

In der Einleitung wird die historische Entwicklung unserer Kenntnis der chilenischen *Riccardia*-Arten geschildert und weiterhin eine ausführliche Darstellung des morphologischen Aufbaus und der Gattungscharaktere gegeben. Am Schluß werden diejenigen Arten behandelt, die sicher oder wahrscheinlich mit Unrecht bisher von Chile angegeben werden. Außerdem enthält die Arbeit noch einen Abschnitt über die phylogenetischen Beziehungen der Gattung *Riccardia*.

Reimers (Berlin-Dahlem).

Péterfi, M. O formă teratologică la *Catharinaea Haussknechtii* (Jur. et Milde) Broth. (Buletinul societății de științe din Cluj. Tom. I, fasc. 1., Nov. 1921, 149—153. Gedruckt am 21. Dez. 1921.)

Am Szelicseer Hohlwege (in Siebenbürgen nahe Kolozsvár = Klausenburg) fand Verfasser einige sehr interessante Mißbildungen von *Catharinaea Haussknechtii*, welche Verfasser in oben zitierter Abhandlung in rumänischer Sprache beschreibt, einen kurzen deutschen Auszug beifügend. — Der Verfasser fand ein Individuum, bei welchem ein normaler und zwei abnormale Sporophyten (Fig. c) und ein Individuum, bei welchem drei abnormale Sporophyten (Fig. c) waren. Die Abnormität dieser Sporophyten bestand darin, daß sie alle bis zur Mitte der Seten von einer sehr langen — nur am oberen Teil aufgeschlitzten — Röhre bedeckt waren; die freibleibenden Teile der Seten waren hin- und hergekrümmt; die haubenfreien Kapseln waren schlecht entwickelt. Sie waren nämlich viel kleiner und statt des Schnabels hatten sie nur ganz kurze Spitzen (Fig. f bis m); das Peristom war verkürzt. Nicht selten verhielten sich die Kapseln pseudocleistocarpisch (Fig. g). Die Epigone blieb nämlich in einem Stück und war außerdem sehr lang gewachsen und die schwach entwickelten Kapseln sind durch deren Spitzenteil hindurchgebrochen. Die lange tubenförmige Röhre der Epigone weist bezüglich ihrer anatomischen Struktur ganz normale Verhältnisse auf (s. Fig. d, e), sie ist ebenso gebaut wie z. B. die normale Haube von *Catharinaea undulata* (vergl. die schönen Figuren von unserem leider verstorbenen besten Moosillustrator P. Janzen in *Hedwigia* LVIII, 1916; 205 Fig. d, f). Da das Schutzorgan (die Haube) fehlt, entwickelten sich die Kapseln sehr schwach und nicht normal. Der Verfasser schlägt für dieses hepaticoide Verhalten der Epigone die Benennung: „Archegonio-Solenoidie“ (cf. p. 152 im deutschen Text, p. 153) vor. 13 Figuren sind beigegeben. Die Reproduktion der — vom Verfasser immer sorgfältig und gut ausgeführten — Zeichnungen ist ein wenig schwach. (Letztes Werk des Verfassers!) Prof. Györfy (Szeged, Ungarn).

B. Neue Literatur.

Zusammengestellt von C. Schuster.

I. Allgemeines und Vermischtes.

- Andrews, A. Le Roy.** John Macoun. (*The Bryologist* XXIV [1921], p. 39—41.)
Anonymus. Édouard Prillieux. (*Service Epiphytices* IV [1917] 1919, p. 1—16.)
 — John Gilbert Baker. (*Gard. Chron.* 3. Ser. LXVIII [1920], p. 102.)
 — Reginald J. Farrer. (*Nature* CVI [1920], p. 413—414.)
Birger, Selim. Erik Collinder. * 21. 7. 1848, † 16. 2. 1920. (*Svensk Bot. Tidskr.* XV [1921], p. 285—286, mit Porträt.)

- Bois, Désiré.** Notice sur M. Maurice Lévêque de Vilmorin. (Bull. Soc. Bot. France LXVI [1919], p. 140—143.)
- Britten, James.** Som Early Cape Botanists and Collectors. (Journ. Linn. Soc. London, Botany XLV [1920], p. 29—51, Pl. IV.)
- Henry William Lett (1838—1920). (Journ. of Bot. LIX [1921], p. 75—76.)
- Francis Arabella Rowden. (Ibidem p. 329—331.)
- Brown, William.** Studies in the Physiology of Parasitism. VIII. On the Exosmosis of Nutrient Substances from the Host Tissue into the Infection Drop. (Ann. of Botany XXXVI [1922], p. 101—119.)
- Carpentier, A.** L'albé Félix-Charles Hy (1853—1918). (Rev. génér. Bot. XXX [1918], p. 369—376.)
- Carqueja, Bento.** Barão de Soutelinho. (Broteria XVI [1918], p. 25—28, Portrait.)
- Christensen, H. R.** Frederik Kølpin Ravn. (Tidsskr. Landøkonomi 1920, p. 261—264, Portrait.)
- Delaunay, Paul.** Un botaniste manceau, Hector Léveillé (1863—1918). (Bull. Géogr. Bot. XXVII [1919], p. 57—96.)
- Erikson, Johan.** Karl Fredrik Dusén, * 4. 7. 1849, † 14. 7. 1919. (Svensk Bot. Tidskr. XV [1921], p. 278—281 mit Porträt.)
- Karl Bernhard Nordström, * 1. 8. 1871, † 27. 7. 1919. (Ibidem p. 282—284 mit Portrait.)
- Essary, S. H.** Samuel Mc Cutchen Bain. (Phytopathology X [1920], p. 185—188, Portrait.)
- Fink, Bruce.** Lincoln Ware Riddle, Lichenist. (The Bryologist XXIV [1921], Nr. 3, p. 33—36.)
- Gamble, J. S.** John Henry Lacey. (Proceed. Linn. Soc. London CXXXI [1919], p. 56—57.)
- Girard, A. C.** Achille Müntz, 1846—1917. (Ann. Inst. Nation. Agron. 2, Ser. XIII [1918], p. 171—217, Portrait.)
- Harris, D.** Anthony van Leeuwenhoek, the first bacteriologist. (Sci. Monthly XII [1921], p. 150—160.)
- Hedrick, U. P.** Edward Lewis Sturtevant. (Rept. New York Agric. Exp. Stat. Geneva [1919], 1920 p. 1—16.)
- Hemsley, W. B.** J. R. Jackson. (Gard. Chron. 3. Ser. LXVIII [1920], p. 234.)
- Henning, Ernst.** F. Kølpin Ravn. (K. Landtbruks Akad. Handl. och Tidsskr. LIX [1920], p. 352—354, Portrait.)
- Henriques, J. A. F. J.** Correa da Serra. (Broteria Ser. Bot. XVI [1918], p. 104—112.)
- Jackson, B. D.** Sir Frank Crisp. (Proceed. Linn. Soc. London CXXXI [1919], p. 67.)
- Jennings, O. E.** John Adolph Shafer. (Trillia V [1919], p. 3—7.)
- Kolkwitz, R.** Über den durch Hefegärung entstehenden Druck. (Ber. d. Deutsch. Bot. Gesellsch. XXXIX [1921], p. 219—223, I Textfig.)
- Lecomte, Henri.** Édouard Bureau. (Rev. gén. Sci. XXX [1919], p. 97—98.)
- Loyer, Maurice.** Henri Hua (1861—1919). (Bull. Soc. Nat. Acclim. France LXVI [1919], p. 161—163.)
- Manetti, Carlo.** Italo Giglioli. (Agric. Coloniale XIV [1920], p. 401—404, Portrait.)
- Martelli, U.** Odoardo Beccari. (Webbia V, Parte I [Firenze 1921], 61 pp. Portrait.)

- Mattirolo, Oreste.** P. A. Saccardo. (Bull. Soc. Bot. Ital. 1920, p. 2—3.)
 — Saverio Belli. (Bull. Soc. Bot. 1919, p. 21—22.)
- Moll, J. W.** In memoriam Dr. S. H. Koorders. (Nederl. Kruidk. Arch. [1919] 1920, p. 73—76.)
- Montemartini, Luigi.** Giuseppe Cuboni. (Riv. Patol. Veg. X [1920], p. 117—118.)
- Neumann, Felix.** Leonhard Fuchs, physician and botanist, 1501—1566. (Ann. Rept. Smithsonian Inst. [1917] 1919, p. 635—647, Pl. I—VII.)
- Pampanini, Renato.** Odoardo Beccari. (Agric. Colon. XIV [1920], p. 449—453.)
- Pantaneli, E.** Giuseppe Severini. (Annali di Bot. XV [1920], p. 53—56. mit Portrait.)
- Payne, C. H. M.** Anatole Cordonnier. (Gard. Chron. III. Ser. LXVIII [1920], p. 246.)
- Paris, Giulio.** Italo Giglioli. (Riv. Biol. II [1920], p. 696—704, mit Portrait.)
- Peirce, G. J.** Wilhelm Pfeffer. (Science LI [1920], p. 291—292.)
- Prairie, David.** James Ramsay Drummond (1851—1921). (Journ. of Bot. LIX [1921], p. 174.)
- Roberts, J. W.** Dr. S. M. McMurrin. (Amer. Nat. Journ. XIII [1920], p. 71.)
- Seurat, L. G.** Emile Maupas. (Bull. Soc. Hist. Nat. Afr. Nord VII [1916], p. 318—323.)
- Seward, A. C.** Reginald Philip Gregory. (Nature CII [1918], p. 247—248.)
- Smith, H. J.** James M. Macoun. (Science LI [1920], p. 478—480.)
- Stapf, O.** Robert Allen Rolfe in Orchid. Review. July 1921.
- Sylvén, Nils.** L. J. Wahlstedt. * 27. 3. 1836, † 26. 4. 1917. (Svensk Bot. Tidskr. XV [1921], p. 272—277, mit Portrait.)
- Thaxter, Roland.** William Gilson Farlow. (Amer. Journ. Sci. XLIX [1920], p. 87—95, Portrait.)
- Thorpe, T. E.** Armand Gautier. (Nature CVI [1920], p. 85—86.)
- Vuillemin, Paul.** Émile Boudier (1828—1920). — Pier Andrea Saccardo (1845—1920). (Rev. gén. pures et appl. XXXI [1920], p. 233—234.)
- Whetzel, H. H.** George Francis Atkinson. (Guide to Nature XII [1919], p. 70—72, Portrait.)
- Whetzel, H. H. and Humphrey, H. B.** Frederick Kølpin Ravn. (Phytopathology XI [1921], p. 1—5, Portrait.)
- Wildeman, Émile de.** Alfred Cogniaux (1841—1916). (Bull. Jard. Bot. Bruxelles V [1919], p. I—XXX, Portrait.)
- Willis, J. C.** Dr. Alberto Löfgren. (Proceed. Linn. Soc. London CXXXI [1919], p. 57—58.)
- Wilson, W. F.** David Douglas, botanist at Hawaii. (Honolulu 1919, 83 pp., illustr. Portrait.)
- Zirpolo, G.** Michele Geremicca. (Riv. Biol. II [1920], p. 704—706, Portrait.)

II. Myxomyceten

- Elliott, W. T.** Mycetozoa on the Midland Plateau. (Journ. of Bot. LIX [1921], p. 193—196.)
- Lister, G.** New or rare species of Mycetozoa. (Journ. of Bot. LIX [1921], p. 89—93. Pl. 558.)
- Skupiński, François-Xavier.** Sur la sexualité chez les Champignons Myxomycètes. (Compt. Rend. Acad. Sci. Paris CLXV [1917], p. 118—121.)

- Skupienski, François-Xavier.** Sur la sexualité chez les Champignons Myxomycètes. (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 31—33.)
 — Sur la sexualité chez une espèce de Myxomycète Acrasiée, *Dictyostelium mucoroides*. (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 960—962.)

III. Schizophyceten.

- Anonymus.** The transmutation of bacteria. (Nature CV [1920], p. 131—132.)
Arzberger, C. F., Peterson, W. H. and Fred E. B. Certain factors that influence acetone production by *Bacillus acetoethylcum*. (Journ. Biol. Chem. XLIV [1920], p. 465—479, Fig. 1—8.)
Barnes, W. H. The activity of staphylococci in milk. (Journ. Infect. Diseases XXVIII [1921], p. 259—264.)
Beccard, Erich. Beiträge zur Kenntnis der Sauerteiggärung. (Centralbl. f. Bakt. usw. II. Abt. LIV [1921], p. 465—471.)
Bergey, D. H. Thermophilic Bacteria. (Journ. Bact. IV [1919], p. 301—306.)
 — The reproduction of aerobic bacteria. (Journ. Hygiene XVIII [1920], p. 369—408. Pl. IV—VII.)
Bersa, E. Über das Vorkommen von kohlenurem Kalk in einer Gruppe von Schwefelbakterien. (Sitzber. Akad. Wiss. Wien, math.-natw. Kl. Abt. I, Bd. CXXIX [1920], p. 231—259, 1 Taf.)
Böttger, Hildegund. Über die Giftwirkungen der Nitrate auf niedere Organismen. (Centralbl. f. Bakt. usw. II. Abt. LIV [1921], p. 220—261.)
Conn, H. J. and Breed, R. S. A suggestion as to the flagellation of the organisms causing legume nodules. (Science LI [1920], p. 391.)
Cook, M. J. Mix, V. and Culvyhouse, E. O. Hemotoxin production by the *Streptococcus* in relation to its metabolism. (Journ. Infect. Diseases XXVIII [1921], p. 93—121.)
Coupin, Henri. Sur la nutrition organique d'une Bactérie marine. [*Micrococcus spumaeiformis*.] (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 151—152.)
 — Sur la résistance à la salure des Bactéries marines. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 443—445.)
 — De l'action morphogénique de la sursalure sur le Bactéries marines. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 608—610.)
 — Sur le pouvoir fermentaire des Bactéries marines. (Compt. Rend. Acad. Sci. Paris CLXI [1915], p. 597—600.)
Denier et Vernet. Etude bactériologique de la coagulation naturelle du latex d'*Hevea brasiliensis*. (Compt. Rend. Acad. Sci. Paris CLXV [1917], p. 123—126.)
 — — Etude bactériologique de la coagulation naturelle du latex d'*hevéa*. (Ann. Mus. Colon. Marseille 3. Sér. VII [1919], Nr. 3, p. 89—96.)
Diéniert, F. et Guillard, A. Milieu à l'eau de levure autolysée pour la culture du *B. coli*. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 256—257.)
Doncaster, L. Note on an experiment dealing with mutation in bacteria (Proceed. Cambridge Phil. Soc. XIX [1919], p. 269.)
Enlows, E. M. A. The generic names of Bacteria. (Pub. Health Serv. U. S. Hyg. Lab. Bull. no. 121 [1920], p. 115.)
Fred, E. B., Peterson, W. H. and Anderson, J. A. The relation of lactic acid bacteria to corn silage. (Journ. Biol. Chem. XLVI [1921], p. 319—327.)
Geitler, Lothar. Kleine Mitteilungen über Blaualgen. (Österr. Bot. Zeitschr. LXX [1921], p. 158—167, 7 Textabb.)

- Ghose, S. L.** The Myxophyceae of Lahore. (Journ. Indian Bot. I [1919], p. 8—13.)
- Gieklhorn, Jos.** Zur Morphologie und Mikrochemie einer neuen Gruppe der Purpurbakterien. [A. d. pflanzenphysiol. Inst. Universität Graz.] (Ber. Deutsch. Bot. Gesellsch. XXXIX [1921], p. 312—319, 2 Textabb.)
- Grey, Egerton Charles.** The enzymes of *B. coli communis* which are concerned in the decomposition of glucose and mannitol Part. IV. The fermentation of glucose in the presence of formic acid. (Proceed. Roy. Soc. London B. XCI [1920], p. 294—305.)
- Grouitch, Mlle. Vera.** Contributions à l'étude de la flore bactérienne du Lac de Genève. (Bull. Soc. Bot. Genève 2. Sér. XII [1920], p. 246—273.)
- Haner, R. C. and Frost, W. D.** The characteristics of the microcolonies of some pathogenic cocci. (Journ. Infect. Diseases XXVIII [1921], p. 270—274, 2 Pls.)
- Heller, Hilda Hempel.** Phylogenetic Position of the Bacteria. (Bot. Gaz. LXXV [1921], p. 390—396.)
- Hort, Edward C.** The cultivation of aerobic bacteria from single cells. (Journ. Hygiene XVIII [1920], p. 361—368, 1 Fig.)
— The reproduction of aerobic bacteria. (Ibidem XVIII [1920], p. 369—408, Pl. IV—VII.)
- Hucker, G. J.** Microscopic Study of Bacteria in Cheese. (Journ. Agric. Research—Washington XXII [1921], p. 93—100, Pl. XVII.)
- Jones, D. H.** Further studies on the growth cycle of *Azotobacter*. (Journ. of Bact. V [1920], p. 325—341, 4 Pls.)
- Jones, Fred Reuel and Tisdale, W. B.** Effect of Soil Temperature upon the Development of Nodules on the Roots of certain Legumes. (Journ. of Agricult. Research—Washington XXII [1921], p. 17—31, Pl. I—III.)
- Koser, Stewart, A.** A bacterial study of canned ripe olives. (Journ. Agric. Research—Washington XX [1921], p. 375—379.)
- Levine, Max.** Notes on *Bacterium coli* and *Bacterium aerogenes*. (Amer. Journ. Public. Health XI [1921], p. 21—23.)
- Löhnis, F. and Hansen, Roy.** Nodule bacteria of leguminous plants. (Journ. Agric. Research XX [1921], p. 543—555, Pl. 68—69.)
- Miller, H. M.** Modification of the Howard method for counting yeasts, spores and bacteria in tomato products. (Journ. Indust. Eng. Chem. XII [1920], p. 766.)
- Molliard, Marin.** Production de glycocolle par *l'Isaria densa*. (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 786—788.)
- Oye, Paul van.** Beitrag zur Myxophycen-Flora von Java. (Hedwigia LXIII [1921], p. 174—197.)
- Paillet, A.** Coccobacilles parasites des chenilles de *Pieris brassicae*. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 476—478.)
- Pénau, Henri.** Cytologie du *Bacillus verdunensis* Pénau nov. spec. (Compt. Rend. Acad. Sci. Paris CLXI [1915], p. 7—10.)
- Pevalek, J.** *Cylindrospermum Vouki* Pevalek. (Prirod. Istraž. Hrvatske i Slavonije, Svezak 8 [1916], p. 39.)
— *Symploca erecta* Pevalek. (Prirod. Istraž. Hrvatske i Slavonije, Svezak 8 [1916], p. 40.)
- Portier, P.** Résistance aux agents chimiques de certaines races du *B. subtilis* provenant des insectes. (Compt. Rend. Acad. Sci. Paris CLXI [1915], p. 397—399.)
- Rockwell, G. E. and Mc Khann, C. F.** The growth of the gonococcus in various gaseous environments. (Journ. Infect. Diseases XXVIII [1921], p. 249—258.)

- Roddy, H. Justin.** Concretions in Streams formed by the Agency of Blue Green Algae and related Plants. (Proceed. Amer. Philos. Soc. Philadelphia LIV [1915], p. 246—258, 2 Fig.)
- Rosenbruch, Wilhelm.** Über den Einfluß des konstanten elektrischen Stromes auf Bakterien. (Inaug.-Dissertation Hannover 1921, 40 pp. 10 Textfig. 8^o.)
- Sartory, A. et Spillmann, L.** Sur la bactériologie de la gangrène gazeuse. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 210—211.)
- Setchell, William Albert and Gardner, Nathaniel Lyon.** The marine algae of the Pacific coast of North America, Part. I, Myxophyceae. (Univ. Calif. Publ. Bot. VIII [1919], p. 1—138, Pl. I—VIII.)
- Stern, Wilh.** Zur Bestimmung und hygienischen Bedeutung des Colititers (das Hermannstädter Ozonwasser). (Centralbl. f. Bakt. usw. II. Abt. LIV [1921], p. 209—214.)
- Truffaut, G. et Bezssonoff, N.** Sur les caractères communs au Bacterium β , symbiote du Clostridium Pastorianum de Winogradsky, et au B. aliphaticum non liquefaciens de Tausz et Peter. (Compt. Rend. Acad. Sci. Paris CLXXI [1920], p. 1089—1091.)
- Wagner, Esther A. and Monfort, W. F.** Lactose broth for isolating Bacterium coli from water. (Amer. Journ. Public Health XI [1921], p. 203—208.)
- Waksman, S. A.** Studies in the metabolism of Actinomycetes, II. (Journ. of Bact. IV [1919], p. 307—330, Pl. 1.)
- Whiting, Albert L. and Schoonover, Warren R.** Nitrogen fixation by cowpeas and nodule bacteria. (Soil Sci. X [1920], p. 411—420.)
- Winslow, C. E. A. Broadhurst, Jean, Buchanan, R. E., Krumwiede, Charles Js., Rogers, L. A. and Smith, G. H.** The families and genera of the bacteria. Final report of the committee of the Society of American Bacteriologists on characterization and classification of bacterial types. (Journ. Bact. V[1920], p. 191—229.)

IV. Algen.

- Ayyangar, M. O. Parthasarathy,** Observations on the Volvocaceae of Madras. (Journ. Indian Bot. I [1920], p. 330—336.)
- Baker, Sarah and Bohling, Maude H.** On the Brown Seaweeds of the Salt Marsh Part. II. (Journ. Linn. Soc. London Bot. XLII f [1916], p. 325—380, Pl. XXVIII—XXX.)
- Borge, O.** Die Algenflora des Täkernsees. (Sjön Täkerns Fauna och Flora IV, Stockholm 1921, 48 pp. 2 Taf. 3 Textfig.)
- Braun, Hans.** Über Quellstifte aus Laminariastielen und Tupeloholz. (Pharm. Zentralhalle LXI [1920], p. 586—591, 4 Fig.)
- Bristol, B. Muriel.** A review of the genus Chlorochytrium, Cohn. (Journ. Linn. Soc. Bot. London XLV [1920], 1—28, Pl. I—III, 1 Fig.)
- Burnham, Stewart H. and Latham, Roy A.** The Flora of the Town of Southold, Long Island and Gardiner's Island. (Torreya XVII [1917], p. 111—122.)
- Conrad, W.** Contributions à l'étude des Chrysomonadines. (Bull. Acad. Roy. Belgique Cl. Sci. 1920, p. 167—189, 11 Fig.)
- Costantin, J.** Travaux recents sur les Thallophytes. (Ann. Sci. Nat. Bot. X [1919], p. XXX—XXXVI.)
- Cunningham, Bert.** A Pure Culture Method for Diatoms. (Journ. Elisha Mitchell Scientif. Soc. XXXVI [1921], p. 123—126.)
- The occurrence of unlike ends of the cells of a single filament of Spirogyra. (Ibidem p. 127—128. Pl. X.)

- Dangeard, P. A.** Recherches sur l'Assimilation chlorophyllienne. I. Part. (Le Botaniste Ser. XIV. Fasc. I/II [1921], p. 1—98.)
- Diéner, F. et Gizolme, L.** Influence des algues des filtres à sable submergé dans l'épuration des eaux. (Compt. Rend. Acad. Sci. Paris 163 [1916], p. 127—130.)
- Dixon, Annie.** Protozoa. Report on gatherings from a pond at Lawnhurst, Didsbury, from 14th March to 12th Sept. 1918. (Ann. Rept. Transact. Manchester Microsc. Soc. [1919] 1920, p. 74—81.)
- Ernst, A.** Die Nachkommenschaft aus amphimiktisch und apogam entstandenen Sporen von *Chara crinita*. (Zeitschr. f. indukt. Abstammungs- u. Vererb.-Lehre XXV, p. 185—197.)
- Farlow, William, G.** The Vegetation of the Sargasso Sea. (Proceed Am. Philos. Soc. Philadelphia LIII [1914], p. 257—262.)
- Fritsch, F. E.** Algal ecology, Freshwater and terrestrial Forms. (Journ. Ecol. VIII [1920], p. 68—76.)
- Algal ecology. Marine forms. (Ibidem p. 66—68.)
- The Moisture Relations of Terrestrial Algae. I. Some general observations and experiments. (Ann. of Bot. XXXVI [1922], p. 1—20.)
- Fritsch, F. E. and Stevens, E.** Contributions to our knowledge of the freshwater algae of Africa: 3. Freshwater algae (exclusive of diatoms) mainly from the Transkei Territories, Cape Colony. (Transact. Roy. Soc. South Africa IX [1921], p. 1—72, 29 Fig.)
- Gard, Mederic.** Biologie d'une nouvelle espèce d'Euglène (*Euglena limosa* nov. spec.). (Compt. Rend. Acad. Sci. Paris CLXIX [1919], p. 1423—1425.)
- Georgevitch, Pierre.** Génération asexuée du *Padina pavonia* Lamour. (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 536—537.)
- Gizolme, Léon.** Influence des algues des filtres à sable submergé sur la composition chimique de l'eau. (Compt. Rend. Acad. Sci. Paris. CLXI [1915], p. 313—316.)
- Griffiths, B. Millard.** The August Heleoplankton of some North Worcestershire Pools. (Journ. Linn. Soc. London XLIII [1916], p. 423—432, Pl. XXXIV—XXXV.)
- Hastings, G. T.** Succession of algae in the Grassy Sprain Reservoir (Yonkers, N. Y.). (Journ. New York. Bot. Gard. XXII [1921], p. 64—66.)
- Herdman, W. A.** Spolia Runiana. III. The Distribution of certain Diatoms and Copepoda, throughout the year, in the Irish Sea. (Journ. Linn. Soc. London, Bot. XLIV [1918], p. 173—204, 21 Textfig.)
- Hodgetts, William J.** A study of some factors controlling the periodicity of freshwater algae in nature. (New Phytologist XX [1921], p. 150—164; 195—227.)
- Howe, M. A.** Algae in Jennings: Contributions to Botany of Isle of Pines. (Ann. Carnegie Museum XI [1917], p. 33—34.)
- Hoyt, W. D.** Marine Algae of Beaufort, N. C., and adjacent regions. (Bull. U. S. Bur. Fisheries XXXVI [1920], p. 367—556, Pl. LXXXIV—CXIX, 47 Fig.)
- Lapicque, Louis.** Emploi des algues marines pour l'alimentation des chevaux. (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 1082—1085.)
- Variation saisonnière dans la composition chimique des algues marines. (Compt. Rend. Acad. Sci. Paris CLXIX [1919], p. 1426—1428.)
- Ljungqvist, J. E.** Ny fyndort för *Nitella batrachosperma* (Reichenb.) A. Br. (Svensk. Bot. Tidskr. XV [1921], p. 270, 1 Fig.)
- Lucas, A. H. S.** Algae of Commonwealth Bay. (Australasian Antarctic Exped. 1911—14 Sci. Rept. Sec. C. VII [1919], 18 pp. 9 Pls.)
- Mangin, L.** Sur le *Chaetoceros criophilus* Castr., espèce caractéristique des mers antarctiques. (Compt. Rend. Acad. Sci. Paris CLXIV [1917], p. 704—709, 4 Fig.)

- Mangin, L.** Sur les formes arctiques faussement décrites sous le nom *Chaetoceros criophilus* Castr. (Ibidem p. 770—774, 3 Fig.)
- Michael, Ellis, L.** Marine ecology and the coefficient of association: a plea in behalf of quantitative biology. (Journ. Ecol. VIII [1920], p. 54—59.)
- Mirande, Marcel.** Sur la métachromatine et le chondriome des Chara. (Compt. Rend. Acad. Sci. Paris CLXV [1917], p. 641—643.)
- Sur le chondriome, les chloroplastes et les corpuscules nucléolaires du protoplasme des Chara. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 283—286 Fig. 1—7.)
- Sur la formation cytologique de l'amidon et de l'huile dans l'oogone des Chara. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 528—529. 1 Fig.)
- Oye, Paul van.** Jets over de microflora en fauna der rijstvelden in verband met de praktijk. (Natuurwetensch. Tijdschr. III [1921], p. 121—125.)
- Pascher, A.** Über die Übereinstimmungen zwischen den Diatomeen, Heterokonten und Chrysomonaden. (Ber. d. Deutsch. Bot. Ges. XXXIX [1921], p. 236—248, 6 Textabb.)
- Pavillard, J.** Protistes nouveaux ou peu connus du Plankton méditerranéen. (Compt. Rend. Acad. Sci. Paris CLXIX [1917], p. 925—928, Fig. 1—3.)
- Pease, Vinnie A.** Taxonomy and morphology of the ligulate species of the genus *Desmarestia*. (Publ. Puget Sound Biol. Stat. II [1920], p. 313—367, Pl. LIV—LXIII.)
- Pevalek, I.** O biologiji i o geografskom rasprostranjenju alga n Sjevernoj Hrvatskoj. (Prirod. Istraž. Hrvatske i Slavonije, Svezak 8 [1916], p. 25—55.)
- Prilog poznavanju alga Hrvatske i Slavonije. — Beitrag zur Kenntnis der Algen Kroatiens-Slawoniens. (Naturwiss. Erforsch. Kroatiens u. Slawoniens, H. XIV [1919], p. 153—162, Taf. V.)
- Pilger, R.** Algae *Mildbraedianae* Annabonenses. (Engl. Bot. Jahrb. LVII [1920], p. 1—14. Fig. 1—34.)
- Pringsheim, E. G.** Zur Physiologie saprophytischer Flagellaten (*Polytoma*, *Astasia* und *Chilomonas*): (Beitr. z. allgem. Bot. II [1921], p. 88—137.)
- Puymaly, A. de.** Sur une petite algue verte aérophile — [*Prasiola leprosa* Kütz.]. (Compt. Rend. Acad. Sci. Paris CLXXI [1920], p. 189—192.)
- Rainieri, R.** Corallinacee del litorale tripolitano. (Atti R. Accad. Lincei Roma Rendic. Cl. Sci. Fis. Mat. e Nat. V, XXIX [1920], p. 282—288, 313—318.)
- Corallinacee del litorale tripolitano. Nota III. (Ibidem p. 356—358.)
- Rich. Florence.** A new species of *Coelastrum*. (New Phytologist XX [1921], p. 234—238, XV Textfig.)
- Riker, A. J.** Chondriomes in Chara. (Bull. Torrey Bot. Club XLVIII [1921], p. 141—148.)
- Sauvageau, C.** Sur la sexualité hétérogamique d'une Laminiaire (*Saccorhiza bulbosa*). (Compt. Rend. Acad. Sci. Paris CLXI [1915], p. 796—799, ill.)
- Sur la sexualité hétérogamique d'une Laminiaire (*Alaria esculenta*). (Compt. Rend. Acad. Sci. Paris CLXII [1916], p. 840—842, ill.)
- Sur les „glandes à mucilage“ de certaines Laminaires. (Ibidem p. 921—924.)
- Sur les gamétophytes de deux Laminaires (*L. flexicaulis* et *L. saccharina*). (Compt. Rend. Acad. Sci. Paris CLXII [1916], p. 601—604, ill.)
- Sur le mouvement propre des chromatophores. (Compt. Rend. Acad. Sci. Paris CLXV [1917], p. 158—159, Fig. A—C.)
- Sur un nouveau type d'alternance des générations chez les Algues brunes. (Compt. Rend. Acad. Sci. Paris CLXIV [1917], p. 829—831.)

- Sauvageau, C.** Nouvelles observations sur l'Ectocarpus Padinae Sauv. (Compt. Rend. Acad. Sci. Paris CLXXI [1920], p. 1040—1044.)
- Sur le parasitisme d'une algue rouge. (Polysiphonia fastigiata Grev. (Compt. Rend. Acad. Sci. Paris CLXIX [1919], p. 1383—1386.)
- Sauvageau, C. et Morot, Louis.** Sur l'alimentation du Cheval par les Algues marines. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 1257/1261.)
- Schmid, Günther.** Über Organisation und Schleimbildung bei Oscillatoria jenensis und das Bewegungsverhalten künstlicher Teilstücke. Beiträge zur Kenntnis der Oscillarienbewegung. (Jahrb. f. wiss. Bot. LX [1921], p. 572—627, 26 Textfig.)
- Schroeder, B.** Die neun wesentlichen Formentypen von Ceratium hirundinella O. F. Müll. (Arch. Naturgesch. Abt. A. LXXXIV [1918] 1920, p. 222—230.)
- Über Seebälle. (Naturwissenschaften VIII [1920], p. 799—803.)
- Zellpflanzen Ostafrikas (Schluß). (Hedwigia LXIII [1921], p. 161—173.)
- Sjöberg, K.** Enzymatische Untersuchungen an einigen Grünalgen. (Fermentforschung IV [1920], p. 97.)
- Smith, Gilbert Morgan.** Phytoplankton of the inland lakes of Wisconsin. I. Myxophyceae, Phaeophyceae, Heterokontaeae, and Chlorophyceae exclusive of the Desmidiaceae. (Bull. Wisconsin Geol. Nat. Hist. Survey LVII [1920], 243 pp. 51 Pls.)
- Sommler, S. e Gatto, A. Garuana.** Algae in Flora Melitensis nova. (Boll. R. Orto Bot. Palermo N. S. I [1915], App. p. 365—388.)
- Suessenguth, Karl.** Beitrag zur Kenntnis der Algenflora Südbayerns. (Kryptog. Forsch. Nr. 5 [1920], p. 362—367.)
- Teodoresco, E.** Sur la présence d'une phycoerythrine dans le Nostoc commune. (Compt. Rend. Acad. Sci. Paris CLXIII [1916], p. 62—64.)
- Tijden, Josephine E.** Bibliography of the literature relating to the Pacific Ocean algae and to the freshwater algae of the countries bordering upon the Pacific Ocean. (Privately published 1920, 58 pp.)
- Vilhelm, Jan.** Ein Beitrag und Bemerkungen zur Durchforschung der böhmischen Charophyten im Jahre 1914—1919. (Čaopisu Musea Král. Českého 1920, 7 pp.)
- Ein neuer Fund der Chara canescens (crinita) bei Feldsberg in Mähren und von anderen mährischen Charophyten. (Zvláštní otisk z Vědy přírodní, roč. II [1921], 5 pp.)
- Studie Monografická o Českých Parožnatkách. (Zvláštní otisk z Věstníku Král. České Společnosti Náuk v Praze 1914, 168 pp.)
- Williams, J. Lloyd.** The Gametophytes and Fertilization in Laminaria and Chorda. (Preliminary Account.) (Ann. of Bot. XXXV [1921], p. 603—607.)
- Wisselingh, van C.** Zehnter Beitrag zur Kenntnis der Karyokinese. I. Neue Untersuchungen über die Karyokinese bei Spirogyra. II. Die Methoden für die Untersuchung von Kernen und Kernteilungsfiguren. III. Der heutige Stand unserer Kenntnis der Kerne und der Kernteilung bei Spirogyra. (Beih. Bot. Centralbl. XXXVIII, 1. Abt. [1921], p. 273—354, mit 103 Abbildungen im Text.)
- Wurmser, René et Duclaux, Mme J.** Sur la photosynthèse chez les algues Floridées. (Compt. Rend. Acad. Sci. Paris CLXXI [1920], p. 1231—1233.)

V. Pilze.

- Adams, J. F.** Observations on the infection of Crataegus by Gymnosporangium. (Mycologia XII [1921], p. 45—49, Fig. 1—4.)
- Arnaud, G.** Sur les suçoirs des Balladyna, Lembosia et Parodiopsis (Parodiella pr. part.). (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 180—183.)

- Arnaud, G.** Sur les Famille des Microthyriacées. (Compt. Rend. Acad. Sci. Paris CLXIV [1917], p. 574—577.)
 — Sur quelques Microthyriacées. (Ibidem p. 888—890.)
- Arthur, J. C.** Rusts of the West Indies. (Torreya XVII [1917], p. 24—27.)
 — Nineteen years of culture work. (Mycologia XIII [1921], p. 12—23.)
 — New species of Uredineae XII. (Bull. Torrey Bot. Club XLVII [1920], p. 465—480.)
 — Aecidiaceae (Uredinales). (North Amer. Flora VII [1920] 1921. p. 269—336, 337—404, 405—480.)
 — New species of Uredineae XIII. (Bull. Torr. Bot. Club XLVIII [1921], p. 31—42.)
- Baccarini, P.** Funghi etiopici. (Ann. di Bot. XIV [1917], p. 117—140.)
- Bal, S. N.** Commentationes Mycologicae VIII. Pseudoperonospora cubensis (B. et C.) Roxten, on Trichosanthes dioica Roxb. (Journ. Dept. Sci. Calcutta Univ. III [1920], p. 1—3, 4 Fig.)
 — Commentationes Mycologicae. IX. Cercospora personata (B. et C.) Ellis, on Arachis hypogaea L. (Ibidem III [1920], p. 4—6, 4 Fig.)
- Bal, S. N.** and **Banerjee, K. G.** Commentationes Mycologicae. X. Rhinocladium corticolum Mass., on the bark of Mangifera indica L. (Journ. Dept. Sci. Calcutta Univ. III [1920], p. 7—8, 5 Fig.)
- Bambeke, Chas. van.** Recherches sur certains elements du mycélium d'Ithyphallus impudicus (L.). (Bull. Acad. Roy. Belgique Cl. Sci. [1914] 1919, p. 280—286, 2 Pls.)
- Barlot, J.** Sur de nouvelles réactions colorées utilisables pour la diagnose d'espèces mycologiques. (Compt. Rend. Acad. Sci. Paris CLXXI [1920], p. 1014—1016.)
- Bauch, R.** Kopulationsbedingungen und sekundäre Geschlechtsmerkmale bei Ustilago violacea. (Biolog. Centralbl. XLII [1922], p. 9—38.)
- Bensaude, Mlle Mathilde.** Sur la sexualité chez les champignons Basidiomycètes. (Compt. Rend. Acad. Sci. Paris CLXV [1917], p. 286—289.)
- Bitting, K. G.** The effect of certain agents on the development of some moulds. (Washington 1920, p. 1—54, Pl. I—XXVI.)
- Boedijn, K.** Nieuwe Nederlandsche Saprolegniacëen. (Mededcel. Nedcr. Mycolog. Vereeniging XI [1921], p. 116—119, Pl. III.)
- Bose, S. R.** Descriptions of fungi in Bengal, Series II, in continuation of Proc. Indian Assoc. Cultivation Sci. Vol. IV, Part. IV (Agaricaceae and Polyporaceae). (Proceed. Sci. Convention Indian Assoc. Cultivation Sci. [1918] 1920, p. 136—143, Pl. I—XIII.)
 — Two new species of Polyporaceae. (Journ. of Indian Bot. II [1921] 1922, p. 300—301, 2 Pls.) [Polyporus friabilis, Polystictus Sarbadhikarii.]
- Bubák, Fr.** Nachträge zur Bearbeitung der Pilze. (Fungi aus Mesopotamien und Kurdistan, sowie Syrien und Prinkipo gesammelt von Dr. Heinrich Frh. v. Handel-Mazetti. (Ann. Naturhist. Staatsmus. XXXIV [1921], p. 69.)
- Buchheim, A.** Zur Biologie von Melampsora lini. (Journ. Sect. Novotcherkassk de la Soc. Bot. de Russe I. [1919], p. 38—40, mit deutsch. Resumé.)
- Butler, E. J.** The Dissemination of parasitic Fungi and international Legislation. (Mem. Dept. Agric. India, Calcutta IX [1917], p. 1—73.)
- Claussen, F.** Entwicklungsgeschichtliche Untersuchungen über den Erreger der als „Kalkbrut“ bezeichneten Krankheit der Bienen. I. (Arbeiten a. d. Biolog. Reichsanstalt f. Land- u. Forstwirtsch. X [1921], p. 467—521, Tafel III—V.)
- Cleland, J. Burton and Cheel, Edwin.** Australian Fungi: Notes and descriptions. Nr. 2. The Sclerotiaforming polypores of Australia. (Transact. and Proceed. Roy. Soc. South Australia XLIII [1919], p. 11—22, Pl. I—VI.)

- Cleland, J. Burton and Cheel, Edwin.** Australian fungi: Notes and descriptions. Nr. 3. (Ibidem p. 262—315, Pl. XXVIII—XXIX)
- Coker, W. C.** Notes on the Thelephoraceae of North Carolina. (Journ. Elisha Mitchell Scietif. Soc. XXXVI [1921], p. 146—196, Pl. XIV—XXXV.)
- Cool, Cath.** Bijdrage tot de Mycologische Flora van Nederland. (Mededeel. Nederl. Mycolog. Vereeniging XI [1921], p. 95—115.)
- Cortini, J. C.** *Tylomyces gummiparus* n. sp. Prototipo di un nuovo genere di Ifomieteti. I. (Rendic. R. Acc. Naz. Lincei XXX. serie 5e, 2^o sem. fasc. 1^o—2^o [1921], p. 63—66), II. (l. c. fasc. 3^o—4^o [1921], p. 113—116.)
- Costantin, Julien et Dufour, Léon.** Sur la biologie du *Goodyera repens*. (Rev. génér. Bot. XXXII [1920], p. 529—533.) — Symbiose mit *Rhizoctonia Goodyera repentis*.
- Coupin, Henri.** Sur une levure marine. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 251—252.)
- Coutinho, Antonio, Xavier Pereira.** Eubasidiomycetes Lusitanici Herbarii Universitatis Olisiponensis. (Lisbon 1919, 195 pp.)
- Diehl, William W.** The fungi of the Wilkes Expedition. (Mycologia XIII [1921], p. 38—41.)
- Dietel, P.** Versuche über die Keimungsbedingungen der Teleutosporen einiger Uredineen. IV. (Centralbl. f. Bakt. usw. II. Abt. LIV [1921], p. 215—219.)
- Doidge, Ethel M.** South African Ascomycetes in the National Herbarium. (Bothalia I. [Pretoria 1921], p. 1—32, 5 Textfig.)
- South African Microthyriaceae. (Transact. Roy. Soc. South Africa VIII [1920], p. 235—282, Pl. XIII—XIX.)
- Doyer, L. C.** Eenige saprophytische en parasietische Schimmels op kiemende zaden aangetroffen. (Mededeel. Nederl. Mycolog. Vereeniging XI [1921], p. 60—65.)
- Drechsler, Charles.** Morphology of the genus *Actinomyces* I. and II. (Bot. Gazette LXVII [1919], p. 65—83, 147—168, Pl. II—XVIII.)
- Dunn, G. A.** A comparative study of the two races of *Rhizopus nigricans*. (Physiol. Researches II [1921], p. 301—339, 1 Fig.)
- Ehrmann, F.** Sur un cas remarquable de conservation d'empreintes végétales par un Polypore. (Bull. Soc. Hist. Nat. Afr. Nord XI [1920], p. 100.)
- Eriksson, Jakob.** Études biologiques et systématiques sur les Gymnosporangium suédois. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 470—473.)
- Etter, B. E.** Field-cultures of wood-rotting fungi in agars. (Phytopathology XI [1921], p. 151—154.)
- Fouqué, Henri.** Les ferments du vin d'ananas. (Compt. Rend. Acad. Sci. Paris CLXII [1916], p. 433—435.)
- Friederichs, K.** Über die Pleophagie des Insektenpilzes *Metarrhizium anisopliae* (Metsch.) Sor. (Centralbl. f. Bakt. usw. II. Abt. L [1920], p. 335—356 Pl. I. color.)
- Graff, Paul W.** Philippine Basidiomycetes IV. (Bull. Torr. Bot. Club XLVII [1921], p. 285—295.)
- Grove, W. B.** Mycological Notes V. (Journ. of Bot. LIX [1921], p. 13—17, Fig. 1—2.)
- The British Species of *Milesina*. (Ibidem p. 109—110.)
- Mycological Notes VI. (Ibidem p. 311—315.)
- Guilliermond, A.** Nouvelles observations cytologiques sur *Saprolegnia*. (Compt. Rend. Acad. Sci. Paris CLXXI [1920], p. 266—268, Fig. 1—6.)
- Harter, L. L. and Weimer, J. L.** Studies in the Physiology of Parasitism with Special Reference to the Secretion of Pectinase by *Rhizopus Triticum*. (Journ. Agric. Research-Washington XXI [1921], p. 609—625.)

- Harter, L. L. and Weimer, J. L.** A Comparison of the Pectinase produced by different species of *Rhizopus*. (Journ. Agric. Research Washington XXII [1921], p. 571—377.)
- Hedgecock, George G. and Hunt, N. Rex.** Notes on *Peridermium Harknessii*. (Phytopathology X [1920], p. 395—397.)
- Henrici, A. T. and Gardner, E. L.** The acid fast Actinomycetes with a report of a case from which a new species was isolated. (Journ. Infect. Diseases XXVIII [1921], p. 232—248.)
- Herrmann, Emil.** Pilzschädlinge an Drogen. (Pharm. Zentralhalle LXI [1920], p. 95—100.)
- House, Homer D.** The Peck Testimonial Exhibit of Mushroom Models. (Torreya XVII [1917], p. 178—180.)
- Hubert, E. E.** Observations on *Cytospora chrysosperma* in the Northwest. (Phytopathology X [1920], p. 442—447.)
- Kasai, Mikio.** On the Morphology and some Cultural Results of *Fusarium Solani* (Mart.) Appel et Wollenweber, an Organism which causes Dry Rot in the Irish Potato tubers. (Berichte des Ohara-Instituts für landwirtschaftliche Forschungen, Bd. 1 [1920], p. 519—542, Pl. VIII—XI.)
- Kayser, E.** Contribution à l'étude des levures apiculées. (Compt. Rend. Acad. Sci. Paris CLXIV [1917], p. 739—741.)
— Contribution à l'étude des ferments alcooliques. (Compt. Rend. Acad. Sci. Paris CLXV [1917], p. 1020—1022.)
- Keissler, Karl.** Pilze aus Salzburg. (Beihefte z. Bot. Centralbl. XXXVIII. I. Abt. [1921], p. 410—430.)
— Systematische Untersuchungen über Flechtenparasiten und lichenoiden Pilze. II. Teil. Nr. 12—20. (Ann. Naturhist. Staatsmus. Wien XXXIV [1921], p. 70—79.)
- Killermann, Seb.** Funde von einigen Britzelmayrschen Cortinarien. (Kryptog. Forsch. Nr. 5 [1920], p. 361—362.)
— Neuer Fund einer *Vibrissea* in Deutschland. (Ber. Deutsch. Bot. Ges. XXXIX [1921], p. 345—347, 1 Textfig.)
- Killian, Charles.** Le développement du *Dothidella Ulmi* (Duv.) Winter. (Rev. génér. Bot. XXXII [1920], p. 534—551, Pl. XVI—XIX.)
- Klebahn, H.** Haupt- und Nebenfruchtformen der Ascomyceten I. (Leipzig, Gebr. Bornträger 1918. Teil I. pp. XI und 395, 275 Fig.)
- Kops, Jan, F. W. van Eeden en Vuyk L.** Flora Batava. Afbeelding en beschrijving der Nederlandsche gewassen. Teile 400—401. (s'Gravenhage 1920. 2° Pl. 1993—2000 colored.) Es sind darin folgende Abbildungen (farbig) enthalten: *Inocybe fastigiata* Schaeff., *Tricholoma cerinum* P., *Leptota cinnabarina* Schwein., *Peniophora quercina* Cooke, *Cortinarius vibratilis* Fr., *Marasmius prasiopus* Fr., *Clitocybe claviceps* P.
- Kostytschew, S. und Afanassjewa, M.** Die Verarbeitung verschiedener organischer Verbindungen durch Schimmelpilze bei Sauerstoffmangel. (Jahrb. f. wiss. Bot. LX [1921], p. 628—650.)
- Van der Lek, H. A. A.** Over eenige vraagstukken en Leemten in de Mycologie. (Mededeel. Nederl. Mycol. Vereeniging XI [1921], p. 66—84.)
— Mycologische Aanteekeningen. (Ibidem p. 85—94. Pl. I—II.)
- Lindner, P.** Beiträge zur Naturgeschichte der alkoholischen Gärung. I. Über das allgemeinere Vorkommen von Hefe und Alkohol in der Natur. (Wochenschr. f. Brauerei XXXVII [1920], p. I.)

- Luyk, A. van.** Mykologische Bemerkungen I. Geoglossaceen des Reichsherbars zu Leiden. (Mededeel. Rijks Herb. Leiden Nr. 39 [1919], 10 pp. 10 Textfig.)
- Maire, René.** Deuxième contribution à l'étude de la flore mycologique de la Tunisie. (Bull. Soc. d'Hist. nat. de l'Afrique du Nord, VI. Année [1914], p. 254—260, 3 Fig.)
- Schedae ad Mycothecam Boreali-Africanum Series I (Fasc. 1—7). (Bull. Soc. d'Hist. nat. d'Afrique du Nord VII [1914], p. 66—68, 79—84, Pl. II, 2 Fig.)
- Schedae ad Mycothecam Boreali-Africanam (Fasc. 8—9). (Ibidem VII [1916], p. 294—303, Pl. XVIII.)
- Remarques sur le *Protascus subuliformis* à propos de la communication de M. E. Maupas. (Bull. Soc. d'Hist. nat. Afrique du Nord VII [1915], p. 50—51.)
- Deuxième contribution à l'étude des Laboulbeniales de l'Afrique du Nord. (Bull. Soc. d'Hist. nat. de l'Afrique du Nord VII [1916], p. 6—33, 4 Fig.)
- Sur quelques Laboulbéniales. (Ibidem VII [1916], p. 100—104, 1 Fig.)
- Les champignons vénéneux d'Algérie. (Ibidem p. 131—206.)
- Schedae ad Mycothecam Boreali-Africanam. 3 Sér. Fasc. 11—12 (1917). (Bull. Soc. Hist. Nat. Afr. Nord VIII [1917], p. 242—261, Fig. 5—6.)
- Schedae ad Mycothecam Boreali-Africanam Series 4 (Fasc. 13—16, 1919). (Ibidem X [1919], p. 130.)
- Troisième contribution à l'étude des Laboulbéniales de l'Afrique du Nord. (Bull. Soc. Hist. Nat. Afr. XI [1920], p. 123—138, Fig. 1—4; p. 143—170, Pl. I—II, Fig. 5—8.)
- Étude des Champignons récoltés au Maroc en 1920 par M. M. Gattefossé et J. J. Jandiez. (Bull. Soc. Hist. Nat. Afr. Nord XII [1921], p. 22—24.)
- Sur quelques Laboulbéniales. (Ibidem Tome VII [1916], p. 100—104, 1 Fig.)
- Sur une nouvelle Laboulbéniale parasite des Scaphidiidae. (Bull. scientif. France et Belgique 7. Sér. XLIX [1916], p. 290—296.)
- Maire, R. et Laroquette, Miramond de.** L'influence de la lumière sur la fructification d'une Agaricacée en culture pure. (Ibidem XX [1919], p. 94—106, Pl. I.)
- Maupas, E.** Sur un champignon parasite des Rhabditis. (Bull. Soc. d'Hist. nat. Afrique du Nord VII [1915], p. 34—49, 13 Fig.) — *Protascus subuliformis* Dang.
- Mayor, Eugen.** Notes mycologiques. (Bull. Soc. Neuchât. Sci. Nat. XLII [1916/17] 1918, p. 62—113.)
- Meinecke, E. P.** Facultative heterococcism in *Peridermium cerebrum* and *P. Hartenessii*. (Phytopathology X [1920], p. 270—297, 2 Fig.)
- Melin, Elias.** Über die Mykorrhizenpilze von *Pinus silvestris* L. und *Picea Abies* (L.) Karst. (Vorl. Mitteilg.) (Svensk Bot. Tidskr. XV [1921], p. 192—203 Fig. 1—9.)
- Mello, Froilano de.** Contribution to the study of the Indian Aspergilli. (Journ. Indian Bot. I [1920], p. 158—161.)
- Miller, David.** A new fungus-gnat which fertilizes *Corysanthes oblonga* Hook. (New Zeal. Journ. Sci. and Techn. I [1918], p. 4.)
- Molliard, Marin.** Production d'acide citrique par le *Sterigmatocystis nigra*. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919] p. 360—363.)
- L'ovalbumine constitue un aliment complet pour *Isaria densa*. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 523—524.)

- Molliard, Marin.** Sur la vie saprophytique d'un Entomophthora (*E. Henrici* n. sp.). (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 958—690.)
- Influence de certaines conditions sur la consommation comparée du glucose et du lévulose par le *Sterigmatocystis nigra* à partir du saccharose. (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 1043—1046.)
- Murr, J.** Die Pilze unserer Alpen. (Feldkircher Anzeiger 1920, Nr. 62—70, 5 pp.)
- Notes**, Pathological Herbarium Nr. 2 (September 1. 1921). (U. S. Departm. Agric. Bur. Plant. Ind. Office of Pathological Collections — Washington 1921 — 14 pp.)
Darin als neu *Taphrina hiratsukai* Nishida.
- Pathological Herbarium Nr. 3 (January 1922). (Ibidem 1922.)
- Orton, W. A.** Compilation of list of new fungi. (Phytopathology XI [1921], p. 29—30.)
- Overeem, C. van.** Over eene Anomalie by het Genus Geaster. (Mededeel. Mycolog. Vereeniging XI [1921], p. 123—124.)
- Bidrage tot de Kennis van het Genus *Inocybe*. (Ibidem p. 125—126.)
- Overholts, L. O.** The Structure of *Polyporus glomeratus* Peck. (Torreya XVII [1917], p. 202—206, Pl. I.)
- Some New Hampshire fungi. (Mycologia XIII [1921], p. 24—37.)
- Pavillard, Accroissement et scissiparité chez des Péridiniens.** (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 372—375, Fig. A—B.)
- Pennell, Francis W.** Index to American mycological literature. (Mycologia XIII [1921], p. 62—65.)
- Perotti, R.** Contribuzione alla conoscenza della fisiologia del „*Mycoderma vini*“. (Annali di Bot. XIII [1915], p. 169—184.)
- Peyronel, B.** Una grave malattia del Mandorlo prodotta dal *Fusicladium amygdali* Ducomet. (N. Ann. Minist. Agric. I [1921], p. 27—44.)
- Un ifomicete dai conidi mesoendogeni-*Menispora microspora* n. sp. (Rendiconti R. Acc. Naz. Lincei XXX serie 5e, 2° sem. Fasc. I°—2° [1921], p. 29—32.)
- Ploto, Olga.** Der Einfluß der kolloidalen Metallösungen nach Übertragung des Pilzmyzels aus verschiedenen Nährsubstraten. (Biochem. Zeitschr. CX [1920], p. 33.)
- Pollacci, Gino.** Miceti del corpo umano e degli animali. Nota I. (Atti dell' Ist. Bot. Univ. Pavia XVIII [Milano 1921], 9 pp. Tav. XXX—XXXI.)
- Puttemans, Arsène.** *Gloeosporium Bombacis*, n. sp. (Bull. Soc. Path. Veget. France VII [1920], p. 74—75.)
- Ramsbottom, J.** Canvas-destroying Fungi. (Nature CV [1920], p. 563—564.)
- Elementary notes on the morphology of Fungi. (Bot. Mem., Oxford VII [1920], 29 pp.)
- Reed, George M.** The Discovery of *Endophyllum Sempervivi* (Alb. et Schw.) de Bary in North America. (Torreya XVII [1917], p. 84—85.)
- Reichert, Israel.** Die Pilzflora Ägyptens. Eine mykogeographische Studie. (Engler's Bot. Jahrb. LXI [1921], p. 598—727, Tafel II—IV.)
- Reinking, Otto A.** Higher Basidiomycetes from the Philippines and their hosts. V. (Philipp. Journ. Sci. XIX [1921], p. 91—114.)
- Roberts, J. W.** *Clitocybe sudorifica* as a poisonous mushroom. (Mycologia XIII [1921], p. 42—44.)
- Romell, Lars-Gunnar.** Parallelvorkommen gewisser Boleten und Nadelbäume. (Svensk Bot. Tidskr. XV [1921], p. 204—213, 4 Textfig.)
- Sartory, A.** Sporulation par symbiose chez les Champignons inférieurs. (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 302—305.)
- Searle, G. O.** Some observations on *Erysiphe polygoni*. (Brit. Mycol. Soc. Transact. VI [1919], p. 274—293.)

- Shaw, F. J. F. and Ajrekar, S. L.** The Genus *Rhizoctonia* in India. (Mem. Dept. Agric. India, Calcutta VII [1915], p. 177—194. Pl. I—VI.)
- Skaife, S. H.** Notes on some South African Entomophthoraceae. (Transact. Roy. Soc. South Africa IX [1921], p. 77—86. Pl. 2—4.)
- Sommier, S. ed Gatto, A. Garuana.** Fungi in Flora Melitensis nova. (Boll. R. Orto Bot. Palermo N. S. I [1915], App. p. 388—436.)
- Sumstine, D. R.** Fungi in Jennings. Contribution to Botany of Isle of Pines (Ann. Carnegie Maus. XI [1917], p. 34—38.)
- Svanberg, O. und Euler, H. von.** Über Giftwirkungen bei Enzymreaktionen. III. Über den Einfluß von Kupfersulfat auf die Autolyse der Hefe. (Fermentforschung IV [1920], p. 90.)
- Thiel, A. F. and Weiss, Freeman.** The effect of citric acid on the germination of the teliospores of *Puccinia graministritici*. (Phytopathology X [1920], p. 448—452. 1 Fig.)
- Thom, Charles and Le Fevre, Edwin.** Flora of Corn Meal. (Journ. Agric. Research Washington XXII [1921], p. 179—188.)
- Torrend, C.** Les Polyporacées du Brésil: Polyporacées stipitées. (Broteria Ser. Bot. XVIII [1920], p. 121—143. Pl. V—VIII.)
- Traverso, G. B.** Due interessanti microcecidii della Somalia. (Rev. Scienze Natur. „Natura“ XII [1921], p. 179—189.)
- Ulbrich, E.** *Stropharia viridula* Schaeff. var. *exannulosa* Ulbrich n. var. (Hedwigia LXIII [1921], p. 217—218.)
- Vorbrodt, W.** Elaboration de l'azote et du phosphore dans le mycélium d'*Aspergillus niger*. (Bull. Acad. Polon. sci. et lettres de Cracovic cl. sci. math. et nat. Sér. B. 1919, p. 71—109.)
- Vouk, V. i Pevalak, I.** Prilog poznavanju bazidiomicéta sjeverna Hrvatske. (Prirod. Istraž. Hrvatske i Slavonije, Svezak 8 [1916], p. 18—24.)
- Wager, Harald.** Presidential address. The significance of sex and nuclear fusions in the fungi. (Transact. Brit. Mycol. Soc. VI [1920], p. 305—317.)
- Walter, Heinrich.** Wachstumsschwankungen und hydrotropische Krümmungen bei *Phycomyces nitens*. Versuch einer Analyse der Reizerscheinungen. (Zeitschr. f. Bot. XIII [1921], p. 673—718, 6 Textabb.)
- Weidman, Fred D.** *Penicillium brevicaulis* var. *horminis* Saccardo 1877, Brumpt and Langeron, 1910, in an American case of ringworm of the toes. (Arch. Dermatol. and Syphol. II [1920], p. 703—715, Fig. 1—14.)
- White, J. H.** On the biology of *Fomes applanatus*. (Transact. Roy. Canad. Inst. XII [1920], p. 133—174, 6 Pls. 2 Figs.)
- Will, H.** Einige Mitteilungen über die Beeinflussung des Sporenbildungsvermögens durch das Auftragen der Hefe auf den trockenen Gipsblock. (Centralbl. f. Bakt. usw. Abt. LIV [1921], p. 471—480.)
- Wiltshire, S. P.** The production of conidia in pure cultures by the brown-rot fungus of the apple. (Univ. Bristol Agric. and Hort. Research Stat. Ann. Rept. 1919, p. 34—36.)
- The apple canker fungus. (Ibidem p. 23—29.)
- Yates, Harry S.** Some recently collected Philippine Fungi. (Philipp. Journ. Sci. C. Bot. XII [1917], p. 361—380.)
- Some recently collected Philippine Fungi. (Philipp. Journ. Sci. Bot. XIII [1918], p. 361—384.)
- Fungi collected by E. D. Merrill in Southern China. (Philipp. Journ. Sci. C. Botany XII [1917], p. 313—316.)

- Church, A. H.** The Lichen as Transmigrant. (Journ. of Bot. LIX [1921], p. 7—13, 40—46.)
- The Lichen Life-Cycle. (Journ. of Bot. LIX [1921], p. 139—145, 164—170, 197—202, 216—221.)
- Du Rietz, G. Einar.** Några lavar från det 16: e skandinaviska naturforskarsmötes excursion i Bergens skärgård. (Bergens Mus. Aarb. Nat. Raekke [1917—1918], 1920, p. 26—29.)
- Lichenologiska fragment. III. (Lichenologische Fragmente III.) (Svensk Bot. Tidskr. XV [1921], p. 181—191.)
- Fischer, L.** Tabellen zur Bestimmung einer Auswahl von Thallophyten und Bryophyten. (Bern 1918, 60 pp.)
- Hillmann, Johannes.** Übersicht über die Arten der Flechtengattung Xanthoria (Th. Fr.) Arn. (Hedwigia LXIII [1921], p. 198—208.)
- Howe, M. A.** Lichenes in Jennings: Contribution to Botany of Isle of Pines. (Ann. Carnegie Mus. XI [1917], p. 34.)
- Linkola, Kaarto.** Messungen über den jährlichen Längenzuwachs einiger Parmelia- und Parmeliopsis-Arten. (Meddel. Soc. Faun. Flor. Fenn. XLIV [1917—18] 1918 p. 153—158.)
- Moreau, Mme. Fernand.** L'évolution nucléaire et les phénomènes de la sexualité chez les Lichens du genre Peltigera. (Compt. Rend. Acad. Sci. Paris. CLX [1915], p. 526—528.)
- Les phénomènes chez les Lichens du genre Solorina. (Compt. Rend. Acad. Sci. Paris CLXII [1916], p. 793—795.)
- Moxley, George L.** Some vacation lichens. (The Bryologist XXIV [1921], p. 24—25.)
- Piitt, Charles C.** A preliminary Report, with Notes, on the Lichens found near the Cinchona Botanical Station, Jamaica, British West Indies. (The Bryologist XXIV [1921], p. 60—64.) (To be concluded.)
- Shirley, John.** The thallus of the genus Parmelia. (Papers and Proceed. Roy. Soc. Tasmania [1918] 1919, p. 53—68.)
- Sommier, S. ed Gatto, A. Garuana.** Lichenes in Flora Melitensis nova. (Boll. R. Orto Bot. Palermo N. S. I [1915], App. p. 343—364.)
- Steiner, J.** Lichenes aus Mesopotamien und Kurdistan sowie Syrien und Prinkipo, gesammelt von Dr. Heinrich Frh. v. Handel-Mazzetti. (Ann. Naturhist. Staats-Museum XXXIV [1921], p. 1—68.)
- Williams, R. S.** Some Farthest North Lichens and Mosses of the Peary Arctic Expedition to Grant Land in 1906. (Torreya XVIII [1918], p. 210—211.)

VI. Moose.

- Andrews, A. Le Roy.** Bryological Notes IV. A new Hybrid in Physcomitrium. (Ibidem XVIII [1918], p. 52—54.)
- Bryological Notes V. Scapania nimbose from Norway. (Torreya XIX [1919], p. 49—51.)
- Further Bryophytes from North Carolina and Tennessee. (Bryologist XXIV [1921], p. 49—58.)
- Armitage, Eleanora.** Glamorganshire Bryophyta. (Journ. of Bot. LIX [1921], p. 49—50.)
- Bottini, A.** Sfagni d'Italia. (Webbia IV, Parte I [Firenze 1913], p. 107—141.)
- Sulla Briologia di Corfu. (Ibidem p. 241—248.)

- Britton, Elizabeth G. and Wilson, Percy.** Musci in Jennings: Contribution to Botany of Isle of Pines. (Ann. Carnegie Mus. XI [1917], p. 39—40.)
- Bahama Mosses. (The Bryologist XXIV [1921], p. 17—18, Fig. 1—11.) *Hymenostomum flavescens* E. G. Britt. sp. nov.
- The Rediscovery of *Physcomitrium pygmaeum* James. (Ibidem p. 26.)
- Burnham, Stewart H. and Latham, Roy A.** The Flora of the Town of Southold, Long Island and Gardiners Island. (Torreya XVII [1917], p. 111—122.)
- Camus, Fernand.** Sur les mousses dans le contenu de l'estomac d'un Mammouth. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 842—843.)
- Cardot, J.** Sur la flore bryologique de Kerguelen. (Compt. Rend. Acad. Sci. Paris CLXII [1916], p. 883—884.)
- Chamberlain, Edward B.** Notes on current Literature of Mosses. (The Bryologist XXIV [1921], p. 27—30.)
- Denis, Marcel.** Sur quelques thalles d'*Anura* dépourvus de chlorophylle. (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 64—66, 2 Fig.)
- Dixon, H. N.** The Mosses collected by the Smithsonian African Expedition 1909—10. (Ibidem LXIX, Nr. 2 [1918], 28 pp., Pl. I—II.)
- New and interesting South African Mosses. (Transact. Roy. Soc. South Africa VIII [1920], p. 179—224, Pl. XI—XII.)
- Uganda Mosses collected by R. Dümmer and others. (Smithson. Misc. Coll. LXIX, Nr. 8 [1918], p. 1—10, Plate I.)
- On a collection of mosses from the Kanara District. (Journ. of Indian Botany II [1921], p. 174—188, 1 Plate.)
- Miscellanea Bryologica VII. (Journ. of Bot. LIX [1921], p. 132—139.)
- Dupler, A. W.** The air chambers of *Reboulia hemisphaerica*. (Bull. Torr. Bot. Club XLVIII [1921], p. 241—252, Fig. 1—22.)
- Dupret, H.** Notes about the Drepanoclasts of the Vicinity of Montreal, Quebec, Canada. (The Bryologist XXIV [1921], p. 36—39.)
- Ekambaram, T.** Suspected Parasitism in a Moss. (Journ. Indian Bot. I [1920], p. 206—211, Fig. 1—6.)
- Ellen, Sister M.** The germination of the spores of *Conocephalum conicum*. (Amer. Journ. Bot. VII [1920], p. 458—464, Pl. XXXIV—XXXV.)
- Evans, Alexander W.** A new *Riccia* from Peru. (Torreya XIX [1919], p. 85—88, 1 Textfig.)
- Fischer, L.** Tabellen zur Bestimmung einer Auswahl von Thallophten und Bryophyten. (Bern 1918, 60 pp.)
- Fleischer, Max.** Kritische Revision der *Carl Müllerschen* Laubmoosgattungen. (Hedwigia LXIII [1921], p. 209—216.)
- Grout, A. J.** Mosses of a Staten Island House and Lot. (The Bryologist XXIV [1921], p. 64.)
- Herzfelder, Helene.** Beiträge zur Frage der Moosfärbungen. (Beih. Bot. Centralbl. XXXVIII, 1. Abt. [1921], p. 355—400, 1 Abb. im Text.)
- Experimente an Sporophyten von *Funaria hygrometrica*. (Flora N. F. XIV [1920], p. 385—393, 3 Textabb.)
- Herzog, Th.** *Hypnum Lorentzianum* Mol. (Kryptog. Forsch., Nr. 5 [1920], p. 345—353, Fig. 1—2.)
- und **Paul, H.** Beiträge zur Moosflora Bayerns. (Ibidem p. 353—361.)
- Holzinger, John M.** Notes I, II. (The Bryologist XXIV [1921], p. 26—27.)
- Jäggi, Mario.** Contributo alla briologia ticinese. (Boll. Soc. Ticinese Sci. Nat. [1919], p. 27—44.)

- Jäggli, Mario.** Una nota inedita di Alberto Franzoni sulle epatiche ticinesi. (Boll. Soc. Ticinese Sci. Nat. [1919], p. 19—26.)
- Kaiser, George B.** Little Journeys into Mossland. III. Bryologizing in Early Spring. (The Bryologist XXIV [1921], p. 19—20.)
- Little Journeys into Mossland. IV. — Luminous Moss. (The Bryologist XXIV [1921], p. 41—43.)
- Little Journeys into Mossland. V. The old genus Hypnum. (The Bryologist XXIV [1921], p. 58—60.)
- Kashyap, S. R.** Distribution of liverworts in the western Himalayas. (Journ. Indian Bot. I [1920], p. 149—157.)
- Lesage, Pierre.** Balancement organique entre le pédicelle du chapeau femelle et le pédicelle du sporogone dans le *Lunularia vulgaris*. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 679—681.)
- Luisier, A.** Les mousses de Madère. (Broteria Ser. Bot. XVIII [1920], p. 99—120.)
- Machado, Antonio.** Catálogo descritivo de Briologia Portuguesa. (Lissabon 1919, 143 pp.)
- Mac Leod, Julius.** Quantitative of Ten British Species of the Genus Mnium. (Journ. Linn. Soc. London Bot. XLIV [1917], p. 1—58, 9 Textfigs.)
- Mc Whorter, Frank, P.** Destruction of Mosses by Lichens. (Bot. Gaz. LXXII [1921], p. 321—325, Pl. XIII.)
- Malta, N.** Ökologische und floristische Studien, über Granitblockmoose in Lettland. (Acta Universitatis Latviensis I [1921], p. 108—124.)
- Versuche über die Widerstandsfähigkeit der Moose gegen Austrocknung. (Ibidem p. 125—129, 5 Textfig.)
- Negri, G.** Su un musco cavernicolo crescente nell' oscurità assoluta. (Atti R. Accad. Lincei Roma, Rendic. Cl. Sci. Fis. Mat. e Nat. V Ser. XXIX [1920], p. 159—162.)
- Nichols, George E.** Sphagnum Moss: War Substitute for Cotton in absorbent surgical Dressings. (Smiths. Report for 1918, p. 221—234, Pl. II—IV.)
- Nicholson, William Edward.** New or rare British Hepatics. (Journ. Bot. LIX [1921], p. 202—204.)
- Pearson, Wm. Hy.** Notes on a small collection of Hepatics from Oregon. (The Bryologist XXIV [1921], p. 21.)
- Pottier de la Varde, R.** Observations sur quelques espèces du genre Fissidens. (Rev. Bryologique XLVII [1920], p. 33—35.)
- Sur le pédicelle du Stereophyllum Bremondii Th. et P. de la V. (Ibidem p. 35.)
- Pringsheim, Ernst G.** Physiologische Studien an Moosen. I. Mitteilg. Die Reinkultur von *Leptobryum piriforme* (L.) Schr. (Jahrb. f. wiss. Bot. LX [1921], p. 499—530, 9 Textfig.)
- Ringel-Suessenguth, Margarete.** Über Ruheorgane bei einigen Wasserpflanzen und Lebermoosen. (Flora CXV [1922], p. 27—58, 1 Fig.)
- Showalter, Amos M.** Chromosomes of *Conocephalum conicum*. (Bot. Gazette LXXII [1921], p. 245—249, Pl. IV—V.)
- Trabut, L.** Observations sur deux Ricciacées de la Flore d'Algérie. (Bull. Soc. Hist. Nat. Afr. Nord VII [1916], p. 87.)
- Wheldon, J. A.** New British Sphagna. (Journ. of Bot. LIX [1921], p. 185—188, Fig. 1—4.)
- Williams, R. S.** Some Farthest North Lichens and Mosses of the Peary Arctic Expedition to Grant Land in 1906. (Torreya XVIII [1918], p. 210—211.)
- *Hyophila subcucullata* sp. nov. (The Bryologist XXIV [1921], p. 22, Plate II.)
- Yunker, T. G.** A Handy Method for the Mounting of Mosses. (The Bryologist XXIV [1921], p. 43—44, 3 Textfig.)

VII. Pteridophyten.

- Alderwerelt van Rosenburgh, C. R. W. K. van.** The Amboina Pteridophyta collected by C. B. Robinson. (Philipp Journ. Sci. C. Bot. XI [1916], p. 101—123, Pl. V—VI.)
- Barnhart, J. H.** Brackenridge and his book on ferns. (Journ. New York Bot. Gard. XX [1919], p. 117—124.)
- Battandier, J. A. et Jahandiez, E.** Plantes recueillies au Maroc. — Fougères. (Bull. Soc. Hist. Nat. Afr. Nr. XII [1921], p. 171—172.)
- Berry, Edward W.** Palaeobotany: A sketch of the origin and evolution of Floras. (Smiths. Report for 1918, p. 289—407, 6 Plates.)
- Bertrand, Paul.** Sur la flore du bassin houiller de Lyon (Bassin-houiller du Bas-Dauphiné). (Compt. Rend. Acad. Sci. Paris CLXVIII [1919], p. 174—176.)
- Bower, F. O.** Hooker Lecture: On the Natural Classification of Plants, as exemplified in the Filicales. (Journ. Linn. Soc. London, Bot. XLIV [1918], p. 107—124.)
- Campbell, D. H.** The Eusporangiatae. The comparative morphology of the Ophioglossaceae and Marattiaceae. (Carnegie Inst. Washington Publ. CXL [1911], 229 pp., 13 Pl., 192 Fig.)
- Copeland, Edwin Bingham.** The genus *Christiopteris*. (Philipp. Journ. Sci. C. Bot. XII [1917], p. 331—336.)
— Miscellaneous New Ferns. (Philipp. Journ. Sci. C. Bot. XI [1916], p. 39—41.)
— The Genus *Loxogramme*. (Ibidem p. 43—47, Pl. I—IV.)
— New Species and a new Genus of Borneo Ferns, chiefly from the Kinabalu Collections of Mrs. Clemens and Mr. Topping. (Philipp. Journ. Sci. C. Bot. XII [1917], p. 45—65.) — *Oreogrammitis* Copel. gen. nov.
- Emberger, L.** Étude cytologique de la Ségalinelle. (Compt. Rend. Acad. Sci. Paris CLXXI [1920], p. 263—266, Fig. 1—6.)
- Fernald, M. L. and Weatherby, C. A.** *Equisetum fluviatile* or. *E. limosum*? (Rhodora XXIII [1921], p. 119—120.)
- Hopkins, L. S.** A new Species of Fern (*Polystichum Jenningsii*). (Annals Carnegie Mus. XI [1917], p. 362—363, Pl. XXXVII.)
- Jennings, O. E.** Pteridophyta in Contribution to Botany of Isle of Pines. (Ann. Carnegie Mus. XI [1917], p. 40—48.)
- Johnson, Duncan S.** *Polypodium vulgare* as an Epiphyte. (Bot. Gazette LXXII [1921], p. 237—244.)
- Kossinsky, C.** *Dryopteris Komarovii* spec. nova sectionis *Lastrea*. (Notulae syst. Herb. Hort. Bot. Petrop. 1921, Nr. I, p. 1—4 mit franz. Résumé.)
- Lusina, G.** Contributo alla distribuzione geografica e all' ecologia dello „*Scolopendrium hybridum*“ Milde. (Ann. di. Bot. XV [1920], p. 87—95.)
- Mai Caughey, Vaughan.** The genus *Gleichenia* (*Dicranopteris*) in the Hawaiian Islands. (Torreya XVIII [1918], p. 41—52.)
— The Pala or Mules-Foot Fern (*Marattia Douglasii* [Presl] Baker) in the Hawaiian Archipelago. (Torreya XIX [1919], p. 1—8.)
- Mirande, Marcel.** Sur une Fougère à acide cyanhydrique, le *Cystopteris alpina* Desv. (Compt. Rend. Acad. Sci. Paris CLXVII [1918], p. 695—696.)
- Merrill, E. D.** Notes on the Flora of Loh Fau Mountain, Kwangtung Province, China. (Philipp. Journ. Sci. Bot. XIII [1918], p. 123—129.) Pteridophyta.
- Moxley, G. L.** Notes, chiefly nomenclatorial, on southern California ferns. (Bull. Southern Calif. Acad. Sci. XIX [1920], p. 56—57.)
- Round, Eda M.** *Odontopteris genuina* in Rhode Island. (Bot. Gazette LXXII [1921], p. 397—403, 5 Textfig.)

- Sahni, Birbal.** Petrified Plant Remains from the Queensland Mesozoic and Tertiary Formations Petrified Plants of Mesozoic Age. — Filicales, Osmurodaceae. (Queensland Geological Survey Publ. no. 267 [1920], p. 8—14.)
- Sommier, S. et Gatto, A. Gariana.** Pteridophyta in Flora Melitensis nova. (Boll. R. Orto. Bot. Palermo N. S. I [1915], App., p. 328—331.)
- Steil, W. N.** Vegetative reproduction and aposporous growths from the young sporophyte of *Polypodium irioides*. (Bull. Torr. Bot. Club XLVIII [1921], p. 203—205, 3 Fig.)
- The development of prothallia and antheridia from the sex organs of *Polypodium irioides*. (Bull. Torr. Bot. Club XLVIII [1921], p. 271—277, Pl. IV, 4 Textfig.)
- Takeda, Hisayoshi.** The Flora of the Island of Shikotan. (Journ. Linn. Soc. London XLII [1914], p. 498—501.) — Pteridophyta.
- Trabut,** Une Fougère ornementale algérienne (*Dryopteris propinqua* R. Br. var. *callensis*, *Nephrodium callense* Trab.). (Rev. Hort. Algérie XVII [1913], p. 165—168.)
- *Scolopendrium hybridum* Milde à Majorque. (Bull. Soc. Hist. Nat. Afr. Nord VIII [1917], p. 95—96.)
- Weber, Ulrich.** Zur Anatomie und Systematik der Gattung *Isoëtes* L. (Hedwigia LXIII [1921], p. 219—240, 7 Abb. i. Text.)

VIII. Phytopathologie.

- Adams, J. F.** Observations on wheat, scab in Pennsylvania and its pathological histology. (Phytopathology XI [1921], p. 115—124, Pl. II—III, 1 Fig.)
- Allen, R. F.** Resistance to stem rust in Kanred wheat. (Science n. Ser. LIII [1921], p. 575—576.)
- Anderson, J. A., Fred, E. B. and Peterson, W. H.** The relation between the number of bacteria and acid production in the fermentation. (Journ. Infect. Diseases XXVII [1920], p. 281—292, 3 Figs.)
- Anonymus.** Inspection of Insecticides and Fungicides 1920. (New York State Stat. Bull. 481 [1920], p. 3—18.)
- Mosaic Disease as a Factor influencing yield. (Potato Mag. II [1919], p. 11, 27.)
- Compatibility of spray mixtures. (New Zeal. Journ. Agric. XIX [1919], p. 244—245.)
- Cotton diseases in São Paulo. (Bol. Agric. São Paulo XXI [1920], p. 227—291, 23 Figs.)
- Transmission of the mosaic disease of Irish Potatoes. (Maine Stat. Bull. Nr. 295 [1920], p. 223—224.)
- Porto Rico fights cane mottling disease. (Sugar XXII [1920], p. 208—210.)
- Yellow-leaf disease in *Phormium tenax*. (New Zeal. Journ. Agric. XIX [1919], p. 89—93.)
- Plant Pathology. (Idaho Stat. Bull. CXXII [1921], p. 41—44.)
- How to protect wheat: Some Notes on Fungus Pests. (Journ. Min. Agric. London XXVII [1920], p. 548—553, 1 Fig.)
- Report of the Department of Botany and Plant Pathology. (North Dakota Stat. Bull. CXLVI [1921], p. 34, 35, 37, 38.)
- The menace of the white pine blister rust. (Amer. Forestry XXVII [1921], p. 6.)
- Plant disease investigations. (Indiana Stat. Rept. [1920], p. 15—17.)
- Brown bast in *Hevea*. (Pubs. Nederl.-Indisch Landb. Synd. XI [1919], p. 83—98.)
- Broeiproeven van tegen aaltjesziek behandelte Narcissenbollen. (Weekbl. Bloembollenkult. XXX [1920], p. 303, 312.)

- Anonymus.** Control of the white pine blister rust. (Bien. Rept. New Hampshire State Forest Comm. 1919—1920 [1920], p. 39—52.)
- Arnaud, G.** Sur les racines de betteraves gommeuses. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 350—352.)
- Arthur, J. C.** Origin of potato rust. (Science N. Ser. LIII [1921], p. 228—229.)
- Averna-Sacca, R.** Diseases of *Rubachia glomerata*. (Bol. Agr. São Paulo XXI [1920], p. 37—42, 2 Fig.)
- Diseases of *Psidium araca*. (Ibidem p. 43—45, 1 Fig.)
- Diseases of the vegetative or reproductive systems (of cotton in São Paulo). (Ibidem p. 293—311, 4 Figs.)
- Barber, C. H.** The mosaic or mottling disease of sugar cane. (Internat. Sugar Journ. XXIII [1921], p. 12—19, 1 Pl.)
- Barker, B. T. P., Gimingham, C. T. and Wiltshire, S. P.** Sulphur as a Fungicide. (Univ. Bristol Agric. and Hort. Research. Stat. Ann. Rept. 1919, p. 57—75.)
- Barrett, J. T.** Apricot fruit spots. (Univ. California Journ. Agric. III [1916], p. 346—349, ill.)
- Bars, H. P.** Apple tree anthracnose. (Rept. Board Hort. Oregon XVI [1921], p. 127—130, ill.)
- Beach, W. S.** The lettuce drop due to *Sclerotinia minor*. (Pennsylvania Stat. Bull. CLXV [1921], 27 pp., 6 Figs.)
- Bertoni, M. S.** Citrus gummosis and a new preventive and curative remedy. (An. Cient. Paraguay Ser. II [1919], p. 408—421, 2 Fig.)
- Bewley, W. F.** Damping off and foot rot of Tomato Seedlings. (Ann. Appl. Biol. VII [1920], p. 156—174.)
- Bijl, P. A. van der.** Notes on some sugar cane matters. (Journ. Dept. Agric. Union of South Africa II [1921], p. 122—128, Fig. 1—5.)
- Bisby, G. R.** Progress in 1918 in controlling potato diseases. (Minn. Hort. XLVII [1919], p. 462—465, 2 Figs.)
- Blin, H.** Asparagus root rot. (Revue Horticole Paris 91 [1919], p. 325—326, 1 Fig.)
- Bonar, Lee.** Wilt of white clover, due to *Brachyспорium trifolii*. (Phytopathology X [1920], p. 435—441, 3 Fig.)
- Bourne, B. A.** Plant diseases, Barbados. (Barbados Dept. Agric. Rept. [1919—20], p. 15—17.)
- Briosi, Giovanni e Farneti, Rodolfo.** Sulla moria dei castagni (mal dell' inchiostro). (Atti dell' Ist. Bot. Univ. Pavia XVIII [Milano 1921], p. 1—93, Tav. I—XVII.)
- Britton, N. L.** The leafly spurge becoming a pest. (Journ. New York Bot. Gard. XXII [1921], p. 73—75, 1 Fig.)
- Britton, W. E., Walden, B. H. and Lowry, Quiney S.** Experiment in Controlling a Mite (*Tarsonemus pallidus* Banks.) injuring Snapdragon Plants in the Greenhouse. (XXXVIII Report Connect. Agricult. Experiments-Stat. 1914 [Hartford 1915], p. 176—179.)
- and **Zappe, M. P.** Tests of Sprays to Control the Potato Aphid. (Conn. Experiments-Stat. Bull. Nr. 211 [1918], 1919, p. 294—311.)
- Brooks, F. T.** Plant sanitation in fruit plantations. (Brit. Mycol. Soc. Transact. VI [1919], p. 253—262.)
- and **Bailey, M. A.** Silver leaf disease (including observations upon the injection of trees with antiseptics). (Journ. Pomol. I [1920], p. 81—103.)
- Brown, Nellie A.** A *Pestalozzia* producing a tumor on the *Sapodilla* tree. (Phytopathology X [1920], p. 383—394, 5 Fig.)

- Bunting, R. H.** Report of the Mycologist. Gold Coast of Africa. (Govt. Gold Coast, Agric. Dept. [1919], p. 20—21.)
- Burger, O. F.** Decay in citrus fruits during transportation. (Calif. Dept. Agric. Mo. Bull. IX [1920], p. 365—370.)
- and **Swain, A. F.** Observations on a fungus enemy of the walnut aphid in southern California. (Journ. Econ. Entom. II [1918], p. 278—288, Pl. IX.)
- Burkholder, W. H.** The effect of two soil temperatures on the yield and water relations of healthy and diseased bean plants. (Ecology I [1920], p. 113—123, 1 Fig.)
- The bacterial blight of the bean: a systematic disease. (Phytopathology XI [1921], p. 61—69.)
- Butler, O.** On the amount of copper required for the control of *Phytophthora infestans* on potatoes. (Phytopathology X [1920], p. 298—304.)
- Carpenter, C. W.** Hawaii Agricultural Station reports on cane root rot fungus. (Sugar XXII [1920], p. 20—22.)
- Cerasoli, E.** Il problema nazionale degli anticrittogamici a base di rame — Note critiche. (Boll. mens. Inform. e Notizie-Roma Anno II, Nr. 5/6 [1921], pl. 64—71.)
- Chardon Palacios, C. E.** Un nuevo „smut“ de Puerto Rico. (Revista Agric. Puerto Rico LXIV [1921], p. 21—23, ill.)
- Cheel, Edwin and Cleland, J. B.** Disease in forest trees caused by the larger fungi. (Forest. Commission New South Wales Bull. XII [1918], 12 pp., 20 Pl.)
- Cheyney, E. G.** Preliminary investigation of Ribes as a controlling factor in the spread of white pine blister rust. (Science LII [1920], p. 342—345.)
- Church, Margaret B.** The relation of mosaic disease to pickling of cucumbers. (Phytopathology XI [1921], p. 28—29.)
- Clinton, G. P. and Harvey, L. F.** Co-operative Potato spraying in 1917 (Conn. Agric. Experim. Stat. Bull. 214 [New Haven 1919], p. 411—420.)
- Diseases of vegetables in 1919. (Conn. Veg. Growers' Assoc. Rpt. 1919, p. 54—60.)
- New or unusual Plant Injuries and Diseases, found in Connecticut, 1916—1919. (Conn. Agric. Experim. Stat. Bull. 222 [New Haven 1920], p. 397—482, Pl. XXXIII—LVI.)
- Notes on plant diseases of Connecticut. (XXXVIII Report Connect. Agricult. Experim. Stat. 1914 [Hartford 1915], p. 1—42, Pl. I—VIII.)
- Chlorosis of Plants with Special Reference to Calico of Tobacco. (Ibidem p. 357—424, Pl. XXV—XXXII.)
- Notes on Plant Diseases of Connecticut. (XXXIX Report Connect. Agricult. Experim. Stat. 1915 [Hartford 1916], p. 421—451.)
- Cogolludo, José.** Contribución al Conocimiento de la Zoocecidias de España. (Trab. Mus. Nac. Cienc. Nat. Ser. Bot. Nr. 16 [Madrid 1921], 117 pp., 10 Fig.)
- Collins, J. Franklin.** Notes on the resistance of chestnut to blight. (Phytopathology X [1920], p. 368—371, 2 Fig.)
- Cook, Mel. T.** Peach yellows and little peach. (Bot. Gazette. LXXII [1921], p. 250—255, Pl. VI—VII.)
- and **Pools, R. F.** Diseases of Sweet Potatoes. (New Jersey Stat. Circular no. 123 [1921], p. 3—24, 17 Figs.)
- Coons, G. H.** Cherry leaf spot or yellow leaf. (Michigan Stat. Quart. Bull. III [1921], p. 93—96, 2 Fig.)
- Investigations on plant diseases. (Michigan Stat. Rept. [1919], p. 259—264.)
- Cory, E. N.** Report of dusting and spraying investigations. (Md. Agric. Soc. Rept. V [1920], p. 318—327.)

- Currie, M. E.** A critical study of the slime molds of Ontario. (Roy. Canada Inst. Transact. XII [1920], p. 247—308, 3 Pls.)
- Dastur, Jehangir Fardunji.** The Potato Blight in India. (Mem. Dept. Agric. India, Calcutta VII [1913], p. 1—14, 1 Pl.)
- Die-Back of Chillies (*Capsicum* spp.) in Bihar. (Mem. Dept. Agric. India Vol. XI [1921], p. 129—144, Pl. I—II.)
- *Phytophthora* sp. on *Hevea brasiliensis*. (Mem. Dept. Agric. India; Calcutta VIII [1916], p. 217—232, ill.)
- *Phytophthora* on *Vinca rosea*. (Ibidem p. 233—242, 14 Fig.)
- Davis, Irving W.** The White Pine Weevil. (*Pissodes strobi* Peck.) (Conn. Experim. Stat. Bull. 218 [New Haven 1920], p. 144—155, Fig. 17—19.)
- Detwiler, S. B.** Safeguarding the white pine crop. (Amer. Forestry XXVII [1921], p. 7—11, 8 Fig.)
- and **Moir, W. S.** Report on white pine blister rust control, 1920. (Amer. Plant Pest Com. Bull. VI [1921], 8 pp.)
- Dickson, J. G.** The barberry and stem rust in Wisconsin. (Wiscons. Dept. Agric. Bull. XXXIII [1920], p. 144—149, 3 Figs.)
- Dufrenoy, Jean.** Witches-brooms of *Pinus maritima*. (Phytopathology XI [1921], p. 27.)
- Earle, F. S.** La enfermedad del mosaico en Puerto Rico. (Sugar XXI [1919], p. 551.)
- Instrucciones para la eradicacion de la enfermedad del Mosaico de la cana. (Sugar XXI [1919], p. 51—52.)
- Edgerton, C. W. and Moreland, C. C.** Sugar-cane diseases. (Louisiana Stats. Rept. [1920], p. 16—17.)
- — Tomato wilt. (Louisiana Agric. Exp. Stat. Bull. CLXXIV [1920], 54 pp., 19 Figs.)
- Edgerton, C. W.** A new method of selecting L 511 cane free of the mosaic disease for planting purposes. (Louisiana Planter and Sugar Manufacturer LXV [1920], p. 252—253.)
- A method of selecting L 511 cane free of the mosaic disease for planting purposes. (Louisiana Agric. Exp. Stat. Bull. CLXXVI, [1920] 7 pp., 1 Fig.)
- Elliott, J. A.** Arkansas cotton diseases. (Arkansas Stat. Bull. CLXXIII [1921], p. 3—26, 26 Figs.)
- A mosaic of sweet and red clovers. (Phytopathology XI [1921], p. 146—148, 1 Fig.)
- Enlows, E. M. A. and Rand, F. V.** A Lotus leaf-spot caused by *Alternaria Nelumbii* sp. nov. (Phytopathology XI [1921], p. 135—140, Pl. IV, 1 Fig.)
- Eriksson, Jakob.** Sur la réapparition du Mildiou (*Phytophthora infestans*) dans la végétation de la Pomme de terre. (Compt. Rend. Acad. Sci. Paris 163 [1916], p. 97—100.)
- Erwin, A. T.** Controlling downy mildew of lettuce. (Jowa Stat. Bull. CICVI [1921], p. 305—328, 7 Figs.)
- Escherich, K.** Ein großer Fortschritt in der Schädlingbekämpfung. (Zeitschr. f. Garten- u. Obstb. Wien II [1921], p. 12—13.)
- Farneti, Rodolfo.** Sopra il „Brusone“ del Riso — Note postume. (Atti dell' Ist. Bot. Univ. di Pavia XVIII [Milano 1921], p. 109—122, Tav. XX—XXIX.)
- Fawcett, H. S.** *Pythiacystis* and *Phytophthora* (on Citrus). (Phytopathology X [1920], p. 397—399.)
- Citrus diseases of Florida and Cuba compared with those of California. (Calif. Agric. Exp. Stat. Bull. CCLXII [1915], p. 153—210, Fig. 1—24.)

- Fawcett, H. S.** Fighting a fungus, *Pythiacystis citrophthora*, in the citrus orchards. (Univ. Calif. Journ. Agric. III [1916], p. 339—343, 356, Fig. 1—3.)
- Fields, W. S. and Elliott, John A.** Making Bordeaux mixture, and some others spraying problems. (Arkansas Agric. Exp. Stat. Bull. CLXXII [1920], 12 pp., 1 Pl.)
- Figueroa, C. A.** The mottling disease of cane and the sugar production of Porto Rico. (Journ. Dept. Agric. Porto Rico III [1919], 1920 p. 35—41.)
- Fink, B.** Notes on the powdery mildews of Ohio. (Ohio Journ. Sci. XXI [1921], p. 211—216.)
- Fisher, D. F. and Brooks, C.** Drouth-spot and related physiological diseases. (Agric. Journ. Brit. Columbia V [1920], p. 290—293.)
- Folsom, D.** Potato leaf roll. (Maine Stat. Bull. Nr. CCXCVII [1921], p. 37—52, Pl. I—IV, 3 Fig.)
- Fonzes-Diacon, M.** Sur les bouillies cupriques. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 528—530.)
- Forbes, A. C.** Occurrence of *Keithia thuyina* in Ireland. (Gard. Chron. 3. Ser. LXVIII [1920], p. 228—229.)
- Frank, A.** Crown gall, a serious disease. (West. Washington Sta. Bimo. Bull. IX [1921], p. 51—53, 1 Fig.)
- Fürstenberg, C.** Über die Bekämpfung der Obstbaumschädlinge. (Gartenflora LXX [1921], p. 107—116.)
- Fulmek, Leopold und Stift, A.** Über im Jahre 1920 erschienene bemerkenswerte Mitteilungen auf dem Gebiete der tierischen und pflanzlichen Feinde der Kartoffelpflanze. (Centralbl. f. Bakt. etc. II. Abt. LIV [1921], p. 492—529.)
- Gardner, Max W.** The mode of dissemination of fungus and bacterial diseases of plants. (Rept. Michig. Acad. Sci. XX [1918], p. 357—423.)
- and **Kendrick, James B.** Soybean Mosaic. (Journ. Agric. Research Washington XXII [1921], p. 111—114, Plates XVIII—XIX.)
- — Turnip Mosaic. (Ibidem p. 123—124, Pl. XX.)
- — Tomato bacterial spot and seed disinfection. (Indiana Stat. Bull. CCLI [1921], 15 pp., 10 Fig.)
- Garman, P.** The relation of certain greenhouse pests to the transmission of a *Geranium* leaf spot. (Maryland Stat. Bull. CCXXXIX [1920], p. 57—80, 7 Fig.)
- Gilbert, Alfred H.** Certified seed inspection in Vermont. (Potato Mag. III [1921], p. 6, 20—21, 26.)
- Godfrey, G. H.** A seed-borne *Sclerotium* and its relation to a rice-seedling disease. (Phytopathology X [1920], p. 342.)
- and **Harvey, R. B.** Motion pictures of zoospore production in *Phytophthora*. (Phytopathology XI [1921], p. 145—146, Pl. VI.)
- Goß, R. W.** Temperature and Humidity Studies of some *Fusaria* Rots of the Irish Potato. (Journ. Agric. Research—Washington XXII [1921], p. 65—80, Pl. X—XI.)
- Gouaux, C. B.** Mosaic disease of sugar cane in Louisiana. (Louisiana Planter and Sugar Manufacturer LXV [1920], p. 269.)
- Griesbeck, A.** Die Erreger der Schwarzbeinigkeit bei Kartoffeln. (Fühlings Landw. Zeitg. LXIX [1920], p. 37—38.)
- Guyton, T. L.** The *Chrysanthemum* Gall Midge. — *Diarthronomyia hypogaea* F. Low. (Bull. Ohio Agric. Experim. Stat. Nr. 341 [May 1920], p. 103—114, 6 Fig.)
- Hahn, G. G.** *Phomopsis juniperovora*, a new species causing blight of nursery cedars. (Phytopathology X [1920], p. 249—253, 1 Pl.)
- Hall, C. J. J. van.** Ziekten en Plagen der Cultuurgewassen in Nederlandsch-Indie in 1920. (Mededeel. Instituut Plantenziekten Buitenzorg, Nr. 46 [1921], 50 pp.)

- Hamblin, C. O.** Downy mildew of the vine. (*Agric. Gaz. New South Wales* XXXII [1921], p. 49—50, 3 Fig.)
 — Flag smut and its control. (*Ibidem* XXXII [1921], p. 23.)
- Harrison, J. B.** Plant Diseases, British Guiana. (*Brit. Guiana Dept. Sci. and Agric. Rept.* [1918], p. 16, 21, 24.)
- Hartmann, Johannes.** Schädlinge des Kernobstes. II. Aufl., kl. 8^o, 71 pp., 2 Farbentaf., 38 Textabb. Leipzig. (Lehrmeister-Bücherei, Nr. 150—153.)
- Harvey, R. B.** Destruction of zoospores of plant disease organisms by natural enemies. (*Science* LII [1920], p. 84.)
 — Relation of catalase, oxidase, and hydrogen-ion concentration to the formation of overgrowths. (*Amer. Journ. Bot.* VII [1920], p. 211—221, 2 Figs.)
- Hector, G. P.** Jute chlorosis. (*Agric. Research Inst. Pusa Sci. Repts.* [1919—20], p. 55—57.)
- Henning, Ernst och Lindfors, Thore.** Krusbärmjöldaggens Bekämpande — Studier och Försök. (Centralanst. Försöksv. Jordbruksområdet Medd. CCVIII [1920], 51 pp.)
- Hernandez, A.** Plant pests and diseases, Philippine Islands. (*Philippine Agric. Rev.* XII [1919], p. 85—93, Pls. 5, 1 Fig.)
- Heuß, R.** Die keimtötende Kraft von elektrolytisch dargestellter Hypochloritlauge („Antiformin“). (*Zeitschr. f. d. ges. Brauwes.* XLII [1919], p. 351.)
- Hoerner, G. R.** Miscellaneous Studies on the Crown Rust of Oats. (*Amer. Journ. Bot.* VIII [1921], p. 452—457, Pl. XXIV.)
- Holbert, J. R.** Progress report on corn disease investigations. (*Science n. ser.* LIII [1921], p. 345.)
 — **Frost, J. F. and Koffer, G. N.** Wheat scabs as affected by systems of rotation. (*Phytopathology* IX [1919], p. 45—47.)
- Hole, R. S.** Plant Diseases. (*Indian Forester* XLV [1919], p. 584.)
- Hopkins, E. F.** A study of certain fusarial diseases of plants. (*Missouri Stat. Bull.* CLXXIX [1921], 21 pp.)
- Horne, A. S. and Horne, E. V.** Mycological Studies. — I. On the spotting of apples in Great Britain. (*Ann. Appl. Biol.* VII [1920], p. 183—201, 6 Fig.)
 — — On spotting in apples. (*Gard. Chron.* 3. Ser. LXVIII [1920], p. 216—217, 4 Figs.)
- Howard, A. and Howard, G. L. C.** The Spike disease of Peach Trees. (*Indian Forester* XLV [1919], p. 611.)
 — — The Wilt Disease of Indigo in Bihar. (*Mem. Dept. Agric. India Bot. Ser.* XI [1920], p. 1—36, ill.)
- Howard, W. L. and Horne, W. T.** Brown rot of apricots. (*Univ. Calif. Agric. Exp. Stat. Bull.* Nr. 326 [1920], p. 73—88.)
- Howitt, J. E.** Some observations made in inspecting for leaf roll and mosaic. (*Phytopathology* X [1920], p. 316.)
- Jackon, H. S. and Mains, E. B.** Aecial stage of the Orange Leafrust of Wheat, *Puccinia triticina* Eriks. (*Journ. Agric. Research-Washington* XXII [1921], p. 151—172, Pl. XXI.)
- Jodidi, S. L., Moulton, S. C. and Markley, K. S.** A mosaic disease of cabbage as revealed by its nitrogen constituents. (*Journ. Amer. Chem. Soc.* XLII [1920], p. 1883—1892.)
 — — — The mosaic disease of spinach as characterized by its nitrogen constituents. (*Ibidem* XLII [1920], p. 1061—1070.)
- Johnson, Aaron G. and Dickson, James G.** Wheat Scab and its control. (*Farmers Bull.* nr. 1224 [1921], p. 1—16, 12 Fig.)

- Johnson, James.** Fusarium-wilt of Tobacco. (Journ. Agric. Research-Washington XX [1921], p. 515—535, Pl. LXIII—LXVII.)
- Kawakama, Koichiro and Yoshida, Suehiro.** Bacteria disease on Milletia plant. (Bacillus Milletiae n. sp.) (Bot. Mag. Tokyo XXXIV [1920], p. 110—115. Pl. II.)
- Keßler, B.** Zum Auftreten der Federsporenkrankheit in der Rheinprovinz. (Nachrichtenbl. Deutsch. Pflanzenschutzdienst I [1921], p. 28.)
- Kirby, R. S. and Thomas, H. E.** The take-all disease of wheat in New York State. (Science LII [1920], p. 368.)
- Kottur, G. L. and Patel, M. L.** Malformation of the cotton plant leading to sterility. (Agric. Journ. India XV [1920], p. 640—643, 3 Pls.)
- Leach, J. G.** Colorado plant diseases. (Colorado Stat. Bull. CCLIX [1921], 96 pp., 3 Pls., 76 Fig.)
- Lee, H. Atherton and Medalla, Marino G.** La enfermedad banda amarillo en Filipinas. (Sugar XXIII [1921], p. 53—54.)
- Levine, Michael.** Studies on plant cancers. II. The behavior of crown gall on the rubber plant (Ficus elastica). (Mycologia XIII [1921], p. 1—11.)
- Levy, E. B.** Investigation of dry rot in swedes. (New Zeal. Journ. Agric. XIX [1919], p. 223—228.)
- López Dominguez, F. A.** Has „yellow-stripe” or „mottling” disease any effect on the sugar content of cane juice? (Dept. Agric. Porto Rico XXXIV [1919], 1920, p. 47—64.)
- McCubbin, W. A.** The potato wart situation. (Potato Mag. III [1921], p. 5, 26—28, 2 Fig.)
— Potato wart. (Amer. Plant Pest Comm. Bull. V [1921], 8 pp., 5 Figs.)
- McKay, M. B.** Transmission of some Wilt Diseases in Seed Potatoes. (Journ. Agric. Research-Washington XXI [1921], p. 821—848, Plates CXXXIX—CXXLI.)
- McRae, W.** Phytophthora Meadii n. sp. on Hevea brasiliensis. (Mem. Dept. Agric. India, Calcutta IX [1918], p. 219—273, Pl. I—III.)
- McRostie, G. P.** Inheritance of disease resistance in the common bean. (Journ. Soc. Agron. XIII [1921], p. 15—32.)
- Mains, E. B.** Unusual rusts on Nyssa and Urticastrum. (Amer. Journ. Bot. VIII [1921], p. 442—451, 6 Fig.)
- Maire, René.** Maladies des Végétaux ligneux de l'Afrique du Nord 3. (Bull. Stat. Recherch. forest. Nord de l'Afr. I [1917], p. 183—186, 1 Fig.)
- Manns, T. F.** Plant pathological investigations. (Delaware Stat. Bull. CXXVI [1920], p. 24—26.)
- Martin, J. F. and Gravatt, G. F. and Posey, G. B.** Treatment of Ornamental White Pines infected with Blister Rust. (U. S. Departm. Agric.-Contrib. from Bur. Plant. Ind., Circular Nr. 177 [Washington 1921], ill.)
- Martin, W. H.** Studies on tomato leaf-spot control. (New Jersey Stats. Bull. 345 [1920], 43 pp., 4 Figs.)
- Matz, Julius.** Gummy disease of sugar cane in Porto Rico. (Phytopathology X [1920], p. 429—430, 1 Fig.)
— Some problems in the pathology of sugar cane. (Porto Rico Dept. Agric. and Labor. Stat. Circ. XXXIII [1920], p. 32—36.)
— Annual Report of the Department of Plant Pathology and Botany 1919—1920. (Porto Rico Dept. Agric. and Labor. Stat. Ann. Rept. [1920], p. 91—93.)
— Gummy disease of sugar cane in Porto Rico. (Sugar XXII [1920], p. 282—283.)
— La gomosis de la caña de azúcar. (Sugar XXII [1920], p. 363—364, 1 Fig.)

- Meinecke, E. P.** White pine blister rust. (Calif. Dept. Agric. Mo. Bull. IX [1920], p. 270—275.)
- Melhus, J. E. and Gilman, J. C.** Measuring certain variable factors in potato seed treatment experiments. (Phytopathology XI [1921], p. 6—17, Fig. 1—5.)
- — and **Kendrick, J. B.** The fungicidal action of formaldehyde. (Jowa Stat. Research Bull. Nr. LIX [1920], p. 355—397, 6 Figs.)
- Michel, C. W.** Brown rot of plums and cherries. (South Dakota State Hort. Soc. Ann. Rpt. XIV [1917], p. 186—187.)
- Molliard, Marin.** Production artificielle d'une galle. (Compt. Rend. Acad. Sci. Paris CLXV [1917], p. 160—162, ill.)
- Montemartini, L.** Alcune malattie nove o rare osservate nel Laboratorio di Patologia vegetale di Milano 22—26. (Rev. Patol. Veget. X [1920], p. 119—125.)
- Morris, O. M.** Apple rosette. (Washington Stat. Bull. CLVIII [1920], p. 27.)
- Morstatt.** Ein Versuch zur Bekämpfung der Blutlaus durch Einführung eines Parasiten. (Nachrichtenbl. f. d. deutsch. Pflanzenschutzdienst II [1922], p. 5.)
- Murphy, Paul A. and Worthy, E. J.** Relation of climate to the development and control of leaf roll of potato. (Phytopathology X [1920], p. 407—414, 1 Fig.)
- Nicolas, G.** Les connaissances actuelles sur l'action du soufre sur la végétation. (Bull. Soc. Hist. Nat. Afr. Nord X [1919], p. 6—21.)
- Nisikado, Yosikazu and Miyake, Chuichi.** Treatment of the Rice Seeds for Helminthosporiose. I. Hot Water Treatment. (Ber. Ohara Inst. f. landw. Forsch. I [1920], p. 543—555.)
- Norton, J. B. S. and Chen, C. C.** Some methods for investigating internal seed infection. (Phytopathology X [1920], p. 399—400.)
- — Another corn seed parasite. (Science LII [1920], p. 250.)
- Nowell, W. and Williams, C. B.** Sugar cane blight in Trinidad. (Bull. Dept. Agric. Trinidad and Tobago XIX Pt. 1 [1920], p. 8—10.)
- Orton, W. A.** Streak disease of potato. (Phytopathology X [1920], p. 97—100, 1 Pl., 1 Fig.)
- Pape.** Stärkeres Auftreten der Federbuschsporenkrankheit (*Dilophospora graminis* Desm.) in Deutschland. (Mitteil. d. deutsch. landw. Ges. XXXVI [1921], p. 542.)
- Petri, L.** Le galle del „*Capparis tomentosa*“ Lam. prodotte dalla „*Discella Capparidis*“ Pat. et Har. (Ann. di Bot. XIV [1917], p. 141—150, Tav. VI, 6 Textfig.)
- Petersen, A. K.** Seed treatment for the prevention of cereal smut. (Color. Agric. Col. Ext. Bull. 1. ser., Nr. 185 A [1921], 7 pp., 4 Figs.)
- Peyronel, B.** Come avviene e come si previene la diffusione delle malattie crittogamiche delle piante. (Boll. mensile di Inform. e Notizie II [1921], p. 119—124.)
- Phillip, W. W.** Report on the Results of Experiments on the Treatment of Oats for the Prevention of Smut. (Scot. Journ. Agric. II [1919], p. 222—223.)
- Poeteren, N. van.** De Aardappelwratziekte. (Tijdschr. Plantenz. XXVII [1921], p. 1—13, Fig. 1—7.)
- Quanjer, H. M.** Considerations nouvelles sur les maladies de la pomme de terre. (Bull. Soc. Path. Veget. France VII [1920], p. 102—118.)
- Rabak, F.** The effect of mold upon the oil of corn. (Journ. Indust. Eng. Chem. XII [1920], p. 46—48.)
- Rand, F. V. and Cash, L. C.** Some insect relations of *Bazillus tracheiphilus*. (Phytopathology X [1920], p. 133—140, 1 Fig.)
- Rands, R. D.** Histological Studies on the brown bast disease of plantation rubber. (Mededeel. Instit. Plantenziekten-Buitenzorg Nr. 49 [1921], 27 pp., Plates I—IX.)

- Rands, R. D.** Brown bast Disease of Plantation Ruhler its Cause and Prevention. (Ibidem Nr. 47 [1921], 57 pp., Plates I—V.)
- Rapp, C. W.** Bacterial blight of beans. (Oklahoma Stat. Bull. CXXXI [1920], 39 pp., 17 Figs.)
- Ravaz, L.** Rapport sur le fonctionnement de la station d'avertissements agricoles de Montpellier, en 1918. (Ann. École Nation. Agric. Montpellier XVII [1918] 1919, p. 131—167, Fig. 1—27.)
- Reddick, D.** Foot rot of tomato. (Phytopathology XI [1921], p. 29.)
- Reinking, O. A.** Diseases of economic plants in southern China. (Philipp. Agricult. VIII [1919], p. 109—134, 3 Pls.)
- Reyes, G. M.** Storage rots caused by *Diplodia*. (Philipp. Agric. VIII [1920], p. 235—260.)
- Richards, B. L.** A Dryrot Canker of Sugar Beets. (Journ. Agric. Research-Washington XXII [1921], p. 47—52, Pl. IV—IX.)
- Riehm, E.** Prüfung von Pflanzenschutzmitteln im Jahre 1919. (Mitteil. Biolog. Reichsamt. Land-Forstwirtschaft. Dahlem, Heft 19 [1920], 34 pp.)
 — Prüfung von Pflanzenschutzmitteln im Jahre 1920. (Mitteil. Biolog. Reichsamt. Land-Forstwirtschaft. Dahlem, Heft 20 [1921], 47 pp.)
 — Wie bekämpft man den Schneeschimmel. (Mitteil. d. Deutsch. Landw. Gesellsch. XXXVI [1921], p. 519—520.)
- Roberts, John W.** Plum Blotch, a Disease of the Japanese Plum caused by *Phyllosticta congesta* Heald and Wolf. (Journ. Agric. Research-Washington XXII [1921], p. 365—370, Pl. XXXIV, Textfig. 1—2.)
 — The apple-blotch and bitter-rot cankers. (Phytopathology X [1920], p. 353.)
- Rolfs, F. M.** Blossom drop of tomatoes. (Oklahoma Stat. Rpt. [1920], p. 47—49.)
 — Development of fruit buds. (Ibidem p. 42.)
- Rosen, H. R.** *Septoria glume* blotch of wheat. (Arkansas Stat. Bull. CLXXV [1921], p. 3—17, 4 Figs.)
- Rosenbaum, J.** A *Macrosporium* foot-rot of tomato. (Phytopathology X [1920], p. 415—422, 4 Fig.)
- Rumbold, C.** Giving medicine to trees. (Amer. Forestry XXVI [1920], p. 359—362, 5 Figs.)
- Russell, H. L.** A disease-resistant potato for southern markets. (Wisconsin Stat. Bull. CCCXXXII [1921], p. 28.)
- Saillard, Émile.** Sur les betherares attaquées par le *Cercospora beticola* Sacc. (Compt. Rend. Acad. Sci. Paris CLXII [1916], p. 47—49.)
- Salmon, E. S.** On forms of the hop. (*Humulus lupulus* and *H. americanus*) resistant to mildew. (*Sphaerotheca Humuli*.) IV. (Ann. Appl. Biol. VI [1920], p. 293—310.)
- Sanders, G. E. and Kelsall, A.** Dusts and dusting for insect and fungus control. (Sci. Agric. Canada I [1921], p. 14—18.)
- Sanderson, A. R. and Sutcliffe, H.** *Sphaeronema* sp. (moldy rot of the tapped surface). (Ann. Appl. Biol. VII [1920], p. 56—65, 4 Pls.)
- Schlumberger, O.** Pflanzenschutz und Sortenfrage im Kartoffelbau. (Fühlings Landw. Zeitg. LXIX [1920], p. 144—149.)
- Schultz, E. S.** A transmissible mosaic disease of chinese cabbage, mustard, and turnip. (Journ. Agric. Research-Washington XXII [1921], p. 173—177, Pl. B and 22—24.)
- Selby, A. D. and Thomas, R. C.** Impairment of clover seedlings reported. (Ohio Stat. Mo. Bull. VI [1921], p. 90—92.)

- Semichon, Lucien.** Sur l'emploi de la chaleur pour combattre les Insectes et les Cryptogames parasites des plantes cultivées. (Compt. Rend. Acad. Sci. Paris CLX [1915], p. 569—571.)
- Shapovalov, M. and Edson, H. A.** Blackleg Potato Tuber-Rot under Irrigation. (Journ. Agric. Research-Washington XXII [1921], p. 81—92, Pl. A, Pl. XII—XVI.)
- Sharples, A. and Lambourne, J.** Observations in Malaya on Bud-rot of Coco-nuts. (Ann. of Botany XXXVI [1922], p. 55—70, Pl. I—VII.)
- Shaw, F. J. F.** Studies in Diseases of the Jute Plant. I. *Diplodia Corchori* Syd. (Mem. Dept. Agric. India Bot. Ser. Vol. XI [1921], p. 37—58, Pl. I—XI.)
- Shunk, J. V. and Wolf, F. A.** Further studies on bacterial blight of soybean. (Phytopathology XI [1921], p. 18—24, Fig. 1.)
- Simmonds, H. W. and Knowles, C. H.** A disease of *Clidemia hirta* in the lower Rewa district. (Dept. Agric. Fiji Circ. I [1920], p. 9—12.)
- Smiley, Edwina M.** The *Phyllosticta* blight of snapdragon. (Phytopathology X [1920], p. 232—248, 8 Fig.)
- Smith, Erwin F.** Effect of crown-gall inoculations on *Bryophyllum*. (Journ. Agric. Research-Washington XXI [1921], p. 593—598, Pl. CI—CX.)
- Smyth, E. Graywood.** Insects and mottling disease. (Journ. Dept. Agric. Porto Rico III [1919] 1920, p. 83—116.)
— An annotated bibliography of Porto Rican cane insects. (Ibidem p. 117—134.)
- Stahl, J. L. and Frank, A.** Winter injury of berries. (Washington Stat. West. Wash. Stat. Bimo. Bull. IX [1921], p. 34—36, 1 Fig.)
- Stevens, F. L. and Hall, J. G.** Diseases of economic plants. (New York 1921, rev. ed. VI and 507 pp., 243 Figs.)
- Stevenson, John A.** Control of sugar cane mottling disease. (Sugar XXII [1920], p. 539—541, 1 Fig.)
- Stift, A.** Über im Jahre 1920 veröffentlichte bemerkenswerte Arbeiten und Mitteilungen auf dem Gebiete der tierischen und pflanzlichen Feinde der Zuckerrübe. (Centralbl. f. Bakt. usw., II. Abt. LIV [1921], p. 261—272.)
- Stillinger, C. R.** Apple black rot (*Sphaeroopsis malorum*) in Oregon. (Phytopathology X [1920], p. 453—458.)
- Stoddard, E. M. and Moß, A. E.** Cutting out Chestnut blighted Timber. (XXXIX Report Connect. Agricult. Experim. Stat. 1915 [Hartford 1916], p. 488—496, Pl. XXVII—XXVIII.)
- Stone, R. E. and Howitt, J. E.** Plant diseases and fungi comparatively new or rare in Ontario. (Phytopathology X [1920], p. 317—318.)
- Subramaniam, L. S.** A *Pythium* Disease of Ginger, Tobacco and Papaya. (Mem. Dept. Agric. India, Calcutta X [1919], p. 181—194, Pl. I—VI.)
- Taubenhaus, J. J. and Mally, F. W.** Pink root disease of onions and its control in Texas. (Texas Stat. Bull. CCLXXIII [1921], p. 3—42, 3 Figs.)
- Thatcher, L. E.** A fungus disease suppressing expression of awns in a wheatspelt hybrid. (Journ. Agric. Research-Washington XXI [1921], p. 699—700, 1 Pl.)
- Thomas, H. E.** The relation of the host and other factors to infection of *Apium graveolens* by *Septoria apii*. (Bull. Torr. Bot. Club XLVIII [1921], p. 1—29.)
- Thomas, R. C.** Botrytis rot and wilt of tomato. (Ohio Stat. Mo. Bull. VI [1921], p. 59—62, 3 Figs.)
- Tisdale, W. H.** Two *Sclerotium* Diseases of Rice. (Journ. Agric. Research Washington XXI [1921], p. 649—658, Pl. CXXII—CXXVI.)
— and **Jenkins, J. M.** Straighthead of rice and its control. (U. S. Dept. Agric. „Farmers Bull.” MCCXII [1921], 16 pp., 7 Figs.)

- Traverso, G. B.** Cenni su l'industria degli anticrittogamici e degli insetticidi in Italia. (Boll. mens. Inform. e Notizie Roma Anno II, Nr. 5/6 [1921], p. 51—63.)
- Valle Zeno, R. del.** Sugar cane matizado or yellow spot. (La Enfermedad del Matijado o Manchas Amarillas de la Cana de Azucar. — New York 1919, 16 pp., 2 Pls.)
- Valleau, W. D.** Overcoming root rot by breeding. (Science N. Ser. LIII [1921], p. 345.)
- Veve, R.** The eradication of sugar cane mosaic in Fajardo. (Porto Rico Dept. Agric. and Labor. Stat. Circ. XXXIII [1920], p. 52—55.)
- Wahl, C. von.** Der Feuerbrand, eine amerikanische Obstbaumkrankheit. (Flugbl. d. Hauptst. f. Pflanzenschutz in Augustenberg-Baden, Nr. 6 [1916].)
- Waldron, L. R.** The inheritance of rust resistance in a family derived from a cross between durum and common wheat. (North Dakota Stat. Bull. CXLVII [1921], p. 3—24, 2 Figs.)
- Walker, J. C.** Experiments upon formaldehyde-drip control of onion smut.: Phytopathology X [1920], p. 323—327.)
- and **Jones, L. R.** Relation of Soil Temperature and other Factors to Onion Smut Infection. (Journ. Agric. Research-Washington XXII [1921], p. 235—262, Pl. XXV—XXVII.)
- Walster, H. L.** Rust and the Weather. (Science n. Ser. LIII [1921], p. 346.)
- Ward, R.** Plant Diseases. (Brit. Guiana Dept. Sci. and Agric. Rept. [1918], p. 52.)
- Waterhouse, W. L.** Studies in the Physiology of Parasitism. VII. Infection of *Berberis vulgaris* by Sporidia of *Puccinia graminis*. (Ann. of Bot. XXXV [1921], p. 557—564.)
- Waters, R.** Take-all disease in wheat. (New Zeal. Journ. Agric. XX [1920], p. 137—143, 3 Figs.)
- Weimer, J. L. and Harter, L. L.** Respiration and Carbohydrate Changes produced in Sweet Potatoes by *Rhizopus. Tritici*. (Journ. Agric. Research-Washington XXI [1921], p. 627—635.)
- Weir, J. R.** Note on the pathological effect of blazing trees. (Phytopathology X [1920], p. 371—373.)
- Weston, Js. W. H.** The occurrence of wheat downy mildew in the United States. (U. S. Dept. Agric. Dept.-Circ. Nr. CLXXXVI [1921], 6 pp.)
- Wilbrink, G.** Sugar cane gummosis, its cause and control. (Arch. Suikerindustr. Nederl. Indië XXVIII [1920], p. 1399—1402; 1463—1525.)
- Wilhelmi, J.** Zur Ausgestaltung der Schädlingsbekämpfung. (Naturw. Wochenschr. N. F. XX [1921], p. 312—316.)
- Wiltshire, S. P.** The die-back of red currants. (Univ. Bristol Agric. and Hort. Research Stat. Ann. Rept. 1919, p. 30—33.)
- Wolf, F. A. and Lehman, S. G.** Notes on new or little known plant diseases in North Carolina in 1920. (North Carolina Stat. Rept. [1920], p. 55—58.)
- York, H. H.** Late seasonal production of aecidia of *Cronartium ribicola*. (Phytopathology X [1920], p. 111.)
- Zappe, M. P.** Experiments to Control the Chrysanthemum Gall Midge. (*Diarthronomyia hypogaea* Loew.) (Conn. Experim. Stat. Bull. no. 218 New Hawen 1919), p. 161—165.)
- A Cockroach Pest of Greenhouses (*Pycnoscelus [Leucophaea] surinamensis* L.) (Conn. Experim. Stat. Bull. no. 203 [1918], p. 302—313)

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