

Wildlife Field Techniques

SUNY ESF Maymester 2017

Lucky Star Ranch, Chaumont, NY

This summer 18 students from SUNY ESF and 1 from Paul Smith's College joined Roosevelt Wild Life Station staff for a two-week field immersion experience with the techniques used to monitor and manage wildlife populations. Once again, the Lucky Star Ranch in Chaumont, New York provided a beautiful venue, and the course was generously underwritten by ranch owners Jody and Doreen Garrett.

Through the course, students developed skills they'll need as they enter the conservation work force in the years to come — employing tools ranging from low-tech sticky-paper plates (to detect species occurrence via foot prints) to high-tech GPS collars (to track the movements and survival of individual animals).

Visiting professionals from state and federal wildlife agencies helped students understand the challenges and opportunities in wildlife conservation, such as managing effective habitat for rare species and mitigating conflict with over-abundant species. Over the course of the two weeks, students also learned about sustainable use of wildlife, and the importance of hunting and trapping in the past, present, and future of conservation, earning certifications in hunter education, trapper education, and waterfowl ID along the way.

Turn the page to see the students in action!



Erin Baccari checks for a brood patch on a sparrow while Gabby Dalton looks on (left). Michael Rickershauser prepares a net for sampling fish and turtles in the St. Lawrence Seaway (bottom right). Walking the ranch causeway (top right).

Safe capture and handling of wild animals



After learning about animal care policies and procedures, students practiced safely capturing and restraining animals such as songbirds (left) and small mammals (center) so as to collect samples and mark them for monitoring. DEC staff demonstrated the use of rocket nets for capturing wildlife such as deer and waterfowl (right).

Quantifying animal distribution and abundance



Students conducted distance sampling (left) to estimate animal abundance, and set up motion-sensitive cameras (center) to monitor species diversity and distribution. They also conducted capture-mark-recapture for small mammals, passive acoustic sampling for songbirds, and track surveys for mid- to large-bodied mammals (right).

Monitoring the health of wildlife populations



After learning proper techniques for assessing the health status of birds and mammals, students honed their skills with species submitted to the DEC pathology lab (left). USDA-APHIS staff demonstrated safe techniques for collecting samples from live animals (center, right).

Tracking animal movements, habitat use and survival



After learning various ways to attach radio and GPS-monitoring devices to wildlife, students practiced the art of radio-telemetry (left, center) to track the movements and fate of individual animals through signal triangulation and homing. They also employed timed searches (right) and other techniques to monitor species-habitat associations.

Managing the sustainable use of wildlife



Safe firearm handling (left) was part of the training that earned students a hunter education certificate. The use of tranquilizing firearms was demonstrated and students spent time honing their archery skills (center). Students also earned the ethics and skills needed to capture furbearing animals and earned a trapper education certificate (right).

Monitoring and managing wildlife habitat



Students quantified habitat quality for grassland birds on the ranch (left), and visited the Ashland Flats Wildlife Management Area to learn techniques for improving habitat quality for wildlife (center left). At the Thousand Islands Biological Station, students quantified water quality (center right) and sampled fish and turtle populations (right).



Students from left: Olivia Iannone, Gabrielle Dalton, Kaylee Townsend, Amy Wittmeyer, Deyanira Gaston, Robin Vanderworken, Sophia Miller, Courtney Thomas, Lydia Martin, Erin Baccari, Maria Cipullo, Katherine Dami, Vivian Steinbaugh, Michael Ricker-shauser, Chee Pheng Low (guest instructor), Kenneth Pryor, Nicholas Giordano, Kali Loughlin, Jordon Thompson. Students not shown: Annalee Kraii (Paul Smith's College).

Course instructors

Dr. Jacqueline Frair is Associate Director of the Roosevelt Wild Life Station and Associate Professor of Wildlife Science in the Department of Environmental and Forest Biology at SUNY ESF. Dr. Frair received degrees from the University of Alberta (Ph.D. 2006), University of Wisconsin—Stevens Point (M.S. 1999), and Cornell University (B.S. 1994). At ESF she works closely with private, state and federal conservation partners to deliver insights into the ecology and management of large mammals—from moose and coyotes in New York State to Amur leopard in far-eastern Russia.



Guest instructors:

Allison Koczek, SUNY ESF
Jeff Eller, NYS DEC
John Farrell, Thousand Islands Biological Station, SUNY ESF
Fay Fuerch, NYS DEC
Justin Gansowski, USDA APHIS
Jody Garrett, Lucky Star Ranch
Andrew MacDuff, NYS DEC
Irene Mazzocchi, NYS DEC
John Murphy, NYS DEC
Linda Sicley
Low Chee Pheng, SUNY ESF
Steve Pierson
Krysten Schuler, Animal Health Diagnostic Center, Cornell University
Rachel Wheat, SUNY ESF
Tim Worden, NYS DEC

SUNY ESF ROOSEVELT WILD LIFE STATION

*Mission --
 To fulfill Theodore Roosevelt's
 conservation vision by securing wild species
 and habitats through rigorous science,
 specialized education, and strategic
 conservation partnerships.*

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This field experience, including student scholarships, was made possible by the generosity of Jody and Doreen Garrett.



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