

Kasey Hartz Natural Area Reference Sheet



Muskegon Community College

Pteridium aquilinum

Bracken Fern

Dennstaedtiaceae (Bracken fern family)

Blooming season:

No flowers; plant emerges in spring.

Plant:

This fern is perennial with active growth season in spring and summer.

Stipes are 15-90 cm long. The stems are subterranean and true vessels are present.

When a cross section is cut the vascular bundles are shaped like a U.

The rhizomes are black, horizontal, and creeping. They are also subterranean so the plant is fire resistant; regrowth is quick by the rhizomes.



Leaves:

The fronds are green, broad, and triangular; 20-80 cm long and 25-50 cm wide.

They are tripinnate. The large pinnae are triangular and broad. The smaller pinnae are slim and triangular with the terminal segment of pinna 2-4 times longer than wide.

The veins are 2-3 forked.

The fronds are dark green, and the fiddle heads brownish and rolled in from the tip.

Flower:

No flowers.

Fruit:

No fruit, but sori are found as a continuous strip on the edge of frond separations.

The spores mature between July and September.

Can be confused with:

Could possibly be confused with *Osmunda cinnomomea*, but fronds are more triangular in shape while *O. cinnomomea* are more elliptic. The fronds begins farther up the stipe than *O. cinnomomea* which begin much closer to the soil. Also *O. cinnomomea* has a distinctive fertile frond while this fern does not.

Pteridium aquilinum var. *latiusculum* (Desv.) (Eastern Braken) fronds are more triangular and broad; found throughout Michigan (Billington 220).

Pteridium aquilinum var. *pseudocaudatum* (Clute) Heller (Tailed Braken) has a very long undivided, narrow terminal segments 6 times long as wide; found farther south near Oakland and Wayne County (Billington 220-1).

Pteridium aquilinum var. *pubescens* Underw. (Western Bracken) the bottom of the pinnules are somewhat pubescent or hairy; only found in a small portion of the UP in Michigan (Billington 220).



Pteridium aquilinum

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Bracken Fern

Geographic range:

Type specimen location: Upland Oak-Pine and Maple-Witch Hazel Habitats

State: Found commonly through the Upper Peninsula to southern portions of the State.

Regional: Found abundantly from Newfoundland to Manitoba, Georgia, Colorado, and to South Dakota, but is more common in the northern portion of its range.

Habitat:

Local: Found in open shaded woods, fields, along the road side, and on dry slopes. Is gravel bed and sand soil tolerant.

Regional: Found in barrens, pastures, and open woods usually in large colonies. Prefers moderately to strongly acidic soils with a pH of 4.5-7. Also prefers medium to coarse soils and is medially drought tolerant with a precipitation requirement of 41 cm minimum and 152 cm maximum (USDA-Plants Database).

Common local companions:

Greenbrier, blueberry, huckleberry, oak, white pine, red maple, witch hazel, and sassafras.

Usages:

Human: Can be used as a yellow-green dye or gray on silk; the best color comes from fiddleheads (Dye Plants & Dyeing-a handbook 26). This fern has been used as a substitute for hops and has also been cooked in soups (Hendrick 470). In Europe it was burned to make potash (Flora of North America Vol. 2 202). Native Americans used the roots as a tea for worms, cramps, digestive problems, and diarrhea (Angier 69-71). Currently is used in garden cultivation, but since this fern is so aggressive it is considered weedy and not widely used (USDA-Plants Database). The fiddleheads have been known to be eaten cooked or raw, but they are slightly toxic. It is not advisable to eat the fiddleheads raw, but if they are cooked there is not toxicity.

Other Animal: Some browsing animals will eat it especially hogs, but cattle and horses may die from eating the plant.

Why is it called *that*?:

Pteridium means small fern and *aquilinum* means eagle-like from the vasculature appearance in a cross section of a rhizome (Gledhill).

Prepared by: Elizabeth LaRue April 2008