

## Bat Ecology and Field Techniques Workshop

Co-sponsored by TWS North Coast Chapter and Northern California Bat Working Group  
September 24-26, 2018 in Humboldt County (Classroom location in Arcata or Eureka TBD/Field  
trip location Humboldt Redwoods State Park, Bull Creek)

**Instructors:** Dave Johnston, Ph.D., H.T. Harvey & Associates/San Jose State University; Joe Szewczak, Ph.D., Professor, Humboldt State University; and Ted Weller, US Forest Service Pacific Southwest Research Station

**Description:** This workshop will introduce participants to the ecology and conservation of Northern California forest bats through classroom presentations and field sessions on ecology, habitat requirements, monitoring techniques, conservation, and mitigation strategies. Field techniques of mist-netting and acoustic monitoring will be demonstrated with participants gaining hands-on experience in mist-net set-up and acoustic monitoring and analysis. Evening field excursions typically capture a half dozen bat species and allow practice in recording data from captured bats. Travel to field sites will be via carpool in personal vehicles. Draft Agenda provided here (<https://www.bearprograms.org/>) under '2018 Bat Workshop'.

**Handling Requirements:** Participants must provide proof of rabies vaccination or sufficient rabies antibody titer results within past 3 years to handle bats.

**Registration Process:** Registration fee includes 2.5 days of lecture and 2 nights of field sampling. (Does not include participant lodging, meals, or travel.)

\$200 California North Coast Chapter (CNCC) Wildlife Society Members

\$175 Students with proof of current university affiliation or Young Professionals (i.e., within 1 year of graduation from university)

\$225 Others

Registrants will be processed in the order received, and successful registrants will receive workshop logistics and information once full payment is confirmed received. A minimum of 15 participants must register for the workshop by September 15 or the workshop will be cancelled, and all registration fees will be returned.

To Register: All registrants please complete online registration form (credit cards accepted online provided here (<https://www.bearprograms.org/>) under '2018 Bat Workshop'.



Hoary Bat at Humboldt Redwoods State Park; photo courtesy of Lauren McClure

**Bat Ecology and Field Techniques Workshop  
Tentative Agenda**

<b>Monday, September 24th</b>	
9 a.m.-12 p.m.	<ul style="list-style-type: none"> <li>~Meet at Humboldt Area Foundation, 363 Indianola Road, Bayside</li> <li>~Introduction of instructors (20 min)</li> <li>~Workshop overview (Joe) (10 min)</li> <li>~Ecological physiology of bats (Joe) (45 minutes)</li> <li>~Bats of Humboldt County, with emphasis on migratory tree-roosting species (Ted) (1 hr)</li> </ul>
12 p.m. - 1 p.m.	Lunch/break (catered)
1 p.m. - 2:45 p.m.	<ul style="list-style-type: none"> <li>~Survey and monitoring techniques (gear for capture and acoustic sampling) (Dave, Joe, Ted) (30 min)</li> <li>~How to take measurements and record data (Ted) (1 hr)</li> <li>~Rabies and vaccinations (Joe) (15 min)</li> </ul>
3 p.m. - 6 p.m.	~Dinner/break (on your own)
4:00 p.m.	~Travel to Humboldt Redwood State Park to set up nets (optional)
5:30 p.m. - 1 a.m.	<p>~Travel to sample at Humboldt Redwood State Park, Bull Creek (leave site at about 1 a.m., or earlier if you'd prefer)</p> <p>Participants:</p> <ul style="list-style-type: none"> <li>~1.5 hours to travel to the field site.</li> <li>~Bring rubber boots</li> <li>~Warm clothes, food, drink</li> </ul>
<b>Tuesday, September 25th</b>	
9 a.m.-12 p.m.	<ul style="list-style-type: none"> <li>~Meet at Red Lion (conference room name TBD)</li> <li>~Practical session: interpretation of previous nights' data (Ted, Dave)</li> <li>~Species identifications with specimens (Dave)</li> <li>~Introduction to echolocation and acoustic (Joe)</li> <li>~Survey and monitoring techniques (roost surveys, telemetry/mark) (Dave, Joe, Ted)</li> </ul>
12 p.m. - 1 p.m.	Lunch/break (on your own)
1 p.m. - 4:30 p.m.	<p>~Policy requirements for protection of bats, mitigation types, and the process of developing good mitigation strategies (Dave)</p> <p>Local issues and projects:</p> <ul style="list-style-type: none"> <li>~Townsend's big-eared bat with respect to forest management (Joe)for</li> <li>~Off and on-shore wind development (Ted)</li> </ul>

	<p>~Man-made structure (buildings, bridges, mines) (Dave)</p> <p>White-nose syndrome (Joe)</p>
4:30 p.m.	~Travel to Humboldt Redwood State Park to set up nets (optional)
4:30 - 5:30 p.m.	~Dinner/break (on your own)
5:30 p.m. - 1 a.m.	<p>~Travel to sample at Humboldt Redwood State Park, Bull Creek (leave site at about 1 a.m., or earlier if you'd prefer)</p> <p>Participants:  ~1.5 hours to travel to the field site.  ~Bring rubber boots  ~Warm clothes, food, drink</p>
<b>Wednesday, September 26th</b>	
9 a.m.-12 p.m.	<p>~Meet at Humboldt Area Foundation</p> <p>~Practical session: interpretation of previous nights' data (Joe, Ted)</p> <p>Continued conversation about local issues and minimization, mitigation, and conservation measures</p> <p>~Urban development (light &amp; sound issues) (Dave)</p> <p>~Open discussion of specific issues (All)</p> <p>~Addressing real and hypothetical situations in the northwest with exercises as time permits (Dave)</p>
12 p.m. - 1 p.m.	Lunch/break
1 p.m. - 2:00	<p>Overview of Scientific Collecting Permits and Fish and Game Code as it relates to bats.</p> <p>~Wrap up/adjourn</p>
2:00-2:45 (CDFW staff only)	CDFW bat working group meeting