

Jonathan Parker

From: Nelson, Misty@Wildlife <Misty.Nelson@wildlife.ca.gov>
Sent: Wednesday, January 20, 2016 10:19 AM
To: Jonathan Parker
Subject: RE: CDFW drought project
Attachments: CDFW_EBM2016_KWBA.pdf

Hi Jon,

I apologize for the long delay in getting back to you. Thank you so much for your willingness to assist us in this project! I will provide some more information here, and would be happy to schedule a phone call to discuss the project in more detail, and answer any questions you may have.

The overall objective of the Ecological Biodiversity Monitoring project is to collect occupancy data on terrestrial wildlife species at a large number of sites throughout the Central Valley. As much as possible, we are trying to take a stratified random sampling approach to site selection, basing study sites on broad habitat categories (including wetland, grassland, riparian, alfalfa, rice, cropland, and orchard/vineyard). Given the challenges of diverse land ownership in the Central Valley, however, we are also trying to get permission from as many publicly managed or conservation lands as possible. The data collected will be used to generate an occupancy model to better understand what types of habitat are being utilized by different species, and how habitat conditions affect the distribution and occupancy of wildlife.

For our study area, which includes the entire Central Valley, we have used a 5-km hexagonal grid to divide the region into individual study areas. I have attached a map of those hexagons in the general vicinity of KWBA lands – those outlined in blue represent the hexagons we randomly selected for analysis; however, we are certainly not restricting ourselves to only those hexagons, and are willing to monitor opportunistically wherever we are able to gain access.

Our field season will run from mid-March through June 2016, and data collection at each site will last for approximately 4 weeks. We would like to set up monitoring at two different sites within a given hexagon. Ideally, the sites will be in two different habitat types (e.g., one in riparian, one in grassland or adjacent to agricultural land), with the sites 1-2km apart from each other. Each site will consist of a Reconyx PC900 infrared triggered wildlife camera (<http://www.reconyx.com/product/PC900-HyperFire-Professional-Covert-IR>) and a Wildlife Acoustics SM3BAT passive acoustic recorder (<http://www.wildlifeacoustics.com/products/song-meter-sm3bat>). These units will either be affixed to trees or to steel T-posts inserted into the ground. The cameras will operate continuously for 4 weeks, collecting a series of digital photographic images whenever an animal moves in front of the field of view. The acoustic recorders will collect two types of data: (a) three 5-minute audible acoustic recordings, (primarily for bird song, but will also likely capture other incidental wildlife sounds – e.g., coyotes, frogs, etc.) will be collected daily (30 minutes before sunrise, at sunrise, and 30 minutes after sunrise); and (b) short-duration ultrasonic recordings (primarily for bat detection) will be made during nighttime hours whenever ultrasonic sounds are detected by the recorder. The acoustic recorders will operate for one week.

For initial deployment at each site, a team of two field technicians (Research Technicians contracted through CSU Fresno) will set up both pieces of equipment. One week later, they will return to pick up the acoustic recorder. Three weeks after that, they will retrieve the camera system. During each of those three site visits, the technicians will also perform a rapid vegetation assessment survey of the site, as well as a bird point count survey, and a 100m transect visual encounter survey (primarily for reptiles and amphibians).

Please let me know if you have any questions, and when might be a good time to schedule a phone call. Thank you again for your interest, and I look forward to talking with you!

Best regards,

Misty

Misty D. Nelson

Senior Environmental Scientist
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From: Jonathan Parker [mailto:jparker@kwb.org]
Sent: Wednesday, November 25, 2015 10:53 AM
To: Nelson, Misty@Wildlife
Subject: RE: CDFW drought project

Hi Misty,

KWBA would be glad to help out with your project.

Jon Parker
Kern Water Bank Authority
661-398-4900 work
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From: Nelson, Misty@Wildlife [mailto:Misty.Nelson@wildlife.ca.gov]
Sent: Tuesday, November 24, 2015 12:00 PM
To: Jonathan Parker <jparker@kwb.org>
Subject: CDFW drought project

Dear Mr. Parker,

My name is Misty Nelson, and I am a Senior Environmental Scientist with the California Department of Fish & Wildlife. I am currently responsible for coordinating some of our drought-related research projects, one of which is a large-scale biodiversity assessment of wildlife in the Central Valley. The goal of this project is to monitor the presence of wildlife species (including birds, mammals, reptiles, and amphibians) at 200 sites throughout the Central Valley, and to evaluate how drought conditions may be affecting the distribution and abundance of those species. Monitoring will include the use of infrared camera traps, acoustic recorders, and vegetation surveys, and will be conducted during March-June 2016. Ideally, study sites will be located in a wide variety of habitats, including riparian, wetland, grassland, and agricultural lands. Ultimately, we hope to better understand what habitats are being utilized by wildlife, how drought conditions and other stressors may affect the distribution and populations of those species, and to help identify species and habitats that are likely to be critically impacted by prolonged drought.

A project of this scale inherently requires a large amount of cooperation from a variety of partners, particularly given the diversity of land ownership in the Central Valley. I am contacting you to see if your organization would be willing to assist us in this endeavor, and if it would be possible to locate monitoring stations on lands managed by the Kern Water Bank Authority. If you are interested, I would be more than happy to provide you with more detailed information, and answer any questions you may have. I hope you will consider it! If this is not the best email address for submitting this request, please let me know who else I should get in touch with.

Thank you, and have a very happy Thanksgiving!

Sincerely,
Misty Nelson

Misty D. Nelson

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