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Natural Resources Program, Texas Comptroller of Public Accounts (CPA)

Spot-tailed Earless Lizard Webinar Meeting Summary

Tuesday, Oct. 6, 2020
10 – 11 a.m.
If you missed the webinar, you can watch the recording (password: Stel2020).

Presentations

The Comptroller's office presented its proposed approach to improve survey efficacy for the spot-tailed earless lizard (see Attachment A). Chelsea Jones provided background information to support this new research approach, including recent findings and common challenges to detecting lizards in previous Comptroller-funded spot-tailed earless lizard (STEL) research. In addition, Chelsea provided updates on the U.S. Fish and Wildlife Service (USFWS) listing process for the STEL, including an overview of the Species Status Assessment (SSA) framework.

Colin McDonald shared the challenges and achievements of detection initiatives for other cryptic species. A wide array of detection tools successfully found the Rio Grande cooter across various habitat conditions. This approach is now being applied in western chicken turtle surveys, with the addition of terrestrial survey strategies like detection dogs.

Nathan Rains, wildlife diversity biologist with the Texas Parks and Wildlife Department (TPWD), shared his experiences looking for the spot-tailed earless lizard and working with private landowners. Nathan, who worked with the Comptroller's office to develop this approach, shared the need and potential applications for efficient lizard surveys. Nathan addressed TPWD staff questions concerning staff buy-in and landowner interest. While landowner interest is always a work in progress, TPWD staff can realize the benefits of practical methods to detect spot-tailed earless lizards immediately. Over the long-term, this research approach will support broader efforts towards conserving grassland biodiversity.

Discussion

As the majority of spot-tailed earless lizard range is privately owned, landowner participation is critical to the success of any spot-tailed earless lizard study. Discussion covered methods to incentivize landowner participation. Potential incentives include facilitating landowner input into the project deliverables and sharing the value of deliverables to landowners, particularly the project's contribution to overall biodiversity.

Next Steps

The Natural Resources Program will publish a call for proposals on our website in Fall 2020. The research contract will be executed by Spring 2021. If you would like to provide feedback or obtain more information, please contact Chelsea Jones.

The USFWS is initiating its review of the available science for the species in Fall 2020. If you would like more information on the Species Status Assessment process, please contact the USFWS Austin Ecological Service Field Office.

The Natural Resources Program will host the next STEL webinar in Spring 2021 to introduce the research team, share their Year 1 research plan and provide updates on the SSA. If you would like to receive notifications for upcoming meetings, sign up for the Natural Resources Program email list or visit our Upcoming Meetings webpage.

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Attachment A. Survey Toolbox for the Spot-tailed Earless Lizard

Issue: The U.S. Fish and Wildlife Service (USFWS) is considering the spot-tailed earless lizard for listing under the Endangered Species Act (ESA). It will initiate the Species Status Assessment process for the species, currently considered two species [the plateau spot-tailed earless lizard (*Holbrookia lacerata)* and the Tamaulipan spot-tailed earless lizard (*Holbrookia subcaudalis*)] this fall. Many questions about the species remain unanswered (e.g. How many are there? How are their numbers changing through time?), in part because these small lizards are difficult to find. Where lizard data are available, variation across survey methods makes it difficult to accurately compare survey data and evaluate species status.

Proposed Approach: Conduct a pilot study to evaluate the efficacy of different survey methods to accurately detect spot-tailed earless lizards at sites where lizards are known to occur. When possible, the study will evaluate survey methods at sites with different populations. Previous studies suggest survey method efficacy may vary between the two species.

With input from potential end-users including state and federal agencies, operators and private landowners, conduct a cost-benefit analysis for each method. Evaluate survey effectiveness against cost, complexity, equipment, time and other relevant factors. Establish an effective, practical survey toolbox that is applicable across a wide range of habitats. This effort will provide guidance for stakeholders to conduct surveys on their property and promote consistency across different survey efforts so that data are comparable.

Conclusion: This work will not definitively answer all questions about the status of spot-tailed earless lizards; rather, it will give stakeholders the tools needed to find them and make better-informed decisions. Any future initiatives to assess or conserve the species will benefit from accurate surveys. Timely research and collaboration efforts are needed to test various survey methods and identify the most accurate and practical options. With a common survey approach, a wide range of stakeholders can bring data to the table to help fill in knowledge gaps during and after the USFWS ESA listing decision process.

For more information, contact Chelsea Jones or Colin McDonald.