanensis* forests at different age stages. *Chinese Journal of Applied Ecology* 25(3): 625-631. [*Pteridium revolutum*, succession; Chinese].
516. Mikkelsen, M. D., Harholt, J., Ulvskov, P., Johansen, I. E., Fangel, J. U., Doblin, M. S., Bacic, A. & Willats, W. G. T. 2014. Evidence for land plant cell wall biosynthetic mechanisms in charophyte green algae. *Annals of Botany* 114: 1217-1236. [*Selaginella moellendorffii*].
517. Mildenhall, D. C., Kennedy, E. M., Lee, D. E., Kaulfuss, U., Bannister, J. M., Fox, B. & Conran, J. G. 2014. Palynology of the early Miocene Foulden Maar, Otago, New Zealand: diversity following destruction. *Review of Palaeobotany & Palynology* 204: 27-42. [*Davallia*, fossils, spores].
518. Miller, T. W., Libbey, C. R. & Maupin, B. G. 2014. Comparison of four management programs for control of established perennial weeds in blueberry. In: Van Kooten, O. & Brouns, F. (eds.). X International Symposium on *Vaccinium* and other superfruits, International Society of Horticultural Science: Leuven, Belgium, pp. 147-152. [*Equisetum arvense*, herbicides, Washington].
519. Mimura, T., Mimura, M., Kobayashi, D., Komiyama, C., Sekimoto, H., Miyamoto, M. & Kitamura, A. 2014. Radioactive pollution and accumulation of radionuclides in wild plants in Fukushima. *Journal of Plant Research* 127(1): 5-10. [caesium, *Equisetum*].
520. Minardi, B. D., Voytena, A. P. L., Santos, M. & Randi, A. M. 2014. Water stress and abscisic acid treatments induce the CAM pathway in the epiphytic fern *Vittaria lineata* (L.) Smith. *Photosynthetica* 52(3): 404-412. [Brazil, desiccation tolerance].
521. Mirza, N., Mahmood, Q., Shah, M. M., Pervez, A. & Sultan, S. 2014. Plants as useful vectors to reduce environmental toxic arsenic content. *Scientific World Journal* : 921581. [contamination, phytoremediation, *Pteris vittata*].
522. Mitxelena, A., Saenz, J. & Oreja, L. 2014. Inventory of threatened habitats and flora in Jaizkibel SAC. In: Arizaga, J. (ed.). Revision of the natural heritage of the mountain of Jaizkibel (Gipuzkoa, Basque country). Munibe Monographs, Nature Series Vol. 2. Aranzadi Society of Sciences: Donostia, San Sebastian, pp. 101-109. [conservation, *Dryopteris carthusiana*, Spain; Spanish].
523. Mizuta, T. 2014. Habitat requirements of the endangered Amami thrush (*Zoothera dauma major*), endemic to Amami-Oshima Island, southwestern Japan. *Wilson Journal of Ornithology* 126(2): 298-304. [birds, epiphytes, nesting habitat].
524. Mochizuki, T., Tani, A., Takahashi, Y., Saigusa, N. & Ueyama, M. 2014. Long-term measurement of terpenoid flux above a *Larix kaempferi* forest using a relaxed eddy accumulation method. *Atmospheric Environment* 83: 53-61. [*Dryopteris crassirhizoma*, Japan].
525. Moore, L. C., Wittry, J. & DiMichele, W. A. 2014. The Okmulgee, Oklahoma fossil flora, a Mazon Creek equivalent: Spatial conservatism in the composition of Middle Pennsylvanian wetland vegetation over 1100 km. *Review of Palaeobotany & Palynology* 200: 24-52. [Carboniferous, *Lobatopteris*].
526. Moran, R. C., Labiak, P. H., Hanks, J. G. & Prado, J. 2014. The phylogenetic relationship of *Tectaria brauniana* and *Tectaria nicotianifolia*, and the recognition of *Hypoderris* (Tectariaceae). *Systematic Botany* 39(2): 384-395.

527. Moran, R. C., Prado, J. & Sundue, M. A. 2014. *Megalastrum* (Dryopteridaceae) in Andean South America, Part II. American Fern Journal 104(4): 181-236.
528. Moran, R. C., Prado, J. & Sundue, M. A. 2014. *Megalastrum* (Dryopteridaceae) in Andean South America, Part I. American Fern Journal 104(3): 109-178.
529. Morris, J. L. & Edwards, D. 2014. An analysis of vegetational change in the Lower Devonian: New data from the Lochkovian of the Welsh Borderland, UK. Review of Palaeobotany & Palynology 211: 28-54. [fossils, lycophytes, *Zosterophyllum*].
530. Morrone, J. J. 2014. Cladistic biogeography of the neotropical region: identifying the main events in the diversification of the terrestrial biota. Cladistics 30(2): 202-214. [Amazonia, evolution, South America].
531. Mroz, E., Depa, L., Artchawakom, T. & Gorczyca, J. 2014. *Micromyzus platycerii* sp. n. (Hemiptera, Aphididae) - a new fern-feeding aphid species from Thailand. ZooKeys (456): 49-57. [herbivory].
532. Mukherjee, A., Knutson, A., Hahn, D. A. & Heinz, K. M. 2014. Biological control of giant salvinia (*Salvinia molesta*) in a temperate region: cold tolerance and low temperature oviposition of *Cyrtobagous salviniae*. BioControl 59(6): 781-790.
533. Mullah, C. J. A., Klanderud, K., Totland, O. & Odee, D. 2014. Community invasibility and invasion by non-native *Fraxinus pennsylvanica* trees in a degraded tropical forest. Biological Invasions 16(12): 2747-2755.
534. Murphy, M. J., Inman-Narahari, F., Ostertag, R. & Litton, C. M. 2014. Invasive feral pigs impact native tree ferns and woody seedlings in Hawaiian forest. Biological Invasions 16(1): 63-71. [*Cibotium*, herbivory].
535. Murrieta-Galindo, R., Parra-Olea, G., Gonzalez-Romero, A., Lopez-Barrera, F. & Vredenburg, V. T. 2014. Detection of *Batrachochytrium dendrobatidis* in amphibians inhabiting cloud forests and coffee agroecosystems in central Veracruz, Mexico. European Journal of Wildlife Research 60(3): 431-439. [bioindicators, conservation].
536. Muthukumar, T., Sathiyaraj, G., Priyadharsini, P., Uma, E. & Sathiyadash, K. 2014. Arbuscular mycorrhizal and dark septate endophyte fungal associations in ferns and lycophytes of Palni Hills, Western Ghats, southern India. Brazilian Journal of Botany 37(4): 561-581.
537. Muthuraja, R., Muthukumar, T., Sathiyadash, K., Uma, E. & Priyadharsini, P. 2014. Arbuscular mycorrhizal (AM) and dark septate endophyte (DSE) fungal association in lycophytes and ferns of the Kolli Hills, Eastern Ghats, Southern India. American Fern Journal 104(2): 67-102.
538. Nagalingum, N. S., Knerr, N., Mishler, B. D. & Cargill, D. C. 2014. Overlapping fern and bryophyte hotspots: assessing ferns as a predictor of bryophyte diversity. Telopea 17: 383-392. [Australia, biogeography, floristics, surrogates].
539. Nakata, M. 2014. A correct representation of the chromosome numbers at meiosis. Journal of Japanese Botany 89(1): 48-50. [terminology; Japanese].
540. Narvaez, P. L., Pramparo, M. B. & Sabino, I. F. 2014. First palynologic record of the Cretaceous La Yesera Formation (Salta Group), northwestern Argentina. Revista Brasileira de Paleontologia 17(2): 141-156. [fossils].
541. Naugolnykh, S. V. 2014. Fossil flora from the Aleksandrovskoe locality (Lower Permian, Kungurian; Krasnoufimsk district of the Sverdlovsk Region): taxonomical composition, taphonomy, and a new lycopsid representative. Paleontological Journal 48(2): 209-217. [Carboniferous, fossils, Russia].
542. Nawar, K. & Sharma, O. P. 2014. Ethno-medicinal plants used in the treatment of fever by tribes of Hindoli Tehsil, Bundi District (Rajasthan). Advances in Plant Sciences 27(1): 141-142.
543. Neil, K., Gajewski, K. & Betts, M. 2014. Human-ecosystem interactions in relation to Holocene environmental change in Port Joli Harbour, southwestern Nova Scotia, Canada. Quaternary Research 81(2): 203-212. [fossils, Holocene, *Isoetes*].

544. Nemoto, M. & Otsuka, H. 2014. Influence of farming system on the floristic composition of paddy landscapes: a case study in a rural hilly zone in Zhejiang province, China. *Landscape and Ecological Engineering* 10(1): 173-180. [*Marsilea quadrifolia*].
545. Nettesheim, F. C., Damasceno, E. R. & Sylvestre, L. S. 2014. Different slopes of a mountain can determine the structure of ferns and lycophytes communities in a tropical forest of Brazil. *Anais da Academia Brasileira de Ciencias* 86(1): 199-210. [biodiversity, indicator species, plant communities, slope].
546. Neumann, M. K., Schneider, P. H. & Schmitt, J. L. 2014. Phenology, caudex growth and age estimation of *Cyathea corcovadensis* (Raddi) Domin (Cyatheaceae) in a subtropical forest in southern Brazil. *Acta Botanica Brasilica* 28(2): 274-280. [phenology, plant age, trunk growth].
547. Newman, M., Mitchell, F. J. G. & Kelly, D. L. 2014. Exclusion of large herbivores: long-term changes within the plant community. *Forest Ecology and Management* 321: 136-144. [*Pteridium aquilinum*].
548. Newton, J. N., Tomlin, F. M. & Sarpong, R. 2014. Progress toward the synthesis of alkaloids from *Lycopodium casuarinoides* via late-stage C-H functionalization of lycodine derivatives. 247th National Spring Meeting of the American Chemical Society (ACS), Dallas, TX, p. 598. [medicinal plants].
549. Ngan, T. L., Zhang, L. & Zhang, L. B. 2014. *Polystichum hagiangense* (subg. Haplopolystichum; Dryopteridaceae), a new fern species from Ha Giang Province, northern Vietnam. *Phytotaxa* 175(5): 293-297.
550. Ngan, T. L., Zhang, L. & Zhang, L. B. 2014. Ten new records of *Polystichum* (Dryopteridaceae) for Vietnam and lectotypification of *Polystichum atroviridissimum* and *P. fimbriatum*. *Phytotaxa* 164(2): 115-123.
551. Nguyen, N. C., Bui, H. T., Tran, C. L., Tran, M. H., Nguyen, H. D. & Nguyen, T. D. 2014. Anti-amnesic effect of alkaloid fraction from *Lycopodiella cernua* (L.) Pic. Serm. on scopolamine-induced memory impairment in mice. *Neuroscience Letters* 575: 42-46.
552. Nhamo, N., Kyalo, G. & Dinheiro, V. 2014. Exploring options for lowland rice intensification under rain-fed and irrigated ecologies in east and southern Africa: the potential application of integrated soil fertility management principles. In: Sparks, D. L. (ed.). *Advances in Agronomy* Vol. 128. Elsevier: San Diego, CA, pp. 181-219. [*Azolla*, fertilization, land management].
553. Niu, S., Yuan, L., Zhang, Y., Chen, X. & Li, W. 2014. Isolation and expression profiles of gibberellin metabolism genes in developing male and female cones of *Pinus tabulaeformis*. *Functional & Integrative Genomics* 14(4): 697-705. [*Selaginella moellendorffii*].
554. Noraini, T., Amirul-Aiman, A. J., Jaman, R., Nor-Fairuz, A. R., Maideen, H., Damanhuri, A. & Ruzi, A. R. 2014. Systematic significance of stipe anatomy in peninsular Malaysian *Blechnum* L. (Blechnaceae) species. *Malaysian Applied Biology* 43(2): 119-128.
555. Noubarani, M., Rostamkhani, H., Erfan, M., Kamalinejad, M., Eskandari, M. R., Babaeian, M. & Salamzadeh, J. 2014. Effect of *Adiantum capillus-veneris* Linn. on an animal model of testosterone-induced hair loss. *Iranian Journal of Pharmaceutical Research* 13: 113-118. [medicinal plants].
556. Nunez, P., Lino, G., Mendoza, A., Villarreal, M. L. & Taketa, A. 2014. Antiproliferative, antibacterial and inhibition of MAO-A activities of some selected Mexican ferns. 55th Annual Meeting of the American Society of Pharmacognosy (ASP), Oxford, MS, p. 796. [*Arachniodes denticulata*, *Dennstaedtia globulifera*, *Dryopteris wallichiana*, *Pleopeltis plebeia*].
557. Nurul, H. M. R., Yong, K. T., Osman, N. & Nasrulhaq-Boyce, A. 2014. Leaf photosynthetic characteristics in eight shaded Malaysian filmy ferns. *Phyton* 83: 353-361. [Hymenophyllaceae].
558. Nuttle, T., Ristau, T. E. & Royo, A. A. 2014. Long-term biological legacies of herbivore density in a landscape-scale experiment: forest understoreys reflect past deer density treatments for at least 20 years. *Journal of Ecology* 102(1): 221-228. [*Dennstaedtia punctilobula*, fern cover, herbivory, Pennsylvania, *Thelypteris noveboracensis*].

559. Obermuller, F. A., Freitas, L., Daly, D. C. & Silveira, M. 2014. Patterns of diversity and gaps in vascular (hemi-) epiphyte flora of Southwestern Amazonia. *Phytotaxa* 166(4): 259-272.
560. Oborny, B. & Hubai, A. G. 2014. Patch size and distance: modelling habitat structure from the perspective of clonal growth. *Annals of Botany* 114(2): 389-398. [clonal growth, *Lycopodium annotinum*].
561. Odland, A. 2014. Habitat preferences of some red-listed alpine plants in Scandinavia. *Nordic Journal of Botany* 32(3): 337-346. [conservation, Norway, Sweden].
562. Ogilvie, H. A., Imin, N. & Djordjevic, M. A. 2014. Diversification of the C-terminally encoded peptide (CEP) gene family in angiosperms, and evolution of plant-family specific CEP genes. *BMC Genomics* 15: 870. [*Selaginella*].
563. Oke, O. A., Heard, S. B. & Lundholm, J. T. 2014. Integrating phylogenetic community structure with species distribution models: an example with plants of rock barrens. *Ecography* 37(7): 614-625. [Canada, *Pteridium aquilinum*].
564. Olaifa, F. E. & Omekam, A. J. 2014. Studies on phytoremediation of copper using *Pteridium aquilinum* (bracken fern) in the presence of biostimulants and bioassay using *Clarias gariepinus* juveniles. *International Journal of Phytoremediation* 16(3): 219-234.
565. Oldenkott, B., Yamaguchi, K., Tsuji-Tsukinoki, S., Knie, N. & Knoop, V. 2014. Chloroplast RNA editing going extreme: more than 3400 events of C-to-U editing in the chloroplast transcriptome of the lycophyte *Selaginella uncinata*. *RNA (Cold Spring Harbor)* 20(10): 1499-1506.
566. Oliveira, P. R. R., Neto, M. N., Christianini, A. V. & Francisco, M. R. 2014. On the nest, eggs, and hatchlings of the Yellow-legged thrush *Turdus flavipes flavipes* in Brazilian Atlantic Forest. *Revista Brasileira de Ornitologia* 22(1): 53-56. [birds, epiphytes, nesting material, rhizomes].
567. Oppenheimer, H. L. & Bustamante, K. M. 2014. Rediscovery, ecology, and habitat of *Deparia kaalaana* (Copel.) M. Kato (Athyraceae). *American Fern Journal* 104(2): 103-107. [Hawaii].
568. Ordonez, A. 2014. Global meta-analysis of trait consistency of non-native plants between their native and introduced areas. *Global Ecology and Biogeography* 23(3): 264-273. [alien species, invasive species, plant traits].
569. Orlova, O. A. & Jurina, A. L. 2014. A new articulate species, *Pseudobornia schweitzeri* Jurina et O. Orlova, sp. nov., from the upper Devonian of Northern Timan, Russia. *Paleontological Journal* 48(1): 90-100. [fossils, Russia].
570. Osorio-Zuniga, F., Fonturbel, F. E. & Rydin, H. 2014. Evidence of mutualistic synzoochory between cryptogams and hummingbirds. *Oikos* 123(5): 553-558. [dispersal, fern-animal interactions, hummingbirds, *Lophosoria quadripinnata*, mutualism, nesting material].
571. Ostertag, R., Inman-Narahari, F., Cordell, S., Giardina, C. P. & Sack, L. 2014. Forest structure in low-diversity tropical forests: a study of Hawaiian wet and dry forests. *PLoS One* 9(8): e103268. [*Cibotium*].
572. Pacyna, G. 2014. Plant remains from the Polish Triassic. Present knowledge and future prospects. *Acta Palaeobotanica* 54(1): 3-33. [fossils].
573. Page, C. & Gureyeva, I. 2014. Hardiness as a component of both horticultural success and wild-plant range-determination in Pteridophyta. *Pteridologist* 6(1): 2-7.
574. Page, C. N., Collinson, M. E. & Van Konijnenburg-Van Cittert, J. H. A. 2014. *Lygodium hians* E. Fournier (Pteridophyta, Schizaeales) - an endemic unusual ground-clothing member of a modern climbing fern genus in New Caledonia. *Adansonia* 36(1): 21-43.
575. Pampurova, S. & Van Dijck, P. 2014. The desiccation tolerant secrets of *Selaginella lepidophylla*: What we have learned so far? *Plant Physiology and Biochemistry* 80: 285-290.
576. Pampurova, S., Verschooten, K., Avonce, N. & Van Dijck, P. 2014. Functional screening of a cDNA library from the desiccation-tolerant plant *Selaginella lepidophylla* in yeast mutants identifies trehalose biosynthesis genes of plant and microbial origin. *Journal of Plant Research* 127(6): 803-813.

577. Pan, H., Jiang, B., Chen, J. & Jin, Z. 2014. Assessment of the physical, mechanical, and moisture-retention properties of pullulan-based ternary co-blended films. *Carbohydrate Polymers* 112: 94-101. [*Matteuccia struthiopteris*].
578. Pan, K., Luo, J. G. & Kong, L. Y. 2014. A new *Lycopodium* alkaloid from *Phlegmariurus fargesii*. *Chinese Journal of Natural Medicines* 12(5): 373-376. [medicinal plants].
579. Panwar, A. S. 2014. Integrated nutrient management for sustaining wetland rice (*Oryza sativa*) production in mid hills altitude of Meghalaya. *Indian Journal of Agricultural Sciences* 84(7): 828-831. [*Azolla*].
580. Pardoe, H. S. 2014. Surface pollen deposition on glacier forelands in southern Norway II: Spatial patterns across the Jotunheimen-Jostedalbreen region. *Holocene* 24(12): 1675-1685. [*Equisetum*, spores].
581. Parris, B. S. 2014. *Oreogrammitis setosa* and *O. sinohirtella* in Thailand. *Fern Gazette* 19: 296.
582. Patil, S. & Dongare, M. 2014. The genus *Ophioglossum* from Western Ghats of India. *Indian Fern Journal* 31(42036): 17-26.
583. Patil, S., Yadav, S. & Dongare, M. 2014. *Tectaria fuscipes* (Tectariaceae, Pteridophyta), a new record for southern India. *Journal of Japanese Botany* 89(3): 186-188.
584. Patino, J., Carine, M., Fernandez-Palacios, J. M., Otto, R., Schaefer, H. & Vanderpoorten, A. 2014. The anagenetic world of spore-producing land plants. *New Phytologist* 201(1): 305-311. [anagenetic speciation, endemism, island biogeography, oceanic archipelagos].
585. Patino, J., Weigelt, P., Guilhaumon, F., Kreft, H., Triantis, K. A., Naranjo-Cigala, A., Solymos, P. & Vanderpoorten, A. 2014. Differences in species-area relationships among the major lineages of land plants: a macroecological perspective. *Global Ecology and Biogeography* 23(11): 1275-1283. [biogeography].
586. Paul, R., Sen, T., Sen, U. & Rahaman, S. 2014. Effect of heavy metal pollution on stomata of juvenile sporophytes of some ferns of Gangetic Westbengal. *Indian Fern Journal* 31(1-2): 27-39. [cadmium, *Ceratopteris thalictroides*, lead, mercury, *Nephrolepis cordifolia*, *Pteris vittata*].
587. Paul, S. K., Dixon, K. W. & Miller, B. P. 2014. The persistence and germination of fern spores in fire-prone, semi-arid environments. *Australian Journal of Botany* 62(6): 518-527. [*Cheilanthes adiantoides*, *Cheilanthes austrotenuifolia*, *Cheilanthes sieberi*, spore bank].
588. Pawlowska, J., Wilk, M., Sliwinska-Wyrzychowska, A., Metrak, M. & Wrzosek, M. 2014. The diversity of endophytic fungi in the above-ground tissue of two *Lycopodium* species in Poland. *Symbiosis* 63(2): 87-97. [*Lycopodium annotinum*, *Lycopodium clavatum*].
589. Pearman, D. A., Rumsey, F. J. & Bennallick, I. J. 2014. Monitoring change in *Isoetes histrix* Bory (Isoetaceae) at its northern distributional limit. *Fern Gazette* 19: 297-306. [conservation, UK].
590. Pellatt, J. 2014. A frond in read is a frond indeed! *Pteridologist* 6(1): 77-78.
591. Pence, V. C. 2014. *In vitro* propagation and cryopreservation of the endangered filmy fern, *Trichomanes punctatum* subsp. *floridanum* (Hymenophyllaceae). *Fern Gazette* 19: 307-317. [tissue culture].
592. Peng, D., Gu, X., Xue, L. J., Leebens-Mack, J. H. & Tsai, C. J. 2014. Bayesian phylogeny of sucrose transporters: ancient origins, differential expansion and convergent evolution in monocots and dicots. *Frontiers in Plant Science* 5: e615. [carbohydrates, *Selaginella moellendorffii*].
593. Peppe, D. J., Lemons, C. R., Royer, D. L., Wing, S. L., Wright, I. J., Lusk, C. H. & Rhoden, C. H. 2014. Biomechanical and leaf-climate relationships: a comparison of ferns and seed plants. *American Journal of Botany* 101(2): 338-347. [fossils, leaf traits, paleoclimate].
594. Peralta Pelaez, L. A., Moreno-Casasola, P. & Lopez Rosas, H. 2014. Hydrophyte composition of dune lakes and its relationship to land-use and water physicochemistry in Veracruz, Mexico. *Marine and Freshwater Research* 65(4): 312-326. [*Acrostichum aureum*].

595. Pereira, A. L. & Vasconcelos, V. 2014. Classification and phylogeny of the cyanobiont *Anabaena azollae* Strasburger: an answered question? *International Journal of Systematic and Evolutionary Microbiology* 64: 1830-1840.
596. Perez-Paredes, M. G., Sanchez-Gonzalez, A. & Tejero-Diez, J. D. 2014. Population structure and habitat traits of two Cyatheaceae species of Hidalgo state, Mexico. *Botanical Sciences* 92(2): 259-271. [*Alsophila firma*, *Cyathea fulva*, demography; Spanish].
597. Perrie, L. R., Shepherd, L. D., Thouvenot, L. & von Konrat, M. 2014. Chloroplast DNA sequences support the transfer of the New Caledonian endemic fern *Sphenomeris alutacea* to *Odontosoria*. *New Zealand Journal of Botany* 52(3): 310-314.
598. Perrie, L. R., Wilson, R. K., Shepherd, L. D., Ohlsen, D. J., Batty, E. L., Brownsey, P. J. & Bayly, M. J. 2014. Molecular phylogenetics and generic taxonomy of Blechnaceae ferns. *Taxon* 63(4): 745-758. [*Blechnum*, *Salpichlaena*, *Stenochlaena*, *Telmatoblechnum*].
599. Peruzzi, L. & Bedini, G. 2014. Online resources for chromosome number databases. *Caryologia* 67(4): 292-295. [*Ophioglossum reticulatum*].
600. Peruzzi, L., Caparelli, K. F. & Bedini, G. 2014. A new index for the quantification of chromosome number variation: An application to selected animal and plant groups. *Journal of Theoretical Biology* 353: 55-60. [*Ophioglossum reticulatum*, polyploidy].
601. Petit, D., Mostacero, J. & Varela, C. 2014. New records of lycophytes (Lycophyta) and ferns (Monilophyta) in the Yurubi National Park, State of Yaracuy, Venezuela. *Boletín del Centro de Investigaciones Biológicas Universidad del Zulia* 48(2): 131-146. [*Asplenium incuntatum*, *Danaea moritziana*; Spanish].
602. Petraglia, A., De Benedictis, M., Degola, F., Pastore, G., Calcagno, M., Ruotolo, R., Mengoni, A. & di Toppi, L. S. 2014. The capability to synthesize phytochelatins and the presence of constitutive and functional phytochelatin synthases are ancestral (plesiomorphic) characters for basal land plants. *Journal of Experimental Botany* 65(4): 1153-1163. [*Selaginella denticulata*].
603. Pikabea, I., Albisu, G. & Aizpuru, I. 2014. New places for endangered plants in Jaizkibel mountain. In: Arizaga, J. (ed.). *Revision of the natural heritage of the mountain of Jaizkibel (Gipuzkoa, Basque country)*. Munibe Monographs, Nature Series Vol. 2. Aranzadi Society of Sciences: Donostia, San Sebastian, pp. 119-121. [conservation, *Hymenophyllum tunbridgense*, Spain, *Vandenboschia speciosa*; Spanish].
604. Pineiro, M. R. & Morbelli, M. A. 2014. Spore morphology and wall ultrastructure in Equisetaceae spores (Equisetopsida) from north-western Argentina. *Boletín de la Sociedad Argentina de Botánica* 49(1): 35-40. [*Equisetum bogotense*, *Equisetum giganteum*; Spanish].
605. Plackett, A. R. G., Huang, L., Sanders, H. L. & Langdale, J. A. 2014. High-efficiency stable transformation of the model fern species *Ceratopteris richardii* via microparticle bombardment. *Plant Physiology* 165(1): 3-14. [*Ceratopteris thalictroides*, transgenic lines].
606. Pluchon, N., Hugelius, G., Kuusinen, N. & Kuhry, P. 2014. Recent paludification rates and effects on total ecosystem carbon storage in two boreal peatlands of northeast European Russia. *Holocene* 24: 1126-1136. [*Equisetum*].
607. Poinar, G., Jr. 2014. Insect herbivores of horsetails: bionomics, dispersal, and co-evolution. *American Entomologist* 60(4): 235-240. [*Equisetum*, herbivory].
608. Possart, A., Fleck, C. & Hiltbrunner, A. 2014. Shedding (far-red) light on phytochrome mechanisms and responses in land plants. *Plant Science* 217: 36-46.
609. Pott, C. 2014. The upper Triassic flora of Svalbard. *Acta Palaeontologica Polonica* 59(3): 709-740. [fossils, Norway].
610. Pott, C., Guhl, M. & Lehmann, J. 2014. The early Cretaceous flora from the Wealden facies at Duingen, Germany. *Review of Palaeobotany & Palynology* 201: 75-105. [fossils].
611. Prado, J. & Hirai, R. Y. 2014. Biogeography of the Brazilian Atlantic Forest: evidence from phylogenetic data sets and perspectives for fern and lycophyte studies. *Fern Gazette* 19: 241-258.

612. Prado, J., Hirai, R. Y. & Smith, A. R. 2014. *Dryopteris huberi* (Dryopteridaceae), an overlooked species, and a key for the species of *Dryopteris* in Brazil. *Brittonia* 66(4): 340-346.
613. Prestianni, C. & Gess, R. W. 2014. The rooting system of *Leptophloeum* Dawson: new material from the upper Devonian, Famennian Witpoort Formation of South Africa. *Review of Palaeobotany & Palynology* 209: 35-40. [rhizomorphs].
614. Pyner, T. 2014. A gemmiferous form of *Asplenium lobatum* Pappe & Rawson found in South Africa. *Pteridologist* 6(1): 36-37.
615. Pyner, T. 2014. *Dryopteris labordei* 'Golden mist'. *Pteridologist* 6(1): 61-63.
616. Qi, L. H., Liang, C. Q., Mao, C., Qin, X. S., Fan, S. H., Du, W. W. & Kong, X. H. 2014. Species composition and geographic elements of the tropical lowland secondary rain forest of Ganshiling, Hainan Island, China. *Chinese Journal of Ecology* 33(4): 922-929. [Chinese].
617. Qian, Z. M. & Ke, Y. 2014. Huperzine A: is it an effective disease-modifying drug for Alzheimer's disease? *Frontiers in Aging Neuroscience* 6: 216. [*Huperzia serrata*, medicinal plants].
618. Qiao, X., Lin, X. H., Liang, Y. H., Dong, J., Guo, D. A. & Ye, M. 2014. Comprehensive chemical analysis of the rhizomes of *Drynaria fortunei* by orthogonal pre-separation and liquid chromatography mass spectrometry. *Planta Medica* 80(4): 330-336. [medicinal plants].
619. Quaresma, A. C. & Goncalves Jardim, M. A. 2014. Floristic composition and spatial distribution of vascular epiphytes in the restingas of Maracana, Brazil. *Acta Botanica Brasilica* 28(1): 68-75.
620. Qureshi, R., Shaheen, H., Ilyas, M., Ahmed, W. & Munir, M. 2014. Phytodiversity and plant life of Khanpur dam, Khyber Pakhtunkhwa, Pakistan. *Pakistan Journal of Botany* 46(3): 841-849.
621. Rajurkar, N. S. & Gaikwad, K. N. 2014. Identification and quantification of amino acids from medicinally important plants by using high-performance thin-layer chromatography. *Journal of Liquid Chromatography & Related Technologies* 37(15): 2197-2205. [*Adiantum capillus-veneris*, medicinal plants].
622. Rakotondrainibe, F., Hemp, A. & Meyer, S. 2014. *Adiantum papilio* Rakotondr. & Hemp, sp. nov. (Pteridophyta, Pteridaceae), a new endemic species from Madagascar. *Adansonia* 36(1): 15-20. [French].
623. Ramirez, C., Ortiz, I., San Martin, C., Vidal, O., Alvarez, M., Perez, Y., Solis, J. L. & Alvarez, I. 2014. Preliminary study of the terrestrial plant biodiversity of the Estero Walker (Region of Aysen, Chile): Using baselines of investment projects. *Gayana Botanica* 71(2): 227-245. [Spanish].
624. Ramirez-Barahona, S. & Eguiarte, L. E. 2014. Changes in the distribution of cloud forests during the last glacial predict the patterns of genetic diversity and demographic history of the tree fern *Alsophila firma* (Cyatheaceae). *Journal of Biogeography* 41(12): 2396-2407.
625. Ramirez-Rodriguez, R. & Amich, F. 2014. Notes on rare and threatened flora in western-central Iberia. *Lazaroa* 35: 221-226. [*Adiantum capillus-veneris*, conservation, Spain].
626. Ramos Giacosa, J. P. 2014. Abnormal spore morphology and wall ultrastructure in *Anemia tomentosa* var. *anthriscifolia* and *A. tomentosa* var. *tomentosa* (Anemiaceae). *Plant Systematics and Evolution* 300(7): 1571-1578.
627. Randi, A. M., Freitas, M. C. A., Rodrigues, A. C., Maraschin, M. & Torres, M. A. 2014. Acclimation and photoprotection of young gametophytes of *Acrostichum danaeifolium* to UV-B stress. *Photosynthetica* 52(1): 50-56. [mangroves].
628. Rangabhashiyam, S., Suganya, E., Selvaraju, N. & Varghese, L. A. 2014. Significance of exploiting non-living biomaterials for the biosorption of wastewater pollutants. *World Journal of Microbiology & Biotechnology* 30(6): 1669-1689. [*Azolla filiculoides*].
629. Ranil, R. H. G., Pushpakumara, D. K. N. G., Premakantha, K. T., Bostock, P. D. & Ebihara, A. 2014. Naturalization of *Dicksonia antarctica* Labill. in Pidurutalagala Mountain Forest Reserve

- and adjacent eucalyptus plantation in Sri Lanka. *Bulletin of the National Museum of Nature and Science, Series B* 40 (3): 107-112.
630. Ranil, R. H. G., Pushpakumara, D. K. N. G., Wijesundara, D. S. A. & Fernando, S. S. 2014. Eco-geographic survey of tree ferns of Sri Lanka. 6th Asian Fern Symposium, Bali Botanic Garden, Indonesia.
631. Rayamajhi, M. B., Pratt, P. D., Leidi, J. & Center, T. D. 2014. *Austromusotima camptozonale* (Lepidoptera: Crambidae) herbivory results in frond and rhizome mortality of the invasive fern *Lygodium microphyllum* (Schizaeales: Lygodiaceae). *Florida Entomologist* 97(4): 1308-1316. [biological control, herbivory, invasive species].
632. Reed, J. 2014. West Dean Gardens. *Pteridologist* 6(1): 74-75.
633. Reger, B., Mellert, K. H. & Ewald, J. 2014. Indicator species of nutrient-poor sites in mountain forests of the Bavarian Alps. *Tuexenia* (34): 39-51. [Germany, *Huperzia selago*; German].
634. Reiner, W. B., Petzinger, C., Power, M. L., Hyeroba, D. & Rothman, J. M. 2014. Fatty acids in Mountain gorilla diets: implications for primate nutrition and health. *American Journal of Primatology* 76(3): 281-288. [*Cyathea manniana*, herbivory, primates].
635. Ren, Z., He, C., Fan, Y., Guo, L., Si, H., Wang, Y., Shi, Z. & Zhang, H. 2014. Immuno-enhancement effects of ethanol extract from *Cyrtomium macrophyllum* (Makino) Tagawa on cyclophosphamide-induced immunosuppression in BALB/c mice. *Journal of Ethnopharmacology* 155(1): 769-775.
636. Ren, Z., He, C., Fan, Y., Si, H., Wang, Y., Shi, Z., Zhao, X., Zheng, Y., Liu, Q. & Zhang, H. 2014. Immune-enhancing activity of polysaccharides from *Cyrtomium macrophyllum*. *International Journal of Biological Macromolecules* 70: 590-595. [medicinal plants].
637. Reshetnikova, N. M. & Voronkina, N. V. 2014. A record of *Diplazium sibiricum* (Turcz. ex G. Kunze) Kurata in Kaluga province. *Bulletin of the Moscow Society of Naturalists, Biological Section* 119: 67-68. [Russian].
638. Richardson, S. J., Holdaway, R. J. & Carswell, F. E. 2014. Evidence for arrested successional processes after fire in the Waikare River catchment, Te Urewera. *New Zealand Journal of Ecology* 38(2): 221-229. [deer, fire ecology, herbivory, tree ferns].
639. Rickard, M. 2014. Fern exploration in the high Andes. *Pteridologist* 6(1): 24-30. [Ecuador].
640. Riding, J. B. & Dettmann, M. E. 2014. The first Australian palynologist: Isabel Clifton Cookson (1893-1973) and her scientific work. *Alcheringa* 38(1): 97-129.
641. Rincon Baron, E. J., Roller, C. H., Alzate Guarin, F. & Dorado Galvez, J. M. 2014. Ontogeny of the sporangium, spore formation and cytochemistry in Colombian Lycopodials (Lycopodiaceae). *Revista de Biología Tropical* 62(1): 273-298. [Colombia, developmental biology; Spanish].
642. Rincon Baron, E. J., Roller, C. H., Passarelli, L. M., Espinosa Matias, S. & Torres G., A. M. 2014. Sporogenesis, sporoderm and mature spore ornamentation in Lycopodiaceae. *Revista de Biología Tropical* 62(3): 1161-1195. [developmental biology; Spanish].
643. Ritchie, R. J. & Runcie, J. W. 2014. A portable reflectance-absorbance-transmittance meter for photosynthetic work on vascular plant leaves. *Photosynthetica* 52(4): 614-626. [photobiology].
644. Rizk, Y. S., Fischer, A., Cunha, M. D. C., Rodrigues, P. O., Silva Marques, M. C., Cepa Matos, M. D. F., Toffoli Kadri, M. C., Carollo, C. A. & Pinto de Arruda, C. C. 2014. *In vitro* activity of the hydroethanolic extract and biflavonoids isolated from *Selaginella sellowii* on *Leishmania amazonensis*. *Memorias do Instituto Oswaldo Cruz* 109(8): 1050-1056. [Amazonia, medicinal plants].
645. Roberts, A. E., Boylen, C. W. & Nierzwicki-Bauer, S. A. 2014. Effects of lead accumulation on the *Azolla caroliniana*-*Anabaena* association. *Ecotoxicology and Environmental Safety* 102: 100-104.
646. Robinson, N. M., Leonard, S. W. J., Bennett, A. F. & Clarke, M. F. 2014. Refuges for birds in fire-prone landscapes: the influence of fire severity and fire history on the distribution of forest

- birds. *Forest Ecology and Management* 318: 110-121. [Australia, *Cyathea australis*, *Dicksonia antarctica*, *Pteridium esculentum*].
647. Rocha, L. D., Da Costa, G. M., Gehlen, G., Droste, A. & Schmitt, J. L. 2014. Morphometric differences of *Microgramma squamulosa* (Kaulf.) de la Sota (Polypodiaceae) leaves in environments with distinct atmospheric air quality. *Anais da Academia Brasileira de Ciencias* 86(3): 1137-1146. [atmospheric pollution, Brazil, indicator species, morphology, Rio Grande do Sul].
648. Rodgers, L., Pernas, T. & Hill, S. D. 2014. Mapping invasive plant distributions in the Florida Everglades using the digital aerial sketch mapping technique. *Invasive Plant Science and Management* 7(2): 360-374. [invasive species, *Lygodium microphyllum*].
649. Rofkar, J. R., Dwyer, D. F. & Bobak, D. M. 2014. Uptake and toxicity of arsenic, copper, and silicon in *Azolla caroliniana* and *Lemna minor*. *International Journal of Phytoremediation* 16(2): 155-166.
650. Rojas-Alvarado, A. F. & Chaves-Fallas, J. M. 2014. New records of *Pteris* (Pteridaceae) from the neotropics. *Revista Mexicana de Biodiversidad* 85(1): 301-303.
651. Rojas-Alvarado, A. F. & Sanin, D. 2014. Two new species of *Tectaria* (Tectariaceae) from Costa Rica, Panama and Colombia. *Anales del Jardín Botánico de Madrid* 71(1): e004. [*Tectaria laciniifolia*, *Tectaria pardalina*; Spanish].
652. Rosenthal, M. A., Rosenthal, S. R., Johnson, G., Taylor, W. C. & Zimmer, E. A. 2014. *Isoetes viridimontana*: a previously unrecognized quillwort from Vermont, USA. *American Fern Journal* 104(1): 7-15.
653. Roshchina, V. V. & Yashin, V. A. 2014. Neurotransmitters catecholamines and histamine in allelopathy: plant cells as models in fluorescence microscopy. *Allelopathy Journal* 34(1): 1-15. [*Equisetum arvense*].
654. Rosleine, D., Suzuki, E., Sundawiati, A., Septiana, W. & Ekawati, D. 2014. The effect of land use history on natural forest rehabilitation at corridor area of Gunung Halimun Salak National Park, West Java, Indonesia. *Reinwardtia* 14(1): 85-99. [*Cyathea*, *Dicranopteris linearis*].
655. Rossi, G., Ferrarini, A., Dowgiallo, G., Carton, A., Gentili, R. & Tomaselli, M. 2014. Detecting complex relations among vegetation, soil and geomorphology. An in-depth method applied to a case study in the Apennines (Italy). *Ecological Complexity* 17: 87-98. [*Cryptogramma crista*, plant-soil interactions].
656. Rothfels, C. J. & Schuettpehl, E. 2014. Accelerated rate of molecular evolution for vittarioid ferns is strong and not driven by selection. *Systematic Biology* 63(1): 31-54. [*Adiantum*, *Calciphlopteris*, molecular clock, nucleotide substitution rate].
657. Rothfels, C. J., Johnson, A. K., Windham, M. D. & Pryer, K. M. 2014. Low-copy nuclear data confirm rampant allopolyploidy in the Cystopteridaceae (Polypodiales). *Taxon* 63(5): 1026-1036. [*Cystopteris*, *Gymnocarpium*].
658. Rouhan, G. & Gaudeul, M. 2014. Plant taxonomy: a historical perspective, current challenges, and perspectives. In: Besse, P. (ed.). *Molecular plant taxonomy: methods and protocols*. Humana Press: Totowa, NJ, pp. 1-37. [*Marsilea hirsuta*].
659. Roux, J. P. 2014. *Elaphoglossum nimbaense* J.P. Roux, sp. nov. (Pteridophyta: Dryopteridaceae), a new fern species from Liberia, West Africa. *Adansonia* 36(1): 7-13.
660. Ruckwied, K., Goetz, A. E. & Jones, P. 2014. Palynological records of the Permian Ecca Group (South Africa): utilizing climatic icehouse-greenhouse signals for cross basin correlations. *Palaeogeography Palaeoclimatology Palaeoecology* 413: 167-172. [fossils, Karoo, spores].
661. Ruenk, K., Pihkva, K. & Zobel, K. 2014. Desirable site conditions for introduction sites for a locally rare and threatened fern species *Asplenium septentrionale* (L.) Hoffm. *Journal for Nature Conservation* 22(3): 272-278. [conservation, ecological niche, habitat].
662. Ruhfel, B. R., Gitzendanner, M. A., Soltis, P. S., Soltis, D. E. & Burleigh, J. G. 2014. From algae to angiosperms-inferring the phylogeny of green plants (Viridiplantae) from 360 plastid genomes. *BMC Evolutionary Biology* 14: 23.

663. Rumsey, F. J. 2014. Some name changes in the Pteridaceae of Macaronesia and Europe - with validation of hybrid names in the genus *Allosorus* Bernh. *Fern Gazette* 19: 275-279.
664. Rumsey, F. J., Robba, L., Schneider, H. & Carine, M. A. 2014. Taxonomic uncertainty and a continental conundrum: *Polypodium macaronesicum* reassessed. *Botanical Journal of the Linnean Society* 174: 449-460. [Macaronesia, Spain].
665. Rumsey, F. J., Schaefer, H. & Carine, M. 2014. *Asplenium auritum* Sw. sensu lato (Aspleniaceae: Pteridophyta) - an overlooked neotropical fern native to the Azores. *Fern Gazette* 19: 259-271.
666. Rumsey, F. 2014. Underneath the arches - an urban fern odyssey. *Pteridologist* 6(1): 31-32.
667. Ruyters, G., Spiero, F., Legue, V. & Palme, K. 2014. Plant biology in space. *Plant Biology* 16: 1-3.
668. Sabanadzovic, S., Lawrence, A., Hill, J. & Aboughanem-Sabanadzovic, N. 2014. Association of a putative mycovirus with resurrection fern in Mississippi. Joint Meeting of the American Phytopathological Society and Canadian Phytopathological Society, Minneapolis, MN, p. 101. [*Pleopeltis polypodioides*].
669. Sabatini, F. M., Burton, J. I., Scheller, R. M., Amatangelo, K. L. & Mladenoff, D. J. 2014. Functional diversity of ground-layer plant communities in old-growth and managed northern hardwood forests. *Applied Vegetation Science* 17(3): 398-407. [Wisconsin].
670. Sabatini, F. M., Jimenez-Alfaro, B., Burrascano, S. & Blasi, C. 2014. Drivers of herb-layer species diversity in two unmanaged temperate forests in northern Spain. *Community Ecology* 15(2): 147-157. [*Polystichum setiferum*, Spain].
671. Sadeghi, R., Zarkami, R. & Van Damme, P. 2014. Modelling habitat preference of an alien aquatic fern, *Azolla filiculoides* (Lam.), in Anzali wetland (Iran) using data-driven methods. *Ecological Modelling* 284: 1-9.
672. Saha, J., Chatterjee, C., Sengupta, A., Gupta, K. & Gupta, B. 2014. Genome-wide analysis and evolutionary study of sucrose non-fermenting 1-related protein kinase 2 (SnRK2) gene family members in *Arabidopsis* and *Oryza*. *Computational Biology and Chemistry* 49: 59-70. [*Selaginella*].
673. Saha, J., Gupta, K. & Gupta, B. 2014. A new insight into the phylogeny of vascular cryptogams with special reference to *Selaginella* and *Isoetes* inferred from nuclear ITS/5.8S rDNA sequences. *Journal of Plant Biochemistry and Biotechnology* 23(2): 167-174. [*Ceratopteris*, *Isoetes duriei*, *Isoetes subinermis*, *Psilotum*].
674. Saha, P., Saha, B. K. & Hazra, S. 2014. Recent changes in coastal configuration of Henry's Island. *Current Science* 107(4): 679-688. [*Pteris*].
675. Sakata, Y., Komatsu, K. & Takezawa, D. 2014. ABA as a universal plant hormone. In: Luttge, U., Beyschlag, W. & Cushman, J. (eds.). *Progress in Botany Vol. 75*. Springer-Verlag: Berlin, pp. 57-96. [abscisic acid].
676. Saldana, A., Parra, M. J., Flores-Bavestrello, A., Corcuera, L. J. & Bravo, L. A. 2014. Effects of forest successional status on microenvironmental conditions, diversity, and distribution of filmy fern species in a temperate rainforest. *Plant Species Biology* 29(3): 253-262. [Chile, chlorophyll fluorescence, desiccation tolerance, disturbance, Hymenophyllaceae].
677. Salgado, A. E. & Fraser-Jenkins, C. R. 2014. Proposal to reject the name *Trichomanes adiantoides* (Aspleniaceae). *Taxon* 63(4): 939-940.
678. Salino, A., Marques De Souza, M. G. & Arruda, A. J. 2014. *Thelypteris indusiata* (Thelypteridaceae), a new fern species from Amazonian Brazil. *Phytotaxa* 156(5): 279-284.
679. Salvamani, S., Gunasekaran, B., Shaharuddin, N. A., Ahmad, S. A. & Shukor, M. Y. 2014. Antiatherosclerotic effects of plant flavonoids. *Biomed Research International*: ID480258. [*Equisetum*, medicinal plants].
680. Samame, R. A. & Rychnovsky, S. D. 2014. Progress towards the total synthesis of the *Lycopodium* alkaloid (+)-fastigiatine. 248th National Meeting of the American Chemical Society (ACS), San Francisco, CA, p. 425.

681. Sanchez-Baracaldo, P. & Thomas, G. H. 2014. Adaptation and convergent evolution within the *Jamesonia-Eriosorus* complex in high-elevation biodiverse Andean hotspots. PLoS One 9(10): e110618.
682. Sanchez-Galvan, G. & Ramirez-Nunez, P. A. 2014. Cationic dye biosorption by *Salvinia minima*: equilibrium and kinetics. Water Air and Soil Pollution 225(7): 2008.
683. Sanger, J. C. & Kirkpatrick, J. B. 2014. Epiphyte assemblages respond to host life-form independently of variation in microclimate in lower montane cloud forest in Panama. Journal of Tropical Ecology 30: 625-628. [host trees, tree ferns].
684. Sanin, D. & Torrez, V. 2014. *Serpocaulon x manizalense*: a new hybrid between simple- and pinnate-leaved species of *Serpocaulon* (Polypodiaceae) from Colombia. Blumea 59(2): 123-130.
685. Sanin, D. 2014. *Serpocaulon obscurinervium* (Polypodiaceae), a new fern species from Colombia and Ecuador. Plant Ecology and Evolution 147(1): 127-133.
686. Santiago, L. S. & Dawson, T. E. 2014. Light use efficiency of California redwood forest understory plants along a moisture gradient. Oecologia 174(2): 351-363. [photobiology, *Polystichum munitum*].
687. Sanz-Azkue, I., Olariaga, I. & Felipe, A. 2014. *Vandenboschia speciosa* (Willd.) G. Kunkel in Jaizkibel: new populations with a high representation of their gametophytic phase and distribution model. In: Arizaga, J. (ed.). Revision of the natural heritage of the mountain of Jaizkibel (Gipuzkoa, Basque country). Munibe Monographs, Nature Series Vol. 2. Aranzadi Society of Sciences: Donostia, San Sebastian, pp. 111-117. [conservation, Spain, *Vandenboschia speciosa*; Spanish].
688. Sarangi, S. K., Maji, B., Singh, S., Sharma, D. K., Burman, D., Mandal, S., Ismail, A. M. & Haefele, S. M. 2014. Crop establishment and nutrient management for dry season (Boro) Rice in coastal areas. Agronomy Journal 106(6): 2013-2023. [*Azolla*].
689. Sareen, B., Bhattacharya, A., Sharma, M., Sood, A. & Ahuja, P. S. 2014. A simple technique for tracking individual spore and gametophyte development in *Adiantum lunulatum* Burm. f. using modified extra thin alginate film technique. Indian Journal of Experimental Biology 52(8): 820-824.
690. Sarkar, S., Saxena, R. K. & Sarkar, S. 2014. Palynology of the Eocene sediments of the West Garo Hills, Meghalaya, NE India: biostratigraphic and palaeoenvironmental implications. Journal of the Palaeontological Society of India 59(2): 199-212.
691. Scala, C., Ortiz, K., Catinaud, J. & Lemberger, K. 2014. Hematuria and urinary bladder lesions compatible with bracken fern (*Pteridium aquilinum*) intoxication in captive fallow deer (*Dama dama*). Journal of Zoo and Wildlife Medicine 45(2): 380-385.
692. Schachat, S. R., Labandeira, C. C., Gordon, J., Chaney, D., Levi, S., Halthore, M. N. & Alvarez, J. 2014. Plant-insect interactions from early Permian (Kungurian) Colwell Creek Pond, north-central Texas: the early spread of herbivory in riparian environments. International Journal of Plant Sciences 175(8): 855-890. [fossils, *Taeniopteris*].
693. Schuettpelez, E., Davila, A., Prado, J., Hirai, R. Y. & Yatskievych, G. 2014. Molecular phylogenetic and morphological affinities of *Adiantum senae* (Pteridaceae). Taxon 63(2): 258-264. [Brazil].
694. Schwartzburd, P. B. & Prado, J. 2014. Subspecies of *Hypolepis rugosula* (Dennstaedtiaceae; Pteridophyta) around the world: morphological and biogeographic perspectives. Acta Botanica Brasiliensis 28(2): 206-226.
695. Schwartzburd, P. B. 2014. The identity of *Polypodium gyroflexum* (= *Pleopeltis gyroflexa*, comb. nov. - Polypodiaceae). American Fern Journal 104(1): 16-21. [Amazonia, Brazil, Caatinga].
696. Schwartzburd, P. B., De Moraes, P. L. R. & Lopes-Mattos, K. L. B. 2014. Recognition of two morpho-types in eastern South American brackens (*Pteridium*-Dennstaedtiaceae-Polypodiopsida). Phytotaxa 170(2): 103-117. [*Pteridium arachnoideum*].

697. Schweitzer, D., Garris, J. R., McBride, A. E. & Smith, J. A. M. 2014. The current status of forest Macrolepidoptera in northern New Jersey: evidence for the decline of understory specialists. *Journal of Insect Conservation* 18(4): 561-571. [herbivory].
698. Sedlacek, O., Mikes, M., Albrecht, T., Reif, J. & Horak, D. 2014. Evidence for an edge effect on avian nest predation in fragmented afro-montane forests in the Bamenda-Banso Highlands, NW Cameroon. *Tropical Conservation Science* 7(4): 720-732. [birds, *Pteridium aquilinum*].
699. Selim, K. A., El-Beih, A. A., Abdel-Rahman, T. M. & El-Diwany, A. I. 2014. Biological evaluation of endophytic fungus, *Chaetomium globosum* JN711454, as potential candidate for improving drug discovery. *Cell Biochemistry and Biophysics* 68(1): 67-82. [*Adiantum capillus-veneris*].
700. Selmants, P. C., Litton, C. M., Giardina, C. P. & Asner, G. P. 2014. Ecosystem carbon storage does not vary with mean annual temperature in Hawaiian tropical montane wet forests. *Global Change Biology* 20(9): 2927-2937. [*Cibotium*].
701. Sen, K. & Mukhopadhyay, R. 2014. New report of vessel elements in *Aleuritopteris* and *Cheilanthes*. *Taiwania* 59(3): 231-239. [anatomy, conduits, water transport].
702. Sender, L. M., Villanueva-Amadoz, U., Diez, J. B., Fernandez-Baldor, F. T. & Ferrer, J. 2014. Earliest record of semi-aquatic fern leaves (Family Marsileaceae) in the Mesozoic of Eurasia (Lower Cretaceous, Spain). *Cretaceous Research* 51: 241-247. [fossils, *Regnellites nagashimae*].
703. Sener, M., Reddy, D. H. K. & Kayan, B. 2014. Biosorption properties of pretreated sporopollenin biomass for lead(II) and copper(II): Application of response surface methodology. *Ecological Engineering* 68: 200-208. [*Lycopodium clavatum*, spores].
704. Senterre, B., Rouhan, G., Fabre, I., Morel, C. & Christenhusz, M. J. M. 2014. Revision of the fern family Marattiaceae in the Seychelles with two new species and a discussion of the African *Ptisana fraxinea* complex. *Phytotaxa* 158(1): 57-75. [*Angiopteris chongsengiana*, *Angiopteris madagascariensis*, *Ptisana fraxinea*, *Ptisana laboudalloniana*].
705. Seo, H. S., Lee, H. J. & Lee, C. J. 2014. Pyunkang-hwan (Pyunkang-tang) regulates hypersecretion of pulmonary mucin from rats with sulfur dioxide-induced bronchitis and production and gene expression of MUC5AC mucin from human airway epithelial cells. *Natural Product Sciences* 20(3): 196-201. [medicinal plants, *Selaginella tamariscina*].
706. Sessa, E. B. & Givnish, T. J. 2014. Leaf form and photosynthetic physiology of *Dryopteris* species distributed along light gradients in eastern North America. *Functional Ecology* 28: 108-123.
707. Sessa, E. B., Banks, J. A., Barker, M. S., Der, J. P., Duffy, A. M., Graham, S. W., Hasebe, M., Langdale, J. A., Li, F. W., Marchant, D. B., Pryer, K. M., Rothfels, C. J., Roux, S. J., Salmi, M. L., Sigel, E. M., Soltis, D. E., Stevenson, D. W. & Wolf, P. G. 2014. Between two fern genomes. *GigaScience* 3: 15. [*Azolla*, *Ceratopteris*, genomics].
708. Shaffer-Fehre, M. 2014. *Nothoperanema* (Dryopteridaceae): recognition of a novel diagnostic feature. *Kew Bulletin* 69(4): 9540.
709. Shaheen, H., Qureshi, R., Akram, A., Gulfraz, M. & Potter, D. 2014. A preliminary floristic checklist of Thal desert Punjab, Pakistan. *Pakistan Journal of Botany* 46(1): 13-18.
710. Shalimov, A. P. & Gureyeva, I. I. 2014. The type specimen of *Polypodium mairei* Brause (Polypodiaceae) in the P.N. Krylov Herbarium (TK). *Systematic notes on the materials of P.N. Krylov Herbarium of Tomsk State University* 109: 55-59. [Russia; Russian, English summary].
711. Sharma, A. 2014. Cytology of three *Asplenium* species from Uttarakhand. *Indian Fern Journal* 31(1-2): 136-138. [chromosomes, polyploidy].
712. Sharma, A. 2014. Ferns of the Aabshar forest area (Kandaghat, Dist. Solan), Himachal Pradesh, West Himalaya. *Indian Fern Journal* 31(1-2): 143-151.
713. Sharma, A., Slathia, S., Choudhary, S. P., Sharma, Y. P. & Langer, A. 2014. Role of 24-Epibrassinolide, putrescine and spermine in salinity stressed *Adiantum capillus-veneris* leaves.

- Proceedings of the Indian National Science Academy Part B Biological Sciences 84(1): 183-192.
714. Sharma, B. D., Bohra, D. R., Suthar, O. P. & Harsh, R. 2014. Reporting *in situ* apogamous abortive embryos within megaspores of some species of *Isoetes* from Rajasthan. Indian Fern Journal 31(1-2): 10-16.
715. Sharma, B. D., Bohra, D. R., Suthar, O. P., Harsh, R. & Purohit, S. N. 2014. Abortive embryonic structures within megaspores of *Isoetes*. L (Lycopsida – Pteridophyta). Geophytology 44(1): 87-90.
716. Sharpe, J. M. & Shiels, A. B. 2014. Understory fern community structure, growth and spore production responses to a large-scale hurricane experiment in a Puerto Rico rainforest. Forest Ecology and Management 332: 75-86. [*Cyathea borinquena*, disturbance, *Nephrolepis brownii*, *Thelypteris deltoidea*].
717. Sheded, M. G., Hamed, S. T. & Badry, M. O. 2014. Vegetation analysis of six riverian islands in hyper-arid environments at Qena Governorate (Upper Egypt). Acta Botanica Hungarica 56(42097): 409-431.
718. Shen, H., He, Z., Yan, H., Xing, Z., Chen, Y., Xu, W., Xu, W. & Ma, M. 2014. The fronds tonoplast quantitative proteomic analysis in arsenic hyperaccumulator *Pteris vittata* L. Journal of Proteomics 105: 46-57.
719. Shen, Z., Sun, Q. & Liu, M. 2014. Soil carbon and nitrogen dynamics induced by tissue-litter decomposition of copper mine tailings from the gramineae and cryptogram communities, China. Analytical Letters 47(5): 885-899. [*Hippochaete ramosissimum*, isotopes].
720. Sheng, J. & Sun, Y. 2014. Antioxidant properties of different molecular weight polysaccharides from *Athyrium multidentatum* (Doll.) Ching. Carbohydrate Polymers 108: 41-45. [medicinal plants].
721. Sher, Z., Hussain, F. & Badshah, L. 2014. Biodiversity and ecological characterization of the Flora of Gadoon Rangeland, District Swabi, Khyber Pukhtunkhwa, Pakistan. Iranian Journal of Botany 20(1): 96-108.
722. Sherwood, A. R., Conklin, K. Y. & Liddy, Z. J. 2014. What's in the air? Preliminary analyses of Hawaiian airborne algae and land plant spores reveal a diverse and abundant flora. Phycologia 53(6): 579-582. [aerobiology, spore dispersal].
723. Shi, X. L., Li, C. W., Wan, Q. Z., Li, A. Q., Wang, H. & Liu, K. 2014. *Drynaria* total flavonoids decrease cathepsin K expression in ovariectomized rats. Genetics and Molecular Research 13(2): 4311-4319. [medicinal plants].
724. Shiels, A. B., Gonzalez, G. & Willig, M. R. 2014. Responses to canopy loss and debris deposition in a tropical forest ecosystem: synthesis from an experimental manipulation simulating effects of hurricane disturbance. Forest Ecology and Management 332: 124-133.
725. Shil, S., Choudhury, M. D. & Das, S. 2014. Indigenous knowledge of medicinal plants used by the Reang tribe of Tripura state of India. Journal of Ethnopharmacology 152(1): 135-141. [*Cyathea*, medicinal plants, tree ferns].
726. Shimane, M., Ueno, Y., Morisaki, K., Oogami, S., Natsume, M., Hayashi, K. I., Nozaki, H. & Kawaide, H. 2014. Molecular evolution of the substrate specificity of ent-kaurene synthases to adapt to gibberellin biosynthesis in land plants. Biochemical Journal 462: 539-546. [*Selaginella moellendorffii*].
727. Shiraya, T., Kaneko, K. & Mitsui, T. 2014. Quantitative proteomic analysis of intact plastids. In: Jorin-Novo, J. V., Komatsu, S., Weckwerth, W. & Wienkoop, S. (eds.). Plant proteomics: methods and protocols, 2nd ed. Humana Press: Totowa, NJ, pp. 469-480. [new methods, *Osmunda*].
728. Shrestha, N. & Zhang, X. C. 2014. Is *Huperzia hamiltonii* (Spreng.) Trevis. a Himalayan endemic? An empirical evaluation using species distribution modeling. Indian Fern Journal 31(1-2): 154-161.

729. Shrestha, N., Xing, F. W., Qi, X. P., Yan, Y. H. & Zhang, X. C. 2014. *Huperzia nanlingensis* (Lycopodiaceae), a new terrestrial firmoss from southern China. *Phytotaxa* 173(1): 73-79.
730. Shu, S., Zhao, X., Wang, W., Zhang, G., Cosoveanu, A., Ahn, Y. & Wang, M. 2014. Identification of a novel endophytic fungus from *Huperzia serrata* which produces huperzine A. *World Journal of Microbiology & Biotechnology* 30(12): 3101-3109.
731. Sigel, E. M., Johnson, A. K. & Haufler, C. H. 2014. A first record of *Polypodium saximontanum* for the Flora of Montana. *American Fern Journal* 104(1): 22-23.
732. Sigel, E. M., Windham, M. D. & Pryer, K. M. 2014. Evidence for reciprocal origins in *Polypodium hesperium* (Polypodiaceae): a fern model system for investigating how multiple origins shape allopolyploid genomes. *American Journal of Botany* 101(9): 1476-1485. [fossils, hybrids, Pleistocene, polyploidy].
733. Sigel, E. M., Windham, M. D., Haufler, C. H. & Pryer, K. M. 2014. Phylogeny, divergence time estimates, and phylogeography of the diploid species of the *Polypodium vulgare* complex (Polypodiaceae). *Systematic Botany* 39(4): 1042-1055. [evolution].
734. Sigel, E. M., Windham, M. D., Smith, A. R., Dyer, R. J. & Pryer, K. M. 2014. Rediscovery of *Polypodium calirhiza* (Polypodiaceae) in Mexico. *Brittonia* 66(3): 278-286. [Oaxaca].
735. Silva Matos, D. M., Xavier, R. O., Tiberio, F. C. S. & Marrs, R. H. 2014. A comparative study of resource allocation in *Pteridium* in different Brazilian ecosystems and its relationship with European studies. *Brazilian Journal of Biology* 74(1): 156-165. [invasive species, *Pteridium aquilinum*, *Pteridium esculentum*].
736. Simmons, M. P. & Barrie, F. R. 2014. *Haydenoxylon*, a replacement name for *Haydenia* (Celastraceae). *Novon* 23(2): 224-225. [Cyatheaceae, homonyms].
737. Simpson, A., Turner, I., Brantley, E. & Helms, B. 2014. Bank erosion hazard index as an indicator of near-bank aquatic habitat and community structure in a southeastern Piedmont stream. *Ecological Indicators* 43: 19-28. [riparian vegetation, *Woodwardia*].
738. Sineshchekov, V., Koppel, L., Okamoto, H. & Wada, M. 2014. Fern *Adiantum capillus-veneris* phytochrome 1 comprises two native photochemical types similar to seed plant phytochrome A. *Journal of Photochemistry and Photobiology B Biology* 130: 20-29.
739. Singh, H., Husain, T., Agnihotri, P., Pande, P. C. & Khatoon, S. 2014. An ethnobotanical study of medicinal plants used in sacred groves of Kumaon Himalaya, Uttarakhand, India. *Journal of Ethnopharmacology* 154(1): 98-108.
740. Singh, J., Kumar, M. & Vyas, A. 2014. Healthy response from chromium survived pteridophytic plant-*Ampelopteris prolifera* with the interaction of mycorrhizal fungus-*Glomus deserticola*. *International Journal of Phytoremediation* 16(5): 524-535.
741. Singh, S. K., Rajkumar, S. D., Srivastava, S. K. & Gautam, R. P. 2014. Discovery of diploid cytotype of *Helminthostachys zeylanica* (L.) Hook. (Helminthostachyaceae - Pteridophyta). *Indian Fern Journal* 31(1-2): 124-131.
742. Singh, S. K., Yadav, B. B., Srivastava, M., Shukla, P. K. & Srivastava, G. K. 2014. Comparative morphological studies on spikes of Indian *Selaginella* Beauv. *Plant Systematics and Evolution* 300(5): 1235-1245.
743. Singh, S. K., Yadav, B. B., Srivastava, M., Shukla, P. K. & Srivastava, G. K. 2014. Micro-morphology of *Selaginella* megaspores from India. *Grana* 53(3): 197-220.
744. Sini, S., Smitha, R. B. & Madhusoodanan, P. V. 2014. Induction of sporocarp development in the mosquito fern *Azolla rubra* R. Br. *Annals of Plant Sciences* 4(2): 994-1002.
745. Sipaoba-Tavares, L. H. & Dias, S. G. 2014. Water quality and communities associated with macrophytes in a shallow water-supply reservoir on an aquaculture farm. *Brazilian Journal of Biology* 74(2): 420-428. [*Salvinia auriculata*].
746. Six, L. J., Bakker, J. D. & Bilby, R. E. 2014. Vegetation dynamics in a novel ecosystem: agroforestry effects on grassland vegetation in Uruguay. *Ecosphere* 5(6): 74.

747. Sizemore, N. & Rychnovsky, S. D. 2014. Studies toward the synthesis of pthaline *Lycopodium* alkaloids: a Morita-Baylis-Hillman/intramolecular Diels-Alder approach. *Organic Letters* 16(3): 688-691. [medicinal plants, *Palhinhaea cernua*].
748. Slavich, E., Warton, D. I., Ashcroft, M. B., Gollan, J. R. & Ramp, D. 2014. Topoclimate versus macroclimate: how does climate mapping methodology affect species distribution models and climate change projections? *Diversity and Distributions* 20(8): 952-963. [Australia, biodiversity, biogeography, New South Wales].
749. Sleep, A. 2014. Hybridization in *Polystichum* (Dryopteridaceae: Pteridophyta). *Fern Gazette* 19: 319-341.
750. Smeriglio, A., Tomaino, A. & Trombetta, D. 2014. Herbal products in pregnancy: experimental studies and clinical reports. *Phytotherapy Research* 28(8): 1107-1116. [*Equisetum arvense*, medicinal plants].
751. Smetzer, J. R., King, D. I. & Schlossberg, S. 2014. Management regime influences shrubland birds and habitat conditions in the northern Appalachians, USA. *Journal of Wildlife Management* 78(2): 314-324.
752. Smith, A. R. & Tejero-Diez, J. D. 2014. *Pleopeltis* (Polypodiaceae), a redefinition of the genus and nomenclatural novelties. *Botanical Sciences* 92(1): 43-58. [new combinations, nomenclature, *Pleopeltis*, taxonomy].
753. Smith, M. C., Lake, E. C., Pratt, P. D., Boughton, A. J. & Pemberton, R. W. 2014. Current status of the biological control agent *Neomusotima conspurcatalis* (Lepidoptera: Crambidae) on *Lygodium microphyllum* (Polypodiales: Lygodiaceae) in Florida. *Florida Entomologist* 97(2): 817-820. [plant-insect interactions].
754. Smith, S. & Medeiros, K. 2014. Manipulation of water levels to facilitate vegetation change in a coastal lagoon undergoing partial tidal restoration (Cape Cod, Massachusetts) (vol 29, pg 93, 2013). *Journal of Coastal Research* 30(1): 214. [*Thelypteris palustris*, wetlands].
755. Song, W., Qin, Y., Zhu, Y., Yin, G., Wu, N., Li, Y. & Hu, Y. 2014. Delineation of plant caleosin residues critical for functional divergence, positive selection and coevolution. *BMC Evolutionary Biology* 14: 124. [*Selaginella moellendorffii*].
756. Song, Y., Zhang, J. & Zhang, H. 2014. Analysis of cpDNA trnL-trnF sequences of *Huperzia serrata* var. *longipetiolata* of different geographical populations. *Chinese Journal of Applied and Environmental Biology* 20(3): 443-448. [Chinese].
757. Soti, P. G., Jayachandran, K., Purcell, M., Volin, J. C. & Kitajima, K. 2014. Mycorrhizal symbiosis and *Lygodium microphyllum* invasion in South Florida - a biogeographic comparison. *Symbiosis* 62(2): 81-90.
758. Sow, E. H., Fofana, C. A. K. & Aw, C. 2014. Diatoms of Dindifelou fall (upper Basin of the Gambia River, Senegal): floristic inventory. *African Journal of Ecology* 52(3): 352-362. [epiphyton].
759. Spieles, D. J. 2014. Early successional vegetation assembly in a spatially variable hydrologic regime. *Journal of Freshwater Ecology* 29(1): 141-152. [*Marsilea quadrifolia*].
760. Sreenivas, V. K. & Madhusoodanan, P. V. 2014. *Pteris geminata* Wall. ex J. Agardh (Pteridaceae): a critically endangered pteridophyte in India. *Journal of Threatened Taxa* 6(6): 5875-5877.
761. Srivastava, R. & Uniyal, P. L. 2014. *In vitro* developmental studies of *Cheilanthes farinosa* (Forssk.) Kaulf. (Pteridaceae). *Telopea* 17: 87-91. [tissue culture].
762. Srivastava, R., Uniyal, P. L. & Kholia, B. S. 2014. Studies on reproductive biology of *Microsorium alternifolium* Copel. *The International Journal of Plant Reproductive Biology* 6(1): 15-19.
763. Stalter, R. & Lamont, E. E. 2014. Vascular flora of Brookhaven National Laboratory, Long Island, New York. *Northeastern Naturalist* 21(2): 285-302. [*Equisetum arvense*, *Lycopodium obscurum*].

764. Stromstedt, A. A., Felth, J. & Bohlin, L. 2014. Bioassays in natural product research - strategies and methods in the search for anti-inflammatory and antimicrobial activity. *Phytochemical Analysis* 25(1): 13-28. [*Polypodium decumanum*].
765. Strullu-Derrien, C., Kenrick, P., Pressel, S., Duckett, J. G., Rioult, J. P. & Strullu, D. G. 2014. Fungal associations in *Horneophyton ligneri* from the Rhynie Chert (c. 407 million year old) closely resemble those in extant lower land plants: novel insights into ancestral plant-fungus symbioses. *New Phytologist* 203(3): 964-979. [Devonian, endophytes, fossils, Scotland].
766. Strullu-Derrien, C., Kenrick, P., Tafforeau, P., Cochard, H., Bonnemain, J. L., Le Herisse, A., Lardeux, H. & Badel, E. 2014. The earliest wood and its hydraulic properties documented in c. 407-million-year-old fossils using synchrotron microtomography. *Botanical Journal of the Linnean Society* 175(3): 423-437. [anatomy, *Armoricaphyton*, Devonian, fossils, France, xylem].
767. Su, J., Chen, Y. J. & Chang, Y. C. 2014. A study of a pilot-scale biogas bio-filter system for utilization on pig farms. *Journal of Agricultural Science* 152(2): 217-224. [industrial ferns, *Sphaeropteris lepifera*, Taiwan, tree ferns].
768. Su, X. M., Jiang, L. Y. & Qiao, G. X. 2014. The fern-feeder aphids (Hemiptera: Aphididae) from China: a generic account, descriptions of one new genus, one new species, one new subspecies, and keys. *Journal of Insect Science (Tucson)* 14: 23. [herbivory].
769. Sugawara, K., Kobayashi, A., Endo, G., Hatayama, M. & Inoue, C. 2014. Evaluation of the effectiveness and salt stress of *Pteris vittata* in the remediation of arsenic contamination caused by tsunami sediments. *Journal of Environmental Science and Health Part A Toxic-Hazardous Substances & Environmental Engineering* 49(14): 1631-1638.
770. Sugiura, N. 2014. Pollination and floral ecology of *Arundina graminifolia* (Orchidaceae) at the northern border of the species' natural distribution. *Journal of Plant Research* 127(1): 131-139. [competition, *Dicranopteris linearis*, Japan].
771. Sui, X. & Gao, C. 2014. Huperzine A ameliorates damage induced by acute myocardial infarction in rats through antioxidant, anti-apoptotic and anti-inflammatory mechanisms. *International Journal of Molecular Medicine* 33(1): 227-233. [*Huperzia serrata*, medicinal plants].
772. Sun, C., Li, T., Na, Y., Wu, W., Li, Y., Wang, L. & Zhang, L. 2014. *Flabellariopteris*, a new aquatic fern leaf from the late Triassic of western Liaoning, China. *Chinese Science Bulletin* 59(20): 2410-2418.
773. Sun, L. L., Li, Y., Li, S. S., Wu, X. J., Hu, B. Z. & Chang, Y. 2014. Identification and characterisation of DfCHS, a chalcone synthase gene regulated by temperature and ultraviolet in *Dryopteris fragrans*. *Cellular and Molecular Biology* 60(6): 1-7.
774. Sun, L., Liao, X., Yan, X., Zhu, G. & Ma, D. 2014. Evaluation of heavy metal and polycyclic aromatic hydrocarbons accumulation in plants from typical industrial sites: potential candidate in phytoremediation for co-contamination. *Environmental Science and Pollution Research International* 21(21): 12494-12504. [*Pteris cretica*, *Pteris vittata*].
775. Sun, R., Deng, W. Q., Yuan, X. Z., Liu, H. & Zhang, Y. W. 2014. Riparian vegetation after dam construction on mountain rivers in China. *Ecohydrology* 7(4): 1187-1195. [*Azolla imbricata*].
776. Sundberg, S. & Aronsson, M. 2014. How is it possible for the Swedish vascular plants in the EU's art- and habitat directive? *Svensk Botanisk Tidskrift* 108(42097): 168-187. [conservation, *Lycopodium*, Sweden; Swedish].
777. Sundberg, S. 2014. Boreal plant decline in southern Sweden during the twentieth century. *New Journal of Botany* 4(2): 76-84. [biodiversity, *Diphasiastrum complanatum*, land use changes, Sweden].
778. Sunderlin, D., Trop, J. M., Idleman, B. D., Brannick, A., White, J. G. & Grande, L. 2014. Paleoenvironment and paleoecology of a late Paleocene high-latitude terrestrial succession, Arkose Ridge Formation at Box Canyon, southern Talkeetna Mountains, Alaska. *Palaeogeography Palaeoclimatology Palaeoecology* 401: 57-80. [fossils].

779. Sundue, M. A. & Rothfels, C. J. 2014. Stasis and convergence characterize morphological evolution in eupolypod II ferns. *Annals of Botany* 113(1): 35-54.
780. Sundue, M. A. 2014. *Mycopteris*, a new neotropical genus of grammitid ferns (Polypodiaceae). *Brittonia* 66(2): 174-185. [ascmycetes, *Ascospermum*].
781. Sundue, M. A., Parris, B. S., Ranker, T. A., Smith, A. R., Fujimoto, E. L., Zamora-Crosby, D., Morden, C. W., Morden, C. W., Chen, C. W., Rouhan, G., Hirai, R. Y. & Prado, J. 2014. Global phylogeny and biogeography of grammitid ferns (Polypodiaceae). *Molecular Phylogenetics and Evolution* 81: 195-206.
782. Surina, B. & Martincic, A. 2014. Ecology and niche assembly of *Campanula tommasiniana*, a narrow endemic of Mt Ucka (Liburnian karst, north-western Adriatic). *Acta Botanica Croatica* 73(1): 221-254.
783. Svensson, A. & Wigermo, C. 2014. Rutlasbraken in Scania 2009. *Botaniska Notiser* 147(3): 163-164. [*Botrychium lunaria*, *Botrychium matricariifolium*, Sweden; Swedish].
784. Swierkosz, K., Reczynska, K. & Pech, P. 2014. Is the plant species composition of Silver fir mixed forest in the Polish highlands affected by air pollution and climate warming? *Phytocoenologia* 44(42036): 45-53. [*Athyrium filix-femina*, bioindicators].
785. Sylvester, S. P., Sylvester, M. D. P. V. & Kessler, M. 2014. The world's highest vascular epiphytes found in the Peruvian Andes. *Alpine Botany* 124(2): 179-185. [Andes, biogeography, *Melpomene peruviana*, Peru, *Polypodium*].
786. Sze, H., Geisler, M. & Murphy, A. S. 2014. Linking the evolution of plant transporters to their functions. *Frontiers in Plant Science* 4: 547. [genetics, *Selaginella moellendorffii*].
787. Takahasi, A. & Meirelles, S. T. 2014. Ecology of herbaceous vegetation on Bancadas Lateriticas (Cangas) in Corumba, Mato Grosso do Sul State, Brazil. *Hoehnea* 41(4): 515-528. [*Selaginella sellowii*; Portuguese].
788. Takemoto, S., Nakamura, H. & Tabata, M. 2014. The importance of wild plant species as potential inoculum reservoirs of white root rot disease. *Forest Pathology* 44(1): 75-81. [ascmycetes, fungi, Japan, pathogens, *Pteridium aquilinum*, *Rosellinia*].
789. Tanaka, J., Yano, K., Aya, K., Hirano, K., Takehara, S., Koketsu, E., Ordonio, R. L., Ordonio, R. L., Nakajima, M., Ueguchi-Tanaka, M. & Matsuoka, M. 2014. Antheridiogen determines sex in ferns via a spatiotemporally split gibberellin synthesis pathway. *Science* 346 (6208): 469-473. [reproductive biology].
790. Tanaka, T. & Sato, T. 2014. Species richness of seed plants and ferns along a temperate elevational gradient in central Japan. *Plant Ecology* 215(11): 1299-1311. [biodiversity].
791. Tanaka, T., Isaka, Y., Hattori, M. & Sato, T. 2014. Ecological and phylogenetic approaches for diversification of apogamous ferns in Japan. *Plant Systematics and Evolution* 300(9): 2041-2050. [biogeography, evolution, reproductive biology].
792. Tegelberg, R., Mononen, T. & Saarenmaa, H. 2014. High-performance digitization of natural history collections: automated imaging lines for herbarium and insect specimens. *Taxon* 63(6): 1307-1313.
793. Tessier, J. T. 2014. Reduced winter snowfall damages the structure and function of wintergreen ferns. *American Journal of Botany* 101(6): 965-969. [*Dennstaedtia*, *Dryopteris*, *Polystichum*].
794. Testo, W. & Sundue, M. 2014. Primary hemiepiphytism in *Colysis ampla* (Polypodiaceae) provides new insight into the evolution of growth habit in ferns. *International Journal of Plant Sciences* 175(5): 526-536. [*Lecanopteris*].
795. Testo, W. L., Grasso, M. S. & Barrington, D. S. 2014. Beyond antheridiogens: chemical competition between gametophytes of *Polypodium appalachianum* and *Polypodium virginianum*. *Journal of the Torrey Botanical Society* 141(4): 302-312.
796. Thiemann, R. 2014. Artificial hybrids of *Asplenium*. *Pteridologist* 6(1): 42-45.
797. Thomaes, A., De Keersmaecker, L., Verschelde, P., Vandekerckhove, K. & Verheyen, K. 2014. Tree species determine the colonisation success of forest herbs in post-agricultural forests:

- results from a 9 yr introduction experiment. *Biological Conservation* 169: 238-247. [Belgium, *Pteridium aquilinum*, reintroduction, restoration, understory].
798. Thomas, B. A. 2014. *In situ* stems: preservation states and growth habits of the Pennsylvanian (Carboniferous) Calamitales based upon new studies of Calamites Sternberg, 1820 in the Duckmantian at Brymbo, North Wales, UK. *Palaeontology* 57(1): 21-36.
799. Thorroad, S., Worawittayanont, P., Khunnawutmanotham, N., Chimnoi, N., Jumruksa, A., Ruchirawat, S. & Thasana, N. 2014. Three new *Lycopodium* alkaloids from *Huperzia carinata* and *Huperzia squarrosa*. *Tetrahedron* 70(43): 8017-8022.
800. Thrippleton, T., Dolos, K., Perry, G. L. W., Groeneveld, J. & Reineking, B. 2014. Simulating long-term vegetation dynamics using a forest landscape model: the post-Taupo succession on Mt Hauhungatahi, North Island, New Zealand. *New Zealand Journal of Ecology* 38(1): 26. [*Cyathea smithii*, tree ferns].
801. Tian, N., Wang, Y. D., Philippe, M., Zhang, W., Jiang, Z. K. & Li, L. Q. 2014. A specialized new species of *Ashicaulis* (Osmundaceae, Filicales) from the Jurassic of Liaoning, NE China. *Journal of Plant Research* 127(2): 209-219. [fossils, Jurassic].
802. Timm, N. 2014. Cave ferns of Madeira. *Pteridologist* 6(1): 33.
803. Timm, N. 2014. *Davallia* as traditional decorations. *Pteridologist* 6(1): 20-21.
804. Tisarum, R., Lessl, J. T., Dong, X., de Oliveira, L. M., Rathinasabapathi, B. & Ma, L. Q. 2014. Antimony uptake, efflux and speciation in arsenic hyperaccumulator *Pteris vittata*. *Environmental Pollution* 186: 110-114. [phytoremediation].
805. Tomei, E. J. & Wolniak, S. M. 2014. Kinesin-2 and kinesin-9 are required for ciliogenesis during rapid development. Joint Annual Meeting of the American-Society-for-Cell-Biology (ASCB) / International Federation for Cell Biology (IFCB), Philadelphia, PA, p. 153. [*Marsilea vestita*].
806. Tomescu, A. M. F., Wyatt, S. W., Hasebe, M. & Rothwell, G. W. 2014. Early evolution of the vascular plant body plan – the missing mechanisms. *Current Opinion in Plant Biology* 17: 126-136.
807. Tomsik, P. 2014. Ferns and lycopods - a potential treasury of anticancer agents but also a carcinogenic hazard. *Phytotherapy Research* 28(6): 798-810. [medicinal plants, *Pteridium*, toxic plants].
808. Tonkov, S. & Possnert, G. 2014. 25. Mire Gyola, Belasitsa Mountain (south-western Bulgaria). *Grana* 53(4): 312-314. [*Dryopteris filix-mas*, *Pteridium aquilinum*].
809. Toome, M., Ohm, R. A., Riley, R. W., James, T. Y., Lazarus, K. L., Henrissat, B., Albu, S., Albu, S., Chow, J., Clum, A., Heller, G., Lipzen, A., Nolan, M., Sandor, L., Zvenigorodsky, N., Grigoriev, I. V., Spatafora, J. W. & Aime, M. C. 2014. Genome sequencing provides insight into the reproductive biology, nutritional mode and ploidy of the fern pathogen *Mixia osmundae*. *New Phytologist* 202(2): 554-564. [basidiomycetes, fungi, *Osmunda*].
810. Torreias, S. R. S., Ferreira-Keppler, R. L. & Ronderos, M. M. 2014. Biting midges (Ceratopogonidae: Diptera) present in aquatic macrophytes from wetlands of Marchantaria Island, Iranduba, Central Amazonia, Brazil. *Journal of Natural History* 48(42036): 109-122. [fern-animal interactions, *Salvinia auriculata*].
811. Torres, G. R., Perez, C. F., Lupo, L. C. & Martinez, O. G. 2014. Preliminary record of annual atmospheric deposit of fern spores from the Yungas over an environmental gradient in the middle basin of Rio Perico (Jujuy, Argentina). *Boletín de la Sociedad Argentina de Botánica* 49(4): 503-512. [Spanish].
812. Troia, A. & Greuter, W. 2014. A critical conspectus of Italian *Isoetes* (Isoetaceae). *Plant Biosystems* 148(1): 13-20.
813. Troia, A., Raimondo, F. M. & Campisi, P. 2014. The *Isoetes longissima* complex (Isoetaceae) in Italy: observations on the morphology of spores and leaves, and taxonomic implications. *Phytotaxa* 174(3): 149-156. [*Isoetes dubia*, *Isoetes longissima*, *Isoetes tiguliana*, *Isoetes velata*].

814. Tuomisto, H., Zuquim, G. & Cardenas, G. 2014. Species richness and diversity along edaphic and climatic gradients in Amazonia. *Ecography* 37: 1034-1046.
815. Tyagi, K., Ghosh, B. & Kumar, V. 2014. The genus *Ctenothrips* from India (Thysanoptera: Thripidae) with description of one new species and one new record. *Zootaxa* 3821(2): 273-279. [herbivory, plant-insect interactions].
816. Urgenson, L. S., Reichard, S. H. & Halpern, C. B. 2014. Habitat factors and species' traits influence riparian community recovery following removal of Bohemian knotweed (*Polygonum x bohemicum*). *Northwest Science* 88(3): 246-260. [*Polystichum munitum*, restoration].
817. Valdespino, I. A., Lopez, C. & De Araujo Goes-Neto, L. A. 2014. Additions to Cuban *Selaginella* (Selaginellaceae). *Phytotaxa* 184(4): 235-244. [*Selaginella myriostachya*, *Selaginella nanophylla*, *Selaginella phiaria*].
818. Valledor, L., Menendez, V., Jesus Canal, M., Revilla, A. & Fernandez, H. 2014. Proteomic approaches to sexual development mediated by antheridiogen in the fern *Blechnum spicant* L. *Proteomics* 14: 2061-2071.
819. Vallejo, M., Loyola, S., Contreras, D., Ugarte, G., Cifuentes, D., Ortega, G., Cabrera, J. L., Cabrera, J. L., Tonn, C., Carreno, M., Delgado, R., Morales, B. & Agnese, M. 2014. A new semisynthetic derivative of sauroine induces LTP in hippocampal slices and improves learning performance in the morris water maze. *Journal of Neurochemistry* 129(5): 864-876. [*Huperzia saururus*, medicinal plants].
820. Valmonte, G. R., Arthur, K., Higgins, C. M. & MacDiarmid, R. M. 2014. Calcium-dependent protein kinases in plants: evolution, expression and function. *Plant and Cell Physiology* 55(3): 551-569. [*Selaginella moellendorffii*].
821. van Konijnenburg-van Cittert, J. H. A., Kustatscher, E., Bauer, K., Pott, C., Schmeissner, S., Dütsch, G. & Krings, M. 2014. A *Selaginellites* from the Rhaetian of Wüstenwelsberg (Upper Franconia, Germany). *Neues Jahrbuch für Geologie und Palaeontologie - Abhandlungen* 272(2): 115-127. [fossils]
822. Van Zandt, M., Delparte, D., Hart, P., Duvall, F. & Penniman, J. 2014. Nesting characteristics and habitat use of the endangered Hawaiian petrel (*Pterodroma sandwichensis*) on the island of Lana'i. *Waterbirds* 37(1): 43-51. [birds, *Dicranopteris linearis*, *Diplopterygium pinnatum*].
823. Vaness, B. M., Wilson, S. D. & MacDougall, A. S. 2014. Decreased root heterogeneity and increased root length following grassland invasion. *Functional Ecology* 28(5): 1266-1273. [invasive species, *Selaginella densa*].
824. Vardhini, B. V. 2014. Brassinosteroids' role for amino acids, peptides and amines modulation in stressed plants - a review. In: Anjum, N. A., Gill, S. S. & Gill, R. (eds.). *Plant adaptation to environmental change: significance of amino acids and their derivatives*. CABI Publishing: Wallingford, Oxon, UK, pp. 300-316. [*Equisetum arvense*].
825. Varma, P. K. V. & Madhusoodanan, P. V. 2014. Molecular systematics of the filmy ferns (Hymenophyllaceae) of South India. *Indian Fern Journal* 31(1-2): 69-89.
826. Varma, P. K. V., Mohanan, K. V. & Madhusoodanan, P. V. 2014. Phenetics of South Indian trichomanoid ferns. *Indian Fern Journal* 31(1-2): 53-68.
827. Vega, J. A., Fernandez, C., Fonturbel, T., Gonzalez-Prieto, S. & Jimenez, E. 2014. Testing the effects of straw mulching and herb seeding on soil erosion after fire in a gorse shrubland. *Geoderma* 223: 79-87. [fire ecology, *Pteridium aquilinum*, restoration].
828. Velayos, M., Barbera, P., Cabezas, F. J., De La Estrella, M., Fero, M. & Aedo, C. 2014. Checklist of the vascular plants of Annobon (Equatorial Guinea). *Phytotaxa* 171(1): 1-78. [Annobon Island].
829. Velazquez-Montes, E. 2014. The family Isoetaceae in Guerrero, Mexico: a new record. *Botanical Sciences* 92(2): 183-188. [*Isoetes pallida*].
830. Vera, E. I. & Passalia, M. G. 2014. *Gleicheniaceaphyllum san-martini*, a new name for *Gleichenites san-martini* Halle emend. Herbst 1962. *Ameghiniana* 51(1): 79-80. [Cretaceous, fossils].

831. Verma, D., Singh, S. K., Kholia, B. S., Sinha, B. K. & Pandey, S. 2014. Pteridophytes of Khawnglung Wildlife Sanctuary, Mizoram, India. *Indian Journal of Forestry* 37(2): 219-234.
832. Vivic, D. D., Stoiljkovic, M. M., Bojat, N. C., Sabovljevic, M. S. & Stevanovic, B. M. 2014. Physiological tolerance mechanisms of serpentine tolerant plants from Serbia. *Revue d'Ecologie* 69(42097): 185-195. [*Cheilanthes marantae*].
833. Vieira Tavares, T. M., Rohn, R., Roessler, R. & Noll, R. 2014. Petrified Marattiales pinnae from the lower Permian of North-Western Gondwana (Parnaiba Basin, Brazil). *Review of Palaeobotany & Palynology* 201: 12-28. [*Buritiranopteris costata*, fossils].
834. Vieira, C., Aguiar, F. C. & Ferreira, M. T. 2014. The relevance of bryophytes in the macrophyte-based reference conditions in Portuguese rivers. *Hydrobiologia* 737(1): 245-264. [*Athyrium filix-femina*, *Osmunda regalis*].
835. Vila-Ruiz, C. P., Melendez-Ackerman, E., Santiago-Bartolomei, R., Garcia-Montiel, D., Lastra, L., Figuerola, C. E. & Fumero-Caban, J. 2014. Plant species richness and abundance in residential yards across a tropical watershed: implications for urban sustainability. *Ecology and Society* 19(3): 22. [urban ecology].
836. Vincent, M. A. & Hickey, R. J. 2014. Systematics, taxonomy, and the new flora of the Bahamian archipelago. *Botanical Review* 80: 245-261.
837. Vogelmann, T. C. & Gorton, H. L. 2014. Leaf: light capture in the photosynthetic organ. In: Hohmann-Marriott, M. F. (ed.). *Structural basis of biological energy generation*. Springer-Verlag: Dordrecht, Netherlands, pp. 363-377. [*Selaginella*].
838. Von Raab-Straube, E. & Raus, T. 2014. Euro plus Med-Checklist Notulae, 3. Willdenowia 44(2): 287-299. [Europe, floristics, *Isoetes*, Mediterranean].
839. Vysochina, G. I. & Ershova, E. A. 2014. *Pteridium aquilinum* (Hypolepidaceae): composition and the possibility of using. *Plant Resources* 50(2): 296-307. [Russia, useful plants; Russian].
840. Wan, S., Zhang, C., Chen, Y., Zhao, J., Wang, X., Wu, J., Zhou, L., Zhou, L., Liu, Z. & Fu, S. 2014. The understory fern *Dicranopteris dichotoma* facilitates the overstory Eucalyptus trees in subtropical plantations. *Ecosphere* 5(5): 51. [fertilization, plant interactions].
841. Wan, X. M., Lei, M., Chen, T. B., Zhou, G. D., Yang, J., Zhou, X. Y., Zhang, X. & Xu, R. X. 2014. Phytoremediation potential of *Pteris vittata* L. under the combined contamination of As and Pb: beneficial interaction between As and Pb. *Environmental Science and Pollution Research International* 21(1): 325-336.
842. Wan, X. M., Lei, M., Zhou, X. Y., Yang, J., Chen, T. & Zhou, G. D. 2014. Characterization of arsenic uptake in living *Pteris vittata* L. *Instrumentation Science & Technology* 42(6): 667-677.
843. Wanat, N., Joussein, E., Soubrand, M. & Lenain, J. F. 2014. Arsenic (As), antimony (Sb), and lead (Pb) availability from Au-mine Technosols: a case study of transfer to natural vegetation cover in temperate climates. *Environmental Geochemistry and Health* 36(4): 783-795. [*Equisetum telmateia*, France, heavy metals, *Pteridium aquilinum*].
844. Wang, D. & Wang, L. 2014. Structure and function of neck cells in archegoniate. *Acta Botanica Boreali Occidentalia Sinica* 34(5): 1067-1074. [reproductive biology; Chinese].
845. Wang, D., Zhan, J. & Sun, Q. Y. 2014. Phosphate solubilization of *Aureobasidium pullulan* F4 and its mechanism. *Chinese Journal of Applied Ecology* 25(7): 2079-2084. [fungi, *Hippochaete ramosissimum*; Chinese].
846. Wang, F. G., Barratt, S., Falcon, W., Fay, M. F., Lehtonen, S., Tuomisto, H., Xing, F. W. & Christenhusz, M. J. M. 2014. On the monophyly of subfamily Tectarioideae (Polypodiaceae) and the phylogenetic placement of some associated fern genera. *Phytotaxa* 164(1): 1-16.
847. Wang, F., Lu, J. & Li, D. 2014. New geographical distribution of three species in *Adiantum* L. *Acta Botanica Boreali Occidentalia Sinica* 34(5): 1055-1060. [biogeography, China; Chinese].
848. Wang, G., Dai, X. L., Wang, Q. X. & Cao, J. G. 2014. Microstructural observations on the development of gametophytes and oogenesis in *Equisetum arvense*. *Indian Fern Journal* 31(1-2): 90-101.

849. Wang, J., Gu, B., Huang, J., Han, X., Lin, G., Zheng, F. & Li, Y. 2014. Terrestrial contributions to the aquatic food web in the middle Yangtze River. PLoS One 9(7): e102473. [China, *Nephrolepis auriculata*].
850. Wang, J., Liu, S., Ma, B., Chen, L., Song, F., Liu, Z. & Liu, C. M. 2014. Rapid screening and detection of XOD inhibitors from *S. tamariscina* by ultrafiltration LC-PDA-ESI-MS combined with HPLC. Analytical and Bioanalytical Chemistry 406(28): 7379-7387. [medicinal plants, *Selaginella tamariscina*].
851. Wang, J., Wan, M. & Pfefferkorn, H. 2014. *Aphlebia hvistendahliae* sp. nov. from the early Permian Wuda Tuff Flora, Inner Mongolia. Review of Palaeobotany & Palynology 210: 69-76. [aphlebia, fossils].
852. Wang, L., Xu, Q. Q. & Jin, J. H. 2014. A reconstruction of the fossil *Salvinia* from the Eocene of Hainan Island, South China. Review of Palaeobotany & Palynology 203: 12-21. [*Salvinia hainanensis*].
853. Wang, R. L., Zheng, Z. H., Lu, J., Shao, H., Zhang, H., Su, Y. J. & Cai, Y. F. 2014. Allelopathic potential of invasive climbing fern *Lygodium microphyllum* against native plants and antibacterial activity of essential oils. Allelopathy Journal 33(1): 97-106.
854. Wang, R., Shao, W. & Liu, L. 2014. Cytotaxonomic study of *Hypodematium* (Hypodematiaceae) from China. Phytotaxa 161(2): 101-110.
855. Wang, S. J., Hilton, J., Galtier, J., He, X. Y. & Shao, L. Y. 2014. *Tiania yunnanense* gen. et sp. nov., an osmundalean stem from the upper Permian of southwestern China previously placed within Palaeosmunda. Review of Palaeobotany & Palynology 210: 37-49.
856. Wang, S. J., Hilton, J., He, X. Y., Seyfullah, L. J. & Shao, L. 2014. The anatomically preserved stem *Zhongmingella* gen. nov. from the upper Permian of China: evaluating the early evolution and phylogeny of the Osmundales. Journal of Systematic Palaeontology 12(1): 1-22.
857. Wang, W., Zhang, G., Zhang, X., Xia, Q., Cosoveanu, A., Ahn, Y., Wang, M. & Shu, S. 2014. Construction of a t-DNA insertional library of *Colletotrichum gloeosporioides* ES026 strain and cloning of relevant gene of huperzine A biosynthesis pathway. Journal of Pure and Applied Microbiology 8(5): 3729-3738. [*Huperzia serrata*, medicinal plants].
858. Wang, Z., Bao, W., Yan, X. & Lin, H. 2014. Responses of non-structural carbohydrate levels of *Polytrichastrum formosum* and the co-occurring understory fern *Parathelypteris nipponica* to different gap creations by thinning in a dense spruce plantation. Cryptogamie Bryologie 35(2): 165-172. [disturbance, forest management, plant interactions].
859. Wariss, H. M., Pirezada, S. A., Alam, K., Anjum, S. & Qureshi, R. 2014. Flora of Lal Suhanra National Park, Bahawalpur, Punjab, Pakistan. Pakistan Journal of Botany 46(4): 1331-1341.
860. Watanabe, T., Kouho, R., Katayose, T., Kitajima, N., Sakamoto, N., Yamaguchi, N., Shinano, T., Yurimoto, H. & Osaki, M. 2014. Arsenic alters uptake and distribution of sulphur in *Pteris vittata*. Plant Cell and Environment 37(1): 45-53.
861. Wee, M. S. M., Matia-Merino, L., Carnachan, S. M., Sims, I. M. & Goh, K. K. T. 2014. Structure of a shear-thickening polysaccharide extracted from the New Zealand black tree fern, *Cyathea medullaris*. International Journal of Biological Macromolecules 70: 86-91.
862. Wei, L. J., Raine, J. I. & Liu, X. H. 2014. Terrestrial palynomorphs of the Cenozoic Pagodroma Group, northern Prince Charles Mountains, East Antarctica. Antarctic Science 26(1): 69-79. [fossils, spores].
863. Wei, R. & Zhang, X. C. 2014. Rediscovery of *Cystoathyrium chinense* Ching (Cystopteridaceae): phylogenetic placement of the critically endangered fern species endemic to China. Journal of Systematics and Evolution 52(4): 450-457.
864. Wei, Z., Pan, Y., Li, L., Huang, Y., Qi, X., Luo, M., Zu, Y. & Fu, Y. 2014. Simultaneous determination of phenolic compounds in *Equisetum palustre* L. by ultra high performance liquid chromatography with tandem mass spectrometry combined with matrix solid-phase dispersion extraction. Journal of Separation Science 37(21): 3045-3051. [medicinal plants].

865. Wessel, G. M. 2014. Sperm in the reproduction flea market... how do they move that way? *Molecular Reproduction and Development* 81(4): i. [reproductive biology].
866. Weststrand, S. 2014. Highlights from *Mon. Svensk Botanisk Tidskrift* 108(5): 278-281. [*Equisetum telmateia*, Sweden; Swedish].
867. Wilk, M., Banach, A., Pawlowska, J. & Wrzosek, M. 2014. Leaf-litter microfungus community on poor fen plant debris in Torfy Lake area (Central Poland). *Acta Mycologica* 49(1): 31-45. [*Pteridium aquilinum*].
868. Williams, S., Hubbard, S., Reinhard, K. J. & Chaves, S. M. 2014. Establishing tobacco origin from pollen identification: an approach to resolving the debate. *Journal of Forensic Sciences* 59(6): 1642-1649. [*Lycopodium clavatum*, pollen signatures, spores].
869. Willyams, D. & Daws, M. I. 2014. Mass propagation of Austral bracken fern (*Pteridium esculentum*) sporophytes from *in vitro* gametophyte cultures. *South African Journal of Botany* 91: 6-8. [bauxite, mining, propagation, restoration].
870. Windisch, P. G., Lorscheitter, M. L. & Nervo, M. H. 2014. *Isoetes naipiana* (Isoetaceae), a new species from southern Brazil. *Willdenowia* 44(3): 393-398.
871. Winter, K. & Holtum, J. A. M. 2014. Facultative crassulacean acid metabolism (CAM) plants: powerful tools for unravelling the functional elements of CAM photosynthesis. *Journal of Experimental Botany* 65: 3425-3441. [*Isoetes howellii*].
872. Wong, K. C., Law, M. C., Wong, M. S. & Chan, T. H. 2014. Development of a UPLC-MS/MS bioanalytical method for the pharmacokinetic study of (-)-epiafzelechin, a flavan-3-ol with osteoprotective activity, in C57BL/6J mice. *Journal of Chromatography B* 967: 162-167. [*Drynaria fortunei*, medicinal plants].
873. Wong, S. L., Huang, M. Y., Chen, C. W. & Weng, J. H. 2014. Light induction of nonphotochemical quenching, CO₂ fixation, and photoinhibition in woody and fern species adapted to different light regimes. *Photosynthetica* 52(2): 272-280. [*Archangiopteris somai*, *Asplenium antiquum*, *Diplazium donianum*, *Pyrrosia lingus*].
874. Woodbridge, J., Davies, H. J., Blake, W. H. & Fyfe, R. M. 2014. Recent environmental change in an upland reservoir catchment: a palaeoecological perspective. *Journal of Paleolimnology* 52(3): 229-244. [fossils, *Lycopodium*, spores, UK].
875. Wu, F., Herrmann, M. & Fang, X. 2014. Early Pliocene paleo-altimetry of the Zanda Basin indicated by a sporopollen record. *Palaeogeography Palaeoclimatology Palaeoecology* 412: 261-268. [fossils, India].
876. Wu, F., Wang, M. M., Xi, Z., Zhao, S. W. & Xing, S. 2014. Study on drought stress of six common ferns in North China. In: Zhang, Q. & Jin, X. (eds.). VI International Symposium on the Taxonomy of Cultivated Plants. International Society of Horticultural Science: Leuven, Belgium, pp. 113-124. [*Adiantum capillus-veneris*, *Adiantum pedatum*, *Athyrium multidentatum*, *Matteuccia struthiopteris*, *Polystichum tripterum*, *Pteridium aquilinum*].
877. Wu, N., Zhu, Y., Song, W., Li, Y., Yan, Y. & Hu, Y. 2014. Unusual tandem expansion and positive selection in subgroups of the plant GRAS transcription factor superfamily. *BMC Plant Biology* 14: 373. [*Selaginella moellendorffii*].
878. Wu, S. Y., Liang, Y. S. & Ke, L. S. 2014. The effect of storage temperature and package on the cut frond quality of bird's nest fern (*Asplenium nidus*). *Journal of the Taiwan Society for Horticultural Science* 60(3): 193-207. [Chinese].
879. Xavier, T. F., Kannan, M., Lija, L., Auxillia, A., Rose, A. K. F. & Kumar, S. S. 2014. Ethnobotanical study of Kani tribes in Thoduhills of Kerala, South India. *Journal of Ethnopharmacology* 152(1): 78-90. [*Pyrrosia heterophylla*].
880. Xi, Z., Liu, L., Rest, J. S. & Davis, C. C. 2014. Coalescent versus concatenation methods and the placement of *Amborella* as sister to water lilies. *Systematic Biology* 63(6): 919-932. [*Selaginella moellendorffii*].

881. Xia, C., Yu, D., Wang, Z. & Xie, D. 2014. Stoichiometry patterns of leaf carbon, nitrogen and phosphorous in aquatic macrophytes in eastern China. *Ecological Engineering* 70: 406-413. [nutrients].
882. Xiong, H., Ma, C. E., Li, L., Zeng, H. & Quo, D. L. 2014. Stomatal characteristics of ferns and angiosperms and their responses to changing light intensity at different habitats. *Chinese Journal of Plant Ecology* 38(8): 868-877. [Chinese].
883. Xu, D. J., Wang, P. P., He, Y. J., Guo, N. B., Zhang, R. B., Wu, C. B., Mu, J. & Li, C. Q. 2014. Niche characteristics of dominant plant populations of *Alsophila spinulosa* community of Danxia landform in north Guizhou. *Bulletin of Botanical Research* 34(5): 612-618. [Chinese].
884. Xu, D. L., Cao, J. G., Wang, Q. X. & Dai, X. L. 2014. Cloning and characterization of DEAD-box RNA helicases gene from the fern *Equisetum arvense*. *Plant Diversity and Resources* 36(6): 715-722. [*Selaginella moellendorffii*].
885. Xu, D. L., Jiang, N., Gao, J. G., Wang, Q. X. & Dai, X. L. 2014. Relationship between *Pteris fauriei* and *Pteris biaurita* based on rps4-trnS region sequences analysis. *Bulletin of Botanical Research* 34(4): 436-439. [Chinese].
886. Xu, G., Zhao, M. J., Sun, N., Ju, C. G. & Jia, T. Z. 2014. Effect of the RW-Cb and its active ingredient like P-acid and P-aldehyde on primary rat osteoblasts. *Journal of Ethnopharmacology* 151(1): 237-241. [*Cibotium barometz*, medicinal plants, osteoporosis].
887. Xu, H. H., Marshall, J. E. A., Wang, Y., Zhu, H. C., Berry, C. M. & Wellman, C. H. 2014. Devonian spores from an intra-oceanic volcanic arc, West Junggar (Xinjiang, China) and the palaeogeographical significance of the associated fossil plant beds. *Review of Palaeobotany & Palynology* 206: 10-22. [fossils, spores].
888. Xu, J. Y., Li, H. B., Liang, S., Luo, J. & Ma, L. Q. 2014. Arsenic enhanced plant growth and altered rhizosphere characteristics of hyperaccumulator *Pteris vittata*. *Environmental Pollution* 194: 105-111.
889. Xu, X., Li, Q., Wang, J., Zhang, L., Tian, S., Zhi, L., Li, Q. & Sun, Y. 2014. Inorganic and organic nitrogen acquisition by a fern *Dicranopteris dichotoma* in a subtropical forest in South China. *PLoS One* 9(5): e90075. [nitrogen absorption].
890. Xu, Z. & Wang, Y. 2014. Huperzine A attenuates hepatic ischemia reperfusion injury via anti-oxidative and anti-apoptotic pathways. *Molecular Medicine Reports* 10(2): 701-706. [*Huperzia serrata*, medicinal plants].
891. Yadav, R. K., Abraham, G., Singh, Y. V. & Singh, P. K. 2014. Advancements in the utilization of *Azolla-Anabaena* system in relation to sustainable agricultural practices. *Proceedings of the Indian National Science Academy* 80(2): 301-316.
892. Yamashita, J., Enomoto, T., Yamada, M., Ono, T., Hanafusa, T., Nagamatsu, T., Sonoda, S. & Yamamoto, Y. 2014. Estimation of soil-to-plant transfer factors of radiocesium in 99 wild plant species grown in arable lands 1 year after the Fukushima 1 Nuclear Power Plant accident. *Journal of Plant Research* 127(1): 11.-22. [*Athyrium yokoscense*, caesium, *Dryopteris tokyoensis*, Fukushima, radionuclides, soils].
893. Yamauchi, K., Mitsunaga, T. & Batubara, I. 2014. Synthesis of quercetin glycosides and their melanogenesis stimulatory activity in B16 melanoma cells. *Bioorganic & Medicinal Chemistry* 22(3): 937-944. [cancer, *Helminthostachys zeylanica*, medicinal plants].
894. Yan, R., Zhang, Z., Wang, Y., Yang, H., Zeng, Q. & Zhu, D. 2014. Efficient strategy for maintaining and enhancing the huperzine A production of *Shiraia* sp Slf14 through inducer elicitation. *Journal of Industrial Microbiology & Biotechnology* 41(7): 1175-1179. [*Huperzia serrata*].
895. Yanez, A., Arana, M. D., Marquez, G. J. & Oggero, A. 2014. The genus *Dennstaedtia* Bernh. (Dennstaedtiaceae) in Argentina. *Phytotaxa* 174(2): 69-81.
896. Yang, L., Wang, J., Huang, Y., Hui, D. & Wen, M. 2014. Effects of the interception of litterfall by the understory on carbon cycling in *Eucalyptus* plantations of South China. *PLoS One* 9(6): e100464. [*Dicranopteris dichotoma*].

897. Yang, R. C., Chang, C. C., Sheen, J. M., Wu, H. T., Pang, J. H. S. & Huang, S. T. 2014. *Davallia bilabiata* inhibits TNF-alpha-induced adhesion molecules and chemokines by suppressing Ikk/Nf-kappa b pathway in vascular endothelial cells. *American Journal of Chinese Medicine* 42(6): 1411-1429. [medicinal plants, Taiwan].
898. Yang, W. Z., Qiao, X., Bo, T., Wang, Q., Guo, D. A. & Ye, M. 2014. Low energy induced homolytic fragmentation of flavonol 3-O-glycosides by negative electrospray ionization tandem mass spectrometry. *Rapid Communications in Mass Spectrometry* 28(4): 385-395. [*Drynaria fortunei*, medicinal plants].
899. Yang, X., Yuan, L., Chen, J., Xiong, C. & Ruan, J. 2014. Multitargeted protective effect of *Abacopteris penangiana* against carrageenan-induced chronic prostatitis in rats. *Journal of Ethnopharmacology* 151(1): 343-351. [China, medicinal plants].
900. Yao, J. N., Li, Z. F., Lou, H. Y., Huang, L., Liang, G. Y., Cao, P. X. & Pan, W. D. 2014. A new ecdysteroidal glycoside from *Lepidogrammitis drymoglossoides* (Bak.) Ching. *Journal of Carbohydrate Chemistry* 33(4): 206-211. [medicinal plants].
901. Yin, Y., Johns, M. A., Cao, H. & Rupani, M. 2014. A survey of plant and algal genomes and transcriptomes reveals new insights into the evolution and function of the cellulose synthase superfamily. *BMC Genomics* 15: 260. [*Pteridium aquilinum*].
902. Ying, Y. M., Shan, W. G. & Zhan, Z. J. 2014. Biotransformation of huperzine A by a fungal endophyte of *Huperzia serrata* furnished sesquiterpenoid-alkaloid hybrids. *Journal of Natural Products* 77(9): 2054-2059. [biotransformation].
903. Yonekura, K. & Sasaki, K. 2014. A new form of *Adiantum pedatum* L. f. *contractum* Yonek. & K. Sasaki (Pteridaceae). *Journal of Japanese Botany* 89(5): 360-364.
904. Yorke, B. J. 2014. Finding the Holly fern (*Polystichum lonchitis*) on Hutton roof, Cumbria. *Pteridologist* 6(1): 38-41. [UK].
905. Yoshihara, T., Suzui, N., Ishii, S., Kitazaki, M., Yamazaki, H., Kitazaki, K., Kawachi, N., Kawachi, N., Ito-Tanabata, S., Hashida, S. N., Shoji, K., Shimada, H., Goto, F. & Fujimaki, S. 2014. A kinetic analysis of cadmium accumulation in a Cd hyper-accumulator fern, *Athyrium yokoscense* and tobacco plants. *Plant Cell and Environment* 37(5): 1086-1096.
906. You, M., Burger, M., Li, L., Zou, W., Li, N., Qiao, Y. & Han, X. 2014. Changes in soil organic carbon and carbon fractions under different land use and management practices after development from parent material of mollisols. *Soil Science* 179(4): 205-210. [China, *Equisetum tataricus*].
907. Yu, Q., Yu, M., Song, C., Xing, S., Wu, Z., Li, Y., Ren, Z. & Liu, Y. 2014. Flora in Dahaituo Nature Reserve and its relationship with surrounding reserves. *Acta Botanica Boreali Occidentalia Sinica* 34(6): 1269-1275. [floristics; Chinese].
908. Yu, S., Zhang, L., Chen, C., Li, J., Ye, S., Liu, G., Mei, X., Tang, K. & Luo, L. 2014. Isolation and characterization of BnMCK1 responsive to multiple stresses and affecting plant architecture in tobacco. *Acta Physiologiae Plantarum* 36(6): 1313-1324. [*Selaginella moellendorffii*].
909. Yuan, T. X., Zhang, H. P., Ou, Z. Y. & Tan, Y. B. 2014. Effects of topography on the diversity and distribution pattern of ground plants in karst montane forests in Southwest Guangxi, China. *Chinese Journal of Applied Ecology* 25(10): 2803-2810. [biodiversity, plant communities, slope].
910. Yurdakok, B., Kismali, G. & Ozen, D. 2014. Ptaquiloside-induced cytotoxicity in Crandall feline kidney and HGC-27 cells. *Oncology Letters* 8(4): 1839-1843. [*Pteridium*].
911. Zakaria, Z. A., Yahya, F., Balan, T., Mamat, S. S., Rodzi, R., Kamisan, F. H., Fatimah, C. A. & Ibrahim, A. L. 2014. Pharmacological activities of some of the neglected and underutilized tropical plants in Malaysia. In: Gurib-Fakeem, A. (ed.). *Novel plant bioresources: applications in food, medicine and cosmetics*. John Wiley: Oxford, UK, pp. 215-225. [*Dicranopteris linearis*, medicinal plants].

912. Zaracho, V. H. 2014. Re-description of the advertisement call of *Vitreorana uranoscopa* (Muller, 1924) (Anura, Centrolenidae) from the Argentinean Atlantic Forest, with notes on natural history. *South American Journal of Herpetology* 9(2): 83-89.
913. Zazouli, M. A., Mahdavi, Y., Bazrafshan, E. & Balarak, D. 2014. Phytodegradation potential of bisphenol A from aqueous solution by *Azolla filiculoides*. *Journal of Environmental Health Science and Engineering* 12: 66. [biosorption, phytoremediation].
914. Zazouli, M. A., Mahvi, A. H., Dobaradaran, S., Barafrashtehpour, M., Mahdavi, Y. & Balarak, D. 2014. Adsorption of fluoride from aqueous solution by modified *Azolla filiculoides*. *Fluoride* 47(4): 349-358. [biosorption].
915. Zeidler, M., Duchoslav, M. & Banas, M. 2014. Effect of altered snow conditions on decomposition in three subalpine plant communities. *Central European Journal of Biology* 9(8): 811-822. [*Athyrium*].
916. Zeng, W. W. & Lai, L. S. 2014. Characterization of the mucilage isolated from the edible fronds of bird's nest fern (*Asplenium australasicum*). *Food Hydrocolloids* 40: 163-172.
917. Zeng, Y., Ye, W., Yang, L., Huang, Y., Zhao, K., Zhang, Z., Liang, H. & Kerns, J. 2014. Morphological and molecular characterization of two isolates of *Paratrichodorus porosus* from Shenzhen, China. *Helminthologia* 51(4): 323-330. [*Gleichenia linearis*, nematodes].
918. Zhang, D. B., Chen, J. J., Zhang, L., Song, Q. Y. & Gao, K. 2014. Bioactive alkaloids from *Palhinhaea cernua*. *Phytochemistry Letters* 10: 76-79. [medicinal plants].
919. Zhang, J., Li, Y., Chang, S. X., Jiang, P., Zhou, G., Liu, J., Wu, J. & Shen, Z. 2014. Understory vegetation management affected greenhouse gas emissions and labile organic carbon pools in an intensively managed Chinese chestnut plantation. *Plant and Soil* 376(42036): 363-375. [*Dicranopteris dichotoma*].
920. Zhang, J., Wu, J., Hong, B., Ai, W., Wang, X., Li, H. & Lei, X. 2014. Diversity-oriented synthesis of *Lycopodium* alkaloids inspired by the hidden functional group pairing pattern. *Nature Communications* 5: 4614.
921. Zhang, L. B. & Liu, H. M. 2014. *Dryopteris damingshanensis* (Dryopteridaceae): a new fern in subgenus *Nothoperanema* from Guangxi, China. *Novon* 23(1): 119-122.
922. Zhang, L. B., Sun, Q. W. & He, H. 2014. *Selaginella wangpeishanii* (Selaginellaceae), a new lycophyte from a limestone cave in Guizhou, China. *Phytotaxa* 164(3): 195-199. [*Selaginella gebaueriana*, *Selaginella wangpeishanii*].
923. Zhang, L. G., Ouyang, X. W., Wu, T. T., Ni, L. J. & Shi, W. Z. 2014. Quantitative evaluation of *in vitro* effects and interactions of active fractions in a Chinese medicinal formula (Yaotongning Capsule) on rat chondrocytes. *Journal of Ethnopharmacology* 155(3): 1424-1432. [*Davallia mariesii*, medicinal plants].
924. Zhang, L., Zhou, X. M., Gao, X. F. & Zhang, L. B. 2014. *Pteris barklyae* (Pteridaceae): A new combination and neotypification of *Adiantum pallens* for the fern flora of the Indian Ocean Islands. *Phytotaxa* 174(2): 116-118. [Madagascar, Seychelles].
925. Zhang, M. 2014. Plant floristic diversity in Xianrendong Natural Reserve from Liaodong Peninsula. *Acta Botanica Boreali Occidentalia Sinica* 34(8): 1693-1698. [biodiversity, China; Chinese].
926. Zhang, M., Dai, S., Heimhofer, U., Wu, M., Wang, Z. & Pan, B. 2014. Palynological records from two cores in the Gongpoquan Basin, central East Asia: evidence for floristic and climatic change during the late Jurassic to early Cretaceous. *Review of Palaeobotany & Palynology* 204: 1-17.
927. Zhang, S. B., Sun, M., Cao, K. F., Hu, H. & Zhang, J. L. 2014. Leaf photosynthetic rate of tropical ferns is evolutionarily linked to water transport capacity. *PLoS One* 9(1): e84682. [epiphytes, stomata].
928. Zhang, S., Li, T., Zhang, X., Yu, H., Zheng, Z., Wang, Y., Hao, X. & Pu, Y. 2014. Changes in pH, dissolved organic matter and Cd species in the rhizosphere soils of Cd phytostabilizer

- Athyrium wardii* (Hook.) Makino involved in Cd tolerance and accumulation. Environmental Science and Pollution Research International 21(6): 4605-4613.
929. Zhang, W. Y., Kuo, L. Y., Li, F. W., Wang, C. N. & Chiou, W. L. 2014. The hybrid origin of *Adiantum meishanianum* (Pteridaceae): a rare and endemic species in Taiwan. Systematic Botany 39(4): 1034-1041.
930. Zhang, Y., Ma, J., Yang, B., Li, R., Zhu, W., Sun, L., Tian, J. & Zhang, L. 2014. The complete chloroplast genome sequence of *Taxus chinensis* var. *mairei* (Taxaceae): loss of an inverted repeat region and comparative analysis with related species. Gene 540(2): 201-209. [China].
931. Zhang, Y., Wang, C., Guo, Z., Zhang, X., Wang, Z., Liang, X. & Civelli, O. 2014. Discovery of N-methyltetrahydroprotoberberines with kappa-opioid receptor agonists-opioid receptor agonist activities from *Corydalis yanhusuo* W. T. Wang by using two-dimensional liquid chromatography. Journal of Ethnopharmacology 155(3): 1597-1602. [China, *Huperzia serrata*, medicinal plants].
932. Zhang, Y., Yi, P., Chen, Y., Mei, Z. N., Hu, X. & Yang, G. Z. 2014. Lycojaponicuminal A-F: cytotoxic serratene triterpenoids from *Lycopodium japonicum*. Fitoterapia 96: 95-102. [medicinal plants].
933. Zhang, Z. Q., Christenhusz, M. J. M., Esser, H. J., Chase, M. W., Vorontsova, M. S., Lindon, H., Monro, A. & Lumbsch, H. T. 2014. The making of world's largest journal in systematic botany. Phytotaxa 191(1): 1-9.
934. Zhang, Z., Sugawara, K., Hatayama, M., Huang, Y. & Inoue, C. 2014. Screening of As-accumulating plants using a foliar application and a native accumulation of As. International Journal of Phytoremediation 16(3): 257-266. [*Pteris vittata*].
935. Zhao, J., Favero, D. S., Qiu, J., Roalson, E. H. & Neff, M. M. 2014. Insights into the evolution and diversification of the AT-hook motif nuclear localized gene family in land plants. BMC Plant Biology 14: 266. [*Selaginella moellendorffii*].
936. Zhao, X. Y., Chen, S. Y., Zhao, L., Zhang, X. M., Ma, P. F. & Guo, Z. H. 2014. Evolution of MIR166 gene family in land plants. Plant Diversity and Resources 36(3): 331-341. [micro RNA].
937. Zheng, C. S., Zhuang, Z. Q., Xu, X. J., Ye, J. X., Ye, H. Z., Li, X. H., Wu, G. W., Xu, H. F. & Liu, X. X. 2014. *In silico* search for multi-target therapies for osteoarthritis based on 10 common Huoxue Huayu herbs and potential applications to other diseases. Molecular Medicine Reports 9(3): 857-862. [China, *Drynaria fortunei*, medicinal plants].
938. Zheng, Z., Gong, D. J., Sun, C. X., Li, X. J. & Li, W. J. 2014. Altitudinal patterns of species richness and species range size of vascular plants in Xiaolongshan Reserve of Qinling Mountain: a test of Rapoport's rule. Chinese Journal of Applied Ecology 25(9): 2477-2485. [altitudinal gradients, biogeography, China, Rapoport's rule; Chinese].
939. Zhong, B., Fong, R., Collins, L. J., McLenachan, P. A. & Penny, D. 2014. Two new fern chloroplasts and decelerated evolution linked to the long generation time in tree ferns. Genome Biology and Evolution 6(5): 1166-1173. [*Dicksonia squarrosa*, *Tmesipteris elongata*].
940. Zhou, S., Dong, W., Chen, X., Zhang, X., Wen, J. & Schneider, H. 2014. How many species of bracken (*Pteridium*) are there? Assessing the Chinese brackens using molecular evidence. Taxon 63(3): 509-521. [*Pteridium aquilinum*, *Pteridium esculentum*, *Pteridium semihastatum*].
941. Zhu, L. J., Guan, D. X., Luo, J., Rathinasabapathi, B. & Ma, L. Q. 2014. Characterization of arsenic-resistant endophytic bacteria from hyperaccumulators *Pteris vittata* and *Pteris multifida*. Chemosphere 113: 9-16.
942. Zotz, G., Mendieta-Leiva, G. & Wagner, K. 2014. Vascular epiphytes at the treeline - composition of species assemblages and population biology. Flora 209(8): 385-390.
943. Zou, H., Dai, X., Wang, Q. & Cao, J. 2014. Ultrastructural observations on the egg development of the fern *Phymatosorus hainanensis* (Polypodiaceae). Acta Botanica Boreali Occidentalia Sinica 34(5): 925-931. [gametophytes, reproductive biology; Chinese].

944. Zou, H., Xu, K. P., Li, F. S., Zou, Z. X., Liu, R., Liu, R. H., Li, J., Tan, L. H. & Tan, G. S. 2014. Unciflavones A-F, six novel flavonoids from *Selaginella uncinata* (Desv.) Spring. *Fitoterapia* 99: 328-333. [medicinal plants].
945. Zuquim, G., Tuomisto, H., Jones, M. M., Prado, J., Figueiredo, F. O. G., Moulatlet, G. M., Costa, F. R. C., Quesada, C. A. & Emilio, T. 2014. Predicting environmental gradients with fern species composition in Brazilian Amazonia. *Journal of Vegetation Science* 25(5): 1195-1207.
946. Zwieniecki, M. A. & Boyce, C. K. 2014. Evolution of a unique anatomical precision in angiosperm leaf venation lifts constraints on vascular plant ecology. *Proceedings of the Royal Society Biological Sciences Series B* 281(1779): e20132829.

A

- Abacopteris penangiana*, 899
 Abdel-Rahman, T. M., 699
 Aboughanem-Sabanadzovic, N., 668
 Abraham, G., 891
 abscisic acid, 503, 520, 675
 Abu Baker, M. A., 1
 Abu Sayeed, M., 374
 Acock, P., 2
Acrostichum, 285, 356
Acrostichum aureum, 28, 223, 594
Acrostichum danaeifolium, 487, 627
Actiniopteris, 102, 161, 484
Actiniopteris radiata, 484
Acystopteris japonica, 143
 Adak, M. K., 483
 Adams, S. A., 3
Adiantopsis senae, 693
Adiantum, 434, 485, 656, 847
Adiantum alan-smithii, 300
Adiantum capillus-veneris, 144, 215, 296, 325, 332, 389, 390, 391, 555, 621, 625, 699, 713, 738, 876
Adiantum hispidulum, 167
Adiantum lunulatum, 689
Adiantum meishanianum, 929
Adiantum pallens, 924
Adiantum papilio, 622
Adiantum pedatum, 876, 903
Adiantum peruvianum, 80
Adiantum senae, 693
 Adjie, B., 434
 Aedo, C., 828
 aerenchyma, 265
 aerobiology, 283, 722
 Aerts, R., 416
 Africa, 1, 10, 145, 153, 198, 211, 249, 460, 552, 613, 614, 659, 660, 698, 704, 758, 828
 Afridi, M. S., 332
 Agnese, A. M., 54, 124
 Agnihotri, P., 739
 agriculture, 891
 Aguiar, F. C., 834
 Aguilar, M. I., 4
 Aguilar-Dorantes, K., 5
 Aguirre, H., 6
 Ahmad, B., 325
 Ahmad, S., 332
 Ahmad, S. A., 679
 Ahmed, W., 620
 Ahn, Y., 730, 857
 Ahuja, P. S., 689
 Ahumada, O., 237
 Ai, W., 920
 air quality, 647
 air retention, 500
 Aizpuru, I., 603
 Ajaib, M., 7
 Akram, A., 709
 Alagador, D., 8
 Alam, K., 859
 Alarcon-Gutierrez, E., 419
 Alaska, 53, 67, 281, 778
 Al-Bari, M. A. A., 374
 Albert, K. R., 74
 Albisu, G., 603
 Albrecht, T., 698
 Albu, S., 809
 Alday, J. G., 9
Aleuritopteris, 701
 algae, 516, 662, 722
 Ali, G., 332
 Ali, H. M., 302
 Ali, U., 206
 alien species, 473, 568
 alkaloids, 24, 92, 124, 170, 172, 302, 348, 349, 353, 425, 511, 548, 551, 578, 680, 747, 799, 819, 894, 918, 920
 allelopathy, 653, 853
 Allen, C., 148, 164
 Allen, J. L., 10
 allergies, 283
 allopolyploidy, 657, 732
Allosorus, 663
 Alpi, A., 125
 alpine plants, 144, 561, 633
Alsophila engelii, 95
Alsophila firma, 419, 420, 596, 624
Alsophila odonelliana, 490
Alsophila setosa, 232
Alsophila spinulosa, 883
 altitudinal gradients, 938
 aluminum, 84, 203, 842
 Alvarez, I., 623
 Alvarez, J., 692
 Alvarez, M., 623
 Alvear Castillo, C., 238
 Alves, F. E., 11
 Aly, C., 12
 Alzate Guarin, F., 641
 Amatangelo, K. L., 669
 Amazonia, 58, 65, 223, 278, 530, 559, 644, 678, 695, 810, 814, 945
 Ambus, P., 74
 Ameri, H., 13
 Amich, F., 625
 amino acids, 15, 621, 824
 Amirul-Aiman, A. J., 554
 amoeba, 153
 Amorim, T. M., 231
 Amoroso, V. B., 14, 102, 365
Ampelopteris prolifera, 740
 amphibians, 535
Anabaena azollae, 595
 anagenetic speciation, 584
 anatomy, 19, 132, 513, 554, 701, 766
 Andes, 368, 372, 387, 504, 639, 681, 685, 785
 Andrade-Torres, A., 419
 Andriopoulos, P., 123
Anemia tomentosa, 626
 Angeleri, M., 215
 Angert, E. R., 396
 Angiolini, C., 415
Angiopteris chongsengiana, 704
Angiopteris madagascariensis, 704
 angiosperm dominance, 454
 Anishchenko, O. V., 334
 Anjum, N. A., 15, 824
 Anjum, S., 859
 Annobon Island, 828
Anogramma ascensionis, 31
 Anonymous, 16
 Ansell, S. W., 78
 Antarctic, 134, 140, 436, 437, 457, 862
 Antarctica, 436, 862
 antheridiogens, 789, 795
 antheridiophore, 489
 anthocyanin, 83
 anti-amnesics, 551
 antibiotics, 75, 311, 325, 332, 336, 358, 556, 764, 853
 anticancer properties, 807
 antifertility, 146
 Antigua, 450
 antihyperalgesics, 353
 anti-inflammatory, 160, 227, 771
 antimony, 804, 843
 antimycotic, 150, 332
 anti-osteoporosis, 362
 antioxidants, 179, 362, 720, 771
 antipyretic, 542
 Antony, R., 17, 18
 ant-plant interactions, 492, 498
 ants, 235
 Anupama, K., 514
 Aoki, R., 239
 aphids, 531, 768
 aphlebia, 851
 apogamy, 109, 270, 305, 714, 791
 apospory, 17, 106
 Appalachians, 751
 aquatic plants, 16, 32, 55, 73, 103, 157, 165, 175, 205, 277, 280, 292, 326, 342, 368, 369, 370, 411, 422, 499, 594, 745, 759, 810, 849, 881, 891, 913
 Arabia, 161
Arachniodes denticulata, 556
Arachniodes polyodon, 501
 Arana, M. D., 19, 20, 237, 895

- Aranha, P. C. R., 21
 Araujo da Silva, I. A., 40, 155
 Araujo, J. S., 84
 Araujo, M. B., 8
 archaeology, 87
Archangiopteris somai, 873
 Arche, A., 63
 archegonia, 844
 Arctic, 67, 115, 134
 Ardanaz, C. E., 124
 Argentina, 20, 27, 80, 131, 139,
 162, 168, 201, 237, 244, 292,
 324, 397, 465, 540, 604, 811,
 895, 912
 Arguelles-Marmolejo, S., 294
 Arianoutsou, M., 123
 Arias, N. M., 44
Armoricaphyton, 766
 Arndt, S. K., 134
 Arnold, A. E., 163
 Aro, E. M., 215
 Aronsson, M., 776
 Arruda, A. J., 678
 arsenate, 156, 209, 210
 arsenic, 125, 156, 202, 209, 210,
 343, 423, 433, 474, 482, 521,
 649, 718, 769, 804, 841, 842,
 843, 860, 888, 934, 941
 Artchawakom, T., 531
 Arthur, D., 149
 Arthur, K., 820
 Ascension Island, 31
 ascomycetes, 163, 268, 399, 780,
 788
Ascospermum, 780
 asexual reproduction, 339
 ash, 335
 Ashcroft, M. B., 748
Ashicaulis, 801
 Asner, G. P., 68, 700
Asplenium, 161, 421, 711, 796
Asplenium antiquum, 307, 873
Asplenium auritum, 665
Asplenium australasicum, 916
Asplenium cuneifolium, 405
Asplenium fontanum, 78
Asplenium gracillimum, 505
Asplenium harpeodes, 237
Asplenium incuntatum, 601
Asplenium kiansuense, 100
Asplenium lobatum, 614
Asplenium nidus, 74, 878
Asplenium normale, 229
Asplenium petrarchae, 93
Asplenium sarelii, 142
Asplenium septentrionale, 661
Asplenium varians, 190
 Assis, F. C., 22
Astrolepis, 339
 atherosclerosis, 448, 679
Athyrium, 379, 915
Athyrium alpestre, 41
Athyrium filix-femina, 69, 188,
 784, 834
Athyrium fimbriatum, 143
Athyrium longius, 143
Athyrium multidentatum, 720,
 876
Athyrium vidalii, 143
Athyrium wardii, 928
Athyrium yokoscense, 892, 905
 Atlantic forest, 40, 141, 155, 566,
 611
 atmospheric pollution, 647
 Atwe, S. U., 23
Aureobasidium pullulans, 845
 Australia, 76, 207, 218, 257, 298,
 408, 422, 462, 479, 506, 538,
 587, 640, 646, 748, 869
 Auxillia, A., 879
 auxin, 50
 Aviles, Z., 489
 Avonce, N., 576
 Aw, C., 758
 Aya, K., 789
Azolla, 130, 139, 168, 201, 285,
 403, 552, 579, 595, 688, 707,
 891
Azolla caroliniana, 205, 278,
 645, 649
Azolla filiculoides, 26, 32, 70,
 326, 369, 370, 394, 422, 628,
 671, 913, 914
Azolla imbricata, 775
Azolla microphylla, 357
Azolla pinnata, 70, 73, 243, 277,
 477
Azolla rubra, 73, 744
 Azores, 665
 Azuma, M., 24
- ## B
- Baas, P., 25
 Babaeian, M., 555
 Babu, D. J., 26
 Bacaro, G., 415
 Bach, H. G., 27
 Bacic, A., 516
 bacteria, 209, 941
 Badarudeen, A., 28
 Badel, E., 766
 Badry, M. O., 717
 Badshah, L., 721
 Bae, W. J., 119
 Bae, Y. J., 381
 Baek, M. J., 381
 Baeten, L., 29
 Baez R., P., 435
 Bagniewska-Zadworna, A., 30
 Bahamas, 836
 Bainard, J. D., 291
 Baker, K., 31
 Bakker, J. D., 746
 Balan, T., 911
 Balarak, D., 913, 914
 Balazi, P., 32
 Baldisserotto, C., 215
 Balestri, M., 33, 34
 Ballesteros, E., 103
 Banach, A., 867
 Banas, M., 915
 Bandyopadhyay, M., 35, 98
 Bannister, J. M., 517
 Bao, J., 36, 459
 Bao, J. M., 459
 Bao, W., 858
 Barafrashtehpour, M., 914
 Barakat, A., 30
 Barbera, P., 828
 Barbhuiya, H. A., 37
 Barbuda, 450
 Barcelona, J. F., 38
 Barkan, A., 39
 Barratt, S., 846
 Barrenechea, J. F., 63
 Barreto, R. W., 268
 Barrie, F. R., 736
 Barrington, D. S., 504, 795
 Barros e Silva, A. E., 487
 Barros, I. C. L., 141, 155, 175
 Barta, J., 41
 Barth, G., 42
 Barthlott, W., 499, 500
 Bartolozzi, L., 492
 Bashforth, A. R., 43
 basidiomycetes, 809
 Bastos, M. M. S. M., 246
 Batschauer, A., 385
 Battaglia, R., 52
 Batty, E. L., 598
 Batubara, I., 893
 Bauer, K., 409, 821
 Bautista Cruz, A., 44
 bauxite, 869
 Bayesian networks, 178
 Bayly, M. J., 598
 Bazrafshan, E., 913
 bears, 269
 Becker, H., 157
 Bedi, Y. S., 233
 Bedini, G., 599, 600
 beech forest, 404
 Bek, J., 446
 Belcher, C. M., 135
 Belen Galan-Abellan, A., 63
 Belgium, 518, 797, 876
 Bell, N. E., 45
 Bellard, C., 473
 Ben Saad-Limam, S., 145, 211
 Benca, J. P., 46, 47, 48
 Bendix, J., 387
 Benina, M., 240
 Benitez, W. V., 4
 Bennallick, I. J., 589
 Bennert, H. W., 49

- Bennett, A. F., 646
 Bennett, L. T., 207
 Bennett, T., 50
 benzene, 85
 Bergen, S., 48
 Bergeron, A., 51
 Bernardi, J., 52
Bernhardia novaehollandiae, 72
 Bernhardt-Roemermann, M., 29
 Berry, C. M., 887
 Bertelsmeier, C., 473
 Besic, E. D., 471
 Betts, M., 543
 Bhattacharya, A., 689
 Bienkowski, D., 505
 biflavonoids, 99, 441, 644
 Bigelow, N. H., 53
 Bilby, R. E., 746
 bioassays, 764
 biochemistry, 24, 112, 192, 238, 239, 277, 323, 348, 385, 516, 575, 636, 653, 713, 820, 861, 902, 932
 biodiversity, 33, 35, 78, 90, 103, 163, 166, 208, 222, 276, 279, 288, 290, 293, 297, 315, 329, 340, 347, 360, 365, 373, 377, 413, 432, 471, 481, 491, 510, 517, 535, 538, 545, 547, 559, 571, 588, 616, 619, 620, 623, 624, 669, 670, 676, 709, 717, 721, 748, 777, 790, 814, 828, 835, 859, 907, 909, 925, 938, 945
 biogas, 357, 767
 biogeography, 78, 93, 102, 111, 161, 194, 256, 257, 279, 290, 309, 329, 365, 370, 392, 412, 421, 436, 479, 485, 504, 507, 528, 530, 538, 568, 582, 584, 585, 611, 694, 728, 748, 756, 757, 781, 785, 791, 847, 938
 biographies, 25, 640
 bioindicators, 51, 535, 586, 633, 784
 biological control, 10, 266, 414, 478, 505, 631, 753
 biomechanics, 593
 biophysics, 499
 biosorption, 26, 407, 628, 682, 703, 860, 913, 914
 biotransformation, 902
 birds, 140, 149, 470, 523, 566, 646, 698, 751, 822
 Birri, M. A., 54
 Bissegger, S., 55
 Biswas, S., 273
 Bittencourt, F., 152
 Blackham, G. V., 56
 Blair, R. B., 470
 Blake, P., 57
 Blake, W. H., 874
 Blanc, G., 497
 Blasi, C., 670
 Blatrix, R., 498
Blechnum, 76, 301, 435, 554, 598
Blechnum indicum, 56
Blechnum palmiforme, 140
Blechnum spicant, 89, 330, 818
Blechnum watsii, 298
 Bleich, M. E., 58
 Blue Mountains, 462
 Bo, T., 898
 Bobach, C., 59
 Bobak, D. M., 649
 Bockheim, J. G., 89
 Bohemia, 41
 Bohlin, L., 764
 Bohra, D. R., 714, 715
 Bojat, N. C., 832
 Bolivia, 235
 Bomfleur, B., 60, 320
 Bonacheva, V. M., 61
 Bonnaud, E., 473
 Bonnemain, J. L., 766
 Bonte, D., 29
 Boore, J. L., 45
 boreal forests, 53, 255
 Borneo, 492
 Borokini, T. I., 62
 Borrueal-Abadia, V., 63
 Bostock, P. D., 629
 botanical gardens, 632
 Botirov, E. K., 61
Botrychium, 147
Botrychium lunaria, 783
Botrychium matricariifolium, 783
Botrychium simplex, 49, 194
Botrychium tenebrosum, 194
 Bottega, S., 33
 Bottollier-Curtet, M., 145
 Boudrie, M., 64, 65, 137
 Boughton, A. J., 414, 753
 Bowman, J. L., 221
Bowmanites, 446
 Boyce, C. K., 946
 Boylen, C. W., 645
 Braeutigam, A., 70
 Brana, S., 66
 branching, 250
 Brannick, A., 778
 Brantley, E., 737
 Braun, J. J., 514
 Braun, L., 200
 Bravo Ramirez, L., 238
 Bravo, L. A., 676
 Brazil, 11, 40, 58, 84, 129, 141, 151, 152, 154, 155, 158, 159, 168, 175, 214, 222, 230, 231, 268, 278, 299, 424, 432, 481, 486, 493, 495, 496, 520, 545, 546, 559, 566, 611, 612, 619, 647, 678, 693, 695, 735, 787, 810, 833, 870, 945
 Breen, A. L., 67
 Breitenbach Barroso Coelho, L. C., 150
 Brenner, E., 221
 Breuer, L., 387
 Brisson, J., 55
 Broadbent, E. N., 68
 Brockington, S. F., 50
 Brodersen, C., 69
 Brodribb, T. J., 503
 Broeren, F. G. J., 239
 bronchitis, 118, 705
 Brouwer, P., 70
 Brown, E., 321
 Brown, J. S., 1
 Brownsey, P. J., 71, 72, 73, 598
 browsing, 330
 Bruhn, D., 74
 bryophytes, 389, 413, 438, 538, 834
 B-sister language, 52
 Bui, H. T., 551
 Bulfon, C., 75
 Burge, D. O., 438
 Burger, M., 906
Buritranopteris costata, 833
 Burlando, B., 128
 Burleigh, J. G., 662
 Burman, D., 688
 Burrascano, S., 670
 Burris, J. N., 221
 Burris, K. P., 221
 Burrows, M. A., 76
 Burry, L. S., 201
 Burton, J. I., 669
 Bushart, T. J., 77
 Bustamante, K. M., 567
 Butzmann, R., 409
 Bystriakova, N., 78

C

 Caatinga, 695
 Cabezas, F. J., 828
 Cabezudo, B., 93
 Cabrera, J. L., 124, 819
 Caceres, A., 79
 Cacharani, D. A., 80
 cadmium, 33, 34, 165, 586, 602, 905, 928
 caesium, 519, 892
 Cai, Y. F., 853
 Cain, S. L., 269
Calamites, 798
 Calcagno, M., 602
Calciphlopteris, 656
 calcium, 77, 820
 caleosin, 755
 California, 686
 Callado, J. R., 169
 Caluff, M. G., 81
 Calvo, M. I., 82

- Calzada, F., 4
 CAM, 368, 520, 871
 Camargo Ricalde, S. L., 44
 Camargo, A. F. M., 289
 Cambodia, 359
 Cameron, A., 369
 Cameroon, 698
 Campanella, J. J., 83
 Campbell, C., 287
 Campbell, M., 479
 Campisi, P., 813
 Campos, N. V., 84
 Campos, V., 85
 Canada, 43, 51, 89, 115, 226, 291, 403, 543, 563
 cancer, 21, 59, 126, 246, 323, 366, 441, 691, 807, 893, 932
 Canestraro, B. K., 86
 Caneva, G., 87
 Canham, L. T., 361
 Cannon, A., 77
 Cantarelli, L. C., 40
 Cao, H., 901
 Cao, J., 36, 88, 943
 Cao, J. G., 142, 270, 271, 272, 848, 884
 Cao, K., 454
 Cao, K. F., 927
 Cao, L., 316
 Cao, P. X., 900
 Caparelli, K. F., 600
 carbohydrates, 576, 592, 858, 861
 carbon balance, 55, 303
 carbon cycling, 896
 carbon stocks, 207, 404, 524, 906
 carbon storage, 515, 606, 700
 Carboniferous, 43, 104, 224, 446, 525, 541, 798
 Cardenas, G., 814
 Cardoso, A., 254
 Cargill, C. C., 257
 Cargill, D. C., 538
 Carine, M., 665
 Carine, M. A., 664
 Carlisle, M. H., 48
 Carnachan, S. M., 861
 Carollo, C. A., 644
 Carpathians, 337
 Carpenter, D. N., 89
 Carpenter, E., 438
 Carriqui, M., 219
 Carro-Juarez, M., 54
 Carswell, F. E., 638
 Carton, A., 655
 Carvajal-Hernandez, C. I., 90
 Carvalho, M. A., 398
 Cascales-Minana, B., 91, 127
 Cash, B. M., 92
 Casimiro-Soriguer Solanas, F., 93
 Cassa Louzada, J. N., 158
 Castiglione, M. R., 34
 Catinaud, J., 691
 cave ferns, 802
 Caverro, R. Y., 82
 Ceccarini, A., 34
 cell wall, 192, 516
 cellulose synthesis, 901
 Cenozoic, 195, 862
 Center, T. D., 631
 Cepa Matos, M. D. F., 644
 Ceratopogonidae, 810
Ceratopteris, 270, 673, 707
Ceratopteris pteridoides, 165, 411
Ceratopteris richardii, 77, 192, 199, 466, 605
Ceratopteris thalictroides, 347, 586, 605
 Cerdeira, J. O., 8
 Cesarz, S., 212
Ceterach officinarum, 402
 Chaboureaux, A. C., 94
 Chaco, 131
 Chacon-Labela, J., 95
 Chae, L., 96
Chaetomium globosum, 699
 Chaichana, R., 97
 Chaika, V. V., 251
 Chakraborti, K., 98, 243
 Chambi, C. J., 489
 Chamecki, M., 248
 Chan, T. H., 872
 Chan, W. L., 116
 Chand, P., 406
 Chandran, G., 99
 Chandran, M. D. S., 184
 Chaney, D., 692
 Chang, C. C., 897
 Chang, F. R., 323
 Chang, S. X., 919
 Chang, W. Y., 110
 Chang, Y., 317, 773
 Chang, Y. C., 767
 Chang, Y. F., 100
 Chang, Y. H., 101, 308, 309
 Chao, Y. S., 102, 169, 189, 364
 Chappuis, E., 103
 Charbonnier, S., 104
 charcoal, 135, 458
 Chase, M., 122
 Chase, M. W., 933
 Chatterjee, C., 672
 Chau, M. M., 105
 Chaves, S. M., 868
 Chaves-Fallas, J. M., 650
 Cheddadi, R., 316
 Cheema, H. K., 106
Cheilanthes, 161, 267, 376, 701
Cheilanthes adiantoides, 587
Cheilanthes austrotenuifolia, 587
Cheilanthes farinosa, 761
Cheilanthes marantae, 832
Cheilanthes sieberi, 587
Cheilosoria chusana, 270
 chemistry, 24, 41, 88, 92, 170, 172, 224, 302, 304, 319, 459, 548, 618, 680, 747, 898, 920, 928
 chemotaxonomy, 120
 Chen, B., 107
 Chen, C., 908
 Chen, C. M., 364
 Chen, C. W., 108, 109, 309, 451, 781, 873
 Chen, C. Y., 110
 Chen, F. S., 203
 Chen, G., 111
 Chen, H., 112
 Chen, J., 113, 311, 577, 899
 Chen, J. J., 918
 Chen, K., 440
 Chen, L., 438, 850
 Chen, M., 472
 Chen, R. M., 429
 Chen, S., 114
 Chen, S. Y., 936
 Chen, T., 221, 438, 841, 842
 Chen, T. B., 841
 Chen, W., 115
 Chen, X., 116, 203, 553, 940
 Chen, Y., 114, 718, 840, 932
 Chen, Y. H., 110
 Chen, Y. J., 439, 767
 Chen, Y. M., 227
 Chen, Y. Y., 459
 Chen, Z., 315
 Cheng, D., 117, 118
 Cheng, X., 349
 Chi, Z., 458
 Chiapas, 300
 Chikmawati, T., 193
 Chile, 435, 623, 676
 Chimnoi, N., 799
 China, 36, 100, 107, 111, 113, 117, 165, 179, 203, 241, 312, 315, 316, 318, 319, 346, 440, 442, 443, 445, 449, 456, 458, 472, 515, 544, 616, 617, 705, 719, 728, 729, 768, 772, 774, 775, 801, 841, 847, 849, 852, 854, 855, 856, 863, 876, 881, 883, 887, 889, 896, 899, 906, 907, 909, 917, 919, 921, 922, 923, 925, 926, 930, 931, 937, 938, 940
 Chiou, W. L., 101, 102, 108, 109, 309, 364, 929
 chlorophyll, 627, 676
 chlorophyll fluorescence, 676
 chloroplast, 169, 383, 384, 389, 390, 391, 565, 597, 756, 930, 939
 chloroplast DNA, 169, 597, 756
 chloroplast genome, 383, 384, 930, 939
 chloroplast movement, 389, 391

- Cho, H. J., 119
 Cho, J. H., 362
 Cho, K. K., 362
 Choat, B., 69
 Choi, H. K., 359, 360
 Choi, J. Y., 342
 Choi, Y. J., 119
 Choo, C. Y., 120
 Choo, T. Y. S., 121
 Choudhary, S. P., 713
 Choudhury, M. D., 146, 725
 Chow, J., 809
 Chown, S. L., 10
 Christenhusz, M. J. M., 122, 704, 846, 933
 Christianini, A. V., 566
 Christophoulou, A., 123
 chromate, 156
 chromium, 26, 156, 406, 740
 chromophores, 385
 chromosomes, 60, 189, 284, 350, 487, 539, 599, 600, 711, 741, 854
 Chrysomelidae, 254
 Chubut, 201, 292
 Chukeatirote, E., 480
 Chung, M. G., 384
 Chung, P. J., 110
Cibotium, 59, 68, 134, 191, 195, 534, 571, 700, 886
Cibotium barometz, 59, 886
Cibotium glaucum, 68
Cibotium oregonensis, 195
 Cicuzza, D., 354
 Cifuentes, D., 819
 Cifuentes, D. A., 124
 Ciurli, A., 125
 Civan, P., 133
 Civelli, O., 931
 cladistics, 530, 658, 826
 Clark Tapia, R., 351
 Clark, G., 77
 Clarke, M. F., 646
 classification, 122, 455, 469
 Clauson-Kaas, F., 126
 Claverol, S., 238
 Cleal, C. J., 43, 127
 Clericuzio, M., 128
 climate change, 8, 76, 78, 94, 195, 219, 303, 307, 452, 458, 748, 926
 climbing ferns, 86, 574
 clonal growth, 560
 cloud forest, 420, 535, 624, 683
 Clout, M. N., 234
 Clubbe, C., 31
 Clusella-Trullas, S., 10
 coastal lagoons, 754
 Cochard, H., 766
 Cochran, A. T., 129
 Cocquyt, C., 153
 Coelho, C. B., 424
 coevolution, 331, 498, 755
 Coffey, J. L., 361
 Cohan, A., 321
 Cohen, M. C. L., 223
 Cohen, M. F., 130, 277
 Colin, A., 4
 Coleoptera, 10, 254, 266, 408, 492, 532
 collections, 152, 262, 338, 449, 507, 710, 792, 836
 Colling, G., 402
 Collins, B., 494
 Collins, L. J., 939
 Collinson, M. E., 285, 574
 Colombia, 258, 641, 651, 684, 685
Colysis, 794
Colysis ampla, 794
 Comins, D. L., 92
 competition, 148, 164, 494, 770, 795
 conductance, 219, 324
 conduits, 69, 701
 Congo, 153
 Conklin, K. Y., 722
 Conran, J. G., 517
 conservation, 8, 31, 35, 46, 47, 62, 66, 105, 140, 166, 178, 184, 244, 275, 276, 288, 294, 298, 309, 315, 351, 397, 405, 444, 467, 477, 486, 507, 510, 522, 535, 561, 589, 591, 603, 625, 661, 687, 760, 776, 816, 863, 907, 922, 945
 contamination, 85, 521, 769, 774, 841
 continental drift, 94
 Contreras, D., 819
 Contreras, S. A., 131
 Contreras-Leon, I., 511
 convergence, 681, 779
 Conway, S. J., 221
 Cooper, J., 140
 Coopman, R. E., 219
 copper, 239, 439, 564, 649, 703, 719
 Corcuera, L. J., 676
 Cordell, S., 68, 571
 Corlett, R. T., 56
 Cornara, L., 128
 Cornelissen, J. H. C., 416, 454
 Cornwell, W. K., 216, 454
 Corvez, A., 132
 Cosey, W., 361
 Cosoveanu, A., 730, 857
 Costa Rica, 86, 121, 163, 651
 Costa, F. R. C., 945
 Courchamp, F., 473
 Couto-Vazquez, A., 253
 Coveniella, 412
 Cox, C. J., 133, 413
 Crandall-Stotler, B. J., 438
 Crausbay, S., 134
 Crawford, A. J., 135
 Creese, C., 136
 Cremers, G., 64, 137, 476
Crepidomanes inopinatum, 183
 Cretaceous, 139, 218, 292, 313, 341, 356, 398, 430, 465, 512, 540, 610, 702, 830, 926
 Croatia, 66, 782
Crybelosporites, 398
 cryopreservation, 400, 405, 591
 cryptic species, 147
Cryptogramma crispa, 655
Cryptogramma stelleri, 380
Ctenitis, 180, 290
Ctenitis canacae, 180
Ctenothrips, 815
 Ctvrtlikova, M., 138
 Cuba, 81, 469
 cultivation, 46, 47, 243
 Cumbria, 904
 Cuneo, N. R., 139
 Cunha, M. D. C., 644
 Cuthbert, R. J., 140
 cyanobacteria, 645
Cyathea, 654, 725
Cyathea atrovirens, 159
Cyathea australis, 405, 646
Cyathea borinquena, 716
Cyathea caracasana, 95
Cyathea corcovadensis, 299, 486, 546
Cyathea crinita, 477
Cyathea delgadii, 299, 397
Cyathea divergens, 431
Cyathea fulva, 596
Cyathea manniana, 634
Cyathea medullaris, 861
Cyathea nilgirensis, 184
Cyathea smithii, 800
 Cyatheaceae, 151, 159, 184, 216, 299, 392, 397, 420, 431, 486, 490, 546, 596, 624, 736
Cyclogramma costularisora, 442
Cyclosorus, 323
Cyclosorus acuminatus, 113
Cyrtobagous salviniae, 10, 266, 532
Cyrtomium falcatum, 59
Cyrtomium macrophyllum, 635, 636
Cystoathyrium chinense, 863
Cystopteris, 445, 657
Cystopteris montana, 67
 cytology, 193, 199, 238, 296, 487, 653, 711, 854, 943
 Czech Republic, 177, 446

D

- da Costa, F. L., 230
 Da Costa, G. M., 647

- da Fonseca-Kruel, V. S., 432
da Silva, I. A. A., 141
da Silva, M. C., 84
da Silva, M. C. N. A., 84
da Silva, M. V., 150
Dai, Q. G., 347
Dai, S., 926
Dai, X., 36, 88, 142, 143, 270, 344, 475, 848, 884, 885, 943
Dai, X. L., 142, 143, 270, 848, 884, 885
Daskobler, I., 144
Daly, D. C., 559
Damanhuri, A., 554
Damasceno, E. D. S., 230
Damasceno, E. R., 545
Damon, A., 351
Danaea moritziana, 601
Danko, B., 323
Daoud-Bouattour, A., 145, 211
Darnaedi, D., 193, 365
Das Talukdar, A., 146
Das, A. K., 167
Das, B., 146
Das, K. M., 26
Das, P., 379
Das, S., 725
databases, 132, 599
Dauphin, B., 147
Dauzart, A., 148, 164
Davallia, 517, 803
Davallia bilabiata, 897
Davallia cylindrica, 88
Davallia mariesii, 923
Davallia repens, 109
Davallodes squamata, 502
Davies, H. J., 874
Davies, J., 149
Davila, A., 693
Davis, A. M., 226
Davis, C. C., 880
Daws, M. I., 869
Dawson, T. E., 686
de Albuquerque, L. P., 150
de Araujo Goes-Neto, L. A., 151
De Benedictis, M., 602
De Frenne, P., 29
de Gasper, A. L., 152
de Haan, M., 153
De Keersmaecker, L., 797
De la Cruz, M., 95
De La Cruz, R. Y., 14
De La Estrella, M., 828
De la Horra, R., 63
de Menezes Butakka, C. M., 154
De Moraes, P. L. R., 696
de Novaes Pereira, A. F., 40, 155
de Oliveira, L. M., 156, 804
de Paiva, J. D. R. A., 157
de Sousa, R. N., 58
de Souza, M. M., 158
de Vargas, I. B., 159
Deb, L., 146
Decocq, G., 29
decomposition, 301, 440, 454, 480, 719, 896, 915
deer, 200, 225, 281, 558, 638, 691
Degen de Arrua, R., 160
Degola, F., 602
Deil, U., 161
Del Carmen Lavallo, M., 162
Del Olmo-Ruiz, M., 163
Delahoussaye, J., 148, 164
Delatorre-Herrera, J., 324
Dellantonio, E., 410
Delparte, D., 822
Democratic Republic of Congo, 153
demography, 596, 624
Dempsey, M. E., 83
Deng, G., 165
Deng, T., 111
Deng, W. Q., 775
Denkert, A., 59
Dennstaedtia, 793
Dennstaedtia cicutaria, 895
Dennstaedtia globulifera, 489, 556
Dennstaedtia punctilobula, 220, 558
Dennstaedtiaceae, 20, 489, 694, 696, 895
density dependence, 95
Depa, L., 531
Der, J. P., 438, 707
Desamore, A., 413
desiccation tolerance, 238, 240, 520, 575, 576, 676, 876
Dettmann, M. E., 640
Deuteromycetes, 150, 399
developmental biology, 36, 143, 165, 232, 250, 270, 271, 272, 344, 490, 641, 642, 689, 761, 844, 848, 943
Devi, N., 166
Devi, T. S., 167
Devonian, 91, 241, 529, 569, 613, 765, 766, 887
Dey, A., 146
Dey, N., 483
di Toppi, L. S., 602
Dias, S. G., 745
diatoms, 758
Diaz, F., 168
Diaz-Espejo, A., 219
dichotomy, 250
Dicksonia antarctica, 629, 646
Dicksonia lanata, 71
Dicksonia squarrosa, 939
Dicranopteris, 107, 316, 472
Dicranopteris dichotoma, 203, 346, 840, 889, 896, 919
Dicranopteris linearis, 386, 456, 654, 770, 822, 911
Dicranopteris pedata, 114, 319
Didymoglossum henziaianum, 502
Dieguez, C., 63
Diez, J. B., 702
digitization, 792
DiMichele, W. A., 525
Dimitrakopoulos, P. G., 123
Dimopoulos, P., 329
Ding, D., 312
Ding, H. H., 169
Ding, R., 170
Ding, Y. M., 171
Dinheiro, V., 552
Dinis, J., 512
dinosaurs, 488
Diphasiastrum, 282
Diphasiastrum complanatum, 777
Diplazium costale, 6
Diplazium donianum, 873
Diplazium esculentum, 14, 202, 406
Diplazium sibiricum, 637
Diplopterygium glaucum, 384
Diplopterygium pinnatum, 822
Diplopterygium rufopilosum, 311
Diptera, 810
Dipteridaceae, 410
diseases, 57, 82, 937
dispersal, 235, 248, 252, 283, 290, 370, 392, 436, 437, 472, 570, 607, 722, 811
distribution modelling, 78
disturbance, 134, 220, 303, 395, 676, 716, 724, 858, 919
diuretic, 4, 511
diversification, 94, 267, 413, 530, 791, 935, 939
diversity, see biodiversity
Dixon, K. W., 587
Djordjevic, M. A., 562
Dmitruk, M., 283
Dobaradaran, S., 914
Doblin, M. S., 516
Dodd, S. L., 505
Dolos, K., 800
Dombrosky, T., 231
domestication, 70
Dong, J., 618
Dong, L. B., 172
Dong, L. H., 173
Dong, M., 454
Dong, S. Y., 169, 174
Dong, W., 940
Dong, X., 804
Dongare, M., 582, 583
Donnadieu, Y., 94
Dorado Galvez, J. M., 641
dos Santos, V. V., 175
Dou, L., 176
Doucek, J., 177

- Douglas, S. J., 178
 Dowgiallo, G., 655
 Doyle, B. J., 79
 Drabkova, J., 446
 Drijber, R. A., 297
 Droste, A., 159, 486, 647
 drought, 876
 Druzhinina, I., 399
Drynaria, 191, 362, 723
Drynaria fortunei, 429, 618, 872, 898, 937
Drynaria quercifolia, 146, 374
Dryopteridaceae, 18, 86, 121, 162, 180, 412, 468, 469, 495, 496, 501, 504, 527, 528, 549, 550, 659, 708, 749
Dryopteris, 428, 556, 706, 793
Dryopteris affinis, 415
Dryopteris austriaca, 303
Dryopteris carthusiana, 29, 522
Dryopteris crassirhizoma, 171, 227, 239, 303, 358, 524
Dryopteris damingshanensis, 921
Dryopteris dilatata, 212, 255
Dryopteris expansa, 281
Dryopteris filix-mas, 404, 808
Dryopteris fragrans, 317, 773
Dryopteris fuscipes, 319
Dryopteris huberi, 612
Dryopteris labordei, 615
Dryopteris scottii, 312
Dryopteris tokyoensis, 892
Dryopteris varia, 305
Dryopteris wallichiana, 556
 Du, Q., 449
 Du, W. W., 616
 Duan, J., 179
 Duan, L., 319
 Duan, Y. F., 180, 181
 Duarte de Castro, N. G., 58
 Dubal, K., 182
 Dubuisson, J. Y., 183
 Ducatti, K. R., 231
 Duchoslav, M., 915
 Duckett, J. G., 765
 Dudani, S. N., 184
 dunes, 594
 Dunlap, J., 355
 Dutta, P., 484
 Duvall, F., 822
 Dwyer, D. F., 649
 Dyer, A., 185, 186, 187, 188
 Dyer, R. J., 734
 dyes, 682
- E**
- earthworms, 212, 470
 Ebach, M. C., 257
 Ebihara, A., 108, 189, 190, 305, 629
 ecdysteroids, 311
 Echinades, 329
 ecological niche, 161, 178, 382, 661, 782, 883
 ecology, 31, 66, 86, 123, 134, 135, 138, 253, 278, 301, 316, 334, 347, 354, 426, 477, 498, 509, 557, 560, 567, 568, 587, 638, 646, 653, 666, 770, 784, 827, 835, 882, 915, 942, 946
 Ecuador, 6, 95, 372, 373, 387, 639, 685
 Eda, S., 355
 edge effects, 155, 479, 698
 edible plants, 14, 202, 577, 634, 916
 Edouard, M. J., 191
 Edwards, D., 529
 Edwards, M. E., 53
 Eeckhout, S., 192
 Efendi, M., 193
 Eguiarte, L. E., 624
 Egypt, 717
 Ekawati, D., 654
 Ekman, J., 194
 Ekrt, L., 282
Elaphoglossum, 162, 468, 469, 495, 496
Elaphoglossum decursivum, 121
Elaphoglossum hybridum, 436, 437
Elaphoglossum nimbaense, 659
Elaterosporites, 398
 El-Beih, A. A., 699
 El-Diwany, A. I., 699
 elevational gradients, 372, 790
 Elias, S. A., 53
 Elliott, W. S., Jr., 195
 Elliott-Kingston, C., 196
 Elpino-Campos, A., 158
 Embley, T. M., 133
 endemism, 62, 298, 360, 382, 584, 622, 659, 728, 863, 929
 Endo, G., 769
 endophytes, 163, 173, 261, 336, 536, 537, 588, 668, 699, 730, 765, 857, 902, 941
 endosymbiotic transformation, 388
 Enomoto, T., 892
 environmental gradients, 373, 790, 814, 938, 945
 enzymes, 41, 77, 411, 602, 773, 820
 Eocene, 285, 690, 778, 852
 Epert, A., 497
 epidermis, 196, 475
 epiphytes, 11, 40, 158, 307, 351, 440, 479, 492, 520, 523, 566, 619, 683, 785, 927, 942
 epiphyton, 758
 Equatorial Guinea, 828
Equisetites, 13, 131
Equisetum, 115, 133, 218, 226, 251, 269, 323, 514, 519, 580, 606, 607, 679
Equisetum arvense, 75, 208, 297, 383, 393, 417, 518, 653, 750, 763, 824, 848, 884
Equisetum bogotense, 604
Equisetum fluviatile, 322, 334
Equisetum giganteum, 27, 324, 604
Equisetum hyemale, 393
Equisetum palustre, 256, 864
Equisetum silvaticum, 61, 333, 448
Equisetum tataricus, 906
Equisetum telmateia, 82, 287, 843, 866
 Erfan, M., 555
 Erickson, H. E., 197
 Eriksson, O., 29
Eriosorus, 129, 681
 erosion, 253, 346, 737, 827
 Ershova, E. A., 839
 Esaete, J., 198
 Escalante, A. H., 201
 Escudero, A., 95
 Eskandari, M. R., 555
 Espadas-Gil, F., 228
 Espinosa Matias, S., 642
 Esqueda-Esquivel, V. A., 5
 Essen, L. O., 385
 essential oils, 853
 Esser, H. J., 933
 Esteves, L. M., 424
 ethnobotany, 7, 117, 146, 160, 233, 363, 378, 432, 511, 542, 739, 879, 911
 ethnopharmacology, 59, 635
 ethylene, 119, 878
 eupolypods, 455, 779
 Europe, 41, 87, 147, 282, 320, 338, 663, 838, 915
 Evangelista, L., 109
 Evkaikina, A. I., 199
 evolution, 50, 94, 96, 109, 127, 169, 251, 290, 291, 305, 339, 367, 371, 384, 413, 453, 461, 530, 562, 568, 592, 607, 656, 662, 681, 726, 733, 779, 786, 791, 794, 806, 820, 856, 901, 935, 936, 939, 946
 Ewald, J., 200, 633
 Eycott, A. E., 198
- F**
- Fabiani, A. C., 201
 Fabre, I., 704
 Fabres C. A., 435
 facilitation, 840
 Falcon, W., 846
 Falcon-Lang, H. J., 43

- Falinski, K. A., 202
 Fan, G. W., 191
 Fan, R., 317
 Fan, S., 176
 Fan, S. H., 616
 Fan, S. W., 173
 Fan, Y., 635, 636
 Fang, X., 875
 Fang, X. M., 203
 Fangel, J. U., 516
 Faria, P. L., 222
 Farias, R. D. P., 40
 Farmer, E. E., 204
 farming systems, 544
 Farnese, F. S., 423
 Fatimah, C. A., 911
 Fauth, G., 398
 Favas, P. J. C., 205
 Favero, D. S., 935
 Fay, M. F., 846
 Fedrigo, M., 207
 Feher, A., 208
 Feitoza, L., 487
 Feldberg, K., 468
 Felinto, F., 487
 Felipe, A., 687
 Felipe, R. T. A., 423
 Felth, J., 764
 fen, 337, 340, 867
 Feng, T., 209, 210
 Feng, W. S., 112
 Feng, Y., 209, 210
 Fenner, J., 76
 Ferchichi-Ben Jamaa, H., 145, 211
 Ferlian, O., 212
 fern cover, 558
 Fern Gazette, 185
 Fernandes, R. S., 213
 Fernandez Piedade, M. T., 58
 Fernandez, C., 253, 827
 Fernandez, H., 818
 Fernandez-Baldor, F. T., 702
 Fernandez-Palacios, J. M., 584
 Fernando, S. S., 630
 fern-animal interactions, 570, 810
 Fernie, A. R., 240
 Fero, M., 828
 Ferrarini, A., 655
 Ferreira de Sant'Ana, F. J., 214
 Ferreira, M. T., 834
 Ferreira-Keppler, R. L., 810
 Ferrer, J., 702
 Ferretti, G., 421
 Ferroni, L., 215
 fertilization, 319, 347, 552, 564, 840
 fertilizer, 357, 403, 579, 688, 891
 fever, 542
 Field, C. B., 68
 Figueiredo, F. O. G., 945
 Figuerola, C. E., 835
 Finkelstein, S. A., 226
 Finland, 322
 fire ecology, 123, 134, 135, 253, 301, 316, 426, 587, 638, 646, 827
 Fischer, A., 644
 Fischer, H. J., 12
 Fischer, T. C., 409
 fish, 75, 411
 FitzJohn, R. G., 216
Flabellariopteris, 772
 flavonoids, 88, 113, 114, 179, 323, 457, 679, 723, 773, 944
 Fleck, C., 608
 Fletcher, T. L., 218
 Flexas, J., 219
 Flinn, K. M., 220
 flooding, 105
Floracarus verrepae, 414
 Flores-Bavestrello, A., 676
 Flores-Morales, A., 293
 Florida, 266, 414, 631, 648, 753, 757
 floristics, 11, 18, 37, 62, 65, 66, 67, 90, 93, 101, 111, 151, 180, 194, 206, 222, 237, 256, 258, 279, 286, 288, 293, 298, 299, 308, 309, 313, 329, 380, 402, 450, 462, 471, 481, 491, 538, 544, 581, 601, 616, 619, 620, 623, 639, 665, 709, 712, 717, 721, 731, 763, 808, 812, 828, 831, 836, 838, 859, 907, 925
 flow cytometry, 282
 Floyd, S. K., 221
 fluoride adsorption, 914
 Fofana, C. A. K., 758
 Foggi, B., 421
 Fong, R., 939
 Fonturbel, F. E., 570
 Fonturbel, T., 827
 food, 212, 634, 849, 911
 forensic science, 868
 forest fragments, 40, 479, 481
 forest integrity, 51
 forest management, 669, 858
 forest regeneration, 235
 forests, 53, 56, 183, 197, 198, 207, 255, 303, 319, 333, 460, 515, 535, 571, 624, 633, 669, 670, 686, 698, 700, 797, 909
 Forino, L. M. C., 34
 Fortin, J. K., 269
 Fortunato, R. H., 27
 Forzza, R. C., 222
 fossils, 13, 42, 43, 48, 53, 60, 63, 91, 94, 104, 107, 127, 131, 139, 177, 195, 196, 201, 218, 223, 224, 226, 236, 241, 249, 285, 292, 313, 316, 320, 341, 356, 371, 398, 409, 410, 430, 446, 455, 458, 463, 464, 465, 468, 488, 506, 512, 517, 525, 529, 540, 541, 543, 569, 572, 574, 593, 606, 609, 610, 613, 660, 690, 692, 702, 732, 765, 766, 772, 778, 798, 801, 821, 830, 833, 851, 852, 855, 856, 862, 874, 875, 887, 926
 Foster, J. D., 195
 Foster, N., 474
 Foster, P. G., 133
 Fox, B., 517
 Foy, N., 115
 Franc, A., 94
 Franca, M. C., 223
 France, 64, 78, 104, 338, 480, 766, 843
 Francisco, M. R., 566
 Francisquini, M. I., 223
 Franco, M. A., 54
 Frangedakis, E., 438
 Franke, K., 59
 Franz, M., 42
 Fraser, R., 115
 Fraser, W. T., 224
 Fraser-Jenkins, C. R., 18, 677
 Frederickson, M. E., 498
 Freitas Neto, A. P., 214
 Freitas, L., 559
 Freitas, M. C. A., 627
 Frerker, K., 225
 Frey, K. L., 269
 Friel, C. E., 226
 Friis, C., 21
 Friis, E. M., 512
 frogs, 912
 frontiers, 509
 frost damage, 217, 443, 793
 frost tolerance, 217, 327, 443
 Fu, J. G., 170
 Fu, R. H., 227
 Fu, Y., 440, 864
 Fuentes, G., 228
 Fuentes, I. I., 228
 Fujimoto, E. L., 781
 Fujimoto, K., 305
 Fujimoto, Y., 304
 Fujiwara, A. U., 229
 Fukushima, 519, 892
 Fukuto, J. M., 130
 Fumero-Caban, J., 835
 Funez, L. A., 152
 fungi, 163, 173, 268, 297, 386, 399, 419, 420, 480, 537, 588, 699, 765, 788, 809, 845, 867, 902
 Furlan, F. H., 230, 231
Fusarium oxysporum, 150
 Fyfe, R. M., 874
 Fyllas, N. M., 123

G

- Gabarayeva, N. I., 232
 Gacia, E., 103
 Gaevsky, N. A., 334
 Gago, J., 219
 Gaikwad, K. N., 621
 Gairola, S., 233
 Gajewski, K., 543
 galactoglycerolipids, 128
 Galbraith, J. A., 234
 Galej, K., 338
 Galeotti, M., 75
 Gallegos, S. C., 235
 Galmes, J., 219
 Galtier, J., 236, 855
 gametophytes, 36, 121, 143, 192, 232, 244, 270, 271, 272, 327, 344, 489, 490, 627, 689, 795, 848, 869, 943
 Gammar, A. M., 211
 Gandini, G., 128
 Gandolfo, M. A., 139, 292
 Ganem, M. A., 237
 Gao, C., 771
 Gao, D., 117, 118
 Gao, J. G., 885
 Gao, K., 918
 Gao, X., 349
 Gao, X. F., 924
 Gao, X. M., 191
 Garcés Cea, M., 238
 Garcia-Marco, S., 253
 Garcia-Montiel, D., 835
 gardens, 632, 835
 Garris, J. R., 697
 Gast, P., 239
 Gastony, G. J., 267
 gastropods, 435
 Gaudeul, M., 658
 Gautam, R. P., 741
 Gazbka, M., 340
 Ge, H. L., 346
 Gechev, T. S., 240
 Gehlen, G., 647
 Geisler, M., 786
 gemmae, 614
 Gena, D., 363
 Genderjahn, S., 134
 gene transfer, 438
 gene transformation, 605
 generation time, 939
 genetics, 30, 39, 45, 52, 70, 78, 83, 96, 176, 221, 263, 284, 295, 305, 315, 317, 338, 345, 360, 367, 383, 384, 388, 413, 438, 453, 497, 516, 553, 562, 565, 592, 597, 624, 656, 658, 672, 673, 732, 756, 773, 786, 809, 877, 880, 884, 885, 901, 908, 930, 935, 936
 genomes, 45, 291, 295, 350, 388, 497, 600, 662, 707, 732, 901
 genomics, 60, 461, 497, 707, 755, 901
 Genovesi, P., 473
 Gentili, R., 655
 Geri, F., 421
 Gerique, A., 387
 Germany, 12, 42, 49, 78, 200, 326, 338, 610, 633, 821
 germination, 36, 138, 418, 437, 587, 689
 Gerrienne, P., 241
 Gess, R. W., 613
 Ghazali, S. Z., 242
 Ghosh, B., 815
 Ghosh, D. K., 243
 Ghosh, N., 483
 Ghrabi-Gammar, Z., 145, 211
 Giacosa, J. P. R., 244
 Giardina, C., 68
 Giardina, C. P., 571, 700
 gibberellin, 553, 726, 789
 Gibby, M., 245
 Gibling, M. R., 43
 Gil da Costa, R. M., 246
 Gilet, T., 500
 Gill, H. S., 23
 Gill, R., 15, 824
 Gill, S. S., 15, 824
 Gill, S. S., 15
 Gillingham, M. P., 281
 Girault, J. P., 304
 Girdhar, M., 247
 Gitzendanner, M. A., 662
 Giudice, G. E., 237, 244
 Givnish, T. J., 706
 glaciers, 580
 glass manufacture, 335
Gleichenia linearis, 917
 Gleicher, S. C., 248
 Glushchenko, L. A., 334
 glycosides, 61, 112, 893, 898
 Gnau, P., 385
 goats, 321
 Goda, Y., 302
 Goetz, A. E., 249, 660
 Goffinet, B., 413
 Goh, K. K. T., 861
 Gola, E. M., 250
 gold, 843
 Gollan, J. R., 748
 Golokhvast, K. S., 251
 Gomez-Noguez, F., 252
 Gomez-Rey, M. X., 253
 Gomez-Zurita, J., 254
 Goncalves Jardim, M. A., 619
 Goncharov, A. A., 255
 Gong, D. J., 938
 Gong, Q., 318
 Gonzalez, G., 724
 Gonzalez, R., 361
 Gonzalez, Y., 160
 Gonzalez-Jurado, G., 256
 Gonzalez-Orozco, C. E., 257
 Gonzalez-Prieto, S., 827
 Gonzalez-Prieto, S. J., 253
 Gonzalez-Roman, R. D., 258
 Gonzalez-Romero, A., 535
 Goodla, L., 484
 Gorczyca, J., 531
 Gordon, E. R. L., 396
 Gordon, J., 692
 gorillas, 634
 Gorton, H. L., 837
 Gosling, W. D., 224
 Goswami, H. K., 259, 260
 Gough Island, 140
 Goutam, J., 261
 Grabovskaya-Borodina, A. E., 262
 Gradstein, S. R., 413
 Graham, S. W., 50, 221, 438, 707
 grammitid ferns, 780, 781
 Gramzow, L., 263
 Grand, A., 132
 Grande, L., 778
 Grandova, M. A., 264
 Grant, J. R., 147
 Grasso, M. S., 795
 Grau, A., 324
 gravity, 77
 grazing, 211
 Greece, 123, 329
 green spores, 400, 444
 Green, W. A., 265
 Greenwood, D. R., 218
 Greuter, W., 812
 Grodowitz, M. J., 266
 Groenen, E. J. J., 239
 Groeneveld, J., 800
 Groff, H. E., 220
 ground water, 126
 growth forms, 574, 794, 800
 Grundmann, M., 78
 Grusz, A. L., 267
 Gu, B., 849
 Gu, X., 592
 Guadeloupe Island, 476
 Guan, D. X., 941
 Guan, K. Y., 442
 Guanajuato, 279, 294
 Guatemala, 79
 Guatimosim, E., 268
 Guedel, R., 372
 Guedes Paiva, P. M., 150
 Guerra, M., 84, 487
 Guerra, M. B. B., 84
 Guerra, R., 490
 Guerrero, 829
 Guhl, M., 610
 Guidi, T., 421
 Guilhaumon, F., 585
 Guilherme, L. R. G., 156

- Gulfraz, M., 709
 Gunasekaran, B., 679
 Gunther, K. A., 269
 Guntzer, F., 514
 Guo, C. C., 345
 Guo, D. A., 618, 898
 Guo, H., 350
 Guo, L., 635
 Guo, L. D., 480
 Guo, N. B., 883
 Guo, Q., 209
 Guo, Y. D., 270, 271, 272
 Guo, Z., 931
 Guo, Z. H., 936
 Gupta, B., 672, 673
 Gupta, K., 672, 673
 Gupta, S., 273
 Gureyeva, I. I., 274, 275, 276, 400, 710
 Gurung, S., 130, 277
 Gusman, G. S., 423
 Guterres-Pazin, M. G., 278
 Gutierrez, J., 279
 Gutierrez, M. F., 280
 Guyana, 507
Gymnocarpium, 657
 gynecology, 79
- ## H
- Haberle, S. G., 76
 habitat, 1, 31, 58, 140, 141, 149, 158, 178, 234, 287, 291, 319, 381, 523, 560, 567, 596, 661, 671, 698, 737, 751, 776, 822, 912
 habitat fragmentation, 141
 Hadi, A. H. A., 302
 Haefele, S. M., 688
 Hahn, D. A., 532
 Haider, S. K., 7
 hairs, 500
 Hajek, M., 337
 Hajkova, P., 337
 Hala, Y., 357
 Halmova, D., 208
 Halpern, C. B., 816
 Halthore, M. N., 692
 Hamed, S. T., 717
 Hamer, U., 387
 Hamilton, T. D., 53
 Han, X., 849, 906
 Hanafusa, T., 892
 Hanks, J. G., 412, 526
 Hanley, T. A., 281
 Hansen, H. C. B., 21, 126
 Hanusova, K., 282
 Hao, X., 928
 Hao, Z. Y., 112
Haplopteris alternans, 451
Haplopteris dareicarpa, 451
Haplopteris humblotii, 451
Haplopteris yakushimensis, 108
 Haque, M. E., 374
 Haratym, W., 283
 hardiness, 573
 Harholt, J., 516
 Haroldson, M. A., 269
 Harrington, G., 224
 Harrod, C., 370
 Harsh, R., 714, 715
 Hart, P., 822
 Hartman, P., 361
 Hasebe, M., 806
 Haselsberger, R., 385
 Hashim, S., 325
 Hatayama, M., 769, 934
 Hattori, M., 791
 Hatvani, L., 399
 Hauber, M. E., 234
 Haufler, C. H., 284, 731, 733
 Hawaii, 68, 105, 202, 321, 534, 567, 571, 700, 722, 822
 Haworth, M., 196
 Hayashi, K. I., 726
 Hayes, P. A., 285
 Hayward, A., 453
 Hayward, M., 286
 Hazra, S., 674
 He, C., 635, 636
 He, H., 336, 922
 He, J., 172, 349
 He, L. J., 455
 He, X., 318
 He, X. Y., 855, 856
 He, Y. J., 883
 He, Z., 718
 Heard, S. B., 563
 heavy metals, 26, 28, 33, 228, 423, 427, 456, 586, 645, 649, 703, 774, 804, 832, 843, 928
 Hedl, R., 29
 Heery, S., 287
 Heimhofer, U., 926
 Heinken, T., 29
 Heinrichs, J., 413, 468, 469
 Heinz, K. M., 532
 Hellquist, C. B., 288
 Hellquist, C. E., 288
Helminthostachys zeylanica, 110, 259, 741, 893
 Helms, B., 737
 hematuria, 230, 691
 hemiepiphytes, 86, 559, 794
 Hemiptera, 531, 768
 Hemp, A., 622
 Henares, M. N. P., 289
 Hennequin, S., 183, 290
 Henrissat, B., 809
 Henry, T. A., 291
 Hensen, I., 235
 herbaria, 152, 262, 421, 449, 507, 710
 herbicides, 518
 herbivory, 1, 6, 97, 168, 200, 204, 225, 242, 254, 266, 269, 278, 281, 408, 411, 435, 488, 531, 534, 547, 558, 607, 631, 634, 638, 692, 697, 768, 815
 Hermesen, E., 139, 292
 Hermesen, E. J., 292
 Hermy, M., 29
 Hernandez-Cardenas, R. A., 293
 Hernandez-Gonzalez, S., 419, 420
 Hernandez-Hernandez, V., 294
Herpetogramma theseusalis, 3
 Herrmann, M., 875
 Herzs Schuh, U., 458
 Heteroptera, 264
 heterosporangium, 260
 Hettiarachchi, N., 295
 Heunisch, C., 42
 Heurich, M., 200
 Hickey, R. J., 836
 Hidalgo, 467, 596
 Hidayat, A., 109, 365
 Higa, T., 296
 Higgins, C. M., 820
 Higo, M., 297
 Hildebrandt, P., 387
 Hill, J., 668
 Hill, S. D., 648
 Hille, J., 240
 Hiltbrunner, A., 608
 Hilton, J., 461, 855, 856
 Himalayas, 375, 377, 380, 485, 712, 728, 739
 Hines, H. B., 298
 Hiola, S. F., 357
Hippochaete ramosissimum, 439, 719, 845
 Hirai, R. Y., 299, 300, 611, 612, 693, 781
 Hirano, K., 789
 Hirano, T., 301, 303
 Hirasawa, Y., 302
 Hirata, R., 303
 Hirayama, Y., 304
 Hishi, T., 492
Histiopteris incisa, 140
 histochemistry, 84
 histones, 487
 Holdaway, R. J., 638
 Holocene, 76, 201, 223, 226, 316, 452, 493, 543, 580, 606
 Holtum, J. A. M., 871
 Homeier, J., 372, 373
 Hommel, P., 29
 homonyms, 736
 Hong, B., 920
 Hong, S. H., 119
 Horak, D., 698
 Hore, M., 273
 Hori, K., 305
 hormones, 50, 675

- Horn, K., 49
Horsak, M., 337
horticulture, 46, 47, 217, 306, 418, 573, 745, 803, 878
Horton, R., 306
host plants, 153, 163, 254, 408
host trees, 683
Hotchkiss, S., 134
hotspots, 538, 681
Hotton, C. L., 463
Hovenkamp, P. H., 25
Hrivnak, R., 32
Hsu, R. C. C., 307
Hsu, S. Y., 364
Hsu, T. C., 101, 308, 309
Hu, B. Z., 773
Hu, C., 310
Hu, H., 927
Hu, J., 311
Hu, N., 312
Hu, S., 313
Hu, X., 932
Hu, X. F., 203
Hu, Y., 755, 877
Hua, Z. S., 439
Huang, B., 314
Huang, B. B., 173
Huang, J., 315, 849
Huang, K., 107, 316
Huang, L., 441, 605, 900
Huang, M. Y., 873
Huang, Q., 317
Huang, S. T., 897
Huang, X., 107
Huang, X. T., 318
Huang, Y., 319, 864, 896, 917, 934
Huang, Y. H., 346
Huang, Y. M., 101, 364
Huang, Y. Y., 459
Huang, Z., 454
Hubai, A. G., 560
Hubbard, S., 868
Hudson Bay, 226
Huebers, M., 320
Hugelius, G., 606
Hughes, G., 321
Huhta, A. P., 322
Hui, D., 896
Huiet, L., 267
hummingbirds, 570
Humphries, N. E., 370
Hunyadi, A., 323
Huperzia, 133, 641
Huperzia carinata, 799
Huperzia hamiltonii, 728
Huperzia nanlingensis, 729
Huperzia phlegmaria, 302
Huperzia saururus, 54, 124, 819
Huperzia selago, 633
Huperzia serrata, 120, 170, 173, 315, 318, 349, 352, 399, 617, 729, 730, 756, 771, 857, 890, 894, 902, 931
Huperzia squarrosa, 45, 799
hurricanes, 716, 724
Husain, T., 739
Husby, C. E., 324
Huskins, S., 148, 164
Hussain, F., 721
Hussain, M. M., 325, 332
Hussain, S., 508
Hussner, A., 326
Hutchinson, J. T., 327
Hwang, S. Y., 119
Hwang, T. K., 119
Hwang, T. L., 110
hybrids, 109, 190, 282, 364, 431, 663, 684, 732, 749, 796, 902, 929
Hyde, K. D., 480
hydraulics, 766
hydrology, 145
hydroponics, 209, 406
Hyeroba, D., 634
Hymenophyllaceae, 183, 557, 591, 676, 825
Hymenophyllum, 238
Hymenophyllum tunbridgense, 603
Hymenoptera, 6, 158, 331
Hyodo, F., 492
Hypodematum, 854
Hypoderris, 526
Hypolepis, 20
Hypolepis poeppigii, 489
Hypolepis rugosula, 694
Hyvonen, J., 45
- ## I
- Ibrahim, A. L., 911
Ichikawa, K., 395
Idleman, B. D., 778
Iglay, R. B., 328
Iliadou, E., 329
Illarionova, I. D., 262
Ilyas, M., 620
Imin, N., 562
immunology, 110, 635, 636
immunostimulatory, 227
Inaperturopollenites, 398
India, 17, 18, 28, 35, 37, 98, 99, 106, 146, 167, 182, 184, 233, 259, 261, 273, 360, 363, 366, 375, 376, 377, 378, 379, 380, 477, 478, 482, 502, 508, 536, 537, 542, 579, 582, 583, 586, 688, 690, 711, 712, 714, 725, 728, 739, 741, 742, 743, 760, 815, 825, 826, 831, 875, 879
indicator species, 51, 134, 395, 545, 633, 647, 834
Indonesia, 56, 193, 301, 354, 365, 434, 630, 654
industrial ferns, 767
Ingham, C. S., 330
Inman-Narahari, F., 534, 571
Inoue, C., 769, 934
insects, 6, 154, 264, 408, 768, 810, 815
Inubushi, K., 357
Inui, Y., 492
invasibility, 533
invasive species, 5, 230, 326, 327, 330, 369, 370, 414, 473, 478, 534, 568, 631, 648, 735, 753, 816, 823, 853
invertebrates, 422
Iran, 13, 671
Ireland, 287, 369, 370
Isaka, Y., 331, 791
Isard, S. A., 248
Ishaq, M. S., 332
Ishii, S., 905
Ishizaki, K., 390
Islam, M. E., 374
Islam, M. H., 374
Islam, M. N., 374
island biogeography, 290, 329, 365, 584
Isle of Wight, 285
Ismail, A. M., 688
Isobe, K., 297
Isoetes, 133, 368, 543, 714, 715, 812, 838
Isoetes coromandelina, 359
Isoetes dixitei, 360
Isoetes dubia, 813
Isoetes durieui, 673
Isoetes echinospora, 103, 288
Isoetes histrix, 589
Isoetes howellii, 871
Isoetes lacustris, 138
Isoetes longissima, 813
Isoetes naipiana, 870
Isoetes pallida, 829
Isoetes pantii, 260
Isoetes subinermis, 673
Isoetes tiguliana, 813
Isoetes velata, 813
Isoetes viridimontana, 652
isotopes, 68, 719
Italy, 208, 409, 410, 415, 421, 655, 812, 813
Itioka, T., 492
Ito, A., 303
Ito-Tanabata, S., 905
Ivanova, A. A., 333
Ivanova, E. A., 334
Iwashina, T., 229
- ## J
- Jackson, C. M., 335

- Jacobsen, O. S., 126
 Jadulco, R. C., 336
 Jamaica, 286
 Jaman, R., 554
 James, T. Y., 809
Jamesonia, 129, 681
 Jamrichova, E., 337
 Jan, A., 325
 Janiak, A., 338
 Janko, K., 339
 Jansen, S., 69
 Janso, J. E., 336
 Jansson, I. M., 506
 Japan, 108, 190, 229, 297, 303, 305, 393, 395, 430, 523, 524, 769, 770, 788, 790, 791, 903, 934
 Jaruwatanaphan, T., 434
 Jassey, V. E. J., 340
 Jati, S. R., 58
 Jayachandran, K., 757
 Jehl, H., 200
 Jensen, P. H., 126
 Jeon, H., 447
 Jeon, J. G., 358
 Jeong, E. K., 341
 Jeong, H. M., 382
 Jeong, K. S., 342
 Jeong, K. Y., 342
 Jeong, S., 343
 Jesus Canal, M., 818
 Ji, W., 427
 Ji, Y., 344
 Jia, P., 439
 Jia, R. D., 345
 Jia, T. Z., 886
 Jiang, B., 577
 Jiang, F. S., 346
 Jiang, L. R., 318
 Jiang, L. Y., 768
 Jiang, M., 347
 Jiang, N., 885
 Jiang, P., 919
 Jiang, S. Z., 172, 348
 Jiang, W. W., 349
 Jiang, Z. K., 801
 Jiao, Y., 350
 Jimenez Bautista, L., 351
 Jimenez, E., 827
 Jimenez-Alfaro, B., 670
 Jin, H., 452
 Jin, J. H., 852
 Jin, Z., 577
 Jin, Z. J., 456
 Jivad, N., 352
 Johansen, I. E., 516
 Johns, M. A., 901
 Johnson, A. K., 657, 731
 Johnson, G., 652
 Johnson, S., 266
 Johnson, T., 353
 Jones, E., 31
 Jones, M. M., 354, 945
 Jones, P., 660
 Jordan, 313
 Joussein, E., 843
 Joyce, B. L., 355
 Ju, C. G., 886
 Ju, J., 457
 Juan-Fernández Islands, 435
 Jud, N. A., 356
 Juhler, R. K., 126
 Jujuy, 811
 Jumadi, O., 357
 Jumruksa, A., 799
 Jung, J., 359, 360
 Jung, J. E., 358
 Jurassic, 13, 60, 506, 801, 926
 Jurina, A. L., 569
- K**
- Kahmen, A., 134
 Kakule, T. B., 336
 Kale, M., 182
 Kaligaric, M., 66
 Kalimantan, 56, 301
 Kalluri, J., 361
 Kamalinejad, M., 555
 Kamisan, F. H., 911
 Kaneko, K., 727
 Kang, F. J., 381
 Kang, R., 319
 Kang, S. N., 362
 Kannan, M., 879
 Kanther, R. P., 363
 Kao, T. T., 364
 Karger, D. N., 365
 Karoo, 249, 660
 Kasel, S., 207
 Katayose, T., 860
 Kato, J., 305
 Kato, Y., 302
 Katul, G. G., 248
 Kaulfuss, U., 517
 Kaur, P., 366
 Kaur, S., 366
 Kaur, V., 366
 Kawachi, N., 905
 Kawahara, T., 393
 Kawai, Y., 367
 Kawaide, H., 726
 Kayan, B., 703
 Ke, L. S., 878
 Ke, Y., 318, 617
 Keeley, J. E., 368
 Keller, C., 514
 Keller, H. A., 397
 Kelly, D. L., 547
 Kelly, R., 369, 370
 Kelly, S., 438
 Kennedy, E. M., 517
 Kennedy-Bowdoin, T., 68
 Kenrick, P., 371, 765, 766
 Kerala, 28, 478, 879
 Kerber, F. L., 230
 Kerns, J., 917
 Kerp, H., 320, 409
 Kessler, M., 290, 354, 365, 372, 373, 785
 Khalilzade, H., 13
 Khan, A., 374
 Khan, I., 15
 Kharwar, R. N., 261
 Khatoon, S., 739
 Khattak, M., 332
 Kholia, B. S., 375, 376, 377, 378, 379, 762, 831
 Khramova, E. Y., 255
 Khullar, S. P., 380
 Khunnawutmanotham, N., 799
 kidney stones, 119
 Kim, D. G., 381
 Kim, H. J., 341
 Kim, H. R., 382
 Kim, H. T., 383, 384
 Kim, I. S., 362
 Kim, J. G., 381
 Kim, K., 341, 426
 Kim, K. J., 383, 384
 Kim, M. S., 427
 Kim, S. J., 119
 Kim, S. W., 119
 Kim, T., 96
 King, D. I., 751
 Kiontke, S., 385
 Kirby, K., 29
 Kirkpatrick, J. B., 683
 Kirschner, R., 386
 Kismali, G., 910
 Kitagawa, Y., 395
 Kitajima, J., 229
 Kitajima, K., 757
 Kitajima, M., 24
 Kitajima, N., 860
 Kitamura, A., 519
 Kitazaki, K., 905
 Kitazaki, M., 905
 Klahn, T., 416
 Klanderud, K., 533
 Kluge, J., 372, 373
 Knapp, D. E., 68
 Knerr, N., 257, 538
 Knerr, N. J., 257
 Knie, N., 565
 Knoke, T., 387
 Knoop, V., 565
 Knopki, P. B., 58
 Knox, E. B., 388
 Knutson, A., 532
 Kobayashi, A., 769
 Kobayashi, D., 519
 Koch, M., 336
 Kodali, V. P., 26
 Koeniger, M., 389
 Koermoecki, P., 399

- Kogure, N., 24
 Koh, I. H., 427
 Kohchi, T., 390
 Kohzuma, T., 239
 Koketsu, E., 789
 Kolar, F., 282
 Kolmakov, V. I., 334
 Komatsu, A., 390
 Komatsu, K., 675
 Komiyama, C., 519
 Koncekova, L., 208
 Kondo, T., 297
 Kong, H. Z., 345
 Kong, L. Y., 578
 Kong, S. G., 391
 Kong, X. H., 616
 Koo, N., 427
 Koppel, L., 738
 Kopylova-Guskova, E. O., 333
 Korall, P., 392
 Korea, 341, 342, 362, 381, 382,
 426, 428
 Kosaka, N., 393
 Kosesakal, T., 394
 Koshy, C. P., 18
 Kouho, R., 860
 Koutsias, N., 123
 Koyanagi, T. F., 395
 Kraft, C. E., 396
 Krauczuk, E. R., 397
 Krauspenhar, P. M., 398
 Kredics, L., 399
 Kreft, H., 365, 585
 Kreshchenok, I. A., 275, 400
 Krieger, J. D., 401
 Krings, M., 320, 821
 Krippel, Y., 402
 Krishna, K., 403
 Kroemer, T., 90
 Kryukov, K., 295
 Kuelahoglu, C., 70
 Kuhry, P., 606
 Kukla, J., 404
 Kuklova, M., 404
 Kulus, D., 405
 Kumar, A., 247, 261
 Kumar, J., 261
 Kumar, M., 366, 740
 Kumar, S. S., 879
 Kumar, V., 815
 Kumari, A., 406
 Kumari, M., 407
 Kumbaric, A., 87
 Kuo, L. Y., 189, 929
 Kurz, S., 70
 Kuschel, G., 408
 Kusin, K., 301
 Kustatscher, E., 42, 63, 409, 410,
 821
 Kuster, R., 59
 Kutchan, T., 50
 Kuusinen, N., 606
 Kuz'mina, V. V., 411
 Kuznetsov, A. A., 275
 Kwon, J., 447
 Kyalo, G., 552
- ## L
- Labandeira, C. C., 692
 Labiak, P. H., 412, 526
 Lacina, A., 337
 Laenen, B., 413
 Laffan, S., 257
 Lagumbay, A. J. D., 14
 Lai, L. S., 916
 Lake, E. C., 414, 753
 lakes, 280, 334, 594
 Lakomy, P., 30
 Lal, B., 406
 Lambdon, P., 31
 Lamentowicz, L., 340
 Lamentowicz, M., 340
 Lamont, E. E., 763
 Lana, C. C., 398
 land management, 5, 32, 105,
 208, 314, 321, 330, 351, 518,
 544, 552, 589, 669, 746, 751,
 775, 797, 919
 land use, 297, 387, 654, 746, 777,
 906
 land use changes, 777
 Landi, M., 415
 Lang, S. I., 416
 Langdale, J. A., 438, 605, 707
 Langeland, K. A., 327
 Langer, A., 713
 Langhammer, A. J., 417
 Lanyon, F., 418
 Lara-Capistran, L., 419
 Lara-Perez, L. A., 419, 420
 Lardeux, H., 766
 Larson, E. C., 336
 Larsson, A., 438
 Laruan, K. A., 471
 Lastra, L., 835
Lastreopsis, 412
 Lastrucci, L., 421
 Latiff, A., 120
 Latifovic, R., 115
 Laue, B., 185
 Laurance, W. F., 479
 Lautenschlager, A. D., 422
 Law, M. C., 872
 Lawrence, A., 668
 Lazarus, K. L., 809
 Le Herisse, A., 766
 Leach, K., 369
 lead, 427, 586, 645, 703, 841, 843
 leaf abscission, 130
 leaf form, 706
 leaf geometry, 401
 leaf litter, 454, 867
 leaf traits, 68, 204, 593
 leaf venation, 946
 Leao Barros, I. C. L., 40
 Leao, G. A., 423
 Lebrao, C., 424
Lecanopteris, 794
Lecanopteris ridleyi, 492
Leclercqia, 48
 Lee, A. S., 425
 Lee, C. J., 705
 Lee, C. W., 426
 Lee, C. Y., 381
 Lee, D. E., 517
 Lee, H. J., 705
 Lee, J. S., 362
 Lee, J. Y., 119
 Lee, O. H., 362
 Lee, S. H., 427
 Lee, S. J., 428
 Lee, W. S., 427
 Lee, Y. E., 429
 Lee, Y. J., 471
 Leebens-Mack, J., 221
 Leebens-Mack, J. H., 592
 Legrand, J., 430
 Legue, V., 667
 Lehmann, J., 610
 Lehnert, M., 431
 Lehtonen, S., 846
 Lei, M., 841, 842
 Lei, T., 348
 Lei, X., 920
 Lei, Y., 113
 Leidi, J., 631
Leishmania, 644
 Leitao, F., 432
 Leitao, S. G., 432
 Lemberger, K., 691
 Lemons, C. R., 593
 Lenain, J. F., 843
 Lenzi, L., 125
 Leonard, S. W. J., 646
 Leopold, B. D., 328
Lepidogrammitis
drymoglossoides, 900
 Lepidoptera, 631, 697, 753
Leptochilus ellipticus, 380
 Leroux, O., 192
 Lessl, J. T., 156, 433, 804
 Lestari, W. S., 434
 Letelier V., S., 435
 Levi, S., 692
 Lewis-Smith, R. I., 436, 437
 Li, A. Q., 723
 Li, B., 133
 Li, B. G., 272
 Li, C. Q., 883
 Li, C. S., 241
 Li, C. W., 108, 723
 Li, D., 847
 Li, D. W., 440
 Li, F., 448
 Li, F. Q., 171

- Li, F. S., 944
 Li, F. W., 438, 707, 929
 Li, G., 312
 Li, H., 165, 311, 920
 Li, H. B., 888
 Li, J., 100, 203, 315, 908, 944
 Li, J. T., 439
 Li, L., 312, 864, 882, 906
 Li, L. Q., 801
 Li, M., 165
 Li, N., 906
 Li, Q., 889
 Li, R., 930
 Li, S., 440, 441
 Li, S. J., 515
 Li, S. P., 439
 Li, S. S., 773
 Li, T., 772, 928
 Li, T. Y., 456
 Li, W., 165, 317, 553
 Li, W. J., 442, 938
 Li, X., 310, 443
 Li, X. G., 142, 271
 Li, X. H., 937
 Li, X. J., 938
 Li, Y., 179, 441, 444, 755, 772, 773, 849, 877, 907, 919
 Li, Z. F., 900
 Li, Z. X., 440
 Liang, C. Q., 616
 Liang, G. Y., 900
 Liang, H., 917
 Liang, S., 888
 Liang, X., 931
 Liang, Y. H., 618
 Liang, Y. S., 878
 Liao, B., 439
 Liao, W., 316
 Liao, X., 774
 Liao, Z., 445
 Liau, B. B., 425
 Liaw, C. C., 110
 Libbey, C. R., 518
 Liberia, 659
 Libertin, M., 446
 Liddy, Z. J., 722
 life cycle, 510
 Lija, L., 879
 Lim, H. J., 447
 Lim, J. D., 341
 Limin, S., 301
 Lin, C. H., 448
 Lin, C. Y., 101, 308, 309
 Lin, G., 849
 Lin, G. Q., 170
 Lin, G. Z., 448
 Lin, H., 209, 210, 858
 Lin, H. L., 227
 Lin, J. S., 346
 Lin, S. Z., 227
 Lin, X., 441
 Lin, X. H., 618
 Lin, Y., 449
 Lin, Y. L., 429
 Lindon, H., 933
 Lindsay, K. C., 450
 Lindsay, S., 290, 451
 Ling, Q. Z., 173
 Lino, G., 556
 linoleic acid, 358
 litter decomposition, 440, 719, 896
 litterfall, 896
 Litton, C. M., 534, 700
 Liu, B., 452
 Liu, C. M., 850
 Liu, D., 453
 Liu, F., 349
 Liu, G., 454, 908
 Liu, H., 775
 Liu, H. C., 429
 Liu, H. M., 455, 921
 Liu, J., 456, 472, 919
 Liu, K., 723
 Liu, L., 854, 880
 Liu, L. C., 386
 Liu, M., 719
 Liu, Q., 636
 Liu, R., 944
 Liu, R. H., 944
 Liu, S., 457, 850
 Liu, S. H., 429
 Liu, S. P., 227
 Liu, W. Y., 440
 Liu, X., 310, 458, 459, 485
 Liu, X. H., 862
 Liu, X. X., 937
 Liu, Y., 179, 453, 907
 Liu, Z., 171, 840, 850
 Lo, C., 116
Lobopteris, 525
 Locklear, T. D., 79
 Loetter, M. C., 460
 Loiacono, M. M., 220
 Lomax, B. H., 224, 461
 Longley, M., 462
 Longoni, P., 215
 long-term studies, 547
 Loni, A., 361
 Looy, C. V., 463, 464
 Lopes, C., 246
 Lopes, C. C., 246
 Lopes-Mattos, K. L. B., 696
 Lopez Cabrera, M. I., 465
 Lopez Rosas, H., 594
 Lopez, C., 817
 Lopez, R. A., 466
 Lopez-Barrera, F., 535
 Lopez-Gomez, J., 63
 Lopez-Gutierrez, B. N., 467
 Lopez-Victoria, M., 258
Lophosoria quadripinnata, 570
 Loriga, J., 468, 469
 Lorscheitter, M. L., 493, 870
 Loss, S. R., 470
 Lou, H. Y., 900
 Louisiana, 148, 164, 266
 Loyola, S., 819
 Lu, J., 472, 847, 853
 Lu, L. N., 318
 Lu, S. G., 100
 Lumbres, R. I. C., 471
 Luna, M. L., 237, 244
 Lundholm, J. T., 563
 Lundy, M. G., 370
 Luo, C., 472
 Luo, H. B., 459
 Luo, J., 433, 888, 941
 Luo, J. G., 578
 Luo, L., 908
 Luo, M., 864
 Lupo, L. C., 811
 Luque, G. M., 473
 Lusk, C. H., 593
 Lutz, A. I., 131
 Luu, T. D., 474
 Lux, A., 34
 Luxembourg, 402
 lycophytes, 19, 48, 91, 215, 260, 265, 284, 371, 409, 506, 529, 536, 537, 541, 545, 572, 601, 613, 640, 642, 672, 887
 Lycopodiaceae, 19, 46, 47, 54, 177, 282, 641, 642, 729
Lycopodiastrum casuarinoides, 548
Lycopodium, 24, 46, 124, 170, 172, 248, 302, 348, 349, 425, 470, 578, 641, 680, 747, 776, 799, 874, 920
Lycopodium annotinum, 560, 588
Lycopodium clavatum, 23, 84, 201, 224, 402, 452, 588, 703, 868
Lycopodium complanatum, 353
Lycopodium japonicum, 932
Lycopodium lucidulum, 92
Lycopodium obscurum, 763
Lycopodium squarrosum, 215
Lygodium, 301, 574
Lygodium flexuosum, 182
Lygodium hians, 574
Lygodium japonicum, 119, 271, 327, 384
Lygodium microphyllum, 327, 414, 631, 648, 753, 757, 853
- ## M
- Ma, B., 850
 Ma, C. E., 882
 Ma, D., 774
 Ma, J., 930
 Ma, L. Q., 156, 433, 804, 888, 941
 Ma, M., 718

- Ma, P. F., 936
 Ma, X., 319
 Ma, Y., 23, 475
 Macaronesia, 663, 664
 MacDiarmid, R. M., 820
 MacDougall, A. S., 823
 Machado, M. F., 84
 macroinvertebrates, 381
Macrothelypteris, 323
 Madagascar, 181, 622, 924
 Maddi, F. A., 476
 Madeira, 802
 Madhusoodanan, P. V., 477, 478, 744, 760, 825, 826
 MADS-box gene, 52, 263, 317
 Magalhaes, K. M., 175
 Maggs, C. A., 369, 370
 Magrath, A., 479
 Mahady, G. B., 79
 Maharachchikumbura, S. S. N., 480
 Mahdavi, Y., 913, 914
 Mahesh, M. K., 184
 Mahmood, Q., 521
 Mahvi, A. H., 914
 Maideen, H., 242, 554
 Maimon, A., 242
 Maine, 3
 Maji, B., 688
 Malaysia, 120, 242, 492, 557, 911
 Mallmann, I. T., 481
 Malmlof, K., 484
 Malpelo Island, 258
 Mamat, S. S., 911
 Mammucari, R., 474
 manatee, 278
 Manczinger, L., 399
 Mandal, A., 482
 Mandal, C., 483
 Mandal, S., 688
 Mander, L., 464
 manganese, 456
 mangroves, 28, 223, 627
Mankyua chejuense, 382
 Manubolu, M., 484
 Mao, C., 616
 Mao, X., 311
 Mao, X. X., 485
 mapping tools, 648, 748
 Maraschin, M., 627
 Marcon, C., 486
 Marcon, G. C., 231
 Marcon-Tavares, A. B., 487
 Marhan, S., 212
 Marmi, J., 488
 Marmontel, M., 278
 Marocco, A., 52
 Marques De Souza, M. G., 678
 Marquez, G. J., 895
 Marrs, R. H., 9, 735
 Marsano, F., 215
 Marshall, J. E. A., 887
Marsilea crenata, 14
Marsilea hirsuta, 658
Marsilea quadrifolia, 8, 338, 381, 544, 759
Marsilea vestita, 805
Marsilea villosa, 105
 Marsileaceae, 73, 145, 702
 Martin, V. S., 124
 Martincic, A., 144, 782
 Martin-Closas, C., 488
 Martinez, O. G., 80, 489, 490, 811
 Martinez-Salas, E., 491
 Martinka, M., 34
 Martinotti, S., 128
 Martins, A., 323
 Martins, F. R., 157
 Martins, K., 432
 Martorell, S., 219
 Maruyama, M., 492
 Marwat, K. B., 325
 Mascarenes, 137, 180
 Masetto, E., 493
 Massachusetts, 754
 Masubuti, H., 304
 Mata-Rosas, M., 5
 Mathews, K., 494
 Matia-Merino, L., 861
 Matias, L. Q., 157
 Mato Grosso, 154, 230, 231, 787
 Matoniaceae, 38, 410
 Matos, F. B., 121, 495, 496
 Matsuda, Y., 297
 Matsumoto, S., 229
Matteuccia struthiopteris, 274, 577, 876
 Matthews, T. G., 422
 Maui, 321
 Maumus, F., 497
 Maupin, B. G., 518
 Maya, K., 28
 Mayer, V. E., 498
 Maysner, M. J., 499, 500
 Mazumdar, J., 501, 502
 McAdam, S. A. M., 503
 McBride, A. E., 697
 McElwain, J. C., 196
 McHenry, M. A., 504
 McKey, D., 498
 McLean, K. L., 505
 McLennan, P. A., 939
 McLennan, D., 115
 McLoughlin, S., 506
 McLoughlin, S., 60
 McPherson, T. Y., 507
 Md-Zain, B. M., 242
 mechanic control, 5
 Medeiros, K., 754
 Medeiros, T. A. M., 85
 medicinal plants, 4, 27, 54, 61, 75, 79, 82, 99, 110, 112, 113, 118, 119, 120, 128, 150, 160, 170, 171, 173, 182, 191, 227, 240, 261, 302, 315, 318, 323, 325, 332, 349, 352, 362, 363, 366, 417, 432, 441, 447, 448, 467, 484, 511, 542, 548, 555, 556, 578, 617, 618, 621, 636, 644, 679, 699, 705, 720, 723, 725, 739, 747, 750, 764, 771, 807, 819, 850, 857, 864, 872, 879, 886, 890, 893, 897, 898, 899, 900, 911, 918, 923, 931, 932, 937, 944
 Mediterranean, 103, 145, 211, 370, 415, 838
 Meena, K., 508
Megalastrum, 412, 528
Megalastrum oppositum, 180
Megalastrum peruvianum, 527
 megaspores, 714, 715, 743
 Mehltreter, K., 5, 509
 Mehterov, N., 240
 Mei, X., 908
 Mei, Z. N., 932
 Meinard, Y., 510
 meiosis, 539
 Meireles, L., 222
 Meirelles, S. T., 787
 Melendez-Ackerman, E., 835
 Melendez-Camargo, M. E., 511
 Melkonian, M., 438
 Meller, B., 409
 Mellert, K. H., 633
Melpomene peruviana, 785
 Mendes, E. R. S., 231
 Mendes, M. M., 512
 Mendez, R. A., 14
 Mendieta-Leiva, G., 942
 Mendoza, A., 556
 Mendoza-Ruiz, A., 252, 513
 Menendez, V., 818
 Mengoni, A., 602
Meniscium, 213
 mercury, 586
 Mesozoic, 196, 413, 702, 926
 metabolism, 83, 96, 367, 423, 553, 839, 871
Metaxya, 151
Meteorus, 6
 methane, 197
 methods, 9, 120, 351, 396, 658, 671, 727, 764, 880
 Metrak, M., 588
 Meunier, J. D., 514
 Mexico, 4, 5, 44, 90, 252, 279, 293, 300, 351, 419, 420, 467, 491, 511, 535, 556, 594, 596, 734, 829
 Meyer, S., 622
 Meyer-Berthaud, B., 91, 241
 Miao, J., 515
 Miao, L., 191
 Miao, Y., 452

- Michel, J. L., 79
 Mickel, J. T., 412, 495
 Micosa, S. C., 471
 micro RNA, 199, 936
 microclimate, 68, 196, 683
Microgramma squamulosa, 647
Microgramma vacciniifolia, 150
 microhabitat, 354, 382, 676
Microlepidia platyphylla, 272
Microlepidia setosa, 380
Micromyzus platycerii, 531
Microsorium punctatum, 153
Microsorium scolopendria, 304
 Mikes, M., 698
 Mikkelsen, M. D., 516
 Mikkelsen, T. N., 74
 Mikulas, R., 177
 Mildenhall, D. C., 517
 Miller, B. P., 587
 Miller, D. A., 328
 Miller, R. F., 43
 Miller, T. W., 518
 Mimura, M., 519
 Mimura, T., 519
 Minamitani, T., 190
 Minardi, B. D., 520
 Minas Gerais, 11, 222
 Minchin, R. F., 505
 Mineur, F., 370
 mining, 456, 869
 Miocene, 468, 517
 Mirza, N., 521
 Mishler, B. D., 45, 257, 538
 Mishra, A., 261
 Mississippian, 224, 320
 Mitchell, F. J. G., 547
 Mitsui, T., 727
 Mitsunaga, T., 893
 Mitxelena, A., 522
Mixia osmundae, 809
 Miyamoto, M., 519
 Mizuta, T., 523
 Mizutani, M., 367
 Mladenoff, D. J., 669
 Mochizuki, T., 524
 modelling, 68, 78, 178, 369, 415,
 507, 560, 563, 671, 728, 748,
 800
 Mohan, A., 247
 Mohanan, K. V., 826
 Mohanan, N., 18
 molecular clock, 656
 molluscs, 435
 monitoring, 276, 589
 Mononen, T., 792
 Monro, A., 933
 Montana, 288, 731
 montane rainforest, 354, 915
 Moon, H. S., 343
 Moore, L. C., 525
 Moorkens, E., 287
 Morales, F., 219
 Moran, R. C., 86, 121, 412, 468,
 469, 526, 527, 528
 Morbelli, M. A., 604
 Morden, C. W., 781
 Moreira Junior, C. A., 214
 Morel, C., 704
 Morelos, 293
 Moreno-Casasola, P., 594
 Morisaki, K., 726
 Morita, H., 302
 morphology, 19, 36, 48, 132, 142,
 143, 162, 216, 244, 276, 359,
 401, 424, 428, 445, 475, 485,
 489, 500, 513, 604, 626, 642,
 647, 693, 694, 696, 742, 743,
 779, 813, 826, 848, 885, 895
 morphometry, 48, 135, 282, 401
 morphotypes, 696
 Morris, J. L., 529
 Morrone, J. J., 530
 Morse, D. H., 3
 Moss, P. T., 218
 mosses, 457
 Mostacero, J., 601
 Moullet, G. M., 945
 Moura Junior, A. M., 175
 movement, 296, 389, 391, 865
 mowing, 330
 Mroz, E., 531
 Mu, J., 883
 mucilage, 861, 916
 Mucina, L., 460
 Mueller-Roeber, B., 240
 Mukherjee, A., 532
 Mukhopadhyay, R., 701
 mulching, 827
 Mulder, J., 319
 Mullah, C. J. A., 533
 Muller, S. D., 145, 211
 Munir, M., 620
 Murakami, N., 305
 Muralidhara, MU., 99
 Murphy, A. S., 786
 Murphy, M. J., 534
 Murrieta-Galindo, R., 535
 Muthukumar, T., 536, 537
 Muthuraja, R., 537
 Mutiso, P. C., 59
 mutualism, 570
Mycopteris, 780
 mycorrhiza, 44, 297, 372, 419,
 420, 536, 537, 740, 757
 Mynssen, C. M., 222
Myriopteris, 267
 myrmecophilous beetles, 492
 myrmecophytes, 492
- N**
- Na, Y., 772
 Naaf, T., 29
 Naeimi, S., 399
 Nagalingum, N. S., 257, 538
 Nagamatsu, T., 892
 Nakajima, M., 789
 Nakamura, H., 788
 Nakata, M., 539
 Nakato, N., 189, 190
 Nam, K., 343
 nanoparticles, 310
 Napoleao, T. H., 150
 Naranjo-Cigala, A., 585
 Narvaez, P. L., 540
 Nasrullah-Boyce, A., 557
 Natsume, M., 726
 Naugolnykh, S. V., 541
 Nawar, K., 542
 Neff, M. M., 935
 Neil, K., 543
 nematodes, 439, 917
 Nemoto, M., 544
 neochrome, 438
Neomusotima conspurcatalis, 753
 neotropics, 530, 650
 nephritis, 118
Nephrolepis auriculata, 849
Nephrolepis brownii, 716
Nephrolepis cordifolia, 586
Nephrolepis exaltata, 59
Nephrolepis hirsutula, 56
 Nervo, M. H., 870
 nesting habitat, 149, 158, 234,
 523, 822
 nesting material, 566, 570
 Neto, L. M., 11
 Neto, M. N., 566
 Nettesheim, F. C., 545
 Neumann, M. K., 546
 New Brunswick, 43
 New Caledonia, 254, 408, 574,
 597
 new combinations, 129, 174, 180,
 181, 213, 451, 501, 502, 693,
 752, 830, 863, 924
 new form, 903
 new genus, 129, 268, 492, 598,
 768, 772, 780, 855, 856
 New Jersey, 697
 new methods, 396, 727
 new records, 18, 38, 80, 167, 190,
 237, 279, 292, 293, 294, 308,
 359, 402, 550, 583, 637, 650,
 665, 684, 829, 847
 New South Wales, 748
 new species, 6, 13, 48, 71, 81,
 108, 168, 213, 254, 300, 308,
 313, 386, 442, 446, 506, 527,
 528, 531, 541, 549, 569, 609,
 622, 651, 652, 659, 663, 678,
 685, 704, 729, 768, 780, 801,
 815, 817, 833, 851, 852, 855,
 870, 921, 922
 new subspecies, 694, 768
 new variety, 183

New York, 204, 763
 New Zealand, 71, 72, 73, 234,
 505, 517, 597, 638, 800, 861
 Newman, M., 547
 Newmaster, S. G., 291
 Newton, A. C., 178
 Newton, J. N., 548
 Ngan, L. T., 109
 Ngan, T. L., 549, 550
 Nguyen, H. D., 551
 Nguyen, N. C., 551
 Nguyen, T. D., 551
 Nhamo, N., 552
 Ni, J., 458
 Ni, L. J., 923
 niche breadth, 883
 niche modelling, 369, 671
 nickel, 228
 Nierop, K. G. J., 70
 Nierzwicki-Bauer, S. A., 645
 Niissalo, M., 31
 Nilo-Poyanco, R., 96
 Nilsen, O. G., 417
 Nishida, H., 430
 Nishihama, R., 390
 nitric oxide, 197, 277
 nitrogen, 357, 416, 515, 595, 719,
 881, 889, 891
 nitrogen absorption, 889
 nitrogen fixation, 595, 891
 nitrous oxide, 197
 Nitschke, C. R., 207
 Niu, S., 553
 Noa-Carrazana, J. C., 419, 420
 Nogue, F., 497
 Noll, R., 833
 nomenclature, 22, 72, 137, 174,
 181, 449, 451, 476, 496, 502,
 550, 677, 695, 736, 752
 Nongalleima, K., 146
 Nooteboom, H. P., 109
 Noraini, T., 554
 Nor-Fairuz, A. R., 554
 North America, 89, 147, 470, 706
 North Carolina, 494
 Norton, J., 357
 Norway, 561, 580, 609
Nothoperanema, 708, 921
 Noubarani, M., 555
 Nova Scotia, 543
 Novara, L., 324
 Nozaki, H., 726
 nucleotide substitution rate, 656
 Nunez, P., 556, 682
 Nurul, H. M. R., 557
 nutrient absorption, 454, 645,
 740, 804, 889
 nutrient resorption, 416
 nutrients, 32, 41, 203, 253, 334,
 372, 509, 579, 633, 832, 881
 Nuttle, T., 558

O

Oaxaca, 44, 351, 734
 Oberbauer, S., 136
 Oberbauer, S. F., 324
 Obermuller, F. A., 559
 obituary, 245
 Oborny, B., 560
 Obulum, V. R., 484
 oceanic archipelagos, 584
 Ochoa-Gaona, S., 351
 Odee, D., 533
 Odland, A., 561
Odontosoria, 597
Oenotrichia, 412
 Oggero, A., 895
 Oggero, A. J., 19
 Ogilvie, H. A., 562
 Oh, C., 341
 Ohkura, M., 505
 Ohlsen, D. J., 598
 Ohm, R. A., 809
 Ojong, B. B. O., 191
 Oka, T., 190
 Okamoto, H., 738
 Oke, O. A., 563
 Oklahoma, 525
 Okuzumi, K., 304
 Olaifa, F. E., 564
 Olariaga, I., 687
 Oldenkott, B., 565
Oleandra wallichii, 380
 Oligocene, 195
 Oliveira Filho, A. T., 222
 Oliveira, J. A., 423
 Oliveira, P. A., 246
 Oliveira, P. R. R., Jr., 566
 Olivero, E. B., 465
 Olthof, I., 115
 Omekam, A. J., 564
 Ono, E., 367
 Ono, T., 892
Onoclea sensibilis, 3
 Ontario, 291
 ontogeny, 232, 268
 ontology, 132
Onychium, 102
 Oogami, S., 726
 oogenesis, 36, 271, 272, 848
 Oostermeijer, J. G. B., 307
Ophioglossum, 375, 582
Ophioglossum lusitanicum, 66
Ophioglossum reticulatum, 599,
 600
Ophioglossum vulgatum, 128
Ophiomorpha irregulaire, 465
 Oppenheimer, H. L., 567
 orchids, 351, 393, 770
 Ordonez, A., 568
 Ordonio, R. L., 789
 Oregon, 195, 197, 330
 Oreja, L., 522

Orendt, A., 336
Oreogrammitis setosa, 581
Oreogrammitis sinohirtella, 581
 Orlova, O. A., 569
 ornamental plants, 878
 Oros-Ortega, I., 420
 Orozco-Segovia, A., 252
 Ortega, G., 819
 Ortega, M. G., 124
 Ortiz, I., 623
 Ortiz, K., 691
 Osaki, M., 301, 860
 Osman, N., 557
Osmunda, 60, 727, 809
Osmunda cinnamomea, 384
Osmunda japonica, 444
Osmunda regalis, 164, 196, 279,
 834
 Osmundaceae, 801, 855, 856
 Osorio-Zuniga, F., 570
 osteoarthritis, 937
 osteoporosis, 362, 886
 Ostertag, R., 534, 571
 Ot'ahelova, H., 32
 Otsuka, H., 544
 Otto, R., 584
 Ou, Z. Y., 909
 Ouali, M., 211
 Ouyang, X. W., 923
 Ozen, D., 910

P

Pacheco, L., 44
 Pacyna, G., 572
 Padmalal, D., 28
 Page, C. N., 276, 574
 Paggi, J. C., 280
 Pagliano, C., 215
 Paik, I. S., 341
 Pais, J., 512
 Pakade, Y. B., 406
 Pakistan, 7, 206, 325, 620, 709,
 721, 859
 Palaganas, J. A., 471
 paleobiology, 458
 Paleocene, 778
 paleoclimate, 218, 593
 Paleozoic, 236
Palhinhaea cernua, 172, 551,
 641, 747, 918
 Palme, K., 667
 palynology, 337, 398, 430, 512,
 517, 926
 Pamirsky, I. E., 251
 Pampurova, S., 575, 576
 Pan, B., 926
 Pan, H., 577
 Pan, K., 578
 Pan, W. D., 900
 Pan, X., 454
 Pan, Y., 248, 864

- Panama, 651, 683
 Pande, H. C., 360
 Pande, P. C., 739
 Pandit, S., 358
 Pang, C., 176
 Pang, J. H. S., 897
 Panitsa, M., 329
 Pantaleoni, L., 215
 Panwar, A. S., 579
 Para, 151, 619
 Paradis, E., 413
 Paraguay, 160
 parasitoids, 3, 6
Parathelypteris nipponica, 858
 Pardoe, H. S., 580
 Pardossi, A., 125
 parichnos, 265
 Park, C. W., 428
 Park, J. H., 362
 Park, J. S., 427
 Parker, K. L., 281
 Parra, M. J., 676
 Parra-Olea, G., 535
 Parris, B. S., 581, 781
 parrots, 234
 Parusel, J. B., 338
 Parvin, M. S., 374
 Passalia, M. G., 830
 Passarelli, L. M., 642
 Pastore, G., 602
 pastures, 5, 230, 746
 Patagonia, 139, 201, 465
 pathogens, 75, 788, 809
 Patil, S., 582, 583
 Patino, J., 413, 584, 585
 Patra, A. K., 482
 Paul, M. S., 205
 Paul, R., 586
 Paul, S. K., 587
 Pawlowska, J., 588, 867
Paxilliriletes rainei, 506
 Pazin, V. F. V., 278
 Peard, J., 202
 Pearman, D. A., 589
 peatland, 56, 76, 301, 452, 606
 Pech, P., 784
Pecluma ptilodon, 22
 Pellatt, J., 590
 Pellerin, S., 51
 Pellicer, J., 31
 Pelsler, P. B., 38
 Pemberton, R. W., 414, 753
 Pence, V. C., 591
 Peng, D., 592
 Peng, L. Y., 349
 Pennell, M. W., 216
 Penniman, J., 822
 Pennsylvania, 558
 Pennsylvanian, 43, 446, 463, 464, 525, 798
 Penny, D., 939
 Peppe, D. J., 593
 Perakis, S. S., 197
 Peralta Pelaez, L. A., 594
 Pereira, A. F. D. N., 141
 Pereira, A. L., 595
 Pereira, T. A. R., 84
 Perez Latorre, A. V., 93
 Perez, C. F., 811
 Perez, Y., 623
 Perez-Escandon, B. E., 467
 Perez-Garcia, B., 252
 Perez-Paredes, M. G., 596
 Permian, 249, 409, 541, 660, 692, 833, 851, 855, 856
 Pernas, T., 648
 Perrie, L. R., 71, 72, 73, 597, 598
 Perry, G. L. W., 800
 Peru, 368, 785
 Peruzzi, L., 599, 600
 Pervez, A., 521
 Pessenda, L. C. R., 223
 Pessoa Santiago, A. C. P., 155
Pestalotiopsis, 480
 pesticide, 374
 Petit, D., 601
 Petraglia, A., 602
 Petrik, P., 29
 Petzinger, C., 634
 Pfefferkorn, H., 851
Phanerosorus, 38
 pharmacognosy, 88, 113, 118, 146, 171, 229, 311, 362, 417, 578, 699, 764, 900, 911
 Pharmawati, M., 434
 phenology, 115, 138, 394, 415, 546
 phenols, 459, 864
 phenotypes, 291
 Philippe, M., 341, 801
 Philippines, 14, 38, 365, 471
 Phillips, T. L., 236
Phlebodium pseudoaureum, 79
Phlegmariurus fargesii, 578
Phlegmariurus phyllicifolius, 19
 phosphorus, 416, 845
 phosphorylation, 215, 487
 photobiology, 215, 219, 296, 334, 368, 385, 389, 390, 391, 508, 557, 608, 627, 643, 676, 686, 706, 738, 837, 871, 873, 876, 882, 927
 photoinhibition, 873
 photoprotection, 627
 photoreceptor, 438
 phylogenetics, 50, 83, 100, 102, 109, 147, 169, 251, 267, 290, 339, 412, 453, 457, 469, 504, 595, 598, 602, 656, 658, 662, 733, 755, 825, 846, 856, 863, 885, 940
Phymatopteris connexa, 440
Phymatosorus hainanensis, 943
 physiology, 33, 69, 86, 136, 219, 238, 277, 296, 385, 390, 391, 557, 575, 608, 653, 706, 713, 820, 832, 873, 876, 882
 phytochelatins, 602
 phytochemistry, 84, 179, 332, 641, 764
 phytochrome, 438, 608, 738
 phytoecdysteroids, 304
 phytoliths, 251, 514
 phytolase, 385
 phytoremediation, 34, 85, 125, 156, 205, 247, 407, 433, 474, 482, 521, 564, 649, 769, 774, 804, 841, 913, 934
 phytosociology, 144, 393
 Picek, T., 41
 Pietrobon, M. R., 151
 Pifano, D. S., 222
 pig farms, 767
 pigments, 394, 508
 pigs, 321, 534
 Pihkva, K., 661
 Pikabea, I., 603
Pilularia globulifera, 178
Pilularia minuta, 145, 211
Pilularia novaehollandiae, 73
 pine forests, 333, 515
 Pineiro, M. R., 604
 Pinha, G. D., 154
 Pinto de Arruda, C. C., 644
 Pinto, H. J., 268
 Pipo, L., 244
 Pires, E. P., 158
 Pires, J. C., 221
 Pirzada, S. A., 859
 Pittermann, J., 69, 438
Pityrogramma, 258
Pityrogramma calomelanos, 258
Pityrogramma dealbata, 258
 Plackett, A. R. G., 605
Planatophyton, 241
 plant age, 546
 plant communities, 29, 32, 58, 67, 90, 95, 141, 144, 148, 155, 157, 161, 164, 200, 211, 225, 257, 312, 333, 340, 354, 372, 393, 395, 460, 471, 481, 494, 533, 544, 545, 547, 563, 571, 623, 655, 669, 716, 717, 724, 745, 746, 759, 775, 782, 784, 834, 883, 909, 915, 942, 945
 plant growth, 250, 888
 plant interactions, 492, 498, 840, 858
 plant traits, 568
 plant transporters, 786
 plant-insect interactions, 3, 331, 414, 692, 697, 753, 815
 plant-soil interactions, 655
 plasmodesmata, 199
 plastid genomes, 388, 662

- plastids, 727
 plastocyanin, 239
Platyserium crustacea, 492
Platyserium grande, 215
Platyzoma, 102
 Pleistocene, 53, 458, 732
Pleocnemia, 455
Pleopeltis, 695, 752
Pleopeltis plebeia, 556
Pleopeltis polypodioides, 668
 Pluchon, N., 606
 Pohle, P., 387
 Poinar, G., Jr., 607
 Poitevin, J., 115
 Pokornyk, L., 438
 Poland, 283, 338, 340, 572, 588, 784, 867
 pollen signatures, 868
 pollution, 407, 519, 586, 647, 784, 892
Polybotrya caudata, 86
Polybotrya osmundacea, 86
 polyploidy, 100, 109, 291, 339, 600, 711, 732, 741
 Polypodiaceae, 11, 40, 647, 684, 685, 695, 710, 752, 780, 781, 794, 846, 943
Polypodium, 710, 731, 785
Polypodium appalachianum, 795
Polypodium calirhiza, 734
Polypodium cambricum, 93
Polypodium decumanum, 764
Polypodium gyroflexum, 695
Polypodium hastatum, 179
Polypodium hesperium, 732
Polypodium macaronesicum, 664
Polypodium ptiloton, 22
Polypodium punctulatum, 137
Polypodium virginianum, 795
Polypodium vulgare, 510, 733
 polysaccharides, 636, 720, 861
Polystichum, 406, 504, 550, 749, 793
Polystichum aculeatum, 415
Polystichum chunii, 308
Polystichum hagiangense, 549
Polystichum lonchitis, 904
Polystichum munitum, 187, 197, 330, 686, 816
Polystichum setiferum, 670
Polystichum tenuius, 308
Polystichum tripterum, 876
 Popper, Z. A., 192
 population genetics, 78, 315, 338, 360
 Portugal, 205, 512, 834
 Possart, A., 608
 Possnert, G., 808
 Pott, C., 320, 609, 610, 821
 Potter, D., 709
 Power, M. L., 634
 Prada, C., 490
 Pradhan, S., 379
 Prado, J., 129, 222, 268, 299, 300, 526, 527, 528, 611, 612, 693, 694, 781, 945
 Prakashkumar, R., 477, 478
 Pramparo, M. B., 540
 Prasad, M. N. V., 406
 Pratas, J., 205
 Pratt, P. D., 414, 631, 753
 pregnancy, 417, 750
 Premakantha, K. T., 629
 Pressel, S., 765
 Prestianni, C., 613
 Prevost, N., 92
 primates, 634
 Priyadharsini, P., 536, 537
 productivity, 149, 373, 403
 propagation, 159, 306, 418, 591, 869
 prostatitis, 113, 899
 proteins, 39, 50, 52, 199, 453, 466, 602, 773, 820, 908
 proteomics, 116, 453, 718, 727, 818
 Pryer, K. M., 267, 392, 438, 657, 707, 732, 733, 734
Pseudobornia schweitzeri, 569
Pseudocercospora, 386
Pseudophegopteris, 323
Psilotum, 69, 72, 133, 294, 673
Psilotum heterocarpum, 72
Psilotum nudum, 69, 294
 ptaquiloside, 21, 126, 246, 910
Pteridium, 57, 149, 276, 387, 480, 515, 807, 910
Pteridium aquilinum, 9, 12, 21, 29, 87, 123, 126, 135, 214, 246, 253, 312, 330, 335, 426, 427, 438, 547, 563, 564, 691, 698, 735, 788, 797, 808, 827, 839, 843, 867, 876, 901, 940
Pteridium arachnoideum, 5, 230, 231, 235, 696
Pteridium caudatum, 5, 231
Pteridium esculentum, 56, 646, 735, 869, 940
Pteridium revolutum, 515
Pteridium semihastatum, 940
Pteridys, 455
Pteris, 102, 193, 650, 674
Pteris argyreae, 17, 106
Pteris barklyae, 924
Pteris biaurita, 885
Pteris cretica, 343, 406, 774
Pteris fauriei, 885
Pteris geminata, 760
Pteris multifida, 312, 941
Pteris pellucida, 261
Pteris vittata, 33, 34, 85, 125, 156, 209, 210, 247, 355, 366, 433, 456, 474, 482, 521, 586, 718, 769, 774, 804, 841, 842, 860, 888, 934, 941
Ptisana fraxinea, 704
Ptisana laboudallioniana, 704
 Pu, Y., 928
 Puerto Rico, 716
 Purakayastha, T. J., 482
 Purcell, M., 757
 Pushpakumara, D. K. N. G., 629, 630
 putrescine, 483, 713
 Pyner, T., 614, 615
 Pyralidae, 6
Pyrrosia davidii, 118
Pyrrosia heterophylla, 879
Pyrrosia lingua, 447
Pyrrosia lingus, 873
Pyrrosia petiolosa, 117, 118
- ## Q
- Qi, L. H., 616
 Qi, X., 864
 Qi, X. P., 729
 Qi, Y., 319
 Qian, Z. M., 318, 617
 Qiao, G. X., 768
 Qiao, X., 618, 898
 Qiao, Y., 906
 Qin, X. S., 616
 Qin, Y., 755
 Qin, Z., 344
 Qiu, J., 935
 Quaresma, A. C., 619
 Quaternary, 131, 543
 Quebec, 51
 Queensland, 218, 298
 Quested, H. M., 416
 Quetier, F., 510
 Quinn, G. P., 422
 Quo, D. L., 882
 Qureshi, R., 620, 709, 859
- ## R
- Rabelo, R. E., 214
 Rabert Pinilla, C., 238
 Rabiei, Z., 352
 radionuclides, 107, 519, 892
 radium, 312
 Rahaman, S., 586
 Raimondo, F. M., 813
 Raine, J. I., 862
 Rajkumar, S. D., 741
 Rajurkar, N. S., 621
 Rakotondrainibe, F., 622
 Ramachandra, T. V., 184
 Ramirez, C., 623
 Ramirez-Barahona, S., 624
 Ramirez-Nunez, P. A., 682
 Ramirez-Rodriguez, R., 625
 Ramos Giacosa, J. P., 626

- Ramos, C. H., 491
 Ramos, M., 80
 Ramos, R. L., 85
 Ramp, D., 748
 Randi, A. M., 520, 627
 Rangabhashiyam, S., 628
 Ranil, R. H. G., 629, 630
 Ranker, T. A., 781
 Ranzato, E., 128
 rarefaction, 421
 Rashid, E., 325
 Rasmussen, L. H., 21
 Rathinasabapathi, B., 804, 941
 Raus, T., 329, 838
 Rautio, P., 322
 Ravilla, S., 484
 Rayamajhi, M. B., 631
 Rebolledo U., A., 435
 Reczynska, K., 784
 Reddy, D. H. K., 703
 rediscovery, 734
 redwood forests, 686
 Reed, J., 632
 refugia, 78, 464
 Regalado, L., 469
 regeneration, 56, 123, 235, 355
 Reger, B., 633
Regnellidium, 139
Regnellites nagashimae, 702
 Rehman, H., 247
 Reich, P. F., 89
 Reichard, S. H., 816
 Reid, N., 369, 370
 Reif, J., 698
 Reineking, B., 800
 Reiner, W. B., 634
 Reinhard, K. J., 868
 Reinioe, J., 198
 Reinoso, H., 19
 reintroduction, 31, 661, 797
 Reis Junior, J. L., 214
 remote sensing, 68, 115
 Ren, Z., 635, 636, 907
 Renshaw, O., 31
 Renzaglia, K. S., 466
 repellent, 374
 reproductive biology, 36, 70, 145, 220, 271, 339, 489, 642, 689, 744, 762, 789, 791, 809, 844, 865, 943
 Reshetnikova, N. M., 637
 Rest, J. S., 880
 restoration, 5, 9, 31, 56, 105, 314, 321, 387, 426, 427, 456, 754, 797, 816, 827, 869
 Reunion Island, 183
 Revilla, A., 818
 Reyes, W. R., 105
 Rezende, M. Q., 84
Rhagadotobiopsis thelypteridis, 268
 Rhazi, L., 145, 211
 Rhee, S. Y., 96
 rhizomes, 374, 566, 618
 rhizomorphs, 613
 rhizosphere, 845, 888, 928
 Rhoden, C. H., 593
 Ricco, R. A., 27
 rice, 347, 403, 544, 552, 579, 688
 Richardson, S. J., 638
 Rickard, M., 639
 Rico, C., 69
 Riding, J. B., 640
 Riet-Correa, 230, 231
 Rigon, M. J., Jr., 152
 Riley, R. W., 809
 Rincon Baron, E. J., 641, 642
 Rio de Janeiro, 432
 Rio Grande do Sul, 481, 486, 647
 Riotte, J., 514
 Rioult, J. P., 765
 riparian vegetation, 158, 326, 737, 775, 849
 Ristau, T. E., 558
 Ritchie, R. J., 643
 Rizk, Y. S., 644
 RNA editing, 350, 565
 Roalson, E. H., 935
 Robba, L., 664
 Robert, Y., 183
 Roberts, A. E., 645
 Robinson, N. M., 646
 Robroek, B. J. M., 340
 Rocha, L. D., 647
 rock barrens, 563
 rock outcrops, 161, 494, 782
 Rodgers, L., 648
 Rodrigues, A. C., 627
 Rodrigues, P. O., 644
 Rodriguez, M., 55
 Rodriguez, M., 162
 Rodriguez-Perez, J., 479
 Rodzi, R., 911
 Roessler, R., 833
 Rofkar, J. R., 649
 Rohn, R., 833
 Roig-Villanova, I., 52
 Rojas-Alvarado, A. F., 650, 651
 Rojsek, D., 144
 Rolf, M., 50
 Rolleri, C. H., 641, 642
 Romanova, M. A., 199
 Romanova, S. B., 276
 Ronderos, M. M., 168, 810
 Roos, K., 387
 roots, 297, 371, 823
 Rosas, F. C. W., 278
 Rose, A. K. F., 879
Rosellinia, 788
 Rosenheim, B. E., 68
 Rosenthal, M. A., 652
 Rosenthal, S. R., 652
 Roshchina, V. V., 653
 Rosleine, D., 654
 Rossi, G., 655
 Rostamkhani, H., 555
 Rothfels, C., 50
 Rothfels, C. J., 221, 438, 656, 657, 707, 779
 Rothman, J. M., 634
 Rothwell, G. W., 806
 Rouhan, G., 102, 412, 658, 704, 781
 Roux, J. P., 659
 Roux, S. J., 77, 707
 Roxburgh, S. H., 207
 Royer, D. L., 593
 Royo, A. A., 558
 Ruan, J., 113, 899
 Ruben Cuneo, N., 292
 Ruchirawat, S., 799
 Ruckwied, K., 249, 660
 Ruenk, K., 661
 Ruhfel, B. R., 662
 Ruhsam, M., 438
Rumohra, 412
 Rumsey, F., 666
 Rumsey, F. J., 589, 663, 664, 665
 Runcie, J. W., 643
 Rundel, P., 136
 Ruotolo, R., 602
 Rupani, M., 901
 Rusinska, A., 340
 Russell, S. J., 78
 Russia, 255, 262, 275, 333, 334, 541, 569, 606, 637, 710, 839
 Ruyters, G., 667
 Ruzi, A. R., 554
 Ryan, J. G., 221
 Ryan, P. G., 140
 Rybnickova, E., 337
 Rychnovsky, S. D., 680, 747
 Rydin, H., 570
 Ryu, Y., 359
- ## S
- Saarenmaa, H., 792
 Sabanadzovic, S., 668
 Sabatini, F. M., 669, 670
 Sabino, I. F., 540
 Sabo, A., 225
 Sabovljevic, M. S., 832
 Sachse, D., 134
 Sack, L., 136, 571
 Sadeghi, R., 671
 Sadhukhan, R., 98
Sadleria, 134
 Saenz, J., 522
 Saha, B. K., 674
 Saha, J., 672, 673
 Saha, P., 674
 Sahidan, N., 120
 Saigusa, N., 303, 524
 Saito, Y., 190
 Saitou, N., 295

- Sajan, K., 28
 Sakamoto, N., 860
 Sakata, Y., 675
 Salamzadeh, J., 555
 Salazar, L., 372, 373
 Saldana, A., 676
 Salgado, A. E., 677
 Salimena, F. R., 222
 Salino, A., 213, 230, 678
 Salisbury, S. W., 218
Salpichlaena, 598
 salt tolerance, 713, 769
 Salta, 80, 540
 Salvamani, S., 679
Salvinia, 73, 139, 168, 175, 266, 499, 500
Salvinia auriculata, 58, 154, 157, 745, 810
Salvinia biloba, 280
Salvinia cucullata, 97
Salvinia hainanensis, 852
Salvinia minima, 228, 423, 682
Salvinia molesta, 10, 16, 55, 289, 369, 473, 477, 478, 532
Salvinia natans, 264, 310, 314, 342, 407, 483
 Samame, R. A., 280
 Sampaga, E., 202
 San Martin, C., 623
 Sanchez-Baracaldo, P., 681
 Sanchez-Galvan, G., 682
 Sanchez-Gonzalez, A., 596
 Sanchez-Velasquez, L. R., 419
 Sanders, H. L., 605
 Sanger, J. C., 683
 Sanin, D., 651, 684, 685
 Santamaria, J. M., 228
 Santana, G. M. D. S., 150
 Santiago, L. S., 686
 Santiago-Bartolomei, R., 835
 Santos, J. A. G., 156
 Santos, M., 520
 Santruckova, H., 41
 Sanz-Azkue, I., 687
 Sao Paulo, 299, 424
 saprophytes, 480
 Sarangi, S. K., 688
 Sarasan, V., 31
 Sarawak, 492
 Sareen, B., 689
 Sarkar, S., 690
 Sarpong, R., 548
 Sasaki, K., 903
 Sathiyadash, K., 536, 537
 Sathiyaraj, G., 536
 Sato, T., 331, 790, 791
 Savo, V., 87
 sawflies, 331
 Saxena, R. K., 690
 Sayeg, I. J., 85
 Scala, C., 691
 Scalla Vulcani, V. A., 214
 Schachat, S. R., 692
 Schad, A. N., 266
 Schaefer, C. E. G. R., 84
 Schaefer, H., 584, 665
 Scheller, R. M., 669
 Scheu, S., 212
 Schleuning, M., 235
 Schlossberg, S., 751
 Schluepmann, H., 70
 Schmidt, A. R., 468
 Schmidt, E. W., 336
 Schmidt-Lebuhn, A. N., 257
 Schmitt, J. L., 481, 546, 647
 Schneider, H., 78, 100, 290, 413, 455, 468, 664, 940
 Schneider, P. H., 546
 Schuettpelz, E., 129, 656, 693
 Schurwanz, J., 59
 Schwartsburd, P. B., 20, 694, 695, 696
 Schweger, C. E., 53
 Schweikert, W., 416
 Schweitzer, D., 697
 Scotland, 765
 secondary dispersal, 235
 Sedlacek, O., 698
 Segovia-Ramirez, M. G., 294
 Sekimoto, H., 519
Selaginella, 39, 50, 133, 161, 204, 494, 506, 562, 672, 673, 742, 743, 837
Selaginella basipilosa, 293
Selaginella cavernaria, 81
Selaginella ciliaris, 508
Selaginella convoluta, 432
Selaginella delicatula, 99
Selaginella densa, 823
Selaginella denticulata, 602
Selaginella doederleinii, 441
Selaginella dualis, 81
Selaginella gebaueriana, 922
Selaginella hoffmanii, 293
Selaginella kraussiana, 199, 250
Selaginella lepidophylla, 4, 15, 511, 575, 576
Selaginella martensii, 215
Selaginella moellendorffii, 30, 96, 116, 176, 263, 295, 345, 350, 367, 386, 453, 497, 516, 553, 575, 592, 726, 755, 786, 820, 877, 880, 884, 908, 935
Selaginella mollis, 476
Selaginella myriostachya, 817
Selaginella nanophylla, 817
Selaginella nothohybrida, 4
Selaginella phiaria, 817
Selaginella pulvinata, 459
Selaginella repanda, 508
Selaginella sellowii, 644, 787
Selaginella sinensis, 112
Selaginella striata, 81
Selaginella tamariscina, 240, 705, 850
Selaginella uncinata, 565, 944
Selaginella wangpeishanii, 922
 Selaginellaceae, 81, 743, 817, 922
 Seliger, B., 59
 Selim, K. A., 699
 Selmants, P. C., 700
 Selvaraju, N., 628
 Sen, K., 701
 Sen, T., 586
 Sen, U., 586
 Sender, L. M., 702
 Senegal, 758
 Sener, M., 703
 Sengupta, A., 672
 Senterre, B., 704
 Seo, H. S., 705
 Seo, J. I., 426
 Sephton, M. A., 224
 Septiana, W., 654
 Sepulchre, P., 94
 Serbia, 832
 serpentine ferns, 832
Serpocaulon obscurinervium, 685
Serpocaulon polystichum, 80
Serpocaulon x manizalense, 684
 Seryodkin, I. V., 251
 sesquiterpenoids, 902
 Sessa, E. B., 706, 707
 Severi, W., 175
 Seychelles, 704, 924
 Seyfullah, L. J., 856
 shade, 608
 Shaffer-Fehre, M., 708
 Shah, M. M., 521
 Shaharuddin, N. A., 679
 Shaheen, H., 620, 709
 Shair, M. D., 425
 Shalimov, A. P., 710
 Shan, H. Y., 345
 Shan, W. G., 902
 Shang, H., 315
 Shao, H., 853
 Shao, L., 856
 Shao, L. Y., 855
 Shao, W., 854
 Sharma, A., 711, 712, 713
 Sharma, B. D., 714, 715
 Sharma, D. K., 688
 Sharma, J., 233
 Sharma, M., 689
 Sharma, N. R., 247
 Sharma, O. P., 542
 Sharma, V. K., 261
 Sharma, Y. P., 713
 Sharpe, J. M., 716
 Shaw, A. J., 413, 438
 Shaw, B., 413
 Shaw, S. R., 6
 Sheded, M. G., 717

- Sheen, J. M., 897
 Shelton, G., 81
 Shen, H., 718
 Shen, M. X., 347
 Shen, X. P., 347
 Shen, Z., 719, 919
 Shen, Z. Y., 143
 Sheng, J., 720
 Shepherd, L. D., 597, 598
 Sher, Z., 721
 Sherwood, A. R., 722
 Shi, J., 311
 Shi, L., 444
 Shi, W. Z., 923
 Shi, X., 311
 Shi, X. L., 723
 Shi, Z., 635, 636
 Shiels, A. B., 716, 724
 Shih, T. R., 227
 Shil, S., 725
 Shimane, M., 726
 Shimizu-Kaya, U., 492
 Shin, J. H., 382
 Shinano, T., 860
 Shinzato, M. C., 85
 Shipunov, A. B., 333
 Shiraya, T., 727
 Shoemaker, R. R., 269
 Shrestha, N., 728, 729
 Shu, S., 730, 857
 Shu, W. S., 439
 Shukla, P. K., 742, 743
 Shukor, M. Y., 679
 Shyu, W. C., 227
 Si, H., 635, 636
 Siddiqui, M. F., 7
 Siegel, D., 353
 Sigel, E. M., 221, 707, 731, 732, 733, 734
 silica, 514
 silicon, 361, 649
 Silva Marques, M. C., 644
 Silva Matos, D. M., 735
 Silva, I. M., 432
 Silva-Torres, R., 511
 Silveira, M., 559
 Silveira, T., 486
 Silverstone-Sopkin, P. A., 258
 Simberloff, D., 473
 Simkova, I., 404
 Simmons, M. P., 736
 Simpson, A., 737
 Sims, D. W., 370
 Sims, I. M., 861
 Sineshchekov, V., 738
 Singh, D. K., 261
 Singh, H., 739
 Singh, J., 740
 Singh, P. K., 891
 Singh, S., 688
 Singh, S. K., 37, 360, 741, 742, 743, 831
 Singh, Y. V., 891
 Sini, S., 744
 Sipaoba-Tavares, L. H., 745
 Six, L. J., 746
 Sizemore, N., 747
 Slajsova, P., 41
 Slathia, S., 713
 Slavich, E., 748
 Sleep, A., 749
 Sliwinska-Wyrzychowska, A., 588
 slope, 67, 346, 545, 909
 Slovakia, 32, 208, 337, 338, 404
 Slovenia, 144
 Small, I., 39
 Smalley, J. V., 83
 Smeriglio, A., 750
 Smetzer, J. R., 751
 Smith, A. R., 612, 734, 752, 781
 Smith, J. A. M., 697
 Smith, M. C., 414, 753
 Smith, S., 754
 Smitha, R. B., 477, 478, 744
 Smolinski, D. J., 30
 snails, 97
 snow cover, 915
 snowfall, 793
 soil biota, 255
 soil chemistry, 41, 319, 928
 soil erosion, 346, 737, 827
 soil nutrients, 633
 soil pH, 928
 soils, 89, 197, 203, 212, 253, 354, 403, 404, 421, 433, 439, 674, 719, 814, 832, 892, 906, 928
 Solano, E., 279
 Solis, J. L., 623
 Soltis, D. E., 438, 662, 707
 Soltis, P. S., 662
 Solyomos, P., 585
 Song, C., 907
 Song, F., 114, 850
 Song, H., 113
 Song, L., 440, 449
 Song, M., 176
 Song, Q. Y., 918
 Song, W., 755, 877
 Song, Y., 756
 Song, Y. S., 439
 Sonneborn, I., 49
 Sood, A., 689
 Soti, P. G., 757
 Sottini, S., 239
 Soubrand, M., 843
 Soulie-Maersche, I., 211
 South Africa, 1, 10, 249, 460, 613, 614, 660, 869
 South America, 129, 292, 324, 507, 526, 527, 528, 530, 650, 696, 912
 South Korea, 341, 342
 Southeast Asia, 365
 Souto, L. S., 85
 Sow, E. H., 758
 soybean, 297
 space behavior, 77
 Spain, 63, 82, 93, 103, 253, 256, 522, 603, 625, 664, 670, 687, 702
 Spano, C., 33
 species turnover, 29, 257
 species-area relationship, 585
 sperm, 466, 865
Sphaopteris lepifera, 767
Sphenomeris, 597
Sphenophyllum, 446
 Spiegel, F. W., 153
 Spieles, D. J., 759
 Spiero, F., 667
 Spinelli, G. R., 168
 spore bank, 198, 273, 405, 436, 437, 486, 587
 spore dispersal, 248, 252, 283, 437, 472, 722, 811
 spore germination, 418, 437, 689
 spore longevity, 587
 spore storage, 159, 444
 spore trap, 252
 spores, 23, 53, 77, 119, 138, 142, 162, 201, 224, 226, 232, 244, 249, 283, 292, 307, 327, 337, 344, 398, 400, 418, 424, 428, 430, 444, 445, 458, 464, 486, 490, 493, 517, 580, 587, 604, 626, 640, 641, 642, 653, 660, 674, 690, 703, 722, 811, 813, 818, 862, 868, 874, 875, 887, 926
 sporoderm, 232, 642
 sporogenesis, 641
 sporopollenin, 224, 703
 springs, 287
 Sreenivas, V. K., 760
 Sreeranjini, V. K., 477, 478
 Srinivas, R., 28
 Srivastava, G. K., 360, 742, 743
 Srivastava, M., 742, 743
 Srivastava, R., 761, 762
 Srivastava, S. K., 741
 Stalter, R., 763
 starch, 858
 stasis, 60, 779
 Steemans, P., 241
Stenochlaena, 301, 598
Stenochlaena palustris, 14, 56
Stenoloma chusanum, 36
 Stevanovic, B. M., 832
 Stevens, P. F., 216
 Stevenson, D., 50
 Stevenson, D. W., 221, 438, 707
 Stevenson, R. A., 464
 Stewart, A., 505
 Stewart, C. N., Jr., 221, 355
 stipe, 554

- stoichiometry, 41, 881
 Stoiljkovic, M. M., 832
 stomata, 136, 219, 503, 586, 882, 927
 stomatal conductance, 324
 stress, 34, 457, 483, 484, 520, 575, 627, 672, 675, 713, 769, 824, 876
 Strobel, B. W., 21
 Stroemberg, C. A. E., 48
 Stromstedt, A. A., 764
 Stroud, S., 31
 Strullu, D. G., 765
 Strullu-Derrien, C., 371, 765, 766
 Su, J., 767
 Su, X. M., 768
 Su, Y. J., 853
 Su, Z., 452
 subarctic plants, 416
 substrate, 153, 726
 succession, 5, 95, 123, 333, 404, 515, 638, 676, 759, 778, 800
 Suetsugu, N., 296, 390
 Suganya, E., 628
 Sugawara, K., 769, 934
 Sugiura, N., 770
 Sui, X., 771
 Sui, Y., 441
 Sulawesi, 354
 sulfate, 156, 860
 sulphur, 196, 423, 860
 sulphur dioxide, 196
 Sultan, S., 521
 Sumalatha, B., 26
 Sumiyama, K., 295
 Sumpun, T., 97
 Sun, B. F., 170
 Sun, C., 772
 Sun, C. X., 938
 Sun, L., 774, 930
 Sun, L. L., 773
 Sun, M., 927
 Sun, N., 886
 Sun, Q., 719
 Sun, Q. W., 922
 Sun, Q. Y., 845
 Sun, R., 775
 Sun, W., 453
 Sun, W. L., 448
 Sun, X., 438
 Sun, Y., 720, 889
 Sun, Z., 452
 Sundawati, A., 654
 Sundberg, S., 776, 777
 Sunderlin, D., 778
 Sundue, M., 412, 794
 Sundue, M. A., 300, 527, 528, 779, 780, 781
 Surina, B., 782
 Suriname, 398
 surrogates, 538
 Suthar, O. P., 714, 715
 Suzui, N., 905
 Suzuki, E., 654
 Suzuki, Y., 297
 Svalbard, 609
 Svensson, A., 783
 Sweden, 60, 194, 561, 776, 777, 783, 866
 Swierkosz, K., 784
 Sylvester, M. D. P. V., 785
 Sylvester, S. P., 785
 Sylvestre, L. S., 545
 symbiosis, 419, 498, 757
 synzoochory, 570
 systematics, 19, 48, 122, 133, 513, 526, 554, 825
 Szarejko, I., 338
 Sze, H., 786
- ## T
- Tabata, M., 788
 Taeniopteris, 692
 Tafforeau, P., 766
 Tahovska, K., 41
 Taiwan, 101, 189, 262, 308, 309, 386, 472, 767, 878, 897, 929
 Takagi, K., 303
 Takahashi, H., 393
 Takahashi, Y., 524
 Takahasi, A., 787
 Takashina, A., 239
 Takayama, H., 24
 Takeda, A. M., 154
 Takehara, S., 789
 Takematsu, Y., 492
 Takemoto, S., 788
 Taketa, A., 556
 Takeyama, S., 297
 Takezawa, D., 675
 Talavera-May, C., 228
 Tan, G. S., 944
 Tan, L. H., 944
 Tan, Y. B., 909
 Tanaka, H. O., 492
 Tanaka, J., 789
 Tanaka, T., 790, 791
 Tanco, M. E., 490
 Tang, G. H., 459
 Tang, J., 210
 Tang, K., 908
 Tani, A., 524
 Tank, D. C., 216
 Taophila, 254
 Tapia, K., 95
 taxonomy, 18, 20, 22, 64, 65, 71, 72, 73, 101, 122, 129, 137, 181, 251, 421, 431, 449, 451, 455, 469, 476, 485, 501, 504, 527, 528, 550, 581, 582, 597, 598, 641, 658, 664, 684, 695, 696, 704, 736, 742, 752, 812, 813, 825, 829, 836, 846, 895, 940
 Taylor, D. W., 313
 Taylor, W. C., 652
 Tazelaar, A. O. E., 70
 tea plantations, 203
 Tectaria, 169, 174, 424, 846
 Tectaria blepharorachis, 181
 Tectaria brauniana, 526
 Tectaria decurrens, 344
 Tectaria fauriei, 344
 Tectaria fibrillosa, 181
 Tectaria fuscipes, 583
 Tectaria laciniifolia, 651
 Tectaria nayarii, 502
 Tectaria nicotianifolia, 526
 Tectaria pardalina, 651
 Tectaria puberula, 18
 Tegelberg, R., 792
 Telford, R. J., 198
 Telmatoblechnum, 598
 temporary pools, 145, 211
 Tenthredinidae, 331
 Terai, M., 390
 terminology, 539
 terpenoids, 524, 932
 Terra, J. P., 214
 Tessier, J. T., 793
 Testo, W., 794
 Testo, W. L., 795
 Thailand, 97, 531, 581
 Thanasekaran, J., 484
 Thasana, N., 799
 Theissen, G., 263
 Thelypteridaceae, 213, 442, 475
 Thelypteris abbiattii, 244
 Thelypteris deltoidea, 716
 Thelypteris hispidula, 244
 Thelypteris indusiata, 678
 Thelypteris noveboracensis, 558
 Thelypteris palustris, 340, 754
 Thelypteris serrata, 268
 Thiaminase I, 396
 Thies, D., 42
 Thomaes, A., 797
 Thomas, B. A., 798
 Thomas, G. H., 681
 Thomas, P., 438
 Thornhill, A. H., 257
 Thorroad, S., 799
 Thouvenot, L., 597
 Thrippleton, T., 800
 Thysanoptera, 815
 Tian, J., 930
 Tian, N., 801
 Tian, S., 889
 Tian, Z., 438
 Tiberio, F. C. S., 735
 Tibet, 452
 Tice, A., 153
 Timm, N., 802, 803

- Tinello, S., 128
 Tisarum, R., 804
 tissue culture, 159, 355, 591, 761
 Tiunov, A. V., 255
Tmesipteris elongata, 939
Tmesipteris fowerakeri, 72
 Toffoli Kadri, M. C., 644
 Toledo, S. P., 85
 Tolentino, G. S., 84
 Tomaino, A., 750
 Tomaselli, M., 655
 Tomei, E. J., 805
 Tomescu, A. M. F., 806
 Tomlin, F. M., 548
Tomophyllum donianum, 380
 Tomsik, P., 807
 Toneva, V., 240
 Tonkov, S., 808
 Tonn, C., 124, 819
 Tonn, C. E., 124
 Tono, A., 305
 Toome, M., 809
 topography, 909
 Torreias, S. R. S., 168, 810
 Torres, G. R., 811
 Torres, M. A., 627
 Torres, S. C. S., Jr., 230
 Torrez, V., 684
 Totland, O., 533
 Tovar, A., 4
 toxic plants, 214, 231, 396, 432, 691, 807
 trace elements, 253
 Tran, C. L., 551
 Tran, M. H., 551
 Tran, V. S., 59
 transgenic lines, 605
 transpiration, 503
 tree ferns, 95, 104, 151, 159, 184, 207, 216, 217, 234, 299, 341, 392, 419, 431, 490, 534, 624, 630, 638, 683, 725, 767, 800, 939
 treeline, 942
 trehalose, 576
 Triantis, K. A., 585
 Triassic, 42, 410, 572, 609, 772
Trichoderma atroviride, 505
Trichomanes, 591, 677, 826
Trichomanes punctatum, 591
 Tripathi, B. D., 407
 Trivinho-Strixino, S., 154
 Troia, A., 812, 813
 Trombetta, D., 750
 Trop, J. M., 778
 trunk growth, 546
 Truong, P., 474
Tryonia, 129
 Tsai, C. J., 592
 Tsai, R. T., 227
 Tsuboi, H., 390
 Tsuji-Tsukinoki, S., 565
 tsunami, 769
 tufa, 287
 Tunisia, 145, 211
 Tuomisto, H., 814, 846, 945
 Turkey, 394
 Turner, I., 737
 Tyagi, K., 815
- U**
- Uchiyama, N., 302
 Uekusa, H., 304
 Ueno, Y., 726
 Ueyama, M., 524
 Uganda, 198
 Ugarte, G., 819
 UK, 15, 149, 217, 224, 285, 529, 589, 765, 798, 824, 874, 904, 911
 ultraviolet light, 773
 Ulvskov, P., 516
 Uma, E., 536, 537
 understory, 56, 123, 200, 558, 608, 669, 686, 697, 797, 840, 858, 873, 896, 919
 Uniyal, P. L., 761, 762
 uranium, 205, 312
 urban ecology, 666, 835
 Urfus, T., 282
 Urgenson, L. S., 816
 Uruguay, 129, 746
 USA, 3, 48, 67, 68, 89, 148, 164, 195, 197, 266, 269, 288, 328, 330, 356, 414, 463, 464, 494, 518, 525, 558, 652, 669, 686, 697, 722, 750, 751, 753, 754, 759, 763, 795, 822
 useful plants, 839
 UV, 74, 627
- V**
- vaccination, 23
 Vagvoelgyi, C., 399
 Vajda, V., 60, 506
 Valdespino, I. A., 817
 Valledor, L., 818
 Vallejo, M., 54, 124, 819
 Vallejo, M. G., 54, 124
 Valmonte, G. R., 820
 Van Calster, H., 29
 Van Damme, P., 671
 van der Werf, A., 70
 Van Dijk, P., 575, 576
 van Hal, J. R., 416
 Van Hoof, T. B., 464
 van Konijnenburg-van Cittert, J. H. A., 409, 821
 van Logtestijn, R. S. P., 416
 van Mame, F. T., 269
 van Straaten, O., 354
 Van Zandt, M., 822
 Vandekerkhove, K., 797
Vandenboschia speciosa, 603, 687
 Vanderpoorten, A., 413, 584, 585
 Vandvik, V., 198
 Vaness, B. M., 823
 Vardhini, B. V., 824
 Varela, C., 601
 Varghese, L. A., 628
 Varma, P. K. V., 825, 826
 Varun, M., 205
 Vasco, A., 469
 Vasconcelos, V., 595
 Vazquez-Torres, M., 90
 Vega, J. A., 827
 vegetation dynamics, 211, 800
 Velayos, M., 828
 Velazquez-Montes, E., 829
 Veldkamp, E., 354
 Veldkamp, J. F., 25
 Venezuela, 601
 Venkateswarulu, T. C., 26
 Venticinque, E. M., 278
Venustosynnema, 386
 Vera, E. I., 830
 Veracruz, 90, 419, 420, 535, 594
 Verheyen, K., 29, 797
 Verma, D., 831
 Verma, S., 380
 Verma, S. K., 261
 Vermont, 652
 Verschelde, P., 797
 Verschooten, K., 576
 Verstraeten, G., 29
 Vespermann, J., 42
 vessels, 701
 Viane, R. L. L., 192
 Vibrans, A. C., 152
 Vibrans, H., 5
 vicariance, 392
 Viciani, D., 421
 Vicic, D. D., 832
 Vicuna, R., 95
 Vidal, O., 623
 Vieira Tavares, T. M., 833
 Vieira, C., 152, 834
 Vietnam, 549, 550
 Vieu, J., 147
 Vila, B., 488
 Vila-Ruiz, C. P., 835
 Villalba-Breva, S., 488
 Villalobos, A. P., 14
 Villanueva-Amadoz, U., 702
 Villarreal, J. C., 413, 438
 Villarreal, M. L., 556
 Villavicencio Nieto, M. A., 467
 Vincent, M. A., 836
 viruses, 497, 668
 Vit, P., 282
Vittaria linearifolia, 380
Vittaria lineata, 520
 vittarioid ferns, 656

Vogel, J. C., 78
 Vogelmann, T. C., 837
 Voitsekhovskaja, O. V., 199
 Volin, J. C., 757
 Volkova, P. A., 333
 Volpatti, D., 75
 von Konrat, M., 597
 Von Raab-Straube, E., 838
 Voronkina, N. V., 637
 Vorontsova, M. S., 933
 Voytena, A. P. L., 520
 Vrba, J., 138
 Vredenburg, V. T., 535
 Vukovic, N., 66
 Vyas, A., 740
 Vysochina, G. I., 839

W

Wada, M., 296, 390, 391, 738
 Wagner, F. F., 92
 Wagner, K., 942
 Wagner, M. L., 27
 Wales, 748, 798
 Waller, D., 225
 Walther, G. R., 29
 Wan, M., 851
 Wan, Q. Z., 723
 Wan, S., 840
 Wan, X. M., 841, 842
 Wanat, N., 843
 Wang, C., 931
 Wang, C. N., 929
 Wang, D., 844, 845
 Wang, F., 847
 Wang, F. G., 846
 Wang, G., 848
 Wang, H., 723
 Wang, J., 143, 438, 459, 849, 850, 851, 889, 896
 Wang, L., 314, 772, 844, 852
 Wang, M., 445, 730, 857
 Wang, M. K., 346
 Wang, M. M., 876
 Wang, P. P., 883
 Wang, Q., 36, 88, 344, 898, 943
 Wang, Q. X., 142, 270, 271, 272, 848, 884, 885
 Wang, R., 854
 Wang, R. L., 853
 Wang, S. J., 855, 856
 Wang, S. L., 439
 Wang, W., 730, 857
 Wang, X., 840, 920
 Wang, X. L., 112
 Wang, Y., 312, 453, 458, 635, 636, 887, 890, 894, 928
 Wang, Y. C., 227
 Wang, Y. D., 801
 Wang, Y. Z., 112
 Wang, Z., 858, 881, 926, 931
 Wariss, H. M., 859

Warton, D. I., 29, 748
 Washington, 48, 60, 120, 518
 wasps, 3, 6, 158
 wastewater treatment, 289, 407, 628
 Watanabe, T., 860
 Watano, Y., 229, 305, 434
 water level, 754
 water transport, 69, 701, 766, 927
 Watkins, J. E., Jr., 86
 Watson, J. S., 224
 Webb, E. L., 56
 Weber, A. P. M., 70
 Weber, K. P., 55
 Wee, M. S. M., 861
 weed control, 12, 105, 518
 weedy plants, 208, 347
 Wei, H., 176
 Wei, K., 348
 Wei, L. J., 862
 Wei, R., 863
 Wei, X., 179
 Wei, Z., 864
 Wei, Z. J., 173
 Weigelt, P., 365, 585
 Weilandt, L., 263
 Wellman, C. H., 887
 Wen, J., 940
 Wen, M., 896
 Weryszko-Chmielewska, E., 283
 Wessel, G. M., 865
 Wessjohann, L. A., 59
 Weststrand, S., 438, 866
 wetlands, 314, 342, 381, 525, 754, 810
 Whipple, J. J., 288
 White, J. G., 778
 White, M., 321
 White, S., 149
 Wigermo, C., 783
 Wijesundara, D. S. A., 630
 Wilk, M., 588, 867
 Willats, W. G. T., 192, 516
 Williams, S., 868
 Willig, M. R., 724
 Willyams, D., 869
 Wilson, R. K., 598
 Wilson, S. D., 823
 Windham, M. D., 267, 438, 657, 732, 733, 734
 Windisch, P. G., 870
 Wing, S. L., 593
 Winter, K., 871
 wintergreen ferns, 793
 Wisconsin, 669
 Witkowski, E. T. F., 460
 Wittry, J., 525
 Woerdenbag, H. J., 240
 Wolf, J. H. D., 307
 Wolniak, S. M., 805
 Won, H., 359
 Wong, C. P., 302
 Wong, G. K. S., 50, 221, 438
 Wong, K. C., 872
 Wong, M. S., 872
 Wong, S. L., 873
 Woodbridge, J., 874
 Woodwardia, 148, 319, 737
 Woodwardia areolata, 148
 Woodwardia japonica, 319
 Worawittayanont, P., 799
 wound healing, 128
 Wright, I. J., 593
 Wrzosek, M., 588, 867
 Wu, C. B., 883
 Wu, F., 875, 876
 Wu, G. W., 937
 Wu, H. T., 897
 Wu, J., 840, 919, 920
 Wu, K. C., 318
 Wu, M., 926
 Wu, N., 755, 877
 Wu, Q. X., 456
 Wu, S. Y., 878
 Wu, T. T., 449, 923
 Wu, W., 772
 Wu, X. D., 172, 349
 Wu, X. J., 773
 Wu, Y. C., 323
 Wu, Y. N., 172
 Wu, Z., 907
 Wulf, M., 29
 Wyatt, S. W., 806
 Wyoming, 288

X

Xavier, R. O., 735
 Xavier, T. F., 879
 xeric ferns, 267
 Xi, H. C., 443
 Xi, Z., 876, 880
 Xia, C., 881
 Xia, G., 457
 Xia, Q., 857
 Xia, S., 111
 Xia, X., 88
 Xiang, R., 472
 Xiao, J., 88
 Xie, D., 881
 Xin, X., 118
 Xing, F. W., 729, 846
 Xing, S., 876, 907
 Xing, Z., 718
 Xiong, C., 899
 Xiong, H., 882
 Xu, D. J., 883
 Xu, D. L., 884, 885
 Xu, G., 886
 Xu, G. Q., 170
 Xu, G. X., 345
 Xu, H. F., 937
 Xu, H. H., 887
 Xu, H. L., 448

Xu, J. Y., 888
 Xu, K. P., 944
 Xu, Q., 458
 Xu, Q. Q., 852
 Xu, R. X., 841
 Xu, W., 718
 Xu, X., 889
 Xu, X. J., 937
 Xu, Z., 890
 Xue, L. J., 592
 xylem, 766

Y

Yaakop, S., 242
 Yadav, B. B., 742, 743
 Yadav, B. L., 508
 Yadav, R. K., 891
 Yadav, S., 583
 Yahya, F., 911
 Yakushima Island, 108
 Yamada, M., 892
 Yamada, S., 395
 Yamada, T., 430
 Yamaguchi, K., 565
 Yamaguchi, M., 297
 Yamaguchi, N., 860
 Yamaguchi, T., 239
 Yamasaki, H., 130, 277
 Yamashita, J., 892
 Yamato, K. T., 390
 Yamauchi, K., 893
 Yamazaki, H., 905
 Yan, H., 718
 Yan, J. H., 515
 Yan, R., 894
 Yan, X., 774, 858
 Yan, Y., 475, 877
 Yan, Y. H., 729
 Yan, Z., 438
 Yanez, A., 20, 895
 Yang, B., 111, 930
 Yang, G. Z., 932
 Yang, H., 894
 Yang, J., 841, 842
 Yang, L., 896, 917
 Yang, M., 472
 Yang, N., 241
 Yang, R. C., 897
 Yang, R. S., 429
 Yang, T. Y. A., 262
 Yang, W. Z., 898
 Yang, X., 899
 Yang, Y. P., 443
 Yang, Y. R., 172, 348
 Yang, Z. R., 449
 Yano, K., 789
 Yao, H., 179, 441
 Yao, J. N., 900
 Yao, Y., 475
 Yashin, V. A., 653
 Yatskiyevch, G., 267, 693

Ye, H. Z., 937
 Ye, J. X., 937
 Ye, M., 618, 898
 Ye, S., 908
 Ye, W., 143, 917
 Ye, W. T., 143
 Ye, X., 454
 Yellowstone National Park, 269, 288
 Yemen, 161
 Yesilyurt, J. C., 213
 Yi, P., 932
 Yin, G., 755
 Yin, L., 165
 Yin, S., 459
 Yin, X., 443, 475
 Yin, Y., 901
 Ying, Y. M., 902
 Yonekura, K., 903
 Yonezawa, K. I., 395
 Yong, K. T., 557
 Yoshihara, T., 905
 Yoshikawa, T., 24
 Yost, R. S., 202
 You, M., 906
 You, Y. H., 382
 Youn, H. J., 426
 Yu, D., 881
 Yu, H., 928
 Yu, M., 907
 Yu, Q., 907
 Yu, S., 176, 908
 Yuan, L., 553, 899
 Yuan, P. C., 203
 Yuan, T. X., 909
 Yuan, X. Z., 775
 Yuan, Y., 453
 Yun, C. W., 471
 Yurdakok, B., 910
 Yurimoto, H., 860

Z

Zadworny, M., 30
 Zahn, G., 153
 Zakaria, Z. A., 911
 Zakharenko, A. M., 251
 Zalewska, M., 405
 Zamaloa, M. C., 139
 Zamani, F., 13
 Zambrano, A. M. A., 68
 Zamora-Crosby, D., 781
 Zanne, A. E., 216
 Zaracho, V. H., 912
 Zarkami, R., 671
Zasmidium, 386
 Zazouli, M. A., 913, 914
 Zeidler, M., 915
 Zelko, I., 34
 Zeng, H., 882
 Zeng, Q., 894
 Zeng, W. W., 916

Zeng, Y., 917
 Zeppenfeld, T., 200
 Zhan, J., 845
 Zhan, Z. J., 902
 Zhang, C., 179, 452, 840
 Zhang, D. B., 918
 Zhang, G., 107, 730, 857
 Zhang, G. M., 485
 Zhang, H., 117, 316, 635, 636, 756, 853
 Zhang, H. P., 909
 Zhang, H. Y., 318
 Zhang, J., 191, 756, 919, 920
 Zhang, J. L., 927
 Zhang, L., 472, 549, 550, 772, 889, 908, 918, 924, 930
 Zhang, L. B., 180, 181, 549, 550, 921, 922, 924
 Zhang, L. G., 923
 Zhang, M., 925, 926
 Zhang, N., 453
 Zhang, Q., 107, 876
 Zhang, R. B., 883
 Zhang, S., 928
 Zhang, S. B., 927
 Zhang, W., 801
 Zhang, W. Y., 929
 Zhang, X., 176, 841, 857, 928, 931, 940
 Zhang, X. B., 449
 Zhang, X. C., 728, 729, 863
 Zhang, X. H., 456
 Zhang, X. M., 936
 Zhang, Y., 115, 117, 118, 438, 553, 930, 931, 932
 Zhang, Y. W., 775
 Zhang, Z., 316, 894, 917, 934
 Zhang, Z. Q., 933
 Zhao, G., 346
 Zhao, J., 840, 935
 Zhao, K., 917
 Zhao, L., 936
 Zhao, M., 441
 Zhao, M. J., 886
 Zhao, Q. S., 172, 349
 Zhao, S. W., 876
 Zhao, W., 312
 Zhao, X., 636, 730
 Zhao, X. Y., 936
 Zhao, Y., 310
 Zhen, H., 191
 Zheng, C. S., 937
 Zheng, F., 849
 Zheng, J., 312
 Zheng, X. K., 112
 Zheng, Y., 107, 316, 636
 Zheng, Z., 107, 316, 928, 938
 Zheng, Z. H., 853
 Zhi, L., 889
 Zhong, B., 939
Zhongmingella, 856
 Zhou, C. Y., 515

Zhou, G., 919
Zhou, G. D., 841, 842
Zhou, L., 840
Zhou, S., 940
Zhou, X. M., 443, 924
Zhou, X. Y., 841, 842
Zhu, D., 894
Zhu, F. Y., 116
Zhu, G., 316, 774
Zhu, H. C., 887
Zhu, L. J., 941
Zhu, W., 930
Zhu, Y., 191, 438, 755, 877
Zhuang, Z. Q., 937
Zikrea, A., 7
Zimmer, B., 22
Zimmer, E. A., 652
zinc, 310, 427
zinc oxide, 310
Znavor, P., 138
Zobel, K., 661
Zoccola, A., 415
Zong, Z., 179
zooplankton, 280
Zorn, P., 115
Zosterophyllum, 529
Zotz, G., 942
Zou, H., 943, 944
Zou, W., 906
Zou, Z. X., 944
Zu, Y., 864
Zulueta-Rodriguez, R., 419
Zuquim, G., 814, 945
Zwieniecki, M. A., 946

Patrick J. Acock	Phylogeny of <i>Asplenium</i> and most aspects of <i>Equisetum</i> research
Ruth Agurauja	Population biology and restoration ecology of endangered fern species
Victor B. Amoroso	Botany; Economic ferns; Histochemical studies (medicinal ferns); Philippine <i>Cycas</i> ; Morphology and taxonomy
Sayuri Ando	Fern sporophyte development
Raju Antony	Systematic studies of <i>Selaginella</i> ; Ferns and conservation of ferns
Naomi Arcand	Ecology and biogeography of tree ferns
Ralph C. Archer	Fern horticulture
Nan Crystal Arens	Ecology of tree ferns
Monanjali Bandyopadhyay	Phyto-geography; Ecology; Fern lore; Ethnobotany
Yasmin S. Baksh-Comeau	Vascular flora of Trinidad and Tobago
Julie F. Barcelona	Philippine ferns/floristics; Ecology and conservation; <i>Odontosoria</i> systematics; Philippine <i>Rafflesia</i>
Wilfried H. Bennert	Ferns and lycopods
Subir Bera	Animal interaction with pteridophytes and its co-evolutionary significance
Kamlesh Bhakuni	Biodiversity, taxonomy and morphology of Central Himalayan ferns
Rodica Bercu	Histo-anatomy of ferns
S.S. Bir	Compilation of index to chromosome numbers of Indian pteridophytes
Michel Boudrie	Pteridophytes of France and of the Guianas (systematics, taxonomy, ecology, distribution)

Siegmar W. Breckle	Ecosystems of the Earth; Ecology of halophytes; Tropical ecology; Desert ecology
Walter Bujnoch	Ferns of Central Europe, especially <i>Dryopteris affinis</i>
Manuel G. Caluff	Selaginellaceae; Lycopodiaceae; Polypodiaceae (including Grammitidaceae); Fern culture; Ecology
Jian Guo Cao	Sexual reproduction and development of fern gametophytes
James D. Caponetti	Propagation of ferns by tissue culture
Francisco Carrapico	<i>Azolla</i> (general biology and taxonomy)
Kalyan Chakraborti	Phyto-geography; Ecology; Fern lore; Ethnobotany
Wen-Liang Chiou	Gametophyte morphology and development; Reproductive biology; Antheridiogen; Phenology of sporophytes; Fern systematics
Maarten Christenhusz	Fern floras; Island biogeography; Phytotaxa (journal)
Aurea M.T. Colli	Ecology and physiology
Marten W. de Boer	Pteridophytes of Bolivia and East Africa; Herbarium specimen collection
Joshua Der	<i>Pteridium</i> biogeography; Fern genomics and transcriptomics; RNA editing; Life cycle evolution
Franz-Georg Dunkel	Rare ferns; Ecology and population biology
Adrian F. Dyer	The biology of soil spore banks and their potential in fern conservation; Ecology of fern gametophytes; Reproductive biology of <i>Woodsia ilvensis</i>
Atsushi Ebihara	Speciation; Gametophytes; Hymenophyllaceae
Murray Evans	Pteridophytes of the eastern United States; Taxonomy; Ecology; Natural history
Elizabeth Farnsworth	Ecology, Northeastern ferns; Illustration

Donald R. Farrar	Fern reproduction; <i>Botrychium systematics</i>
Kathryn Flinn	Ecology
Harald C. Frank	Tropical ferns in general; <i>Platynerium</i> ; Ant ferns; <i>Huperzia</i>
Christopher R. Fraser-Jenkins	Taxonomy; Floristics; Himalayan and all Asian ferns; <i>Asplenium</i> , <i>Athyrium</i> , <i>Cheilanthes</i> , <i>Diplazium</i> , <i>Dryopteris</i> , <i>Polystichum</i> , <i>Pteris</i> ; Nepal; Sri Lanka; Assam; Flora of Pakistan; Bangladesh; China; Myanmar; Tibet; Bhutan
Stephen C. Fry	Cell wall polysaccharides and enzymes; <i>Equisetum</i> tissue culture (callus)
Mary Gibby	Evolution and speciation in ferns; Fern conservation
Arthur V. Gilman	Lycopodiaceae; Ophioglossaceae; Systematics of temperate ferns and allies
Hit Kishore Goswami	Population cytogenetics of <i>Isoetes</i> and <i>Ophioglossum</i> ; Pteridophytes as medicinal plants
Gary K. Greer	Phenotypic plasticity; Polyploidy; Reproductive Ecology; Community assembly; Antheridiogen; Allelopathy
Catharine W. Guiles	Horticulture of temperate-zone ferns, especially those of New England
Irina I. Gureyeva	Taxonomy; Morphology; Biology of ferns of Siberia and Russia, especially taxonomy of <i>Pteridium</i> and morphology of the fern spores
Christopher H. Haufler	Patterns and processes of fern evolution; Application of chromosomal, isozymic and DNA data bases in characterizing fern species; Understanding speciation mechanisms and phylogenetic relationships; The significance of polyploidy in pteridophyte evolution
Andreas Hemp	Vegetation ecology
Renier Morejon Hernandez	Taxonomy and conservation of Cuban ferns

Elisabeth A. Hooper	Fern systematics; <i>Aleuritopteris</i>
Karsten Horn	Biosystematics, ecology, population biology and distribution of <i>Diphasiastrum</i> and <i>Botrychium</i> species in Europe; Bibliography of Macaronesian pteridophytes; Conservation strategies for endangered German pteridophytes; Monograph of the genus <i>Diphasiastrum</i>
Peter H. Hovenkamp	Polypodiaceae; Nephrolepidaceae; Oleandraceae; Woodsiaceae; Saccolomataceae; Ferns of Sulawesi; Flora Malesiana; Flora of China
Ana M. Ibars	Conservation; Fern spore bank; Germination
Ryoko Imaichi	Shoot apex structure; Evolutionary morphology; Origin of leaves
Filippo Imperato	Chemistry of flavonoids and other phenolics of ferns
Kunio Iwatsuki	Flora of East and Southeast Asia; Hymenophyllaceae; Conservation
Mirkka Jones	Determinants of plant community composition and diversity; Ecology of neotropical ferns
Masahiro Kato	Tropical fern flora; Morphological evolution of vascular plants; Speciation and adaptation of rheophytes; Evolution of apogamous ferns
Michael Kessler	Biodiversity and biogeography of Bolivian montane forests, including pteridophytes; Flora of Bolivian pteridophytes
Johanna H.A. van Konijnenburg-van Cittert	Evolution of fossil fern families, especially Dipteridaceae
S.P. Khullar	Fern floristics; Taxonomy; Cytology and morphology
Yves Krippel	Distribution of pteridophytes in Luxembourg
Rakesh Kumar	<i>Azolla/Anabaena</i> physiology
Siro Kurita	Speciation; Karyotype evolution; Systematics

Brij Lal	Inventory, conservation, and documentation of pteridophyte-associated traditional knowledge of Indian Himalayan region in particular
Marco Landi	Population ecology
Marcus Lehnert	Taxonomy, phylogeny, ecology and biogeography of pteridophytes; Special expertise in tree ferns
Illia Leitch	Evolution of genome size and karyotype diversity in plants
Blanca León	Taxonomy of neotropical Polypodiaceae, Andes and Peruvian ferns
Bai-Ling Lin	Development; Hormone signaling; Genomics
Stuart Lindsay	Pteridophytes of Thailand, Laos and Cambodia; Vittariaceae of Southeast Asia; Gametophyte biology/ecology; Multi-access keys
David H. Lorence	Pteridophytes of Polynesia, Micronesia, Mascarenes
Kay Lynch	Propagation and conservation of Hawaiian native ferns
P.V. Madhusoodanan	Pteridophytes and bryophytes of South India; <i>Azolla</i> species and Cyanobacteria as biofertilizers
Fernando Matos	Taxonomy, biogeography, phylogeny and evolution of <i>Elaphoglossum</i>
Sadamu Matsumoto	Cytotaxonomic study of ferns, especially <i>Cyrtonium</i> , <i>Asplenium</i> , and <i>Pteris</i> ; Pteridophyte flora of Southern Pacific Islands, Bhutan, Taiwan
J. Mitchell McGrath	Plant breeding; Molecular cytogenetics; Gene duplication
Klaus Mehltreter	Fern ecology; Phenology; Herbivory; Interactions with insects; Invasive species
Aniceto Mendoza Ruiz	Pteridophytes of Mexico; Taxonomy, floristics, cultivation and propagation of ferns

Jordan Metzgar	<i>Cryptogramma</i> ; Phylogenetics; Polyploidy; <i>Azolla</i> ; Osmundaceae
John Mickel	Pteridoflora of Mexico; Monographic studies of <i>Anemia</i> and <i>Elaphoglossum</i>
Vlastimil Mikolas	<i>Polypodium</i> ; <i>Asplenium trichomanes</i> agg.; <i>Dryopteris</i> ; <i>Equisetum</i> and ferns of Oceania
Futoshi Miyamoto	Sino-Japan and Himalayan areas
James D. Montgomery	<i>Dryopteris</i> in North America and Mexico; Ferns of Pennsylvania and New Jersey; Ecology of <i>Botrychium</i>
Robbin C. Moran	Taxonomy, biogeography, phylogeny and evolution of ferns and lycophytes
Claudine C. Mynssen	<i>Diplazium</i> ; Brazilian flora
Narumi Nakato	Chromosomes; Polyploidy; Hybridization; Speciation
Maite Niño	Selaginellaceae; Lycopodiaceae; Polypodiaceae (including Grammitidaceae); Fern culture; Ecology
Benjamin Oellgaard	Systematics and biology of the Lycopodiaceae with special reference to neotropical Lycopodiaceae; Pteridophytes of the northern Andes, especially Ecuador; Biology; Taxonomy and diversity; Quantitative inventories of pteridophytes in sample plots in Ecuador
Sue Olsen	Testing ferns for hardiness and ornamental value and introducing ferns to the public
Leticia Pacheco	Systematics of <i>Diplazium</i>
Christopher Page	Biology and ecology of Pteridophyta; Biogeography; Distribution; Insular floras; Paleobotany; <i>Equisetum</i> ; Patterns, principles, processes and dynamics in pteridophyte ecosystems and their evolution
Santiago Pajaron	Reproductive biology; Population genetics; Systematics and evolution

Daniel Palmer	Hawaiian ferns
Barbara Parris	Monographic studies of Grammitidaceae; Systematics, ecology and phytogeography of Old World pteridophytes particularly in tropical and south temperate regions
Alison Paul	Pteridophyte curation; Macaronesian and European pteridophytes
James H. Peck	Pteridophyte flora of Arkansas
Ana L. Pereira	Plant-cyanobacteria symbioses; Phylogeny; Cyanotoxins; Proteomic, phytoremediation, ecotoxicology of plants by cyanotoxins
Krzysztof Piątek	Fern biogeography
Jefferson Prado	Phylogeny, nomenclature, taxonomy, and geographical distributions of Pteridaceae; Pteridoflora in Brazil
Kathleen Pryer	Phylogenetics of ferns and basal tracheophytes using morphological and molecular data; Systematics of basal fern families, especially Marsileaceae, Hymenophyllaceae, tree ferns, pteroid ferns, ontogeny and phylogeny; Morphometrics
N. Punetha	Morphology, taxonomy and biodiversity of Central Himalayan ferns and lycophytes
Anshita Raj	Phytoremediation; Arsenic; <i>Pteris vittata</i> gametophytes
K.P. Rajesh	Ecology, taxonomy and conservation of bryophytes and pteridophytes of Western Ghats
R.G.H. Ranil	Tree ferns
Tom A. Ranker	Systematics, ecology and evolution of tropical ferns
Karen Renzaglia	Morphology; Development; Reproduction; Ultrastructure
Roderick Robinson	Invasive species; <i>Pteridium</i> ; <i>Lygodium</i> ; <i>Azolla</i>
Gar W. Rothwell	Phylogeny of land plants

Kai Runk	Comparative biology and ecology of Estonian <i>Dryopteris</i> ; Cultivation of hardy ferns in Estonia, especially <i>Polystichum</i> and <i>Phyllitis scolopendrium</i> and their cultivars; Hardy East Asian fern species
Arthur E. Salgado	Taxonomy of Southeast Asian ferns; the genus <i>Asplenium</i> in the Philippines
Annette Schoelch	Construction morphology; Development of the sporophyll, sporangia, and sori in ferns; Evolution and phylogeny of ferns
Eric Schuettpelz	Evolution, diversification and systematics of leptosporangiate ferns
David Schwartz	Cheilanthoid ferns
Kakali Sen	Fern and lycophytes; Micromorphology, anatomy, gametophyte and reproductive biology; Fern-insect interactions; Phytoliths
Wen Shao	Fern embryology; Pteridophyte taxonomy; Polypodiaceae; <i>Phymatopteris</i>
B.D. Sharma	Morphology, anatomy, phytochemistry and experimental studies on pteridophytes; Paleobotany of Mesozoic and tertiary plants
O.P. Sharma	Agronomy; Carcinogenic ferns
Joanne M. Sharpe	Tropical and temperate fern life histories; Long-term studies of demography of tropical pteridophytes; Ecology of rheophytes and New England ferns
Shane W. Shaw	Systematics and evolution of Gleicheniaceae; Insect-fern interactions and <i>Isoetes</i> anatomy
Dong Shi-Yong	Taxonomy of Asian tropical ferns; Pteridophyte flora of Southern China
Judith E. Skog	Fern evolution and phylogeny, especially basal ferns - Osmundaceae, Schizaeaceae, Matonianaceae; Relationships with fossil ferns
Tynisha Smalls	Molecular biology of ferns

Alan R. Smith	Phylogeny of pteridophytes; Phylogeny of Polypodiaceae/Grammitidaceae; Floristics of Mexican, Venezuelan and Bolivian ferns and allies; Phytogeography of ferns
V.K. Sreenivas	Molecular phylogeny; Taxonomy; <i>Pteris</i>
G.K. Srivastava	<i>Isoetes</i>
Michizo Sugai	Photocontrol of spore germination; Sex organ differentiation
John A. Thomson	Taxonomy, evolution and secondary metabolics of <i>Pteridium</i> ; Bracken fern/insect interactions
Alejandra Vasco	Neotropical pteridophyte taxonomy; <i>Elaphoglossum</i>
Olena V. Vasheka	Fern introduction, cultivation of temperate-zone ferns in Ukraine; Pteridophyte conservation
Satish C. Verma	Reproductive biology, cytogenetics, genetics and cytotaxonomy of homosporous ferns
David H. Wagner	Ferns of the Pacific Northwest; <i>Polystichum</i> ; <i>Botrychium</i> ; Photomicrography
Florence S. Wagner	Cytology and hybridization in pteridophytes; Monograph of <i>Botrychium</i> ; Hawaiian pteridophyte flora; Cytology and paraphyses of Hawaiian pteridophytes; Bibliography of Hawaiian pteridophytes
Yasuyuki Watano	Speciation; Apogamy; Intragametophytic selfing
James E. Watkins, Jr.	Fern ecology; Ecophysiology; Reproductive/gametophyte biology
Richard A. White	Vascular plant anatomy and morphology; Systematics and anatomy of the tree ferns (Dicksoniaceae and Cyatheaceae) and allies
Dean P. Whittier	Morphology and development of fern gametophytes; Development of gametophytes of the Ophioglossaceae, Psilotaceae and Lycopodiaceae

Carl-Johan Widén	Phloroglucinol derivatives in ferns
Kenneth A. Wilson	Hawaiian alien ferns; Pteridophyte sporangial morphology
Michael D. Windham	Cytology and phylogeny of ferns; Chelanthoid ferns
Paulo G. Windisch	Neotropical ferns
Paul Wolf	Molecular systematics; Population genetics; Fern phylogeny
George Yatskievych	Systematics of cheilanthoid ferns; Floristics of US (especially Missouri) and Mexico; Conservation
Xian-Chun Zhang	Ferns of the Himalayan region and Southeast Asia
Aurora Zlotnik	Fern anatomy; Plant stomata

Patrick J. Acock
13 Star Lane St Mary Cray
Kent BR5 3LJ UK
pat.acock@btinternet.com

Ruth Aguraiuja
Kloostrimetsa Rd 52
Tallinn 11913 ESTONIA
[372] 606 2699
ruthaguraiuja@hotmail.com
ruth.aguraiuja@botaanikaed.ee

Victor B. Amoroso
Central Mindanao University
University Town, Musuan
8710 Bukidnon PHILIPPINES
[63] 917 549 5084
Fax: [63] 088 356 1912
amorosovic@yahoo.com

Sayuri Ando
Graduate School of Science
University of Tokyo
7-3-1 Hongo
Tokyo 113-0033 JAPAN
[81] 35 841 4047
a_sayuri@bs.s.u-tokyo.ac.jp

Raju Antony
Tropical Botanic Garden and Research
Institute
Palode Thiruvananthapuram District
Kerala 695 562 INDIA
[91] 949 426 9824
Fax: [91] 472 286 9246
rajuantonytbagri@rediffmail.com

Naomi Arcand
Department of Geography
University of Colorado
Boulder CO 80302 USA
[1] 808 227 8694
naomi.arcand@gmail.com

Ralph C. Archer
10505 Trotters Pointe Dr. Apt. 103
Louisville KY 40241-1287 USA
[1] 502 632 1212
ralpharcher@att.net

Nan Crystal Arens
Department of Geoscience
Hobart and William Smith Colleges
Geneva NY 14456 USA
[1] 315 781 3930
arens@hws.edu

Monanjali Bandyopadhyay
Department of Bengali
Vidyasagar University
Midnapore West Bengal INDIA
[91] 033 2556 8943
mananjali.bandyopadhyay@gmail.com
drkalyanchakraborti@rediffmail.com

Yasmin S. Baksh-Comeau
Department of Life Sciences
University of the West Indies
St Augustine TRINIDAD
[868] 224 3704; [868] 662 2002 ext. 84499
Fax: [868] 663 9686
yasmin.baksh-comeau@sta.uwi.edu

Julie F. Barcelona
School of Biological Sciences
University of Canterbury
Private Bag 4800
Christchurch 8140 NEW ZEALAND
[011] 632 522 5846
Fax: [011] 632 527 0306
barceljf@hotmail.com

Wilfried H. Bennert
Plessenweg 28
D-58256 Ennepetal GERMANY
[49] 230 283 3493
wilfried.bennert@rub.de

Subir Bera
Center of Advanced Studies
Department of Botany
University of Calcutta
35 Ballygunge Circular Road
Kolkata 700 019 INDIA
[91] 033 2461 4959 ext. 297
Fax: [91] 033 2461 4849
berasubir@yahoo.co.in

Kamlesh Bhakuni
C/O Bahadur Singh Mehta
Roadways Workshop Pithoragarh
P.O. Ancholi Distt Pithoragarh
Pithoragarh 262530 Uttarkhand INDIA
[91] 941 297 7698; [91] 596 426 4032
Fax: [91] 596 426 4032
kammubhakuni@yahoo.com

Rodica Bercu
Bdul Ferndinand Nr. 61
Bl. A 7, Sc. B, Ap. 43
900721 Constanta ROMANIA
Fax: [40] 404 151 1512
rodicabercu@yahoo.com

S.S. Bir
Manauli House 33 Yadvindra Colony
The Mall Patiala 147 001 INDIA
[91] 175 304 6264
ssbir28@rediffmail.com

Michel Boudrie
16 Rue des Arenes
F-87000 Limoges FRANCE
michelboudrie@orange.fr

Siegmar W. Breckle
Department of Ecology
Wasserfuhr 24-26
D-33619 Bielefeld GERMANY
[49] 52 110 5513
sbreckle@gmx.de

Piet Bremer
Roelingsbeek 1
8033 BM Zwolle THE NETHERLANDS
pietbremer@planet.nl

William R. Buck
New York Botanical Garden
2900 Southern Blvd.
Bronx NY 10458-5126 USA
[1] 718 817 8624
bbuck@nybg.org

Walter Bujnoch
Neuwiese 13
D-54296 Trier GERMANY
[49] 06 511 0542
wrbujnoch@onlinehome.de

Manuel G. Caluff
Jardin de los Helechos de Santiago de Cuba
Carretera del Caney No. 129, La Caridad
Santiago de Cuba, CP 90400 CUBA
manolito@bioeco.ciges.inf.cu

Jian Guo Cao
College of Life and Environmental Sciences
Shanghai Normal University
Shanghai 200234 CHINA
[86] 216 432 2526
cao101@shnu.edu.cn

James D. Caponetti
Division of Biology
University of Tennessee
402 Hesler
Knoxville TN 37996-0830 USA
[1] 865 974 0365 or 6841
jcaponet@utk.edu

Francisco Carrapico
Departamento de Biología Vegetal
F. de Ciencias da Universidade de Lisboa
Centro de Biologia Ambeintal Bloco C2
Campo Grande 1749-016 Lisboa
PORTUGAL
[351] 21 750 0381 ext. 22145
Fax: [351] 21 750 0048
fcarrapico@fc.ul.pt

Kalyan Chakraborti
Bidhan Chandra Krishi Viswavidyalaya
Kalyani Nadia 741235 West Bengal INDIA
033 2556 8943
drkalyanchakraborti@rediffmail.com
monanjali.bandyopadhyay@gmail.com

Wen-Liang Chiou
Division of Forest Biology
Taiwan Forestry Research Institute
53 Nan-Hai Rd
Taipei 100 TAIWAN
[886] 2 2303 9978 ext. 2701
chiou@serv.tfri.gov.tw
chiouwl@gmail.com

Maarten Christenhusz
Royal Botanic Gardens Kew
Richmond Surrey TW9 3AB UK
m.christenhusz@kew.org

Aurea M.T. Colli
180 Joao Mutinelli Porto Ferreira
Sao Paulo State CEP 13.660.000 BRAZIL
[55] 19 581 2683
am-colli@bol.com.br

Marten W. de Boer
Hofbrouckerlaan 27
2341 LM Oegstgeest THE
NETHERLANDS
[31] 71 301 4991
Fax: [31] 65 168 9973
marten.oegst@gmail.com

Joshua Der
Department of Biology
California State University-Fullerton
Fullerton CA 92813 USA
jder@fullerton.edu

Franz-Georg Dunkel
Am Saupurzel 1
D-97753 Karlstadt GERMANY
[49] 93 539 0146
Fax: [49] 9 353 1881
f.g.dunkel@t-online.de

Shashi Dwivedi
Pteridology Laboratory
National Botanical Research Institute
Rana Pratap Marg
Lucknow 226001 Uttar Pradesh INDIA

Adrian F. Dyer
499 Lanark Road West Balerno
Edinburgh EH14 7AL Scotland UK
[44] 131 449 3767
afdye499@googlemail.com

Atsushi Ebihara
Department of Botany
National Museum of Nature and Science
4-1-1 Amakubo
Tsukuba 305-0005 JAPAN
[81] 29 853 8988
Fax: [81] 29 853 8401
ebihara@kahaku.go.jp

Murray Evans
426 Kibbee Rd
Brookfield VT 05036 USA
[1] 802 276 3576

Elizabeth Farnsworth
New England Wild Flower Society
Framingham MA 01701 USA
efarnsworth@newenglandwild.org

Donald R. Farrar
Department of EEOB
Iowa State University
Bessey Hall 251
Ames IA 50011 USA
dfarrar@iastate.edu

Kathryn Flinn
Department of Biology
Franklin & Marshall College
P.O. Box 3003
Lancaster PA 17604-3003 USA
kathryn.flinn@gmail.com

Harald C. Frank
Maria-Wart Str. 1
80638 Munich GERMANY
hc.frank@gmx.de

Christopher R. Fraser-Jenkins
Student Guest House Thamel
PO Box 5555
Kathmandu NEPAL
[977] 1 436 5976
Fax: [977] 1 441 3155
chrisopteris@yahoo.co.uk

Stephen C. Fry
Edinburgh Cell Wall Group IMPS DBS
University of Edinburgh
Daniel Rutherford Bldg. The King's Bldgs
Max Born Crescent Edinburgh EH9 3BF
UK
[44] 131 650 5320
Fax: [44] 131 650 5392
s.fry@ed.ac.uk

Mary Gibby
Royal Botanic Garden Edinburgh
20A Inverleith Row
Edinburgh EH3 5LR Scotland UK
[44] 131 248 2973
m.gibby@rbge.org.uk

Arthur V. Gilman
P.O. Box 82
Marshfield VT 05658 USA
[1] 802 426 3272
Fax: [1] 802 485 8422
avgilman@together.net

Hit Kishore Goswami
24 Kaushal Nagar P.O. Misrod
Bhopal 462047 Madhya Pradesh INDIA
[91] 755 280 7950; [91] 942 537 1765
goswamihk@yahoo.com

Gary K. Greer
Biology Department
Grand Valley State University
Allendale MI 49401 USA
[1] 616 331 2813
greerg@gvsu.edu

Catharine W. Guiles
47 Hubbard Lane
Topsham ME 04086 USA
[1] 207 729 3006
guiles.c2@gmail.com

Irina I. Gureyeva
Krylov Herbarium
Tomsk State University
Prospekt Lenina 36
Tomsk 634050 RUSSIA
[7] 382 252 9794
gureyeva@yandex.ru
siberianfern@hotmail.com

Christoph Hartkopf-Froeder
Geologischer Dienst NRW
Postfach 100763
D-47707 Krefeld GERMANY
[49] 215 189 7255
Fax: [49] 215 189 7505
hartkopf-froeder@gd.nrw.de

Christopher H. Haufler
Department of Ecology and Evolutionary
Biology
University of Kansas
Haworth Hall
Lawrence KS 66045-2106 USA
[1] 913 864 3255
vulgare@ku.edu

Andreas Hemp
Department of Plant Systematics
University of Bayreuth
95440 Bayreuth GERMANY
andreas.hemp@uni-bayreuth.de

Renier Morejon Hernandez
National Botanical Garden
Carretera del Rocio km 3.5 Calabazar
Boyeros
C.P. 19230 La Habana CUBA
[53] 7 697 9159
morejon@fbio.uh.cu

Nora Sue Hollis
1932 Bluebird Way
West Plains MO 65775-7702 USA
[1] 417 270 0603
ferngro@att.net

Elisabeth A. Hooper
Biology Department
Truman State University
100 E Normal Street
Kirksville MO 63501-4221 USA
[1] 660 785 4623
lhooper@truman.edu

Karsten Horn
Büro für angewandte Geobotanik und
Landschaftsökologie (BaGL)
Frankenstrasse 2
D-91077 Dormitz GERMANY
[49] 913 470 6455
info@karstenhorn-bagl.de

Peter H. Hovenkamp
Naturalis Biodiversity Center
P.O. Box 9514
NL-2300 RA Leiden THE
NETHERLANDS
[31] 71 751 7213
peter.hovenkamp@naturalis.nl

Layne Huiet
Department of Biology
Duke University
Box 90338
Durham NC 27708 USA
[1] 919 660 7317
rlh22@duke.edu

Ana M. Ibars
Jardí Botànic de Valencia
Universitat de Valencia
Quart 80
46008 Valencia SPAIN
[34] 96 315 6800
Fax: [34] 96 315 6826
ana.ibars@uv.es

Ryoko Imaichi
Faculty of Science
Japan Women's University
2-8-1 Mejirodai
Tokyo 112-8681 JAPAN
[81] 035 981 3662
ryoko@fc.jwu.ac.jp

Filippo Imperato
Contrada Cugno delle Brece S.n.c.
85100 Potenza ITALY
[39] 09 716 3318
fern75phil@virgilio.it

Kunio Iwatsuki
815-29 Kamoshida Aoba-Ku
Yokohama 227-0033 JAPAN
[81] 45 962 9761
iwatsuki@spa.nifty.com

Mirkka Jones
Department of Bioscience
Aarhus University
Ny Munkegade 116
8000 Aarhus DENMARK
[358] 2 333 5635
Fax: [358] 2 333 5730
mjones@biology.au.dk

Masahiro Kato
Department of Botany
National Museum of Nature and Science
4-1-1 Amakubo
Tsukuba 305-0005 JAPAN
[81] 75 711 3821
sorang@kahaku.go.jp

Michael Kessler
Systematic Botany
University of Zurich
Zollikerstrasse 107
CH-8008 Zurich SWITZERLAND
michael.kessler@systbot.uzh.ch

B.S. Kholia
Botanical Survey of India
192 Kaulagarh Road
Dehradun 248 195 Uttarakhand INDIA
bskholia_bsi@yahoo.co.in

Johanna H.A. van Konijnenburg-van Cittert
Lab of Paleobotany and Palynology
Budapestlaan 4
3584 CD Utrecht THE NETHERLANDS
[31] 30 253 2635
j.h.a.vankonijnenburg@uu.nl
han.konijnenburg@naturalis.nl

S.P. Khullar
Co-Editor, Indian Fern Journal
H. No. 1633 Sector 7-C
Chandigarh 160 019 Punjab INDIA
[91] 172 279 4484
sp.khullar@gmail.com

Yves Krippel
Rue de Rollingen, 18A
L-7475 Schoos LUXEMBOURG
[352] 69 131 6947
yves.krippel@mnhm.lu

Rakesh Kumar
R.G.M. Govt. College
Joginder Nagar
Mandi 17610 Himachal Pradesh INDIA
rbotany@gmail.com

Siro Kurita
Horinouchi 1288 Kikugawa
Shizuoka Pref. 439-0006 JAPAN
[81] 053 735 1457
shisuan@msf.biglobe.ne.jp

Brij Lal
CSIR-Institute of Himalayan Bioresource
Technology
Palampur 176062, Himachal Pradesh INDIA
[91] 981 608 6330
brijlal@ihbt.res.in; brijihbt@yahoo.co.in

Marco Landi
Department of Environmental Science
University of Siena
G Sarfatti Via Mattioli 4
I-53100 Siena ITALY
landi21@unisi.it

Marcus Lehnert
Nees-Institut for Biodiversitat der Pflanzen
Universitat Bonn
Meckenheimer Allee 170
D-53115 Bonn GERMANY
[49] 0228 732268
marlehnert@yahoo.com
mlehnert@yahoo.com

Illia Leitch
Jodrell Lab
Royal Botanic Gardens Kew
Richmond Surrey TW9 3AB UK
[44] 0208 332 5329
i.leitch@kew.org

Blanca León
Plant Resources Center
University of Texas at Austin
Main Bldg Rm 127 100 Inner Campus Dr.
Stop F0404
Austin TX 78712-1711 USA
leon@austin.utexas.edu

Bai-Ling Lin
Genomics Research Center
Academia Sinica (Institute of Plant Biology,
National Taiwan University)
P.O. Box 1-51 Nankang
Taipei 11599 TAIWAN
[886] 2 2787 1256
Fax: [886] 2 2789 9924
bailing@sinica.edu.tw; bailing@ntu.edu.tw

Stuart Lindsay
Gardens by the Bay
18 Marina Gardens Drive
Singapore 018953 SINGAPORE
stuart0lindsay@gmail.com

David H. Lorence
National Tropical Botanical Garden
3530 Papalina Road
Kalaheo Kauai HI 96741 USA
[1] 808 332 7324
Fax: [1] 808 332 9765
lorence@ntbg.org

Kay Lynch
Lā'au Hawai'i; The Hawaiian Fern Project
P.O. Box 5364
Kāne'ohe HI 96744 USA
[1] 808 485 9352
klynch@lava.net
P.V. Madhusoodanan

Malabar Botanical Garden
Calicut Kerala 673014 INDIA
[91] 944 624 7014
pvmadhu@gmail.com
malabarbot.garden@gmail.com

Haja Maideen Kader Maideen
School of Environmental and Natural
Resource Sciences
Universiti Kebangsaan Malaysia
43600 Bangi, Selangor MALAYSIA
[60] 38 921 5983
deen@ukm.my

Fernando Matos
New York Botanical Garden
2900 Southern Blvd.
Bronx NY 10458-5126 USA
[1] 718 817 8663
fbtms@yahoo.com.br

Sadamu Matsumoto
Tsukuba Botanical Garden
National Museum of Nature and Science
Amakubo 4-1-1
Tsukuba 305-0005 JAPAN
[81] 29 853 8824
Fax: [81] 29 853 8998
matumoto@kahaku.go.jp

J. Mitchell McGrath
494D PSSB, USDA-ARS
Michigan State University
1066 Bogue Street
East Lansing MI 48824-1325 USA
[1] 517 355 0271; [1] 517 353 9262
mitchmcg@msu.edu

Klaus Mehltreter
Instituto de Ecología A.C.
Red de Ecología Funcional
Carretera antigua a Coatepec No. 351
El Haya Xalapa 91070 Veracruz MEXICO
[52] 228 842 1800 ext. 4219
klaus.mehlreter@inecol.mx

Aniceto Mendoza Ruiz
Universidad Autonoma Metropolitana-
Iztapalapa
Apartado Postal 55-535
09340 Iztapalapa MEXICO
[52] 555 804 6458
amr@xanum.uam.mx

Jordan Metzgar
Museum of the North
907 Yukon Dr.
Fairbanks AK 99775 USA
[1] 907 474 7109
jsmetzgar@alaska.edu

John Mickel
New York Botanical Garden
2900 Southern Blvd.
Bronx NY 10458-5126 USA
[1] 718 817 8636
jmickel@nybg.org

Vlastimil Mikolas
Hanojska 4
SK-040 13 Kosice SLOVAKIA
[421] 90 378 4087
sorbusaria@azet.sk

Futoshi Miyamoto
Department of Agriculture
Tokyo University of Agriculture
1737 Funako Atsugi City
Kanagawa Pref 243-0034 JAPAN
[81] 46 270 6490
Fax: [81] 46 270 6490
miya@nodai.ac.jp

James D. Montgomery
609 La Salla Street
Berwick PA 18603 USA
[1] 570 759 1322
Fax: [1] 570 542 1625
jimm37@verizon.net

Robbin C. Moran
New York Botanical Garden
2900 Southern Blvd.
Bronx NY 10458-5126 USA
[1] 718 817 8663
rmoran@nybg.org

Claudine C. Mynssen
Instituto de Pesquisas
Jardim Botânico do Rio de Janeiro
Rua Pacheco Leao 915
Rio de Janeiro-RJ 22.460-030 BRAZIL
[55] 213 204 2128
cmynssen@jbrj.gov.br
cmynssen@gmail.com

Narumi Nakato
Narahashi 1-363
Higashiyamato Tokyo 207-0031 JAPAN
n.nakato@eos.ocn.ne.jp

Joan E. Nester-Hudson
Department of Biological Sciences
Sam Houston State University
Box 2116
Huntsville TX 77341 USA
bio_jxn@shsu.edu

Maite Niño
Jardin de los Helechos de Santiago de Cuba
Carretera del Caney No. 129, La Caridad
Santiago de Cuba, CP 90400 CUBA
maite@bioeco.ciges.inf.cu

Benjamin Oellgaard
Institute of Biological Sciences
Ny Munkegade bygn 540
DK-8000 Aarhus C DENMARK
[45] 8 942 4704
Fax: [45] 894 24747
benjamin.oellgaard@biology.au.dk

Sue Olsen
Hardy Fern Foundation
2003 128 Ave. SE
Bellevue WA 98005 USA
[1] 425 747 2998
foliageg@juno.com

Leticia Pacheco
Departamento de Biología
UAM-Iztapalapa
Av. San Rafael Atlixco 186 Col. Vicentina
09340 Mexico DF MEXICO
[52] 55 5804 4690
pacheco@xanum.uam.mx
callipteris07@gmail.com

Christopher Page
Halgarrick Lodge
Quenchwell Road Carnon Downs
Truro Cornwall TR3 6LN UK
[44] 187 286 4439
pterido@hotmail.com

Santiago Pajaron
Departamento Biología Vegetal I
Universidad Complutense
28040 Madrid SPAIN
[34] 91 394 5050
spajbot@ucm.es

Daniel Palmer
3130 Cheney Rd
Maple City MI 49664 USA
[1] 231 334 2520
dan.d.palmer@gmail.com

Barbara Parris
Fern Research Foundation
21 James Kemp Place, Kerikeri
Bay of Islands 0230 NEW ZEALAND
[64] 9 407 5225
barbara2parris@gmail.com

Alison Paul
Department of Life Sciences
The Natural History Museum
Cromwell Road
London SW7 5BD UK
[44] 020 794 25756
Fax: [44] 020 794 25529
a.paul@nhm.ac.uk

James H. Peck
16760 Sandra St.
Cedar Key FL 32625 USA
[1] 501 562 6602
jhpeck@ualr.edu

Ana L. Pereira
CIIMAR/LEGE
Rua dos Bragas 289
4050-123 Porto PORTUGAL
[351] 22 340 1837
anapereira271268@yahoo.com

Krzysztof Piątek
Jodlowa 15A
39-225 Jodlowa POLAND
[48] 69 306 5998
piatek@interia.eu

Jefferson Prado
Herbario SP
Instituto de Botanica
Av. Miguel Estefano 3687
CEP 04301-012 Sao Paulo SP BRAZIL
[55] 11 5067 6088
jprado.01@uol.com.br; jprado@ib.usp.br

Kathleen Pryer
Department of Biology
Duke University
Box 90338
Durham NC 27708 USA
[1] 919 660 7380
pryer@duke.edu

N. Punetha
Department of Botany
Government Postgraduate College
Pithoragarh 262502 Uttarkhand INDIA
[91] 975 916 5372; [91] 596 426 4032
Fax: [91] 596 426 4032
punethan_bot@indiatimes.com

Anshita Raj
CSIR-SRF
National Botanical Research Institute
Rana Pratap Marg
Lucknow 226001 Uttar Pradesh INDIA
anshitaraj_23@yahoo.co.in

K.P. Rajesh
Department of Botany
ZG College; GA College PO
Calicut 673 014 Kerala INDIA
kprajesh.botany@gmail.com

Sabdar Rahaman
Department of Botany
Bangabasi Evening College
19 Raj Kumar Chakraborty Sarani
Kolkata 700 009 INDIA
[91] 98 301 62434
Fax: [91] 98 301 62903
drsrahaman@yahoo.co.in

R.G.H. Ranil
Faculty of Agriculture, Department of Crop
Science
University of Peradeniya
Peradeniya 20400 SRI LANKA
rhgranil@gmail.com

Tom A. Ranker
Department of Botany
University of Hawai'i at Mānoa
190 Maile Way Room 101
Honolulu HI 96822 USA
[1] 808 956 3930
ranker@hawaii.edu; tom.ranker@gmail.com

Karen Renzaglia
Department of Plant Biology
Southern Illinois University
Mailcode 6509
Carbondale IL 62901-6509 USA
[1] 618 453 3224
renzaglia@siu.edu

Martin Rickard
Pear Tree Cottage
Kyre, Tenbury Wells
Worcestershire WR15 8RN UK
h.m.rickard@btinternet.com

Roderick Robinson
Landward Consultancy
Shinglebeck, Leavening, Malton
North Yorkshire YO17 9SG UK
[44] 016 536 58271
rcr@landward.org.uk

Gar W. Rothwell
Department of Botany and Plant Pathology
Oregon State University
2081 Cordley Hall
Corvallis OR 97330 USA
[1] 541 737 5252
rothwell@ohiou.edu
rothwelg@science.oregonstate.edu

Germinal Rouhan
UMR CNRS 7205, Herbarium National, CP39
Museum National d'Histoire Naturelle
16 Rue Buffon
F-75231 Paris Cedex 05 FRANCE
[33] 014 079 5380
rouhan@mnhn.fr

Kai Runk
Institute of Ecology and Earth Science
University of Tartu
40 Lai Str
51005 Tartu ESTONIA
[372] 737 6381
Fax: [372] 737 6222
kai.runk@ut.ee

Yoshiaki Sakamaki
Kamijujo 3-25-16
Kita-Ku Tokyo 114-0034 JAPAN
sakamaki@toki.waseda.jp

Arthur E. Salgado
Christian Brothers University
650 East Parkway South
Memphis TN 38104 USA
[1] 901 321 3450
esalgado@cbu.edu

Annette Schoelch
Langgewann 22
D-69121 Heidelberg GERMANY
[49] 622 141 3362
annette.schoelch@t-online.de

Eric Schuettpelz
Department of Botany; Smithsonian Institute
MRC 166 PO Box 37012
Washington DC 20013-7012 USA
[1] 202 633 0914
schuettpelze@si.edu

David Schwartz
9715 Chirtsey Way
Bakersfield CA 93312-5617 USA
[1] 661 588 4027
xericferns@aol.com

Kakali Sen
Department of Botany
Jhargram Raj College, Jhargram
Paschim Medinipur 721507 West Bengal
INDIA
itskakali@gmail.com
itskakali.2013@rediffmail.com

Emily B. Sessa
Department of Biology
University of Florida
521A Bartram Hall
Gainesville FL 32611 USA
[1] 352 392 1098
emilysessa@ufl.edu

Wen Shao
Shanghai Chenshan Plant Science Research
Center
Chinese Academy of Sciences, Chenshan
Botanical Garden
Shanghai 201602 CHINA
shaowen19792005@163.com

B.D. Sharma
Kath Mandi
Narnaul 123001 Haryana INDIA
[91] 012 822 51427; 09416745650
bdsharma14@yahoo.com

O.P. Sharma
Scientist in Charge/Regional Station
Indian Veterinary Research Institute
Palampur 176061
Himachal Pradesh INDIA
[91] 189 423 0526; [91] 189 423 2918
Fax: [91] 189 423 3063
omsharma53@yahoo.com

Joanne M. Sharpe
Sharplex Services
BO Box 499
Edgecomb ME 04556 USA
joannesharpe@juno.com

Shane W. Shaw
Botany Department
University of Hawai'i at Mānoa
3190 Maile Way
Honolulu HI 96822 USA
[1] 808 956 8369
sws@hawaii.edu

Dong Shi-Yong
South China Botanical Garden
Chinese Academy of Sciences
#723 Xingke Rd
Tlanhe District, Guangzhou 510650 CHINA
[86] 203 725 2716
dongshiyong@scib.ac.cn

Ajit P. Singh
Plant Diversity, Systematics & Herbarium
Division
CSIR-National Botanical Research Institute
2-Rana Pratap Marg
Lucknow 226001 Uttar Pradesh INDIA
[91] 0522 22 978 3233 (office)
[91] 800 500 9371 (cell)
ajitpsingh@gmail.com

Sarvesh K. Singh
Department of Botany
University of Allahabad
Allahabad 211002 INDIA
pteridologicaexpress@gmail.com
singhskau@gmail.com

Judith E. Skog
Department of Environmental Science and
Policy
George Mason University MSN 4D4
Manassas VA 20110 USA
[1] 703 993 1026
jskog@gmu.edu Judith.Skog@gmail.com

Tynisha Smalls
New York Botanical Garden
2900 Southern Blvd.
Bronx NY 10458-5126 USA
tsmall@nybg.org

Alan R. Smith
University Herbarium
University of California
1001 Valley Life Sci. Bldg. #2465
Berkeley CA 94720-2465 USA
[1] 510 643 1000
arsmith@berkeley.edu

V.K. Sreenivas
Department of Botany
Sri Vyasa NSS College
Vyasagiri PO 680 623 Wadakanchery
Thrissur-Kerala 673635 INDIA
sreenivasvk@gmail.com

G.K. Srivastava
Department of Botany
University of Allahabad
Allahabad 211 001
Uttar Pradesh INDIA
[91] 0532 264 2606
srivastavagkau@gmail.com

Tom Stuart
PO Box 517
Croton Falls NY 10519 USA
tstuart@westnet.com

Michizo Sugai
Ebisumachi Nakatsugawa
Gifu 508-0037 JAPAN
[81] 57 364 8988
msugai@kc4.so-net.ne.jp

John A. Thomson
Botanic Gardens Trust
National Herbarium of New South Wales
Mrs. Macquaries Road
Sydney NSW 2000 AUSTRALIA
[61] 29 876 4339
pteridium@bigpond.com

Alejandra Vasco
Departamento de Botánica
Instituto de Biología, UNAM
Circuito Exterior s/n, Ciudad Universitaria
A.P. 70-367 MEXICO D.F. C.P. 04510
MEXICO
[52] 555 622 9100
avascog@gmail.com

Olena V. Vasheka
O.V. Fomin Botanical Garden
Taras Shevchenko Kyiv National University
1 Simona Petlury Str.
Kyiv 01032 UKRAINE
[380] 044 234 6056
vasheka_olena@mail.ru

Satish C. Verma
Department of Botany
Panjab University
5452/1, CAT-2 Modern Housing Complex
Manimajra, Chandigarh 160101 INDIA
[91] 172 273 4773
vermalsc@yahoo.co.in

David H. Wagner
Northwest Botanical Institute
1622 Bradley Dr.
Eugene OR 97401-1904 USA
[1] 541 344 3327
davidwagner@mac.com

Florence S. Wagner
Department of Ecology and Evolutionary
Biology and University Herbarium
University of Michigan
3600 Varsity Drive
Ann Arbor MI 48108-2287 USA
[1] 734 615 7753
Fax: [1] 734 647 5719
fwagn@umich.edu

Yasuyuki Watano
Department of Biology, Graduate School of
Science
Chiba University
Yayoi, Inage-ku
Chiba-shi 263-8522 JAPAN
[81] 43 290-2819
watano@faculty.chiba-u.jp

James E. Watkins, Jr.
Department of Biology
Colgate University
13 Oak Drive
Hamilton NY 13346 USA
[1] 315 228 7660
Fax: [1] 315 228 7997
jwatkins@mail.colgate.edu

Richard A. White
Department of Biology
Duke University
Box 90338
Durham NC 27708 USA
[1] 919 660 7305
rwhite@duke.edu

Dean P. Whittier
126 Heady Drive
Nashville TN 37205-4414 USA
dean.p.whittier@vanderbilt.edu

Carl-Johan Widén
SulkaPolku 6A31
Fin-00370 Helsinki FINLAND
carl-johan.widen@local.net

Kenneth A. Wilson
P.O. Box 39512
Los Angeles CA 90039-0512 USA
[1] 323 661 9021
kwilson@csun.edu

Michael D. Windham
Department of Biology
Duke University
Box 90338
Durham NC 27708 USA
mdw26@duke.edu

Paulo G. Windisch
Universidade Federal do Rio Grande do
Sul/Pos-Grad. Em Botanica
Campus do Vale/predio 43433 Avenida
Bento Concalves 9500
91501-970 Porto Alegre, RS BRAZIL
pteridos@gmail.com

Paul Wolf
Department of Biology
Utah State University
Logan UT 84322-5305 USA
[1] 435 797 4034
paul.wolf@usu.edu

George Yatskievych
Curator, TEX-LL Herbarium
University of Texas at Austin
Plant Resources Center, Main Bldg, Rm 127
110 Inner Campus Dr, Stop F0404
Austin, TX 78712-1711 USA
[1] 512-471-5094
george.yatskievych@austin.utexas.edu

Xian-Chun Zhang
The National Herbarium (PE)
Institute of Botany, Chinese Academy of
Sciences
20 Nan Xin Cun, Xiangshan
100093 Beijing CHINA
[86] 106 283 6291
zhangxc@ibcas.ac.cn

Aurora Zlotnik
Lomas Altas 108 Col. Lomas Altas
Col. Lomas Altas Mexico D.F. 11950
MEXICO
aurz@unam.mx; aurzlo@gmail.com

Gabriela Zuquim
University of Turku
Rajakivenkatu 16 as. 1
Turku 20740 FINLAND
[358] 405 121 981
gabizuquim@gmail.com