

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PPASPO20A0

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Asplenium dalhousiae* Hook.

COMMON NAME: Dalhousie spleenwort, Countess Dalhousie's spleenwort

SYNONYMS: *Ceterach dalhousiae* (Hook.) C. Christens., *Ceterachopsis dalhousiae* (Hook.) Ching

FAMILY: Aspleniaceae

AUTHOR, PLACE OF PUBLICATION: Hooker, *Icones Plantarum*, pl. 105. 1837.

TYPE LOCALITY:

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: A distinct species in a genus of about 650 species distributed worldwide, mostly in tropical and subtropical regions. One of 84 species in North America (USDA, NRCS 2004). The pattern of disjunction in the worldwide range of this species is highly unusual (FNA Editorial Committee, 1993+).

DESCRIPTION: A perennial fern with a rosette of fronds from a rhizome; roots are not proliferous. The stems are erect, unbranched; scales are black with brown margins, lanceolate, 2-5 x 0.6-1 mm, sparsely denticulate. The leaves are monomorphic. Petiole is dark to light brown throughout, dull, to 1 cm, 1/10 - 1/15 length of the blade, indument of scales throughout. The narrowly elliptic to narrowly lanceolate blade is pinnatifid, 4 - 15 x 1.5 - 6 cm, thick, and sparsely puberulent to glabrescent, with 6-13 pairs of lobes, the lobes 5-12 mm wide. The base is gradually tapered, and the apex is obtuse, not rooting; stipes shorter than the blade. Rachis green in color, scaly beneath, however, FNA Editorial Committee (1993+) reports the rachis as light brown to tan, dull-scaly; the scales brown and lanceolate. The veins are free and obscure. The sori are 3-7 pairs per pinna, on both basiscopic and acroscopic sides of the lobes. There are 64 spores per sporangium. (Falk, Jenkins et al. 2001; FNA Editorial Committee, 1993+). Martin et al. (1998) reports the petioles absent or very short; sori long and narrow along the veins.

AIDS TO IDENTIFICATION: *Asplenium dalhousiae* is distinguished by its once pinnatifid leaves from *A. exiguum* which has bipinnatifid leaves. It is sometimes placed in the genus *Ceterach* on the basis of its thick, pinnatifid leaves. However, most pteridologists restrict *Ceterach* to species with densely scaly, pinnatifid leaves. *A. dalhousiae* is placed in

Ceterachopsis by pteridologists who believe it merits its own genus. (FNA Editorial Committee, 1993+).

ILLUSTRATIONS:

B&W line drawing (*In* Falk, Jenkins et al. 2001)

Color photo (Yatskievych, *in* Falk, Jenkins et al. 2001)

Color photo of plant in habitat (Falk, *in* Falk, Jenkins et al. 2001)

Color photo (George Yatskievych, 2003, from <http://pick4.pick.uga.edu/>)

TOTAL RANGE: Southern Arizona and northern Mexico in the New World, and is disjunct to the Himalaya Mountains in Asia.

RANGE WITHIN ARIZONA: Scattered localities in the Mule and Huachuca mountains of Cochise County, and the Baboquivari Mountains of Pima County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial fern with a robust growth form.

PHENOLOGY:**BIOLOGY:**

HABITAT: A sky island species that grows in shady, rocky ravines in moist soil among and at the bases of rocks, in Madrean oak woodland.

ELEVATION: 4,000 – 6,000 ft (1220-1830 m). According to FNA Editorial Committee (1993+), the elevation ranges from 4,262 – 6,557 ft (1300-2000 m).

EXPOSURE: A locality found in the Mule Mountains of Arizona, was growing on a northwest facing slope (Windham #0238D, ASC 37015). Collected on a northwest-facing slope of about 40 degrees.

SUBSTRATE: Appears to be restricted to granitic substrates in southern Arizona. Shallow soil derived by *in situ* and alluvial processes from Juniper Flat Granite and organic detritus (Wingham 238-C, ASU 115791).

PLANT COMMUNITY: Madrean oak woodland. Evergreen woodland, associated with *Dasyilirion* (sotol), *Garrya* (silktassel), *Heuchera* (alumroot), *Pinus* (pine), *Quercus* (oak), and *Rubus* (blackberry), (Windham #0238D, ASC 37015).

POPULATION HISTORY AND TRENDS: Not well known. In 1985, considered “rare” in Arizona; status today unknown. Status in Mexico and Asia is unknown. Where found, locally common in seepy shaded granitic crevices and overhangs.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: None
OTHER STATUS: Bureau of Land Management Sensitive (USDI, BLM 2000, 2005, 2008, 2010).

MANAGEMENT FACTORS: Cultivated in terraria, thus possible threat from collecting in the wild.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: BIA – Tohono O’Odham Nation; BLM – Tucson Field Office. Possibly USFS – Coronado National Forest.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

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