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White-haired Goldenrod

Proposed for Removal from the Federal List of Endangered and Threatened Plants

Description

White-haired goldenrod (*Solidago albopilosa*) is a slightly arching, perennial plant with alternate leaves and soft, white hairs covering the leaves and stems. The flower heads are fragrant and bright yellow, forming clusters at the end of the stem. Each flower head is composed of three to five ray flowers and at least 15 small, disk flowers. Flowering occurs from September to November, with the pale brown, pubescent fruit appearing as early as October. The flowers are visited by bees, moths, and syrphid flies, which are likely attracted by the fragrant, yellow flowers.

Habitat and Range

White-haired goldenrod is restricted to sandstone outcroppings in the rugged Red River Gorge region in eastern Kentucky. The Red River Gorge is well known for its unique geology, scenic beauty, and outdoor recreational opportunities, and much of the area is located within the Daniel Boone National Forest. Within this area, white-haired goldenrod typically occurs on the floors of sandstone rock shelters (natural, shallow, cave-like rock formations) and on sheltered cliffs at elevations of between 797 and 1,299 feet (243 and 396 meters). The species may also be found on ledges or cracks in the ceiling or vertical walls of these habitats, but, regardless of the specific location, white-haired goldenrod is restricted to areas of partial shade behind the dripline and typically does not grow in the deepest part of rock shelters.

White-haired goldenrod is currently known from 117 separate occurrences in three Kentucky counties: Menifee, Powell, and Wolfe. Almost all of these occurrences (111) are located on the Daniel Boone National Forest, with the remaining occurring on private land.



White-haired goldenrod, credit KDFWR/John MacGregor

Listing History

The white-haired goldenrod was listed as threatened under the Endangered Species Act in 1988. The 1993 *Recovery Plan for White-haired Goldenrod (Solidago albopilosa)* stipulated that delisting would be considered when at least 40 geographically distinct, self-sustaining plant locations are adequately protected and have been maintained for 10 years.

Threats

When the plant was listed, identified threats included ground disturbance and trampling associated with unlawful archaeological looting and recreational activities, such as camping, hiking, rock climbing, and rappelling. The Red River Gorge is a heavily visited, popular recreational area, and many of these activities take place in or near rock shelters occupied by the white-haired goldenrod. Other identified threats included a proposed reservoir project;

overutilization for recreational purposes; no State law protecting rare plants in Kentucky; and potential vegetational shifts in forests surrounding the plant's habitats.

Recovery Efforts

The Daniel Boone National Forest and the Kentucky State Nature Preserves Commission have played leading roles in this plant's recovery. Over the last 21 years, the Daniel Boone National Forest redirected trails, installed and maintained protective fencing around sensitive locations where the plant is found, completed numerous back-country patrols near white-haired goldenrod habitats, and placed informational signs at rock shelters, picnic areas, and trailheads to advise the public of the plant and ways to avoid impacting it.

The Kentucky State Nature Preserves Commission completed multiple status surveys for the species from 1996 to

2013, including an intensive range-wide effort in 2008-2009. These surveys documented each occurrence's population size and viability, habitat condition, and the severity of the threats facing each population. The Kentucky State Nature Preserves Commission also prepared a variety of fact sheets and posters that educated the public about the plant and how to protect its populations.

Current Status

Based on surveys completed since 2008, 81 of the plant's 117 occurrences are considered to be stable. Of these occurrences, 46 are considered to be stable, self-sustaining, and protected, which exceeds the number (40) required for recovery.

Based on this improvement and successful conservation efforts by the U.S. Fish and Wildlife Service and our partners, the white-haired goldenrod has improved to the point that it can now proposed for removal from the Federal list of endangered and threatened plants. All of the threats to the species have been eliminated or significantly reduced, adequate regulatory mechanisms exist, and a sufficient number of populations are stable, self-sustaining, and protected.

Future Actions

The Service is requesting information, data, and information from the public regarding the proposal to delist white-haired goldenrod. The Service is seeking comments regarding biological data, relevant data concerning any threats, and the extent of federal and state protection and management that would be provided to white-haired goldenrod as a delisted species. Other comments to be considered include any additional information concerning the range, distribution, population size, and trends of the white-haired goldenrod, including the locations of any additional populations; and current or planned activities within the plant's geographic range.

A draft post-delisting monitoring (PDM) plan also is available for public review and comment. The draft PDM plan summarizes the species' status at the time of delisting, defines thresholds or triggers for potential monitoring outcomes and conclusions, lays out frequency and duration of monitoring, articulates monitoring methods including sampling considerations, outlines compilation and reporting procedures and responsibilities, and proposes a post-delisting monitoring



Above and below: white-haired goldenrod, credit USFWS/Michael Floyd

implementation schedule including timing and responsible parties. All public comments will be reviewed and considered. The final PDM plan will be followed for at least five years to ensure that the occurrences remain stable.

For More Information

For more information about the proposed delisting of white-haired goldenrod, please contact:

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Additional information is available at:
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