

-State Species Abstract-
-Wyoming Natural Diversity Database-

GYMNOCARPIUM DRYOPTERIS
OAK FERN
Family: Dryopteridaceae

Status:

US Fish & Wildlife Service: None.

Agency Status: None.

Heritage Rank:

Global: G5 State: S2

WYNDD Plant List: Disjunct

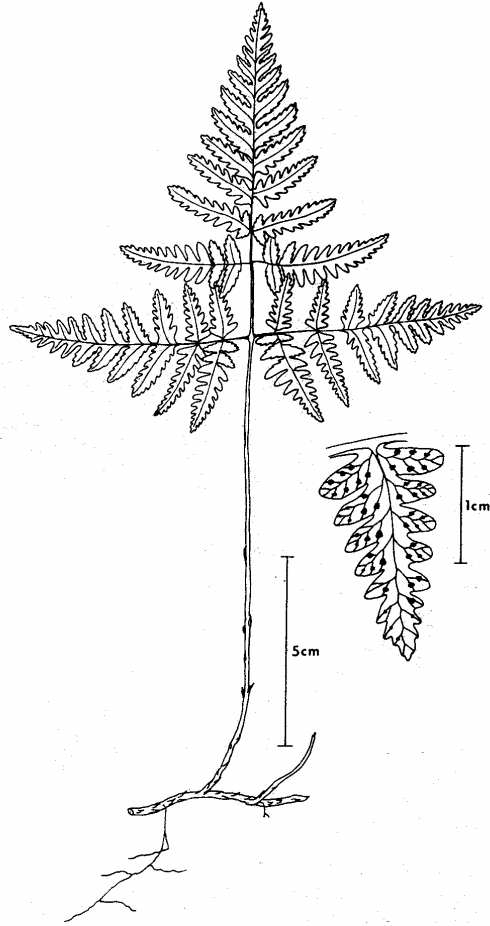
(Low Conservation Priority)

Description: Oak-fern is a delicate perennial fern with scattered leaves along a slender, elongated, scaly rhizome. Leafstalks are 7-30 cm long, straw-colored, and with reddish-tan scales near the base. Leaf blades are ca 18 cm long x 25 cm wide, broadly triangular, and thrice-pinnate. The lowest pair of leaflets (pinnae) are longer and broader than the other leaflet pairs and slightly isolated from them. Sori are round to elliptic, lack a protective membrane (indusium), and are borne on the leaflet veins (away from the margin) (Hitchcock and Cronquist 1969; Lellinger 1985).

Similar Species: *Pteridium aquilinum* has leafstalks that are shorter than the blades and marginal sori (spore clusters) covered by the inrolled edge of the leaf. *Botrychium virginianum* has leaf blades divided into separate sterile and fertile (sori-bearing) segments.

Synonym: Includes *Gymnocarpium disjunctum*.

Flowering/Fruiting Period: Spores produced from June-August.



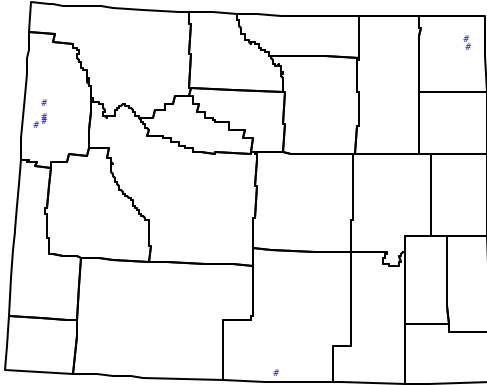
Above: *Gymnocarpium dryopteris* by Jane Dorn (Dorn & Dorn 1972).

Distribution: Circumboreal, extending south to Oregon, Arizona, Iowa, and Virginia. In Wyoming it is known from the Black Hills, Medicine Bow Range, and Teton Mountains in Carbon, Crook, and Teton counties.

Habitat: Moist forests, streamside, wet cliffs. In Wyoming, populations may occur in moist, mossy swales and streambanks in Engelmann spruce/subalpine fir forests at 4200-7900 feet.

Occurrences in Wyoming: Known from 4 extant and 3 historical locations in Wyoming (4 occurrences have been located since 1992; most recently in 1999).

Abundance: Most populations are small, often numbering 200-1000 fronds in areas of 0.1 acre. Clusters of fronds may only represent 1 or a few genetically distinct ramets.



Wyoming distribution of *Gymnocarpium dryopteris*.

Trends: Populations are stable to declining.

Protection status: 4 populations (2 of which are historic) are protected in Grand Teton National Park. An additional occurrence is found within the Geis Springs Late Successional Landscape on Black Hills National Forest. All other populations are on public lands managed for multiple use.

Threats: Some populations in Grand Teton NP are threatened by trail expansion, weed invasion, and trampling. Black Hills colonies may be threatened by logging.

Managed Areas: Occurs in Black Hills and Medicine Bow National Forests and Grand Teton National Park.

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Updated: 00-11-24