

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

Plant Abstract

Element Code: PDBUD01070

Data Sensitivity: Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Buddleja sessiliflora* Kunth
COMMON NAME: Rio Grande butterflybush
SYNONYMS: *Buddleja pringlei* A. Gray
FAMILY: Scrophulariaceae

AUTHOR, PLACE OF PUBLICATION: Kunth, Nova Genera et Species Plantarum 2: 345, plate 182. 1818.

TYPE LOCALITY: Mexico: Distrito Federal: near Mexico City

TYPE SPECIMEN: Bonpland 4005 (lectotype)

TAXONOMIC UNIQUENESS: 1 of 3 species that occur in Arizona; there are roughly 90 *Buddleja* species worldwide, primarily in tropical and subtropical regions. *B. sessiliflora* appears to be most closely related to *B. americana*, which does not occur in Arizona (Norman 2000).

DESCRIPTION: Shrub, upright, becoming arborescent in tropical climates. Stems branched, tomentose becoming glabrous with age. Basal leaves ovate, margins serrate or double-serrate, apex acute to acuminate, cauline leaves elliptic to lanceolate, margins entire to unevenly serrate, apex acute, petiole up to 10 mm, leaves glabrous above, tomentose below, up to 15 cm in length. Inflorescences terminal, pseudovercillate, composed of 5-20 paired cymes, pedicels absent. Corolla greenish-yellow to yellow, funnelform, calyx tomentose externally. Fruit a capsule, brown, cylindrical in shape. Seeds numerous, subfusiform, short-winged, roughly 1 mm in length and 0.4 mm in diameter.

AIDS TO IDENTIFICATION: *B. sessiliflora* has sessile flowers, which differentiate it from the other species of *Buddleja* within Arizona. The flowers are described as being pungent, malodorous, or foul-smelling (Norman 2000, Verrier and Rodden 2022).

ILLUSTRATIONS:

Color photographs

(<https://swbiodiversity.org/seinet/taxa/index.php?taxon=2120&clid=2745#>)

Black and white drawing (Norman 2000)

TOTAL RANGE: Southeastern Arizona and southern Texas south to Mexico (Baja California Norte, Sonora, Oaxaca, Coahuila, San Luis Potosi, Sinaloa) (Verrier and Rodden 2022, SEINet 2022).

RANGE WITHIN ARIZONA: Pima (San Luis, Santa Catalina, and Coyote mountains) and Santa Cruz (Pajarito and Tumacacori mountains, Sonoita Creek, and Peña Blanca Lake) counties.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Shrub, up to 5 m.

PHENOLOGY: Flowering February-May.

BIOLOGY: This plant is a food source for a variety of insects; Verrier and Rodden (2022) report seeing flies, bees, butterflies and ants visiting *B. sessiliflora* plants, while Norman (2000) reports flies, wasps and bees, in particular those in the *Mesoxaea* genus. This plant is widely used in Mexico as a general panacea.

HABITAT: Canyon bottoms, springs.

ELEVATION: Up to 914 m in Arizona (Verrier and Rodden 2022).

EXPOSURE: Aspect does not appear to be a limiting growth factor.

SUBSTRATE: Variable, but in Arizona this is a wetland-dependent plant and requires riparian conditions.

PLANT COMMUNITY: Desert riparian, wetland and spring-associated plants.

POPULATION HISTORY AND TRENDS: Populations in southeastern Arizona appear to be declining (Verrier and Rodden 2022).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None

OTHER STATUS: LC (IUCN, Machuca Machuca et al. 2021)

MANAGEMENT FACTORS: Invasive plant species, including *Arundo donax*, *Tamarix chinensis*, *Rhus lancea*, and *Cynodon dactylon*, appear to be crowding out *B. sessiliflora* at a

few of its known sites. Water availability at all known *B. sessiliflora* sites appears to be dwindling due to groundwater pumping, diverted water flow, and a changing climate.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Continued monitoring of the seven known extant localities in southeastern Arizona (Verrier and Rodden 2022). Population augmentation via plants propagated in horticultural settings may warrant effort.

LAND MANAGEMENT/OWNERSHIP: Federal (BLM, U.S. Forest Service–Coronado National Forest); BIA–Tohono O'odham Nation; private (Arizona National Golf Course)

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Machuca Machuca, K., E. Martínez Salas, and M.-S. Samain. 2021. *Buddleja sessiliflora*. The IUCN Red List of Threatened Species 2021:e.T126623216A176350952. <https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T126623216A176350952.en>
- Norman, E.M. 1992. Vascular plants of Arizona: Buddlejaceae. *Journal of the Arizona-Nevada Academy of Science* 26(1):5-6.
- Norman, E.M. 2000. Buddlejaceae. *Flora Neotropica* 81:1-224 pp.
- Verrier, J.T. and I.E. Rodden. 2022. The status of *Buddleja sessiliflora* (Scrophulariaceae) in southern Arizona: revisiting a rare climate relict at the northern edge of its range. *Madroño* 69(1):24-29. <https://doi.org/10.3120/0024-9637-69.1.24>
- Southwest Environmental Information Network (SEINet). 2022. <http://southwestbiodiversity.org/index.php>. Accessed August 20, 2022.
- Tropicos. 2022. <http://tropicos.org>. Missouri Botanical Garden. Accessed August 20, 2022.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

Verrier, James. Tucson, AZ.
Rodden, Iris. Tucson, AZ.

ADDITIONAL INFORMATION:

Revised: 2022-08-23 (TME)

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