ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code:  PDCRA06010
Data Sensitivity:  Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME:  Graptopetalum bartramii Rose
COMMON NAME:  Bartram Stonecrop
SYNONYMS:  Echeveria bartramii
FAMILY:  Crassulaceae


TYPE LOCALITY:  Arizona: Santa Cruz County: Patagonia Mountains: Flux Canyon.


TAXONOMIC UNIQUENESS:  One of nine species in the genus Graptopetalum, one of two in Arizona, which also includes G. rusbyi.

DESCRIPTION:  Small succulent perennial with a rosette of basal leaves. These leaves, numbering 20 or more, are flat or somewhat concave, bluish-green with a reddish margin and tip, up to 6.5 cm (2.6 in.) long, and ovate to broadly spatulate with a pointed tip. Flower stalk up to 0.3 m (1.0 ft.) high with alternate bractlike leaves. Five-parted flowers arranged along multi-branched stalk are 19.0-32.0 mm (0.76-1.28 in) wide. Five petals joined at bottom are broadly campanulate when blooming. Colored pale- or greenish-yellow, 13.0 mm (0.52 in.) petals are transversely banded or blotched with red. Ten red stamens often recurve outside of petals. Valves of 5 carpels abruptly tipped with styles.

AIDS TO IDENTIFICATION:  Grows as solitary rosettes or in clumps on ledges or slopes of steep walled canyons. Thick succulent leaves glaucous and gray-green in color. Old flowering stalks give population reddish-brown appearance from a distance. Flowers reported to have strong disagreeable odor resembling odor of stinkhorn fungus (Phillips 1982). Leaves of distinctive shape.

In its longer, apiculate leaves, acute sepals, paniculate inflorescence, and fall phenology G. bartramii differs from G. rusbyi (Anderson 1999).

ILLUSTRATIONS:  Line drawings of flowers (Moran 1949 Fig.1:4).
Line drawings of flowers (Moran 1949 Figs.2 and 3:55).
B&W photo of rosette (Moran 1974 Fig.1:94).

TOTAL RANGE:  Southern Arizona and Chihuahua, Mexico (one record).
RANGE WITHIN ARIZONA: Santa Cruz County: Patagonia, Santa Rita and Tumacacori Mountains; Pima County: Baboquivari, Dragoon, Mule and Rincon Mountains; Cochise County: Chiricahua Mountains.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial succulent.

PHENOLOGY: Flowering and fruiting in October. Anderson (1999) reports a flowering/fruiting period from September to February.

BIOLOGY: Both sexual and vegetative reproduction.

HABITAT: Cracks in rocky outcrops in shrub live oak-grassland communities along meandering arroyos on sides of rugged canyons. Usually heavy litter cover and shade where moisture drips from rocks, often with Madrean evergreen woodland.

ELEVATION: 3,650 - 6,700 ft (1113-2044 m). Based on records in the Heritage Data Management System (HDMS), elevation ranges up to 6,300 ft (1922 m).

EXPOSURE: North.

SUBSTRATE:

PLANT COMMUNITY: Madrean evergreen woodland. Dominant associated species include: Agave schottii, Bouteloua curtipendula, Cercocarpus montanus, Choisya mollis, Dasylirion wheeleri, Fouquieria splendens, Juniperus deppeana, Muhlenbergia spp., Rhus trilobata, and Yucca baccata. Also in rocky outcrops in shrub live oak-grassland communities.

POPULATION TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996) [C2 USDI, FWS 1983] [C1 USDI, FWS 1980]

STATE STATUS: Salvage Restricted (ARS 1993)

OTHER STATUS: Forest Service Sensitive (USDA, FS Region 3 1990, 1999) Bureau of Land Management Sensitive
AGFD Plant Abstract

Graptopetalum bartramii

(USDI, BLM AZ 2000, 2005, 2008)

MANAGEMENT FACTORS: Small, isolated populations. Illegal collection main management issue. Mining and mineral exploration; habitat alteration due to livestock grazing; trampling by cattle and recreationists; road construction and maintenance. Protect population(s) from expansion of Ruby Road.

PROTECTIVE MEASURES:  

SUGGESTED PROJECTS: Surveys needed to delimit range.


SOURCES OF FURTHER INFORMATION

REFERENCES:  
USDA, Forest Service Region 3. 1990. Regional Forester's Sensitive Species List.  
USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.  
AGFD Plant Abstract

Graptopetalum bartramii


MAJOR KNOWLEDGEABLE INDIVIDUALS:
Tom Deecken - Coronado National Forest, Sierra Vista, Arizona.
Art Phillips - Private Consultant, Flagstaff, Arizona.

ADDITIONAL INFORMATION:
Species name *Graptopetalum* from Greek "petals marked with writing."


Revised: 1990-12-20 (SR)
1991-10-20 (BKP)
1997-07-22 (SMS)
2001-12-20 (SMS)

To the user of this abstract: you may use the entire abstract or any part of it. We do request, however, that if you make use of this abstract in plans, reports, publications, etc. that you credit the Arizona Game and Fish Department. Please use the following citation:

Arizona Game and Fish Department. 20XX (= year of last revision as indicated at end of abstract). X...X (= taxon of animal or plant). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.