

Cypress Trees

Cypress are in the family *Taxodiaceae*, the redwood family, which includes the redwoods and giant sequoias in the western United States.

Cypress are conifers but are unique because they are deciduous. This indicates that although Corkscrew is in a subtropical area, cypress originated as temperate plants where being deciduous was an advantage, and they spread south rather than originating as tropical plants and spreading north.

DNA testing has confirmed that Bald Cypress and Pond Cypress are two distinct trees rather than one being a variation of the other.

Cypress trees at Corkscrew are roughly 500-600 years old. The age was based on a core peat sample from the central marsh which indicated that approximately 600 years ago a massive fire pretty much leveled the place, so nothing in Corkscrew can be older than that.

Special adaptations

- **FIRE** produces adventitious (definition: occurring in unusual or unexpected places) branches after burning; cypress are more fire resistant than hardwoods but less so than slash pines.
- **BUTTRESSED BASES** add stability; the shape of the buttress is directly related to the frequency and duration of the highest water level.
- **ROOTS** are widespread, shallow, and horizontal; young trees send a tap root down, but it disintegrates once the seedling is established.
- **KNEES** grow up from the roots and tend to grow to 1-2 feet above the highest water mark. At Corkscrew that may only be two feet while in tidal areas along a coast or in flood plains that may approach 7-8 feet. There is no definitive scientific explanation for the existence of knees, but three possibilities exist: (1) they provide support for the tree in wet and sometimes stormy environments, (2) they function as extra storage, or (3) they play some sort of role in gas/oxygen exchange.

Reproduction

- **MALE CONES** appear on trees from December to March and give off pollen to fertilize the female cone; they are less than 1mm in diameter, occur in tassel-like structures several inches long, and are usually near the tops of the cypress trees.
- **FEMALE CONES** appear from March to April after pollination and reach maturity between October and December. Each cone contains from 18-30 seeds and usually breaks apart on the tree to disperse the seeds. They are mostly round and usually in the lower portions of the cypress trees.
- **SEEDS** are viable up to one year in the water. Water is the primary dispersal mechanism, and seeds must soak from one to three months for germination to occur.
- **SEEDLINGS** grow best in saturated but unflooded soil. They need a dry-down to get started and then they grow rapidly so their crowns will be above the water level once the rainy season begins and water levels begin to rise.

Uses and Logging

Cypress was and is heavily harvested because of its qualities: it's resistant to decay but soft, light, very durable, and it doesn't warp easily.

These qualities have made it useful as railroad ties, docks, bridges, silos, caskets, garden mulch, and in boat building. The U.S. Navy used cypress for hulls of its mine sweepers and p.t. boats in the 1940's and 1950's because metal hulls set off water mines while wood hulls didn't.

Almost every swamp in Florida was logged between the 1800's and the 1950's. Heavy logging began in the 1930's. Corkscrew was saved and is now the largest and oldest virgin bald cypress forest in North America. There are other unlogged areas of cypress trees in South Carolina that are older, but they are in what is classified as a cypress-tupelo forest rather than a bald cypress forest.

Superficial Differences

Bald Cypress (*Taxodium distichum*)

BARK: Thin, reddish brown, grays with age; bark is fibrous and has narrow ridges

NEEDLES: Needles are flat and grow from both sides of the twig, spreading out to give a feathery appearance.

KNEES: Knee tops tend to be somewhat pointed. Growing knees tend to have a reddish brown top while mature ones are grayish.

SIZE: Mature trees reach heights to 125 feet or more and can have a diameter of 12 feet or more.

HABITAT: Bald cypress grow in moving water next to rivers, lakes and swamps where the hydroperiod is long and the peat is deep.

RANGE: Coastal plains from Delaware to Florida, west to Texas, north to southern Indiana and Illinois.

Bald Cypress Bark



Pond Cypress (*Taxodium ascendans*)

BARK: Thicker than bald cypress and it has deeper ridges

NEEDLES: Needles are shorter than bald cypress needles and are arranged in a spiral formation over the twig.

KNEES: Knee tops tend to be more rounded than bald cypress. Growing knees tend to have a reddish brown top while mature ones are grayish.

SIZE: Mature trees are usually less than 100 feet tall and the diameter is usually 1-2 feet.

HABITAT: Pond cypress grow in stiller waters where soils are highly acidic, the peat layer is thin, and where fire is more prevalent.

RANGE: Shallow ponds from southeastern Virginia to Florida and west to Alabama

Pond Cypress Bark



Bald Cypress Needles



Pond Cypress Needles

