

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service**

[FWS-R2-ES-2015-N044];  
[FXES1113020000-167-FF02ENEH00]

**Endangered and Threatened Wildlife and Plants; Draft Recovery Plan for *Lilaeopsis schaffneriana* ssp. *recurva* (Huachuca Water Umbel)**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of availability; request for comment.

**SUMMARY:** We, the Fish and Wildlife Service (Service), announce the availability of our draft recovery plan for the *Lilaeopsis schaffneriana* ssp. *recurva* (Huachuca water umbel), which is listed as endangered under the Endangered Species Act of 1973, as amended (Act). This plant species is currently found in southern Arizona and in northern Sonora, Mexico. The draft recovery plan includes specific recovery objectives and criteria to be met in order to enable us to remove this species from the list of endangered and threatened wildlife and plants. We request review and comment on this plan from local, State, and Federal agencies; Tribes; and the public. We will also accept any new information on the status of the species throughout its range to assist in finalizing the recovery plan.

**DATES:** To ensure consideration, we must receive written comments on or before May 9, 2016. However, we will accept information about any species at any time.

**ADDRESSES:** *Obtaining Documents:* If you wish to review the draft recovery plan, you may obtain a copy by any one of the following methods:

*Internet:* Download the file at [www.fws.gov/southwest/es/Documents/R2ES/LilaeopsisSchaffnerianaRecurva\\_DraftRecoveryPlan\\_Final\\_November2015.pdf](http://www.fws.gov/southwest/es/Documents/R2ES/LilaeopsisSchaffnerianaRecurva_DraftRecoveryPlan_Final_November2015.pdf);

*U.S. mail:* Request a copy by writing to the Arizona Ecological Services Field Office, Fish and Wildlife Service, 2321 W. Royal Palm Road, Suite 103, Phoenix, AZ 85021; or

*Telephone:* Request a copy by calling (602) 242-0210.

*Submitting Comments:* If you wish to comment on the draft recovery plan, you may submit your comments in writing by any one of the following methods:

*U.S. mail:* Field Supervisor, at the above address;

*Hand-delivery:* Arizona Ecological Services Office, at the above address;

*Fax:* (602) 242-2513; or

*Email:* [julie\\_crawford@fws.gov](mailto:julie_crawford@fws.gov).

For additional information about submitting comments, see the "Request for Public Comments" section below.

**FOR FURTHER INFORMATION CONTACT:** Steve Spangle, Field Supervisor, U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office, 2321 West Royal Palm Road, Suite 103, Phoenix, AZ 85021; telephone: 602-242-0210; facsimile: 602-242-2513. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339.

**SUPPLEMENTARY INFORMATION:** We announce the availability of our draft recovery plan for the *Lilaeopsis schaffneriana* ssp. *recurva* (Huachuca water umbel), an endangered plant species currently found in southern Arizona and in northern Sonora, Mexico. The draft recovery plan includes specific recovery objectives and criteria to be met in order to enable us to remove this species from the list of endangered and threatened wildlife and plants. We request review and comment on this plan from local, State, and Federal agencies; Tribes; and the public. We will also accept any new information on the status of the species throughout its range to assist in finalizing the recovery plan.

### Background

Recovery of endangered or threatened animals and plants to the point where they are again secure, self-sustaining members of their ecosystems is a primary goal of our endangered species program and the Act (16 U.S.C. 1531 *et seq.*). Recovery means improvement of the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the Act. The Act requires the development of recovery plans for listed species, unless such a plan would not promote the conservation of a particular species.

### Species History

*Lilaeopsis schaffneriana* ssp. *recurva* (Huachuca water umbel), found in aquatic habitats such as cienegas, rivers, streams, and springs of southern Arizona and northern Sonora, Mexico, was federally listed as endangered on January 6, 1997. On July 12, 1999, 83.2 kilometers (51.7 miles) of streams or rivers in Cochise and Santa Cruz Counties, Arizona, were designated as critical habitat. The taxon has been found historically in Cochise, Pinal, Pima, and Santa Cruz Counties, Arizona, and northern Sonora, Mexico. *Lilaeopsis schaffneriana* ssp. *recurva* is

not listed under Mexican protected species regulations by the Secretaría de Medio Ambiente y Recursos Naturales. The recovery priority number for *L. schaffneriana* ssp. *recurva* is 3C, meaning that the listed entity is a subspecies, the level of threat is high, the potential for recovery is high, and there is a conflict with some form of economic activity (groundwater withdrawal for mining, agriculture, Fort Huachuca, municipal use, and private wells). The first 5-year status review for *L. schaffneriana* ssp. *recurva* was signed on August 21, 2014. Based on the static or declining status of the species across its range and continued threats, it was recommended in the 5-year review that the taxon remain listed as endangered.

*Lilaeopsis schaffneriana* ssp. *recurva* is a semi-aquatic to fully aquatic herbaceous perennial that ranges from 2.5 to 33 centimeters (cm) (0.98 to 12.99 inches (in)) depending on habitat. The leaves are round or elliptical in cross section, 0.5 to 5.5 millimeters (mm) (0.02 to 0.2 in) in diameter, and contain 6 to 18 distinctive septa (thin partitions) along their length. Umbels (umbrella-like flower structures) develop on stalks shorter than the leaves, and contain three to ten 1.0 to 2.0 mm (0.04 to 0.08 in) wide perfect (containing male and female parts) flowers with five white to slightly maroon tinted petals and maroon anthers. Flowering has been observed episodically from March through October, peaking in July. The taxon reproduces both sexually via seed and asexually through rhizome spread and fragmentation. Clonal establishment following flooding events is thought to be important for maintaining diversity in the taxon; the seedbank can allow for recolonization following drought if hydric conditions return.

Groundwater pumping, regional drought, and climate change are among the largest threats to this taxon, which depends on the availability of permanently wet (or nearly so), muddy, or silty substrates with some organic content. At this time, the most significant long-term threats to the continued existence of the species are: (1) Aquatic habitat degradation; (2) the effects of drought and climate change; (3) wildfire and resulting sedimentation and scouring; (4) invasive non-native plant competition; and (5) livestock grazing. While propagation has proven successful, augmentation into new and previously occupied habitat has had mixed success. A larger challenge involves restoring appropriate habitat for the taxon, including the availability of perennial water.

The majority of critical habitat is under Federal administration through

the Coronado National Forest (National Forest Service), the San Pedro Riparian National Conservation Area (Bureau of Land Management), and Fort Huachuca Military Reservation (United States Army); a small portion is in private ownership. The taxon occurs in five watersheds in southeastern Arizona and adjacent portions of Sonora, Mexico. In the United States, we are aware of 17 locations supporting extant occurrences of *L. schaffneriana* ssp. *recurva*, 8 locations where all *L. schaffneriana* ssp. *recurva* occurrences are considered extirpated, and 6 locations where no occurrences have been relocated in recent years. In Sonora, Mexico, we are aware of 21 locations supporting *L. schaffneriana* ssp. *recurva* occurrences, though most of these locations have not been revisited in recent years. It is difficult to estimate the number of individuals due to the clonal nature of the taxon, though estimates of density indicate most occurrences are stable or in decline.

The principal recovery strategy is to conserve the habitat of *L. schaffneriana* ssp. *recurva* by implementing a variety of protection strategies, including decreasing groundwater pumping, increasing water conservation and recharge, and protecting *L. schaffneriana* ssp. *recurva* occurrences and their seedbanks. Providing conservation and restoration of the taxon and its habitat will allow stable, self-sustaining occurrences to persist with some level of connectivity and opportunities for expansion and dispersal. Additional efforts will focus on improving the baseline understanding of *L. schaffneriana* ssp. *recurva* ecology and threats.

#### Recovery Plan Goals

The objective of a recovery plan is to provide a framework for the recovery of a species so that protection under the Act is no longer necessary. A recovery plan includes scientific information about the species and provides criteria and actions necessary for us to be able to reclassify the species to threatened status or remove it from the list of federally endangered and threatened wildlife and plants. Recovery plans help guide our recovery efforts by describing actions we consider necessary for the species' conservation, and by estimating time and costs for implementing needed recovery measures. To achieve its goals, this draft recovery plan identifies the following objectives:

(1) Protect and restore functional aquatic habitat and reduce dewatering threats to known and newly discovered *L. schaffneriana* ssp. *recurva* occurrences and habitat.

(2) Conserve existing and newly discovered *L. schaffneriana* ssp. *recurva* occurrences and their seedbanks; establish new occurrences in appropriate habitat; establish plants at botanical gardens for research, recovery, and educational purposes; and maintain seeds for conservation and recovery at seed storage facilities.

(3) Remove stressors related to invasive plants, unmanaged livestock grazing, and small population size to *L. schaffneriana* ssp. *recurva* occurrences and their habitats.

(4) Develop a standardized monitoring technique based on existing protocols; monitor *L. schaffneriana* ssp. *recurva* occurrences, threats, and outcomes from management actions allowing for adaptive management.

(5) Encourage scientific study to improve our understanding of *L. schaffneriana* ssp. *recurva* geography, ecology, viability, genetics, propagation, restoration, and threats in the United States and Mexico.

(6) Develop public outreach, collaborative partnerships, agency management plans, and agreements with private land owners in the United States and Mexico that encourage *L. schaffneriana* ssp. *recurva* conservation.

The draft recovery plan focuses on conserving and enhancing habitat quality, protecting populations, managing threats, monitoring progress, and building partnerships to facilitate recovery. When the recovery of *L. schaffneriana* ssp. *recurva* approaches these criteria, we will review the species' status and consider downlisting, and, ultimately, removal from the list of federally threatened and endangered wildlife and plants.

#### Request for Public Comments

Section 4(f) of the Act requires us to provide public notice and an opportunity for public review and comment during recovery plan development. It is also our policy to request peer review of recovery plans (July 1, 1994; 59 FR 34270). In an appendix to the approved recovery plan, we will summarize and respond to the issues raised by the public and peer reviewers. Substantive comments may or may not result in changes to the recovery plan; comments regarding recovery plan implementation will be forwarded as appropriate to Federal or other entities so that they can be taken into account during the course of implementing recovery actions. Responses to individual commenters will not be provided, but we will provide a summary of how we addressed substantive comments in an appendix to the approved recovery plan.

We invite written comments on the draft recovery plan. In particular, we are interested in additional information regarding the current threats to the species and the costs associated with implementing the recommended recovery actions.

Before we approve our final recovery plan, we will consider all comments we receive by the date specified in **DATES** above. Methods of submitting comments are in the **ADDRESSES** section above.

#### Public Availability of Comments

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Comments and materials we receive will be available, by appointment, for public inspection during normal business hours at our office (see **ADDRESSES**).

#### References Cited

A complete list of all references cited herein is available upon request from the Arizona Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT** section).

#### Authority

We developed our draft recovery plan under the authority of section 4(f) of the Act, 16 U.S.C. 1533(f). We publish this notice under section 4(f) Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: March 1, 2016.

**Joy E. Nicholopoulos.**

*Acting Regional Director, Southwest Region, U.S. Fish and Wildlife Service.*

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

[Docket No. FWS-HQ-IA-2016-0043; FXIA1671090000-156-FF09A30000]

#### Endangered Species; Receipt of Applications for Permit; Correction

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of receipt of applications for permit; correction.