

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

**Plant Abstract**

**Element Code:** PDFAB3C092

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Psorothamnus thompsoniae* var. *whitingii*  
**COMMON NAME:** Whiting Indigo Bush, Whiting dalea, Whiting's dalea, Thompson dalea  
**SYNONYMS:** *Dalea whitingii*, *D. thompsonae*, *Parosela thompsonae*, *Psorothamnus thompsonae* var. *whitingii*  
**FAMILY:** Fabaceae

**AUTHOR, PLACE OF PUBLICATION:** (Kearney & Peebles) R.C. Barneby, *Memoirs of the New York Botanical Garden* 27: 52-54. 1977. *Dalea whitingii* Kearney & Peebles, *Jour. Wash. Acad. Sci.* 29(11): 484. 1939.

**TYPE LOCALITY:** USA. Arizona. Coconino County. Vicinity of Little Colorado River, Wupatki National Monument.

**TYPE SPECIMEN:** HT: US-1732120. A.F. Whiting and D. Jones #5, 9 August 1938. Originally deposited at Museum Northern Arizona, Catalog No. 916/3277.

**TAXONOMIC UNIQUENESS:** The variety *whitingii* is 1 of 2 in the species *Psorothamnus thompsoniae*; species *thompsoniae* is 1 of 9 in the genus. The genus *Psorothamnus* was formerly in the family Leguminosae. "The USFWS tracks old spelling – *P. 'thompsonae'* var. *whitingii* (9/93). Epithet '*thompsoniae*' (opposed to '*thompsonae*') is the correct spelling according to Dr. Dan Nicolson, one of the editors of the *International Code of Bot. Nomenclature* (1988); see article 73.1-Standardization of names. (Feb/8/90 memo from Christa Russell)." (NatureServe 2003).

**DESCRIPTION:** Small rounded shrub, 40-90 cm (16-36 in., max 150 cm [60 in.]) tall with branchlets often spinescent. Branchlets are velvety with retrorse short hairs, conspicuously glandular with yellow to orange red mammiform resinous glands. **Leaves short-petioled**, 1.4-3.0 cm (0.6-1.2 in.) long, with 7-17 (rarely 19) leaflet pairs. Leaflets linear to narrowly elliptic or oblong, 2-7 mm long, these emarginated. Inflorescence a loose raceme. Calyx tube villous, and calyx bears large red-orange glands; calyx lobes ovate to oval, obtuse to rounded, or the lowermost ovate-acute. Flowers bright pink or violet-purple, banner petal 6.0-8.4 mm long, 4.8-6.0 mm wide. Pod 4.0-4.5 mm long, flattened, short-hairy and dotted with large glands.

**AIDS TO IDENTIFICATION:** Armed shrub, velvety branches with glandular yellow to orange resinous glands, leaflets linear. Variety *thompsoniae* has oblong, oval, or orbiculate leaflets and the calyx tube is glabrous.

**ILLUSTRATIONS:** Line drawing (Barneby 1977: Pl. VII, P. 607)  
Line drawing (USFWS)  
Color photo of Holotype collection (USNM, in <http://rathbun.si.edu/botany/types/fullRecords.cfm?myFamily=>)  
Line drawing (Utah Native Plant Society, Inc. 2003, accessed from <http://www.unps.org/fg/rpg.html>)  
Color photos of plant & habitat (J. Holland in Utah Native Plant Society, Inc. 2003, accessed from <http://www.unps.org/fg/rpg.html>)

**TOTAL RANGE:** Navajo Basin endemic from San Juan County, Utah, and Coconino, Apache and Navajo counties, Arizona. NatureServe (2003) reports that in Arizona, this plant is only from Coconino County.

**RANGE WITHIN ARIZONA:** Northeastern Arizona. Monument Valley, west to Navajo Mountain and Wupatki National Monument, Little Colorado River drainage. Reported from Grand Canyon National Park at Kanab Creek.

## **SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Woody perennial shrub.

**PHENOLOGY:** Flowering May – August. Late May – June in Utah (UNPS 2003).

**BIOLOGY:** Colonial, but very local.

**HABITAT:** A prickly bush occurring on dunes, sand-talus under cliffs, clay banks, and sandy or gravelly canyon-washes.

**ELEVATION:** 3,800 - 5,000 ft (1159 - 1525 m).

**EXPOSURE:** Variable

**SUBSTRATE:** Sandy dunes and sandy or gravelly washes.

**PLANT COMMUNITY:** Great Basin Desertscrub in mixed desert shrub community with Vanclevea/saltbush/sand sagebrush/Mormon tea/match-brush associations.

**POPULATION TRENDS:** Populations appear stable.

**SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None (USDI, FWS 1996)  
[Category 2 USDI, FWS 1985]

**STATE STATUS:** None

**OTHER STATUS:** Not Forest Service Sensitive (USDA, FS  
Region 3 1999)  
[Forest Service Sensitive USDA, FS Region  
3 1990]

**MANAGEMENT FACTORS:** Very little is known about this plant. Plants are palatable and browsed by livestock.

**CONSERVATION MEASURES TAKEN:** The Navajo Natural Heritage Program is preparing (1992) a status report under contract with the USFWS.

**SUGGESTED PROJECTS:** Studies on habitat requirements, range and population densities are needed; an analysis of possible threats.

**LAND MANAGEMENT/OWNERSHIP:** BIA - Navajo Nation; BLM – Monticello Field Office (Utah); NPS – Glenn Canyon NRA and Wupatki National Monument; Private. Possibly NPS - Grand Canyon National Park.

**SOURCES OF FURTHER INFORMATION****REFERENCES:**

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**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

- R.C. Barneby - New York Botanical Garden, New York.
- June Beasley - Flagstaff, Arizona.
- Bill Hevron - Navajo Natural Heritage Program, Window Rock, Arizona.
- S.L. Welsh - Herbarium Brigham Young University, Provo, Utah.

**ADDITIONAL INFORMATION:**

Barneby (1977): an extraordinarily rare shrub... probable that other populations will eventually be discovered, as the mazes of canyons and hills are more fully explored. Locally abundant in type-locality and Copper Canyon.

There is an historic collection from Grand Canyon below Kanab Creek. Potential habitat exists in Kanab Canyon, off the Kaibab National Forest. Not expected on the Kaibab National Forest; could be removed from the Forest Service Sensitive Plant list.

June Beasley (Flagstaff) found the plant “some years ago” a few miles from the historic collection site at the crossing of the Little Colorado River, Wupatki National Monument. She is working on this group for the upcoming text, Flora of Arizona.

**Revised:** 1991-12-12 (JSP)  
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