11-22 May 2015

Course Synopsis



/ildlife Field Techniques Indergraduate immersion experience

SUNY-ESF ROOSEVELT WILD LIFE STATION

Lucky Star Ranch home to unique immersion course in wildlife conservation

This May, 14 students from SUNY ESF were immersed for two weeks in the field of wildlife conservation. Students came from all over New York State and as far away as Georgia. At ESF, they major in wildlife science, conservation biology, and environmental biology and they came to the course with a diverse set of backgrounds and interests.

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.

Students gained field competencies they'll need as they enter the conservation work force in the years to come. They employed a variety of tools—from simple dirt holes to high-tech GPS collars—to monitor fish, bird, and mammals and their habitats. Visiting professionals discussed the sustainable use of wildlife, and the importance of hunting and trapping in the past and future of conservation, and students received certifications in hunter

education, trapper education, and waterfowl ID along the way.

Commenting on the breadth and depth of course content, skills and certifications gained, course logistics, topical lectures by conservation professionals, and fellow student impressions, one student indicated:

"There is little doubt in my mind that this was likely the most useful class I've taken as an undergrad at ESF." -- Brad Winckelmann



Back row from left: Cassandra Davis, Bradley Winckelmann, Dylan Hurd, Paul Schuette (instructor), Alexander Szuba, Lochlan Cahoon, Zachary Davis, Cara Oberbaugh, Andrea Baccari, Low Chee Pheng (grad assistant). Middle row: Kayla Zinn, Jazmine Galarreta. Bottom row: Elizabeth "Z" Mardy, Shweta Karikelhalli, Emily Pomeroy, and Lisanne Petracca (grad assistant). Participants not shown: Kimberely Goodwin and Jacqueline Frair (instructor).

Safe capture and handling of wild animals





Dr. Frair showed students a culvert-style trap used to capture bears (left). Sharon Tabor helped students pack a net gun used to capture waterfowl (right), and then set it off! Students also learned about animal care policies and ways to safely restrain animals, both physically and chemically, so as to collect samples and mark them for monitoring.

Quantifying animal distribution and abundance







Students attached hunks of beaver meat to trees (left) to attract carnivores like bobcats (center) to motion-sensitive cameras used to monitor the distribution and abundance of wildlife. Students also conducted capture-mark-recapture, distance sampling, broadcast and passive acoustic sampling, scent station surveys, and habitat assessments (right).

Monitoring the health of wildlife populations







Krysten Schuler demonstrated safe techniques for wildlife health investigations (left), and students conducted necropsies on raptors and mammals (center). Mike Fishman captured bats and inspected their wings for damage from whitenosed syndrome (right), and demonstrated acoustic equipment used to monitor populations in the disease aftermath.

Tracking animal movements, habitat use and survival





Students learned various ways to attach radio transmitters to wildlife and practiced the art of radio-telemetry, used to track the movements and fate of individual animals. Students honed in on the source of radio-signals (left) and triangulated the source of that signal (right) to estimate an animal's location with precision.

Managing the sustainable use of wildlife







Jeff Eller showed students how to age a harvested deer from tooth pattern and wear (left). Students spent time at the range as part of their training in hunter education (center), and also received certification in trapper education. Students learned how sport-fish populations are monitored and managed in NY from Eric Johns (right).

Managing wildlife habitat







Students visited water control structures used in habitat restoration for walleye and other species in the St. Lawrence Seaway (left), and evaluated habitat quality for grassland breeding birds across the Lucky Star Ranch (center). With everything they had to do, students still found time ample for fun (right).

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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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Thank you guest instructors (and we hope to see you again next year!)

Jeff Eller, NYS DEC
James Farquhar, NYS DEC
John Farrell, Thousand Islands
Biological Station, SUNY ESF
Michael Fishman, Natural Resource
Group, LLC
Fay Fuerch, NYS DEC
Jody Garrett, Lucky Star Ranch
Andrew MacDuff, NYS DEC
Eric Johns, Thousand Islands Biological
Station, SUNY ESF
Irene Mazzochhi, NYS DEC

John Murphy, NYS DEC
Linda Sicley, NYS DEC
Lisanne Petracca, SUNY ESF
Low Chee Pheng, Fulbright Scholar,
SUNY ESF
Steve Pierson, NYS DEC
Krysten Schuler, Animal Health
Diagnostic Center, Cornell University
Benjamin Tabor, NYS DEC
Sharon Tabor, NYS DEC
Liz Truskowski, NYS DEC
Luke Wlasniewski, NYS DEC



Special thanks to Jody and Doreen Garrett for hosting such a memorable and enriching student experience!

Course instructors

Dr. Jacqueline Frair is Associate Director of the Roosevelt Wild Life Station and Associate Professor of Wildlife Ecology in the Department of Environmental and Forest Biology at SUNY ESF. Dr. Frair received her Ph.D. in 2006 from the University of Alberta for a study on the cumulative effects of timber and gas extraction on elk and wolves in the Canadian Rockies. At ESF she works closely with private, state and federal conservation partners to deliver field research into the ecology and management of large mammals-focusing on how animals respond to and influence environmental change with a goal of informing effective conservation action. She currently studies moose, red fox, coyote, river otter, jaguar, and bats (see frair.weebly.com). She also teaches a junior-level "Applied Wildlife Science" course and graduate courses in "Landscape Ecology" and "Quantitative Methods and Models in R."



Dr. Paul Schuette is a Roosevelt Post-doctoral Scholar at SUNY-ESF. His dissertation at Montana State University focused on predator-prey dynamics, livestock-wild ungulate dynamics, and interactions between large carnivores and Maasai pastoralists in Kenya. After re-

ceiving his degree in 2012, Dr. Schuette managed a multi-national research program with the Zambian <u>Carnivore Programme</u> focused on predator-prey dynamics, human-wildlife conflict, and management of sport hunting. Dr. Schuette joined ESF in fall 2014 to focus on the status and limiting factors for moose populations in the Adirondack region of NY.

