TAYLOR RANCH FIELD STATION ACTIVITIES AND ACCOMPLISHMENTS
Annual Report for the year 2001

by Holly and Jim Akenson, Taylor Ranch Managers/Scientists
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TAYLOR RANCH HIGHLIGHTS

In the past year we have been recovering from the effects of the Diamond Point Fire that swept through the field station in August 2000. This wildfire burned 175,000 acres in and around the Big Creek drainage. The Taylor Ranch cookhouse, bunkhouse, and several outbuildings were burned in the fire and have not been replaced yet. Despite the lack of housing, Taylor Ranch Field Station had more activities and use in 2001 than any previous year! We had over 1,000 user-days and generated a record $8438 in lodging income. A new undergraduate wilderness research program was established and 3 student projects were funded through foundation grants. ISU geologists explored the potential for geology research from Taylor Ranch and an amphibian monitoring program was initiated from University of Montana. Taylor Ranch may use a "primitive" mule team for station maintenance, but we now have state-of-the-art technology to enhance research and educational activities, including a 2-way high speed satellite internet connection and new computer with analytical software. Annual educational programs at Taylor Ranch in 2001 included the Wildland Ecology 302 course, Student Internship program, a Wildlife enrichment course, and undergraduate Directed Studies credits. All of the researchers involved in ongoing research and monitoring programs on large mammal predator-prey relationships, aquatic systems, and rangeland vegetation eagerly expanded their studies to address the effects of wildfire on these systems. Three wall tent structures were built and furnished to accommodate visitors. The tents worked well until the bears started using and abusing them. The geologists moved their tent and open-air kitchen to the safety of the "State Pen", a chain link and barbwire enclosure previously used to contain cougars! Facility maintenance and operations activities were focused on post-fire health and safety issues: providing clean drinking water, minimizing erosion of the streambank along the airstrip, and enacting an evacuation plan in case of flooding or mudslides. Fortunately we did not experience any natural disasters this year, but we have made preparations in case an unusual weather event triggers a water or debris flow. Taylor Ranch Field Station received recognition in 2 publications about the wilderness fires and was featured in an Outdoor Idaho television program about Idaho's wilderness. Jim and Holly Akenson received 2 awards from the University of Idaho for their actions during the forest fire and for the development of the Student Internship program. Next year we anticipate another busy year at Taylor Ranch. Most of the research and educational activities will continue. We expect additional interest in post-fire research. Several new courses are being developed that will be offered in 2003. We are looking forward to the construction of the new cabin in 2002, but will continue to use the wall tents during summer when facility use exceeds housing capacity. Research and educational activities have increased at Taylor Ranch over the last few years to the point where the field station is fully booked for most of the summer. The challenge now is to encourage new activities that expand the seasons of use, rather than increase peak summer use. This is a new and welcome phase for Taylor Ranch Field Station, proof of it success and value as a research and education facility of the University of Idaho.

RESEARCH AND MONITORING

1. J&H Akenson/Undergraduate students: (UI, Hornocker Wildlife Institute) Winter wolf and cougar predation and interactions (4th year). Recent + longterm?
2. J&H Akenson/Faculty advisors: (UI DeVlieg Foundation Grants) Undergraduate Student self-initiated Wilderness Research Projects (1st year): Crystal Strobl (amphibian survey), Chris McDaniel (bighorn sheep lamb production and summer ranges), Samantha Cooney (blue grouse habituation to humans) DeVlieg
3. R Lewis/D Stewart: (Idaho Geological Survey) Geological formation mapping (2nd year)
4. D Pilliod: (University of Montana, Aldo Leopold Wilderness Research Center) Amphibians and fire - tailed frogs (2nd year) Recent (or longterm)
5. J Peek/302 class: (UI) Rangeland vegetation monitoring (14th year). longterm
6. W Minshall/Graduate students: (ISU) Aquatic invertebrates and fire (13th year). longterm
7. J&H Akenson/Student Internship: (UI, NezPerce Tribe) Wolf reproduction (4th year).
8. J&H Akenson: (UI, National Weather Service) weather station (20th year) and meteorological station (8th year). longterm
9. S Achord: (NMFS) Salmon parr PIT tagging at Taylor Ranch to assess survival rates at dams (6th year). recent or longterm
10. C Peterson: (ISU) Amphibian research coordination and hyperspectral vegetation analysis recent or longterm
11. P Link/N Glenn/Graduate student: (ISU) Geological reconnaissance for graduate student projects on post-fire geological hazard assessment
12. B Bigelow: (UI) Bighorn sheep disease monitoring (Masters thesis, Animal Science) Recent
13. J&H Akenson:/T Heinrichson: (UI, Foundation For North American Wild Sheep) Bighorn sheep population monitoring (1st year). long-term
14. D Allen: (IDF&G) Anadromous fish research, redd counts (3rd year) recent
15. L Vannoy: (UI) Undergraduate architecture student project designing new cabin for Taylor Ranch
16. J&H Akenson: (UI, IDF&G) Ungulate population monitoring; sensitive species surveys (Harlequin ducks); and sightings reports on wolverine & fisher (3rd year). long-term
17. O Garton: donated a 1-year subscription to Absearch, a computer data base of abstracts from natural resources journals
18. M Scott: donated Journal of Wildlife Management, Wildlife Society Bulletin, Wildlife Monographs, and Conservation Biology journals to the Taylor Ranch library
19. J Hogg: (Craighead Institute) traded Big Creek GIS land cover data and computer files in exchange for logistical support for his field crew

EDUCATION

1. Wildland Field Ecology 302: 12 undergraduate students taught by J Peek.
2. Taylor Ranch Bleak Foundation Summer Student Internship Program: 3 undergraduate students taught by H&J Akenson.
3. Taylor Ranch DeVlieg Foundation Wilderness Research Program: 3 undergraduate students mentored by H&J Akenson, C Peterson, J Rachlow, K Reese.
4. Ecohydraulics/Engineering NSF Science Education program: 5 high school students, 2 undergraduates, 1 graduate student supervised by P Goodwin
5. Wildlife Directed Studies (winter predation research): 1 undergraduate student supervised by H&J Akenson.
6. Wilderness Wildlife Ecology enrichment class: 10 students taught by J. Peek.

FACILITIES PROJECTS

1. Reconstruction of domestic water intake on Pioneer Creek to minimize fire-caused flood damage: replaced wood water trough with "anadromous fish friendly" and "self cleaning" perforated culvert pipe embedded under the stream; used a student work crew (Natural Resources Conservation Service Emergency Watershed Protection project, 75% matching funds).
2. Installation of 1,500 gallon water tank above Taylor Cabin for emergency domestic water source when streams are turbid (NRCS Emergency Watershed Protection project, 75% match).
3. Stabilization of Big Creek streambank on west end of airstrip to prevent erosion and divert current away from airstrip: inserted 4 log jams in the bank using a logging helicopter, mule team, and student work crew (NRCS Emergency Watershed Protection project, 75% match).
4. Construction of temporary housing for 8 people including 3 wall tent platforms with decks, a cook tent with running water and attached shower tent and septic tank, and remodeled a storage shed into sleeping & eating quarters. Two additional wall tents were erected for short-term overflow housing.
5. Remodel of Dave Lewis cabin back porch into an enclosed bedroom.
6. Construction of a water diversion wall in front of the hydropower shed, relocation of a storage shed away from Pioneer Creek, cabling footbridges in place, and pruning brush from the stream to minimize potential flood damage from Pioneer Creek..
7. Develop plans for replacement cabin.

RECOGNITION FOR TAYLOR RANCH AND ITS MANAGERS

1. The book, *Under fire the west is burning*, published in 2001 by Fenske Companies, Billings, Montana includes a chapter "From the Frying Pan into the Fire" by Jim & Holly Akenson about their experiences with the wildfires around Taylor Ranch. The same account was published in *Idaho Yesterdays* 45(3):22-25 in 2001, the journal of the Idaho State Historical Society.

2. Idaho public television produced the program *The Frank Church Wilderness* for Outdoor Idaho. The program included a segment on Taylor Ranch Field Station with interviews with students. The program was shown in February 2002.
3. Holly and Jim Akenson were awarded the University of Idaho President's Medallion in December 2000 for their contribution to the cultural, economic, scientific and/or social advancement of Idaho and its people.
4. In 2001 Jim and Holly Akenson received the University of Idaho Cooperative Education Employer of the Year Award for their development of the Taylor Ranch Student Internship program.

UPCOMING EDUCATION AND RESEARCH ACTIVITIES IN 2002

1. All 6 courses/credits offered in 2001 will be offered in 2002.
2. McCall High School science class will have a weekend field trip to Taylor Ranch in May to study wilderness wildlife and natural systems.
3. A Winter Wildlife course will be developed for Taylor Ranch.
4. Student Interns will participate in an archaeological excavation of an Indian hunting camp with a USFS archaeologist and develop a survey for black bears using remote cameras with J Akenson and IDF&G coordination.
5. IDF&G will conduct elk and bighorn sheep helicopter surveys in spring 2002.
6. Long-term research and monitoring programs are expected to continue in 2002.
7. Undergraduate research candidates will select new research topics.

UPCOMING FACILITIES PROJECTS IN 2002

1. Build the new cabin to replace the burned cookhouse and bunkhouse.
2. Replace or enhance septic systems to handle the increased use and capacity at Taylor Ranch.
3. Replace burned fences using $11,000 USFS payment.
4. Remodel Dave Lewis cabin kitchen, bath, and bedroom space to increase capacity from 2 students to 3 students.
5. Improve airstrip surface and drainage using mule team.
6. Replace one of the 50-year-old aluminum cabin roofs