Aizoales 3-663.20.00

Taxonomy
In the Apg2 classification The suborder is recognised with Lophiocarpaceae, Barbeuiaceae, Aizoaceae, Gisekiaceae, Nyctaginaceae, Phytolaccaceae and Sarcobataceae.

Plant theory
In the Plant theory the above clade is given the name Aizoales.
Aizoales is placed in Phase 2 of the Caryophyllidae.
In the first version the above Families were placed in the several Subphases.
In Plant theory 2 only Aizoaceae is left inPhase 2.
The other Families are transferred toPhase 3.

Subphases

1. Sesuvioideae	Aizoaceae
2. Drosanthemoideae	Aizoaceae
3. Bergeranthoideae	Aizoaceae
4. Lithopsoideae	Aizoaceae
5. Russchioideae	Aizoaceae
6. Delospermoideae	Aizoaceae
7. Mesembryanthemoideae	Aizoaceae

Aizoales
Clades: Caryophyllidae, Asteranae Angiospermae, Plants.
Botany: succulent.

Introduction
They have a tendency to give a lot in order to be accepted. They want to belong to the group, the family and in order to do so they have a tendency to adapt, to give in. Because they are highly sensitive they accurately feel what the others want and need and can easily adapt to that. It is only when they feel placed outside of the group that they can become angry. It feels like a basic need of life to be accepted but it is difficult for them to feel completely accepted as their inner life is often felt as peculiar and strange. They feel weird in a strange world. They feel very religious, a connection with the spiritual world and God and that connection is often not very well accepted in society. Due to their inner convictions they can get in conflict with society. Mostly their solution is to keep their opinions and feelings to themselves; they prefer to avoid the conflicts. They hope to be be able to stay with their own inner convictions and that they will not be forced into conflicts about them.

Mind
Passive.
Adapting.
Soft, nice, friendly.
Easily overruled and overwhelmed.
Cannot say no.
Cannot set boundaries.
Have a strong feeling and desire for autonomy and independence.

	3-663.21.00	**Sesuvioideae**
		Tetragonieae
		Tetragonioideae
		Aizoonoideae
4	R P2 S4	Tetragonia tetragonioides
		Sesuvium portulacastrum
		Zaleya decandra
		Trianthema portulacastrum
		Aizoon canariense
		Aizoanthemum galenioides
		Gunniopsis tenuifolia
		Galenia africana
	3-663.22.00	**Drosanthemoideae**
		Apatesioideae
2	R	Micropterum papulosum
4	R P2	Aethephyllum pinnatifidum
5	R S5!	Dorotheanthus bellidiformis
6		Hymenogyne conica
7		Saphesia flaccida
8		Drosanthemum floribundum
8	R P3, S8!!	Carpanthea pomeridiana
9		Drosanthemum speciosum
10		Apatesia helianthoides
13		Caryotophora skiatophytoides
16		Conicosia pugioniformis
16		Conicosia elongata
4 11		Tanquana prismatica
4, 6		Aloinopsis rosulata
	3-663.23.00	**Bergeranthoideae**
		Aloinopsioideae
5	R !	Carruanthus ringens
8		Hereroa incurva
8		Chasmatophyllum masculinum
9		Bergeranthus scapiger
10	P4, S8	Pleiospilos compactus
12	R ! S12	Faucaria tigrina
13	13	Nananthus vittatus
14	14	Rabiea albipuncta
		Pleiospilos nelii
	3-663.24.00	**Lithopsoideae**
		Leipoldtioideae
1		Erepsia heteropetala
1		Amphibolia maritima
2	R	Lithops julii
3		Lapidaria margaretae
4		Fenestraria rhopalophylla
5		Dinteranthus microspermus
6		Schwantesia borcherdsii
8		Stomatium bolusiae
8		Wooleya farinosa
10		Cephalophyllum alstonii
10		Cephalophyllum procumbens
11		Jordaaniella anemoniflora
12	R ! S12	Carpobrotus deliciosus
12		Carpobrotus acinaciformis
12	R	Carpobrotus edulis
12		Eberlanzia spinosa
13		Arenifera stylosa
14		Ebracteola wilmaniae

	3-663.25.00	**Russchioideae**
1		Antimima argentea
7	S11?	Lampranthus deltoides
9		Astridia hallii
11		Lampranthus multiradiatus
11	R	Lampranthus aureus
11		Argyroderma congregatum
		Ruschia caroli
		Argyroderma testiculare
	P6	Ruschia concinna
	3-663.26.00	**Delospermoideae**
		Gibbaeoideae
		Conophytoideae
4	R	Glottiphyllum depressum
5	P5 S5	Trichodiadema pomeridianum
5		Oophytum oviforme
5		Frithia pulchra
5	R	Trichodiadema densum
6	R S6!	Gibbaeum pubescens
7	P6	Ruschianthus falcatus
7		Mitrophyllum mitratum
8		Enarganthe octonaria
8		Cheiridopsis acuminata
8		Conophytum calculus
8	R	Cheiridopsis denticulata
8	R	Cheiridopsis speciosa
9		Rhombophyllum dolabriforme
10	?	Stoeberia frutescens
11	R	Delosperma cooperi
12		Odontophorus marlothii
13		Muiria hortenseae
14		Disphyma crassifolium
16		Malephora crocea
		Polymita albiflora
	3-663.27.00	**Mesembryanthemoideae**
2		Mesembryanthemum rapaceum
4		Psilocaulon parviflorum
5		Sceletium tortuosum
6		Aridaria noctiflora
7	R	Mesembryanthemum crystallinum
7		Mesembryanthemum serotinum
8		Mesembryanthemum amplectens
9		Phyllobolus digitatus
11		Prenia tetragona
13	R !	Mesembryanthemum cordifolium
16		Mesembryanthemum marlothii

Aizoales

18-5-2019
Utrecht
Jan Scholten

Aizoales

Subphases Aizoales	• **Genera**
1. Lophiocarpaceae	• 2
2. Barbeuiaceae	• 1
3. Aizoaceae	• 125
4. Gisekiaceae	• 1
5. Nyctaginaceae	• 34
6. Phytolaccaceae	• 18
7. Sarcobataceae	• 1

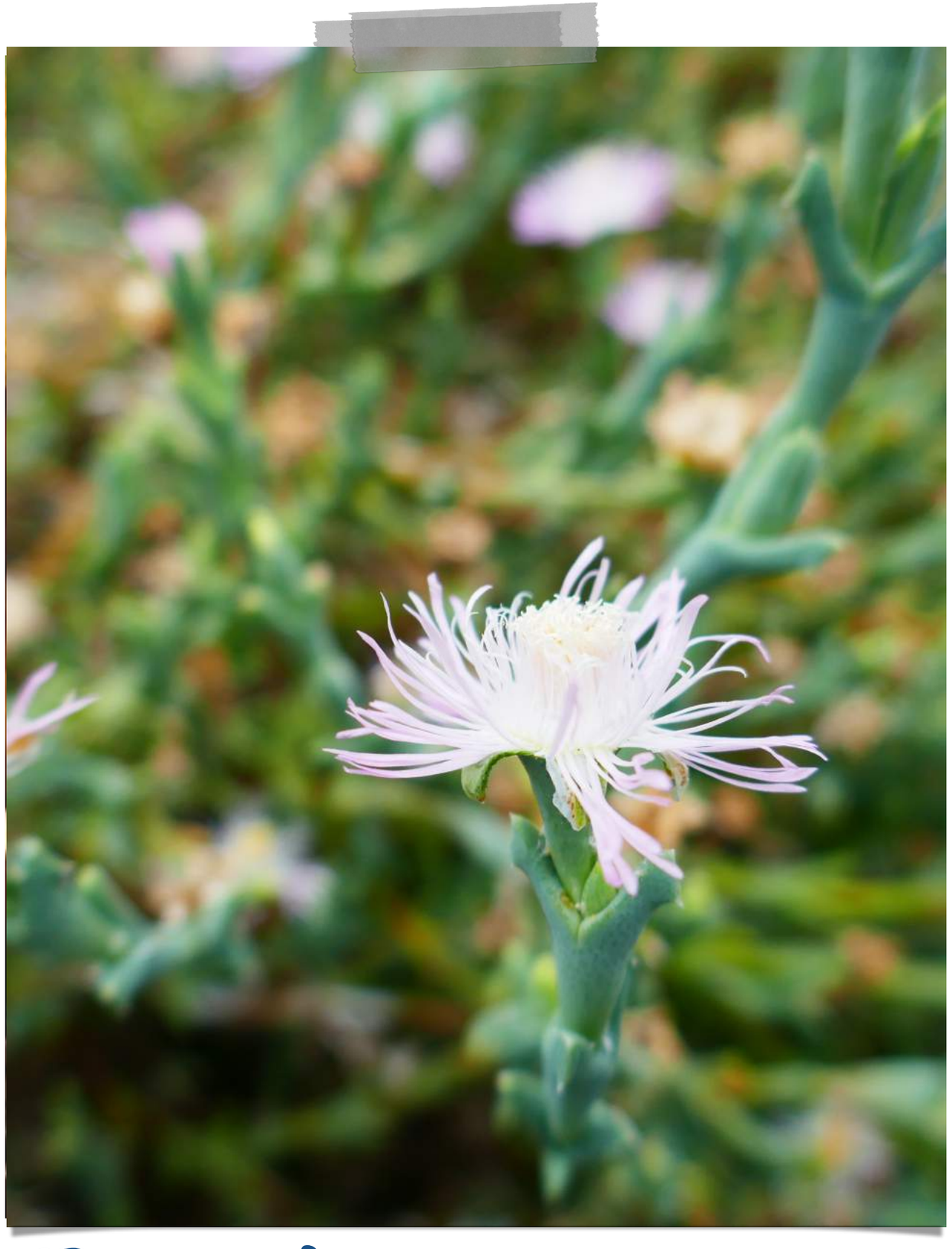
Aizoales

Subphases Aizoales	Genera	Subphases Aizoales
1. Lophiocarpaceae	2	
2. Barbeuiaceae	1	Unsatisfactory
3. Aizoaceae	125	
4. Gisekiaceae	1	Unbalanced
5. Nyctaginaceae	34	
6. Phytolaccaceae	18	
7. Sarcobataceae	1	

Aizoales = Aizoaceae

Subphases Aizoales	Subphases Aizoales	• Genera
1. Lophiocarpaceae	1. Sesuvioideae	• 10
2. Barbeuiaceae	2. Drosanthemoideae	• 6
3. Aizoaceae	3. Bergeranthoideae	• ± 27
4. Gisekiaceae	4. Lithopsoideae	• ± 20
5. Nyctaginaceae	5. Russchioideae	• ± 17
6. Phytolaccaceae	6. Delospermoideae	• ± 24
7. Sarcobataceae	7. Mesembryanthemoideae	• ± 11

Aizoales



Russchia concinna

Aizoales

Lithops hookeri

Aizoaceae

Synonyms: Ficoidaceae; Mesembryanthemaceae; Tetragoniaceae
English: Vygies; Fig-marigolds; Ice plants; Stone plants; Carpet weeds; Carpetweed family.
German: Eiskrautgewächse; Mittagsblumengewächse.
French: Aïzoacées; Aizoacées; Aizoacée.
Dutch: IJskruidfamilie.

Aizoaceae

Distinguishing characters (always present)
Succulence of leaves.
'Corolla' of staminodial origin.

Other important characters
Leaves opposite (often).
Flowers open at noon.
Capsular fruits that open when wetted.
Betalain pigment of flowers and stems.
Xerophytes
Specialized photosynthesis, CAM C3.

Aizoaceae DD

Aizoaceae
Succulence on leaves.
No thorns.

Aizoaceae
Opposite leaves
Many strap-like perianth
segments of staminodial origin.

Aizoaceae
Succulent
Flowers colourful, showy

Cactaceae
Succulence on stems, leaves
Thorns

Portulacaceae
Not opposite leaves
No strap-like perianth segments
of staminodial origin.

Molluginaceae
Not succulent
Flowers white, small

Aizoaceae Mind

Essence
Worries, problems, discords, arguments, criticism, quarrels with relationships, family, friends.

Aizoaceae Mind

Small, weak, lacking power.
Overlooked, not heard, walked over, trampled.
< from criticism.
Adapting, soft, nice, friendly
Keep things in, hide their feelings
In the background.
Feel special.
Free and autonomous innerly.
Spiritual, religious feeling, simple.
Work: minor positions, servants, housemaid.

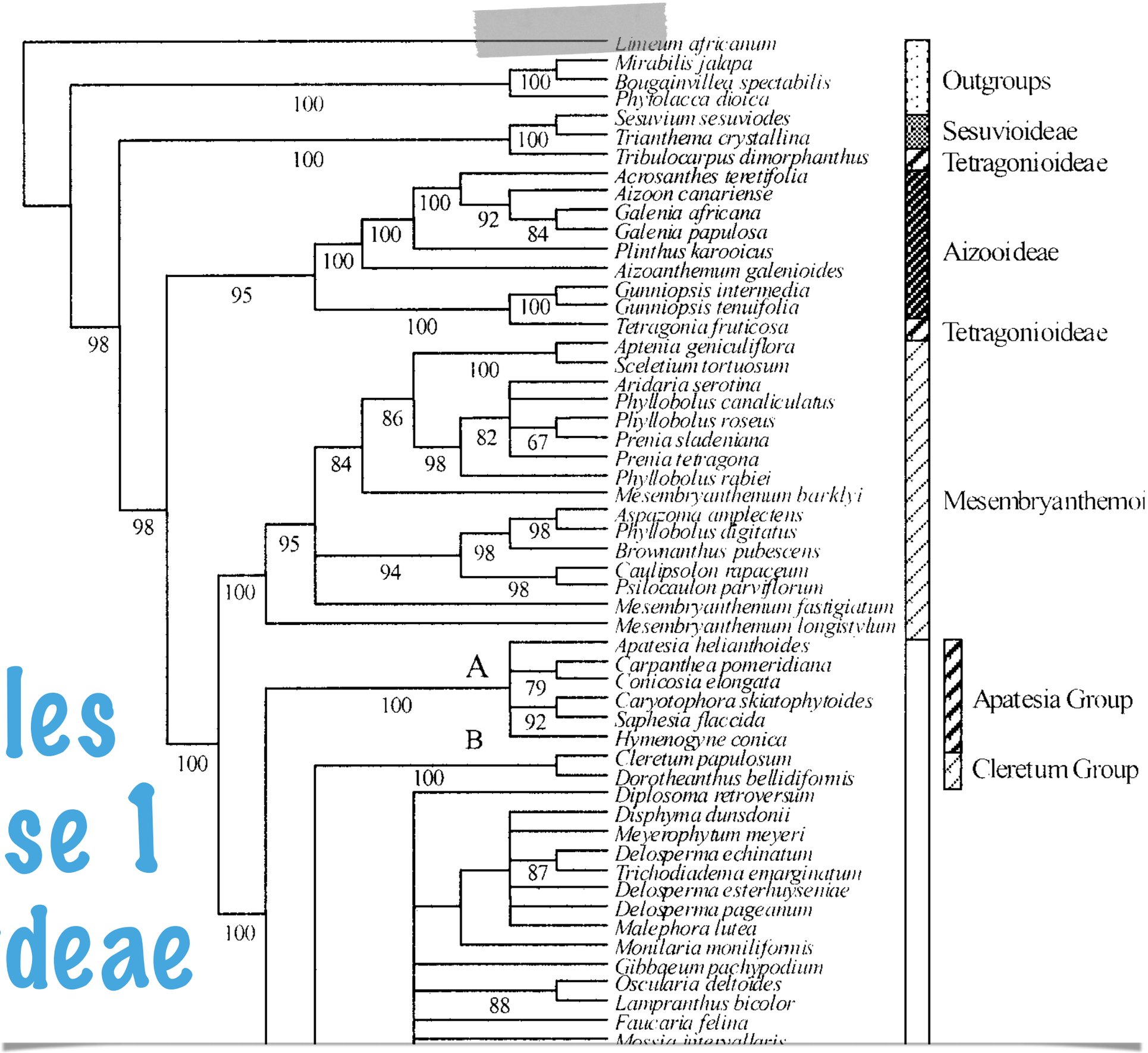
Aizoaceae Mind

Heart
Big heart,
Heart open or closed
Heart empty or full
Heart expanded or tight and constricted.
Heart: palpitations, pulse fast.

Aizoaceae Mind

Body
Head: headache, < overexertion, worries.
Heart: palpitations; pulse fast.
Throat: pain, sore, inflammation, < overexertion, < drafts.
Female: dysmenorrhoea.; menses irregular.

Aizoales Subphase 1 Sesuvoideae



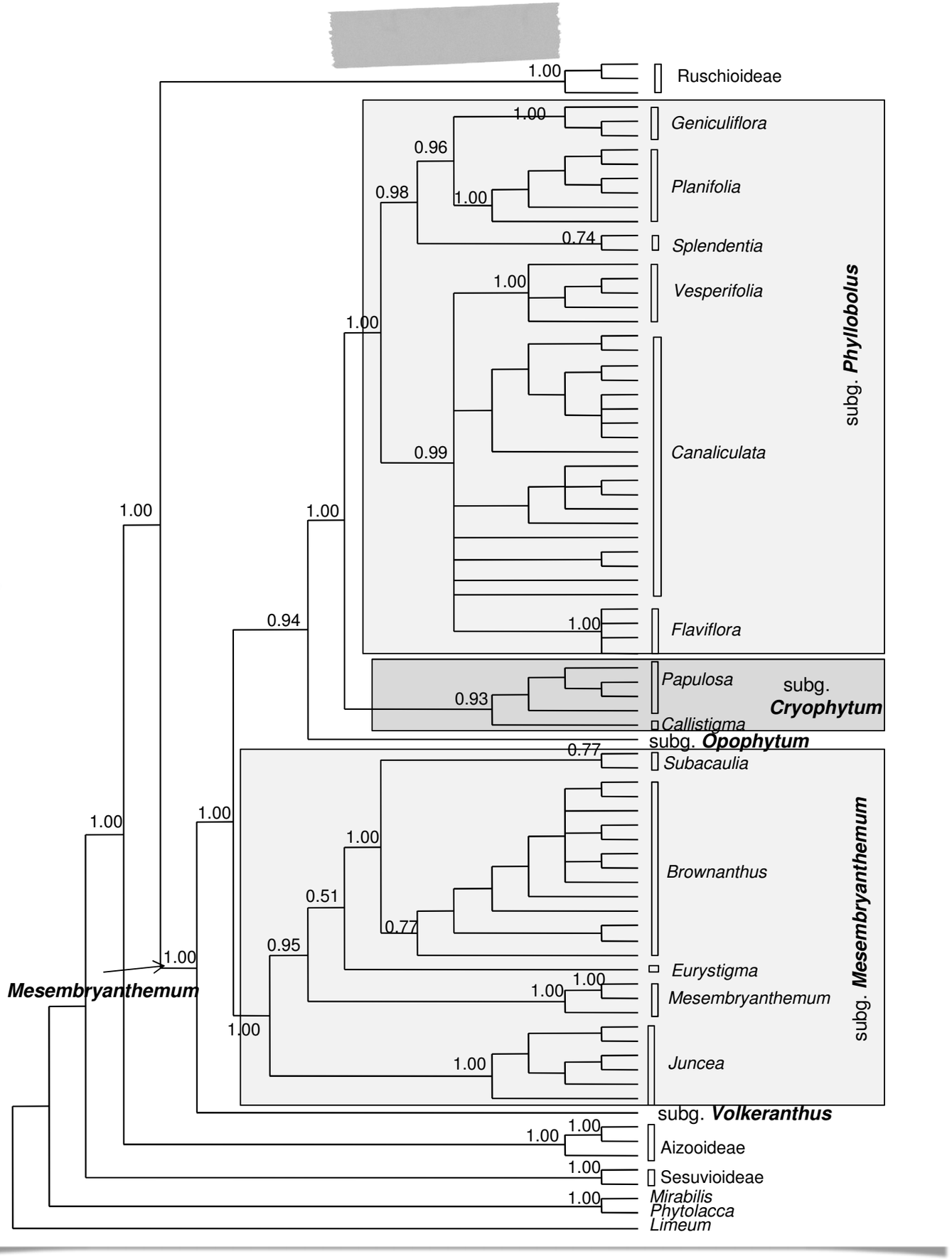
Aizoales

Aizoales
Subphase 1
Sesuvoideae

Tetragonia tetragonoides

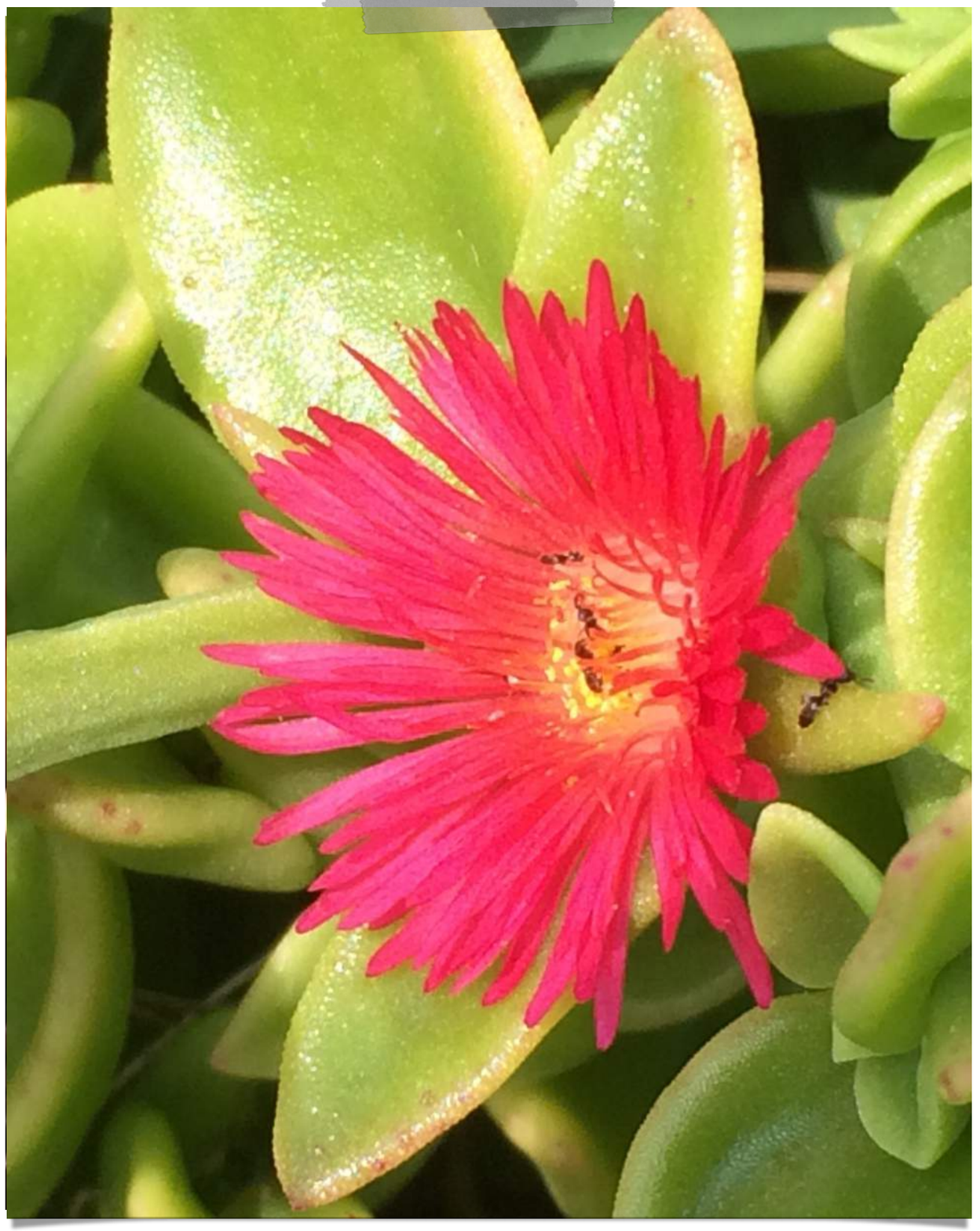
Aizoales

Subphase 7
Mesembryanthemoideae



Aizoales

Aizoales
Subphase 7
Mesembryanthemoideae

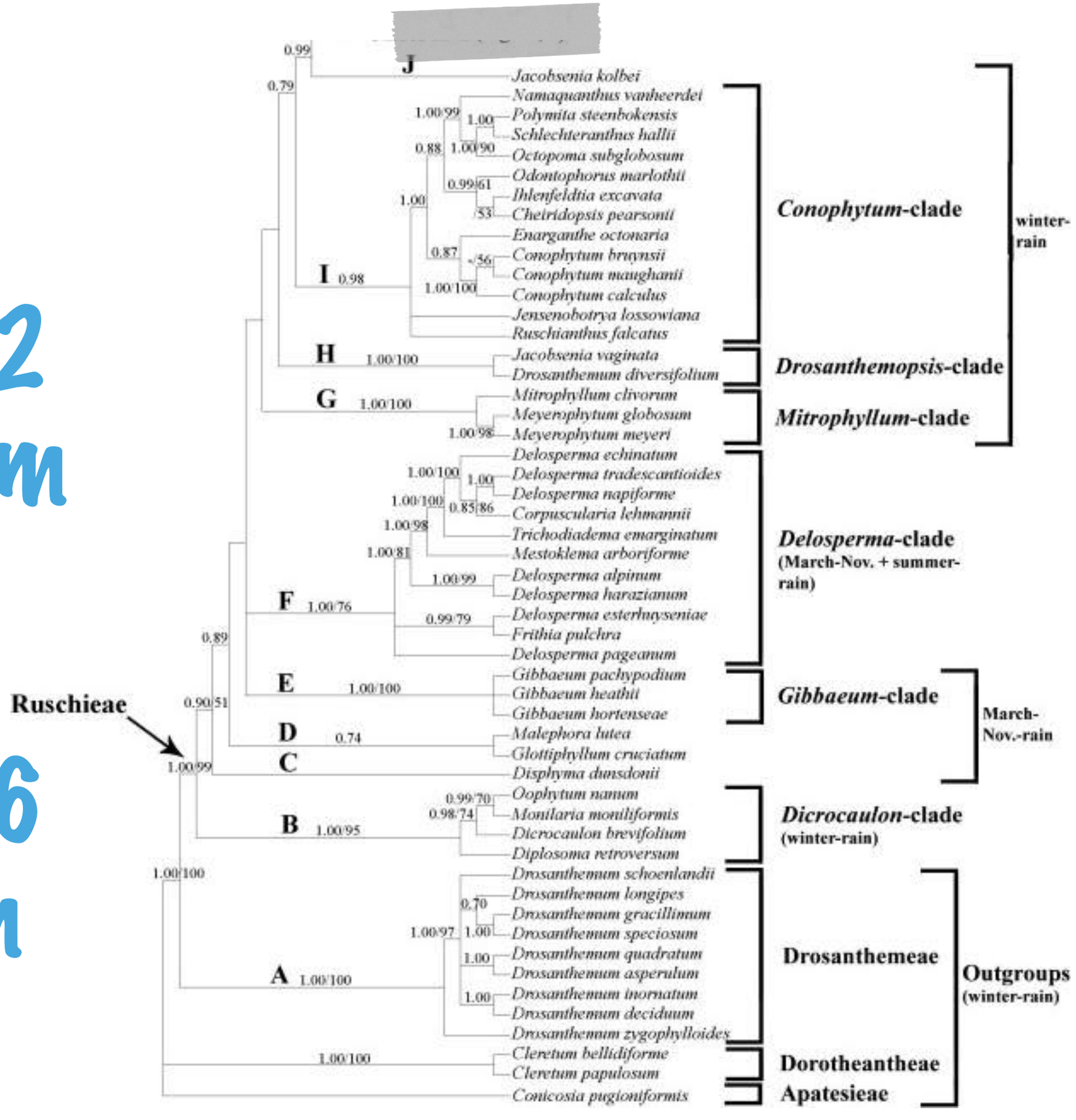


Mesembryanthemum cordifolium

Aizoales

Subphase 2 Drosanthemoideae

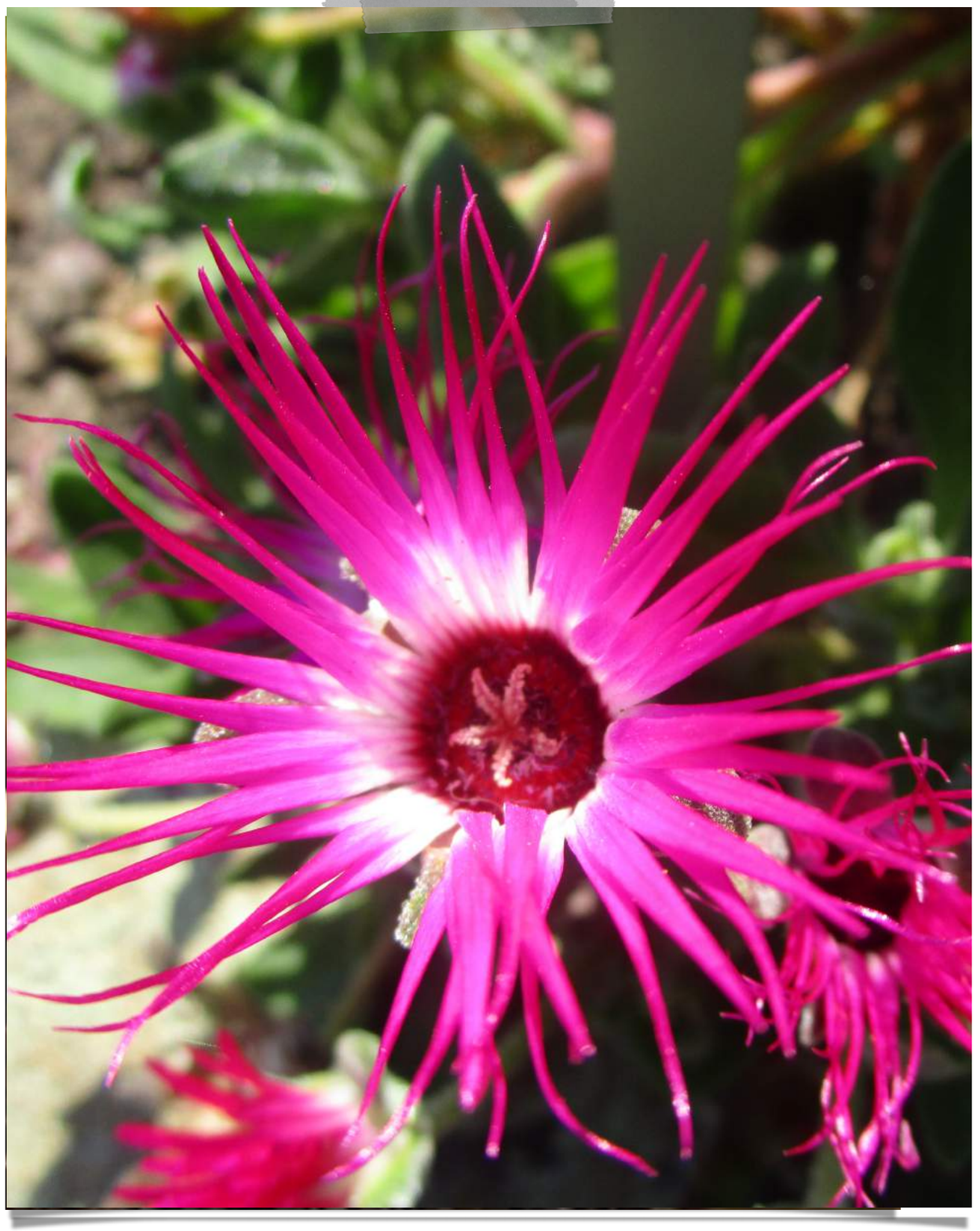
Subphase 6 Delosperm oideae



Aizoales

Aizoales

Subphase 2
Drosanthemoideae



Dorotheanthus bellidiformis

Aizoales

Aizoales

Subphase 6
Delospermoideae

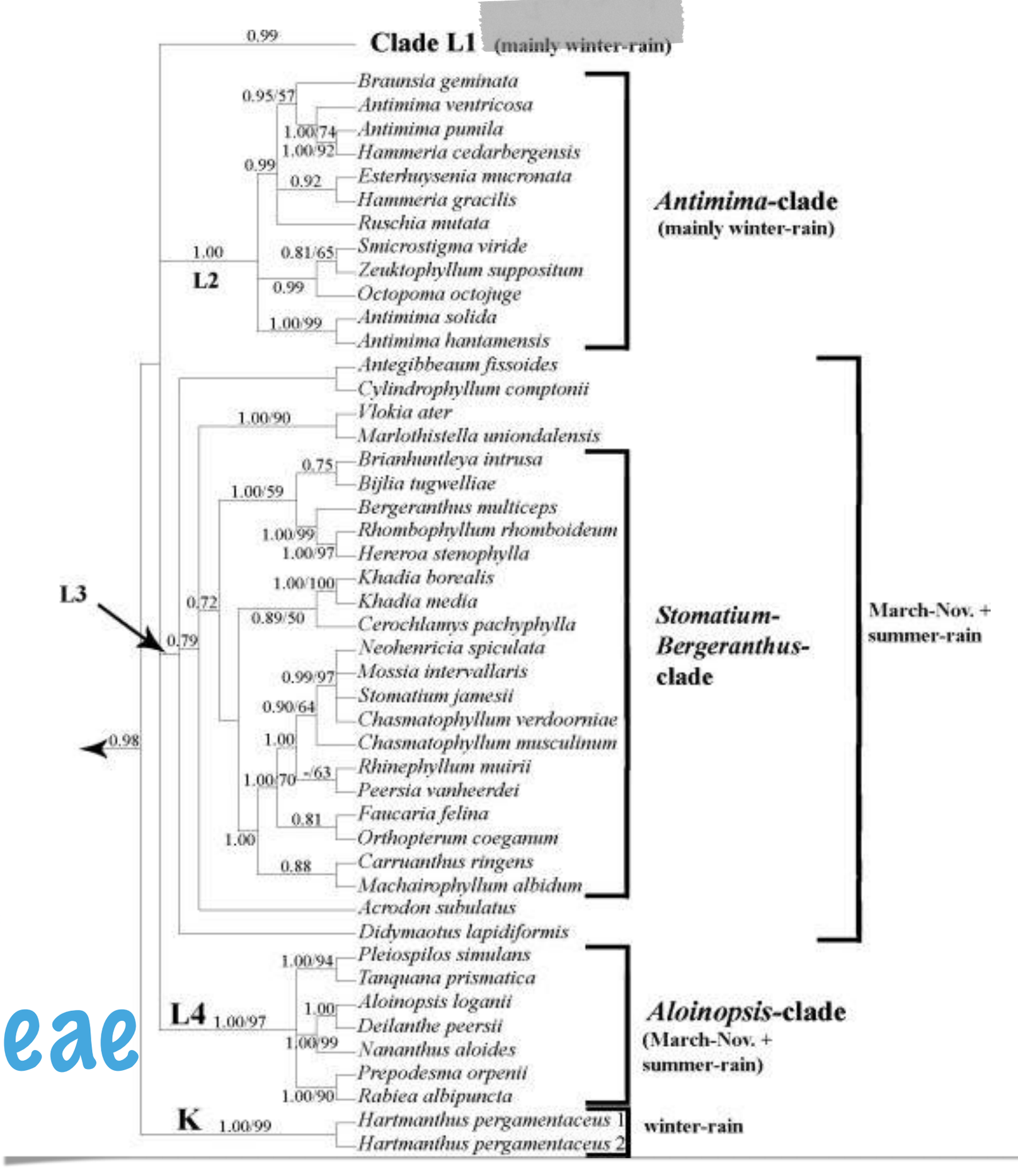
Delospermum cooperi

Aizoales

Delospermoideae
General: borreliosis.
Heart: tachycardia.
Limbs: arthritis.

Delospermum cooperi

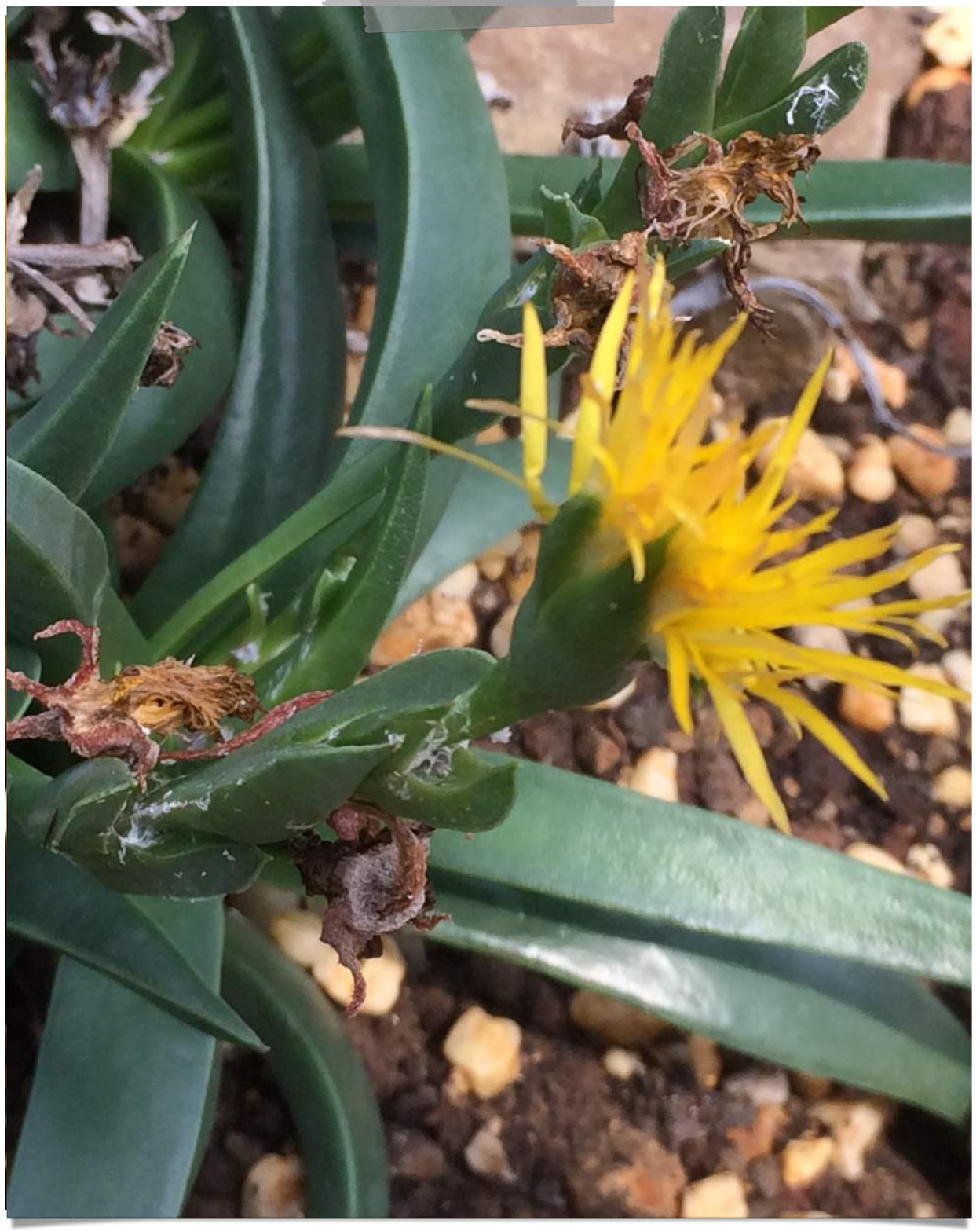
Aizoales
Subphase 3
Bergeranthoideae



Aizoales

Aizoales

Subphase 3
Bergeranthoideae

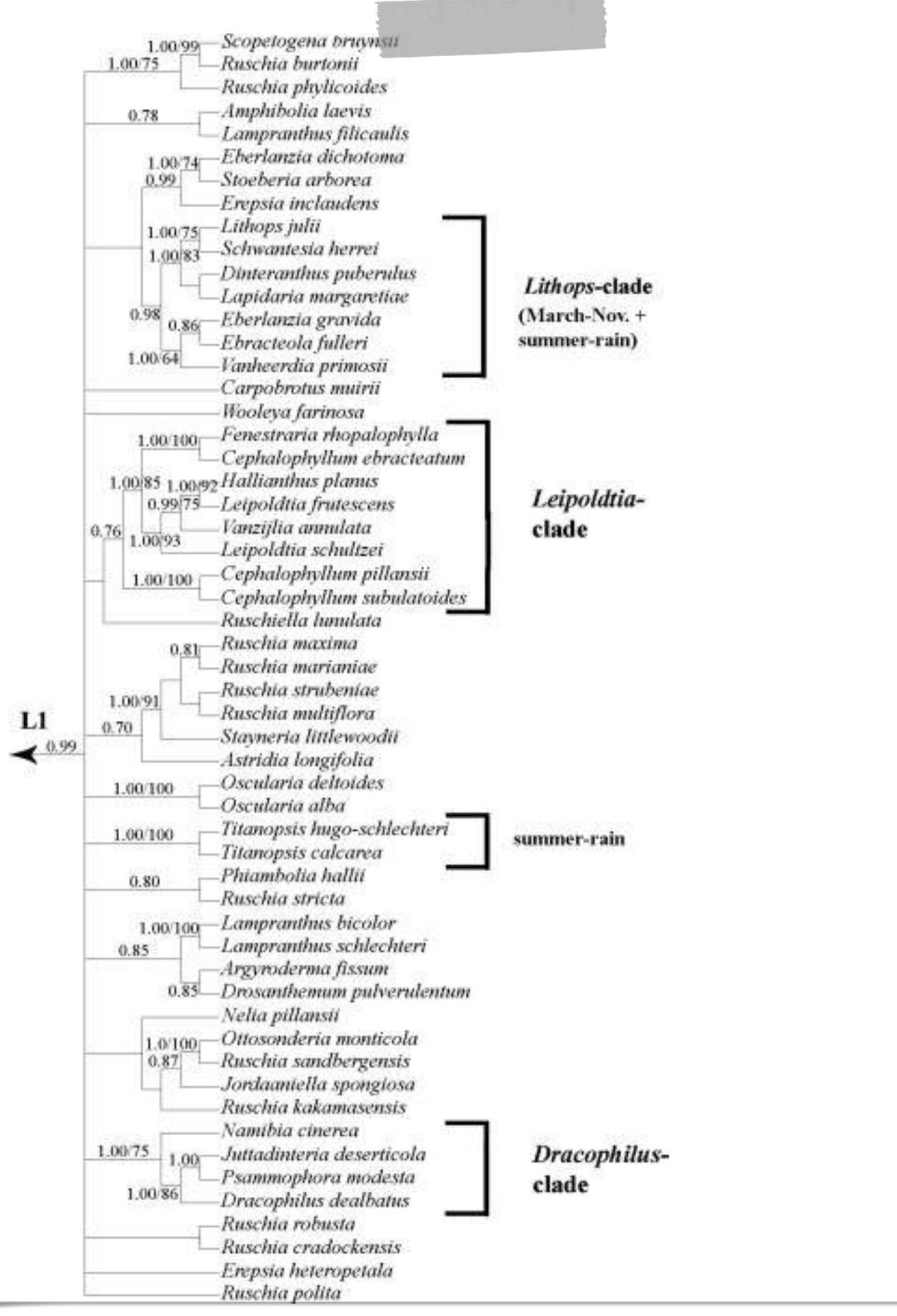


Bergeranthus scapiger

Aizoales

Subphase 4 Lithopsoideae

Subphase 5 Russchoideae



Aizoales

Aizoales

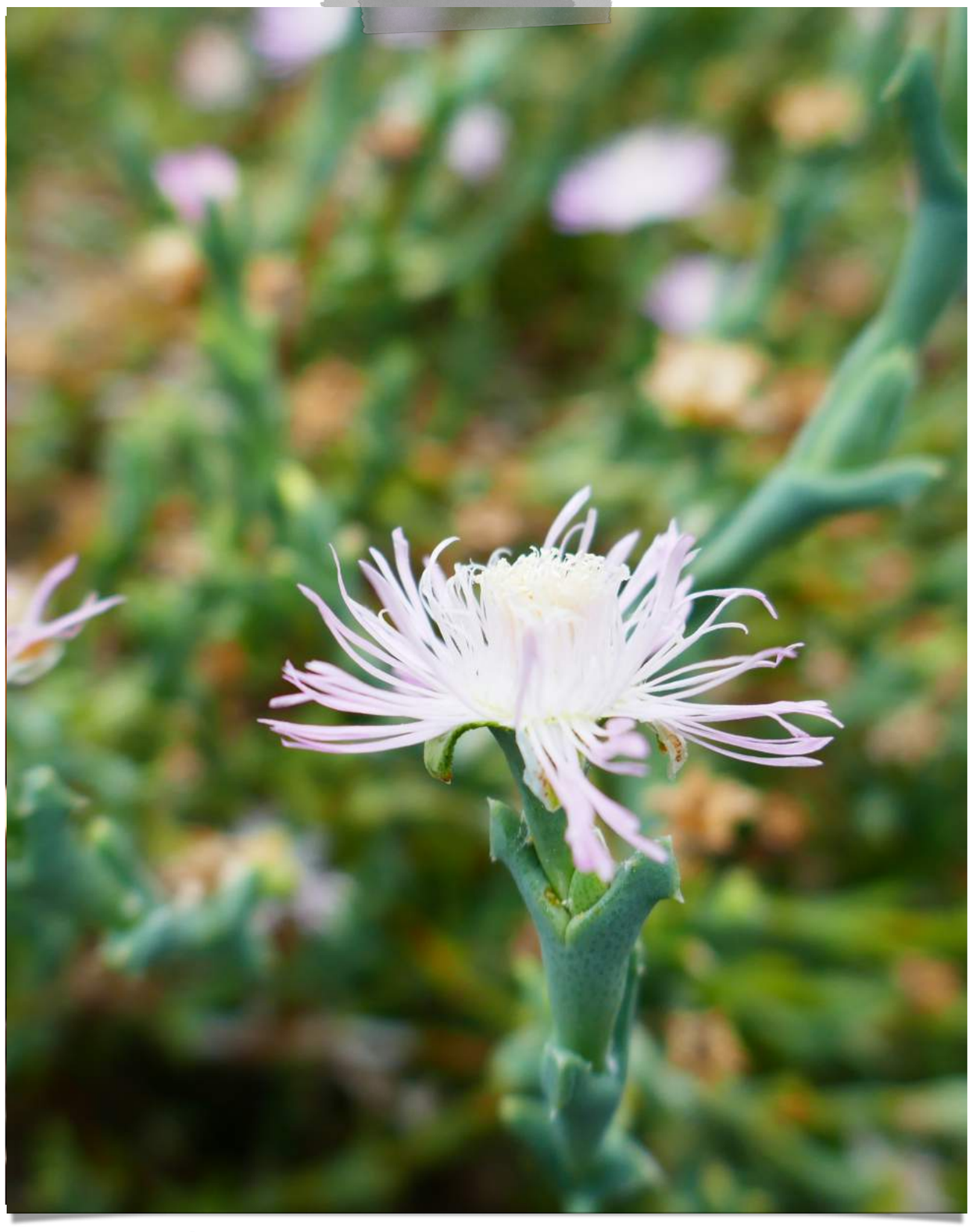
Subphase 4 Lithopsoideae

Lithops hookeri

Aizoales

Aizoales

Subphase 5
Russchoideae



Russchia concinna

Boraginales 3-665.30.00

Taxonomy
In the Cronquist calssification Boraginales does not exist as an oder. Boraginaceae as a family includes Cordiaceae, Ehretiaceae and Heliotropiaceae and is placed together with Lennoaceae in Lamiales. Hydrophyllaceae was placed in Solanales.
In the Apg2 and the Apg3 classification Boraginales is not recognised.
In the Apg3 classification Boraginales is not recognised. Boraginaceae as traditionally defined is paraphyletic and needs the inclusion of Hydrophyllaceae and Lennoaceae to become monophyletic. Apg3 includes Boraginaceae in Lamiidae, but otherwise unplaced, but as a probable sister to Lamiales.
In the Apg4 classification Boraginales is an order in Lamiidae with only one family Boraginaceae. Boraginaceae includes Hydrophyllaceae, Cordiaceae, Ehretiaceae,Codonaceae, Heliotropiaceae.

Plant theory
In the Plant theory Boraginales is treated as an Order in the Subclass Lamiidae. Boraginaceea is split in Subfamilies, treated as Families in Boraginales.
Boraginales have strong Boron qualities, which has a peculiar similarity in the name. Boraginales is placed in Phase 3. The difficulty to place them fits with Phase 3.

Subphases
1. Hydrophyllaceae.
2. Wellstediaceae?.
3. Cynoglossoideae.
4. Boraginoideae.
5. Lithospermoideae.
6. Ehretiaceae, including Cordiaceae, Heliotropiaceae.
7. Lennoaceae.

Introduction
They feel they have a right to be treated as a person, that they have individuality and are talented enough to be appreciated. They are not just anybody, but they feel that they are only tolerated, that they have to adapt to others to be accepted. They are not really seen, heard and accepted. They are just there for others who do not have time or respect for them. They feel they have to please others all the time and then they hope that the others will see them.
This state is often exaggerated in their youth where their parents were too busy with their work or themselves or the many other children to see them. They were just one on the list. Due to not being seen, they retire on their own, sit silently in a corner and think their own thoughts. They have their own world view, are very creative and bright, but that also is invisible or not appreciated. They lack the space and air to really live their own life. They can do it in their mind, but are not given the means to manifest it in reality.

Mind
Invisible, not heard. Having no space.
Pleasing, adapting, < being only half accepted.
Nervous excitement.
Sympathetic.
Ailments from being dominated by family, father, husband.

General
Sensation: pricking, aching, constricting, raw, shooting.
Physical: < motion.

Body
Lungs: asthma, wheezing, hoarseness, emphysema, bronchitis.
Male: impotence.
Female: infertility; menses problems.
Back: backache; difficulty keeping themselves erect, to stand up for themselves.
Limbs: pain bones and muscles; arthritis.

1	**3-665.31.00**	**Hydrophyllaceae**
1	R	Hydrophyllum virginianum
1	R	Hydrophyllum canadense
2		Pholistoma auritum
4		Nemophila menziesii
4	R	Nemophila maculata
4		Nemophila parviflora
5		Ellisia nyctelea
6		Phacelia tanacetifolia
8	R	Phacelia minor
8		Phacelia popei
8		Phacelia heterophylla
8		Phacelia bolanderi
8		Emmenanthe penduliflora
12	R	Tricardia watsonii
13	R	Wigandia urens
14		Nama hispida
15	R	Eriodictyon californicum
16	R	Hesperochiron californicus
17	R	Turricola parryi
	3-665.32.00	**Wellstediaceae**
		Wellstedia dinteri
		Codon schenkii
		Echiochilon fruticosum
		Ogastemma pusillum
		Antiphytum floribundum
	3-665.33.00	**Cynoglossoideae**
2		Caccinia macranthera
3		Trichodesma zeylanicum
3		Trigonotis peduncularis
3	R	Trichodesma boissieri
4		Cryptantha muricata
5		Plagiobothrys scouleri
6	R	Lappula myosotis
6		Lappula squarrosa
7		Omphalodes verna
7	R	Omphalodes cappadocica
7	R	Omphalodes linifolia
8		Myosotidium hortensia
9	R	Cynoglossum officinale
10		Eritrichium nanum
11		Mertensia ciliata
11	R	Mertensia sibirica
12		Asperugo procumbens
15	R	Myosotis arvensis
15	R	Myosotis sylvatica
15	R Q?	Myosotis symphytifolia
16		Hackelia virginiana
16		Rochelia stylaris
17		Amsinckia lycopsoides
		Hackelia micrantha
		Pseudomertensia echioides
	3-665.34.00	**Boraginoideae**
1	R	Trachystemon orientalis
2	R	Thaumatocaryon dasyanthum
2		Hormuzakia aggregata
4	R S4!	Borago officinalis
4		Borago pygmaea
5	R	Pentaglottis sempervirens
5		Anchusella cretica
6		Anchusa arvensis
6	R	Anchusa officinalis
6		Anchusa aurea
6		Anchusa milleri
7		Cynoglottis barrelieri
8	R S8!	Brunnera macrophylla
12	R	Symphytum officinale
13		Pulmonaria angustifolia
13	R	Pulmonaria officinalis
14		Elizaldia calycina
15	R	Nonea rossea
16	R	Nonea lutea
17		Paraskevia cesatiana
		Gyrocaryum oppositifolium
		Lycopsis arvensis
	3-665.35.00	**Lithospermoideae**
1		Lithospermum ruderale
1		Arnebia pulchra
1		Huynhia pulchra
2		Mairetis microsperma
2		Macrotomia densiflora
3	R	Cerinthe minor
4		Neatostema apulum
5	R S5?S6?	Onosmodium virginianum
5		Lithodora hispidula
6	R	Moltkia petraea
7		Onosma erecta
7	R	Onosma bourgaei
7		Onosma bulbotrichum
7		Maharanga emodi
7	R S5?S6?	Onosma alboroseum
8		Lobostemon belliformis
8		Echiostachys incanus
9	R	Echium vulgare
10	R	Echium decaisnei
11	R	Echium nervosum
12	R	Echium wildpretii
13	R	Lithospermum officinale
13		Lithospermum canescens
14	R	Glandora diffusa
15		Buglossoides arvensis
15	R	Buglossoides purpurocaerulea
16	R	Alkanna tinctoria
17		Podonosma orientalis
	3-665.36.00	**Ehretiaceae Cordiaceae**
1		Rotula aquatica
2		Hilgeria hypogaea
3		Tournefortia argentea
3	R	Tournefortia glabra
3	R	Euploca convolvulacea
3		Schleidenia logoensis
4		Patagonula americana
6		Cordia curassavica
6	R	Heliotropium hirsutissimum
6	R	Heliotropium angiospermum
6	R	Varronia bullata
7	R	Heliotropium indicum
7	R S7!	Lindelofia longiflora
8	R	Heliotropium europaeum
8	R	Heliotropium arborescens
9		Cordia myxa
9	R	Cordia collococca
9	R	Cordia subcordata
10	R	Cordia ecalyculata
10	R	Cordia eriostigma
10	R	Cordia sebastana
11		Coldenia canescens
11		Tournefortia candidula
11		Nogalia drepanophylla
12		Ehretia microphylla
13	R S13!	Ehretia resinosa
14		Halgania cyanea
14		Rochefortia acrantha
15		Bourreria baccata
16		Ixorhea tschudiana
17		Tiquilia canescens
		Hoplestigma pierreanum
		Gerascanthus eriostigma
		Ceballosia fruticosa
	3-665.37.00	**Lennoaceae**
3		Lennoa arenaria
3		Ammobroma sonorae

Indeling stadia Nosoden (Louis Klein, Ulrich Welte, Jan Scholten en Alex Leupen):

STAGES NOSODES

1. Kumbucha, Oscillococcinum

1-3. Brucella

2. Dys-co, Eberthinum, Morbillinum, Toxoplasmosis

2-5: Lactobacillales (Enterocconium, Streptoenteroccoccinum, Lactobacillus, Pneumococcinum, Streptococcinum/Scartatinum).

3. Brucella, Ringworm, Bacillinum, Rubella

4. Morbillinum

5. Dys-co, Malaria, Pneumococcinum, Parotidinum

6. Diphtherinum, Propionibacterium acnes, Tuberculinum bovinum

7. Influenzinum, Anthracinum

7-12. Neisseriales (Med, Meningococcinum, Flavus, Syc-co)

8. Pertussinum, Hippozaenium

9. Tuberculinum aviare, Yersinia

10. Meningococcinum, Bac-Tn

11. Flavus, Syc-co

12. Dengue, EBV, Medorrhinum, Diphterinum, Proteus

13. EBV, Herpes-groep

14. Bac-Sv, Botulinum, Tetanus, Clostridium perfringens, Polio, Varicella

15. Clostridium perfringens, HIV

15-17. Mycobacteriae (Tub-bov., Tub-av, Bac, Lepro, John.)

15-17. Spirochaetae (Borrelia, Leptospirae, Framboesia, syphilis)

16. Anthr., Staphylococcinum, Listeriosis, Bowelnosodes, Leprominium, Campylobacter, E. Coli (Colibacillinum)

17. Johneinum

BOWELNOSODES

ALEX LEUPEN, MD

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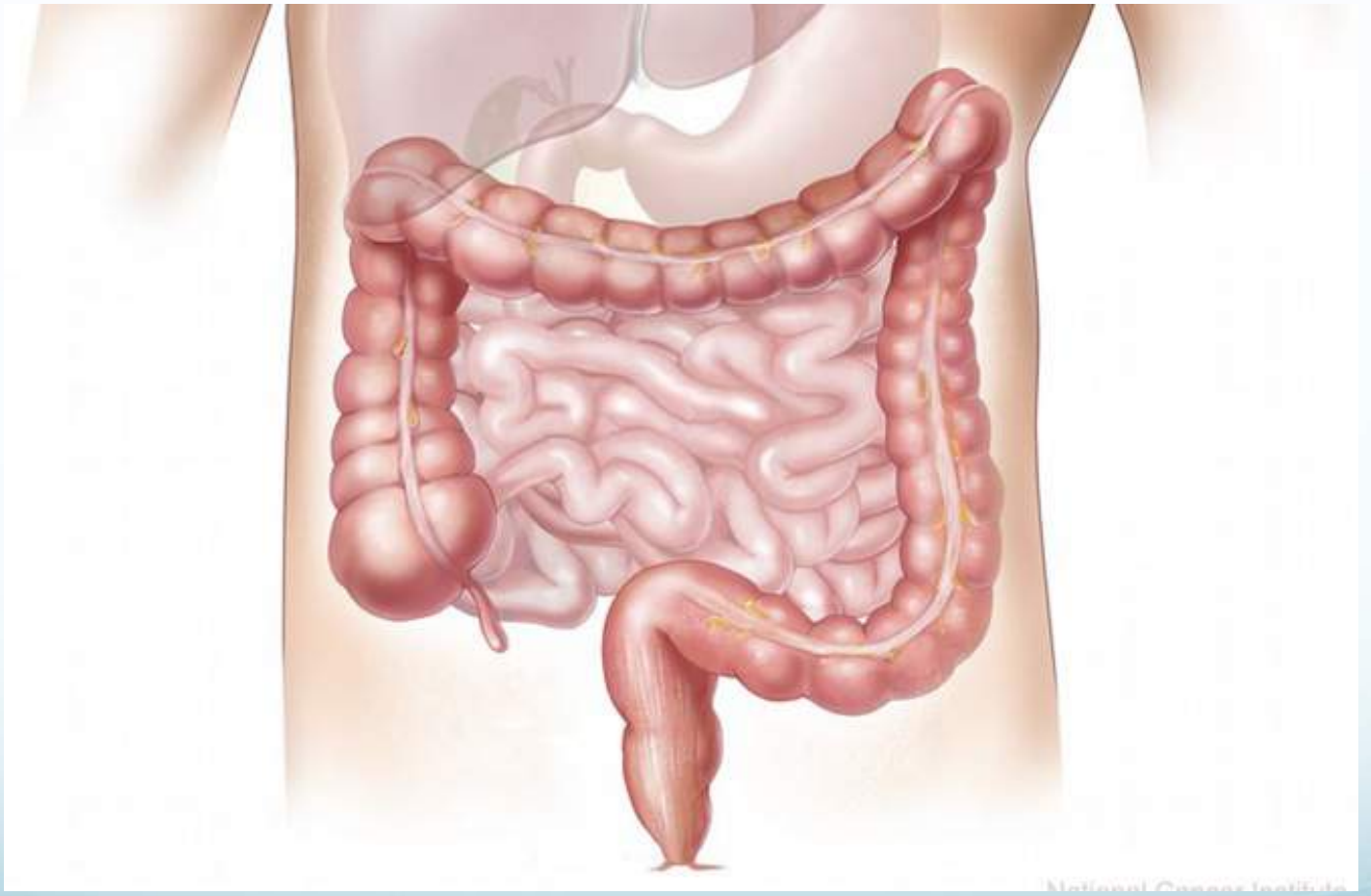
BOWELNOSODES

- **INDICATIONS:**
- **NEVER WELL SINCE, FOR EXAMPLE A CAMPYLOBACTER INFECTION.**
- **AS A COMPLEMENTARY REMEDY.**
- **COMPLAINTS THE FIRST WEEKS OF LIFE.**
- **A MEDICAL HISTORY OF ANTBIOTICS.**

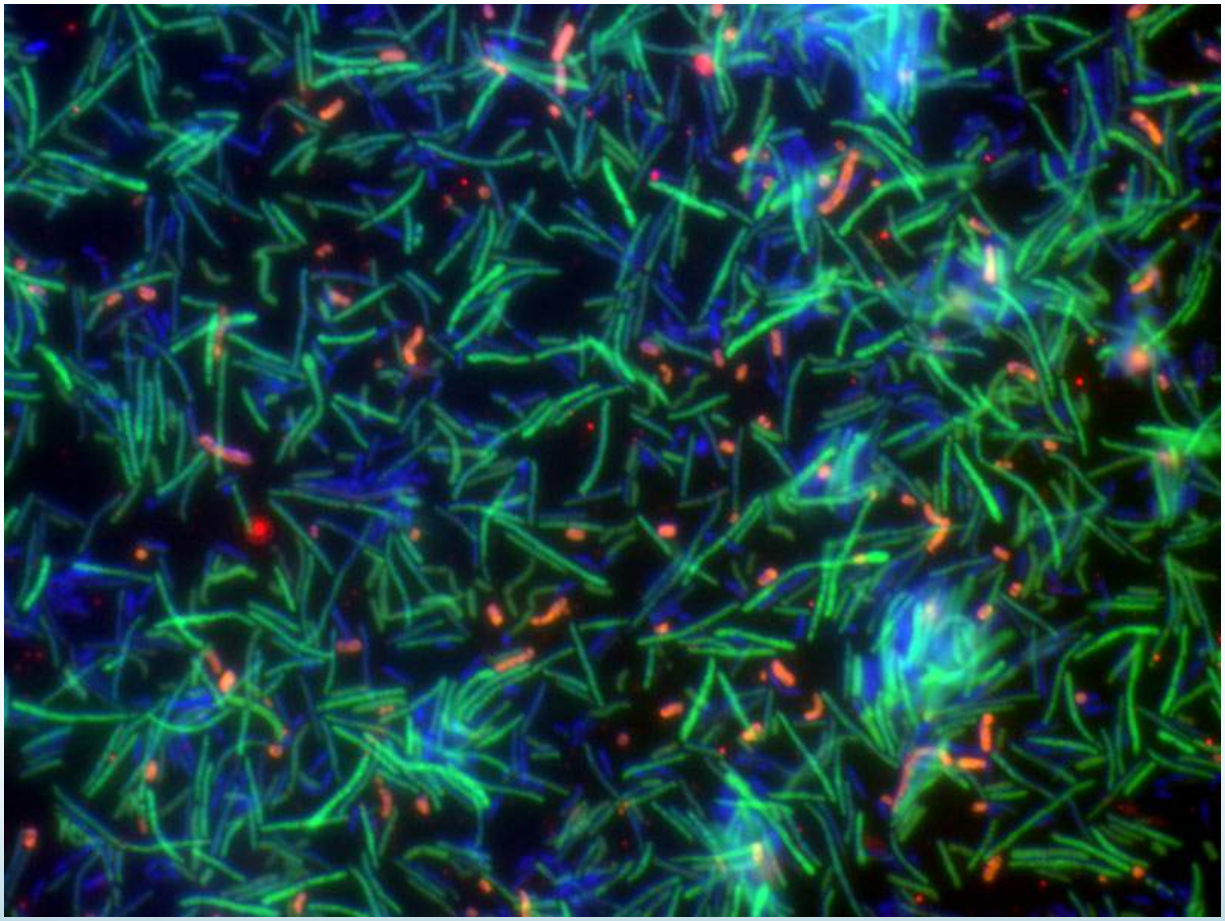
BACTERIAL FLORA

- **BOWELNOSODES: PREPARED FROM CULTURES OF THE BACTERIAL FLORA OF THE INTESTINAL TRACT.**
- **SYMPTOMS: CLINICAL OBSERVATION OF THE SICK PERSON.**

COLON



BACTERIAL FLORA



MORGAN PURE

MIND

- PROACTIVE ANXIETY AND DEPRESSION THAT PERSISTS AND AFFECTS OTHERS.
- TOXIC ANXIETY DEPRESSION.
- THREATEN SUICIDE TO SEE YOUR RESPONSE.

MORGAN PURE

GENERALS

- WORSE HEAT.
- AVERSION OR DESIRE EGGS.
- DESIRE BUTTER, RICH.

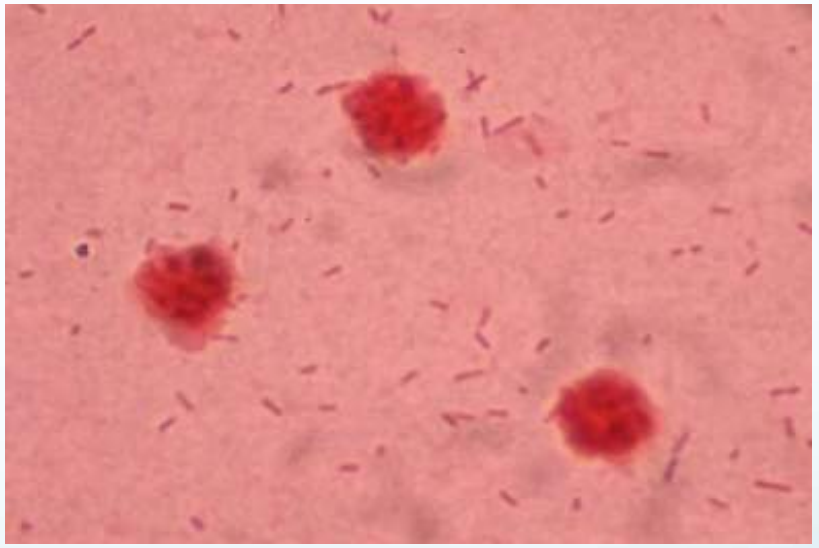
MORGAN PURE

PHYSICAL

- RESPONSE TO RECURRENT WINTER BRONCHITIS OR PNEUMONIA.
- CONGESTION.
- RHEUMATISM, WORSE DIGESTIVE PROBLEMS.
- ERUPTIONS EYE BROWS, EYES. CRACKS.
- DISCHARGE UMBILICUS.

MORGAN PURE

- Morganella morganii, Bacillus morgan, Proteus morganii, Proteus vulgaris.



MORGAN GAERTNER

MIND

- GREGARIOUS YET APPREHENSIVE IN CROWDS.
- EXCITABLE, NERVOUS.

MORGAN GAERTNER

GENERAL

- WORSE 4-8 P.M.
- DESIRE SWEETS.

MORGAN GAERTNER

PHYSICAL

- RESPONSE TO RECURRENT RENAL COLIC.
- CALCULI AND BLADDER PROBLEMS.
- RESPONSE TO ANAL SEX.
- FLATULENT DISTENSION, ABDOMINAL PROBLEMS.
- HAIR FALLS OUT IN SPOTS.

MORGAN GAERTNER

PHYSICAL

- SUDDEN SWELLING FACE.
- TOENAIL PROBLEMS.
- URTICARIA.
- ALLERGY METALS.
- RECTAL PROLAPSE.
- CORROSIVE BAD SMELLING LEUCORRHEA.

MORGAN GAERTNER

- IDENTIFICATION UNCERTAIN.

- AEROMONAS?
- EDWARDSIELLA TARDA?
- ESCHERISCHIA BLATTAE?
- HAFFNIA ALVEI?

GAERTNER

MIND

- RESPONSE TO PSYCHOTROPIC DRUGS.
- EXCITABLE, NERVOUS.
- OVERACTIVE BRAIN WITH UNDERNOURISHED BODY.
- CHEWS NAILS.

GAERTNER

GENERAL

- MALNUTRITION.
- SUDDEN WEIGHT LOSS.

GAERTNER

PHYSICAL

- RESPONSE TO SALMONELLA POISONING: FEVER WITH DIARRHEA.
- INABILITY TO DIGEST FAT OR GLUTEN.
- CELIAC DISEASE. THREAD WORMS.
- PANCREAS. PANCREATITIS.
- RESTLESS HANDS AND FEET.
- HERPES MOUTH.

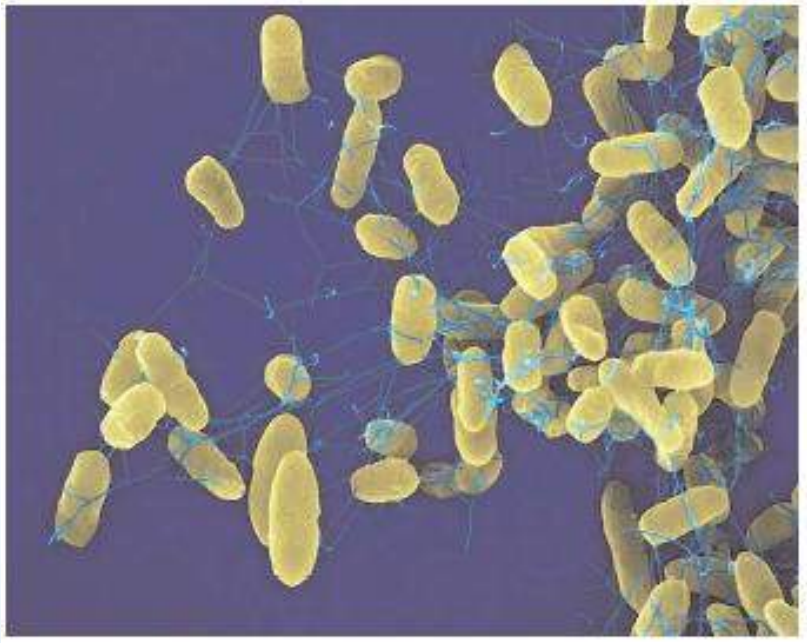
GAERTNER

PHYSICAL

- CHAPPED HAND IN WINTER.
- PRESENCE OF MUCUS AND BLOOD IN URINE.
- PROFUSE FETID LEUCORRHOEA WITH PROSTRATION.

GAERTNER

- SALMONELLA ENTERITIDIS.



DYSENTERIA COMPOUND

- **DYS-CO – MIND**
- RESPONSE TO REPROACH FROM PARENTS WHO SEE THE CHILD AS A DISEASE.
- RESPONSE TO FAILURE TO ACCOMPLISH.
- ANTICIPATION, APPREHENSION.
- AGORAPHOBIA, CLAUSTROPHOBIA.
- EXCITABLE.

DYSENTERIA COMPOUND

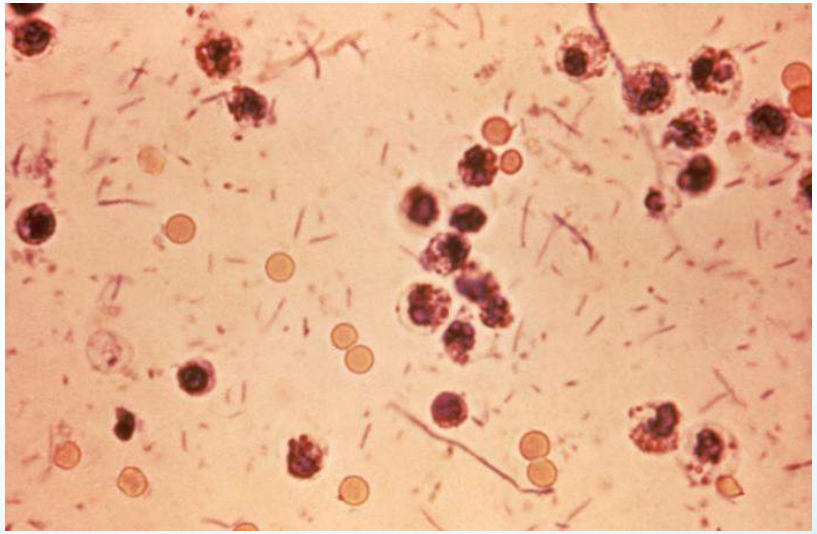
- **DYS-CO – MIND**
- HURRY.
- HYPERSENSITIVE TO CRITICISM.
- CONSCIENTIOUS.
- STAMMERING.
- SHYNESS AND UNEASINESS.
- PALPITATION ON ANTICIPATION.

DYSENTERIA COMPOUND

- **DYS-CO – PHYSICAL**
- HISTORY OF DYSENTERY.
- RESPONSE TO RECURRENT DIARRHEA, DYSENTERY LIKE.
- MASTURBATION IN CHILDREN.
- PYLORIS STENOSIS OR SPASM.
- DUODENAL ULCER FROM NERVOUS TENSION.
- TWITCHING.
- BLINDING HEADACHES.

DYSENTERIA COMPOUND

- SHIGELLA DYSENTERIAE.



BACILLUS MUTABILIS

PHYSICAL

- ALTERNATING DISEASES: ASTHMA THEN SKIN ERUPTIONS.
- FEVER PRESENT.
- WHERE PYROGENIUM FAILS.
- FOOD ALLERGY OF ALL TYPES.
- DIARRHEA WITH FEVER.

BACILLUS MUTABILIS

- MUTANTS OF E. COLI.

BACILLUS NUMBER SEVEN

MIND

- RESPONSE TO MENTAL FATIGUE.
- OUTSTANDING MENTAL FATIGUE.

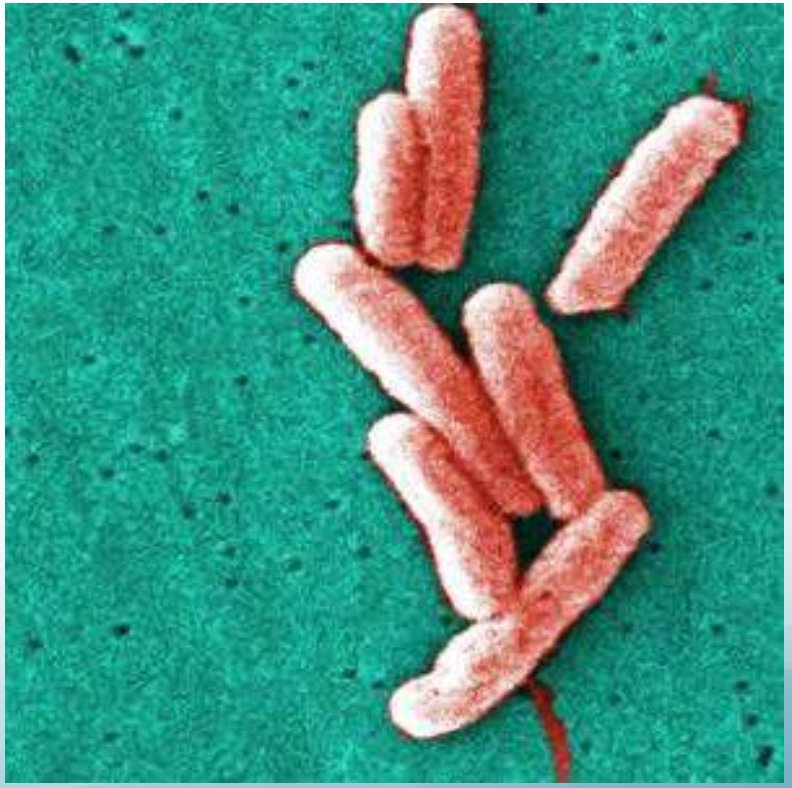
BACILLUS NUMBER SEVEN

PHYSICAL

- RESPONSE TO LONG STANDING ILLNESS.
- FAINTNESS ON STANDING.
- RHEUMATISM, RHEUMATOID ARTHRITIS.
- FEEBLE URINARY OUT FLOW, LOSS OF SEXUAL FUNCTION.
- ASTHMA, TOUGH MUCUS.

BACILLUS NUMBER SEVEN

- ENTEROBACTER CLOACAE, CITROBACTER FREUNDII, HAFNIA ALVEI.
- HAFNIA ALVEI



BACILLUS NUMBER TEN

MIND

- ACTIVE INSTINCTUAL PEOPLE, SEXUAL ISSUES.
- RELATIONSHIP ISSUES.

BACILLUS NUMBER TEN

PHYSICAL

- SEXUALLY TRANSMITTED DISEASE.
- OVERUSE OF HERBALS OR HOMEOPATHY.
- INFLAMMATION OF MUCOUS MEMBRANES: VAGINA, MOUTH, ANUS, URETHRA AND GALLBLADDER.

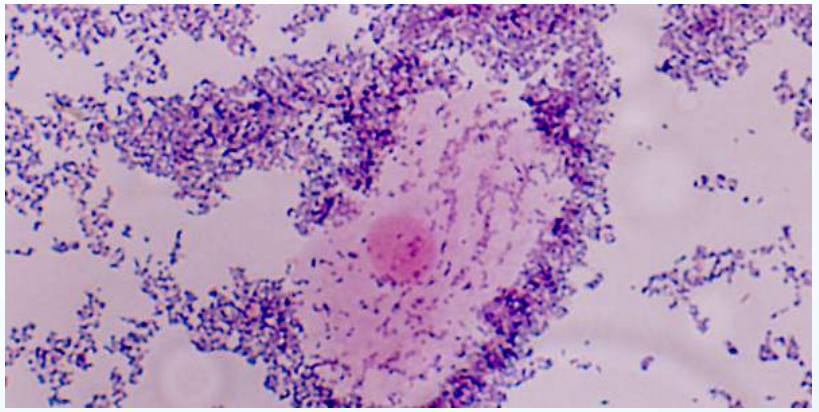
BACILLUS NUMBER TEN

PHYSICAL

- SPONGY GUMS.
- CANNOT DIGEST EGGS AND FAT.
- GREENISH FISH SMELLING LEUCORRHOEA.
- NUMEROUS FLAT WARTS ON HANDS.
- LIPOMA.

BACILLUS NUMBER TEN

- GARDRENELLA VAGINALIS.



SYCOTIC COMPOUND

SYC-CO: MIND

- JEALOUSY AMONG BROTHERS AND SISTERS.
- ATHLETE, NEEDS TO BE NUMBER ONE; NO TEAM PLAYER.
- WANTS TO BE KNOWN AND RECOGNIZED BY THE PRESIDENT.
- NERVOUS AND TENSE, FEAR OF BEING OBSCURED.

SYCOTIC COMPOUND

SYC-CO: GENERAL

- DESIRES BUTTER.

SYCOTIC COMPOUND

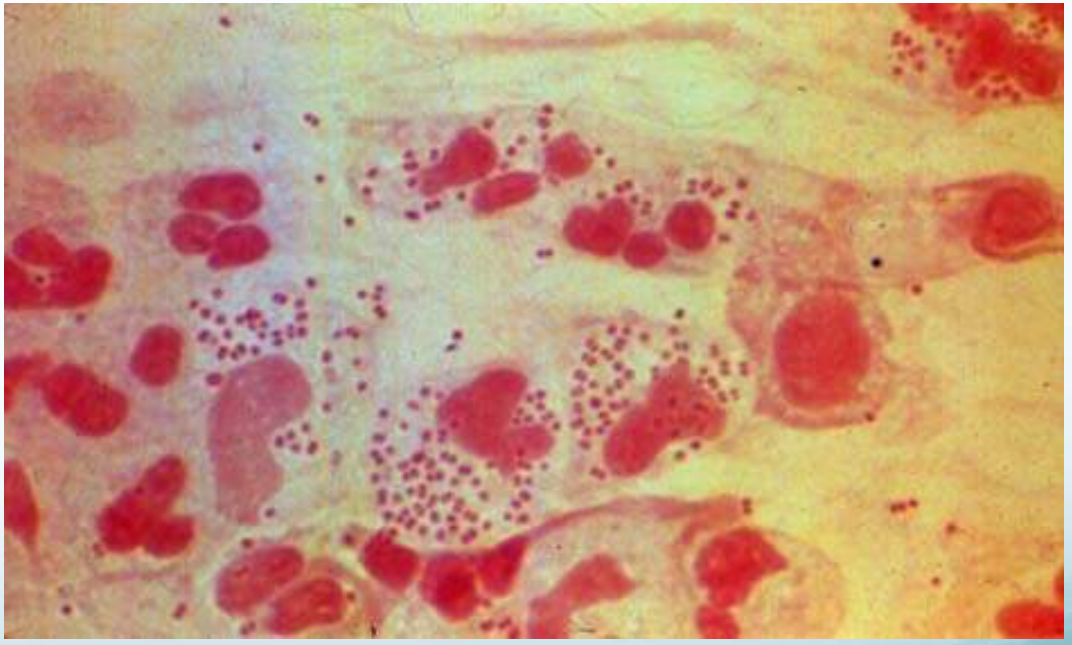
SYC-CO: PHYSICAL

- ASTHMA BETTER SEA.
- HEADACHE DUE TO SINUSITIS.
- PREMATURE GRAYNESS.
- LOSS OF SMELL.
- FIBROSIS.

SYCOTIC COMPOUND

- NEISSERIA MUCOSA AND MORAXELLA CATARRHALIS.

- MORAXELLA CATARRHALIS.



PROTEUS

MIND

- ANGER AND RAGE.
- GRIEF WITH ANGER.
- PISSED OFF ALL THE TIME.
- PERCEIVES TOO MUCH AND THIS CREATES ANGER.
- SUDDEN FITS OF RAGE.

PROTEUS

MIND

- IMPULSE TO KILL.SHOUTING AND FIGHTING.
- TEMPER TANTRUMS.
- CHILDREN CRAWL AND ROLL ON FLOOR WITH TANTRUM.
- STRIKING.
- OFFENSIVE QUALITY.

PROTEUS

MIND

- PARENTS SEES THEM AS A DISEASE THEY WANT TO AVOID.
- “BRAIN STORM”.
- OFFENDED EASILY.
- UNWANTED BY PARENTS.
- FEAR OF OPINION OF OTHERS.

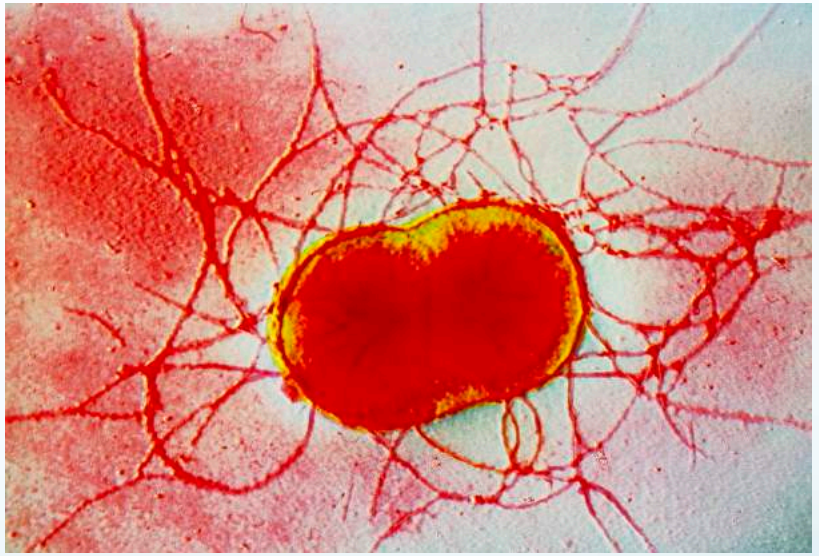
PROTEUS

PHYSICAL

- OSTEOPOROSIS.
- RAYNAUD.
- DUODENAL ULCER (MENTAL STRAIN).
- CRAMPS OF MUSCLES (COMPARE CUPRUM).
- WORSE UV LIGHT.
- URINARY AND KIDNEY INFECTIONS.

PROTEUS

- PROTEUS MIRABILIS.

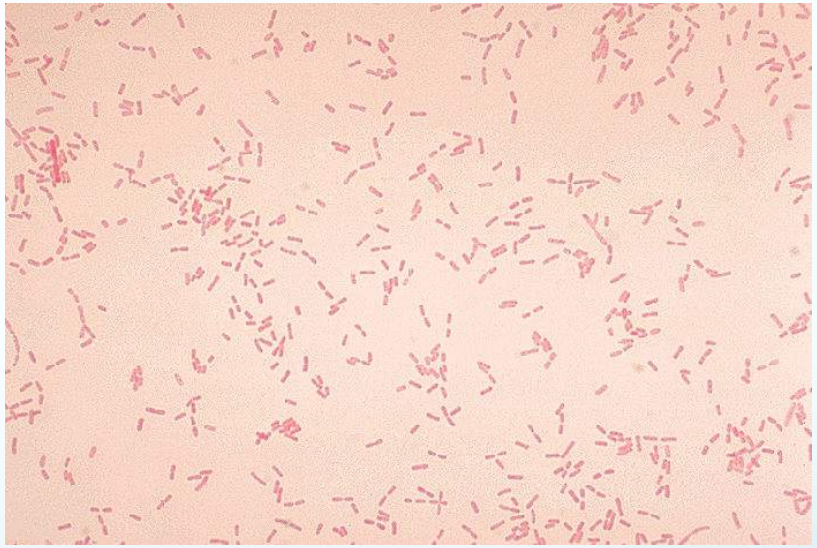


FAECALIS

- USEFUL IN ALBUMINURIA.
- CLINICAL PICTURE SIMILAR TO SEPIA.

FAECALIS

- ALCALIGENES FAECALIS.



COCAL CO.

- IN SEPTIC STATE.
- NOT WELL PROVED.

RELATED REMEDIES

- MORGAN PURE – SULPHUR.
- MORGAN GAERTNER – LYCOPODIUM.
- PROTEUS – NATRIUM MURIATICUM.
- MUTABILE – PULSATILLA.
- BACILLUS NO. 7 – BROMIUM, KALI CARBONICUM, IODIUM.
- GAERTNER – MERCURIUS VIVUS, SILICEA, PHOSPHORUS.

RELATED REMEDIES

- DYS-CO – ARSENICUM ALBUM.
- SYCOTIC CO – THUJA.
- B. FAECALIS – SEPIA.

Source: Jan Scholten, Alex Leupen, Louis Klein, the Masi group (the Netherlands)

Fungi 3-700.00.00

Plant theory
This is the first try to classify the Fungi with Remedy codes.

Classes
1. Rozellomycota
2. Microsporida
3. Chitridiomycota
4. Zygomycota
5 Ascomycota
6. Basidiomycota

Essence
The main theme of the Fungi is the confrontation with the impermanence of life. One has to come to terms with the end of life, death. A situation that triggers this is the confrontation with possibly deadly diseases like cancer. Most people experience cancer as a death sentence. It can also arise from loss of relatives and friends who die. It can arise from problems of infertility and miscarriages. It can arise from social failures that lead to a death wish. A very common situation is old age. Then one start thinking about disease, decay, collapse and death.
The consequence is withdrawal. One can see the physical aspect of withdrawal in old people. The life energy reduces and retires from the periphery to the centre. The extremities become cold, pale and bloodless as in chillblains, Raynaud's disease. Gangrene is the ultimate consequence. The body starts shrivelling and becomes fragile. The vertebrae fracture and the people become small with a bend back. The muscles atrophy and become weak. Fatigue and weakness are a prominent issue. In contrast also the opposite happens with flare ups of a lot of energy and heat. It can express in feelings of the enlargement, flushes of heat or bouts of energy and power. But they are the last flare ups before the end.
Under social level they also retire. They tend to become loners, with drawing from relationships and social situations. India situation of life and death most important issues for most people like fame, clothes, make-up and money become totally unimportant. They feel different form friends and family. It is as if they do not belong to the world, as if they don't fit in.
Often they are unwanted children. Due to this situation they feel that life is much more difficult for them as for others. Often that is increased to physical, bodily handicaps and limitations.
As they feel different it is quite difficult for them to socialise. They elect only the few people that are like the and respect them. They avoid 'normal' people that do not understand them, with all respect.

Mind
Feeling foreign, alien, eccentric, extraneous, odd, funny, outlandish, peculiar, curious, quaint, singular, weird, bizarre, strange, unordinary, whacky.
Being treated as stranger, clown, yester.
Ailments from disasters, accidents, war, violence; families shattered and torn apart, death of relatives, parents, friends.
Very intelligent, creative, original.
Spiritual realising death is not the end of life.
Connection with the other world, the spiritual world, elves.
Strong mind in a fragile, sick, not okay body.
Split between body and mind; the body is limiting.
Withdrawal, retiring; introspective, introversion.
Avoiding difficult situations and people.
Difficult to be assertive, to express emotions.
They feel hollowed, mouldered, vague, weak.
Invasion, being eaten away; limits of body let infringed; insidious, less aggressive; invaded form being too weak.
Interest in death, graveyards, ghosts.
Intuition, clairvoyance.
Superhuman powers, strength; unseen, unseen power.
Theme: toads, mushroom forms as in nuclear bombs.
Peaceful coexistence in the beginning; eats further away; limits of body let infringed;
Holding on to life trying all kinds of therapies.
Clinging two people to be assured of their support and help.
Profession: caregiver, to elderly and dying people; funeral entrepreneur.
Fear: disease, death.

3-710.00 Rozellomycota

3-720.00 Microsporida

3-730.00 Chitridiomycota

3-740.00 Zygomycota
Zygomycetes
3-741.00 Blastocladiomycetes
3-742.00 Saccharomycetes
Saccharomycetaceae
8 R Torula cerevisiae
10 R Candida albicans
10 Saccharomyces apiculata
10 Kloeckera apiculata
10 Saccharomyces cerevisiae
10 Kluyveromyces marxianus
R Candida parapsilosis
Mucoraceae
R Mucor mucedo
2 Mucor racemosus
7 Rhizopus nigricans
R Dipodascaceae
R Geotrichum candidum

3-750.00 Ascomycota
3-751.00 Taphrinomycetes
15 Pneumocystis jirovecii
3-752.00 Eurotiomycetes
Eurotiales
3-752.10 Trichocomaceae
2 R Aspergillus fumigatus
2 Penicillium camemberti
2 Aspergillus candidus
12 R Aspergillus niger
12 Pleurotus ostreatus
R Aspergillus oryzae
R Penicillinum
R Penicillium chrysogenum
R Penicillium roquefortii
3-752.20 Onygenales
17 R Histoplasma capsulatum
17 Blastomyces dermatitidis
17 Paracoccidioides brasiliensis
Arthrodermataceae
2 Trichophyton depressum
2 R Microsporum canis
15 R Trichophyton rubrum
R Trichophyton persearum
3-753.00 Sordariomycetes
Ophiostomatales
0 Ophiostomataceae
17 R Sporothrix schenckii
Nectriaceae
10 Fusarium oxysporum
10 Fusarium graminearum
10 Fusarium sporotrichioides
10 Fusarium mycotoxins
12 Nectria ditissima
R Ophiocordyceps sinensis
Hypocreales
Ophiocordycipitaceae
12 R Cordyceps sinensis
Hypocreaceae
Clavicipitales
R Cyclosporinum
R Secale cornutum
R Cladonia rangiferina
3 Usnea barbata
5 Neotyphodium lolii
11 Evernia prunastri
15 Cladonia pyxidata
Lecanoromycetes
3-754.00 Leotiomycetes
R Oidium tuckeri
Dematiaceae
2 Alternaria solani
2 R Aureobasidium pullulans
2 Alternaria alternata
10 Stachybotrys chartarum
R Cladosporium herbarum
R Cladosporium mix.
Helotiales
Dothideomycetes
14 Peltigera canina
17 Hortaea werneckii
R Lobaria pulmonaria
Sclerotiniaceae
2 Botrytis cinerea
3-755.00 Pezizomycetes
15 Gyromitra esculenta
Morchellaceae
12 Morchella esculenta
0 Tuberaceae
7 R Tuber melanosporum
R Tuber aestivum
Pezizaceae
Sarcoscyphaceae
R Sarcoscypha coccinea

3-760.00 Basidiomycota
3-761.00 Pucciniomycetes
3-762.00 Ustilagomycetes
Ustilaginales
Ustilaginaceae
13 R Ustilago maydis
Malasseziales
Malasseziaceae
10 Pityrosporum ovale
Lycoperdales
5 R Bovista lycoperdon
10 Calvatia gigantia
10 R Bovista gigantica
3-763.00 Tremellomycetes
Tremellales
Tremellaceae
17 Tremella fusiformis
17 R Cryptococcus neoformans
3-763.00 Phallomycetes
Cantharellales
Cantharellaceae
Cantharellus cibarius
Auriculares
Auriculaceae
6 Auricularia polytricha
Geastrales
Geastraceae
10 Geastrum triplex
Phallales
Phallaceae
6 R Phallus impudicus
3-764.00 Polyporomycetes
3-764.10 Trechisporales
3-764.20 Hymenochaetales
9 Phellinus igniarius
12 Inonotus obliquus
3-764.30 Thelephorales
3-764.40 Polyporaceae
Polyporales
2 Wolfiporia cocos
7 Trametes versicolor
7 Piptoporus betulinus
10 Fomitopsis officinalis
12 Polyporus nigricans
13 Pycnoporus sanguineus
17 Cerrena unicolor
Meripilaceae
12 R Grifola frondosa
12 Grifola umbellata
12 Grifolaceae
Fomes fomentarius
R Polyporus pinicola
3-764.50 Ganodermataceae
10 Ganoderma applanatum
11 R Ganoderma lucidum
3-764.60 Gloeophyllales
3-764.70 Corticiales
3-765.00 Boletomycetes
3-765.20 Sclerodermataceae
15 Scleroderma citrinum
15 Pisolithus tinctorius
15 Calostoma cinnabarinum
3-765.40 Boletales
Boletaceae
1 Boletus manicus
2 R Boletus edulis
2 R Boletus erythropus
13 Boletus sanguineus
15 Suillellus luridus
17 R Boletus satanas
R Neoboletus luridiformis
R Leccinum testaceoscabrum
R Suillus grevillei
R Imleria badia
3-765.70 Paxillaceae
15 R Paxillus involutus
3-766.00 Agaricomycetes
Agaricales
Marasmiaceae
12 Armillaria mellea
Omphalotaceae
12 Lentinula edodes
12 Omphalotus illudens
Strophariaceae
15 Stropharia semiglobata
16 R Psilocybe caerulescens
Cortinariaceae
15 Cortinarius orellanus
15 Gymnopilus spectabilis
15 R x Cynosbatus
6 Chlorophyllum molybdites
6 Coprinus tinctorius
15 Coprinus atramentarius
3-766.40 Agaricaceae
1 Acidum agaricicum
3 R Agaricus emeticus
6 R Agaricus pantherinus
12 Agaricus bisporus
12 R Agaricus muscarius
15 Agaricus campanulatus
15 Amanita citrina
17 R Amanita virosa
R Agaricinum
R Agaricus phalloides
R Agaricus blazei
R Amanita ovoidea
Russulales
Russulaceae
15 Russula egglutina
16 Russula foetens
Tubariaceae
6 Tubaria furfuracea

Fungi

16-5-2019
Utrecht
Jan Scholten

Fungi

Fruit body

Fungi

Fruit body Visible

Fungi

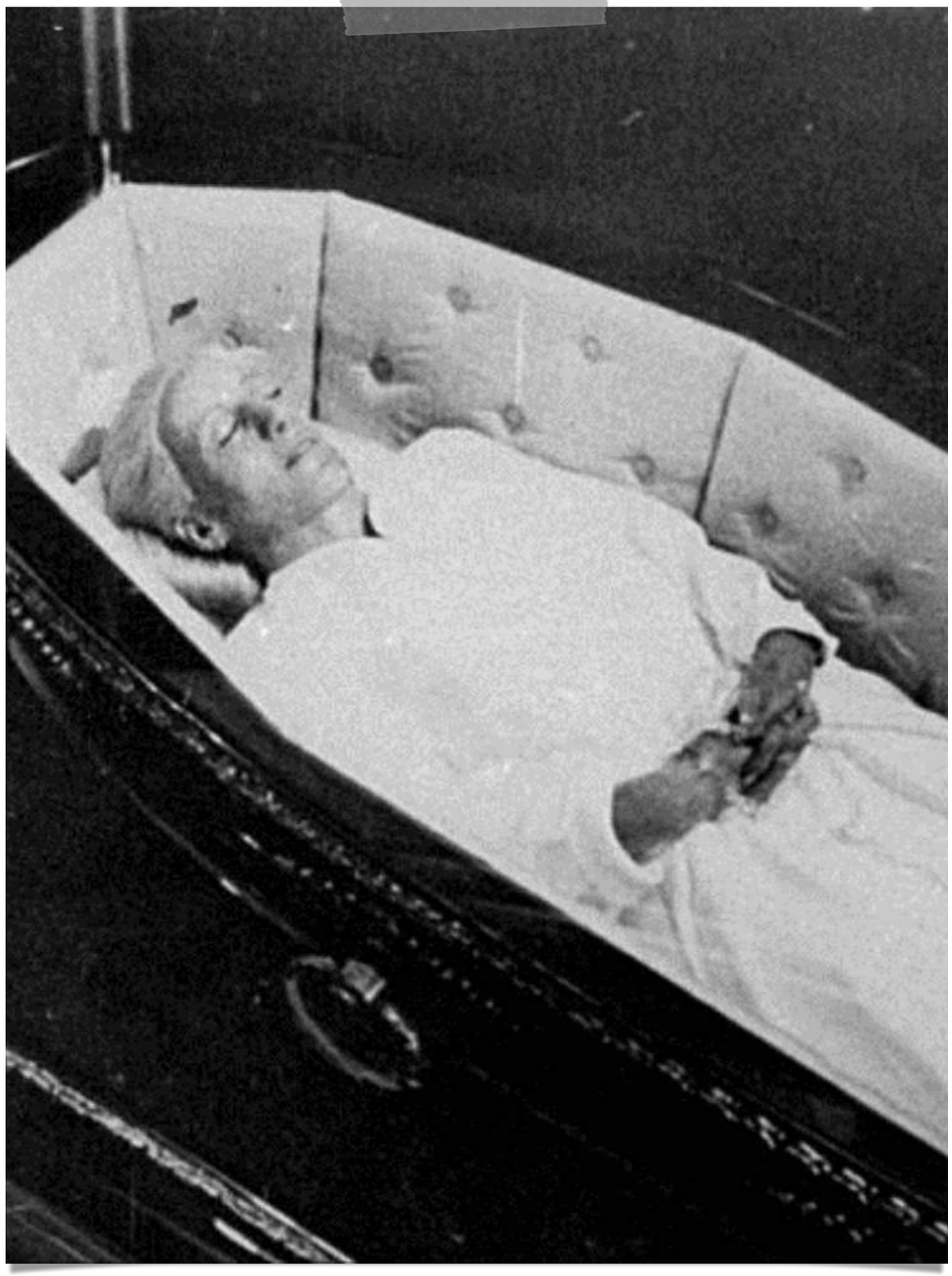
Mycelia Threads Invisible

Fungi

Functions
Communication
Recycling

Fungi

Death
End of life
Fatal disease
Fear death



Fungi

Death
Near death
Spiritual

Fungi

Old age
Shrinking
Shrivelling
Fragile
Fragmentation
Handicaps
Limitations

Fungi

Retired Alone Lack

Fungi

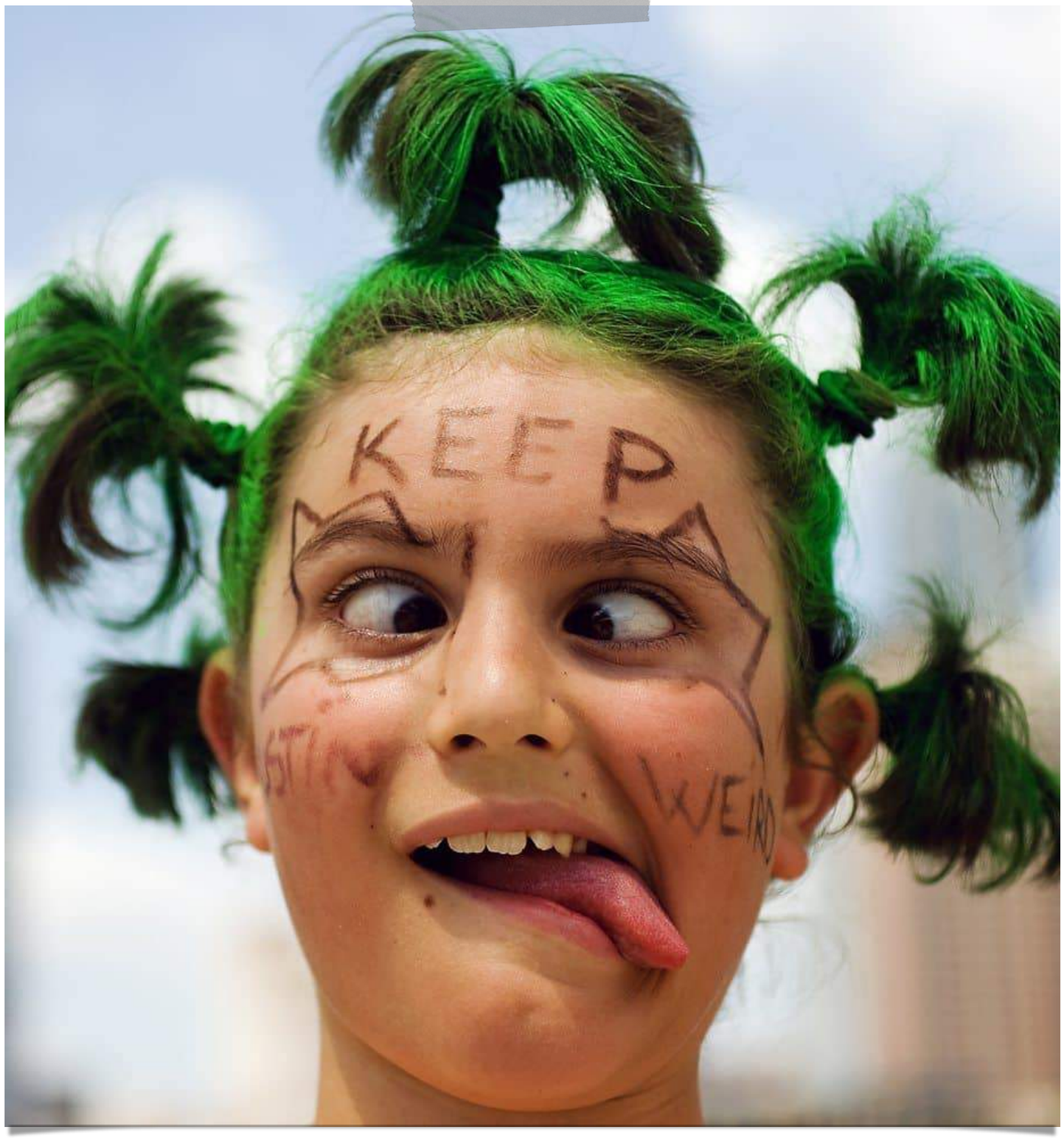
Old age
Fragmentation
Fragile

Fungi

Old age Sarcopenia Muscle atrophy weakness

Fungi

Weird
Strange
Extreme
Alien
Eccentric
Bizarre



Fungi

Other world Hallucinations

Fungi

Intelligent
Creative
Intuitive
Talented
Pandora's box

Fungi

Yester
Magician
Clown
Illusionist

Fungi

Dementia

Alzheimer

Apoplexy

Fungi

Infertility
Miscarriage
Childless

Fungi

Withdrawal
Raynaud
Gangrene

Fungi

Withdrawal
Raynaud
Gangrene

Fungi

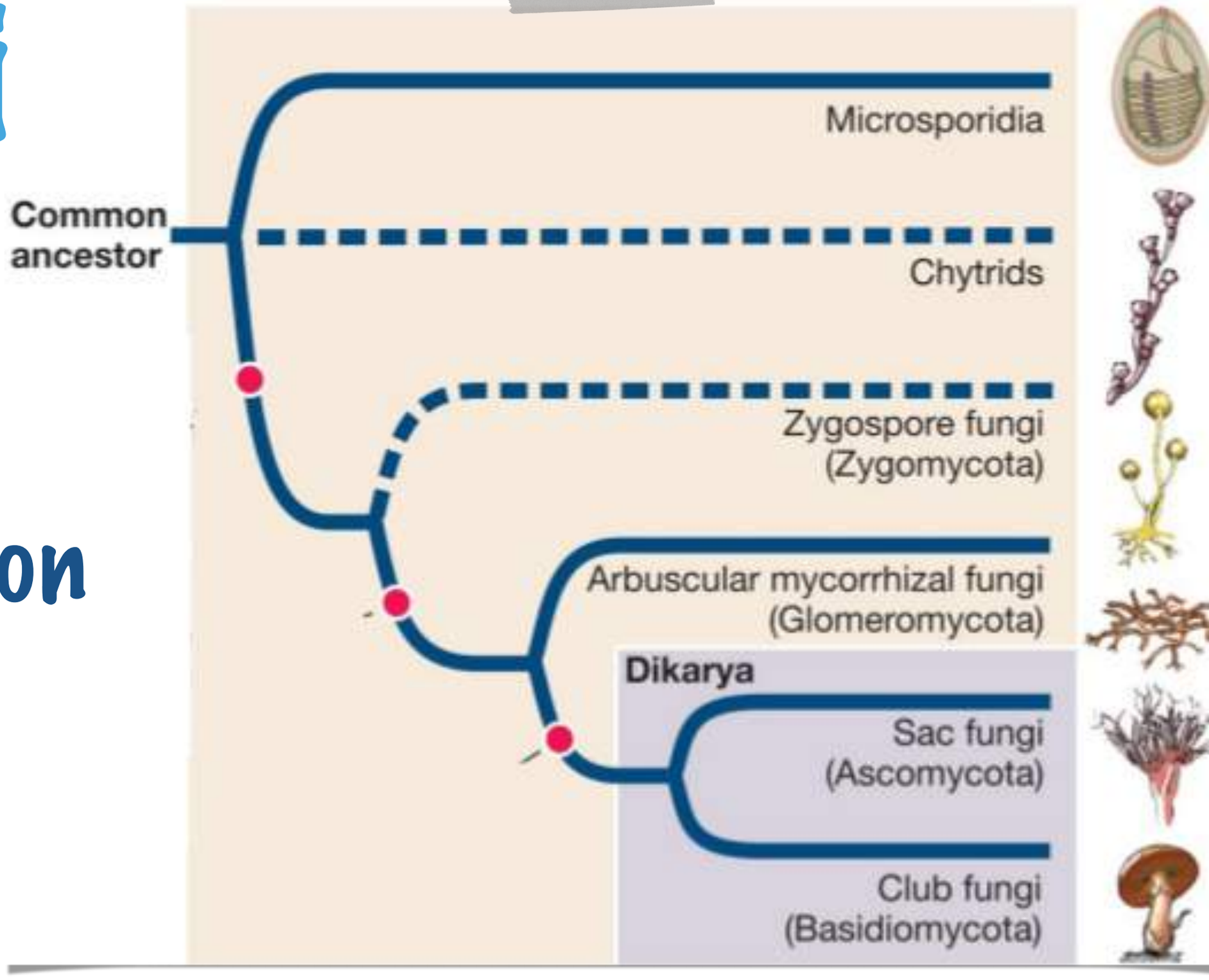
Skin dry
Itching
Dryness
Dehydration

Fungi

Infection Fungi

Fungi

Classification



Fungi

1 Rozellomycota

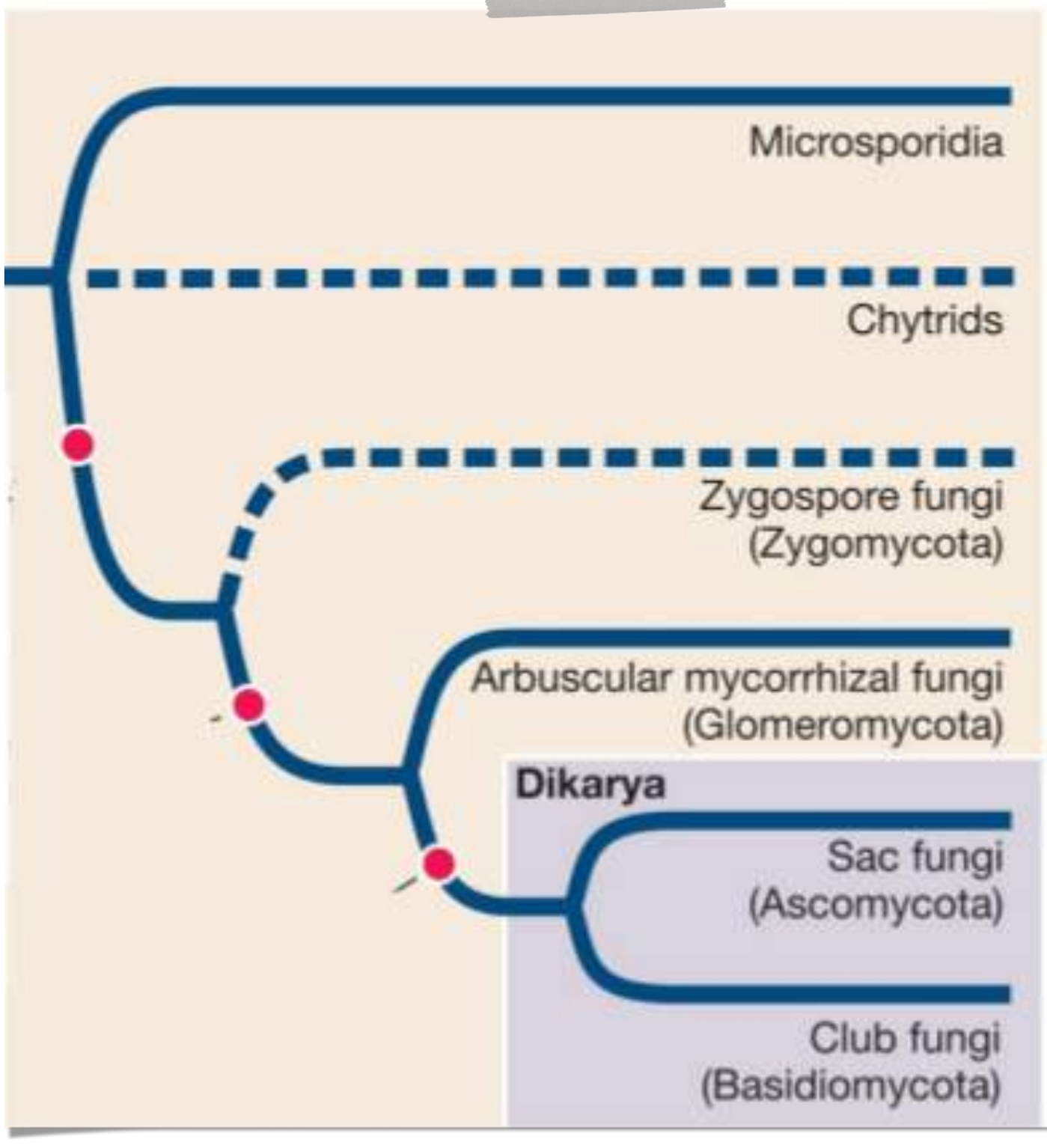
2. Microsporida

3. Chitridiomycota

4. Zygomycota

5. Ascomycota

6. Basidiomycota



Fungi

1 Rozellomycota

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Fungi

1: 3-710.00.00

2: 3-720.00.00

3: 3-730.00.00

4: 3-740.00.00

5: 3-750.00.00

6: 3-760.00.00

Fungi

Fungi

Classification

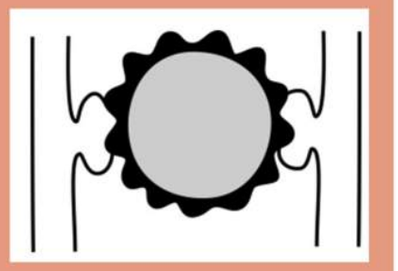
Chytridiomycota

flagellate cell

Blastocladiomycota

flagellate cell

„Zygomycota“

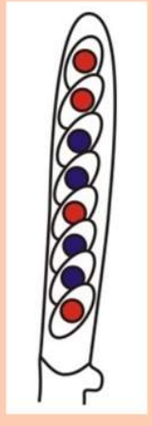


zygospore with suspensors

Glomeromycota

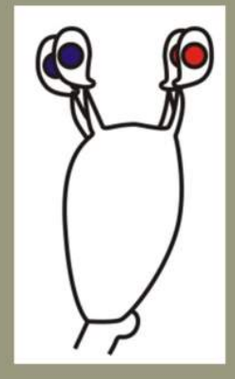
endomycorrhizal fungi

Ascomycota



ascus with
ascospores

Basidiomycota



basidium with
basidiospores

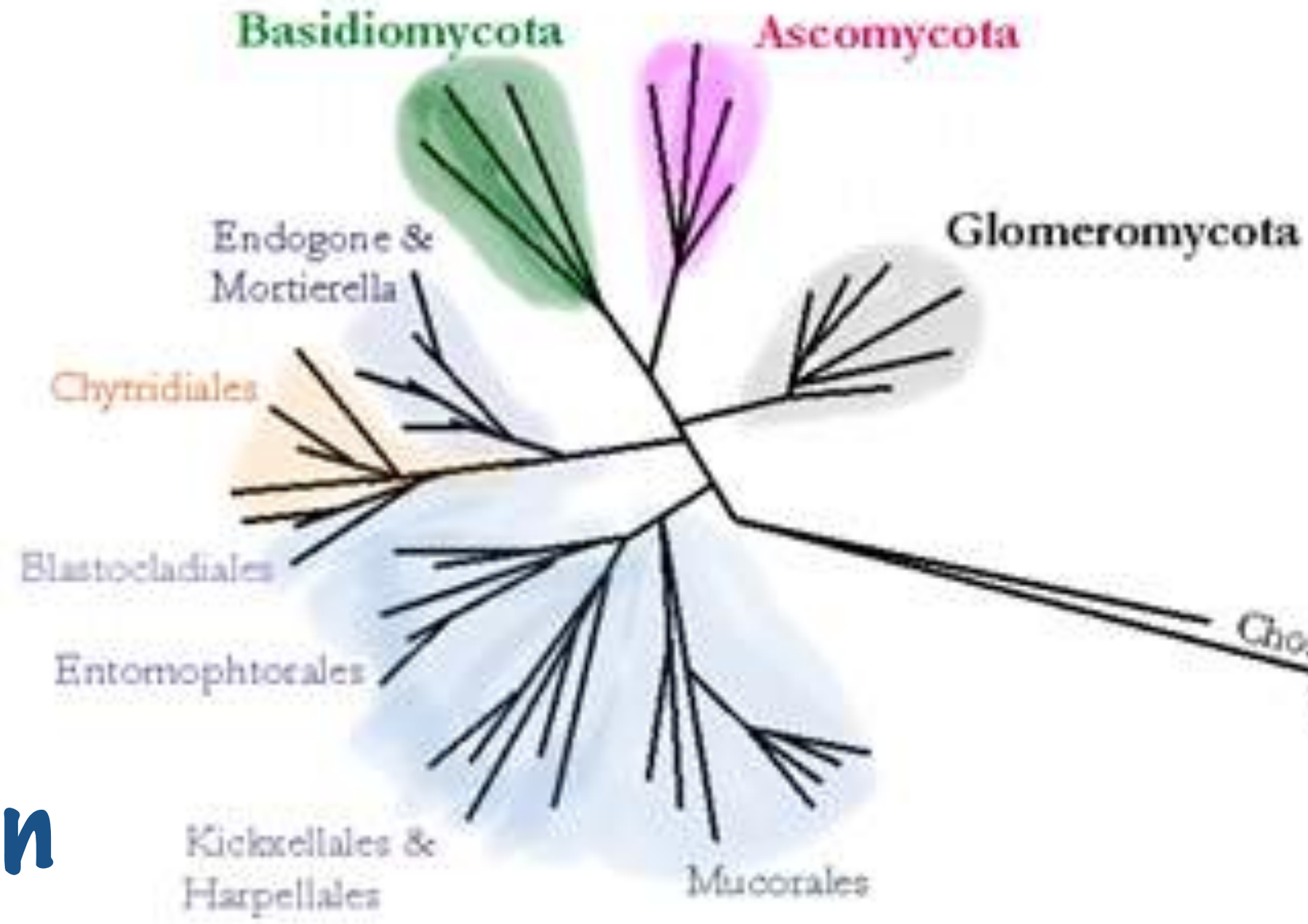
Fungi

Classification

V · T · E	Opisthokont: Fungi classification, fungal orders		
Dikarya	Ascomycota	saccharomyceta	Pezizomycotina	leotiomyceta	Geoglossomycetes dothideomyceta (A Lecanoromycetes sordariomyceta ((L Lichinomycetes
				Other	Orbiliomycetes · P
			Saccharomycotina	Saccharomycetes	
		Taphrinomycotina	Archaeorhizomycetes · Neolectomycetes · Pneumocystidomy		
	Basidiomycota	Pucciniomycotina · Ustilaginomycotina · **Agaricomycotina** · Urediniomycetes			
Glomeromycota	Glomerales · Diversisporales · Paraglomerales · Archaeosporales				
Zygomycota	Mucoromycotina	Endogonales · Mucorales (Chaetocladiaceae · Choanephoraceae · Cunnin Mucoraceae · Mycotyphaceae · Phycomycetaceae · Pilobolaceae · Radiom Thamnidiaceae · Umbelopsidaceae) · Mortierellales			
	Entomophthoromycotina	Entomophthorales (Basidiobolaceae · Ancylistaceae)			
	Kickxellomycotina	Asellariales · Kickxellales · Dimargaritales · Harpellales			
	Zoopagomycotina	Zoopagales			
Other	Blastocladiomycota · Chytridiomycota/Neocallimastigomycota · Microsporidia				

M: MYC fung, clas fung

Fungi



Classification

Zygomycota

1 Blastocladiomycetes
2 Saccharomycetes: Yeast
3 Zygomycetes
4 Mucoromycetes: Mucor

Ascomycota

1 Taphrinomycetes
2 Eurotiomycetes: Aspergillus, penicillium
3 Sordariomycetes: Lichen, Secale
4 Lecanoromycetes
5 Pezizomycetes: Tuber, Morchella

Basidiomycota

1 Pucciniomycetes
2 Ustilagomycetes: Ustilago
3 Phallomycetes: Phallus impudicus
4 Polyporomycetes: Polyporus, Ganoderma
5 Boletomycetes: Boletus
6 Agaricomycetes: Agaricus, Psilo

Liliales 3-633.60.00

Taxonomy
In the first version of the Plant theory classification the Order Liliales was in Phase 6. Liliales is an Order with about 80 genera and 1950 species. In the App classification Asparagales was split of the "old" Liliales and fused with Orchidaceae. The Asparagales was placed in Phase 5. Asparagales is an Order with about 430 genera and 10000 species.

Plant theory
In this update of the Plant theory Liliales stays in Phase 6 but the families are fused together in the family Liliaceae and placed in Subphase 2. The Asparagales are now transferred to Phase 6, keeping their Subphases. The exception is Hypoxidaceae in Subphase 2, which is combined with Subphase 1 of Orchidales with remedy code: 3-633.71.00. So their placement in the Asparagales in Subphase 2 after the Iridaceae was a bit odd. The new placement is more logical from that point of view. Above that many of the Hypoxidaceae are epiphytes which is a Phase 7 aspect.
Liliales was lacking remedies in many positions, for instance the Tricyrtaceae in Subphase 3. In some case prescriptions from Hyacinthaceae, as a near possibility, worked fine. This is a confirmation of the shift of Asparagales to Phase 6.

Subphases
1 Iridaceae
2 Amaryllidaceae
3 Hyacinthaceae
4 Asparaceae Agavaceae
5 pAhodeliaceae
6 Liliaceae
7 Melianthaceae

Introduction
They want to have a good relationship with family and parents but often feel neglected and used. In their youth they have often been been abused, neglected, beaten or emotionally tormented by their parents or siblings. They feel just tolerated in the family, on the edge. Due to that they have the feeling there is something wrong with them, that they are bad, ugly or dirty. They can go to religious practices and groups as a kind of redemption, to get rid of their feeling that something is wrong with them. They have the feeling that they have to give more than they get back. They feel taken advantage off being used or even abused with family and friends, especially in love relationships and marriages where one lives close together.
The opposite can happen too that they take advantage of others, their spouse, friends or relatives. It is often difficult for them to see this aspect of their attitude.

The pattern gets repeated in their marriage or with their in-laws. They feel just tolerated, not really loved. They feel taken advantage of as they give more than they get in return. In the end they can get an attitude that they do not want to give anymore, do nothing and just receive.
Become part of the group is very important. They fear being or becoming a side figure, an outcast. They fear being excluded, belittled and seen as unattractive unfriendly, having no worth.

Mind
Puberty problems, hysterical, faint..
Reserved, not showing emotions, cannot be weak.
Suppressing emotions.
Risk taking, lack of reflection.
Love relations, sex.
Problems with sex, pregnancy, miscarriage, abortion, labour, nursing.
Desire for purity, beauty, attactiveness.
Aversion to dirt, uglines, disgust.
Fear being an outsider, being neglected, unattractive, seen as a slut, a whore.

3-633.61.00 Iridaceae

		Ixioliriaceae
1	R	Crocus sativus
3	R	Gladiolus splendens
4	R	Iris douglasiana
4	R	Libertia chilensis
5	R	Dierama latifolium
6	R	Crocosmia crocosmiiflora
7	R	Freesia corymbosa
8	R	Iris germanica
8	R	Iris foetidissima
8	R	Iris pseudacorus
8	R	Iris tenax
8	R	Iris versicolor
10	R	Gladiolus communis
10	R	Gladiolus caryophyllaceus
11	R	Watsonia pillansii
12	R	Bobartia aphylla
13	R	Eleutherine bulbosa
13	R	Hesperantha coccinea
14	R	Moraea collina
14	R	Geissorhiza monanthos
16	R	Sisyrinchium bellum
16	R	Moraea modesta
17	R	Patersonia occidentalis
17	R	Patersonia umbrosa
17		Geosiris aphylla

3-633.62.00 Amaryllidaceae

1	R	Galanthus nivalis
2	R	Ipheion uniflorum
3	R	Leucojum aestivum
4	R	Pancratium trianthum
4	R	Zephyranthes rosea
5	R	Proiphys amboinensis
6	R	Narcissus poeticus
6	R	Narcissus pseudonarcissus
6		Narcissus papyraceus
6		Habranthus tubispathus
7	R	Agapanthus praecox
8	R	Scadoxus puniceus
8	R	Haemanthus albiflos
9	R	Clivia miniata
9	R	Rhodophiala bifida
10		Amaryllis belladonna
10	R	Crinum asiaticum
11	R	Hippeastrum puniceum
12	R	Boophone disticha
13	R	Allium ampeloprasum
13		Allium ascalonicum
13	R 2	Allium cepa
13	R	Allium sativum
13		Allium tricoccum
13	R	Cyrtanthus breviflorus
14	R	Allium schoenoprasum
14	R	Allium ursinum
14	R	Sternbergia lutea
15	R	Tulbaghia violacea
15		Worsleya procera
17	R	Hymenocallis littoralis
17	R	Apodolirion buchananii

3-633.63.00 Hyacinthaceae

1		Aphyllanthes monspeliensis
2		Milla biflora
2		Muilla maritima
3	R	Triteleia ixioides
3		Triteleiopsis palmeri
4	R	Hyacinthoides non-scripta
4		Puschkinia scilloides
4		Brimeura amethystina
5	R !	Bowiea volubilis
6	R	Bellevalia romana
6	R	Bellevalia paradoxa
7	R !	Drimia maritima
9	R	Ornithogalum candicans
11	R	Eucomis comosa
12	R !	Ornithogalum umbellatum
12		Ledebouria socialis
12	R	Ledebouria revoluta
13	R	Hyacinthus orientalis
13	R	Albuca setosa
13	R	Veltheimia bracteata
14	R	Lachenalia comptonii
14	R	Barnardia japonica
16	R	Muscari neglectum
16	R	Massonia pustulata
17		Oziroe arida

3-633.64.00 Asparagaceae

1	R!	Cordyline australis
1		Anemarrhena asphodeloides
1		Hastingsia alba
2	R	Ophiopogon japonicus
2		Behnia reticulata
2	R	Arthropodium cirrhatum
3		Diuranthera major
4	R	Convallaria majalis
4	R	Maianthemum racemosum
4	R	Beaucarnea recurvata
4		Anthericum ramosum
5		Hesperocallis undulata
5		Echeandia flavescens
6	R	Sansevieria trifasciata
6		Herreria montevidensis
6		Eremocrinum albomarginatum
7		Leucocrinum montanum
7		Paradisea liliastrum
7		Hagenbachia brasiliensis
8	R	Ruscus aculeatus
8	R	Chlorophytum comosum
9	R	Polygonatum odoratum
9	R	Polygonatum biflorum
9		Prochnyanthes mexicana
10	R	Agave americana
10	R	Agave tequilana
10	R	Nolina microcarpa
11	R	Polianthes tuberosa
12	R	Yucca filamentosa
12	R	Dracaena draco
13		Beschorneria albiflora
13		Furcraea hexapetala
14	R	Maianthemum canadense
14	R	Hosta sieboldii
14	R	Hosta sieboldiana
15	R	Polygonatum multiflorum
15	R	Eriospermum abyssinicum
15		Hesperaloe parviflora
16	R	Asparagus officinalis
16	R	Camassia quamash
16	R	Eustrephus latifolius
17	R	Chlorogalum pomeridianum

3-633.65.00 Asphodeliaceae

1	R	Xanthorrhoea arborea
1	R	Xanthorrhoea preissii
1	R	Xanthorrhoea quadrangulata
1	R	Xeronema callistemon
2		Agrostocrinum hirsutum
2		Arnocrinum preisii
2		Geitonoplesium cymosum
3	R	Johnsonia pubescens
3		Hensmania turbinata
3		Herpolirion novae-zelandiae
4	R	Allium lusitanicum
4		Caesia parviflora
5		Dianella ensifolia
5		Corynotheca micrantha
6	R	Dianella tasmanica
7		Simethis mattiazzii
7		Stypandra glauca
7		Stawellia dimorphantha
9		Hemerocallis fulva
9		Hemerocallis lilioasphodelus
9	R	Hemerocallis dumortieri
10	R	Phormium tenax
10		Phormium colensoi
10		Pasithea caerulea
11		Eremurus robustus
11		Eccremis coarctata
12		Kniphofia uvaria
12		Kniphofia praecox
12		Dracaena cinnabari
12	R	Kniphofia fluviatilis
13	R	Gasteria nitida
13	R	Gasteria excelsa
13		Trachyandra hispida
13		Tricoryne elatior
13		Thelionema caespitosum
14	R	Bulbine frutescens
14	R	Bulbine asphodeloides
14		Bulbine latifolia
14		Bulbine narcissifolia
15	R	Asphodelus albus
15	R	Asphodeline lutea
15		Asphodelus microcarpus
16	R	Aloe succotrina
16	R	Aloe vera
16		Aloe castanea
16		Aloe spicata
16		Aloe mutabilis
16		Aloe striatula
16		Aloe ecklonis
16	R	Aloe perryi
16		Aloe tenuior
16		Aloe maculata
17	R	Haworthia retusa
17		Haworthia fasciata

3-633.66.00 Liliaceae

2	R	Calochortus albus
3	R	Tricyrtis hirta
4	R	Tulipa gesneriana
5	R	Streptopus amplexifolius
5	R	Streptopus lanceolatus
7	R	Clintonia borealis
8	R	Lilium lancifolium
8	R	Smilax officinalis
10	R	Lilium candidum
10	R	Lilium longiflorum
10	R	Lilium superbum
10	R	Lapageria rosea
13	R	Erythronium dens-canis
14	R	Calochortus tolmiei
14	R	Erythronium purpurascens
17	R	Calochortus leichtlinii
17		Corsia ornata

3-633.67.00 Melanthiaceae

		Phormieae
1	R	Paris quadrifolia
2		Petermannia cirrosa
3	R	Trillium grandiflorum
3	R	Trillium cernuum
3	R	Trillium erectum
3	R	Uvularia perfoliata
3		Pseudotrillium rivale
6	R	Xerophyllum tenax
8		Amianthium muscitoxicum
10	R	Gloriosa superba
11	R	Veratrum album
11	R	Veratrum nigrum
11	R	Veratrum viride
11		Alstroemeria aurea
13	R	Schoenocaulon officinale
14	R	Chamaelirium luteum
15	R	Colchicum autumnale
15	R	Anticlea elegans
16		Ypsilandra thibetica
17	R	Zigadenus glaberrimus

Liliales

18-5-2019
Utrecht
Jan Scholten

Liliales

Subphases Liliales	• Genera
1. Philesiaceae	• 2
2. Smilacaceae	• 2
3. Tricyrtaceae	• 1
4. Liliaceae	• 17
5. Melanthiaceae	• 17
6. Colchicaceae	• 16
7. Cordiaceae	• 1

Liliales

Subphases Liliales	Genera	Subphases
1. Philesiaceae	2	Unsatisfactory
2. Smilacaceae	2	Unbalanced
3. Tricyrtaceae	1	
4. Liliaceae	17	Alstroemeriaceae: 4
5. Melanthiaceae	17	Campynemataceae: 2
6. Colchicaceae	16	Petermanniaceae: 1
7. Corsiaceae	1	Ripogonaceae: 1

Liliales 3-633.60.00

Asparagales		• **Liliales**
1 Iridaceae	⟷	• 1 Iridaceae
2 Hypoxidaceae		• 2 Liliaceae
3 Hyacinthaceae	⟷	• 3 Hyacinthaceae
4 Asparaceae	⟷	• 4 Asparaceae
5 Agavaceae	⟷	• 5 Agavaceae
6 Amaryllidaceae	⟷	• 6 Amaryllidaceae
7 Xanthorrhoaceae	⟷	• 7 Xanthorrhoaceae

Liliales
3-633.60.00

- Asparagales
- 1 Iridaceae
- 2 Hypoxidaceae
- 3 Hyacinthaceae
- 4 Asparaceae
- 5 Agavaceae
- 6 Amaryllidaceae
- 7 Xanthrrhoaceae

Liliales

Both the Lililiales order and the Liliaceae family have had a widely disputed history, with the circumscription varying greatly from one taxonomist to another.

At one stage included most monocots with conspicuous tepals and lacking starch in the endosperm

Now in Liliales, Dioscoreales and Asparagales.

Liliales

Cronquist system (1981) order Liliales

family **Agavaceae**
family **Aloaceae**
family **Cyanastraceae**
family **Dioscoreaceae**
family **Haemodoraceae**
family **Hanguanaceae**
family **Iridaceae**
family **Liliaceae**
family **Philydraceae**
family **Pontederiaceae**
family **Smilacaceae**
family **Stemonaceae**
family **Taccaceae**
family **Velloziaceae**
family **Xanthorrhoeaceae**

Liliales

Dahlgren system (1985) order Liliales

family Alstroemeriaceae
family Calochortaceae
family Colchicaceae
family Iridaceae
family Liliaceae
family Uvulariaceae

Liliales

Thorne system (1992) order Liliales

family Alstroemeriaceae
family Campynemataceae
family Colchicaceae
family Iridaceae
family Liliaceae
family Melanthiaceae
family Trilliaceae

Liliales

APG III (2009) order Liliales

family **Alstroemeriaceae**
family **Campynemataceae**
family **Colchicaceae**
family **Corsiaceae**
family **Liliaceae**
family **Melanthiaceae**
family **Petermanniaceae**
family **Philesiaceae**
family **Ripogonaceae**
family **Smilacaceae**

Liliales

Many of the phylogenetic and taxonomic problems with Asphodelaceae is due to the fact that the family is not characterised by a distinct set of unique characters, but rather by a combination of characters, most of which also occur in other asparagoid families. Because many of these characters are widely shared amongst various families, some authors believe that none of them in isolation or possibly not even in combination are sufficient to distinguish Asphodelaceae from other Asparagales families (CHASE & al. 2000).

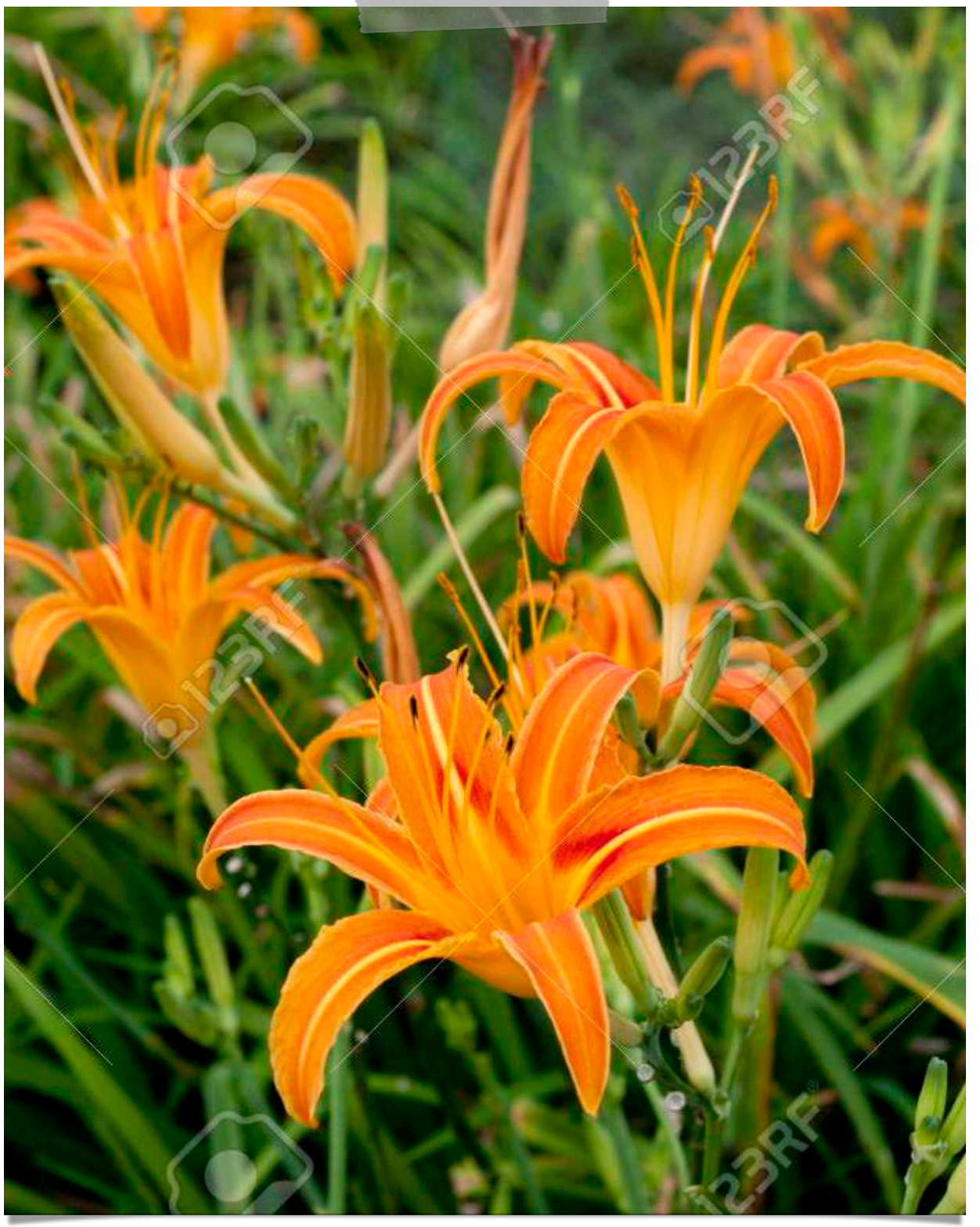
Liliales

Recent molecular research has shown that *Sebacina* is far more diverse than previously assumed, though this genetic diversity may not be reflected in morphological characters (in other words, species may be impossible to distinguish except by DNA analysis).

https://en.wikipedia.org/wiki/Sebacina

Sebacina concrescens

Lilium tigrinum



Hemerocallis fulva

Liliales 3-633.60.00

Liliales

1. Philesiaceae

2. Smilacaceae

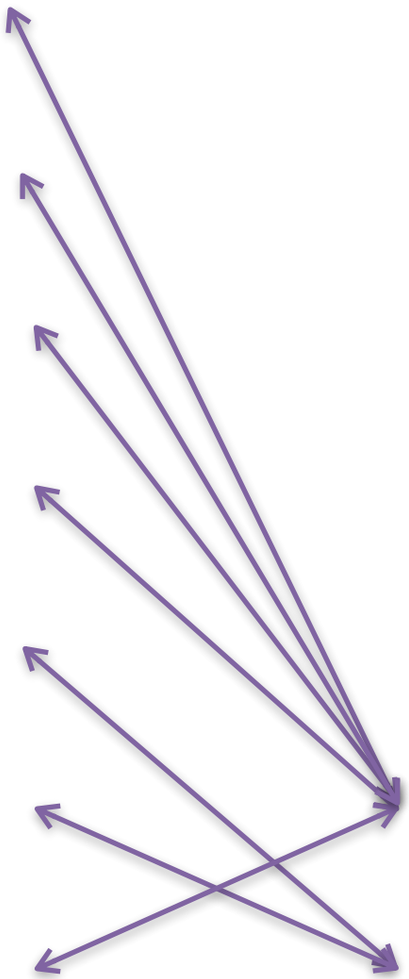
3. Tricyrtaceae

4. Liliaceae

5. Melanthiaceae

6. Colchicaceae

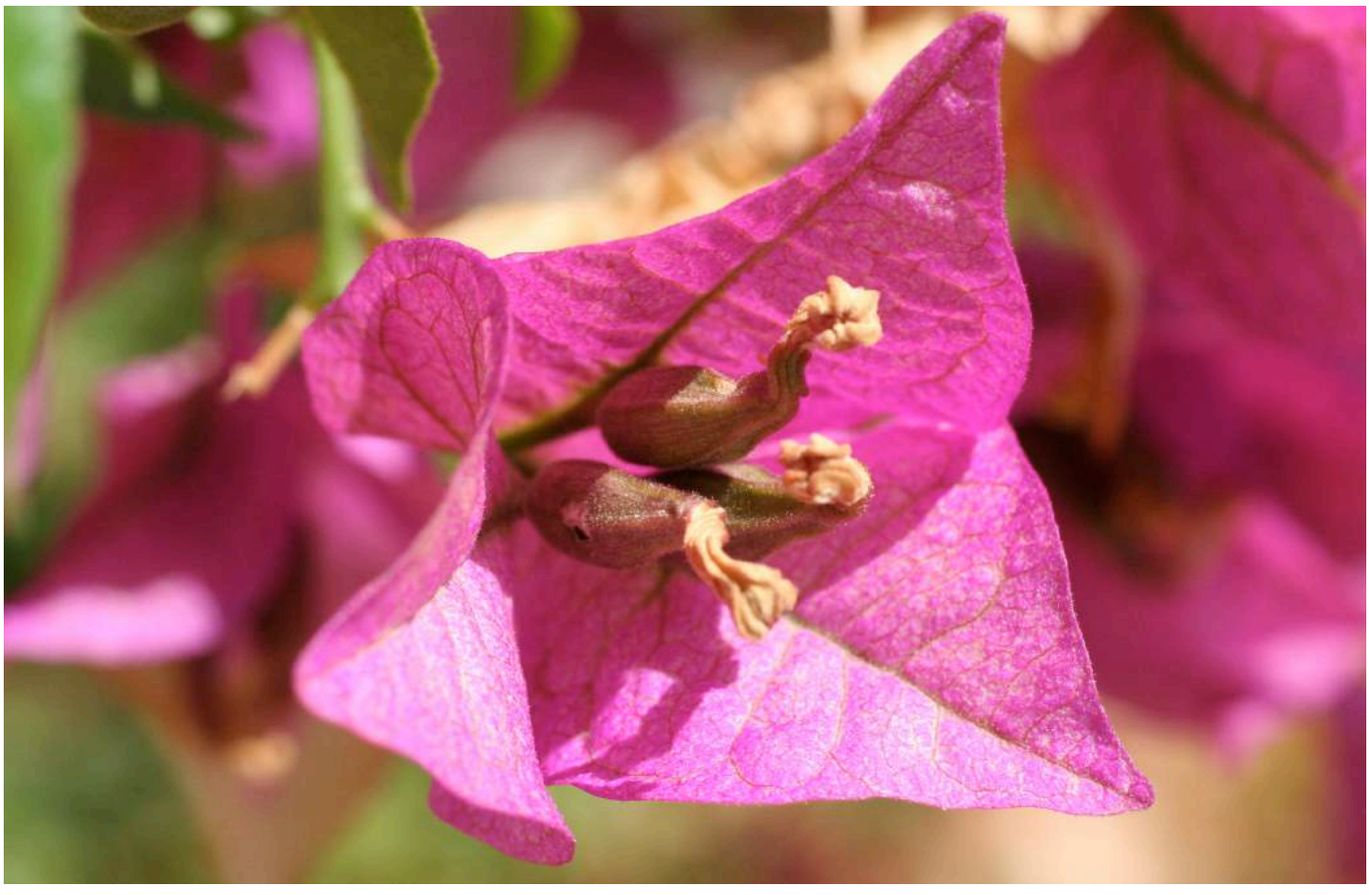
7. Corsiaceae



- **Liliales**
- 1 Iridaceae
- 2 Amaryllidaceae
- 3 Hyacinthaceae
- 4 Asparagaceae
- 5 Asphodeliaceae
- 6 Liliaceae
- 7 Melianthaceae

Liliales 3-633.60.00

Asparagales		• **Liliales**
1 Iridaceae	⟷	• 1 Iridaceae
2 Hypoxidaceae	⟷	• 2 Amaryllidaceae
3 Hyacinthaceae	⟷	• 3 Hyacinthaceae
4 Asparaceae	⟷	• 4 Asparagaceae
5 Agavaceae	⟷	• 5 Asphodeliaceae
6 Amaryllidaceae	⟷	• 6 Liliaceae
7 Xanthorrhoaceae	⟷	• 7 Melianthaceae



Physenales 3-663.30.00

Taxonomy
I the Apg3 classification of the Caryophyllales there are many single families: Rhabdodendraceae, Simmondsiaceae, Asteropeiaceae, Physenaceae, Stegnospermataceae, Limeaceae and Molluginaceae. Molluginaceae has 17 genera. All others families have only 1 genus.

Plant theory
In the first version of the Plant theory the above families were combined in Physenales, a conglomerate of families not fitting in a clear clade. It is obvious that this was lacking many possiblities. It was insufficient. It hardly gave good prescriptions, the more so as they are not available in hoemopathy.
In the update of the Plant theory the above families are fused in an extended Physenaceae and placed in Subphase 7.
Nyctaginaceae, formerly in Aizoales, is added to Physenales and is split in Bougainvilleoideae and Boerhavoideae and placed in respectively in Subphase 5 and 6.
Phytolaccaceae, formerly in Aizoales, is added to Physenales and is split in Petiveriaceae and Phytolaccaceae and placed in respectively in Subphase 3 and 4.
Molluginaceae is afily that has been problematic in botanical classifications. It is hardly known in homeoapthy. It is placed in Subphase 3.
In subphase 1 is placed a combination of Limeaceae, Stegnospermataceae, Gisekiaceae, Barbeuiaceae, Lophiocarpaceae.

Subphases

1. Limeaceae	
2. Molluginaceae	
3. Petiveriaceae	Phytolaccaceae
4. Phytolaccaceae	Phytolaccaceae
5. Bougainvilleoideae	Nyctaginaceae
6. Boerhavoideae	Nyctaginaceae
7. Physenaceae	

Physenales also to be called Nyctaginales
Clades: Caryophyllidae, Asteranae Angiospermae, Plants.

Introduction
They are very empathic and good listeners. They adapt easily to people and try please them, give them comfort. And they understand a lot. They can have deep talks with people who are suffering.
At the other hand they can have a problem staying with themselves. They are easily overlooked and they easily neglect their own needs and desires. They can quite easily lose their own way, their own autonomy.

Mind
Half position in the group, family or society.
Hardly noticed by anyone.
Tendency to adapt and please.
Take little space
Nice and easy going.
Inner life is deep and very sensitive, so they will know that it is better to be silent.
Easily overlooked, walked over and be unnoticed.

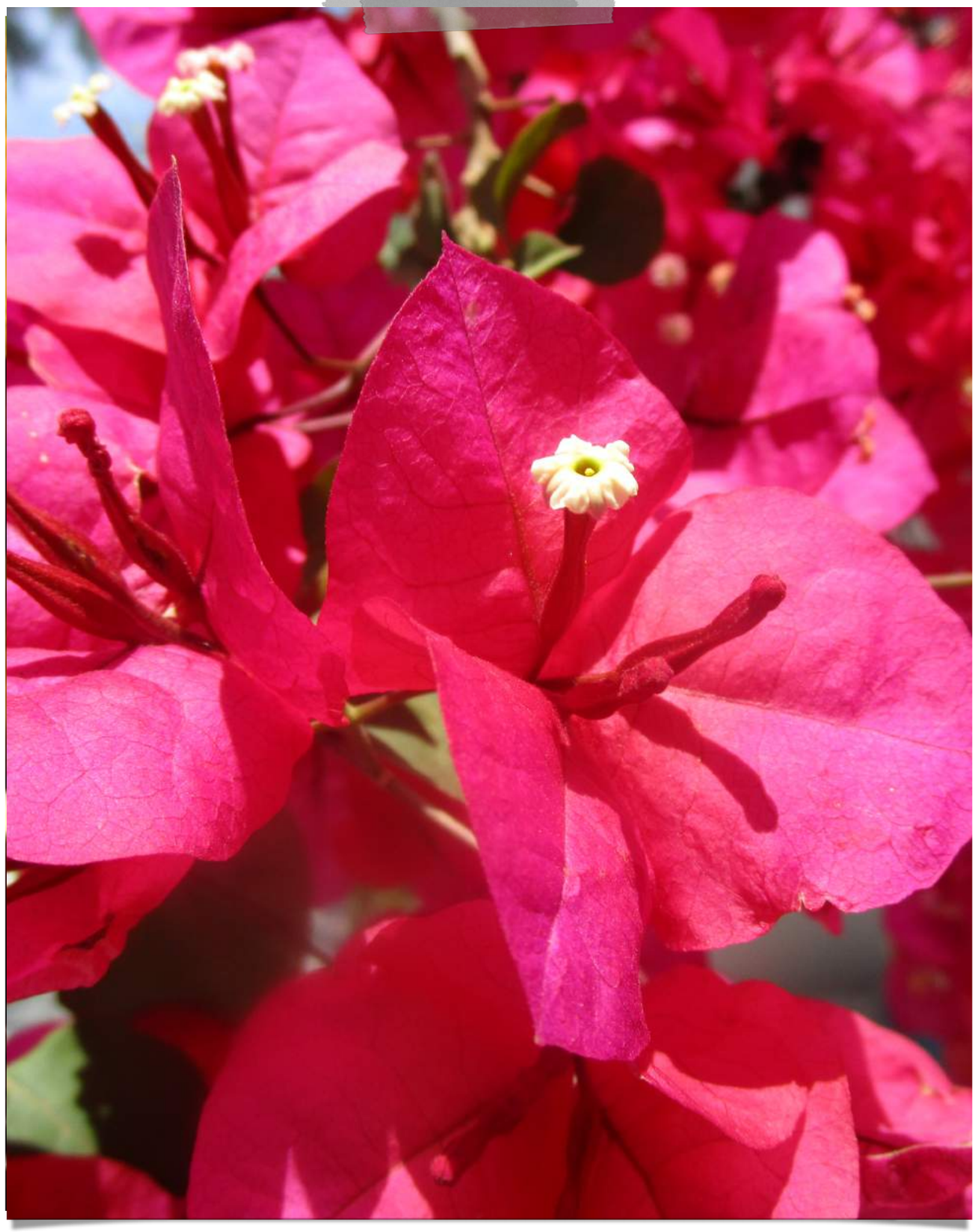
	3-663.31.00	**Limeaceae**
		Barbeuiaceae
		Limeaceae
		Lophiocarpaceae
		Gisekiaceae
		Barbeuia madagascariensis
		Limeum aethiopicum
		Gisekia africana
		Stegnosperma halimifolium
		Corbichonia decumbens
		Lophiocarpus polystachyus
	3-663.32.00	**Molluginaceae**
		Glinus oppositifolius
		Mollugo cerviana
		Glinus lotoides
	3-663.33.00	**Petiveriaceae**
	R	Petiveria alliacea
		Hilleria latifolia
	R	Trichostigma peruvianum
		Seguieria parvifolia
		Gallesia integrifolia
		Gisekia pharnaceoides
	R	Rivina humilis
	3-663.34.00	**Phytolaccaceae**
		Phytolaccaceae
		Sarcobataceae
12	R	Phytolacca americana
13		Sarcobatus vermiculatus
	R	Phytolacca acinosa
	3-663.35.00	**Bougainvilleoideae**
1		Cryptocarpus pyriformis
1		Belemia fucsioides
5		Colignonia ovalifolia
6		Leucaster caniflorus
7		Reichenbachia hirsuta
8	S8	Ramisia brasiliensis
9	R S9	Oxybaphus nyctagineus
10	R S10	Bougainvillea glabra
10		Bougainvillea spectabilis
11		Cephalotomandra fragrans
12	R	Pisonia brunoniana
12		Pisonia umbellifera
13		Phaeoptilum spinosum
13		Neea buxifolia
14		Guapira myrtiflora
15		Neeopsis flavifolia
16		Salpianthus macrodontus
16		Salpianthus arenarius
		Guapira eggersiana
	3-663.36.00	**Boerhavoideae**
2	S2 S3	Acleisanthes crassifolia
4		Boerhavia hirsuta
4		Boerhavia procumbens
5		Commicarpus fallacissimus
6		Andradea floribunda
7	R S9	Mirabilis jalapa
7		Allionia incarnata
8		Abronia villosa
8		Abronia latifolia
8		Abronia micrantha
10		Nyctaginia capitata
13	S4	Boerhavia diffusa
13	S4	Boerhavia scandens
15		Cuscatlania vulcanicola
16		Anulocaulis annulatus
17		Okenia hypogaea
	R	Mirabilis nyctaginea
	3-663.37.00	**Physenaceae**
		Asteropeiaceae
		Rhabdodendraceae
		Microteaceae
		Microtea debilis
		Physena madagascariensis
		Asteropeia multiflora
		Rhabdodendron macrophyllum
		Macarthuria australis
		Physenaceae

Physenales

16-5-2019
Utrecht
Jan Scholten

Physenales

Nyctaginales



Bougainvillea glabra

Physenales

Subphases Physenales	**Genera**
1 Limeaceae	1
2 Stegnospermataceae	1
3 Asteropeiaceae	1
4 Physenaceae	1
5 Rhabdodendraceae	1
6	0
7	0

Physenales

- **Subphases Physenales**
- 1 Limeaceae
- 2 Stegnospermataceae
- 3 Asteropeiaceae
- 4 Physenaceae
- 5 Rhabdodendraceae
- 6
- 7

- **Genera**
- 1
- 1
- 1
- 1
- 1
- 0
- 0

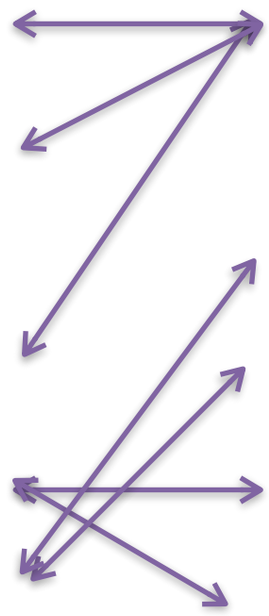
- **Problems**
- No remedies available
- No homeopathic MM
- No real remedy codes
- Hard to find a remedy

Where are the remedies?

Physenales

Subphases Aizoales

1. Lophiocarpaceae
2. Barbeuiaceae
3. Aizoaceae
4. Gisekiaceae
5. Nyctaginaceae
6. Phytolaccaceae
7. Sarcobataceae



• **Subphases Physenales**	• **Genera**	
• 1 Limeaceae	• 1	• 7
• 2 Molluginaceae	• 1	• 17
• 3 Petiveriaceae	• 1	• 14
• 4 Phytolaccaceae	• 1	• 7
• 5 Bougainvilloideae	• 1	• 17
• 6 Boerhavioideae	• 0	• 17
• 7 Physenaceae	• 0	• 6

Physenales

• **Subphases Physenales**	• **Subphases Physenales**	• **G**	• **G**
• 1 Limeaceae	• 1 Limeaceae	• 1	• 7
• 2 Stegnospermataceae	• 2 Molluginaceae	• 1	• 17
• 3 Asteropeiaceae	• 3 Petiveriaceae	• 1	• 14
• 4 Physenaceae	• 4 Phytolaccaceae	• 1	• 7
• 5 Rhabdodendraceae	• 5 Bougainvilloideae	• 1	• 17
• 6	• 6 Boerhavioideae	• 0	• 17
• 7	• 7 Physenaceae	• 0	• 6

Limeaceae

- **Subphase 1 Limeaceae**
- Single genus families
- Limeaceae
- Stegnospermataceae
- Lophiocarpaceae
- Barbeuiaceae
- Sarbotaceae ? Phytolacaceae
- Agdestiaceae ? Phytolacaceae

Limeum africanum

Limeaceae

- **Subphase 1 Limeaceae**
- No information
- Phase 1: impulsive, single
- Phase 3: careful, pleasing
- Single and not seen or heard

Limeum africanum

Molluginaceae

- **Subphase 2 Molluginaceae**
- 1 Family: 11 species
- No information
- Phase 3: careful, pleasing
- Phase 2: Adapting, giving in
- Not seen or heard because of adapting

Mollugo verticillata

Petiveriaceae

- **Subphase 3 Petiveriaceae**
- Split off from Phytolacaceae
- No information
- 9 Genera: Gallesia, Hilleria, Ledenbergia, Monococcus, Petiveria, Rivina, Schindleria, Seguieria, Trichostigma.

Petiveria alliacea

Petiveriaceae

- **Subphase 3 Petiveriaceae**
- Phase 3: careful, pleasing
- Not seen or heard, standing in between

Trichostigma peruvianum

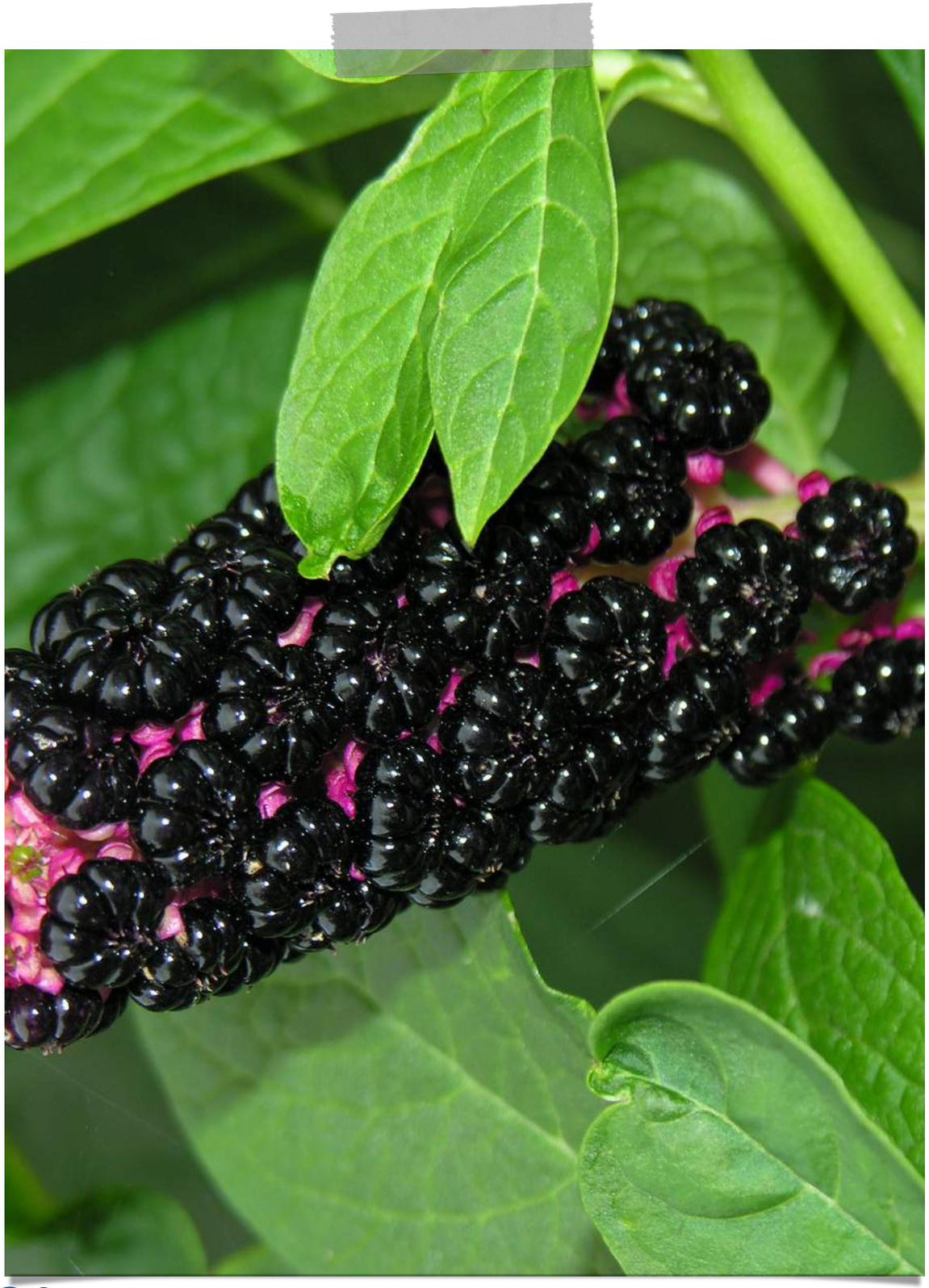
Phytolaccaceae

- **Subphase 4 Phytolaccaceae**
- 4 genera: Agdestis, Anisomeria, Ercilla, Phytolacca
- Phytolacca Phase 3 qualities

Phytolacca decantar

Phytolaccaceae

- **Subphase 4 Phytolaccaceae**
- Phase 3: careful, pleasing
- Phase 4: stable, loyal
- Standing in between, doubful, but still loyal.



Phytolacca decantar

Bougainvilleoideae

- **Subphase 5 Bougainvilleoideae**
- Nyctaginaceae is split in
- Bougainvilleoideae
- Boerhavioideae
- Bougainvillea Phase 5 qualities

Bougainvillea glabra

Bougainvilleoideae

- **Subphase 5 Bougainvilleoideae**
- Nyctaginaceae is split in
- Bougainvilleoideae
- Boerhavioideae
- Bougainvillea Phase 5 qualities

Bougainvillea glabra

Boerhavioideae

- **Subphase 6 Boerhavioideae**
- Nyctaginaceae is split in
- Bougainvilleoideae
- Boerhavioideae
- Boerhavioideae Phase 6 qualities
- Nyctagineaea: Abronia, Acleisanthes, Allionia, Anulocaulis, Boerhavia, Commicarpus, Cuscatlania, Cyphomeris, Mirabili, Nyctaginia, Okenia, Tripterocalyx

Boerhavia diffusa

Boerhavioideae

- **Subphase 5 Boerhavioideae**
- Phase 3: careful, pleasing
- Phase 6: used, dirty, unloved
- Boerhavia has Phase 6 qualities

Abronia umbellata

Physenaceae

- **Subphase 7 Physenaceae**
- Combi of single genus families
- Rhabdodendraceae
- Simmondsiaceae
- Physenaceae
- Asteropeiaceae
- Microteaceae
- Macarthuriaceae

Physena sessiflora

Physenaceae

- **Subphase 7 Physenaceae**
- No homeopathic information
- Unsure combination
- Phase 3: Pleasing, in between
- Phase 7: rejected, outcast

Rhabdodendron amazonicum

Polygonales 3-663.60.00

Taxonomy
Polygonales has been an Order in old taxonomies, associated with Caryophyllales. It included the Polygonaceae and Plumbaginaceae, which in Stebbins classification was placed in its own Order. In the Apg2 classification Polygonales included also Droseraceae and related carnivorous Families. In the Apg3 classification Polygonales is included in Caryophyllales.

Plant theory
In the Plant theory Polygonales is split off from Caryophyllales. Droserales is split off from Polygonales, both being monophyletic.
In the update of the Plant theory The Polygonales is split in its 4 Subfamilies: Rumexoideae, Persicarioideae, Polygonoideae and Eriogonoideae.

Subphases
1. Tamaricaeae
2. Frankeniaceae
3. Plumbaginaceae
4. Rumexoideae
5. Persicarioideae
6. Polygonoideae
7. Eriogonoideae

Polygonales
Clades: Plants, Angiospermae, Asteranae, Caryophyllidae

Introduction
They feel used by their relatives, family, husband, wife or friends. They have the impression that they have given too much, much more than they have gotten back. Often they did so for fear of being left alone, of being rejected. They felt only half loved, not really loved. They had the feeling that they were tolerated but not really accepted or loved. This is in contrast to their own feeling that everyone is equal and should be treated equal. Their philosophical and religious considerations help them to transcend their hardships and their feeling of being used by spouse or relatives.

	3-663.61.00	**Tamaricaceae**
10	R	Tamarix canariensis
13	R	Myricaria germanica
13	R	Tamarix ramosissima
	3-663.62.00	**Frankeniaceae**
6	R S8!	Frankenia laevis
	R	Frankenia pulverulenta
	R	Frankenia salina
	3-663.63.00	**Plumbaginaceae**
1		Aegialitis annulata
2		Statice brasiliensis
4	R !	Armeria maritima
4	R	Armeria pseudarmeria
5	R !	Ceratostigma willmottianum
5	R	Ceratostigma plumbaginoides
6	R	Limonium brasiliense
6	R S6!	Limonium graecum
7	R !!	Limonium sinuatum
8	R	Limonium platyphyllum
9	R !!	Limonium delicatulum
10	R	Limoniastrum monopetalum
12	R !!	Psylliostachys suworowii
13		Acantholimon glumaceum
13	R !	Acantholimon ulicinum
14	R	Plumbago europaea
14	R !	Plumbago zeylanica
14	R	Plumbago indica
15	R	Goniolimon tataricum
17	R	Limonium imbricatum
	3-663.64.00	**Rumexoideae**
2	R !	Fagopyrum esculentum
8		Rumex obtusifolius
8	R !	Rumex acetosa
8	R	Rumex alpinus
8		Rumex britannica
8	R	Rumex crispus
9	R	Oxyria digyna
12	R	Rheum palmatum
12	R	Rheum rhaponticum
13	R	Emex spinosa
16		Calligonum polygonoides
17	R	Pteropyrum olivieri
		Rumex conglomeratus
		Rumex acetosella
		Rumex patientia
		Rumex lunaria
		Rumex bucephalophorus
	3-663.65.00	**Persicarioideae**
5		Persicaria amphibia
6		Persicaria hydropiper
6	R	Persicaria virginiana
7		Persicaria orientalis
8	R !	Persicaria amplexicaulis
11	R	Persicaria bistorta
12	R	Persicaria punctata
13	R S6?	Persicaria maculosa
13	R !	Persicaria capitata
14	R	Persicaria sagittata
		Bistorta bistortoides
		Bistorta affinis
		Bistorta bistortoides
		Koenigia islandica
	R	Bistorta affinis
	R	Antenoron filiforme
		Aconogonon divaricatum
	3-663.66.00	**Polygonoideae**
1		Polygonella americana
1		Oxygonum alatum
1		Pteroxygonum giraldii
2	R	Muehlenbeckia axillaris
6		Reynoutria japonica
8	R S8!	Polygonum aviculare
13		Homalocladium platycladum
16		Polygonum plebeium
16		Atraphaxis pyrifolia
16		Duma florulenta
17		Fallopia multiflora
17		Polygonum sibiricum
	R	Polygonum maritimum
		Polygonum vulgare
	R	Polygonum amphibium
	R	Fallopia aubertii
		Polygonum molle
	R	Polygonum hydropiperoides
	R	Polygonum argyrocoleon
	R	Polygonum scoparium
	R	Polygonum persicaria
	R	Polygonum pubescens
		Centrostegia thurberi
		Polygonum paleaceum
		Polygonum sinomontanum
		Polygonum weyrichii
		Antenoron filiforme
		Polygonum campanulatum
		Polygonum japonicum
		Polygonum paniculatum
	3-663.67.00	**Eriogonoideae**
1		Brunnichia ovata
2	R	Antigonon leptopus
3		Pterostegia drymarioides
4	R	Eriogonum umbellatum
7	R !	Eriogonum jamesii
7		Gilmania luteola
8		Gymnopodium floribundum
9		Centrostegia thurberi
9		Podopterus mexicanus
10	R	Coccoloba pubescens
11		Ruprechtia apetala
11		Ruprechtia ramiflora
12	R S12!	Triplaris peruviana
17		Oxytheca perfoliata

Portulacales 3-663.10.00

Taxonomy
Portulacales is a clade in the Apg4 classification, a Suborder in the Order Caryophyllales. It is called the Potulacoid clade. It contains the Families: Anacampserotaceae, Basellaceae Cactaceae, Didieraceae, Halophytaceae, Montiaceae, Portulacaceae and Talinaceae. Cactaceae is by far the biggest family in Portulacales. In good right the Order could be called Cactales.
Recently there have been made big shift in some families. The quite big family Portulacaceae lost most of its memebers to Montiaceae and has onlt Portulaca as its member.

Plant theory
In the Plant theory Portulacales is an Order in the Subclass of Caryophyllidae and is placed in Phase 1. The placement in Subphases is tentative. In the update of the Plant theory The Portulalcales is reordered. Some small families have been fused.
In Subphase 1 is combined Didieraceae and Halophytaceae.
In Subphase 2 is combined Portulacaceae, Anacampserotaceae, Talinaceae and Basellaceae.
In Subphase 3 is Montiaceae.
The Cactaceae is split in its 4 Subfamilies: Echinocactoideae, Phyllocactoideae, Opuntioideae and Cereoioideae respectiveley in Suphase 4 to 7.

Subphases
1. Didieracaeae
2. Portulacaceae
3. Montiaceae
4. Echinocactoideae Cactaceae
5. Phyllocactoideae Cactaceae
6. Opuntioideae Cactaceae
7. Cereoioideae Cactaceae

Portulacales
Names: Portulacaceous alliance; Portulacinae; Portulacaceous cohort.
Clades: Caryophyllidae, Asteranae Angiospermae, Plants.
Botany: succulent.

Introduction
They are loners; they feel like an outsider not belonging to a group. There is a desire to belong to a group, a family. But they are often too strange and weird, or consider themselves too strange to be able to be accepted in a group. They are very sensitive and have deep perceptions that they do not recognise in other people. They see themselves as deviating, not fitting in a group. They fear to lose their autonomy when being engaged to marry. They fear that they will give too much and get little in return. So they prefer to stay single, especially after disappointments in relationships or friendships.
This personality doesn't know how to make contact. It is as if it is not possible to make connection. There is a fear that they will loose their independence when making a connection.

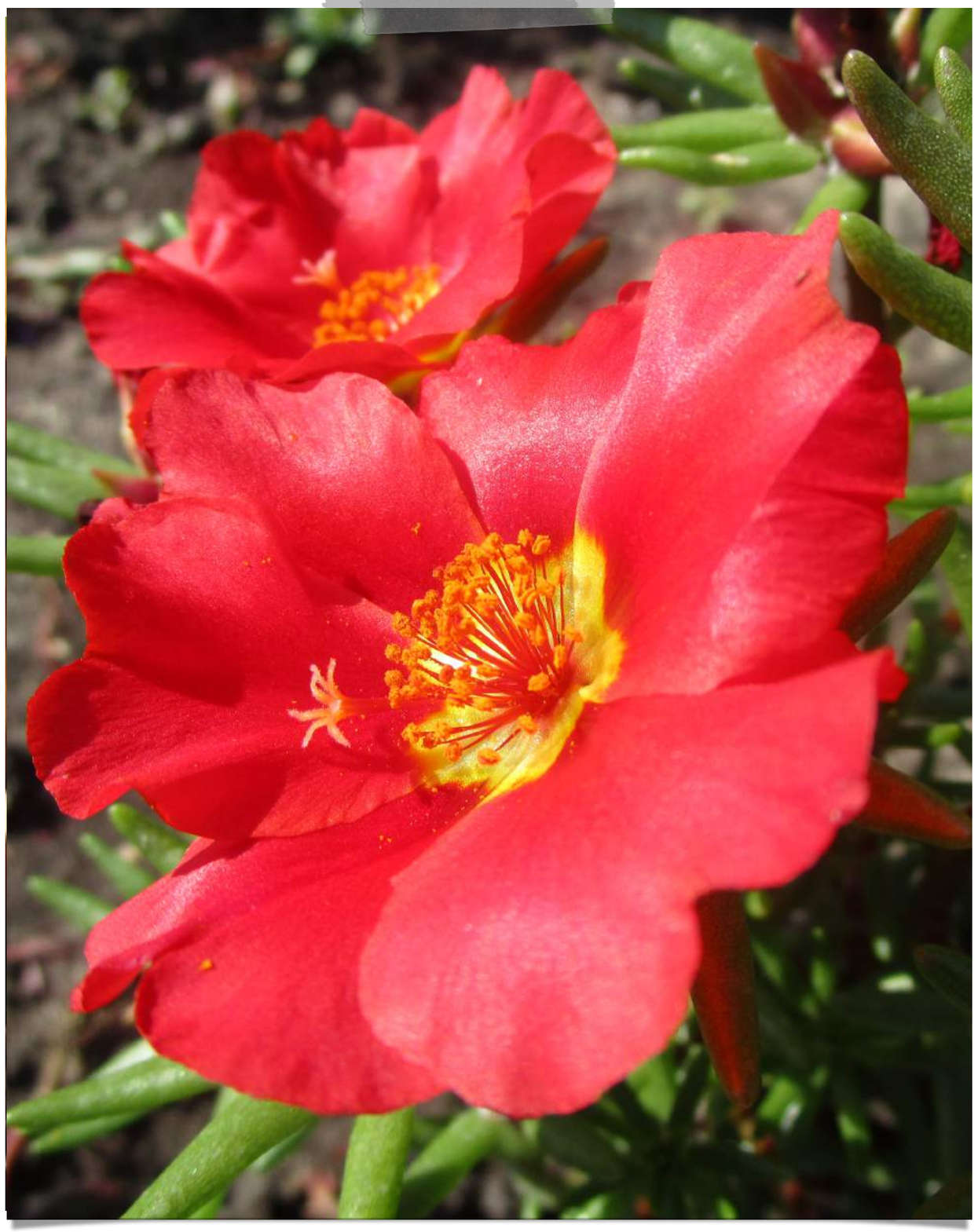
Mind
Mania alternating depression in relationships.
Opening and closing their heart in relationships.
Fear: losing their autonomy; being dependent.
Ailments from being dominated, authoritarian parents or teachers.
Desire to stay single from fear of being overruled or dominated.

	3-663.12.00	**Didieraceae**
		Halophytaceae
6		Ceraria namaquensis
8	R	Portulacaria afra
11		Didierea madagascariensis
12		Alluaudia procera
14		Calyptrotheca somalensis
17		Decarya madagascariensis
	3-663.12.00	**Portulacaceae**
		Talinaceae
		Basellaceae
1	R	Basella alba
2	R	Anredera cordifolia
3	R	Tournonia hookeriana
4		Ullucus tuberosus
7	R	Portulaca oleracea
8		Portulaca pilosa
10	R	Portulaca grandiflora
13	R	Talinum paniculatum
14		Amphipetalum paraguayense
15		Talinella boiviniana
17		Anacampseros rufescens
	3-663.13.00	**Montiaceae**
2		Phemeranthus rugospermus
7		Cistanthe monandra
8	R	Calandrinia polyandra
8		Calandrinia ciliata
8	R	Calandrinia compressa
8	R	Calandrinia balonensis
9		Cistanthe umbellata
9	R	Cistanthe grandiflora
12	R !	Claytonia sibirica
12		Claytonia perfoliata
13		Lewisia disepala
13		Lewisia rediviva
13		Lewisia tweedyi
13	R	Lewisia cotyledon
14		Lenzia chamaepitys
15		Hectorella caespitosa
16		Lyallia kerguelensis
17		Schreiteria macrocarpa
	3-663.14.00	**Echinocactoideae = Cacteae**
2		Aztekium ritteri
2		Geohintonia mexicana
3		Echinocactus williamsii
4		Astrophytum ornatum
5		Echinomastus intertextus
6	R	Pelecyphora aselliformis
7		Leuchtenbergia principis
8		Ferocactus cylindraceus
9		Thelocactus hexaedrophorus
10		Turbinicarpus valdezianus
11		Mammillaria gigantea
12	R	Echinocactus grusonii
13	R	Ariocarpus retusus
14		Escobaria vivipara
15	R	Coryphantha compacta
16	R	Epithelantha micromeris
16		Acharagma roseana
17	R!!	Lophophora williamsii
	R	Echinocereus triglochidiatus
		Mammillaria bocasana
		Mammilloydia candida
		Neomammillaria barbata
	R	Mammillaria melanocentra
	R	Mammillaria senilis
		Echinomastus erectocentrus
	3-663.15.00	**Phyllocactideae**
1		Epiphyllum oxypetalum
2	R	Hylocereus undatus
2	R	Weberocereus biolleyi
3		Austrocactus coxii
4	R	Corryocactus erectus
4		Acanthocereus tetragonus
5		Echinocereus viridiflorus
7		Weberbauerocereus johnsonii
8		Neobuxbaumia euphorbioides
9		Lophocereus schottii
9		Pachycereus pringlei
9		Marginatocereus marginatus
9	R	Pachycereus pecten-aboriginum
10	R	Carnegiea gigantea
11		Stenocereus thurberi
11	R	Stenocereus aragonii
13	R	Myrtillocactus geometrizans
14		Cephalocereus senilis
15	R !	Selenicereus grandiflorus = Cactus grand.
16	R	Disocactus flagelliformis
		Leptocereus quadricostatus
	3-663.16.00	**Opuntioideae**
2		Blossfeldia liliputana
2		Maihuenia poeppigii
3		Quiabentia verticillata
4	R	Pereskia grandifolia
6		Austrocylindropuntia subulata
6		Pterocactus tuberosus
7		Cumulopuntia boliviana
7		Consolea corallicola
7		Tacinga funalis
8	R	Opuntia ficus-indica
9		Opuntia tuna
9		Miqueliopuntia miquelii
10		Opuntia basilaris
11	R	Brasiliopuntia brasiliensis
11		Opuntia elatior
12		Nopalea cochenillifera
13		Corynopuntia reflexispina
14		Cylindropuntia tunicata
15		Tunilla soehrensii
	R	Opuntia aciculata
		Cylindropuntia leptocaulis
		Opuntia karwinskiana
	3-663.17.00	**Cereoideae**
1		Rhipsalis micrantha
1	R	Rhipsalis baccifera
1	R	Rhipsalis paradoxa
2	R	Lepismium houlletianum
3	R	Hatiora salicornioides
5		Eriosyce villosa
6		Notocactus magnificus
6		Parodia leninghausii
7		Frailea pumila
8	R !	Cereus bonplandii
9		Pilosocereus pachycladus
10		Stetsonia coryne
11		Coleocephalocereus aureus
12	R	Echinopsis pachanoi
13		Cleistocactus straussii
14		Espostoa lanata
14		Gymnocalycium gibbosum
15	R	Rebutia minuscula
16		Uebelmannia pectinifera
17		Browningia candelaris
		Copiapoa humilis
		Pilocereus cereus
		Echinopsis oxygona
		Eulychnia castanea

Portulacales

16-5-2019
Utrecht
Jan Scholten

Portulacales



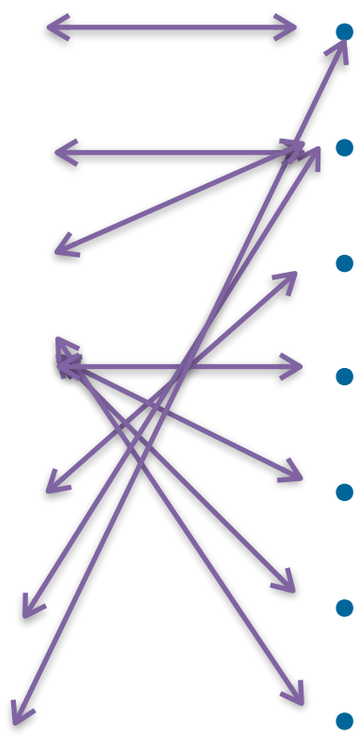
Portulaca grandiflora

Portulacales

Subphases Portulacales	**Genera**
1 Halophytaceae	1
2 Basellaceae	2
3 Talinaceae	4
4 Cactaceae	100
5 Montiacaceae	14
6 Portulacaceae	32, of 1
7 Didieraceae	5

Portulacales

- **Subphases Portulacales**
- 1 Halophytaceae
- 2 Basellaceae
- 3 Talinaceae
- 4 Cactaceae
- 5 Montiaceae
- 6 Portulacaceae
- 7 Didieraceae



- **Portulacales**
- 1 Didieraceae
- 2 Portulacaceae
- 3 Montiaceae
- 4 Echinocactoideae
- 5 Phyllocactoideae
- 6 Opuntiodeae
- 7 Ceroideae

- **Genera**
- 7
- 7
- 16
- 26
- 31
- 18
- 50

Portulacales

- Loners; outsider; single
- Not belonging, fitting to a group.
- Deep perceptions; spiritual
- Fear to lose their autonomy
- Fear marriage, parenthood
- Difficult contact.
- Opening and closing their heart
- Fear: losing autonomy; in dependence.
- Ailments from being dominated, authoritarian parents or teachers.

Portulacales

- Body
- General: emaciation; obesity.
- Lungs: asthma, cramp in air passages.
- Heart: pain, constriction, oppression; tamponade; myocarditis, pericarditis, stenocardy, pulse fast, slow, hard; cyanosis.
- Stomach: gastritis; ulcer; cramp < food.
- Rectum: cramp, constriction; dysentery.
- Female: menses cramps, constriction uterus; vaginismus.
- Limbs: rheumatism.

1 Didieriaceae

Didieriaceae
Didierea, Aluaudia
Halophytaceae
Halophytum

Alluaudia montagnacii

2 Portulacaceae

Portulacaceae:
Portulaca
Anacampserotaceae
Talinaceae
Basellaceae

Portulaca oleraceae

3 Montiaceae

Claytonia sibirica
No contact with
her baby
Angry at her
weeping baby

Claytonia sibirica

4 Echinocactoideae

Echinocactoideae
= Cacteae
Mammillaria

Mammillaria melanocentra

5 Phyllocactoideae

Cactus grandifloras

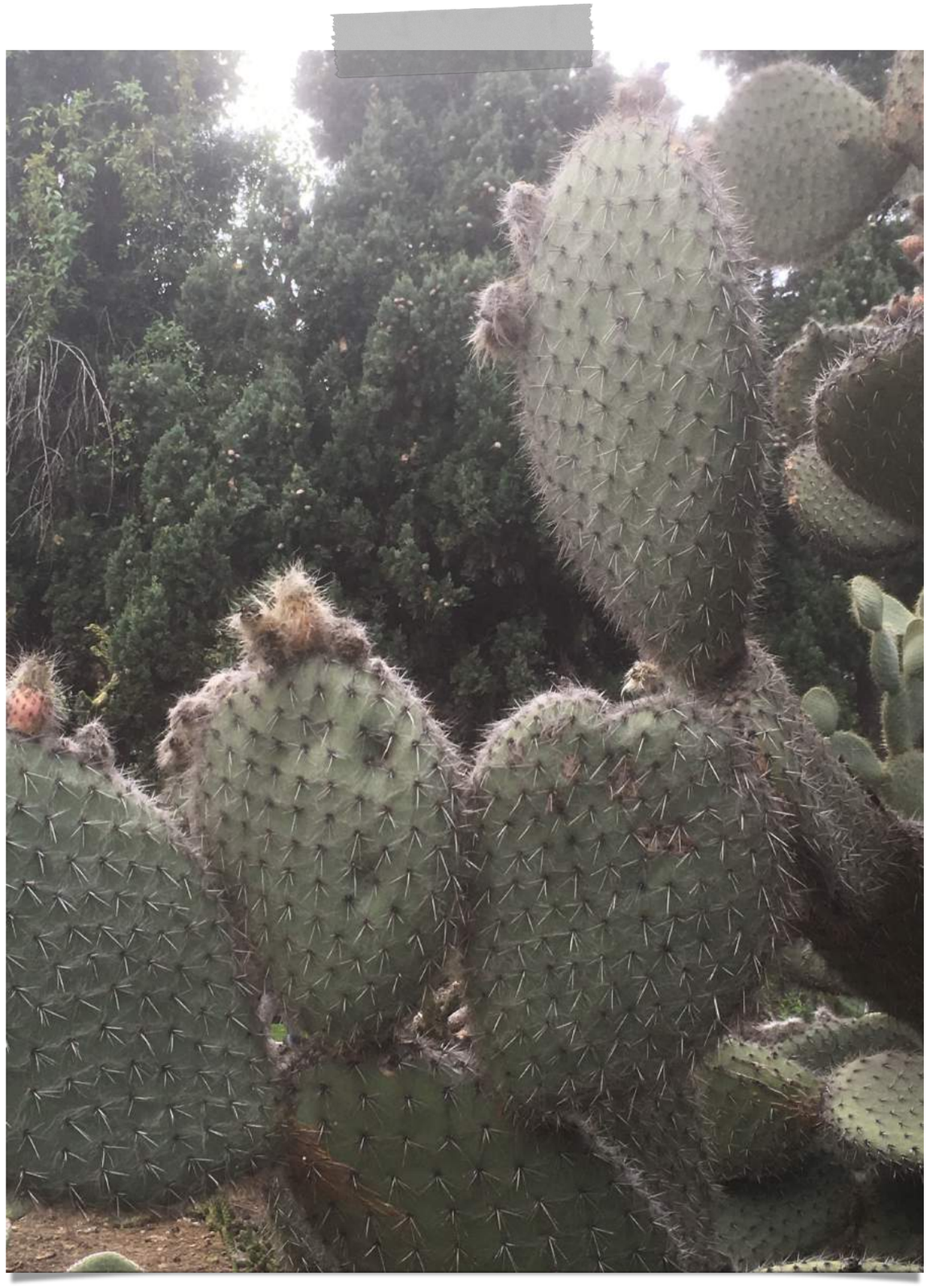
- Heart: pain, constriction,
- as if iron strings contracting
- Clutched, released, by iron hand
- Expands and contracts
- tamponade; myocarditis, pericarditis, stenocardy
- pulse fast, slow, hard
- Red face
- Phase 5

Selenicereus grandifloras

6 Opuntioideae

Opuntia vulgaris

- Segmented cacti
- Dirt, ugly



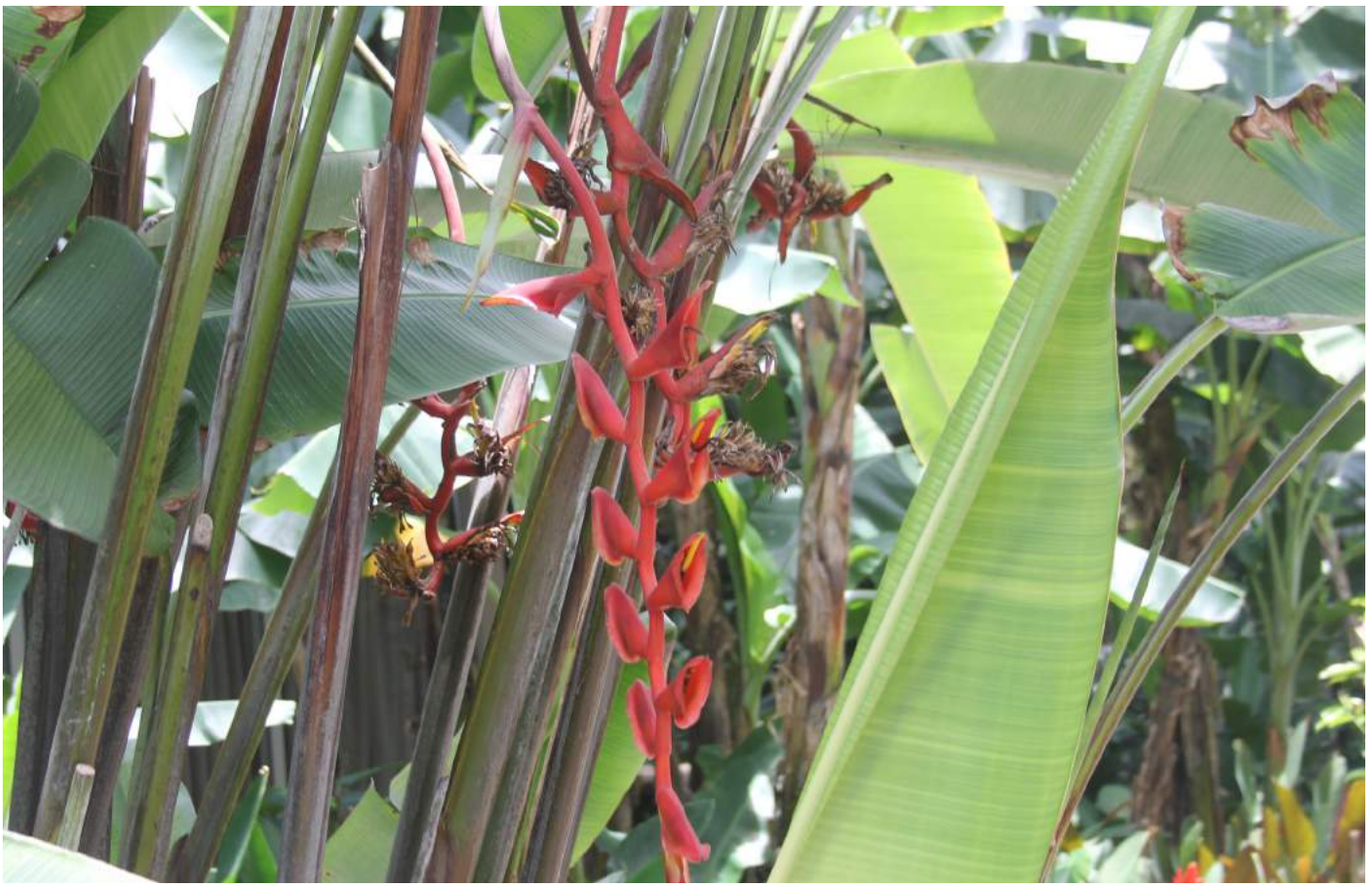
Opuntia ficus-indica

7 Cereoideae

Cereus bonplandii

- Destructive in relationships
- Curse, swear: P7
- Throw things at persons when resisted
- Stage 8, working hard

Cereus bonplandii



Zingiberales 3-633.50.00

Taxonomy
Zingiberales is an oder reconised for a long time in botany. In the Apg3 classification it is an oder placed in the superoder Commelonoids. Zingiberales is an Order with about 110 genera and 2800 species. The Commelinoids was by far the biggest clade in LIliidae.

Plant theory
In the first version of the Plant theory the Order Zingiberales was in Phase 4, Commelinoids, and in Subphase 5. There was a strong imbalance in quantities.
In Plant theory 2 Zingiberales is Split off from the Commelinoids and placed in Phase 5. The Phase 5 quality has was clear from the past and as such it was placed is in Subphase 5. One can say that Zingiberales is raised from the level of Family, Subphase, to the level of Order, Phase. The several families of Zingiberales are placed in the Subphases. The biggest family Zingiberaceae is split in 2 and placed in Subphase 4 and 5. The second biggest family Marantaceae is split in 2 and placed in Subphase 2 and 3. The small families Musaceae, Lowiaceae, Cannaceae and Strelitziaceae are placed together in Musaceae in Subphase 1.

Subphases
1 Musaceae
2 Marantoideae
3 Calatheoideae
4 Alpinoideae
5 Zingiberoideae
6 Costaceae
7 Heliconiaceae

Introduction
The Phase 5 quality is confirmed by cases. They are enthusiastic and ambitious. They like to achieve a lot and like to win. They are expansive, passionate and popular. The passionate quality is enhanced by the theme of relationships of the Lilidae. They can easily be too present and so limiting to others. At the other hand they easily feel limited.
They like to be part of a family, family is very important to them. But at the same time they often feel limited by it. Family life is too predictable, too boring. Sticking to doing things with the family feels too restrictive, lacking in life. They are full of life, exuberant, extravagant. They have a desire to get as much out of life as possible. They are very enthusiastic. They want to enjoy life, have extremes of experience.

Mind
Puberty problems love and relation problems.
High libido.
Cheerful, good humoured, pleasing.
Forgetful, weak memory.
Dream: robber, stranger, journey.
Sexual desire high, lascivious.
Inhibited, sexually.
Reserved. Personal inhibition.
Averse to sympathy.

General
Sensation: burning, crawling, aching, constricting.
Desire: thirst.
Sleep: sleepless.

Body
Head: headache, forehead.
Limbs: pain in hands and feet.

	3-633.51.00	**Musaceae**
		Cannaceae Lowiaceae Strelitziaceae
2	R	Musa paradisiaca
2		Musa basjoo
3		Ensete superbum
4	R	Orchidantha borneensi
4	12	Phenakospermum guyannense
4		Musella lasiocarpa
9	R	Strelitzia reginae
11	R	Ravenala madagascariensis
17	R	Canna glauca
17	R	Canna indica
17		Canna paniculata
	3-633.52.00	**Marantoideae**
1		Thalia dealbata
1		Thalia geniculata
2		Schumannianthus dichotomus
3		Phrynium pubinerve
4		Donax canniformis
6	R	Maranta arundinacea
6	R	Maranta lietzei
6		Maranta leuconeura
6		Koernickanthe orbiculata
6		Maranta sobolifera
7		Hylaeanthe hexantha
8		Myrosma cannifolia
9		Ataenidia conferta
10		Saranthe ustulata
11		Ctenanthe setosa
12		Stromanthe porteana
13		Halopegia azurea
14		Indianthus virgatus
15	R	Marantochloa conferta
16		Afrocalathea rhizantha
17		Stachyphrynium spicatum
	3-633.53.00	**Calatheoideae**
1		Monophyllanthe oligophylla
2		Goeppertia effusa
3	R	Pleiostachya pruinosa
4	R !	Ischnosiphon ovatus
5		Monotagma densiflora
6		Calathea lanata
7	R	Calathea varians
8	R	Calathea crotalifera
9	R	Calathea warscewiczii
10		Calathea macrosepala
10		Calathea lutea
10		Calathea altissima
11		Sanblasia dressleri
12		Haumania liebrechtsiana
13		Megaphrynium macrostachyum
14		Hypselodelphys violacea
15		Sarcophrynium prionogonium
16		Trachyphrynium braunianum
17		Thaumatococcus flavus
	3-633.54.00	**Alpinioideae**
1	R	Aframomum angustifolium
1		Aframomum melegueta
1		Aframomum corrorima
2		Alpinia galanga
3	R	Alpinia conchigera
4		Renealmia brasiliensis
4	R	Renealmia cernua
5		Elettariopsis curtisii
6	R	Elettaria cardamomum
7	R	Alpinia officinarum
8		Plagiostachys lateralis
9	R	Alpinia zerumbet
10	R	Etlingera elatior
11		Alpinia elegans
12		Alpinia purpurata
13		Hornstedtia costata
14		Amomum villosum
15		Pleuranthodium tephrochlamys
16		Riedelia alata
16		Siamanthus siliquosus
17		Burbidgea nitida
17		Burbidgea schizocheila
	3-633.55.00	**Zingiberoideae**
1		Siphonochilus aethiopicus
2	R	Globba winitii
2		Globba patens
3		Hemiorchis burmanica
4		Stahlianthus campanulatus
5		Camptandra latifolia
6	R	Curcuma longa
7	R	Roscoea scillifolia
8	R	Cautleya spicata
9	R	Hedychium coronarium
9	R	Hedychium gardnerianum
11	R	Zingiber officinale
11		Zingiber zerumbet
11		Zingiber montanum
12	R	Curcuma alismatifolia
12		Distichochlamys citrea
13		Scaphochlamys malaceana
14	R	Kaempferia galanga
15		Haniffia cyanescens
16		Boesenbergia rotunda
16		Curcumorpha longiflora
	3-633.56.00	**Costaceae**
1		Monocostus uniflorus
2		Dimerocostus strobilaceus
3		Chamaecostus cuspidatus
4		Costus maculatus
5		Costus dubius
6		Costus pictus
7		Costus villosissimus
8		Costus productus
8		Costus woodsonii
9		Costus curvibracteatus
9		Costus comosus
10	R	Costus spiralis
11	R	Costus arabicus
12	R	Costus spicatus
13		Cheilocostus speciosus
14		Cheilocostus globosus
15		Paracostus englerianus
16	R !	Tapeinochilos ananassae
17		Costus lateriflorus
	3-633.57.00	**Heliconiaceae**
1		Heliconia indica
2		Heliconia velloziana
3	R	Heliconia psittacorum
4		Heliconia imbricata
5		Heliconia tortuosa
6		Heliconia latispatha
7		Heliconia subulata
7		Heliconia chartacea
8		Heliconia mariae
9	R !	Heliconia lingulata
10	R	Heliconia rostrata
11		Heliconia bihai
11		Heliconia aurea
12	R	Heliconia wagneriana
13		Heliconia pendula
14		Heliconia metallica
15		Heliconia obscura
16		Heliconia badoloi
17		Heliconia impudica
		Heliconia spathocircinata

Marantaceae Phylogeny Poster

genera with plesio-/apomorphic and (non)diagnostic traits

robust herbs (some lianas)
rhizomatous
pantropical (except AUS)
"jungle weeds">>>
mostly trop. rainforest habitats
forest margins/
disturbed patches/light gaps
branch axes of repeating units of
internodes (first two very short)
bearing prophyll,
reduced leaf (interphyll/mesophyll),
and sheath or expanded leaf
leaf sheath closed
lvs lamina asymmetric, often patterned
lvs sec. veins uniquely sigmoid
petiole pulvinate at upper end >
lvs heliotropic/nyctinastic
(tracking sun/fold upright at night)

infl with spathes ("bracts")
florescence axes of units with
prophyll, interphyll, and bracteole
flws in mirror-image pairs
C, A, and style all basally fused
staminodium cucullatum and
staminodium callosum
style under tension, "explosive"
sec. pollen presentation with "stamp"
fr capsule or berry
silica bodies (hat-shaped or druses)

Sarcophrynium Clade
Africa
(W Africa, Congo Basin)

outer staminode 1

lianas; spathes large, suborbicular, showy white, persistent
bracteoles –, interphylls –
fr indehiscent, tuberculate; aril –
→ ***Haumania*** (3)

rosulate; bracteoles 2 per cymule
branches of cucullate staminode appendage (sub)equal; outer staminodes petaloid
fr indehiscent
aril ++
→ ***Sarcophrynium*** (4)

rosulate
bracteole 1, glandular; outer staminodes –
fr indehiscent, large, winged, exocarp leathery, endocarp mucilaginous
aril ++ (thaumatin)
→ ***Thaumatococcus*** (2)

bracteoles 2, glandular
cucullate staminode
appendage: lower branch
much longer than upper

rosulate; bracteole 1 per cymule
branches of cucullate staminode
appendage (sub)equal
outer staminodes stiff; fr dehiscent
also Sudan, Uganda
→ ***Megaphrynium*** (4)

rosulate
fr dehiscent
aril +
→ ***Trachyphrynium*** (1)

caulescent
fr indehiscent
aril –
→ ***Hypselodelphys*** (7)

rosulate; lvs never patterned
bracteoles glandular, interphylls +
cymules 2(3)-flowered
ovary with 3 fertile locules
→ ***Calathea*** (37)

Calathea Clade
America
humid tropics (mostly)

bracteoles –, interphylls (–)
cymules 1-flowered
ovary with 1 fertile locule
→ ***Monotagma*** (37)

rosulate
bracteoles glandular, interphylls +
cymules 2(3)-flowered
ovary with 3 fertile locules
→ ***Goeppertia*** (250)

bracteoles +

rosulate
bracteoles keeled
spathes conduplicate also in bud
florescences laterally flattened
→ ***Pleiostachya*** (1)

rosulate or caulescent
bracteoles not keeled
spathes tightly rolled, at least in bud
florescences terete
→ ***Ischnosiphon*** (35)

rosulate or caulescent; marsh plants; bracteoles –, interphylls –
outer staminode 1, petaoid, showy
cucullate staminode with double appendage
fr caryopsis-like
S America to southern N America
→ ***Thalia*** (6)

Donax Clade

America

rosulate; spathes spiralled, infl congested, capitate
bracteoles –, interphylls +
outer staminodes 2, cucullate staminode with appendage with near apex
fr dehiscent, aril +
India, Sri Lanka, Indonesia, New Guinea, Solomon Is.
→ ***Phrynium*** (40)

Asia

caulescent
tall, canelike stem
lvs clustering on top
bracteoles 2, glandular

staminal tube conspicuous
fr dehiscent, seeds 3
aril +
Myanmar to Borneo
→ ***Schumannianthus*** (2)

staminal tube minute
fr indehiscent, seeds 1–2
aril –
SE Asia
→ ***Donax*** (1)

Stachyphrynium Clade

Africa, Asia

tall (1–3 m)
lvs and infl on same shoot
Africa, Réunion, Comoro Islands
→ ***Marantochloa*** (15)

small plants
lvs and infl on separate shoots
W Africa
→ ***Afrocalathea*** (1)

rosulate
bracteoles –, interphylls + or –
K short, C tube long, anther app. hood-like
fr dehiscent, seeds 1–2
India, Sri Lanka, Indonesia
→ ***Stachyphrynium*** (9)

rosulate; marsh plants
one sepal much smaller than other two
fr indehiscent (caryopsis-like), seed 1
Congo Basin, Madagascar, Myanmar–Thailand–Cambodia, Java
→ ***Halopegia*** (3)

Maranta Clade
bracteoles – (most)
interphylls – (all)

Africa, Asia

caulescent
fertile A with large petaloid appendage
fr dehiscent, seeds 3
S India, Sri Lanka
→ ***Indianthus*** (1)

florescence of 1 or 2 slightly overlapping spathes
lateral synflorescences –
cymule axis > 2 cm
fr dehiscent, aril +
→ ***Maranta*** (40) + *Koernickanthe* (1)

rosulate
"fenestrate sheaths"
florescence units of 2–3 cymules
→ ***Hylaeanthe*** (2)

florescences monosymmetrical
florescence units of 1 cymule
spathes white/pale green, later buff
dry forests
→ ***Myrosma*** (1)

S America
humid tropics (mostly)

rosulate
florescence units of 1 cymule
southeastern S America
→ ***Saranthe*** (8)

caulescent; lvs usu. clustered
bracteoles if present scale-like
C tube shorter than wide
C and inner staminodes usu. not exceeding K
callose staminode entirely firm/fleshy
→ ***Stromanthe*** (19)

lvs antitropic

rosulate or caulescent
bracteoles + (scale- to sheath-like)
cymule axis < 1 cm
callose staminode distally petaloid
→ ***Ctenanthe*** (16)

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Ataenidia submerged in ***Marantochloa***
Cominsia submerged in ***Phrynium***
Goeppertia here including all members of the former ***Calathea*** I clade
Monophyllanthe affin. ***Marantochloa***
Monophrynium submerged in ***Phrynium***
Phalecophrynium submerged in ***Phrynium***
Sanblasia synonymized with ***Calathea***

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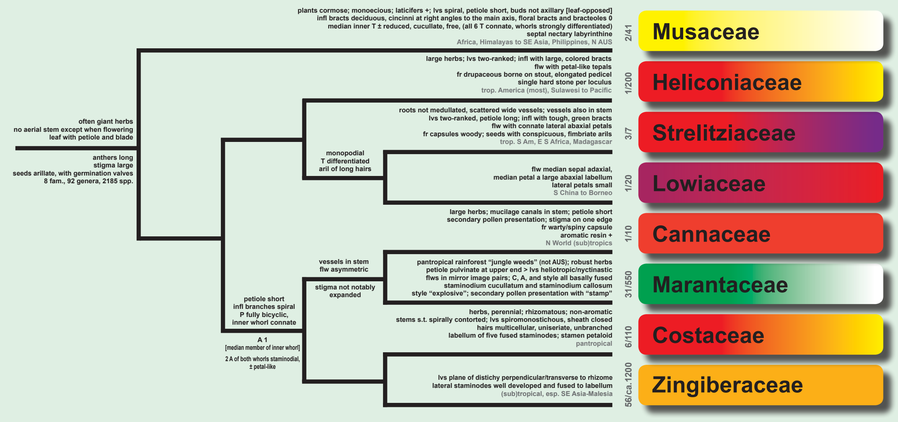
Thanks to Finn Borchsenius for valuable advice and for an updated list of species per genus (in parentheses)

Angiosperm Phylogeny Poster
Tracheophyte Phylogeny Poster
Bryophyte Phylogeny Poster



Zingiberaceae Phylogeny Poster

subfamilies, tribes, and genera with plesio-/apomorphic and (non)diagnostic traits

lvs distichy perpendicular (transverse) to rhizome
lateral staminodes well developed and fused to labellum

Siphonochiloideae

Tamijioideae

Zingiberoideae

lvs plane of distichy parallel to rhizome
hairs on seeds

Globbeae

labellum often connate to long-exserted and curved filament in a slender tube
ovary unilocular
placentation parietal
anther crest spurred or absent

Zingibereae

labellum usually not connate to filament
ovary trilocular
placentation axial, basal, or free columnar

Alpinioideae

evergreen
lateral staminodes reduced or absent
rhizome fibrous
endotesta lignified
chiefly SE Asia, China, Australia

Riedelieae

capsule elongated, opening to the base

Alpinieae

capsule indehiscent, fleshy

seasonal dormancy period; rhizome fleshy
bracteoles absent; ovary trilocular, placentation axial; capsule fleshy
Africa, Madagascar — ***Siphonochilus*** 12, ***Aulotandra*** 6

plants evergreen; rhizome fibrous
ovary unilocular, placentation parietal
Borneo and Malaysia — ***Tamijia*** 1

flw few to many per bract
bulbils often on lower part of infl or leaf axils
E India, S China, SE Asia (chiefly Indo-Chinese monsoon region) — ***Globba*** 96

bracts caducous; flw single per bract
flw yellow or red; filament short
central to E Himalaya, Myanmar — ***Hemiorchis*** 3

flw greenish, single on rachis
Thailand, Cambodia, S Vietnam — ***Gagnepainia*** 3

bracts distichous
seeds with short hairs, no aril
S Himalaya, S China, S Thailand — ***Monolophus*** 28

bracts laterally connate at base, forming pouches
anther versatile
trop. Australasia (India to Queensland) — ***Curcuma*** 100

bracts 1–3, large, with apical foliaceous appendage
China (Yunnan, Sichuan) — ***Pyrgophyllum ?*** 1

anther basally spurred, versatile
infl with single large bract
S Thailand, W Malaysia, Sumatra — ***Camptandra*** 4

bracteole tubular with two keels
filament short
Vietnam — ***Distichochlamys*** 3

bracts distichous

low herbs
lvs asymmetric, often purple underside
fl bracts coriaceous, persistent, labellum with colored streaks
S Thailand to Singapore — ***Scaphochlamys*** c.30

infl with few to many bracts
flw single per bract

Borneo

flw with several thin, translucent, marcescent bracts
absence of colored streaks on labellum
capitate stigma with two dorsal knobs — ***Myxochlamys*** 2, ***Borneocola*** 8

acaulescent, lvs radical
uppermost flws open first
SE Asia, trop. S Himalaya, S China — ***Boesenbergia*** 70

flw shoots appear before lvs
bracteole open to base, bifid; flw from base to apex
trop. Asia — ***Kaempferia*** 29

petiole with pulvinus
style exserted well beyond anther tip, elongated
anther crest wrapped round the style
trop. Asia (esp. Indo-China, Borneo) — ***Zingiber*** 141

acaulescent, lvs distichous
flw yellow-orange
Thailand — ***Cornukaempferia*** 3

flw yellow
peninsular Malaysia — ***Kedhalia*** 1

anther not versatile, crest short, not spurred
Thailand, peninsular Malaysia, Borneo — ***Haniffia*** 4

flw single per bract
central Vietnam — ***Newmania*** 3

leaf sheath tubular
bract green, flw single per bract
Himalaya, S China, N Vietnam — ***Roscoea*** 22

bracteole absent; anther basally spurred

bracts red; flw single per bract
S Himalaya, S China, N Thailand — ***Cautleya*** 4

K tubular; lateral staminodes absent
filament long, exserted from C, distally grooved; style filiform
China, Myanmar, Thailand — ***Pommereschea*** 2

often epiphytic
K tubular
Yunnan, Myanmar, Assam — ***Rhynchanthus*** 4

labellum narrow, elongate
filament long, arched
India to Myanmar — ***Larsenianthus*** 4

cincinni several-flw, C tube long
aril red, lacerate
S and SE Asia — ***Hedychium*** 87

herbs < 150 cm; C tube 5–6 cm, filament 8–20 cm
fr siliqua-like, narrowly elongate
S Thailand — ***Siamanthus*** 1

some epiphytic; flw single or in pairs
ovary 3-locular
Borneo — ***Burbidgea*** 5

some epiphytic; cincinni 1–3-flowered
ovary 1- or 3-locular
east of Wallace's Line — ***Riedelia*** 75

large plants; flw single on infl axis
fr splits to base into 3 equal valves
Papua and Australia — ***Pleuranthodium*** 23

bracts minute
fr cylindrical, torulose, resembling siliques
Vietnam, S China — ***Siliquamomum*** 3

infl branched
flw small, bracteoles open, labellum clawed; fr thin-walled
continental Asia — ***Alpinia II*** *incl. A. galanga, A. nigra*

anther fan-shaped, ± 3-lobed or extended
fr usually winged, angled, or grooved
NE India, SE Asia — ***Amomum I*** *incl. Elettariopsis*

anther crest conspicuous, usually 3-lobed
fr fleshy
trop. Africa, Madagascar — ***Aframomum*** c. 50

trichomes stellate; anther crest absent
fr ± fleshy, dehiscent from base to apex; seeds with often orange aril
Mexico, Caribbean, S America and Africa — ***Renealmia*** c.75

anther crest absent
infl radical, capitate, erect
on long leafless peduncle

SW India, Sri Lanka (evergreen rainforest)

plant 2-4 m
infl procumbent, paniculate
petals white/yellowish with lilac veins — ***Alpinia I*** *(A. fax, A. abundiflora)*

labellum broadly spread
and/or infl drooping
Java, peninsular Malaysia, S Thailand — ***Elettaria I*** *(E. cardamomum)*

labellum tip entire; lvs strongly aromatic
anther crest forked
fr smooth when dry
S China, N Thailand, N Laos, N Vietnam — ***Alpinia VI***

anther crest horned
fr semilunar, 3-lobed
Sumatra, Borneo, Malaysia, S Vietnam — ***Lanxangia*** *(Amomum II)*

large plants; primary infl bract caducous
labellum narrow fleshy, adpressed to the stamen
Sulawesi and east of Wallace's Line — ***Geostachys*** c.18

primary infl bract missing
cincinni short, flw 1-3
trop. Asia — ***Alpinia III***

anther crest short, ± 3-lobed
fr smooth when dry
Sarawak (Borneo) — ***Alpinia IV +*** *Plagiostachys*

stilt roots
corolla elongated
Indonesia, Malaysia — ***Epiamomum*** *(Amomum VI)* 2

Sumatra, Vietnam, SE China — ***Hornstedtia I***

Pacific Ocean, incl. Philippines, Oceania, Australia — ***Amomum IX +*** *Hornstedtia III*

large involucre of sterile infl bracts
corolla tube fused to labellum
single stamen filament, staminal tube
Borneo, Malaya, S Yunnan — ***Alpinia V***

single flw per bract; bracteoles tubular
filament always free from the labellum
anther crest semilunar/lobed
fr echinate/prickly or smooth when dry — ***Etlingera +*** *Hornstedtia II*

chiefly mainland SE Asia

anther crest eared
three small lobes (side lobes usually point upwards and mid lobe positioned behind stigma)
fr echinate or finely ribbed when dry — ***Meistera*** *(Amomum VIII)*

anther crest extended, with lobules
fr ribbed or grooved when dry
Borneo, Sumatra, W Java — ***Wurfbainia*** *(Amomum VII)*

anther crest horned
fr smooth when dry
Borneo, peninsular Malaysia — ***Sundamomum*** 14

anther crest ecristate, short or 4-lobed
fr smooth when dry — ***Conamomum*** 10

anther crest short/entire or extended
staminodes connate to filament
fr grooved, rugose
Sumatra, Borneo, Philippines — ***Amomum V +*** *Elettaria II*; ***Geocharis*** 6

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- subfamilies, tribes, and genera (based on published data), incl. plesio-/apomorphic as well as (non)diagnostic traits as an overview in an educational context – regular updates forthcoming
- hypothetical tree (largely in flux) based on currently available molecular phylogenetic data
- approx. 50 accepted genera, about 1200 species
- species numbers largely in flux; numbers in parentheses are approximate
- branch lengths deliberate, not expressing actual time scale
- the characters listed do not necessarily apply to all members of the respective clade

Alpinia, ***Amomum***, and ***Etlingera*** largely polyphyletic (currently being revised)
Caulokaempferia now included in ***Monolophus and Boesenbergia***
Boesenbergia including ***Haplochorema*** (6) ?, ***Jirawongsea***
Borneocola recently considered part of ***Scaphochlamys***
Curcuma incl. ***Smithatris, Stahlianthus, Laosanthus, Paracautleya, Hitchenia***
Elettariopsis nested in ***Amomum I***
Globba including ***Mantisia***
Nanochilus, Stadiochilus, Parakaempferia: position uncertain!
Vanoverberghia, Leptosolena, Paramomum likely nested in ***Alpinia***

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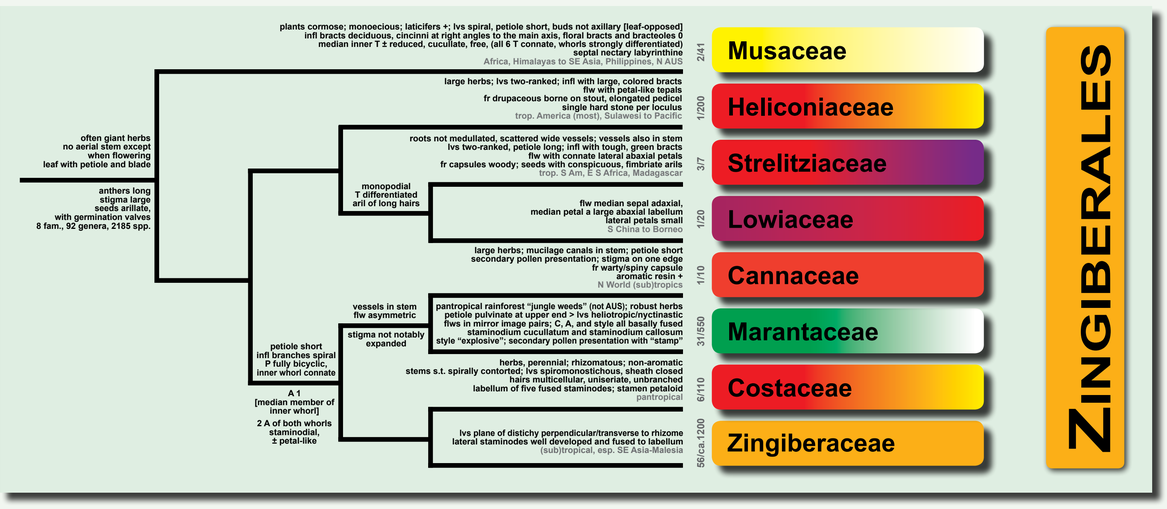


Angiosperm Phylogeny Poster

Tracheophyte Phylogeny Poster

Bryophyte Phylogeny Poster

Zingiberales

18-5-2019
Utrecht
Jan Scholten

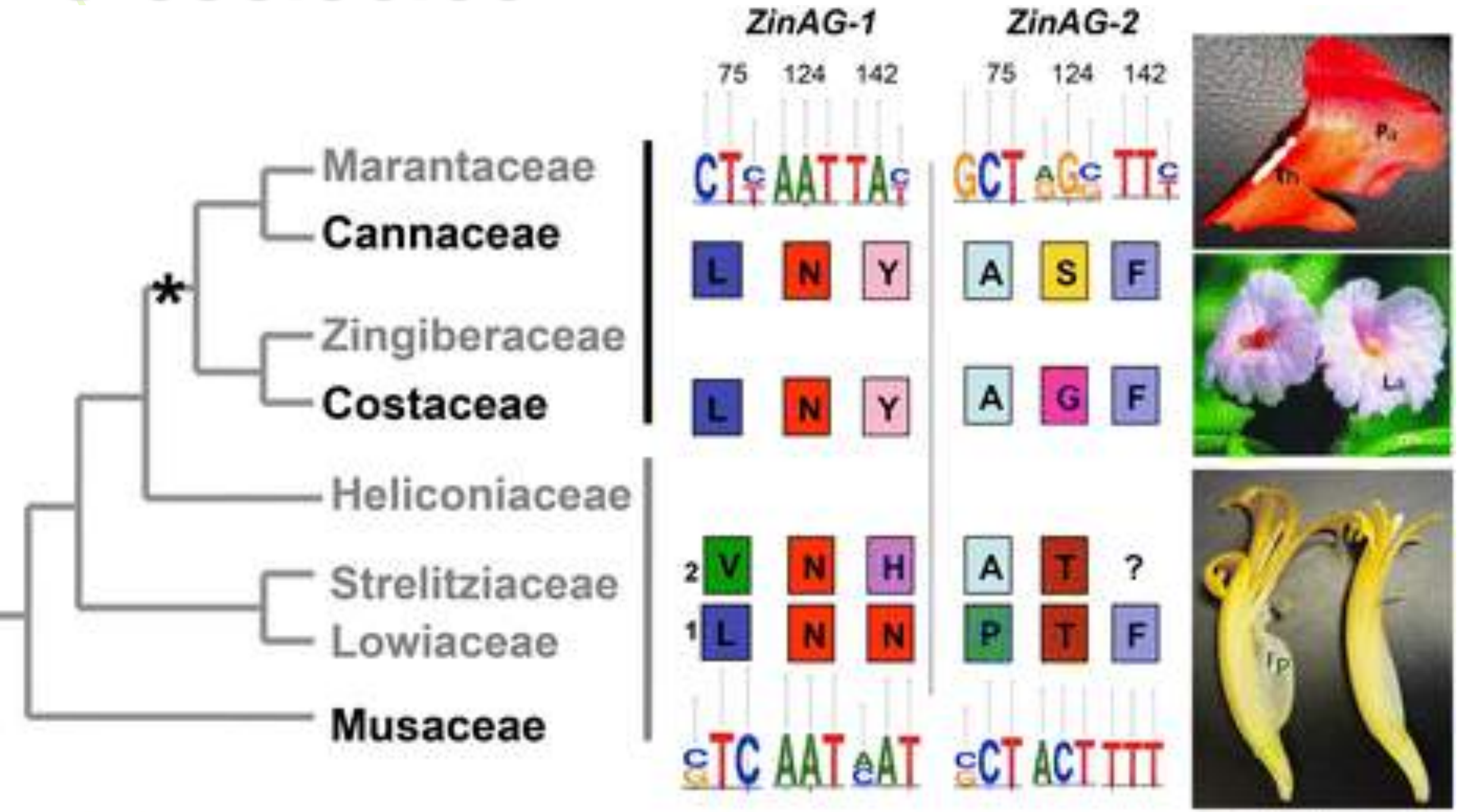
Zingiberales 3-633.50.00

- Arecales
- 1
- 2
- 3
- 4
- 5 Zingiberales
- 6
- 7

- Zingiberales
- 1 Musaceae
- 2 Marantoideae
- 3 Calatheoideae
- 4 Alpinoideae
- 5 Zingiberoideae
- 6 Costaceae
- 7 Heliconiaceae

- Genera
- 1,1,3,5
- ± 14
- ± 14
- ± 29
- ± 29
- 8
- 1/170

Zingiberales
3-633.50.00



Zingiberales

- 1 Musaceae
- 2 Marantoideae
- 3 Calatheoideae
- 4 Alpinoideae
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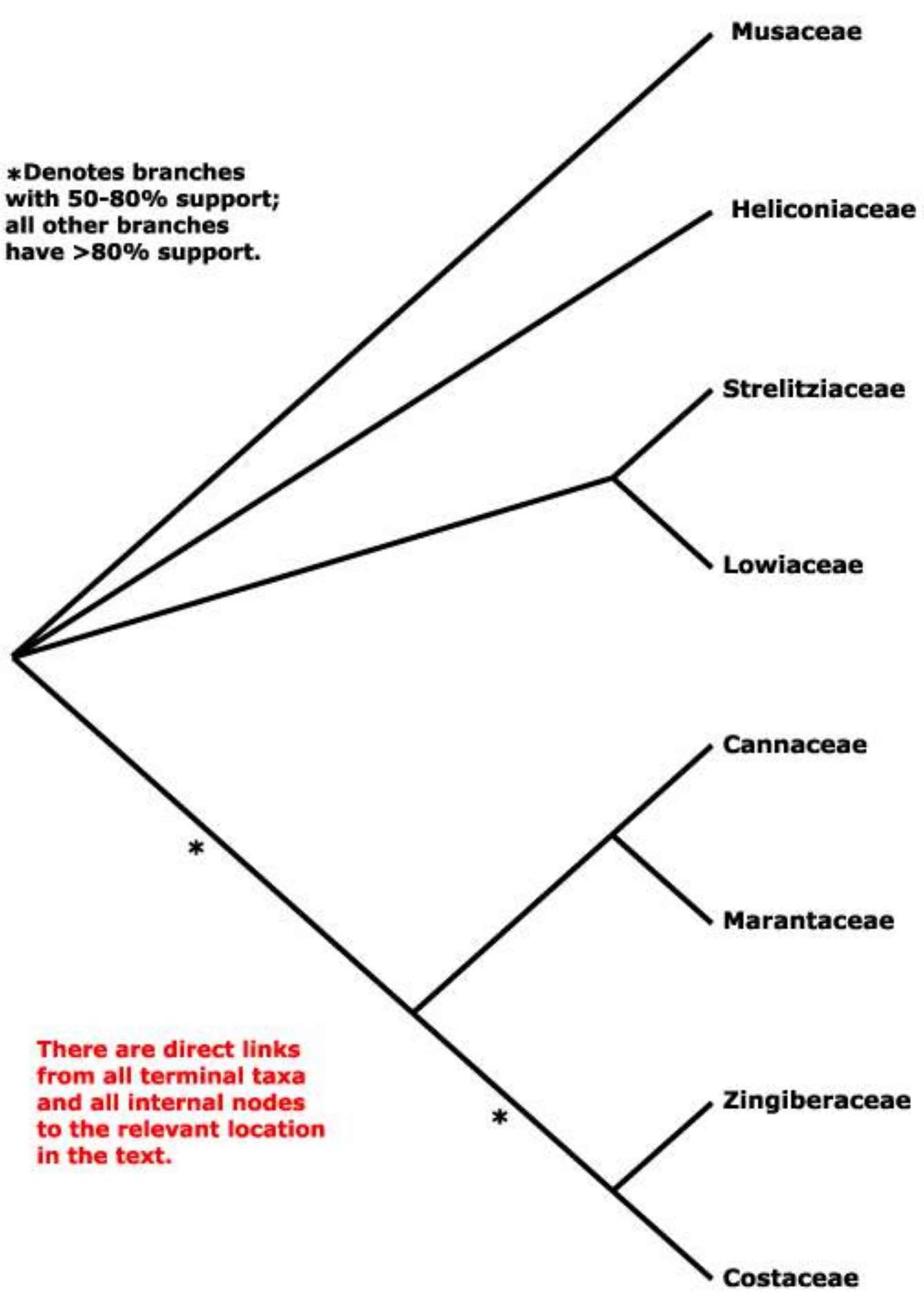

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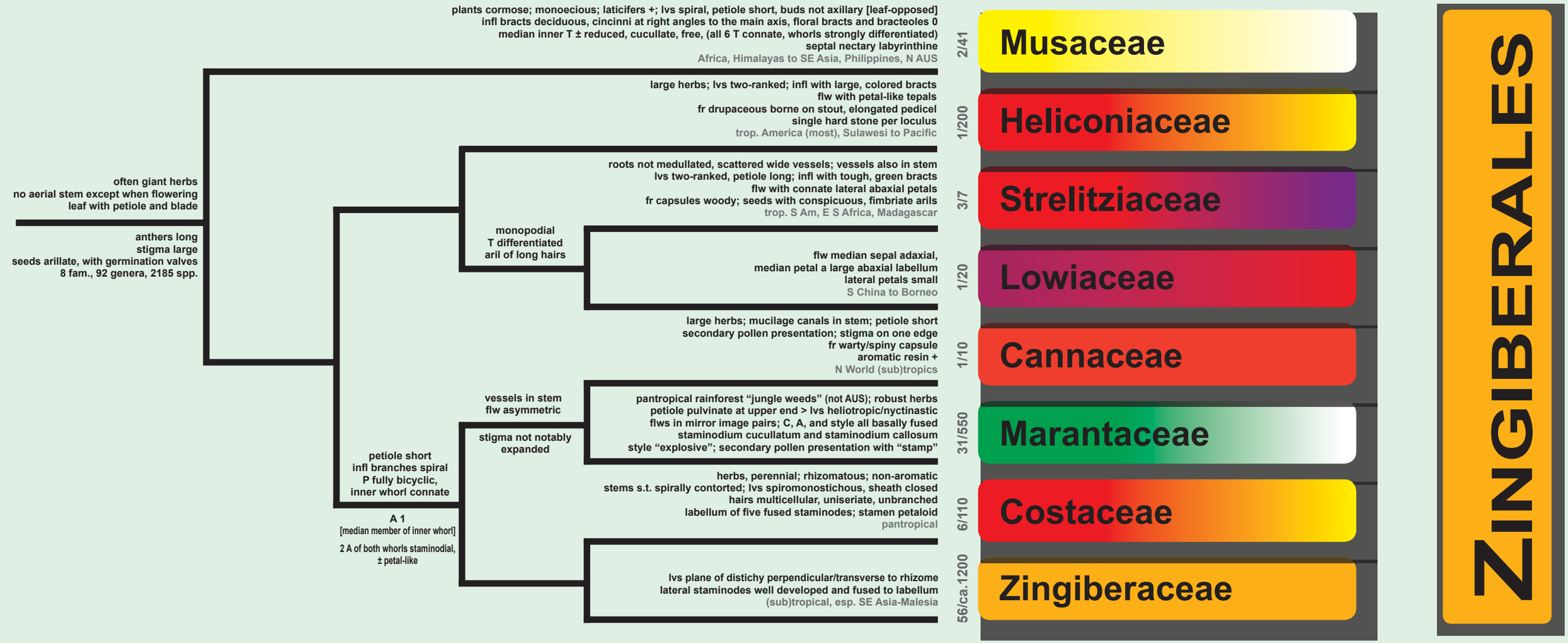

Zingiberales 3-633.50.00

- 1 **Musaceae**
- 2 Marantoideae
- 3 Calatheoideae
- 4 Alpinoideae
- 5 Zingiberoideae
- 6 Costaceae
- 7 Heliconiaceae

- **Strelizia regina**

Zingiberales 3-633.50.00

- 1 Musaceae
- 2 **Marantoideae**
- 3 **Calatheoideae**
- 4 Alpinoideae
- 5 Zingiberoideae
- 6 Costaceae
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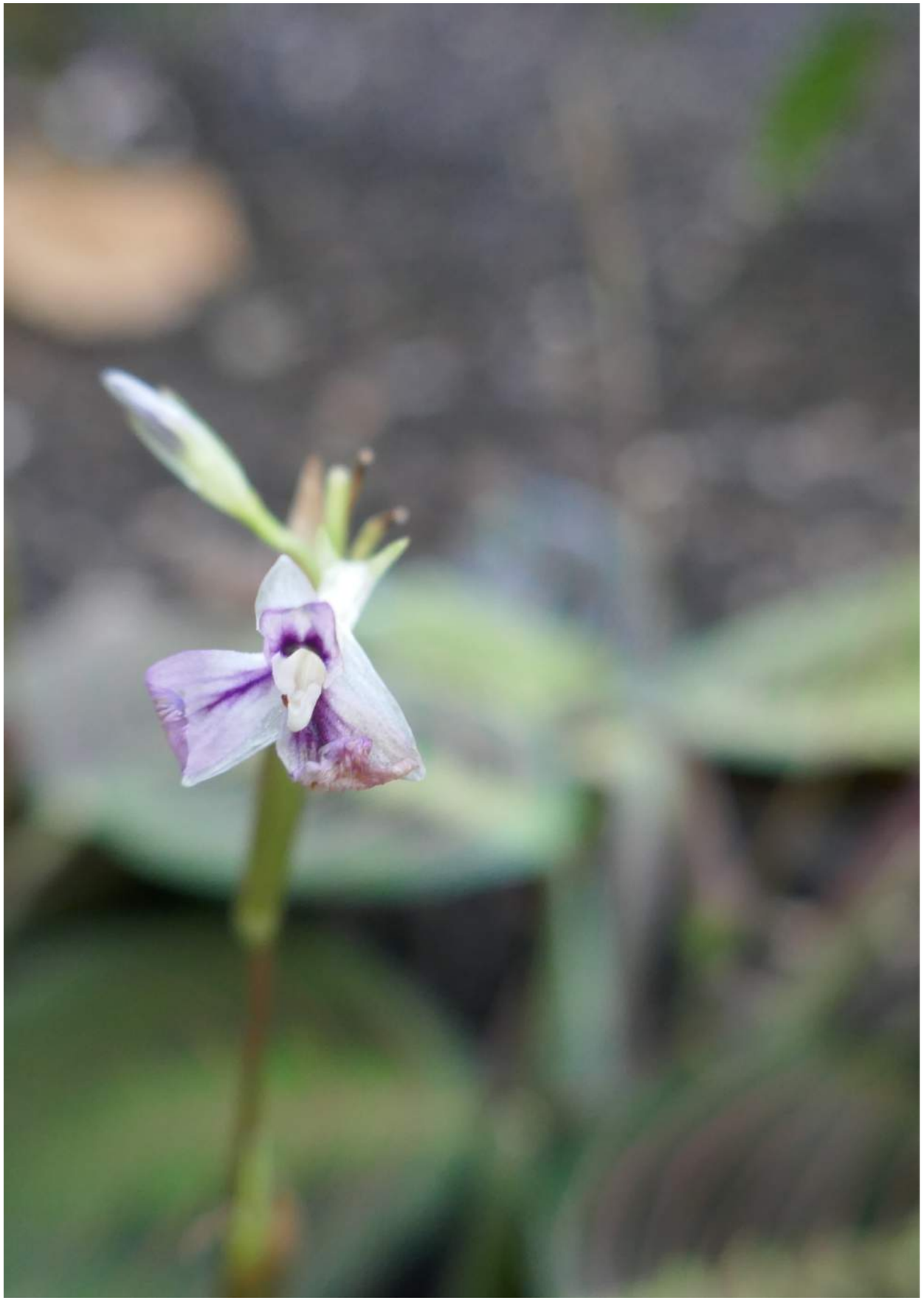


- **Maranta leuconeura**

Zingiberales
3-633.50.00

1 Musaceae

2 **Marantoideae**

3 **Calatheoideae**

4 Alpinoideae

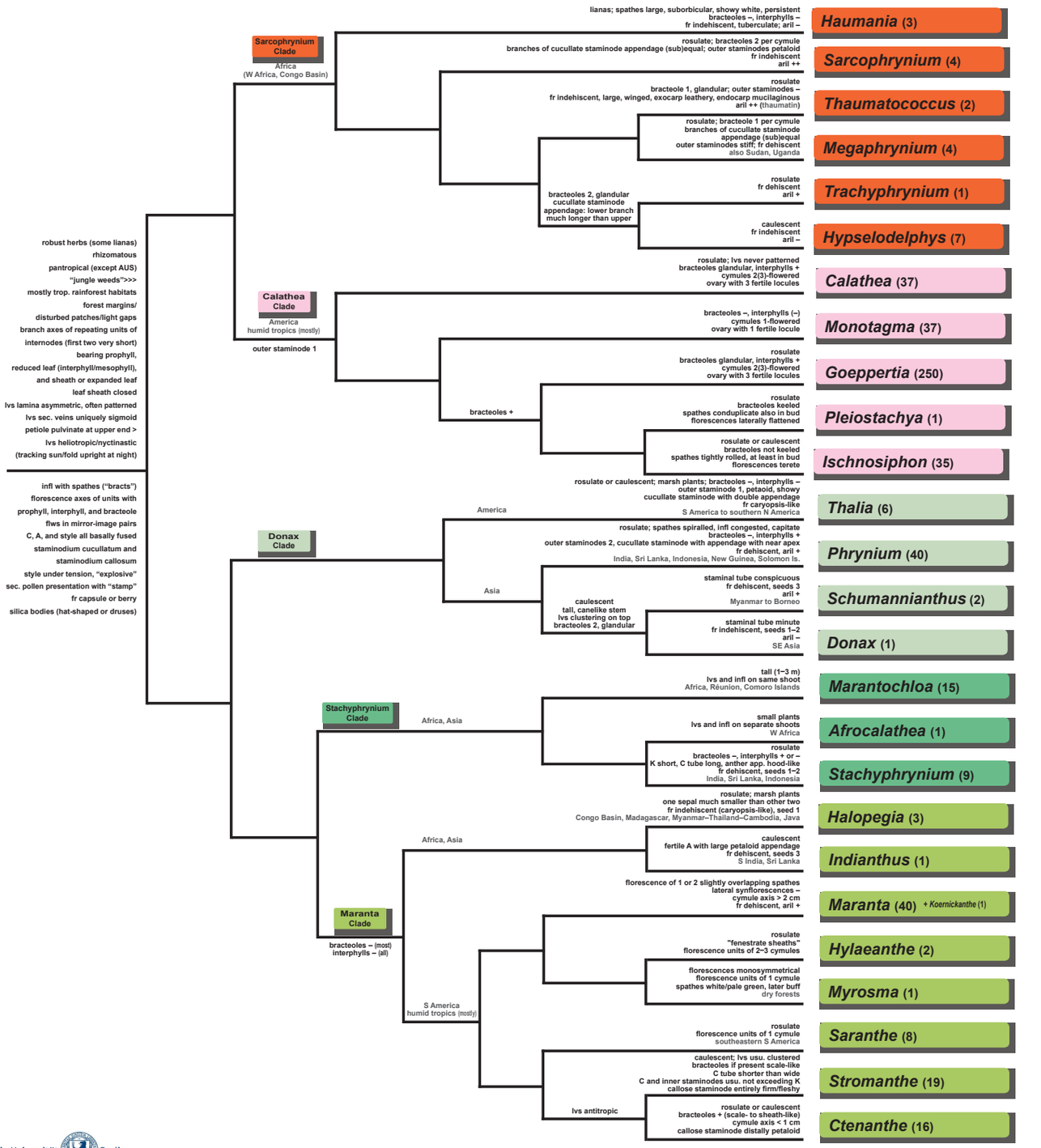
5 Zingiberoideae

6 Costaceae

7 Heliconiaceae

Marantaceae Phylogeny Poster

genera with plesio-/apomorphic and (non)diagnostic traits



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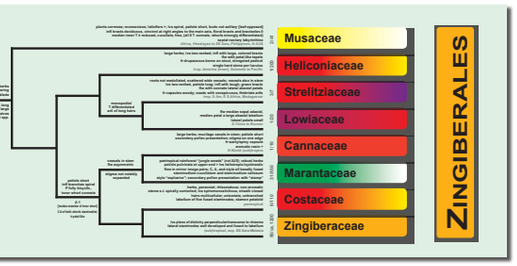
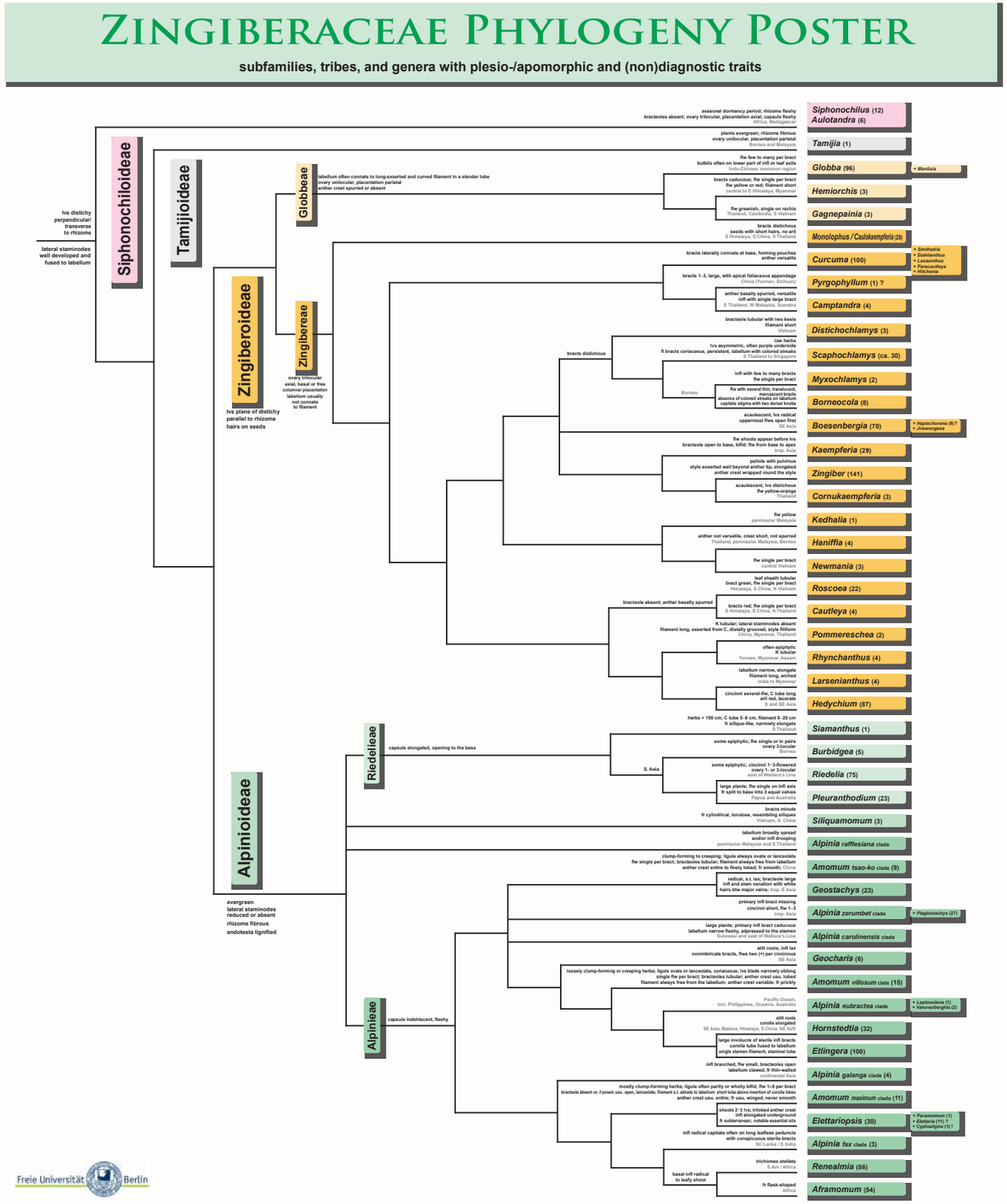
Thanks to Finn Borchsenius for valuable advice and for an updated list of species per genus (in parentheses)

ANGIOSPERM PHYLOGENY POSTER
TRACHEOPHYTE PHYLOGENY POSTER
BRYOPHYTE PHYLOGENY POSTER



Zingiberales
3-633.50.00

- 1 Musaceae
- 2 Marantoideae
- 3 Calatheoideae
- 4 **Alpinoideae**
- 5 **Zingiberoideae**
- 6 Costaceae
- 7 Heliconiaceae



Zingiberales 3-633.50.00

1 Musaceae

2 Marantoideae

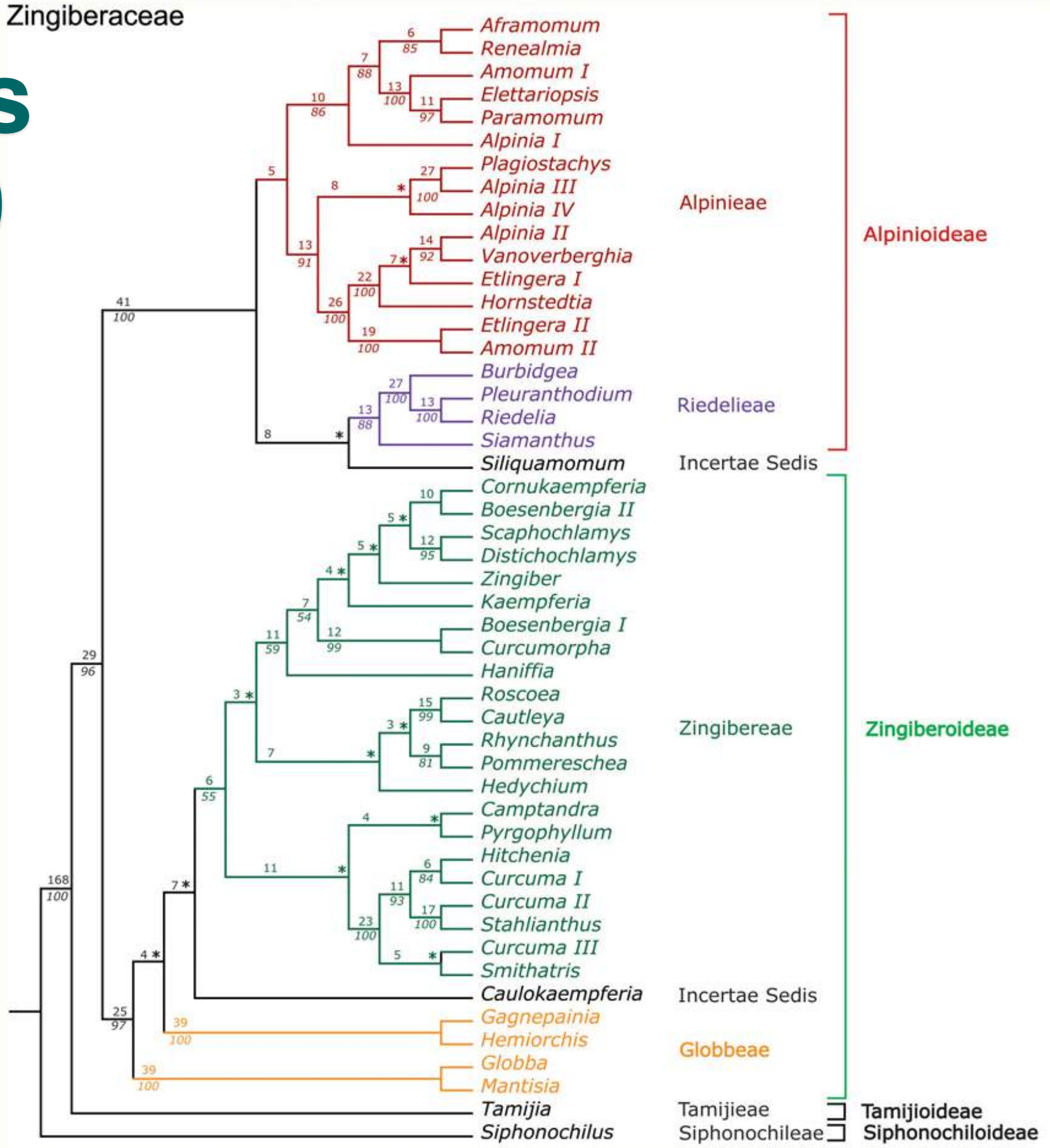
3 Calatheoideae

4 **Alpinoideae**

5 **Zingiberoideae**

6 Costaceae

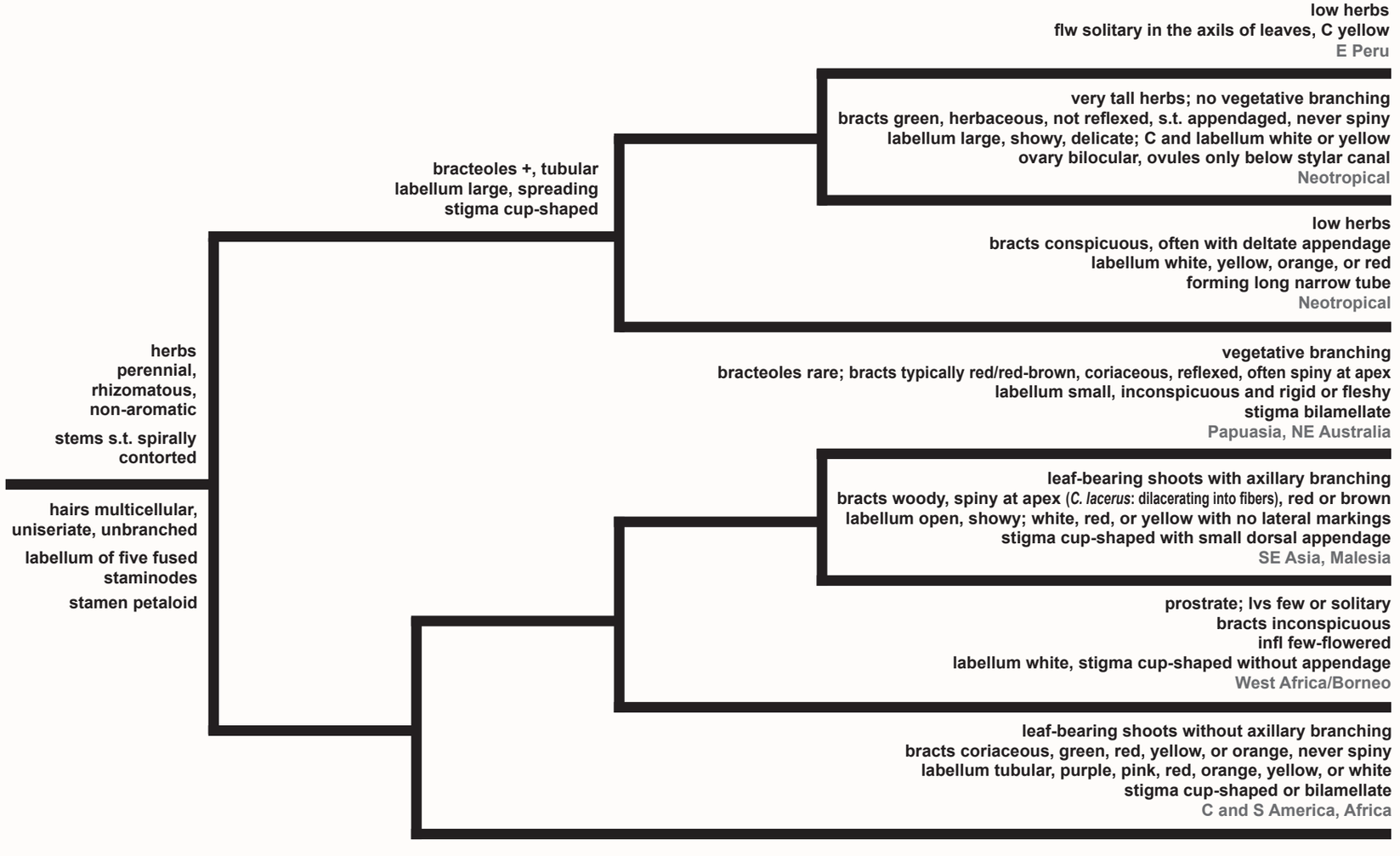
7 Heliconiaceae



Costaceae 3-633.56.00

Costaceae Phylogeny Poster

Infrafamiliar Relationships and Characteristics



***Monocostus* (1)**

***Dimerocostus* (5)**

***Chamaecostus* (7)**

***Tapeinochilos* (18)**

***Cheilocostus* (4)**

***Paracostus* (2)**

***Costus* (c. 80)**

Zingiberales
3-633.50.00

- 1 Musaceae
- 2 Marantoideae
- 3 Calatheoideae
- 4 Alpinoideae
- 5 Zingiberoideae
- 6 Costaceae
- 7 **Heliconiaceae**

- **Heliconia bihai**