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JULY 20, 2021, 12pm ET/11am CT/10am MT/9am PT
PROTECTING RARE & AT-RISK SPECIES: TOOLS TO COLLECT MEANINGFUL DATA WITH LIMITED RESOURCES
webinar presented by Kenneth Holsinger and Carlos Ramirez-Reyes

natural areas ASSOCIATION

Presentation Abstract: Acquiring meaningful biological information pertaining to rare, threatened, or endangered plant species is a challenging and resource intensive process in any land management setting. The lack of adequate resources, both in time, labor, and budget, have contributed to ambiguity when assessing conservation needs. Answering the questions "how much?", "where" and "how many?" in terms of habitat and individuals, are two of the biggest limitations to accurately determine the status of rare and at-risk species. By introducing quantitative methods to determine species abundance, spatial distribution, and habitat suitability, managers can improve decision-making relative to land management and conservation planning.

Read below for individual abstract and bios for the presenters of this webinar.

Register

Ken Holsinger

**Ecologist
BLM-Uncompahgre Field Office**

Ken is an ecologist with the Bureau of Land Management in Montrose, Colorado. His interest & work includes the conservation and recovery of threatened and endangered, and narrow endemic species, rangeland ecology, upland, and riparian restoration.

Title: Using sampling to develop more reliable size estimates for populations of at-risk plant species.

Abstract:
Population size estimates for plant species listed as threatened and endangered under the Endangered Species Act (ESA) are largely speculative. The lack of quantitative methods for assessing species abundance has contributed to ambiguity when assessing the status of ESA-listed species, including recognizing when species may be at an increased risk of extinction or determining when recovery has been achieved. This presentation will describe a sampling-based procedure used to estimate the minimum size of the greater Grand Valley population of the federally threatened Colorado hookless cactus (*Sclerocactus glaucus*). The estimation procedure applies plant density estimates derived from sampled macroplots to known habitat areas to obtain an estimate of the minimum population size for the entire area of occupation of the taxon. We found that previously reported population size estimates for the species were much lower than those resulting from our sampling-based approach.

Read this open-access article:
[A Sampling-Based Approach to Estimating the Minimum Population Size of the Federally Threatened Colorado Hookless Cactus (*Sclerocactus glaucus*)](#)

Carlos Ramirez-Reyes

Conservation Scientist
Mississippi State University

Carlos Ramirez-Reyes is a conservation scientist working for Mississippi State University. He is interested in landscape ecology, land systems, and interdisciplinary research. His work includes developing species distribution models to inform species management and assessing deforestation and other land use changes in Mexico.

Title: Targeting surveys for at-risk species through species distribution models

Abstract:
Species distribution modeling (SDM) can be a powerful tool to optimize resources for species management and conservation. However, many practitioners have not taken advantage of this tool in their regular work despite that SDM literature has steadily increased in the last couple of decades. We worked in collaboration with practitioners and species experts to develop an ensemble SDM modeling framework in support of species status assessments. In this talk we present our modeling work aimed to inform surveys for several at-risk plant and animal species. We also discuss how conservation practitioners could benefit from incorporating SDMs in their work, such as gaining spatially explicit information about a species' potential habitat and obtaining additional insights on the species-environment relationships observed during the modeling process.

Read this article:
(Available to non-members that pay for this webinar for 7 days)
Ensemble Species Distribution Model Identifies Survey Opportunities for At-Risk Bearded Beaksedge (*Rhynchospora crinipes*) in the Southeastern United States