

# APPENDIX A

## COMPENDIUM INDEX OF NORTH AMERICAN FOSSIL PLANTS

### First Field

#### 1— ANGIOSPERMS

Leaves with several orders of venation, cross-veins and vein anastomoses at several orders.

#### Leaves Preserving Compound Attachment

- 100 Leaf pinnately compound or (bi-) trifoliate, toothed
- 101 Leaf pinnately compound or (bi-) trifoliate, toothless
- 102 Leaf palmately compound

#### Leaves Preserved As Isolated Lamina

Petiole Attached at Base of Lamina

- 103 Lamina pinnately veined, deeply emarginate, or bilobed or in multiples of 2
  - 104 Lamina pinnately veined, 3 or more lobes
  - 105 Lamina pinnately veined, linear
  - 106 Lamina pinnately veined, unlobed, oblong, toothed
  - 107 Lamina pinnately veined, unlobed, oblong, toothless
  - 108 Lamina pinnately veined, unlobed, elliptic, symmetrical, dentate
  - 109 Lamina pinnately veined, unlobed, elliptic, symmetrical, serrate
  - 110 Lamina pinnately veined, unlobed, elliptic, symmetrical, crenate
- 
- 111 Lamina pinnately veined, unlobed, elliptic, symmetrical, toothless
  - 112 Lamina pinnately veined, unlobed, elliptic, asymmetrical
  - 113 Lamina pinnately veined, unlobed, ovate, symmetrical, dentate
  - 114 Lamina pinnately veined, unlobed, ovate, symmetrical, serrate
  - 115 Lamina pinnately veined, unlobed, ovate, symmetrical, crenate
  - 116 Lamina pinnately veined, unlobed, ovate, symmetrical, toothless, secondaries with uniform spacing and angle of origin
  - 117 Lamina pinnately veined, unlobed, ovate, symmetrical, toothless, secondaries crowded toward the base
  - 118 Lamina pinnately veined unlobed, ovate, symmetrical, toothless, one or more pairs of lower secondaries emerging at a lower angle than those above
  - 119 Lamina pinnately veined, unlobed, ovate, symmetrical, toothless, with (an) intramarginal vein(s)
  - 120 Lamina pinnately veined, unlobed, ovate, asymmetrical
- 
- 121 Lamina pinnately veined, unlobed, obovate, symmetrical, toothed
  - 122 Lamina pinnately veined, unlobed, obovate, symmetrical, toothless
  - 123 Lamina pinnately veined, unlobed, obovate, asymmetrical
  - 124 Lamina pinnately veined, w/pectinal vein, unlobed, elliptic or oblong, toothed

- 125 Lamina pinnately veined, with pectinal vein, unlobed, elliptic or oblong, toothless
- 126 Lamina pinnately veined, with pectinal vein, unlobed, ovate, toothed
- 127 Lamina pinnately veined, with pectinal vein, unlobed, ovate, toothless
- 128 Lamina pinnately veined, with pectinal vein, unlobed, obovate
- 129 Lamina acrodromously veined, elliptic or oblong, toothless
- 130 Lamina acrodromously veined, elliptic or oblong, toothless
- 131 Lamina acrodromously veined, ovate, toothed
- 132 Lamina acrodromously veined, ovate, toothless
- 133 Lamina acrodromously veined, obovate
- 134 Lamina actino- or palinactinodromously veined, unlobed, elliptic, or oblong, toothed
- 135 Lamina actino- or palinactinodromously veined, unlobed, elliptic or oblong, toothless
- 136 Lamina actino- or palinactinodromously veined, unlobed, ovate, toothed
- 137 Lamina actino- or palinactinodromously veined, unlobed, ovate, toothless
- 138 Lamina actino- or palinactinodromously veined, unlobed, obovate
- 139 Lamina actino- or palinactinodromously veined, 2-lobed or lobes in multiples of 2
- 140 Lamina actino- or palinactinodromously veined, 3-lobed
- 141 Lamina actino- or palinactinodromously veined, 5 or more lobes
- 142 Lamina definitely palinactinodromously veined, 3 lobed
- 143 Lamina definitely palinactinodromously veined, 5 or more lobes
- 144 Lamina campylodromously veined
- 145 Lamina flabellately veined, very weakly pinnately or palmately veined or multistranded midvein
- 146 Lamina flat and unlobed, veins parallelodromous, pinnately attached to a costa
- 147 Lamina flat and unlobed, veins parallelodromous from a zone at the blade base
- 148 Lamina plicate or breaking into narrow-segments, venation parallelodromous, leaf shape and vein origin unknown
- 149 Lamina plicate and lobed, fan-shaped, venation palmate
- 150 Lamina plicate and lobed, feather-shaped, venation pinnate

#### Petiole Attached Inside Leaf Margin

- 151 Lamina pinnately veined, with or without pectinal veins
- 152 Lamina palmately veined, unlobed, orbicular
- 153 Lamina palmately veined, unlobed, ovate, toothed
- 154 Lamina palmately veined, unlobed, ovate, toothless
- 155 Lamina palmately veined, lobed

#### Petiole Attachment Various or Indeterminate

- 160 Lamina of special or unusual- shape (including needle, awl, and scale)
- 161 Lamina insufficiently characterized, pinnate (or unknown), toothed
- 162 Lamina insufficiently characterized, pinnate (or unknown), toothless (or unknown)
- 161 Lamina insufficiently characterized, palmate, toothed
- 164 Lamina insufficiently characterized, palmate, toothless (or unknown)

### Other Organs

- 170 Flowers occurring as single units
- 171 Flowers aggregated into catkins or aments
- 172 Flowers aggregated into heads or capitulas
- 180 Fruits, dry, indehiscent, seed-containing portion relatively small (generally <5mm) or, if winged, the winged portion exceeding the size of the seed (achenes, caroyapsis, utricles, cypselas, samaras, etc.)
- 181 Fruits, dry, indehiscent, large (>5mm) or, if winged, the winged portion smaller than the seed bearing portion (acorns, balaustas, calybiums, nuts)
- 182 Fruits, dry, dehiscent capsules, follicules, or siliques
- 183 Fruits, dry dehiscent legumes or lomentas
- 184 Fruits, fleshy (berries, drupes, pomes, etc.)
- 185 Fruits, aggregate or multiple
- 186 Fruits, other - or of indeterminate characters
- 190 Wood or stems

---

### 2— GYMNOSPERMS

- 200 Pteridosperms (including Caytoniales)
- 210 Cycadophytes, leaves dissected, toothless, veins parallel except convergent at pinna apex and base, mainly forked
- 211 Cycadophytes, leaves dissected, toothless, veins parallel except convergent at pinnule apex and base, mainly unforked, pinnules <3cm long
- 212 Cycadophytes, leaves dissected, toothless veins parallel except convergent at pinnule apex and base, mainly unforked, pinnules >3cm long
- 213 Cycadophytes, leaves dissected, toothless, veins pinnate or radiating throughout length of pinnule
- 214 Cycadophytes, leaves dissected, pinnules toothed
- 215 Cycadophytes, leaves undissected, veins parallel, unforked
- 216 Cycadophytes, leaves undissected, veins parallel, forked
- 217 Cycadophyte leaves, habit indeterminable
- 218 Cycadophyte seeds, cones, and "flowers"
- 219 Cycadophyte stems and wood
- 220 Ginkgophytes, leaves fan-shaped, veins flabellate, includes the Neoggerathiales, Czekanowskiales
- 230 Conifers, scaly foliage, leaves appressed to stem for more than 1/2 of their length
- 231 Conifers, short needles: average <3cm
- 232 Conifers, long needles: average >3cm
- 233 Conifers, leafy blades 1<3cm, l/w ratio >10:1 or 1>3cm l/w ratio 1.5 or less
- 234 Conifers, cones
- 235 Conifers, cone scales
- 236 Conifers, seeds
- 237 Coniferophytes, wood
- 238 Conifers, characters uncertain
- 240 Gnetophytes

- 300 ALGAE
- 350 FUNGI
- 400 BRYOPHYTES
- 5— *FERNS*
- 500 Blades dissected, veins open, ultimate laminar division w/o midribs
- 501 Blades dissected, w/ midribs, veins unforked
- 502 Blades dissected, veins closed, ultimate laminar divisions w/ midribs, veins forked
- 503 Blades dissected, veins closed, ultimate laminar divisions w/o midribs
- 504 Blades dissected, veins closed, ultimate laminar divisions with midribs
- 505 Blades undissected
- 506 Venation obscure or uncertain
- 507 Specialized fertile pinnae, fertile part much exceeding sterile tissue in at least a part of the leaf
- 508 Fern stems and rhizomes
- 509 Fragments too small to determine
- 600 *SPHENOPSIDS*
- 7— *LYCOPSIDS*
- 700 Lycopodium and Selaginella
- 710 Isoetales
- 800 GALLS AND LESIONS
- 9— *PLANTS OF INDETERMINATE RELATIONSHIPS*
- 900 Stems with attached leaves or other structures
- 910 Rhizomes, roots and stems
- 920 Leaves
- 930 Seeds
- 940 Miscellaneous plant organs and parts
- 950 Indeterminate plant parts
- 990 NON PLANTS