

Key to the Ferns and Fern Allies

The nomenclature generally follows that found in **A Field Manual of the Ferns and Fern-allies of the United States and Canada** by David B. Lellinger, Smithsonian Institution Press, Washington, D.C. 1985 or

1a. Plants with small, simple, scale-like leaves on spreading or creeping above-ground stems or with grass-like leaves having swollen bases enclosing a single sporangium

2a. Plants consist of a tuft of grass like leaves **ISOETACEAE**

2b. Plants otherwise, stems creeping or underground rhizomes

3a. Stems dichotomously branched, leafless **PSILOTACEAE**

3b. Stems not as above

4a. Stems jointed, ridged and with dark bands and a toothed sheath; 4a rough to the touch **EQUISETACEAE**

4b. Stems without joints, creeping or erect, with many small, triangular, scalelike leaves

5a. Spores produced in four sided sporangia .. **SELAGINELLACEAE**

5b. Spores produced in cylindrical sporangia .. **LYCOPODIACEAE**

1b. Plants with larger, usually pinnately compound leaves or 4-foliolate leaves, primarily produced from underground stems (rhizomes) or plants floating or rooted emergent aquatics with simple to highly branched leaves

6a. Plants terrestrial with clover-like leaves or plants floating or rooted as an emergent aquatic

7a. Plants terrestrial with 4-foliolate leaves **MARSILEACEAE**

7b. Plants floating with simple leaves or floating and/or emergent aquatics with highly branched leaves

8a. Plants with highly branched leaves . **PARKERIACEAE**

8b. Plants with simple leaves

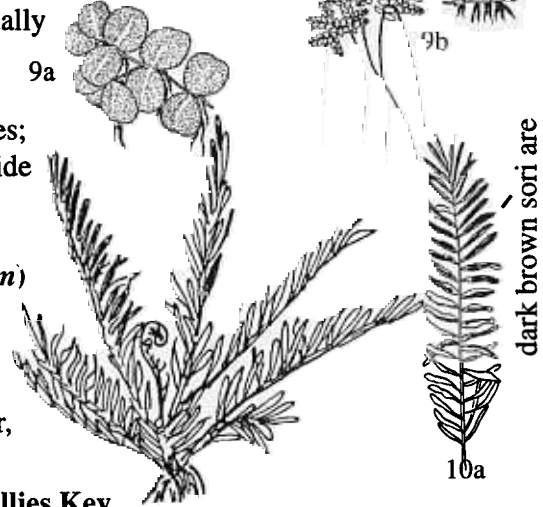
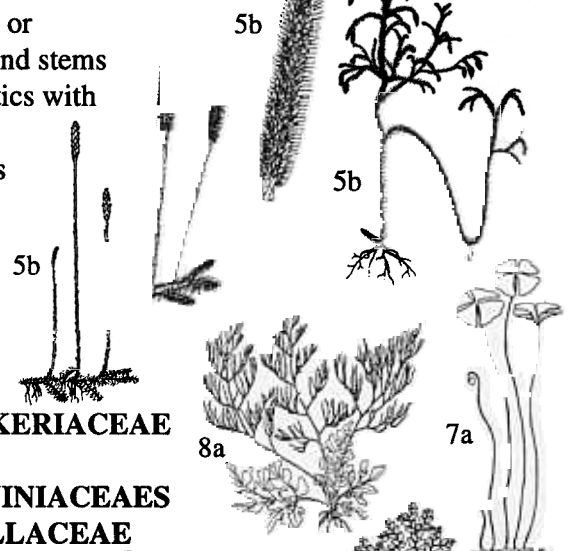
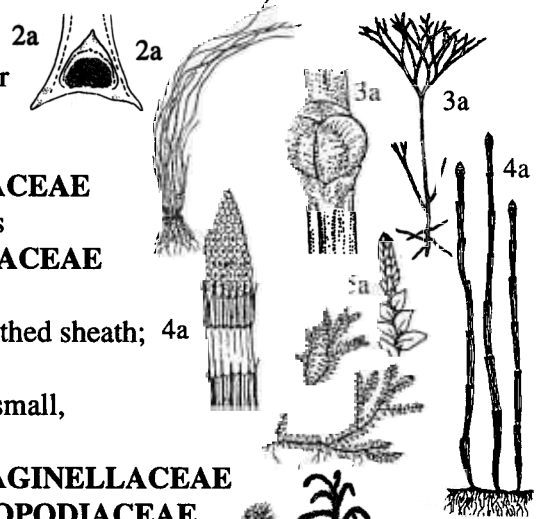
9a. Leaves oval **SALVINIACEAES**

9b. Leaves scale-like..... **AZOLLACEAE**

6a. Plants rooted in the ground or epiphytic, leaves usually pinnately compound

10a. Plants with large (about 2 m long) evergreen, leathery leaves, stiff and erect with thick petioles; sporangia in a thick, brown layer on the underside of leaves; rhizome large and woody; plants of south Florida and coastal areas of central Florida **PTERIDACEAE** (*Acrostichum*)

10b. Plants with smaller, thinner leaves, evergreen or deciduous; sporangia in round or elongate clusters (sori) on underside of leaves or stalked in globular clusters or beadlike; rhizome smaller, creeping or with wiry, mat-like roots



dark brown sori are found on the uppermost leaflets

11a. Plants with two types of leaves, i.e. dimorphic, one type fertile and the other sterile (vegetative)

12a. Sterile leaves tripinnate, toothed or lobed, triangular in outline or simple, round to elliptic, entire **OPHIOGLOSSACEAE**

12b. Leaves pinnate or bipinnately lobed, margins variously lobed to unlobed

13b. Sterile leaves bipinnately lobed or with pinnae margins lobed; fertile leaves erect, brownish-red to tan; rhizomes with black wiry roots..... **OSMUNDACEAE**

13a. Sterile leaves, pinnately lobed with pinnae margins entire or with small teeth

14a. Fertile leaves with elongate sori on thin spreading fertile pinnae; sterile leaves with pinnae alternate in part, **BLECHNACEAE** (*Woodwardia areolata*)

14b. Fertile leaves with bead-like fertile pinnae; sterile leaves with pinnae opposite.....
 ◇ **WOODSIACEAE** (*Onoclea sensibilis*)

11b. Plants with one type of leaf, i.e. fertile and sterile leaves look the same

15a. Sporangia with indusia, a flap-like structures over the sori

16a. Sporangia oblong to linear

17a. Sori oblong in a continuous row parallel to the length of the fertile pinnae ...
BLECHNACEAE (*Blechnum serrulatum*)

17b. Sori linear or curved, not in a continuous row, leaves pinnatifid

18a. Sori J-shaped,

19a. Leaves pinnatifid, petioles often reddish
 ◇ **WOODSIACEAE** (*Athyrium filix-femina*)

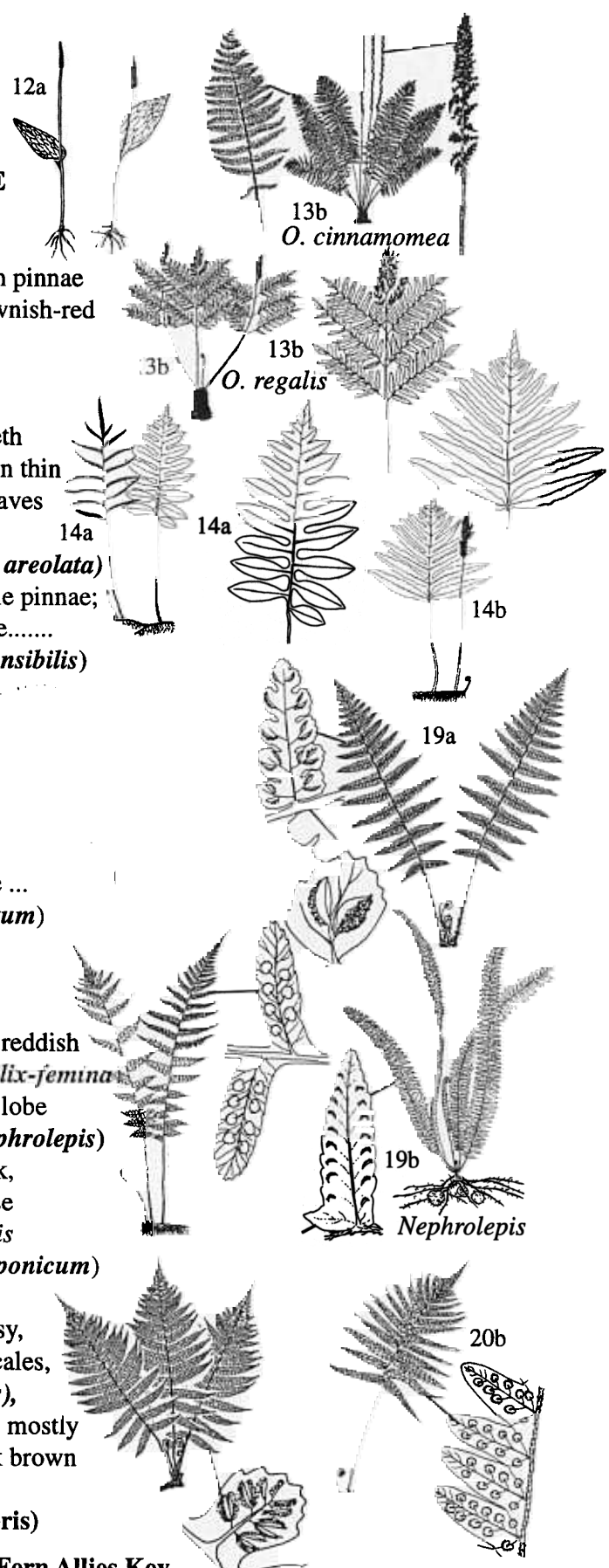
19b. Leaves with conspicuous ear like lobe
 * ◇ **NEPHROLEPIDACEAE** (*Nephrolepis*)

18b. Sori linear, often paired, back to back, petiole dark green, superficially these ferns look very much like *Thelypteris*
 ◇ **WOODSIACEAE** (*Diplazium japonicum*)

16b. Sporangia otherwise, sori round

20a. Leaves once pinnate, dark green, glossy, evergreen, stipes with tan to brown scales, **DRYOPTERIDACEAE** (*Dryopteris*),

20b. Leaves pale green (except *T. dentata*), mostly pinnate-pinnatifid; stipe green to dark brown usually without scales
THELYPTERIDACEAE (*Thelypteris*)



* Note: *N. biserta* and *N. multiflora* have round indusia and sori

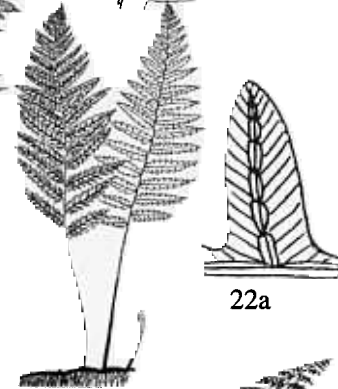
15b. Sporangia without an indusium or covered by a false indusium

21a. False indusium absent; sporangia round, several found between the midrib and margin of each lobe; frond lobes pinnatifid in part, **DRYOPTERIDACEAE** (21a)
(*Ctenitis submarginalis*)



21b. False indusium present

22a. Sori in long rows with an elongate false indusium, chain-like cells associated with leaves ... in part, **BLECHNACEAE** (*Woodwardia virginica*)



22b. Sori not as above

23a. Plants climbing, vine-like or arching or scrambling

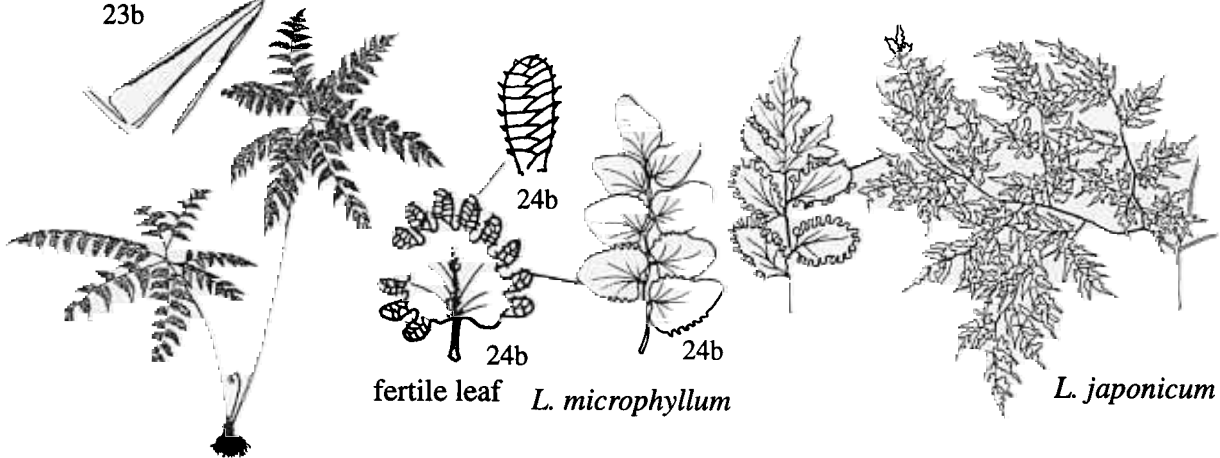
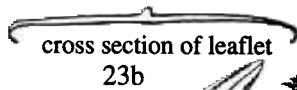
24a. Fronds climbing by arching, not twining, covered with stiff, prickly hairs

DENNSTAEDTIACEAE (*Hypolepis repens*)

24b. Fronds twining, vine-like, without stiff, prickly hairs **SCHIZAECEAE** (*Lygodium spp.*)



23b. Plants not as above - Leaves compound; false indusium a continuous, marginal flap of leaf tissue ◊ **PTERIDACEAE** (*Pteris tripartita*)



Note: The following fern families are **not** found in the **Florida Wetland Plants, An Identification Manual**. ISOETACEAE, PSILOTACEAE, SELAGNELLACEAE, MARSILEACEAE, PARKERIACEAE, SALVINIACEAE, AZOLLACEAE, SCHIZAECE.

◊The following fern families are included in the manual **HOWEVER** nomenclature has **been changed**, this follows Lellinger and Wunderlin.

WOODSIACEAE = ASPENIACEAE (*in Florida Wetland Plants, An Identification Manual*)

NEPHROLEPIDACEAE (or DAVALLIACEAE) = DRYOPTERIDACEAE, in part (*in Manual*)

PTERIDIACEAE = ADIANTACEAE (*in Manual*)