

Fern Speak: An Illustrated Glossary

FROND
leaf of the fern

RACHIS
frond stalk

PINNA
leaves on the blade
plural: *pinnae*

PINNULES
segments on the pinna

RHIZOME
the stem of the fern; it's usually on or just under the surface of whatever the fern is growing on

ROOT
very slender except Leather Fern are massive; grow along length of stem (rhizome)

FIDDLEHEAD
a new frond still curled up at the top

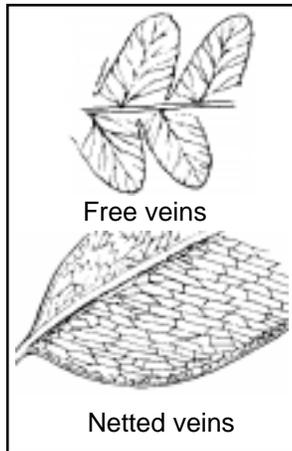
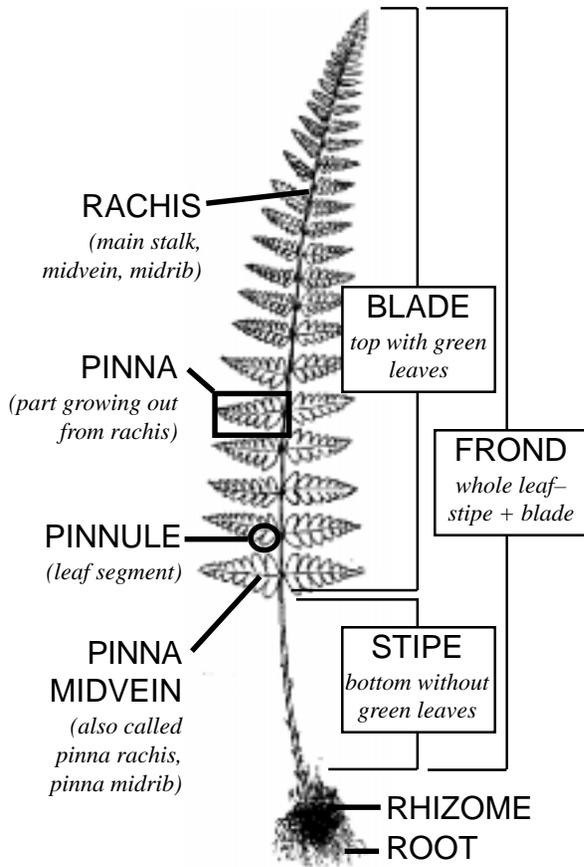
SPORE
one-celled reproductive unit of non-seed plants; mature sori are usually reddish-brown and are major keys to identifying most ferns;
associated terms

..... SPORANGIUM ... a spore case

..... SPORANGIA plural of *sporangium*

..... SORUS a cluster of sporangia

..... SORI plural of *sorus*



Quick & Easy Identification Key to 20 Southwest Florida Ferns

Sex and the Single Fern

The life cycle of most ferns is a little strange in the plant world (almost like herbiferous reincarnation), but anything that has worked for millions of years must be fairly effective.

Spores come from fronds of ferns, but the fronds do not come directly from the spores.

Spores from the parent fall to the ground and with an enormous amount of luck (millions perish for every success) they will find suitable moisture and light.

The tiny single-celled organism starts to grow by cell division. Soon, orderly arrangements of cells form little green heart-shaped plants (Prothallia). These plants are only 1/2 inch or less across and lie flat on the ground, so most people never notice them. This is an independent plant with its own simple "root" system (rhizoids) to provide it with nutrients and water.

The Prothallium then grows male and female organs on its underside.

The male organ (Antheridium) produces spermatozoids which will swim via a droplet of water to the egg produced by the female organ (Archegonium).

The fertilized egg then begins to grow the Sporophyte, the plant that we know as a fern.

And on the next day, Fern created firmament

Royal Fern forms hummocks in swamp areas that catch and hold organic material to actually form small "islands" that help which in turn create land from water.

The Chain Fern grows in wet, boggy areas and performs the same "land creating" function there.

An important factor in the continued ecological competitiveness of ferns is that many of them succeed by growing in marginal habitats where other plants cannot survive, and in this kind of strategy have formed methods of holding and forming soils for their own benefit, and coincidentally for a greater environmental benefit.

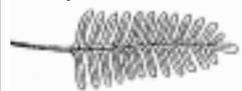
What the doctor ordered

Native Americans heated the stem and leaves of Resurrection Fern, using the ointment to treat ulcers and sores. As a leaf tea, it was used in treating dizziness, headaches, and bleeding gums.

Bracken Fern root tea was used for stomach cramps and diarrhea. Dried leaves were smoked to relieve headaches. The poulticed root was used to treat burns and sores. The wash was used to promote hair growth and as an astringent and a tonic.

SIMPLE: undivided

1. Like branched slender green sticks Whisk Fern
1. Fronds hang down, like green linguine Shoestring Fern
1. Fronds wider than 1/2 inch; more erect Strap Fern

PINNATIFID: cut nearly to midvein

1. Fronds 10 inches or longer Golden Polypody
1. Fronds 6 inches or less Resurrection Fern

PINNATE: blades divided into leaflets attached to main axis.

1. Fronds narrow; pinnae thin; terminal pinna short
 2. Pinnae spaced; frond long Giant Sword Fern
 2. Pinnae close, almost overlapping Sword Fern
1. Pinnae thick, leathery; fronds to 8' Giant Leather Fern
1. Terminal pinna longer than other pinnae Swamp Fern

PINNATE-PINNATIFID: separate leaflets on main axis; each leaflet has cuts

1. Pinnae opposite, or really close to opposite
 2. Sori at pinnule edge; fronds to 4' Shiny Thelypteris
 2. Sori at pinnule midvein; fronds to 2' Marsh Fern
1. Pinnae alternate
 2. Pinnules rounded Shield Fern
 2. Pinnules taper to point, lobes blunt Chain Fern
 2. Lobes separated; small hairs all over Wood Fern

BIPINNATE: blades divided into leaflets; each leaflet has its own leaves

1. Openly branched fronds; spores at blade tip ... Royal Fern

BIPINNATE-PINNATIFID: blades divided into leaflets; each leaflet has its own leaves that are cut

1. Tall; fronds stiff; each blade branches into three more Bracken Fern

FLOATING: free floating on water surface

1. Fronds round, fingertip-size, hairy Water Spangles
1. Fronds irregularly branched like flat twig . Mosquito Fern

PALMATE: hand-like

1. Large fronds hang loosely like a limp hand Hand Fern
1. Small fronds form thick, climbing mats Climbing Fern

Ferns & alliesScientific namecommonly found

SIMPLE

- Whisk Fern *Psilotum nudum* on tree trunks
- Shoestring Fern *Vittaria lineata* on Cabbage Palm boots
- Strap Fern *Campyloneurum phyllitidis* . on cypress knees

PINNATIFID

- Golden Polypody *Phlebodium aureum* on Cabbage Palm boots
- Resurrection Fern *Pleopeltis polypodioides* on rough barked trees

PINNATE

- Giant Sword Fern *Nephrolepis biserrata* at trail edges near water
- Sword Fern *Nephrolepis exaltata* everywhere
- Giant Leather Fern *Acrostichum danaeifolium* .. in water
- Swamp Fern *Blechnum serrulatum* almost everywhere

PINNATE-PINNATIFID

- Shiny Thelypteris *Thelypteris interrupta* swamps close to water
- Marsh Fern *Thelypteris palustris* swamps close to water
- Shield Fern *Dryopteris ludoviciana* drier areas on ground
- Chain Fern *Woodwardia virginica* wet prairie edges
- Wood Fern *Thlypteris kunthii* drier areas, trail edges

BIPINNATE

- Royal Fern *Osmunda regalis* wet areas, shade

BIPINNATE-PINNATIFID

- Bracken Fern *Pteridium aquilinum* dryer areas, roadsides

FLOATING

- Water Spangles *Salvinia minima* water where it's shady
- Mosquito Fern *Azolla caroliniana* still/slow-moving water

PALMATE

- Hand Fern (rare) *Ophioglossum palmata* tree trunks, palm boots
- Climbing Fern (exotic) .. *Lygodium microphyllum* ideally nowhere; forms a mat that blankets all