



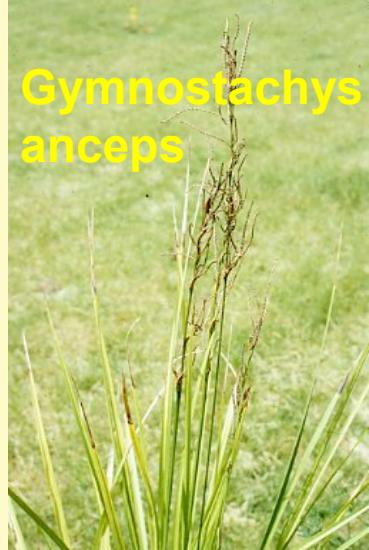
# An Introduction to Aroid Genera

by Tom Croat

# Subfamilies of Araceae

- Proto-Araceae

1 sp.  
Australia



## I. Subfamily Gymnostachydoideae

- *Gymnostachys*

## II. Subfamily Orntioideae

- *Orontium*
- *Lysichiton*
- *Symplocarpus*

3 sp. W.  
N. Amer. &  
E. Asia

2 sp. W.  
N. Amer.  
& E. Asia



1 sp. E.  
N. Amer.



*Orontium aquaticum*, 57207



Lysichiton camtschatsense



Lysichiton camtschatsense



Lysichiton camtschatsense



Symplocarpus foetidus, 790539



Symplocarpus foetidus



*Symplocarpus foetidus*, MBG 790539



*Symplocarpus  
foetidus*

# True Araceae

## III. Subfamily Pothoideae

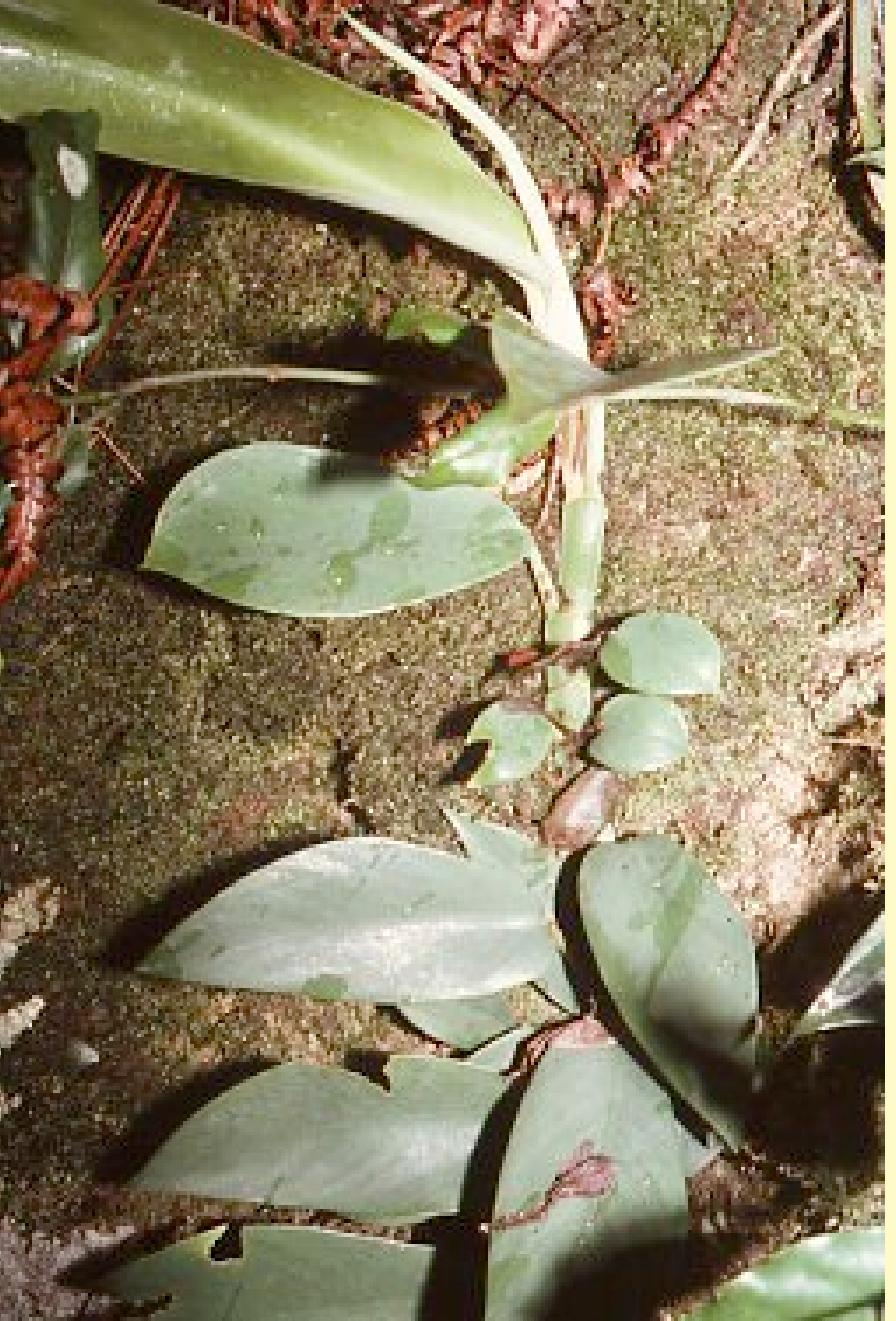
### – Tribe Pothoeae

- *Pothos*

### – Tribe Anthurieae

- *Anthurium*





Pothos, Croat 77332



Pothos scandens



Pothos scandens



Pothos chinensis



*Anthurium corrugatum*



*Anthurium* sect. *Pachyneurium*



Anthurium 49788

# Subfamily Monsteroideae

- **Tribe Spathiphyllae**
  - *Spathiphyllum*
  - *Holochlamys*
- **Tribe Anadendreae**
  - *Anadendron*
- **Tribe Heteropsidae**
  - *Heteropsis*





Spathiphyllum brevirostre



Spathiphyllum wendlandii



**Spathiphyllum  
floribundum**



**Spathiphyllum floribundum**



Spathiphyllum humboldtii



Spathiphyllum coclearispatum



*Spathiphyllum patulinervia*

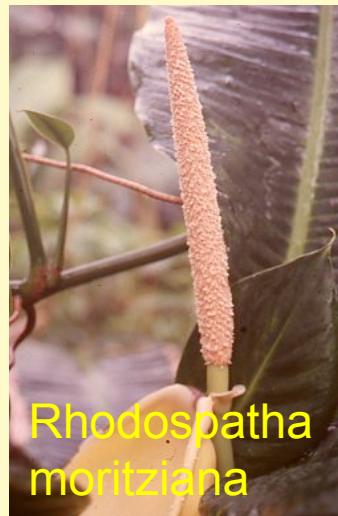
# Subfamily Monsteroideae

## • Tribe Monstereae

- Amydrium
- Rhaphidophora
- Epipremnum
- Scindapsus
- Monstera
- Alloschemone
- Rhodospatha
- Stenospermation



Monstera  
punctulata



Rhodospatha  
moritziana



Rhaphidophora  
pinnata



Amydrium  
magnificum



Scindapsus exotica



Stenospermation  
marantifolium



Epipremnum  
pinnatum



*Amydrium hainanensis*



*Amydrium medium*



*Rhaphidophora tetrasperma*



Raphidophora tetrasperma



Rhaphidophora tetrasperma



Raphidophora monticola, 53033



Rhaphidophora korthalsii, 52993



Raphidora aurea



Raphidophora



Rhaphidophora africana (upper left is  
Culcasia liberica)



Epipremnum pinnatum

## Epipremnum

Differs from  
Rhaphidophora  
by having mostly  
2-4 ovules  
rather than  
many; seeds  
curved



*Epipremnum aureum*

*Epipremnum aureum*, Moromb, Papua  
New Guinea\_



Monstera tenuis, 3820



Monstera dissecta, 78748



Monstera siltepecana, 63427



Monstera, 49904



Monstera punctulata, 79252



*Monstera adansonii*, 53760



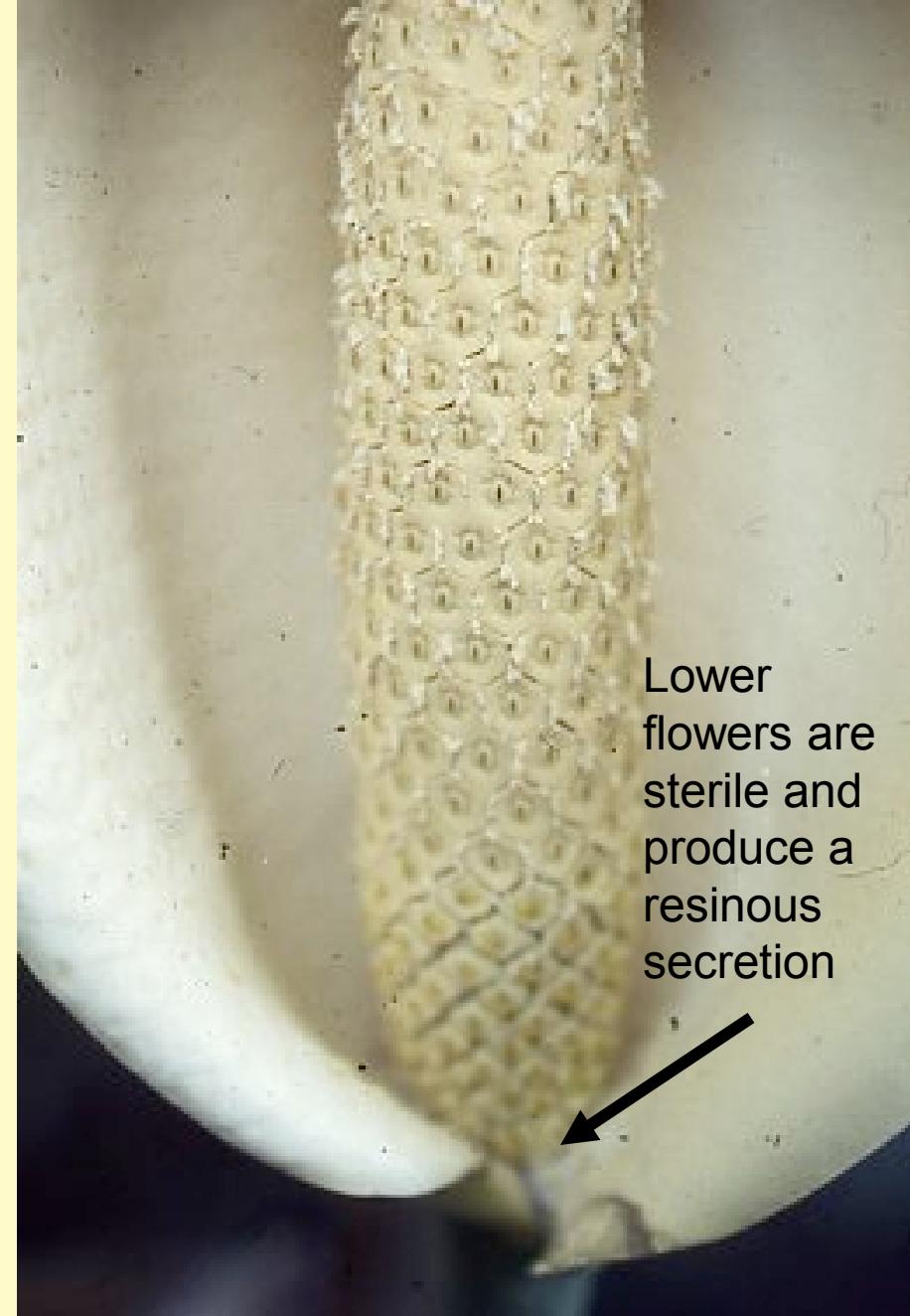
*Monstera dilacerata*



Monstera gracilis, 55528



Monstera, 59155



Monstera deliciosa

Lower  
flowers are  
sterile and  
produce a  
resinous  
secretion



Monstera heteroblasty, M. pinnatipartita and M. dubia



Rhodospatha. 1792-18



Rhodospatha, 71773



Alloschemone occidentalis

## Alloschemone

2 species, Western Amazonia



Stenospermation, 74938



Stenospermation, 25529



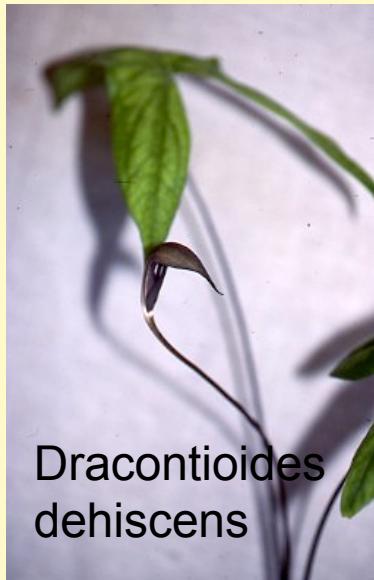
Stenospermation, SEL 77-2097



Stenospermation 74938

# Subfamily Lasioideae

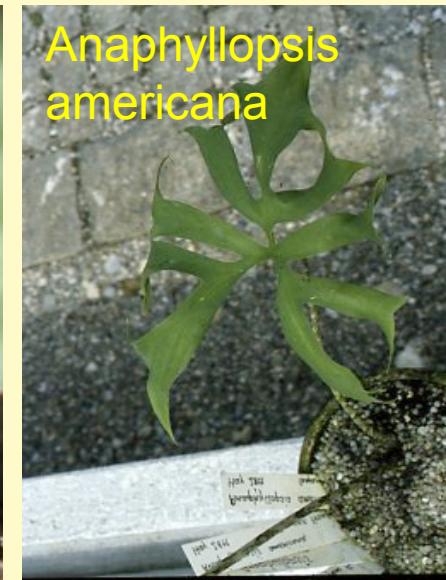
- Dracontiodes
- Anaphyllopsis
- Pycnospatha
- Dracontium
- Anaphyllum
- Cyrtosperma
- Lasiomorpha
- Podolasia
- Lasia
- Urospatha



Dracontiodes  
dehiscens



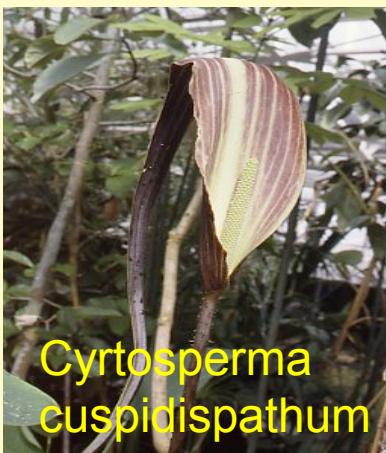
Dracontium  
soconuscum



Anaphyllopsis  
americana



Lasia  
spinosa



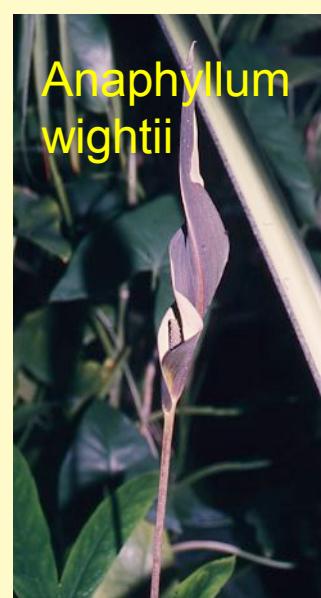
Cyrtosperma  
cuspidispathum



Lasiomorpha  
senegalensis



Urospatha  
sagittifolia



Anaphyllum  
wightii



*Dracontium*, Humboldt Park, Peru



*Dracontium soconuscum*, BCI



*Dracontium pittieri*, 79217



Dracontium pittieri, 79217



Dracontium spruceanum, Zhu 1562



Dracontium pittieri, 79217



Dracontium polyphyllum, 74210

# Anaphyllum

2 sp. Laos,  
Thailand, Vietnam



Anaphyllum wightii, Jack Fisher



*Anaphyllum wrightii*, var. *revolutum*



*Anaphyllum wrightii*, var. *revolutum*



*Anaphyllum wightii*, Bogner 1855



Cyrtosperma beccarii



Cyrtosperma johnstonii



Cyrtosperma johnstonii



Cyrtosperma cuspidspathum



Cyrtosperma mercusii, 53048



Lasiomorpha senegalense, neg. 2089-37



Lasiomorpha senegalensis



Lasiomorpha senegalensis



Lasia spinosa



Lasia spinosa



*Urospatha sagittifolia*

# Subfamily Calloideae

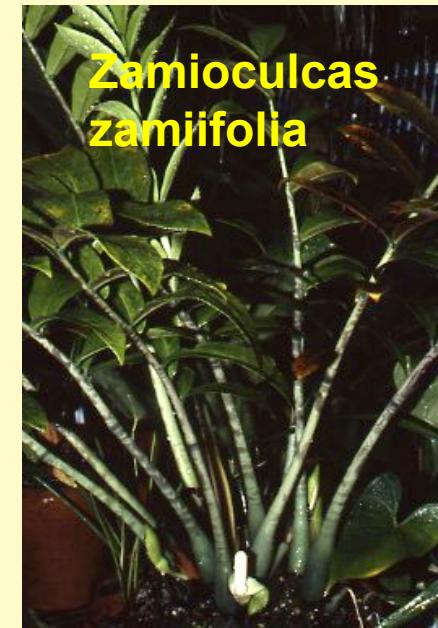
- *Calla palustris*



# Subfamily Aroideae

## Paraphyletic groups

- **Tribe Zamioculcadae**
  - *Zamioculcas*
  - *Gonatopus*
- **Tribe Stylochaetoneae**
  - *Stylochaeton*





*Zamioculcas lanceolum*, Croat 61123A



Gonatopus angustatus



Gonatopus bovinii, 78321



Gonatopus bovinii, 69740,  
neg. 1916-14



Gonatopus bovinii, 78321,  
neg. 1916-5\_2



*Stylochaeton hypogaeum*, 68453

# Subfamily Ariodeae

Monophyletic – Flowers with tepals

- **Dieffenbachia Alliance**

- Dieffenbachia
- Bognera

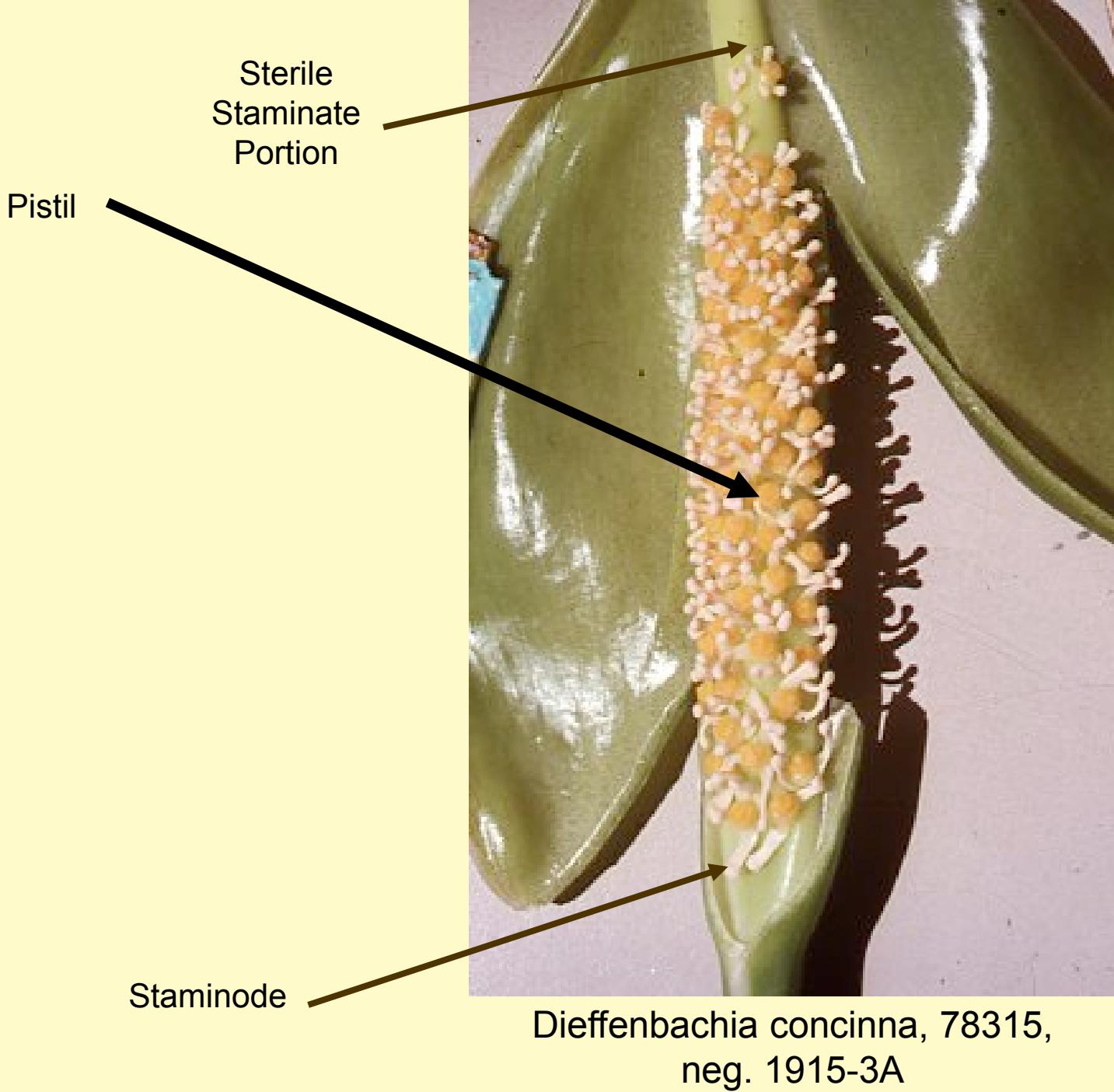




Dieffenbachia aurantiaca, 35292,  
neg. 1911-13, Climatron



Dieffenbachia tonduzii, 76328, neg. 1786-10





Dieffenbachia seguine, Prevost 3258



Dieffenbachia, Selby 90-918



Dieffenbachia davidsei, 77017, ROS-27



Dieffenbachia, 40107



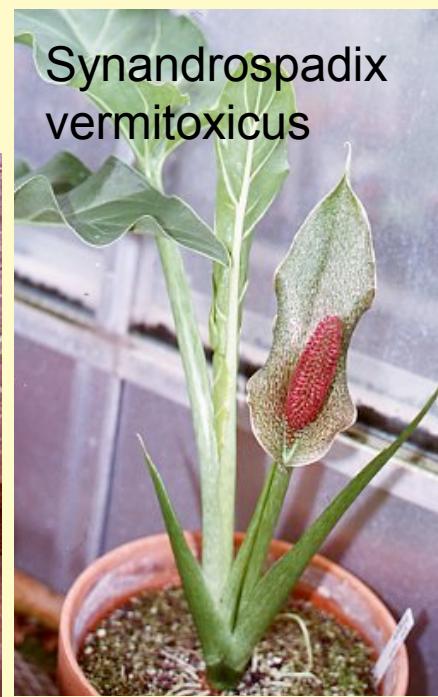
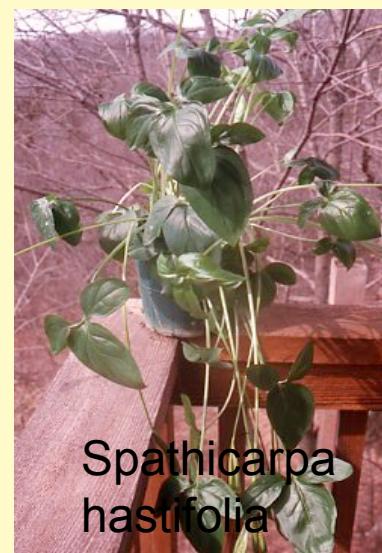
Dieffenbachia, 60613



Dieffenbachia beechiana,  
Henny's 'rex type'

# Tribe Spathicarpeae

- Mangonia
- Taccarum
- Asterostigma
- Croatiella
- Incarum
- Gorgonidium
- Synandrospadix
- Gearum
- Spathantheum
- Spathicarpa





Croatiella integrifolium



Croatiella integrifolium

© CJB/N





Croatiella integrifolia



Incarum pavonii Beck 24422



Incarum pavonii Beck 24422



*Incarum vargasii*



*Taccarum weddelianum*, Solomon 13519a



Taccarum weddelianum, Solomon  
13519a, neg. 1851-33\_2



Taccarum weddelianum, Solomon  
13519a



*Astereostima riedelinana*, Harley  
18565, img311



Gorgonidium, Acre, flavioportdias1 013



Gorgonidium mirabile, 68462



Gorgonidium mirabile, Besse 1720



**Gorgonidium vermicidum**



Gorgonidium vermicidum, Tucuman\_img321



*Synandrospadix vermitoxicus*,  
62836, neg. 1609-18



*Synandrospadix vermitoxicus*,  
62836, neg. 1609-18\_2



*Synandrospadix vermitoxicus*,  
62836, neg. 1609-18\_3



*Synandrospadix vermitoxicum*



Spathicarpa hastifolia, 61108



*Spathicarpa hastifolia*, neg. 1918 or 1968-13



Spathicarpa hastifolia,  
neg. 1918-18



Spathicarpa lanciolata, 69717

# Philodendron Alliance

- Philodendreae
  - *Philodendron*
- Homalomeneae
  - *Homalomena*
  - *Philonotion*
- Anubiadeae
  - *Anubias*



Philonotion  
erytropus ssp.  
allenii





Philodendron tortum, Burle-Marx 297\_img329



Philodendron tortum, 54232



Philodendron adamantinum



Philodendron fraternum



Philodendron, neg. 740-5



Philodendron bipinnatifidum



*Philodendron barrosoanum*



*Philodendron venezuelense*



Philodendron elongatum



Philodendron warscewiczii



*Homalomena coerulescens*



Homalomena, 77907, neg1850-27



Homalomena, 52250, neg. 687-30



Homalomena lindenii, Munich 179771



Homalomena lindenii, Munich seen in 1797\_img357



Homalomena cf. corrugatum



Homalomena, Malasia



Homalomena pygma var. pupurescens, Munich 43-76



Homalomena purpurata, 71746a, neg. 1968-4



*Philonotis wendlandii*, var. *llanomonoense*\_56925



Philonotis wendlandii, neg. 2085-34



Philonotis hammelii,  
Selby 85-002, neg. 1952-35



Philonotus erythropus, ssp. allenii, 39768a

# Schismatoglottideae Alliance

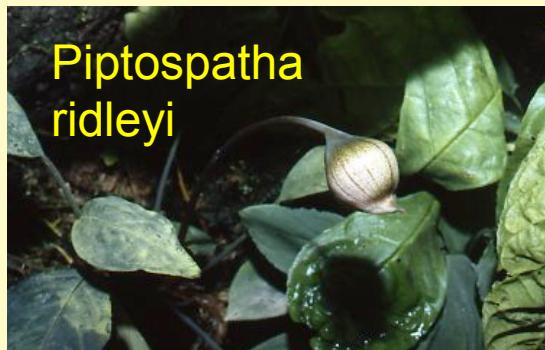
- **Schismatoglottideae**

- **Piptospatha**
- **Hottarum**
- **Bucephalandra**
- **Phymatarum**
- **Aridarum**
- **Heteroaridarum**

- **Cryptocoryneae**

- **Lagenandra**
- **Cryptocoryneae**

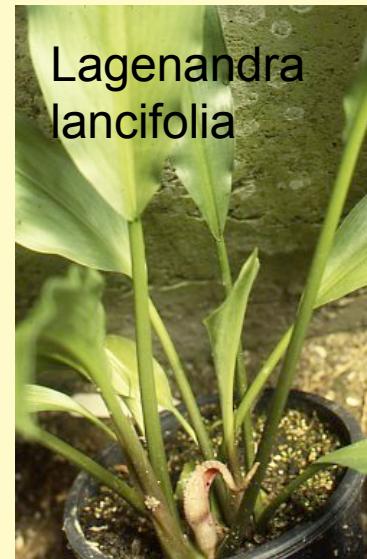
*Aridarum nicolsonii*



*Phymatarum boreense*



*Lagenandra lancifolia*



*Cryptocoryne longicauda*





*Piptospatha elongata*,  
Bogner 1588 neg. 956-7



Piptospatha ridleyi



Piptospatha ridleyi, Munich\_2\_img381



Piptospatha ridleyi, Munich\_2\_



Hottarum srikeensis, Munich 302-78



Hottarum sarikeensis, Munich 302-78\_2



Phymatarum boreense, Munich



Phymatarum borneensis, Bogner 1506, neg. 956-6



Aridarum nicolsonii, Croat 53211



Aridarum nicolsonii, Croat 53211





Cryptocoryne thwaitsei



Cryptocoryne



Cryptocoryne lutea



Cryptocoryne longicauda



*Lagenandra dewittii*



Lagenandra bogneri



Lagenandra nairii, Munich 44



Lagenandra meeboldii



Lagenandra ovata, Croat 71820, 1759-24



Lagenandra lancifolia

# Caladium Alliance



Hapaline aregentea

- **Tribe Zomicarpeae**

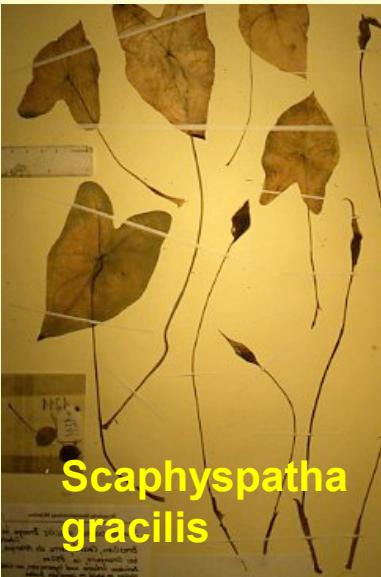
- Zomicarpa
- Zomicarpella
- Ulearum
- Filarum

- **Tribe Caladieae**

- Scaphyspatha
- Caladium
- Jasarium
- Xanthosoma
- Chlorospatha
- Syngonium
- Hapaline



Zomicarpa  
riedeliana



Scaphyspatha  
gracilis



Chlorospatha  
longipodia



Xanthosoma  
daguense



Ulearum  
donburnsii



Zomicarpella  
amazonica



Caladium  
humboldtiana



Zomicarpella amazonica, 71763b,  
1604-13



Zomicarpella amazonica,  
Croat 71763b, neg. 1604-12



Zomicarpella amazonica



Zomicarpella amazonica



*Zomicarpa riedeliana*, Munich



*Ulearum donburnsii*,  
Photo Feuerstein



*Ulearum donburnsii\_2*



*Ulearum donburnsii*, Photo Feuerstein\_2

X

*Ulearum donburnsii*





*Ulearum donburnsii\_4*



*Scaphymptha gracilis*,  
neg. 1174-470\_2



Caladium hybrids, *C. bicolor* x *X. xanthosoma sagittifolia*



Caladium hybrids, *C. bicolor* x *X. xanthosoma sagittifolia*



Caladium hybrids, *C. bicolor* x *X. xanthosoma sagittifolia*



Caladium hybrids, *C. bicolor* x *X. xanthosoma sagittifolia*



Caladium humboldtiana



Caladium hybrids, *C. bicolor* x *X. xanthosoma sagittifolia*



Caladium schombugii, 74256b,  
neg. 1815-11



Xanthosoma, Bay 364



Xanthosoma daguense, 38502



Xanthosoma , 53906- Suriname



Xanthosoma, Croat 79446



Xanthosoma robustum, Croat 78607



Xanthosoma peltatum, Croat 60660,  
neg. 840-15



*Chlorospatha longipoda*, 59100, neg. 1075-26



*Chlorospatha longipoda*, Croat 59100



*Chlorospatha longipoda*, Croat 59100



*Chlorospatha croatiana*, 671096

PRECISE

5

3

1

2

0

3

5

8

INCHES

3

3



*Chlorospatha croatiana*, 671096\_2



*Chlorospatha croatiana*, Croat 671096



Syngonium, Croat 16699



Syngonium tripartitum



Syngonium hastifolium, 79246,  
neg. 1944-27



Syngonium hoffmanii, Croat 66289



Syngonium, Croat 39282



Syngonium steyermarkii, Croat 40842



Syngonium wendlandii, Edinburgh 66.2770



Syngonium, Davidson 8469



Syngonium sp, 34364



Syngonium podophyllum,  
Mori 19055



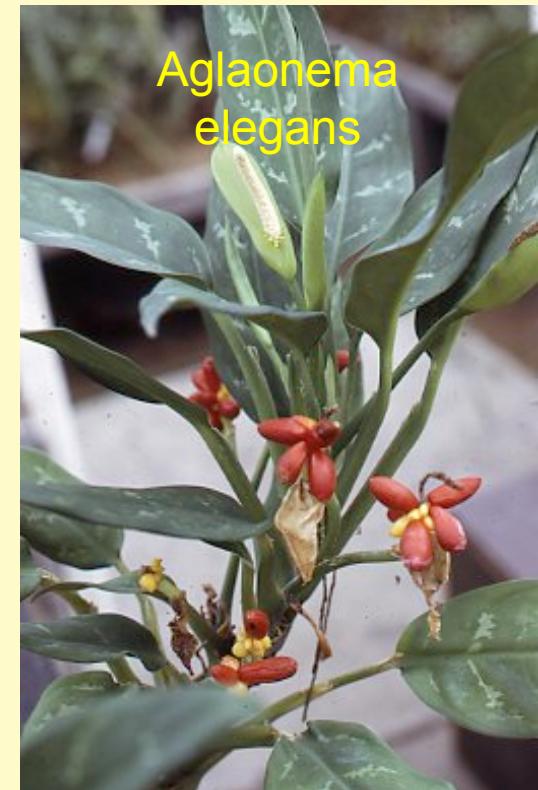
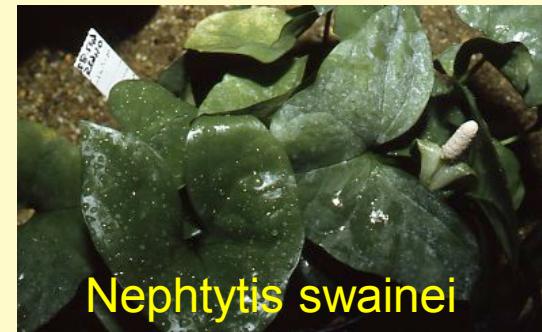
Syngonium llanoense, 74176,  
neg. 1641-21



Hapaline brownei, Hay 2036,  
Kew 472-8204998

# Tribes that Lack Alliances

- **Tribe Nephthytideae**
  - *Nephthytis*
  - *Anchomanes*
  - *Pseudohydrosme*
- **Tribe Algaonemateae**
  - *Aglaonema*
  - *Aglaodorum*





Anchomanes difformis , 53493



Anchomanes difformis , 53493



*Anchomanes difformis*



Anchomanes , neg. 1259-27A



*Anchomanes difformis*, Croat 69772a, neg. 1965-25



Anchomanes difformis



*Aglaonema rotundum*



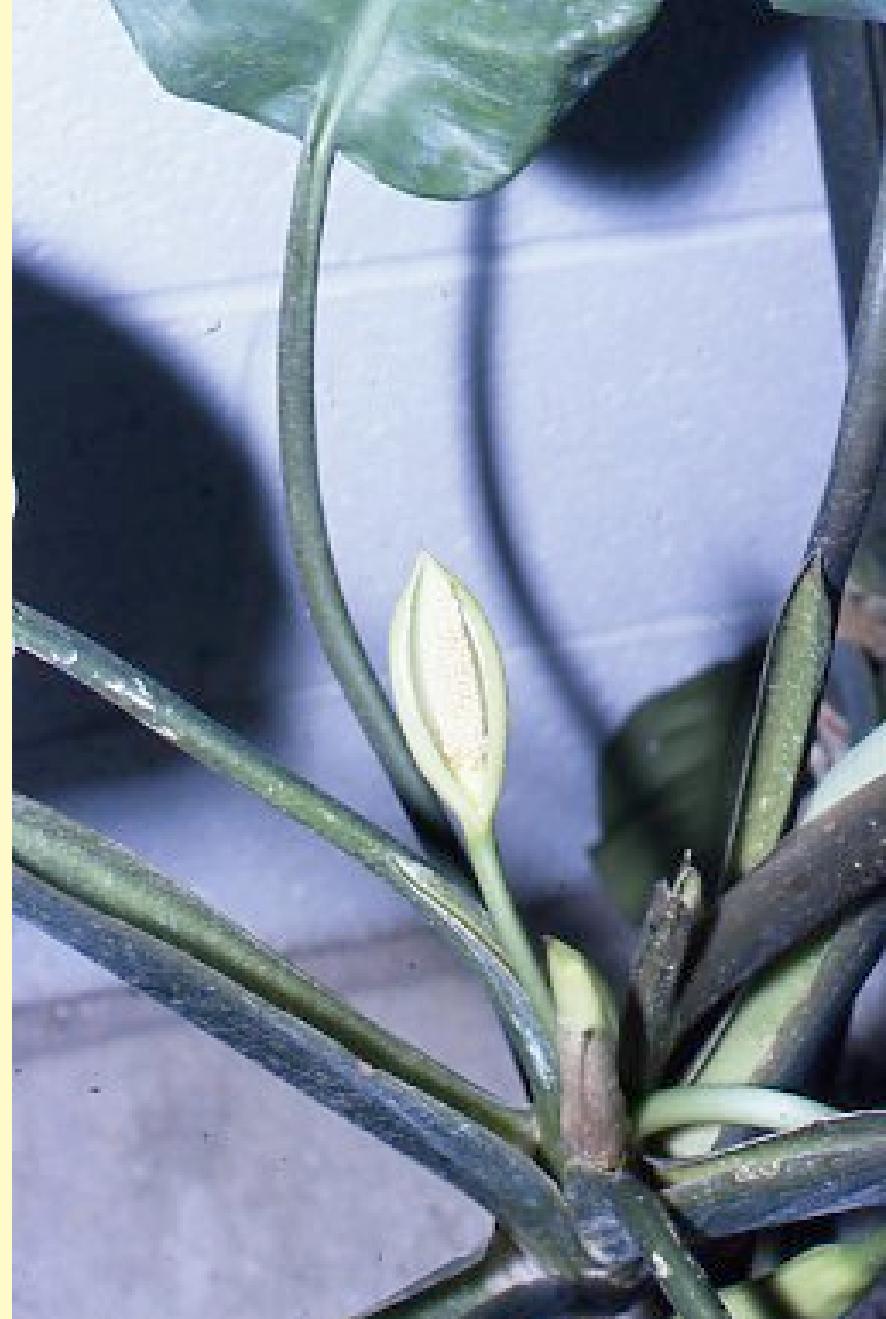
Aglaonema rotundatum



Aglaonema oblongifolia  
var. curtissii



Aglaonema elegans



Aglaonema img465



Aglaonema elegans (confirm)



Aglaonema costatum var. foxii



Aglaonema linearis, Croat 57153, neg.  
1116-15\_



*Aglaonema pictum*, Foster 77-903, neg. 1480-9



*Aglaodorum griffithii*



Aglaodorum griffithii, 2\_img471



**Culcasia  
liberica**



**Cercestis  
Kameruniensis**



**Montrichardia  
arborescens**



**Calloopsis volkensis**



**Zantedesia  
aethiopica**

- **Tribe Culcasieae**
  - Culcasia
  - Cercestis
- **Tribe Montrichardeae**
  - Montrichardia
- **Tribe Zantedeschiaeae**
  - Zantedeschia
- **Tribe Callopsideae**
  - Calloopsis



Culcasia, 1598-13



Culcasia liberica, neg. 954-20



Culcasia, Bos sn., Wageninen 326



Culcasia, Bos sn., Wageninen 326



Cercestis mirabile, Croat 53495



Cercestis kameruniensis,  
Croat 53489\_2



Cercestis kamerounensis,  
Croat 53498, neg. 1296-4A



*Montrichardia arborescens*, Croat 71893, neg. 1561-32



Montrichardia linifera



Montrichardia linifera, Amazonas



Montrichardia arborescens, 4961



Montrichardia linifera, Rio Guama



Zantedesia aethiopica



Zantedesia aethiopica



Zantedesia pentlandii, neg. 1387-32



Zantedesia pentlandii, 74055, neg.  
1910-22\_2



*Callopsis volkensis*-Kenya & Tanzania

- **Tribe Thompsonieae**
  - *Amorphophallus*
- **Tribe Arophyteae**
  - *Arophyton*-7 spp.
  - *Carlephyton*- 3 spp.
  - *Colletogyne*- 1 sp.
- **Tribe Peltandreae**
  - *Peltandra*-2 spp.
  - *Typhonodorum*-1 sp.





Amorphophallus albispatus, croat 61151, 1753-20



Amorphophallus  
albispathus, Croat 66151

Amorphophallus albispathus, Croat 61151



Amorphophallus eichleri



Amorphoph paeonifolius



Amorphoph paeonifolius



**Amorphophallus paeonifolius**



**Amorphophallus bulbifer**

Fanny Phillips Collection



Amorphophallus (front) *A. paeonifolius*, *A. bulbifera*,  
*A. prainii*, (rear) *A. rivieri*



Amorphoph henryi, Peng 7727,  
neg. 1914-29



Amorphophallus, 73881



Amorphophallus albus



Amorphoph konjac,  
neg. 1603-10



Amorphophallus konjac,  
Keating 80-6



*Amorphophallus bulbifera*, Hetterscheid 100



*Amorphophallus yurmanii*



*Amorphophallus*



Amorphophallus maculatus



Amorphophallus titanum



*Amorphophallus bannaensis*



*Amorphophallus prainii*



Arophyton humbertii, Bogner 610, Munich 355-67



*Arophyton buchetii*, Bogner 207, neg. 954-18



*Colletogyne perrieri*



Colletogyne perrieri, Chris Birkenshaw 011



*Typhonodorum madagascarens*



Typhonium madagascarensse



*Typhonium madagascarensis*

- **Tribe Arisareae**

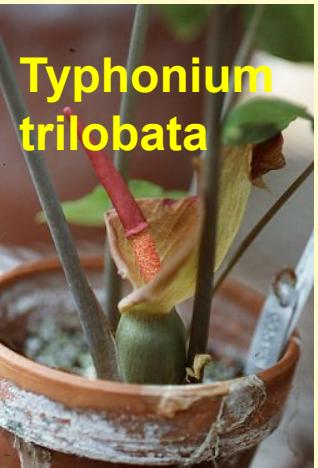
- Arisarum

- **Tribe Ambosineae**

- Ambrosina

- **Tribe Areae**

- Arum
  - Eminium
  - Dracunculus
  - Helicodiceros
  - Theriophonum
  - Typhonium
  - Sauromatum
  - Biarum



Arisarum  
proboscideum





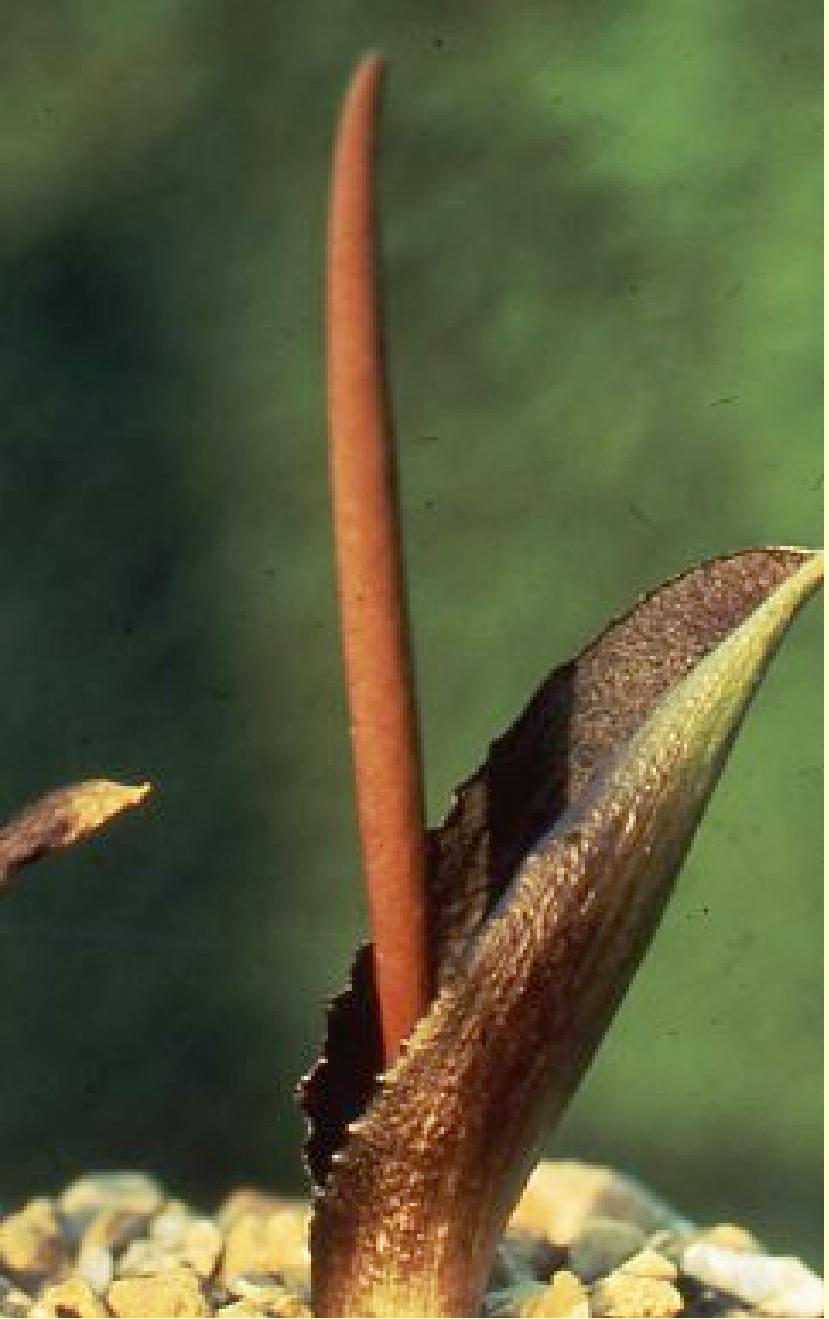
Arum hygrophilum, 8012263



Arum italicum



Arum conophalloides



*Arum eximium*



*Helicodicerus muscivorus*



Arisarum proboscideum



*Helicodicerus muscivorus*



*Helicodicerus muscivorus*



*Dracunculus vulgaris*, Croat 68450



*Dracunculus canariensis*, MBG 770376-2



Dracunculus vulgaris



Dracunculus vulgaris



Typhonium trilobatum, Croat 53260,  
neg. 1917-8\_



Typhonium trilobatum, Croat 71865,  
1917-8



*Typhonium trilobatum*, Croat 53260f



Typhonium



Typhonium, cultivated in Australia



*Typhonium kunmingensis*,  
Croat 77752, 1920-29



*Typhonium flagelliforme*



# Biarum

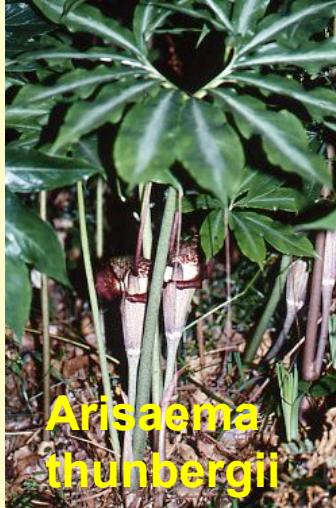
Biarum davisii, 78231



Biarum davisii, 78231

## • Tribe Arisaemateae

- Pinellia
- Arisaema



Ariopsis peltata

## • Tribe Colocasieae

- Ariopsis
- Protarum
- Steudnera
- Remusatia
- Colocasia
- Alocasia



Alocasia  
macrorhiza



Protarum  
seychellarum



Steudnera  
assamica

## • Tribe Pisteae

- Pistia



Remusatia vivipara



Colocasia  
gigantea



Arisaema serratum



Arisaema kiusianum



Arisaema heterophyllum



Arisaema triphyllum



Arisaema undlatifolium var. limbatum, Japan Murata



Arisaema pingbianense



Arisaema ovale, var. sadoense



Arisaema consanguineum



Arisaema sazensoo



Arisaema thunbergii



Arisaema consanguineum



*Arisaema grapsospadix*



*Arisaema sazensoo*



Arisaema filiforme



Arisaema galeatum



Arisaema filiforme



Ariopsis peltata- 2 spp. Tropical S. Asia



Protarum seychellarum- 1 sp. Seychelles Island



Steudnera, Croat 77954b



*Steudnera griffithi*

8 spp. Tropical  
South and SE  
Asia



Steudnera assamica, Bogner 1814

**Remusatia-**  
Tropical Africa,  
Madagascar, Arabian  
Peninsula, Tropical  
Asia, Malay  
Archipelago &  
Australia



*Remusatia vivipara*



Remusatia hookeriana



Remusatia vivipara, Croat 69705



Remusatia hookeriana



Colocasia sp. nov.

Colocasia- 8 spp.  
Tropical Asia



*Colocasia gigantea*, neg 954-27



*Colocasia gigantea*



Colocasia gigantea, neg. 954-27



*Colocasia gigantea*, Croat 77014 (confirm)



*Colocasia gigantea*



*Colocasia esculenta*, 'illustris'



Alocasia reversa



Alocasia amazonica



Alocasia reversa



Alocasia lowii-grandis



Alocasia cuprea, 61164



Alocasia amazonica



Alocasia cf. zebrina



Alocasia bullata



Alocasia lauterbachiana



Alocasia lauterbachiana, 69744



Alocasia portei



Alocasia, seen in Sarawak but  
purportedly from Philippines



img605



Alocasia hybrid (A. cuprea x  
A. sanderiana)



*Alocasia micholitziana*



Alocasia, Croat 53102, neg 1079-30\_img606

The End



Scindapsus exotica



*Alloschemone occidentalis*



Monstera tuberculata, 24747



Rhodospatha



Monstera, 49904\_2



Monstera, 79247, neg. 1944-18



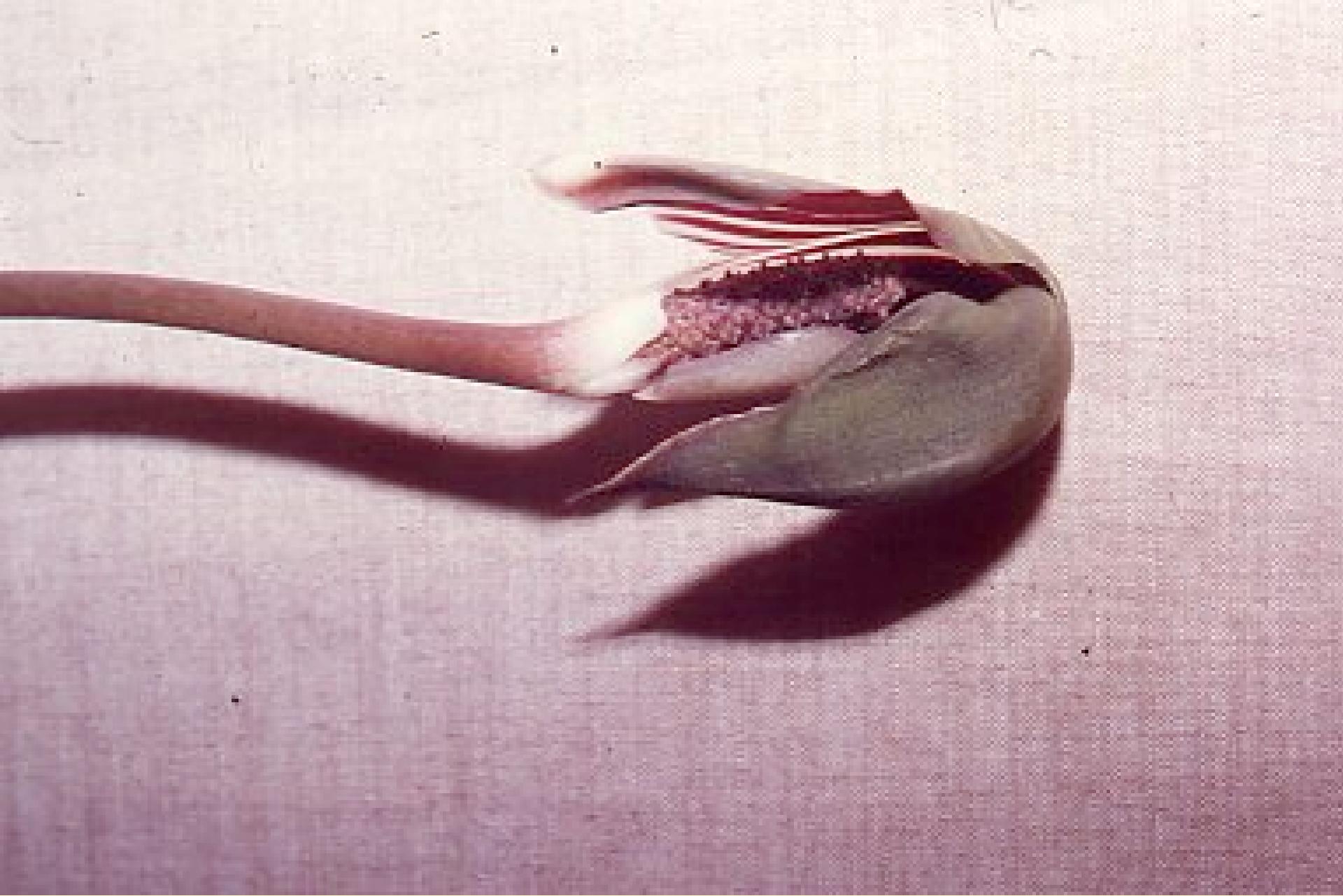
Rhododospatha moritziana



Dracontiodes dehescens, 78237\_2



Dracontiodes dehescens, 78237



Dracontiodes dehescens, 78237



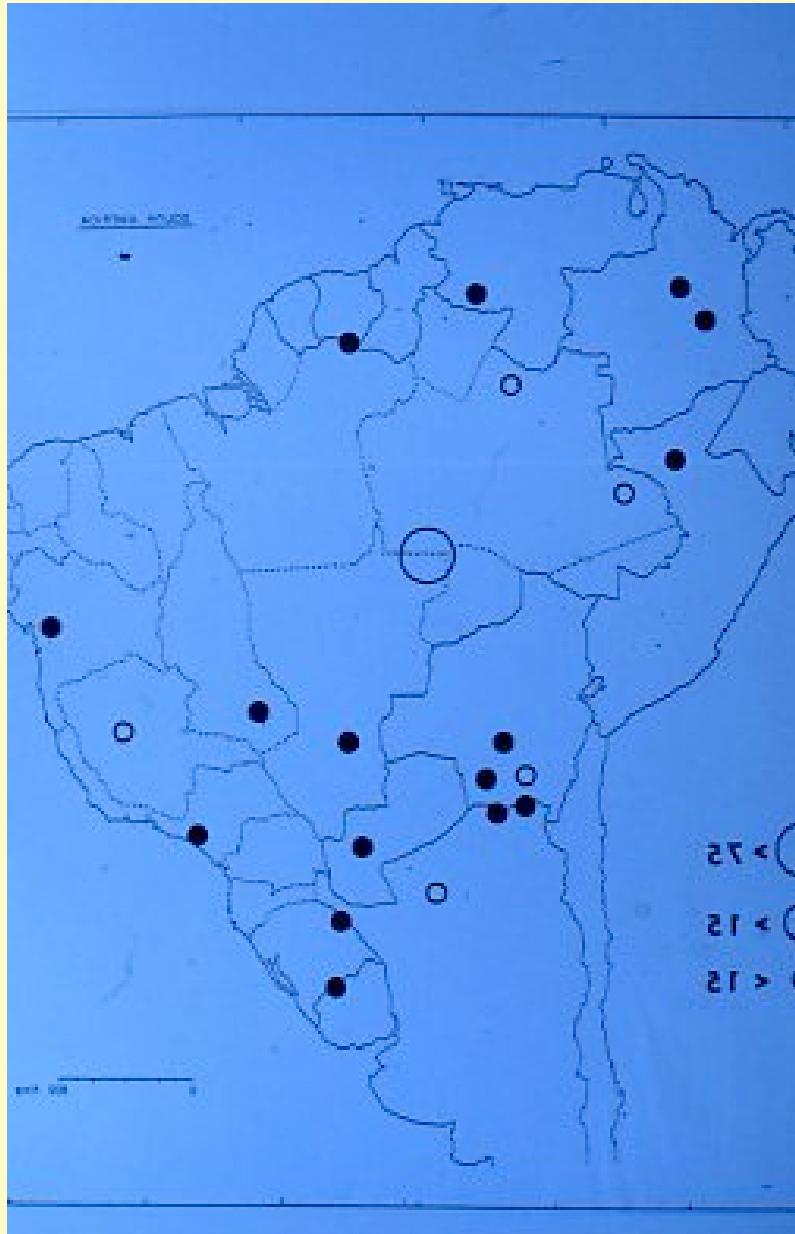
Dracontiodes dehescens



Calla palustris, neg. 1575-7



Lassia spinosa, Croat 52905



South American endemic Araceae



Anubias barteri, 1813-33 or 84-602



*Philodendron mamei*



Philodendron goeldii



Anubias (confirm), Hepf. 7508, Kew 475-82-0511-img345



Furtadoa sumatrana, Munich\_img346



*Philodendron latilobum*



Anubias lanceolata



Philodendron melinonii



*Furtadoa sumatrana*



*Philodendron latilobum*



Philodendron linniae



Philodendron linniae



Schizmatoglottis calyptrotrata, 77908, neg. 1850-28\_



Schizmatoglottis, 75537,  
neg. 1923-29



Philodendron ruizii



Anubias gigantea



Schsmatoglottis, Sarawak 14-79



Philodendron spirtus-sancti



Philodendron mamei



Anubias afzelii, Croat 71761



Schmatoglottis, Croat 75537, neg.  
1923-30



*Aridarum nicolsonii*, Croat 53211



Schizmatoglottis, Croat 53249c\_img384



Scaphyspatha gracilis, neg. 1174-  
470



*Chlorospatha* cf. *longipoda*, Croat  
59100, neg. 1075-26-3\_3



Hapaline argenteus, Kew 159.83.01977



*Nephthytis poissonii*



*Nephthytis poissonii*, Croat 69743, neg. 69743



*Pseudodracontium siamense*



img458



Pseudodracontium



Aglaonema fissum



Cercestis afzelii, 69682, neg. 1304-35



Zamtedesia pentlandii, 74055b,  
1910-19



Zamtedeshia pentlandii, 74055,  
neg. 1910-22



Callopsis volkensis, Croat 77245, neg. 1923-22



Pseudodracontium amom., Croat  
66056, neg. 1848-19



Amorphophallus bulbifera, neg. 1553-21



*Pseudodracontium lacouri*, Bogner 207, neg. 954-18



Peltandra sagittifolia



Eminium lehmannii



Arum palaestinum



*Sauromatum venosum*



Helicodicerus muscivorus\_2



Pinellia, Croat 78128, neg. 1922-28



*Sauromatum guttatum*, 53528



*Pinelia ternata*



Alocasia macorrhiza



Heteropsis spruceana, 812-17



Spathiphyllum, 1406-8,  
Croat 64294\_img173



Lysichitum camptchatsense



Rhodospatha, 73943



Sylochaeton zenkeri



Begonia recondita



Philodendron graziellae



Philodendron deltoideum,  
Plowman 7566



Pseudodracontium aff. siamensis,  
Croat 66056, neg. 1116-30



Pseudodracontium aff. siamensis,  
Croat 66056, neg. 1116-30\_2



Sauromatum guttatum



Pinellia ternata