

Workshop Title: Noninvasive Acoustic Monitoring of Bats in the Field

Dates: Friday, May 2 to Monday, May 5

Location: Yosemite National Park and Midpines, California

Instructor: Joe Szewczak, Ph.D., Professor, Humboldt State University, SonoBat

Coordinator/Contact for Questions: Cynthia Perrine, perrine.cynthia@gmail.com

Description:

This workshop will introduce participants to noninvasive acoustic monitoring and species identification of bats. Beginning with the fundamentals of acoustics to interpret the biology and ecology of echolocation; we'll work to understand how bats use sound and how we can interlope into this realm to survey and monitor bats. From this foundation, participants will then learn the theory and practice of recording and analyzing ultrasonic bat vocalizations to interpret bat activity and species presence. Field outings will provide hands-on experience in deploying equipment and acquiring data to process. Tools and techniques for both short term and long-term passive monitoring of bats and automated data processing will be demonstrated. Participants will recognize the acoustic characteristics of western North American bats essential for species discrimination. Full spectrum acoustic techniques will be emphasized, as recommended by the new USFWS guidelines for Wind and Wildlife when species ID is important.

Meals are NOT included in the registration rate but are available at designated meal times at the host facility and run \$30-\$35/day depending on orders. A block of shared and private lodging has been reserved. There are up to 12 dorm spaces available for our group. When registering for the workshop, please choose the lodging option (dorm – included) or (private – not-included) carefully and make your lodging reservation directly with The Bug at Yosemite immediately to secure your room.

NOTE: Participants will not handle bats during this workshop, although we may demonstrate mist-netting and handling for participants. 20 participants maximum!

Brief Schedule (subject to change)

Friday

- 4:00 p.m. Registration at The Bug, check-in to housing, set up room
- 5:00 p.m. Meet in *Bodie* Conference Room: Introductions of Participants/Instructors
- 6:00 p.m. Dinner in main restaurant (Have field boots, water, headlamp, jacket, detectors packed in backpack and be ready to head directly to the field after dinner)
- 7:30 p.m. Demonstration: Set up acoustic monitoring stations near The Bug (Field #1)
- 8:30 p.m. Walkabout The Bug and local area to actively monitor bats

Saturday

- 8:00 a.m. Coffee/Breakfast
- 9:00 a.m. Lecture: Echolocation 101
- 12:15 pm Lunch

1:30 pm Lecture: Recording Engineering 101
4:30 pm Long Break /Activate Stations at The Bug
6:00 pm Dinner
7:00 pm Field techniques, Set (Field Site #2) stations, active acoustic monitoring
10:00 pm Return to The Bug

Sunday

8:00 a.m. Coffee/Breakfast
9:30 a.m. Return to field site to retrieve overnight data
10:45 a.m. Lecture/Demonstration/Activity: What bat is that? (Lunch and long break included)
5:20 p.m. Activate recording stations at The Bug (Field Site #1) & (Field Site #2)
6:00 p.m. Dinner
7:00 pm Set (Field Site #3) field site, set up recording stations, active monitoring
10:00 p.m. Return from field, group debrief of monitoring equipment deployment

Monday

8:00 a.m. Coffee/Breakfast
9:30 a.m. Return to field site to retrieve overnight data
10:45 a.m. Lecture: Acoustic study design 11:45 am Break out session- download data from previous night, begin data analysis 12:15 pm Lunch
1:15 pm Continue data analysis, compile species lists
2:00 p.m. Lecture/Discussion: Recommendations for specific monitoring projects (rare species surveys, presence/absence surveys, wind energy, impact studies); Final recommendations and participant forum
3:00 p.m. Workshop concludes

Accommodations:

Lodging for up to 12 participants in shared dorms with shared bathrooms is included for the lodging-included fee and is on a first-available basis up to 12 spots. There are a limited number of private rooms with private baths available (for a separate fee) to reserve directly from The Bug at Yosemite by April 10th. Call Carrie at 209-966-6666 or 866-826-7108 to check availability at The Bug and make your reservation PRIOR to registering for the workshop. After April 10th, the facility will release our rooms to the general public and you may end up without lodging.

Registration:

Pre-registration required by April 30th (Meals not included in registration)

\$395 TWS WS Member Regular rate without dorm lodging included in the fee*

\$480 TWS WS Member Regular rate with dorm lodging included in the fee

\$430 Non-Members without dorm lodging included in the fee*

\$100 TWS WS Student**/New Professionals*** with dorm lodging included in the fee
(LIMITED TO NO MORE THAN (3) THREE \$100 REGISTRATIONS)

*A limited number of private and shared rooms for bat workshop participants are on hold at The Bug, reserve prior to April 10th to secure your preference. Call Carrie at 209-966-6666 or 866-826-7108 at The Bug PRIOR to registering for the workshop so you'll know if there are private or shared rooms still available. After April 10th there may be rooms but the general public will also have access to any that remain. If there are no private or shared rooms available, there are dorm spaces.

**Students show proof of current (half-time minimum) university enrollment

***Early Career Professionals (within 6 months of University graduation or employed part-time/ seasonally in a wildlife-related job assignment for no more than 2 years)

All meals, from Dinner Friday to Lunch Monday are ON YOUR OWN and may be purchased directly from The Bug Dining Room during scheduled meal times. Please submit any dietary restrictions with registration so they will be prepared for anything specific you may need while you are there.

The maximum enrollment is 20 after which, a waiting list will be kept. A minimum of 10 participants must register for the workshop by **April 16th** or the workshop will be cancelled and all registration fees will be returned. Registrants will be processed in the order received and successful registrants will receive workshop logistics and information once receipt of full payment is confirmed. **Pre-registration is required by April 30th.**

All registrants please complete on-line registration

https://www.wildlifeprofessional.org/western/bat2014_a_reg.php

Payment by purchase order or check should be accompanied by a printout of the online registration form and sent to:

The Western Section of The Wildlife Society

attn: Bat Workshop

Post Office Box 6756

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