



The Alaskan Wildlifer

Newsletter of the Alaska Chapter of the Wildlife Society

Fall Issue - September 2014



Message from President Grant Hilderbrand

I hope all of you had a safe, productive, and fun field season. Happily, I spent as much time in the field this summer as I could manage and one theme has been recurrent: I feel old.

But I am okay with that.

It started at the annual meeting in April where there were more than 20 student presentations and posters. In addition, we had a herd of undergraduates make the trek down from Fairbanks and fully participate in the conference. The addition of the “employed-underemployed” lunch and mixer provided positive opportunities to learn more about our students – their interests, goals, and passions.

Next I headed north to participate in a Gates of the Arctic brown bear project. Much of the logistics were covered by a recently graduated and hired park biologist and we got him in the darter’s seat for a few bears. He rocked (and so did his hair, much to the chagrin of those of us longer in the tooth). What struck me most was his endless curiosity – and the dude never stopped smiling.

Then I went Haines to visit some long-time friends and collaborators. In their tow were two graduate students from Great Britain currently working through Oregon State University, along with two student research assistants. Aside from learning why (and why not) Wales should declare independence from the empire, I was struck by their overflowing enthusiasm.

Next, I was off to the Katmai coast to scout logistics for a Ph.D. project with a student from Washington State University. It is going to be a really cool project and I know it is in good hands- we were lucky to land her. As always, the challenge will be deciding which of the million interesting questions to focus on.

My most recent trip at the time of this writing was to assist in the capture of a brown bear that commonly frequents Brooks Camp. She had become entangled tightly around her neck in a wolf snare. As these things do, it took time to find a workable solution. Again, we had young students and seasonal rangers providing dedicated and patient support.

Between trips, I’ve been working with several graduate students as they revise theses for publication and work on Ph.D. proposals. I’m so proud of all of them.

Over the past year or two, I’ve seen the Chapter as a whole, and members individually, identify and elevate mentorship as a priority. The value in this endeavor seems limitless and this is a direction I think you will see the chapter continue down for the foreseeable future. A related goal is to foster employment opportunities for these students so we can keep them in the profession, and ideally, in Alaska.

There have been times in the past I have worried about the future of the agency which I served, and our profession in general. I know I have seen just a fraction of the great work being done in our state in the name of wildlife stewardship by young professionals and students. While we face significant challenges related to politics, funding, and staffing – lack of an excited and talented cohort of upcoming professionals is not one of them.

Like I said before: I feel old, but I am okay with that.

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Regional News

Northern

Todd Brinkman, Northern Representative

Personnel Changes

Craig Gardner, Wildlife Biologist with ADF&G in Fairbanks recently retired, and Biometrician **Martha Ellis**, left to pursue a post doc at Montana State University. Biometrician **Brian Taras**, is transferring from the regional game management program to the marine mammal program. **Kerri Nicholson** is a new Wildlife Biologist with ADF&G Fairbanks, and Wildlife Biologist **John Benson** left ADF&G for a post doc position at UCLA.

The University of Alaska Fairbanks Department of Biology and Wildlife welcomed two new faculty to teach and conduct research in Wildlife Biology and Conservation: **Dr. Todd Brinkman** (Human Dimensions of Wildlife Management) and **Dr. Greg Breed** (Wildlife Population Ecology).

At U.S. Fish & Wildlife Service, **Joanna Fox** is the new Deputy Refuge Manager for Arctic National Wildlife Refuge. **Tina Moran** became the new Deputy Refuge Manager at Kanuti National Wildlife Refuge, and **Tim Craig**, Wildlife Biologist at Kanuti National Wildlife Refuge, retired. Additionally, after 28 years with Fish & Wildlife Service in Alaska, **Greg Balogh** is joining NOAA Fisheries as the Protected Resources Division's Field Supervisor in Anchorage. At the National Park Service, **Mat Sorum** was selected as a new Wildlife Biologist for Gates of the Arctic National Park and Yukon-Charley Rivers National Preserve.

Wood Bison Update

Tom Seaton, Wood Bison Biologist with ADF&G in Fairbanks, reported that a special rule has made wood bison a nonessential experimental population under the Endangered Species Act (<http://www.fws.gov/policy/library/2014/2014-10506.pdf>). The ruling is a big step toward a potential Spring 2015 release of bison in the Lower Innoko/Yukon river area near the village of Shageluk, approximately 300 miles west of Anchorage. For more information, visit http://www.adfg.alaska.gov/static/species/speciesinfo/woodbison/pdfs/woodbison_news8_summer_2014.pdf.



*TWS-Alaska Chapter Regions
(Northern, Southcentral, and Southeast)*

Vacancy Announcements

Heads up! ADFG Fairbanks office will soon be advertising for three positions: 1) Predator-prey Biologist, 2) Biometrician I-II, and 3) Biometrician III. Additionally, a full time Wildlife Biologist position is open with The Center for Environmental Management of Military Lands stationed at Donnelly Training Area near Delta Junction Alaska. The full PD can be found here: <http://www.cemml.colostate.edu/Jobs/cemmljob.htm>

Southcentral

Nathan Svoboda, Southcentral Representative

Personnel Changes

There have been a few recent changes within ADF&G's Division of Wildlife Conservation. **Tom Lohuis** has accepted a position as the Regional Research Coordinator and **Tony Carnahan** has accepted a position as a Research Wildlife Biologist II. **Tonya Wood** is the new ADF&G Program Technician on Kodiak Island and **Brent Grobarek** no longer works for the Moose Research Center. The U.S. Fish & Wildlife Service also experienced recent staff changes in the southcentral region. **Anne Marie LaRosa**, left Arctic National Wildlife Refuge, to become Refuge Manager for Kodiak National Wildlife Refuge and **Tevis Underwood** recently accepted the position of



Regional News - Continued

Deputy Refuge Manager after working as the Deputy Refuge Manager at Togiak National Wildlife Refuge. **Lance McNew** has departed the USGS Alaska Science Center for a position with Montana State University in Bozeman. Lance formerly lead research on the effects of climate change on birds of the Seward Peninsula. He also served as co-chair of the program committee for the Alaska Chapter's 2014 meeting in Anchorage. **Dr. William Beatty** has joined the USGS Alaska Science Center and will be leading development of resource selection models for Pacific walrus. Bill was recently a post-doctoral research associate at the University of Missouri where he investigated the effects of landscape factors on mallard movement and resource selection. In 2012, he received his Ph.D. in Wildlife Science from Purdue University, where he worked on mesopredator ecology in fragmented landscapes.

Cattle Concerns on 2 Aleutian Islands

The Alaska Maritime National Wildlife Refuge is currently seeking input through a public scoping process to identify issues and concerns regarding damage caused by cattle on Chirikof and Wosnesenski Islands. Chirikof and Wosnesenski are remote, uninhabited islands in southwest Alaska where cattle were introduced in 1938 and 1891, respectively. With no predators and little to no herd management, the population has expanded to an estimated 800 cattle on Chirikof and 200 on Wosnesenski. For more information, or to provide input, contact the Alaska Maritime National Wildlife Refuge at fw7_akmaritime@fws.gov. The Refuge will be accepting comments through January 31, 2014.

Articles of Interest

Between a rock and a hard place: the tragedy of disappearing tidal flats [implications for shorebirds] http://decision-point.com.au/images/DPoint_files/DPoint_81/separate_stories/dp_81_p8_hardplace.pdf

Eradicating foxes: understanding that absence of proof isn't proof of absence

http://decision-point.com.au/images/DPoint_files/DPoint_81/separate_stories/dp_81_p5_eradicatingfoxes.pdf

The tale of the Phillip Island Fox: eradication, cost and confidence

http://decision-point.com.au/images/DPoint_files/DPoint_81/separate_stories/dp_81_p5_Phillipfoxes.pdf

Southeast

Kevin White, Southeast Representative

Personnel Changes

Former ADF&G Juneau area Wildlife Management Biologist, **Ryan Scott**, was promoted to the southeast Alaska Regional Management Coordinator. Ryan replaced **Neil Barten**, who took a new position as the ADF&G Dillingham area Wildlife Management Biologist. ADF&G Biometrician, **Grey Pendleton**, transferred out of the Southeast regional office and now works for the ADF&G statewide waterfowl, wildlife diversity and marine mammal programs.

Phillip Hooe was recently hired as Superintendent of Glacier Bay National Park, after most recently working in Denali National Park.

Black Bear Studies

Juneau-based ADF&G Biologists **Ryan Scott** and **Stephanie Sell** are collaborating with U.S. Forest Service Biologists to learn more about urban-wild black bears and how they coexist with people. In Southeast Alaskan communities like Juneau, people live with and adjacent to bears. Researchers are looking at bear behavior, diet, movements and how they interface with their human neighbors. About 15 black bears live near Juneau's Mendenhall Glacier Visitor Center and are ideal candidates to explore these questions. A total of five bears have been collared since spring of 2013, and work is ongoing.



Regional News - Continued

Bat Research

State biologists **Karen Blejwas** and **Michael Kohan** are continuing research on bats in Southeast Alaska, collaborating with the U.S. Forest Service. They're maintaining passive bat detectors in about a dozen communities, documenting the presence and species diversity of bats and recording acoustic bat calls to build an audio reference library. They're conducting captures and tagging bats in about six southeast communities this summer, and also have citizen scientists engaged in Gustavus and Haines. Teachers, librarians and community members are involved as well. They're gaining insights into the ranges of about five bat species, and learning about their migrations and movement patterns.

Assessing Availability of Glacial Ice for Harbor Seals

Glacier Bay National Park & the National Park Service, in partnership with the University of Alaska Fairbanks – Geophysical Institute and the National Marine Mammal Laboratory – Polar Ecosystem Program, have recently embarked on a project that uses aerial digital imagery, remote sensing technology, and geospatial models to assess the relationship between availability of glacial ice and harbor seal distribution and abundance in Johns Hopkins Inlet in Glacier Bay National Park. The primary objectives of this project are to provide a permanent record of the spatial distribution of harbor seals and glacial ice, to derive ice characteristics and associated covariates from aerial digital imagery data, to use the derived ice characteristics and seal presence data from aerial surveys to model the relationship between ice cover,

ice characteristics, and seal presence in a statistical modeling framework. More details on this project can be found at the following websites

<http://www.nps.gov/glba/naturescience/glacial-ice-and-seals-study.htm>

<http://www.nps.gov/glba/naturescience/seal.htm>

Kittlitz's Murrelet Monitoring

The National Park Service's Southeast Alaska Network just completed its 6th annual murrelet survey in Glacier Bay (July 5-17). This long-term monitoring project was designed to assess the abundance and distribution of marbled and Kittlitz's murrelets within the waters of Glacier Bay proper. All data collected by this program is

available to the public via the project website. More information, including annual reports and program protocols, can be found here: http://science.nature.nps.gov/im/units/sean/KM_main.aspx

Humpback Whales

A new humpback whale skeleton exhibit was just completed in Bartlett Cove. It is the largest articulated humpback on display in the U.S., at 45.5 feet. The press

release and photo gallery are available here: <http://www.nps.gov/glba/parknews/newsreleases.htm>

Additionally, the Glacier Bay whale monitoring program recently completed its 29th consecutive year of monitoring. The latest report can be found here: http://www.nps.gov/glba/naturescience/whale_acoustic_reports.htm



Photo: Jamie Womble



The Disappearance of the Rusty Blackbird

By Riley Woodford, ADF&G

Rusty blackbirds are mysteriously disappearing from North America. These songbirds – cousins to meadowlarks and orioles – were described as “traveling in great noisy flocks” and “enormous numbers” just a few decades ago. Today their decline is now estimated at between 90 and 99 percent, the steepest decline of any songbird in North America. Biologists in Alaska and elsewhere are working to learn more about these birds, the reasons for the decline, and possible solutions.

Rusty blackbirds spend winters in the American Midwest and South, and summers nesting in the boggy boreal forests and muskegs of Canada and Alaska. As the name implies, the birds have rust-colored tinges on their dark feathers. Adults have striking bright yellow eyes. They forage on wet ground and in shallow water, and emerging dragonflies and dragonfly larvae are an important food.

Wildlife biologist Dave Tessler has been studying rusty blackbirds since 2008. He represents ADF&G on the Rusty Blackbird Working Group, an international coalition of scientists formed in 2005. Tessler said the decline first really came to the attention of wildlife biologists in 1999. The results of the Breeding Bird Survey, an annual event that looks at population trends for hundreds of North American bird species, indicated rusty blackbird numbers were way down. Biologists then compared other sources of information on bird numbers, such as Christmas bird surveys, and Feederwatch, a winter-long, citizen-birder survey of birds that visit feeders. The results were disturbing. Rusty blackbirds were in serious decline.

A Slow Fade

If more than 90 percent of the robins, mallards, or ring-necked pheasants in North America disappeared over the course of a few decades, people would notice. But an abundant, nondescript species of blackbird was a different story.

“Not much work was ever done on this bird,” Tessler said. “It has long been considered a pest by farmers, and there’s been no real concern or interest in these birds.”

For many years blackbirds were in a different class from most songbirds, which are federally protected. Farmers were permitted to “control” blackbirds as needed, and they frequently did, using lethal means. “There were lots of control efforts in the past, and they did knock the population down,” Tessler said. “But there’s something else going on, because other blackbirds (also subject to control efforts) haven’t declined like that.”

Tessler has teamed up with biologists from the Forest Service, the U.S. Fish & Wildlife Service, and researchers across North America to learn more about these birds and reasons for the decline.



Photo: Dave Tessler



Rusty Blackbird - Continued

“It’s been a really impressive effort,” Tessler said. “All these people thinking about the species, generating hypotheses for the decline and developing projects that address those hypotheses. We’re all aware of what everybody is doing and everyone works well together.”

There is a lot to learn about rusty blackbirds. Life history, for starters – what is the birds’ mating system, are they monogamous or polygamous, and what is their social structure? How productive are they when nesting, and what is hatchling and adult survival? Are there separate populations, or are all rusty blackbirds pretty close genetically? What are their migration routes and important stopover areas? Do they nest in the same area where they were born, as many birds do, or elsewhere? Are they affected by pollutants in the environment?

Clues to the Cause

The wildlife detectives have no smoking gun, but they have ideas, and one thing they have in their favor is technology. Tracking devices are improving and new tests for isotopes in feathers reveal clues about the birds’ movements.

Geolocators are tiny devices that measure time and day length. They can be very useful to learn about the migration pattern of a bird that returns to the same winter or summer areas, because the device must be retrieved so data can be downloaded. In a best-case scenario with a migratory bird nesting in Alaska and wintering down south, an eight-month record of sunrise, sunset and date indicates the latitude and general location of the bird along the migration route south, its wintering area, and the return route.

“We used geolocators in 2009 on birds that returned in 2010, but it wasn’t real successful,” Tessler said. “The weather that winter was really hard, and we got only three of 17 back.” The birds were tagged in Anchorage, and evidence indicates they flew west and exited Alaska in the Tok area, which is a known flyway for migratory birds. They flew through Saskatchewan and then south.



Photo: Dave Tessler

“We’re going to try again this year – the technology for these devices has come a long way regarding the size and weight and method of attachment,” Tessler said. “We’re pairing our study with colleagues in New Hampshire. We’ll do 10 to 20 birds here in Anchorage, and they’ll do 10 to 20 in New Hampshire as well.”

A stable isotope analysis of a feather from each tagged bird may also reveal some valuable clues. Deuterium is an isotope of hydrogen found in water. Water in different places has distinct deuterium signatures, and scientists have developed maps of North America identifying these signatures. Biologists can look at the deuterium incorporated into a bird’s feather after it molts.

“That helps identify where the bird was when it grew that feather,” Tessler said. “When we catch a bird we’ll take a feather, and that will have a signature that we can compare to what is becoming a pretty good map of these signatures. When the bird comes back we’ll



Rusty Blackbird - Continued

get a second feather; so in the second year we'll have geolocator data and the feather from that year and we'll compare those two things and the feather from the previous year. So we can tell if it is going to the same place or a different place, we'll get movements and behavior over two years."

Eating Big Bugs at the Right Time

While there is a lot to learn about rusty blackbirds, one thing that is known is that aquatic insects are an important part of their diet. A recent study on the Copper River Delta revealed that 90 percent of the food given to chicks was dragonfly larvae. Diet could be related to the decline in a couple of ways.

"We found on the Copper River Delta that they are really cueing in on the availability of aquatic insects, especially dragonfly larvae," Tessler said. "They really key in on the timing of the emergence of these larvae."

For many migratory birds, the timing of mating, nesting and rearing chicks is critical to success. Being early can be advantageous, unless you're hammered by a late-spring blizzard or starved by a tardy spring. Nesting too late means the young might not be ready to migrate south in late summer. Birds need to find a lot of food for a nest full of hungry chicks. That's where those big, fat dragonfly larvae come in.

"When these birds arrive the ice is hardly off the water, and the adults are gleaning spiders and whatever they can find," Tessler said. "Then things melt and soften and everything comes back to life; they nest, and by the time the eggs hatch, the (dragonfly) larvae are emerging and the adults are provisioning the chicks with those things."

One remarkable thing about rusty blackbirds is how fast they grow. "Their nestling period is really short; they go from hatching to fledging in two weeks." Stuffing those ravenous, growing chicks with big dragonfly larvae is important, and if the food isn't there, the nest will fail. Tessler and his colleagues are exploring that possibility.

"We asked, 'Is the emergence of these larvae changing somehow, and is something off on the timing?' If the bugs emerge sooner, there could be a phenological mismatch; the timing of the food source doesn't match the timing of the need to provision the young. It is a possibility."

Mercury Rising?

Rusty blackbirds are also vulnerable to the potential bioaccumulation of mercury – and dragonfly larvae factor into that. Those larvae live several years as aquatic predators, basically at the top of the aquatic insect food chain. Tessler said that the bogs favored by rusty black birds are acidic, and acidic environments favor the natural processes that make mercury available to living systems, where it can be detrimental.

Mercury in the environment might be naturally occurring, or it could be present in areas where mining occurred.

"In Alaska we have atmospheric deposition of mercury from China and Asia," Tessler said. "We're looking at mercury in rusty blackbirds in the Northeast (New England and Canadian Maritime Provinces) and by and large they have really high levels of mercury – much higher than other blackbird species in those areas. Now it's hard to say if it's too much, and we're looking into that. That source is power plants."

Mating Success

Understanding the mating system is important because a population decline could be related to a failure to find mates. A monogamous pair might separate during the winter and reunite in their nesting area in spring. If the rendezvous fails they may not nest.

"That's not an issue it would seem," Tessler said. "They're polygamous; females will mate with multiple males, and vice versa."

This spring, Tessler and his colleagues, as well as volunteers, will be finding nests and following the progress of the rusty blackbirds they locate. They'll count the number of eggs laid, the number that hatch, and the chick survival. If the nest fails they'll document



Rusty Blackbird - Continued

why it failed. Nests will be monitored around Haines, Cordova, on Kuiu Island, Glacier Bay, and in Southcentral and Interior Alaska.

“We’ll compare that with data we’re collecting in the Northeast,” Tessler said. “We don’t know anything about juvenile survival once they leave here. We don’t know if they don’t survive, or if they just don’t come back – are they site faithful? Maybe they just nest in other areas.”

The results so far are promising. “They seem to be doing pretty good in Alaska,” Tessler said. “The survival rate is good, and productivity looks good.” The understanding of the nature of rusty blackbirds will grow tremendously in the next few years, and hopefully include insights into their mysterious decline.

Look for us on Facebook!

You can now “like” us on Facebook. On our new Facebook page, we are posting information on scientific publications relevant to Alaska’s wildlife, announcements of upcoming meetings, and job openings. If you have ideas on how we can most effectively use our Facebook page, contact the Executive Board through the Chapter email: twsalaska@gmail.com



Student Chapter News

2014 State Chapter Meeting - Student Award Winners

The Alaska State Chapter of The Wildlife Society would like to congratulate **Lindsay VanSomer** and **Brian Robinson** for receiving student presentation awards at the 2014 Alaska State Chapter Meeting recently held in Anchorage. Lindsay VanSomer is a third year Masters student at the University of Alaska-Fairbanks and received the Best Student Paper award for her presentation titled, Monitoring Digestibility of Forages for Caribou: a New Application for an Old Approach. Lindsay and her husband will soon be moving to Fort Collins, CO where she hopes to continue research on large mammals.

Brian Robinson is also a student at the University of Alaska-Fairbanks and received the Best Student Poster award for his presentation titled, Chick provisioning and nutritional quality of Black Oystercatcher prey. Brian is in his second year at UAF, pursuing a Masters in wildlife biology and conservation. After graduation, he will seek employment as a wildlife biologist for a state or federal agency. To learn more about Brian’s oystercatcher research or to offer him a job, look for him at the Alaska Bird Conference in Juneau this December. The State Chapter would like to congratulate Lindsay and Brian and thank all conference attendees for their participation in this year’s conference!

Interested in TWS Alaska merchandise?

Please give us some feedback by completing a quick survey at <https://www.surveymonkey.com/s/JRCYTSZ>



Training and Opportunities for Professional Development

Wilderness First Responder

(October 11-19, 2014 in Eagle River, AK)

The Wilderness First Responder course was created for guides, outdoor leaders, field workers (e.g., biologists, geologists), rescue personnel and/or anyone who works or travels in an environment where there is no immediate backup support from the emergency medical system (911).

This 9-day course covers basic anatomy and physiology, assessment and treatment of injuries, short-term to multi-day patient care, and evacuation decision making. The curriculum provides a comprehensive base of information for people interested in being able to assess and treat a variety of injuries including trauma-related, environmental, and medical emergencies. Course format includes lectures as well as hands-on application of skills. The course includes three major mock-accident scenes where students will be given the opportunity to assess, treat and evacuate patients. Video debriefs will also be used.

The cost of the course is \$650.00 pp. It is certified through the Wilderness Medical Associates. For more information, or to register for this course, visit the website: www.safetyed.net or contact Deb Ajango at debajango@att.net

We want your feedback!

The executive board is looking into options for raising Chapter revenue to reflect the current cost of doing business. To this end, we plan to increase registration fees for the annual meeting slightly, and raise Chapter dues from \$10 to \$15. Let us know what you think and what services of the Chapter you value most at: twsalasaka@gmail.com.

Thank you!

U.S. Forest Service Native American Professional Development Research Assistantships

(3 to 6 month appointments, March - August 2015)

In partnership with The Wildlife Society, the U.S. Forest Service is sponsoring a professional development program for Native American students. Short-term assistantships are available for Native American students interested in pursuing a career in a natural resource or conservation related field. Applications are due October 20, 2014. Please contact Katie Edwards Katie.edwards@wildlife.org at The Wildlife Society if you have additional questions.

Join or renew memberships

New memberships and renewals are available on-line at The Wildlife Society (www.wildlife.org/alaska/). Click on membership to obtain membership forms.

Upcoming: Meetings of Interest

Alaska Chapter of the American Fisheries Society Meeting

Juneau, October 20-24, 2014

<http://www.afs-alaska.org/annual-meetings/fall-2014>

Alaska Bird Conference

Juneau, December 9-11, 2014

<http://www.alaskabirdconference.org/>

Alaska Chapter of The Wildlife Society

Juneau, 2015, Dates TBD



Trapping Ptarmigan and Tracking Their Travels

By Riley Woodford, ADF&G

With its bright red eye combs and snow white plumage, the rock ptarmigan was striking. But this ptarmigan was decked out with even fancier attire, a necklace that sported a small VHF radio.

The bird was one of 22 ptarmigan wildlife biologist Rick Merizon equipped with the small transmitters in May of 2014. Merizon coordinates the statewide small game program and is in the middle of a three-year study of rock ptarmigan along the eastern Denali Highway in game management unit (GMU) 13B. Merizon wants to know if birds from areas less accessible to hunters disperse into areas where birds are more easily accessed by hunters via roads, and serve to replenish harvested birds.

“We’re not certain how large of an area these birds move within over a 12-month period,” he said. “Are birds that are collared away from roads or access points replacing birds that are harvested adjacent to roadways where there is significantly more hunting pressure?” He’s monitoring the annual movements of rock ptarmigan throughout the eastern Alaska Range. He’s already gaining some insights into the birds’ springtime return to their breeding areas.

“We’re also interested in breeding site fidelity,” he said. “We’ll track them through the winter and see if they return to the same breeding territory. So far, we’re finding there is breeding site fidelity.”

Radio tracking devices for birds are sometimes worn as small backpacks; the

walnut-sized transmitters Merizon uses are attached to “necklaces” and rest below the birds chin, with a short antennae. In open country, flying in a small plane with a receiver, biologists can effectively locate these collared birds from five to eight miles away.

The birds are captured using one of two primary methods. The first is a “noose carpet,” a 1-foot by 3-foot piece of poultry fencing with 50 to 60 monofilament nooses tied to the fencing wires. Laid flat on the ground like a sheet of tiny footsnare, the monofilament loops effectively tangle in the ptarmigans’ toes. The highly territorial and defensive males are lured to the trap by placing an actual mounted male rock ptarmigan right in the middle of his territory, with several noose carpets adjacent the “intruder.” The second method is a handheld net gun. This gun is shoulder fired at about 15 to 25 feet from the bird and deploys a 10-foot by 10-foot net that entangles the bird. Captured birds are weighed, aged, and then equipped with the small radios.

“We have 22 collars out right now, and we’re hoping to get about 30 total,” he said. Mid-May is the breeding season, and the hens will nest in late May, laying eggs that take about three weeks to hatch. In

mid-to late June, Merizon will be looking for chicks.

“We’ll locate the radio collared hens and estimate egg and subsequent chick production,” he said. “We’re using some trail cameras on the nests as a passive way to get a total brood count from those hens.



Photo: Rick Merizon



Ptarmigan Trapping - Continued



Wildlife biologist Rick Merizon takes aim at a ptarmigan with a shoulder-fired net gun. See the link in the article to watch a video of an entire capture.
Photo: Rick Merizon

We're hoping this technique may prove successful at providing us numbers of chicks. We'll see." Merizon plans to return in the late summer before hunting season and estimate how many of the chicks survived the summer.

Merizon is also using radio necklaces to study the movement, distribution and survival of willow ptarmigan south of the Alaska Range in the area slated for the Susitna-Watana Hydro project. It's an area already popular with bird hunters. The willow ptarmigan collaring effort is a small part of a large joint study between ADF&G, University of Alaska Fairbanks, and the Alaska Energy Authority. Merizon is working with Graham Frye, a PhD candidate at UAE, looking at the birds' movement patterns and distribution and how they might be affected by the construction of a road.

"To date this spring, we have deployed about 50 new collars in addition to what we collared last spring and we're going out at least one more time and plan to deploy more in late summer," he said. "We're hoping to get close to a 100 total collared birds."

Rock ptarmigan surveys are also taking place north of Fairbanks, thanks to Cameron Carroll, the new small game biologist based in Fairbanks. She worked throughout May near Eagle Summit and Eagle Creek,

in a 13-square-mile area bisected by the Steese Highway. In the late 1960s and early 1970s, Fish and Game biologist Bob Weeden established and conducted rock ptarmigan surveys in that area. Carroll is replicating his surveys to compare observations, walking the area and documenting territorial males. So far, she's covered about three-quarters of the area, which is popular with hunters.

"Based on what we've been able to cover, there are a lot fewer birds," she said. "A number of things could be going on – general population fluctuations, spring hunting, and the quality of the habitat may have changed. They seem to be breeding earlier this year. But he had a lot more birds out there, more than a hundred, and I've seen 14." Carroll will be conducting ruffed grouse surveys as well, and looking into some habitat improvement projects for grouse.

Video is available showing the use of a noose carpet and net gun to capture ptarmigan and the processing and deployment of the radio collar. Video is also available of sharp-tailed grouse courtship at a lek in Interior Alaska. For more on ptarmigan, see the Small Game website www.smallgame.adfg.alaska.gov



Photo: Rick Merizon



Recent Publications by TWS - AK Chapter Members

We would like to highlight the contributions of Chapter members to wildlife science. If you or your colleagues have recently published articles in peer-reviewed journals, please send the citation to Jerry Hupp (jhupp@usgs.gov). The following are some papers that were recently published by Chapter members.

Amundson, C. L., J. A. Royle, and C. M. Handel. 2014. A hierarchical model combining distance sampling and time removal to estimate detection probability during avian point counts. *Auk* 131:476-494.

Booms, T. L., G. L. Holyrod, M. A. Gahbauer, H. E. Trefry, D. A. Wiggins, D. W. Holt, J. A. Johnson, S. B. Lewis, M. D. Larson, K. L. Keyes, and S. Swengel. 2014. Assessing the status and conservation priorities of the short-eared owl in North America. *Journal of Wildlife Management* 78:772-778.

Bryant, J. P., K. Joly, F. S. Chapin III, D. L. DeAngelis, and K. Kielland. 2014. Can antibrowsing defense regulate the spread of woody vegetation in arctic tundra? *Ecography* 37: 204-211.

Christie, K. S., M. S. Lindberg, R. W. Ruess, and J. A. Schmutz. 2014. Spatio-temporal patterns of ptarmigan occupancy relative to shrub cover in the Arctic. *Polar Biology* DOI:10.1007/s00300-014-1504-z.

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