



The Alaskan Wildlifer

Newsletter of the Alaska Chapter of the Wildlife Society

Spring Issue - April 2019



Message from President Nate Svoboda

Hello fellow wildlifers! I want to begin this message by first thanking each one of you for your commitment and dedication to ensuring Alaska's wildlife and their habitats are healthy, productive, and sustainable. As the spring season nears, many of you are likely preparing for the upcoming field season and getting ready to head out into the Alaskan backcountry to enjoy the wilderness and wildlife we work so hard to maintain. As you bushwhack through the salmon berries, struggle through the devil's club, swat the mosquitoes and no-see-ums, and precariously scale the precipitous cliffs and edges in an effort to get the job done, keep in mind the work you do is important, significant, valuable, and greatly appreciated. Your sore muscles, blistered feet, bites, bumps, and bruises help to make Alaska the wild, untamed place we all prefer it to be. In addition to your hard work protecting our resources, I also want to thank you for your interest and involvement in The Wildlife Society. The participation and involvement the Society receives from our membership is critical to the success of our organization. Thank you for your continued involvement and contributions.



As many of you know, we recently wrapped up this year's annual meeting which took place in Juneau at the Elizabeth Peratrovich Hall. This year's meeting was an incredible success and quite possibly the largest TWS meeting ever held in Juneau with over 130 registered participants! The theme of this year's plenary session "Forest-Wildlife Relationships" was headlined with outstanding presentations from Matt Kirchoff (*The Tongass in Transition: A Look to the Past*),

and Sophie Gilbert (*The Tongass of Tomorrow: Emerging Trends and Needs for Research in Changing Southeast Alaska*). Their presentations provided a fantastic overview of the history of the Tongass National Forest and what the future might hold. Numerous oral and poster presentations followed covering a variety of wildlife, forestry, and conservation topics. For the first time, the planning committee implemented "Spark Talks," providing speakers 5 minutes to present on ongoing research projects, useful field techniques, or other valuable information. The chapter hosted various social events including a student/professional mixer, quiz bowl, and our annual awards banquet (more details inside). The Executive Board had a productive meeting with the students from UAF, UAA, and UAS and are working toward a statewide student chapter that includes student members from all 3 campuses. During our annual business meeting we discussed ways to further engage our student membership as well as encourage additional involvement from our current and past members. We are in the process of restructuring our Conservation Affairs Committee and increasing our efforts with the COWCH (Celebrating Our Wildlife Conservation Heritage) program. We are looking for additional members to participate in all of these committees so please consider getting involved in one or more of these important projects.

Thank you once again for your efforts and dedication to our wild Alaskan resources. Enjoy your spring and summer and please contact me or one of our Board for further information on getting involved in *your* Chapter of TWS. Cheers!

Issue Highlights

- Regional News.....p. 2 - 6
- Annual Meeting Summary.....p. 7 - 9
- Getting Involved in the Alaska Chapter...p. 10
- More Women in Wildlifep. 11- 13
- Chapter Letter to Acting Secretary of Interior, David Bernhardt, on Draft EIS for Arctic National Wildlife Refuge Coastal Plain Oil and Gas Leasing Program.....p. 24 - 29

Regional News

Northern

Kerry Nicholson, Northern Representative

Personnel Changes

At U.S. Fish and Wildlife Service (USFWS) in Fairbanks, **Jimmy Fox** is moving from his position as Deputy Field Supervisor to become Refuge Manager of Yukon Flats NWR.

Additionally, 3 Arctic Refuge staff are moving on to other phases of their lives; **Janet Jorgenson** and **Hollis Twitchell** both recently retired, and **Alfredo Soto**, has moved to Cabeza Prieta National Wildlife Refuge.

Retired ADF&G Biologist, **Lloyd Lowry** passed away on November 25, 2018. Please see pg. 15 for the full memorial article.

Retired USFWS Biologist, **Rodney King** passed away on December 24, 2018. Please see pg. 21 for the full memorial article.

Retired ADF&G Biologist, **Dot Simpson** passed away on January 10, 2019. Please see pg. 30 for the full memorial article.

Retired ADF&G Biologist, **Jean Ernest** passed away on February 14, 2019. Please see pg. 32 for the full memorial article.

Graduate Student News

Elise Marie Stacy, a 2018 graduate of the UAF Wildlife Biology program and former student UAF TWS chapter president, has been accepted into the graduate program in wildlife biology at the University of Idaho. She will study wolverine genetics in the lab of Dr. Lisette Waits. The project is being facilitated by the Wildlife Conservation Society with a grant from the National Park Service Northwest Arctic Subsistence Regional Advisory Council, and



TWS-Alaska Chapter Regions: Northern, Southcentral, and Southeast.

will be based on material collected in Alaska. She also recently received a generous private scholarship from Dr. Randy Zarnke (pictured). Dr. Zarnke has set up a fund for graduate students wishing to study furbearers. He is also the current president of the Alaska Trapper's association, which also provides grants to students wishing to study aspects of furbearer biology and management. Elise's project will be titled: "Researching wolverine dispersal and population dynamics in northern Alaska using genetic techniques."

This study will begin to investigate wolverine dispersal over the Brooks Range, and from eastern to western Alaska. Wolverine population resilience will be better understood by gaining this information. Changes in snow depth, persistent spring snow, and land development may impact wolverine populations, and understanding how connected populations are can indicate how they will respond to environmental changes.

Elise will work closely with wolverine hunters and trappers from Fairbanks, Wiseman, Arctic Village, Utqiagvik, Kotzebue, and other areas across interior, subarctic, and arctic Alaska to obtain tissue samples from trapped wolverines. She hopes to get trapper and



Regional News - Continued

fur handler's perspectives on the importance of wolverines in Alaskan culture and trapping economy. Elise will also collaborate with local, state, and federal wildlife agencies for funding, sample procurement, and sample storage. Detailed location information will be requested for each sample such that spatial analysis can be employed with the genetic data. This will ensure a broad geographic spread across subarctic and arctic Alaska.

Anticipated findings include large scale population differences as well as information on individual dispersers, relatedness among individuals, and familial relationships. This data can tell us where young wolverines disperse, where they decide to breed, and could help indicate important areas for wolverines and how connected they are. Elise will also continue collaboration with North Slope Borough Department of Wildlife veterinarian, Raphaela Stimmelmayer, by sending her carcasses from the interior to compare body condition and overall health of wolverines.

Opportunities

Online Graduate Certificate focusing on Military Land Natural Resource Management are available from various universities, including North Carolina State University and Colorado State University. More information for both certificate programs you can find below.

- Graduate Certificate in Military Land Sustainability from NC State University militarysustainability.cnr.ncsu.edu
- Graduate Certificate in Sustainable Military Lands Management from CSU www.online.colostate.edu/certificates/sustainable-military-lands-management

Southcentral

Kim King Jones, Southcentral Representative

Personnel Changes

Governor Mike Dunleavy appointed **Doug Vincent-Lang** as the new ADF&G Commissioner. Mr. Vincent-Lang subsequently appointed **Eddie Grasser** as Director of the Division of Wildlife Conservation.

Jeff Stetz is the new ADF&G Research Coordinator in Palmer (written by Gino DelFrate)

Please welcome Dr. Stetz to the Division of Wildlife Conservation. Jeff received his BS degree from Michigan State University, and his MS and Doctorate from University of Montana. He most recently was working for the University of Wisconsin Stevens Point and doing contract work on a variety of studies. Prior to that he spent much of 12 years in the Glacier National Park area on the noninvasive genetic sampling program. He is an Associate editor for Journal of Wildlife management and certified wildlife biologist. He has a strong interest in mentoring young professionals. Jeff began work on January 2, 2019. New ADF&G Threatened, Endangered, and Diversity (TED) Program Coordinator (written by Chris Krenz)

Please welcome **Tracey Gotthardt** as the new TED Program Coordinator. She brings considerable expertise and leadership to the position. From 2000-2015 Tracey led the Zoology Program at the Alaska Natural Heritage Program where she worked very closely with DWC's Non-game Program (now the TED Program). Among many other projects, she helped establish Alaska's original State Wildlife Action Plan and developed the Alaska Species Ranking System, which both help guide the work of the TED Program. Between 2015 and 2017, Tracey was the Program Manager for the Ko'olau Mountains Watershed Partnership on O'ahu, Hawaii, and she is currently wrapping up as the Director for the Applied Environmental Research Center and the Center for Strategic Partnership and Research at UAA. Tracey earned her Master's at UAA studying the foraging ecology of harbor seals.

In October, **Mitch Ellis** Chief of Refuges for USFWS in Alaska transitioned to Chief of the Division of Natural Resources for the National Wildlife Refuge System Washington D.C.

Also in October, **Allan Miller** retired after 22 years at Togiak National Wildlife Refuge. As with many other wildlife professionals, Allan and his wife came



Regional News - Continued

to Alaska from the lower 48 “for two years” for a big adventure. They loved the area and their jobs so much they chose to finish their careers and raise a family in Dillingham. They will be splitting time between Colorado and Alaska including doing some volunteer work at Togiak Refuge during summers.

Rita Miraglia began working as the new USFWS Alaska Region Archeologist.

Elizabeth Powers, USFWS National Wetland Inventory coordinator, recently accepted a position at USGS.

After an incredible 42-year journey in Alaska fish and wildlife management across ADF&G and USFWS, **Doug McBride** has retired from the USFWS Wildlife and Sport Fish Restoration Program on Jan 31.

Opportunities

Round Island Viewing Permits Available September 1

Famous for its summertime congregations of bull walruses which often gather by the thousands, Round Island will open to visitors May 1 through August 15. Operations typically include a camp staffed through the summer by department personnel who work to protect and monitor walruses and other wildlife and oversee a visitor use program and campground. Access permits for camping or day visits are available [here](#).

Animal Planet- “Into Alaska”

A new 10-part series has launched on Animal Planet taking viewers inside Alaska’s wildlife refuges, highlighting Kenai and Kodiak national wildlife refuges. On “Into Alaska,” the camera follows a refuge law enforcement officer responding to capsized boaters, researchers trekking into remote areas to monitor bear and salmon and a biologist training to become a pilot to conduct aerial wildlife surveys. Learn more about the series [here](#).

Upcoming Events

Gunsight Mountain Hawkwatch – April 20 and 21

This unique northern migration site, located 120 miles northeast of Anchorage, has been known as a good location to see migrating spring raptors since the 1970s. This valley migration site is best known for its large concentrations of the Harlan’s subspecies of Red-tailed Hawk, but good numbers of Golden Eagles, Rough-legged Hawks, Northern Harriers, Sharp-shinned Hawks, Bald Eagles, and Northern Goshawks can also be seen from March – May. The Big Hawkwatch Weekend is Saturday and Sunday, April 20 & 21 at Mile Post 118.8 on the Glenn Highway. Learn more about this even by visiting the Mat-Su Birders [website](#).

Potter Marsh Discovery Day – Anchorage, June 1, 2019

Help celebrate Anchorage’s most popular wildlife viewing area at this free annual event. This family-friendly nature festival brings you birding stations along the boardwalk, captive birds from Bird TLC, education animals from the Alaska Zoo, archery and spin casting practice, hands-on nature activities for kids, release of a rehabilitated wild bird, and more. For more information, visit ADF&G’s [website](#).

Fun on the Flats – Reflections Lake June 8, 2019

If you are in Southcentral Alaska on Saturday, June 8th, Reflections Lake is the place to be. The popular recreation area, located at Mile 30 Glenn Highway at the Knik River Access exit, will host a family-friendly celebration of the Palmer Hay Flats State Game Refuge from 11 a.m. to 3 p.m. Activities will include nature walks, bird identification instruction, bear spray demonstrations and fly-casting classes. And speaking of fish, anglers young and old can follow the action as the Alaska Department of Fish and Game releases a fresh batch of rainbow trout into Reflections Lake – remember to bring your fishing gear! Find more on Alaska Department of Fish and Game Facebook page.



Regional News - continued

2019 Alaska Birding Festivals – compiled by Riley Woodford

Copper River Delta Shorebird Festival — Cordova May 2-5, 2019

In early May, the tidal flats of the Copper River Delta shimmer with the activity of hundreds of thousands of shorebirds. As many as five million shorebirds rest and feed on the delta during spring migration. The Copper River Delta Shorebird Festival provides the ideal opportunity for bird watchers to be part of this epic migration. Many activities, field trips, workshops and community events are offered throughout the festival, attracting visitors from around the globe. More festival info [here](#).

Kachemak Bay Shorebird Festival — Homer May 9 -12, 2019

The 27th Annual Kachemak Bay Shorebird Festival. Homer's seaside setting is perfect for spotting over 130 migratory bird species, as well as numerous other resident species. Visit the Kachemak Bay Shorebird Festival [website](#) for more information.

Kenai Peninsula Birding Festival — Kenai May 18, May 25, and June 1, 2019

The Kenai Peninsula boasts pristine beaches, beautiful state parks, a fantastic wildlife refuge and, best of all, thousands of birds. This four-day festival is designed to showcase and celebrate peninsula birds for all ages and abilities. Suitable for the beginner as well as the advanced birder, the festival includes informative sessions, social gatherings and birding field excursions. More info on the festival [here](#).

Research and Publications from Southcentral Black Bear Research in Prince William Sound (see full article by Riley Woodford, pg. 17)

Recent Publications:

Johnson, H. E., Gustine, D. D., Golden, T. S., Adams, L. G., Parrett, L. S., Lenart, E. A., & Barboza, P. S. (2018). NDVI exhibits mixed success in predicting spatiotemporal variation in caribou summer forage quality and quantity. *Ecosphere*,

9(10). <https://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecs2.2461>

Ramey, A. M., Cleveland, C. A., Hilderbrand, G. V., Joly, K., Gustine, D. D., Mangipane, B., ... & Yabsley, M. J. (2018). Exposure of Alaska brown bears (*Ursus arctos*) to bacterial, viral, and parasitic agents varies spatiotemporally and may be influenced by age. *Journal of wildlife diseases*. <https://www.jwildlifedis.org/doi/abs/10.7589/2018-07-173>

Magness, D. R., & Morton, J. M. (2018). Using climate envelope models to identify potential ecological trajectories on the Kenai Peninsula, Alaska. *PLoS one*, 13(12), e0208883. <https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/ecs2.2575>

Deacy, W. W., Leacock, W. B., Stanford, J. A., & Armstrong, J. B. (2019). Variation in spawning phenology within salmon populations influences landscape-level patterns of brown bear activity. *Ecosphere*, 10(1), e02575. <https://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecs2.2575>

Southeast

Susannah Woodruff, Southeast Representative

Research Updates

Mountain Goat Population Structure

Beginning in 2019, National Park Service biologists, **Tania Lewis** and **Kiana Young**, and Alaska Department of Fish and Game biologist, **Kevin White** are teaming up with Dr. Aaron Shafer of Trent University to examine population structure of mountain goats within Glacier Bay National Park and Klondike Gold Rush National Historic Park. Researchers will use DNA extracted from non-invasive pellet collection to identify populations that may be vulnerable to human disturbance and climate change due to small numbers and isolation. This work builds on several years of collaboration between ADF&G and Trent University examining the population structure of mountain goats across the state. Results from this study will help manage human



Regional News - Continued

use in mountain goat habitat as well as fill in some of the gaps in the state-wide analysis caused by lack of harvest samples in protected areas.

Gretchen Roffler, Susannah Woodruff, and Oregon State PhD student, **Aimee Massey** attended the International Wolf Symposium in Minneapolis, Minnesota October 11 – 14. Gretchen and Aimee presented results from their collaborative work using molecular methods to quantify wolf diets. Aimee discussed how using metabarcoding techniques has identified more wolf prey species than previously recorded, and Gretchen described shifts in prey preference over time based on these results. Susannah discussed patterns of wolf predation and elk spatial response to wolves in northwest Wyoming.

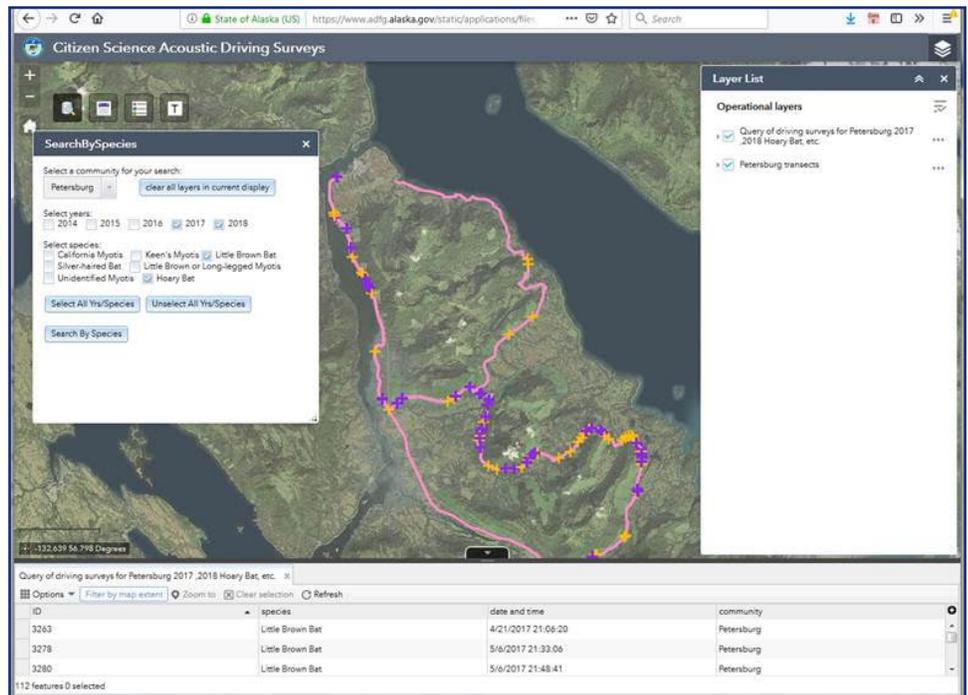
Citizen Scientists Assist with Bat Detection

For the last 5 years, citizen scientists in Southeast Alaska have been helping ADF&G's TED program and the U.S. Forest Service study bats by conducting acoustic driving surveys. Residents in 6 Southeast communities and Cordova drive established transects with a bat detector attached to an ultrasonic microphone that is mounted on the roof of a vehicle. Data collected by these citizen scientists are helping researchers understand species diversity, distribution, and habitat associations, monitor bat population trends, and identify potential bat overwintering areas.

Now a new online map will allow the citizen scientists to query and view data they have been collecting. ADF&G research analyst **Jenny McBride** developed the map using ESRI's ArcGIS Web AppBuilder (Developer Edition). She created custom widgets to enable querying the data by survey date or species. The "SearchByDateMulti" widget

allows users to view the results of one or more individual surveys for a community. Users select one or more years and months of interest, generating a list of survey dates from which to choose. Alternatively, users can use the "SearchBySpecies" widget to view locations of one or more species of interest.

Once a selection has been made, a map opens displaying the driving transect routes and calls. Each species is represented by a different symbol, while different years are displayed in different colors. The legend can be toggled on and off to maximize map display space. Clicking on a call will display a pop-up listing the species, date, and time of the call. A table containing attribute information for all calls in the query can be toggled on and off at the bottom of the map. Users can zoom to the location of a particular call by double-clicking on its row. To view the map, go [here](#). For more information on the Citizen Science Acoustic Driving Survey program, contact program coordinator **Tory Rhoads** (tory.rhoads@alaska.gov) or visit: <http://www.adfg.alaska.gov/index.cfm?adfg=citizenscience.batsacousticmonitoring>.



Example of the maps that can be queried using ADF&G's mapping program.



2019 Alaska Chapter of the Wildlife Society Annual Meeting

By Kim Jochum

Our Alaska Chapter of the Wildlife Society Annual Meeting held 26-28 February 2019, at Elizabeth Peratrovich Hall in Juneau was a great hit! Not only did we have 4 days of sunny and warm weather in Juneau, we also had 134 people attend our workshops and conference – the largest number of people that have attended an Annual Meeting in Juneau. Over a quarter of participants were students and early career professionals!



Keynote Presentation by Dr. Sophie Gilbert, February 27th 2019.

Our theme this year was Forest-Wildlife Relationships, an important issue in Southeast Alaska. Our keynote speakers, Dr. Sophie Gilbert and Matt Kirchhoff, provided an overview of past, current, and future needs and challenges for managing and conducting research in the Tongass National Forest. The following special session on Forest-Wildlife Relationships explored additional ongoing research in forest systems throughout Alaska, including presentations on wolf dietary shifts, plant understory habitat changes, northern goshawk forest management, bat habitat use, and spatial segregation of marten.

Our new Spark Talks session was also a big hit! Presenters gave 5-minute fast-paced presentations on research findings, ideas of future research foci, research challenges and applications. Presentations ranged from how to improve wildlife habitat models, place-based conservation, and harvest management, to exploring DNA metabarcoding, eDNA, and Infographics.

Fourteen high-quality posters were presented during the Poster Session, focusing on various topics and species. Our General Sessions yielded topics ranging from ungulate health and movement, and bear denning, to small mammal habitat use and stress-hormone detection.

All our social events were well attended and everyone took advantage of connecting with peers, students and professionals. Thanks to our three student representatives organizing the student-professional mixer at the brewery and the Quiz Bowl!

A small group attended the field trip on Friday to Mendenhall Glacier and had an amazing time. Thank you to the U.S. Forest Service, specifically Gwen and Marci for being our tour guides!



Banquet, February 27th 2019.



Annual Meeting - Continued



Mendenhall Glacier Field Trip, March 1st 2019.

For additional information on presenters and agenda, please download our program [here](#).

Many thanks to our amazing Organizing Committee: Kim Jochum, Nathan Svoboda, Scott Brainerd, Kaiti Ott, Susannah Woodruff, Kerry Nicholson, Kim King Jones, Heidi Hatcher, Bonnie Bennetsen, Amanda Droghini, Marci Johnson, Yasaman Shakeri, Kim Titus, Dave Gregovich, Cade Kellam, Valentina Melica, and Jeff Wagner.

And many thanks to all our additional volunteers! Including Justin Smith, Paul Schuette, Tory Rhoads, Clint Cooper, Dan Jenkins, Gabrielle Camp, Bob Wiltzen, Nils Pederson, Megan Perra, Allison Brooking, Anthony Crupi, Timm Nawrocki, Monica Ague, Mary Hostetter, Lori Beraha, Tessa Hasbrouck, Stephanie Sell, Ross Dorendorf, Lory Polasek, Emily Richmond, Sue Goodglick, Garrett Savory, Tessa Hasbrouck, Mark Lindberg, Jason Waite, Gwen Baluss and everyone else who helped. You did an amazing job and without your involvement this meeting would have been far less successful. From making coffee to manning the registration desk and setting up the venue, you were truly indispensable to ensuring that the conference ran smoothly. It meant a lot to the organizing committee knowing we had a solid team of

helpers that we could rely on, and we really appreciate you offering your time and enthusiasm.

Our main sponsors were the USFS, ADF&G, USGS, Juneau Audubon Society, Coppa, and Sentinel Coffee. Thank you for supporting us!

If you have any feedback for us to improve our next conference experience, please let us know @ twsalaska@gmail.com.

Congratulations to the Wildlife Conservation Award Winners!

Lifetime Achievement



Rick Johnson

Lifetime Achievement



Audrey Magoun



Congratulations to the Student Presentation Award Winners!

Oral Presentations

Tied for 1st Place!

Nils Pedersen

Presentation title: Use of Forward Looking Infrared for bear den detection in Alaska's Arctic

Michelle Quillin

Presentation title: Bioaccumulation of mercury in northern fur seals relative to rookery fidelity at St. Paul Island, Alaska

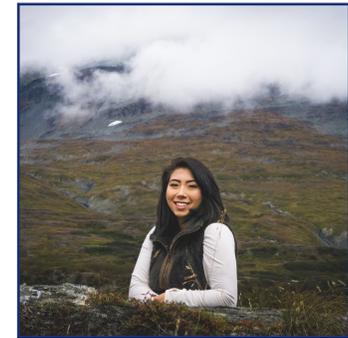


Nils Pedersen

Third Place

Valentina Melica

Presentation title: Biomarkers for reproduction and metabolism in large whales from the North Pacific



Michelle Quillin

Poster Presentations

First Place

Nicole DeLuca

Poster title: Spatial and temporal variation of forage availability for Sitka black-tailed deer in Prince William Sound, Alaska.

Second Place

Marianne Lian

Poster title: Oxidative stress and glutathione peroxidase in Steller sea lions: Associations with mercury and selenium status.



Valentina Melica

Third Place

Shelby McCahon

Poster title: Different methods for measuring plasma protein concentrations produce different results: a study comparing the Bradford assay and refractometry in three Alaskan species



Nicole DeLuca



Marianne Lian



Shelby McCahon



Get Involved in the Alaska Chapter!

There are many opportunities to get involved with the Alaska Chapter! We are looking for enthusiastic people that would like to help shape the future of the Alaska TWS Chapter. Let us know what you are interested in, by sending us an email: twسالaska@gmail.com.

Working Groups

We are currently setting up Working Groups (WGs). Each WG within the Chapter focuses on achieving specific tasks and goals. Participating in a WG is a short-term time commitment (regular bi-monthly conference calls with occasional emails and specific tasks assigned, maximum one to two-year).

Student Development WG

Current identified objectives include: Join chapters across UA (UAA-UAS-UAF), identify interests and possible activities to be taken on by students chapter members, oversee COWCH program. ***April Conference call: Tuesday, April 23 from 1-2 pm.**

Chapter Development WG

Current identified objectives include: Develop financial strategy, review and revise bylaws, Member recruitment. ***April Conference call: Monday, April 15 from 12-1 pm.**

Conference Planning WG (Anchorage 2020 Meeting)

Current identified objectives include: Identify dates and venue, identify theme, side meetings, social events; Implement remote participation at future meetings; increase participation of various groups (e.g., fed, remote). April Conference call Poll: <https://doodle.com/poll/agr2rz9hekkmgwmt>

If you are interested in joining a WG, participate in the doodle poll and leave your email contact in the comment section, or send us an email (twسالaska@gmail.com) and we will get you connected!

Committees

The Chapter has one long-standing Committee, the Awards Committee, and one Committee that is under development and will officially become a standing committee this year, the Conservation Affairs Committee (CAC).

Awards Committee

The Awards Committee advertises and evaluates award submissions for our various Chapter awards available to wildlife professionals and students. The Awards Committee is currently looking for 2 new recruits. We are looking to diversify our member base. Please consider joining!

Conservation Affairs Committee

This committee is under development and the group is involved in identifying needs and drafting letters regarding conservation affairs that are relevant to the Alaska TWS Chapter.

If you are interested send us an email (twسالaska@gmail.com) and we will get you connected!

Executive Board

Executive Board Positions will need to be filled again by next winter. Think about getting involved in our Chapter in a leadership position. Positions up for re-election by fall 2019 will be:

- President-Elect
- Secretary-Treasurer
- Northern Representative
- Southcentral Representative
- Southeast Representative

If you think you could be interested in taking on one of these roles in the future, consider getting involved in another capacity, like a WG, so we can get to know you and you can get to know us!



More Women Move Into Wildlife Management Jobs

By Rich Landers, The Spokesman Review

Previously published by *The Billings Gazette*

Annemarie Prince's family frequented the Florida Woods where the kids were unleashed to fish in the creek, explore, and get dirty. "The coolest thing was catching something live with my hands," she recalled. Today, Prince is Washington's district wildlife biologist in Colville, coordinating an office of two men and two women who help manage creatures of all sizes, including wolves, deer, elk, moose, and grizzly bears.

Melia DeVivo, adopted at age 3 by American parents from an orphanage in Korea, hadn't heard of wildlife biology when she graduated from high school. Thirty years later she has a Ph.D. in the field and she's coordinating research on predation, disease, and other critical issues related to Washington's big game.

Sara Hansen grew up a Midwest farm girl and self-described "science and math nerd." Today, she's Washington's Statewide Deer Specialist working on models for counting deer populations, including animals that can't be seen.

The three scientists are in a growing wave of women moving into wildlife management positions in state and federal agencies as well as private companies, organizations, and universities. While women make up about 30 percent of the Washington Department of Fish and Wildlife's Wildlife Program statewide, and 40 percent in the Habitat Program, seven of the 14 wildlife staffers in the Spokane Region headquarters are women.

The trend is more obvious in the pipeline. "There's been a major shift at the college level," said Lisette Waits, wildlife resources professor and head of the University of Idaho's Fish and Wildlife Sciences Department. Women accounted for 36 percent of the enrollment in university wildlife biology programs across the country in 2005, increasing to 52 percent in 2015, according to a survey Waits helped compile for The Wildlife Society.

"In my view, diversity is healthy for organizations, especially those that deal with public resources," Waits said. Famous primate researchers Jane Goodall and Dian Fossey helped inspire women on a global scale,

especially in nongame wildlife, she said, adding, "But women nowadays are interested in all the fields men have traditionally been interested in. That includes field work, she said.

"Physicality is more of a historic difference between men and women in field work," Waits said. "Men used to be more involved in moose and grizzly research, but there are many examples of women with excellent careers working on large carnivores or ungulates. "Research projects have teams of people, some doing physical work, some intellectual. Some men may be stronger while some women may have more endurance to be out there all day walking the hills to collect data."

In recent years, females have made up 60-70 percent of enrollment at Washington State University's School of Environment, said Professor Lisa Shipley, who specializes in big-game forage and nutrition. "It's a full phenomenon in biology in general," Shipley said. "Males are still the majority in fields like physics and engineering, but in biology and veterinary medicine it's pretty much flipped."

DeVivo was on track toward medical school when she saw a notice posted by an ecologist at Indiana University of Pennsylvania seeking a field technician for an elk calf study. "I had no idea what an elk calf was," she said. "But I was convinced I needed to look at the world in a different way, since medicine didn't seem to be my passion. The ecologist took a chance, throwing me in the field with another tech in a cabin with no running water or electricity for a summer. I absolutely loved it."

Catching elk calves and snuggling radio-collars on them changed her career path. She went on to work with the Pennsylvania state wildlife veterinarian, who introduced her to wildlife necropsies and insight into wildlife diseases. That led to her doctorate through the University of Wyoming involving chronic wasting disease in mule deer. "My timing was perfect" for the position that opened with the retirement of veteran WDFW research biologist Woody Myers in 2017.

According to a report published by The Wildlife Society, roughly 75 percent of the country's natural



Women in Wildlife - Continued

resource professionals have retired in the past 10 years, opening opportunities. Most of the Wildlife Program women in top slots in the Spokane Region have filled positions vacated by retirements. “Most male biologists I work with are excited to see the change,” Waits said. “Many have daughters they want to have the same opportunities as their sons.”

“I would never want to come off saying it was bad in the past because of a low ratio of women in the career,” DeVivo said. “But having more diversity helps our agency to better connect with the broader range of the public.”

Five college students — all women — volunteered for a weekend last fall helping state biologists process animals coming through the WDFW hunter check station at Deer Park. “The top women wildlife biology students are super enthusiastic,” Shipley said. “They’ll do anything they can to get through the door — a lot of volunteer work, field tech positions, paid or unpaid. The ones who want it, want it real badly.”

Hansen joined WDFW in time to get her feet on the ground and poised to fill a new statewide deer specialist position the agency created four years ago. She’d been preparing for years. She was studying biology, geography and chemistry as an undergraduate in California when she started seeing connections between her academic interests and wildlife professions.

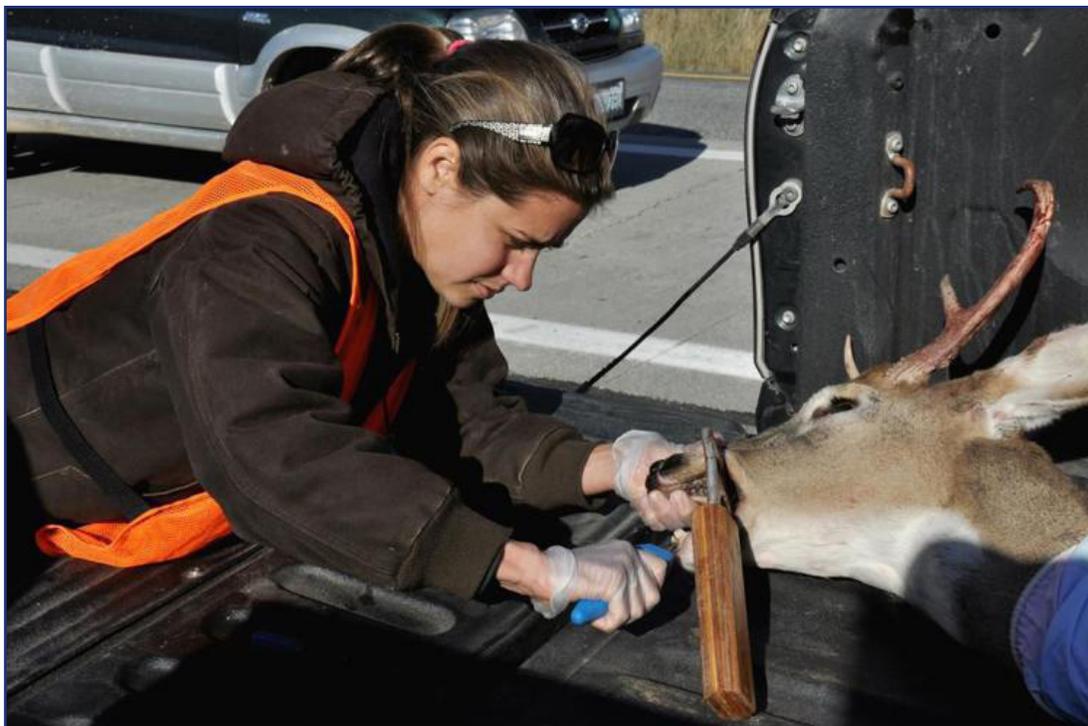
For a decade, Hansen crossed the country for seasonal technician jobs in 10 states. “One of my first internships was working with gray

squirrels in Klickitat County before moving to work on other wildlife, including desert tortoise, sagebrush songbirds, swift fox, bobcat, gray wolf, raccoons, wild turkeys, and deer,” she said. “I was also an Endangered Species Biologist for the National Park Service.

“That broad background has given me a huge set of tools, experience and context to use for my job. I didn’t realize it at the time. I just wanted to try everything I could. I jumped around learning from so many people from so many other backgrounds. That gave me a huge set of options.”

For master’s research on coyotes and deer in upstate New York she tapped songbird survey techniques she’d learned. “It worked because of the way coyotes vocalize,” she said. “I essentially built a sound model that can help estimate their abundance. “You never know what information is going to be useful later in a career in wildlife biology. Everyone has a different approach to advancing in this field.”

As Washington’s deer specialist, her job involves developing population models and coordinating



Annemarie Prince, Washington Department of Fish and Wildlife district biologist based in Colville, takes a tooth sample from a deer at an autumn hunter check station near Deer Park.
Rich Landers, Spokesman-Review



Women in Wildlife - Continued

surveys across the state for blacktail, mule, and white-tailed deer. The data is critical in the setting of state big-game hunting seasons.

Wildlife management blossomed as a profession in the 1940s led by Aldo Leopold, a University of Wisconsin ecologist and avid hunter. “Historically, men have been more interested than women in hunting,” Shipley said. “Hunting likely translated in many cases to an interest in wildlife management or enforcement. But as the field changed to become more ecosystem-based, with more emphasis on things like plant communities and nongame species, more women started saying, ‘Yes, this is a profession I can do.’”

“The great thing about our field,” Hansen said, “is that we’re all here for the same reasons: to further wildlife science, study population dynamics, and perpetuate species and ecosystems.”

“As hunting is declining across the United States,” Shipley said, “other values of wildlife have become more prevalent. More and more people are living in urban areas and they may be thinking of wildlife in different ways than students from rural areas.” Washington’s population, for example, has more than doubled in the past 50 years to 7.4 million, with most of the increase in urban areas. “While a lot of my female students are not involved in hunting,” Shipley said, “I encourage all of them to understand what it’s all about.”

Prince said that for a few years before being hired as a wildlife biologist in Washington she had been a vegetarian because of a personal objection to the environmental abuses of large-scale animal industries. “I was never anti-hunting,” she said, noting that she’s a full-fledged omnivore nowadays. “I bird hunted and liked it, but I didn’t go after big game, mostly because I didn’t have a rifle, a place to hunt or somebody to hunt with — the things that keep a lot of adults from being hunters.”

But she had some advantages...

“While staffing deer hunter check stations in Florida, I learned how to shoot the bull with hunters,” she said. And when she finally put it all together and shot her first deer in Washington a few years ago, the rest was easy. “I’d already done necropsies on deer, so gutting it out was no big deal. I love the idea of living off wild meat from my freezer and vegetables from my garden.”

DeVivo got into hunting through her interest in wildlife biology rather than the other way around. “I was a large-game researcher at the time and since hunters were the major user group, I wanted to fully understand where they were coming from when talking to them,” she said. “I took hunter education. I wanted the experience of harvesting an animal.”

After bagging her first pronghorn in 2011, DeVivo has hunted every fall. “That’s how I get my meat for the year now,” she said. “I totally appreciate that. It’s helped me both personally and professionally. I suppose I go about field dressing a buck a bit differently than most hunters. I skin it, and I’m careful to keep the meat cool and clean. But I’m always poking around, satisfying my curiosity on whether the animal is pregnant, whether a bump is a tapeworm cyst or whatever. And I always collect samples of brain stems for whatever agencies might want.”

In the early 1980s, WDFW Habitat Biologist Carmen Andonaegui recalls being “the only female wildlife biologist on field projects” out of the Spokane region. Now she’s the agency’s Habitat Program Manager in Ephrata supervising a unit of five women and one man. She worked early in her career to give watershed planning more footing in agricultural practices in order to protect wildlife-rich shoreline habitat and fisheries. It was a hard sell to Palouse farmers bent on channelizing streams through croplands, she said.

“I feel much more comfortable nowadays dealing with people in agriculture and timber,” she said, noting that cultural changes have improved the working environment for women in wildlife. “I just hired the most qualified candidate I had for an environmental engineer position. It was a woman. As long as they’re educated, qualified and motivated, I say get out of their way.”



Sharing Pictures with Fish and Game

By Riley Woodford

Alaskan Liz Luber harvested a caribou in 2018 and shared the photo with Fish and Game. While the image features the caribou, it highlights the fact that this was a family hunt.

Every year, hunters and anglers contribute photos to Fish and Game. The Division of Wildlife Conservation prints photos in the hunting regulations, and others are used on our website and in educational brochures and outreach materials. Pictures that convey the hunting experience are particularly welcome: hiking, boating, camping, field dressing, and packing out game.

Photos can be emailed as jpegs with information about the hunting trip and a sentence granting Fish and Game permission to use the photo. A permission form with details is available with the contact information at the end of this article.

Proud parents donate most of the photos we receive, and that's understandable. It's great to see young hunters in the field, and in recent years, a third or more of these young hunters are girls. But we want to represent the range of ages of hunters and outdoor enthusiasts, and we don't want to give the impression we only want photos of young hunters.

The aesthetic of hunting and fishing photography has changed in recent years. You still see pictures of an angler thrusting the fish broadside at the camera, but more and more, in magazines and websites you see pictures of anglers kneeling in the shallows, releasing the fish, or friends and family together. The landscape and surroundings are featured more often, giving context. Hunting pictures have changed as well. It's rare to see blood in a "trophy" photo these days, and animals are posed against scenic backgrounds showing the landscape of the hunting area.



Liz Luber took this young bull with the entire family in tow, two miles from motorized access off the Denali Hwy in Unit 13. Scott, Liz, Sage 5, Aspen 3, Juniper 1, Paisley 6.

Other Western states and Canadian provinces include hunter-donated photographs in their regulations, but many do not include trophy shots of harvested animals. Instead, wildlife is featured in natural settings, or hunters afield engaged in hunting activities. The Illinois Department of Natural Resources provides advice on "How to take harvest photographs" and encourages hunters to take photographs, "...that respect the animal and

convey hunters as the conservationists they are."

Suggestions include: conceal wounds, and put the animal's tongue in if it is sticking out; don't pose kneeling, stepping or sitting on the animal; avoid laying a bow or firearm on the animal; take photos of cooking the meat and other beneficial uses of the animal; and set up your photo to convey a story about the hunt, not the result.

Fish and Game uses trapping photos in the trapping regulations booklet, and photos donated by trappers are appreciated. Photos of wildlife and wildlife viewing are also welcome and useful.

The Division of Sport Fish also uses and archives fishing-related photos contributed by the public. The covers of the annual fishing regulations feature a picture of a young person fishing, an image that represents what fishing means to young people and their families. Those photos must be received by Sept. 30 for publication the following year. ADF&G publishes four different regulation booklets, specific to different areas of the state, and each has a different cover. More information on [submitting fishing photos](#) is available online.

Submit photos of your hunting experiences, wildlife viewing, wildlife, and trapping to riley.woodford@alaska.gov, or use this [photo submission form](#).



In Memoriam – Lloyd Lowry (1950 - 2018)

By Kathy Frost, Frances Gulland, Randy Reeves, Doug DeMaster, Don Bowen, and Ian Stirling

Lloyd Lowry, one of Alaska's best-known marine mammal biologists, died peacefully in Kailua-Kona, Hawaii on 25 November 2018, after a sudden, brief illness with pancreatic cancer. Lloyd was born on 16 January 1950 in New Bedford, Massachusetts, USA and grew up within a few miles of where he was born. He received his Bachelor's degree in Biology from Southeastern Massachusetts University in 1971, then moved to Santa Cruz where he attended the University of California, Santa Cruz and received his Masters of Science in 1975. While in Santa Cruz, Lloyd met his fellow student and life-long partner of 45 years, Kathy Frost, whom he married in 1979.

In 1975, Lloyd accepted a job offer from John Burns at the Alaska Department of Fish and Game (ADFG) to study the trophic interactions of ice-associated seals in Alaska. He and Kathy moved to Fairbanks and for the next 25 years they conducted ground-breaking research on various aspects of the diet and trophic interactions, interactions with commercial fisheries, distribution and movements, and abundance and trends of marine mammals in Alaska, particularly of bowhead and beluga whales, ice-associated seals, and walrus.

Lloyd finished his ADF&G career as the Marine Mammals Coordinator during which he designed, coordinated, and conducted conservation and research programs for marine mammals throughout the state. He retired in 2000. Lloyd, together with Kathy, was among the scientific pioneers to study the ecology of

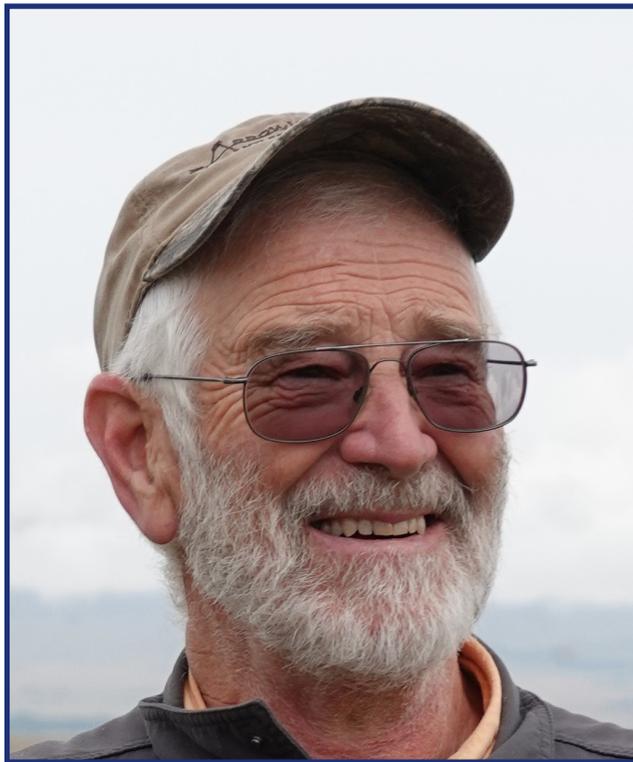
Alaska marine mammals in the field, following in the footsteps of two men he admired, Bud Fay and John Burns.

Lloyd and Kathy helped create and were charter members of the Alaska Beluga Whale Committee (ABWC). Their involvement dramatically influenced a new way of doing business by having hunters, scientists and managers jointly make decisions about the most important information needed, and then use the results to outline actions necessary for conservation and sustainable harvests of beluga whales.

Lloyd applied his scientific rigor and attention to detail to his avocations as well. He and Kathy fielded a world championship sled dog team in Alaska for 20 years, with Lloyd carefully managing training schedules, blood work, and veterinary care. He used his experience commercial fishing for halibut to better understand the interactions between long-line fisheries and marine mammals, particularly killer whales.

After retiring from ADFG, Lloyd and Kathy moved to Kailua-Kona, Hawaii

where they grew subsistence coffee, native Hawaiian plants, and fruit trees. They bought a boat, fished, and traveled the world. From his academic base as an Affiliate Associate Professor at the School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, Lloyd continued to carry out marine mammal research, particularly with beluga whales, and to work with various groups on marine mammal conservation and science projects. He served on a number of advisory groups, including the National Marine Fisheries Service's Alaska Regional Scientific Review



Lloyd Lowry - Continued

Group (Chairman 1994-2000, 2012-2016), the North Pacific Research Board's Science Advisory Panel (2013-2018), the Northwest Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council (2001-2008), and the Endangered Species Act Recovery Teams for Steller sea lions (Chairman 1990-2001), Western Alaska sea otters (Chairman 2006-2011), and Hawaiian monk seals (Chairman 2007-2013, 2014-2018). He also served on panels for the National Research Council (Committee on the Bering Sea Ecosystem, 1994-1996, and Committee on Cumulative Impacts of Oil and Gas Activities on Alaska's North Slope, 2000-2003). The Marine Mammal Commission appointed Lloyd to its Committee of Scientific Advisors (CSA) in 1989 where he was one its longest tenured chairs, serving in that role from 1995-2008.

More recently, Lloyd extended his efforts to the conservation of marine mammals world-wide. He was a member of the IUCN Species Survival Commission's Pinniped Specialist Group and Red List Authority from 1988-2018, the Cetacean Specialist Group from 2016-2018, and was the Red List Coordinator for Pinnipeds from 2012-2018. Lloyd served on the Society for Marine Mammalogy's Conservation Committee beginning in 2010, the Working Group on Marine Mammal Unusual Mortality Events from 2011, and the IUCN Western Gray Whale Advisory Panel as an expert on feeding ecology and fishery interactions.

Lloyd was widely respected for his dedicated work, totally ethical behavior, modesty, generosity, sense of humor, honesty and his consistently independent mind. During his work in Alaska he advised and supported young scientists and encouraged Alaska native hunters to become involved in resource management. His contributions to science and management will remain for many years to come, but his "big picture" insights, thoughtful listening, direct and valuable recommendations, and skill leading diverse groups of people will be missed tremendously.

See the COWCH video interview with Lloyd Lowry and Kathy Frost [here](#).



TWS Awards Program

The Wildlife Society's Awards Program annually honors professional excellence, recognizes outstanding achievement, and highlights contributions to wildlife science and management. We encourage members to recognize the contributions of their peers by participating in the nomination process.

The **Honorary Membership Award**

recognizes continuous outstanding service in any area or areas of concern to the Society. Any practicing or retired wildlife professional who is a member of TWS and has made continuous valuable contributions to the wildlife profession over a long period of time is eligible for nomination. The nomination guidelines for this award can be found [here](#). Past award winners can be found [here](#).

The **Special Recognition Service Award**

honors any person or group that has made an outstanding contribution to the wildlife profession; the general areas of wildlife conservation, management, or science; or a specific area of endeavor, species, community, ecosystem, region, etc. Contributions over the short or long term are eligible. The individual or group need not be a member of TWS. The nomination guidelines for this award can be found [here](#). Past award winners can be found [here](#).

All upcoming award deadlines are **May 1**. Visit our website to see the complete list of [TWS Awards](#) and find out how you can nominate deserving peers and colleagues.

If you have any questions, please contact Lilly Matheson, Member Services Coordinator at lmatheson@wildlife.org.

Black Bear Research In Prince William Sound

By Riley Woodford - ADF&G

Tucked into crevices and caves on two islands in Prince William Sound, about four dozen black bears are hibernating wearing GPS collars. When they emerge in the spring of 2019, these collared animals will provide insights into how bears use their habitat in Prince William Sound – when and where they go, and how it varies between males and females.

Over the past three years, biologists Charlotte Westing of Alaska Department of Fish & Game (ADF&G) and Milo Burcham of U.S. Forest Service (USFS) have captured 96 different black bears on Esther and Knight Islands – including 25 bears this past summer. The captures themselves were a major accomplishment and provided a wealth of information for scientists and managers.

“We are very happy with how it went,” Burcham said. “The captures and collaring exceeded our expectations in the number of bears and our ability to get bears.” The Cordova-based biologists are studying black bears in a particularly dynamic environment. Winters range from mild to extreme (a three-week storm in January 2012 dumped 18 feet of snow on Cordova, in a winter dubbed “the snowpocalypse”). Also dynamic in terms of productivity – summer blueberry and salmonberry crops can be abundant to poor; and also in terms of human use of the region. The area is popular with hunters, and the annual harvest of black bears has trended from fewer than 100 to more than 500.

The project is a partnership between the USFS and the ADF&G. Milo Burcham is a wildlife biologist and leads the Chugach National Forest subsistence program in Cordova; Westing is a wildlife biologist with the Division of Wildlife Conservation for the North Gulf Coast-Prince William Sound area. They



An adult female black bear wearing satellite GPS collar. The collar collects a GPS location every five hours, and transmits locations to a satellite every two days. The collar is programmed to drop off after three years. Photo courtesy USFS/ADFG Prince William Sound Black Bear Study.

outlined some of the goals of the project: Can a boat-based trapping effort capture a representative sample of bears? Are bears using habitats that make them vulnerable to hunting or do they avoid these habitats? Are male and female black bears using these habitats differently?

They’ve answered the first question – yes. Westing said the goal was to deploy about 50 GPS collars, and they accomplished that almost twice over in terms of capture success. She explained why they captured 96 bears and collared about half that number.

“We handled a lot of bears that were not the appropriate size to collar,” she said. “We have a huge slug of young animals moving through the population. The last few years have been good for cub production and retention. We can only collar animals that have substantially reached the size of their frame. We know they get fatter, but we don’t want them getting bigger and fatter and outgrowing their collar.”

Some of the bears will potentially be wearing the collars for three years. Westing added that every bear snared needs to be sedated or tranquilized before it can



Bear Research - Continued

be freed, and while it may be too young and small to collar, it can provide valuable information. “We have to drug them to get them out of the snare,” she said. “And with every bear we handle we take the full suite of samples: blood, tissue, and hair. We’re looking at teeth, weight, and sex.”

Samples collected are archived, and provide opportunities for future studies – for example, a researcher could use a blood sample to look at diseases.

Snaring bears

Foot snares are an effective way to catch bears, and in July of 2018, biologists set up 13 snares on Esther Island. The snares are a bit more sophisticated than a simple loop in a cable and can be monitored remotely so biologists can detect when a set is triggered.

Whether a foot snare is placed in a bucket mounted on a tree, or is on the ground in a bear trail, all are set with VHF trap transmitters that signal biologists when the snare is triggered.

“One of the major goals was to minimize the time in the snare, it’s stressful for the bear,” Burcham said. “We visited every trap site every day to visually check them, but we also had VHF transmitters at all the trapsites. A magnet is pulled off the snare and triggers the signal, which goes from a slow pulse rate to fast pulse rate.” Each foot snare is assigned a different frequency, and a biologist can quickly scan the frequencies with a VHF radio receiver and check the pulse signal remotely through the day. That meant bears did not spend much time in the snare.

Processing

When biologists got a positive signal, the four-person capture team was assembled. Packs were loaded with animal workup gear, capture drugs and a jab stick for injections, weighing gear (an aluminum pole for lifting the animal, a scale and cargo net) and collars. The team carried firearms as well.

“We’d approach from a distance and all get a look, and estimate its weight, then gauge the dose of drug needed based on estimated weight,” Burcham said.

“When we are estimating the weight, they know we

are there, and the animals are typically submissive, not aggressive. We try to minimize stress in every way we can, we remain calm, move slow, and once they are tranquilized we move away and let them calm down. It takes three to five minutes for the drugs to take effect.”

Technically the bears are not tranquilized but “chemically immobilized.” Fish and Game researchers developed a combination of two drugs that are quite effective in tandem, and one can be reversed when the processing session is over. Processing typically took less than 30 minutes.

Westing said in 2016, the first season of captures, she used a dart gun to administer the drug. She was unhappy with the performance for a variety of reasons, and partway through the 2017 season, she switched to the jab stick.

“In the second year a colleague from the Montana Department of Fish, Wildlife, and Parks came up and volunteered, and he mentored me on the use of the jab stick,” she said. “It’s a lot of easier on the bear, very effective placing the injection right where you want, and I found I could get them down faster with less drug.”

In addition to taking samples and collaring, each bear was given an ear tag and weighed. The animal was lifted in a cargo net attached to the scale and pole, and the pole enabled the team to lift the bear off the ground and get an accurate weight.

One notable capture from work in the summer of 2018 was the recapture of Bear #01, the first capture of the entire project back in 2016. Her collar worked for a year and then quit transmitting in August 2017. Burcham and Westing attempted to catch her hibernating in her den and replace the collar in April 2018, but were unsuccessful. She was caught serendipitously this past summer in a foot snare near Esther Bay, on the very periphery of her home range and re-collared.



Bear Research - Continued

Size

Several mature males were close to 300 pounds, and the largest female was 275 pounds. Burcham said a 300-pound black bear in Prince William Sound is a really big bear.

Burcham said that black bears are smaller than people think. He added that it's difficult to judge the weight of a bear, even for the biologists. "Having trapped one hundred bears gave me an appreciation for how difficult it is to judge the size of a bear," he said.

"Some are exceptionally well-furred," Westing said. "We had one we thought was huge, we got up to her and she was just about 100 pounds. She was so fluffy she didn't look lanky, and her ears didn't look big."

Westing said the bears were weighed mid-summer, and could pack on more weight as the summer progressed, especially in a summer with a good berry crop. However, 2018 was not a good year for berries in Prince William Sound or northern Southeast Alaska, and biologists suspect that influenced the bears' movements over the summer.

GPS tracking and movement

The GPS device on the collar logs a waypoint every five hours, and every two days that batch of points is uploaded to a satellite and biologists can access the data. This has provided more than 34,000 location points so far, offering a good picture of each bear's movements.

Bears have a home range, not a territory, and they know the resources available within their home range. A preliminary assessment of 13 female bears on Esther Island indicated a home range of 10 square kilometers from 2016 through 2017. In late July of 2018, six of these bears expanded their movements, four of them moving considerable distances. "They went outside of where we'd seen them, some way outside, probably looking for food," Burcham said.

People in coastal Alaska from Juneau to Cordova reported that the blueberry and salmon berry crops were poor. That's not something that is formally measured and documented, but Westing wishes it was.

"It wasn't quantified, it's anecdotal," she said. "I am an avid berry picker, and in the place I go to pick berries I could barely cover the bottom of the bucket in the time I could normally fill it half full or more. I expanded my area and I never found anything that was impressive. The salmon berries were late, compressed and not abundant; the blueberry crop was late and not abundant at all. And the ones that were there were little, hard, and withered, not plump, juicy, nice berries."

Burcham said that could explain why there were so many bears in Cordova this summer. "The bears were wandering and they were really attracted to the food sources they could find," he said. "If they found a town with unsecured garbage – there you go. It was a huge issue in Cordova this year."

"We had so many bear problems in town, the troopers had to shoot a bear in the harbor," Westing said. "She was at least 12 years old, 175 pounds, and you wonder: has she been living in harmony with Cordova all these years and she just now came into town, or did she have a home range somewhere else, and she left it this year?"

Denning and Hibernation



Female 02 captured on a trail camera emerging from her den with one of two yearling cubs in April 2018. Bears may lounge at their den entrance for up to three weeks in the spring. Courtesy USFS/ADFG Prince William Sound Black Bear Study.

On Nov. 15, the GPS collars went into a battery-saving mode, since the bears presumably would be denning up and not moving anyway. In this mode the waypoints



Bear Research - Continued

are uploaded once every seven or eight days, but the connection often fails because of the bears' location underground.

“Once they den we typically don't get any locations for several months,” Burcham said. “We seldom get an idea where the den is from locations before they go in. But when they emerge in spring, they spend a week to two weeks at the entrance to the den. We get a good idea where the den is. There is also the VHF transmission, and we can use that to locate denning bears.”

The VHF transmitter in each collar is used to locate the collar when it comes off. The first collars that were deployed in 2016 are programmed to release in October of 2019, the rest will release between 2020 and 2021.

Westing and Burcham visited some dens in the past two winters, to set up trail cameras and replace some collars. Westing said right now, two collars have quit working and may be replaced this coming winter.

“We're doing a bit of den work, and putting some cameras outside dens to see how many cubs the bears emerge with,” Burcham said. “In contrast to all the dens on Prince of Wales that are in upturned root wads or trees, none of the dens were associated with trees. All of them are in caves or under boulders. This is all a granitic landscape, and lacks the large trees found in Southeast Alaska.”

Several of the motion-triggered trail cameras were in place over the course of the summer. Burcham said they've documented bears visiting den sites during the summer months. In one instance, a goshawk landed near the entrance and seemed curious about the site. “It's an aside, but it's interesting,” he said. “It's basically just a hole, but river otters go in and out, marten go in and out, and different bears, not just the bears that denned there, investigate the dens throughout the summer.”

In one odd turn of events in the spring of 2018, a trail camera documented illegal hunting activity, where a



The peaks of Knight Island rise above the waters of Prince William Sound. courtesy USFS/ADFG Prince William Sound Black Bear Study

bear and her cubs were killed at a den. Over the past two years, five collared bears were legally harvested by hunters. One bear died of unknown causes – in December of 2017 the signal changed to what is known as “mortality mode.” Researchers located the carcass in July and were able to retrieve the collar.

With the capture sessions completed, the researchers will be collecting location data on the 44 bears wearing active collars for the next one to three years. Westing said they are now switching to a more data-focused stage of the project. “We've invested a huge amount of time and energy and were really happy with what we've found so far,” she said.

Riley Woodford is the editor of Alaska Fish and Wildlife News and the producer of the Sounds Wild! radio program.

November 2016 article about this project: [Collared Bears Provide Insights](#)

More [Bear Research on Prince of Wales Island](#)

Nesting Bears: [Bear Dens on Prince of Wales Island](#)

Black Bear [Species Profile](#)

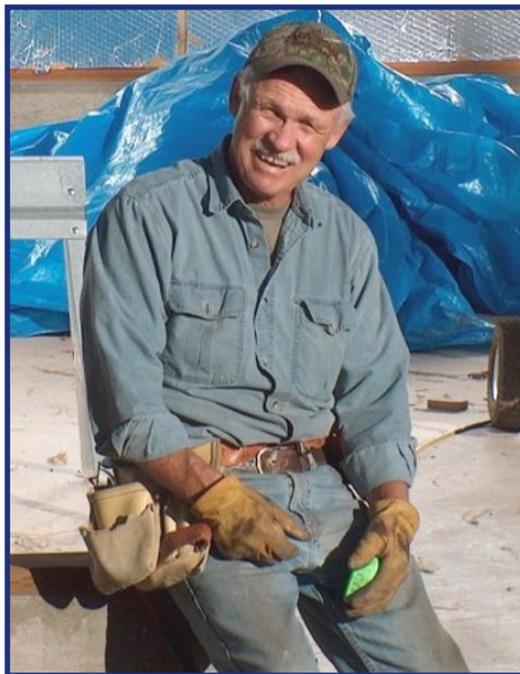


In Memoriam – Rodney Jacob King (1945 – 2018)

Rodney Jacob King passed away on Monday, 24 December 2018, just before midnight at his home in Goldendale, Washington. Rod died at the age of 73 from an aggressive and terminal lung disease, idiopathic pulmonary fibrosis, that was first diagnosed in the summer of 2017. Born on 07 June 1945 in Rexburg, Idaho, Rod was the son of the late Jacob (2006 at 96) and Sylvia (1999 at 87) King. Along with his three siblings (sisters Carol and Mary and brother David), Rod grew up in adjacent Sugar City, Idaho (a town destroyed by the Teton River Dam failure on 05 June 1976). His father, Jacob, was a local trucker and his mother, Sylvia, a homemaker and nurse. Rod married Charlotte Van Zant-King on 11 February 1981 after having first met in 1978. He graduated from Sugar-Salem High School in 1963 and earned his Bachelors of Science Degree in Wildlife Management from Utah State University in 1967. Rod's career of 40 plus years was mainly dedicated to waterfowl management and biology, including his special commitment to the protection and restoration of trumpeter swans.

Rod first moved to Alaska in 1976 where he worked as a wildlife biologist for the US Forest Service in Cordova. In 1978, he joined the Waterfowl Management program (US Fish & Wildlife Service - USFWS) as a wildlife biologist/pilot in Anchorage. Rod moved to Fairbanks in January 1981 and opened the first Migratory Bird/Waterfowl Management Field Station in Fairbanks, sharing office space in the original USFWS Alaska statewide office/building located at 1412 Airport Way. In 1999, he transferred to the Waterfowl Population Surveys (WPS-USFWS) program in the lower 48 and was stationed at Mare Island, California, sharing office space with the US

Geological Survey, Western Region Ecological Center. He retired from the US Fish & Wildlife Service in January 2007 after almost 40 years of federal service. Upon retirement, Rod and Charlotte, a talented multi-media renowned artist, moved from Lake Berryessa, California to Goldendale, Washington. Goldendale was chosen as their retirement location because it seemed to best represent the combination of attributes that they loved about both Alaska and northern Idaho. They purchased property just outside of town, where plans were to build their retirement



home and also where Rod built a shop to house his '55 Chevy restoration projects and to perform maintenance on his own vehicles. Rod, mostly working solo, made significant progress on their retirement home, which had a view of Mount Hood – to the stage of almost totally enclosing the home structure, including windows. Rod enjoyed hunting – moose, caribou, and sheep in Alaska, wild pigs in Hawaii, and javelina in the Sonoran Desert; and was also an avid football (Oakland Raiders) and NASCAR racing fan. He was committed to his family and friends; and was known for always being more

than willing to help out friends, neighbors, and others when asked or if he saw a need. His wife, Charlotte, was known in Alaska for her large-scale public art projects, and always depended on Rod as her technical support, sometimes taking advantage of his physical abilities to fly from the rafters while setting bolts into walls or constructing frameworks for heavy tiles to hang on the sides of buildings. She never went into a project before discussing technical strategies with him.

Rod is survived by his wife of 37 years, Charlotte, (Goldendale, Washington); daughter Jacqueline Goicoa (Boise, Idaho) and son James King (Boise, Idaho) both of a previous marriage; daughter Rebecca



Rodney King Memoriam - Continued

King, (Bend, Oregon); sister Carol Drake (Boise, Idaho); sister Mary King Roberts (Gainesville, Florida); and brother David King (Idaho Falls, Idaho); along with numerous grandchildren, nieces, and nephews.

Honoring Rod's wishes, no memorial or service is planned at this time; one might be held next June. Rod chose to be cremated and requested that his ashes eventually be spread in the Columbia River thirty miles downstream from Goldendale at the mouth of the Klickitat River. Donations in memory of Rod can be made to The Trumpeter Swan Society (TrumpeterSwanSociety.org), the Pulmonary Fibrosis Association (PulmonaryFibrosisNow.org), or the American Lung Association (Lung.org).

Rod was dedicated to and passionate about his job; and he never let the clock or the day of the week dictate his actions. Rod regularly flew 400-500 annual flight hours during the short summer field season in Alaska. Rod logged the majority of his flight hours in N1055F, a Cessna 185 (flown mostly on amphib); but he also flew Beavers (N728), Cessna 206's (mostly on amphib; N234JB, N728, etc.), and other US government aircraft, as well as his own personal Super Cub N1124. Not only was he dedicated to completing assigned aerial surveys and waterfowl banding projects, but Rod also was very generous and committed in offering aircraft flight assistance to personnel in the USFWS, National Park Service, Bureau of Land Management, Alaska Department of Fish and Game, Pacific Flyway member states, several other state agencies, and non-governmental resource organizations; as well as the Canadian Wildlife Service. In

addition to flying personnel, Rod routinely dropped off supplies at numerous field camps, staged gear for numerous projects, and also rescued two private citizens from a rising tide situation that would have otherwise proven to be fatal. Rod mastered the art of flying, primarily as a means for accomplishing much of his work with waterfowl and other wildlife. His exemplary skill level at flying was such that few other pilots in the wildlife field (or even in general bush flying as well) could match. Rod recognized and understood the capability and limitations of both his skill level and that of the aircraft he was flying. He was able to merge these into phenomenal landings, takeoffs, and overall performance of the aircraft when necessary. This skill level on the edge of the envelope transferred into a completely comfortable, competent, and confident atmosphere in the cockpit during average, non-eventful flights. Many biologists and others not only welcomed the opportunity to fly with Rod in accomplishing their missions, but also sought him out to fly with - one of the highest compliments that a natural resource pilot can receive. Rod's mastery of flying was not only the result of his flying skill, but also his understanding and knowledge of the aircraft and its systems as well.

Never satisfied with the current configuration, he was continually researching aircraft systems and



components for ways to improve performance, decrease weight, and increase flight time. This included aircraft components such as props, starters, floats, amphib, vortex generators, etc.; other means to decrease the empty weight of the aircraft; and optimization of how to operate and lean the engine. Rod was innovative in



Rodney King Memoriam - Continued

continually striving to improve the performance of the aircraft he flew.

Rod's many significant contributions to the conservation and management of North American waterfowl and other wildlife will certainly be lasting. His data sets, numerous reports, and published accounts that focused on aerial surveys and inventories, band returns and neck collar observations, aerial relocations of radio-marked birds, and wetland habitat monitoring form important components of management plans for Pacific Flyway waterfowl. Specifically, as to arctic nesting geese, these data sets were instrumental in the development of coordinated management plans for emperor geese, Pacific black brant, and cackling Canada geese nesting on the Yukon-Kuskokwim Delta; management plans coordinated among Alaska Native people, the USFWS, and the Pacific Flyway Study Committee and Council. His efforts definitely contributed to making waterfowl hunting an enduring prospect for generations of Alaska Natives and sport hunters throughout the Pacific and Central flyways and also helped serve as foundations for wildlife management on National Wildlife Refuges, National Parks, and Bureau of Land Management lands across Alaska. Perhaps Rod's greatest legacy to the wildlife field, is the successful multi-state/province trumpeter swan restoration program that he spearheaded. Through his collection of swan eggs, Rod helped make it possible for legions of birders and conservationists to observe trumpeter swans for the first time in states and a Canadian province where their populations had been reduced or extirpated long ago; and sightings that will thrill ever more people in the decades to follow.

Rod also had the uncanny ability to quickly assess and comprehend situations and then formulate and communicate his perspective. He unequivocally stated things as he saw them – often in a somewhat brash manner and without consideration as to their political correctness.

Even though Rod was very dedicated to his work, he also knew when to leave it behind and how to have

a good time, - approaching down time with the same enthusiasm that he put into his job. His outgoing personality often resulted in him naturally becoming the center of attention in social settings. The annual spring Pig Roast at Rod and Charlotte's residence on Solitude Way in Fairbanks became infamous and was highly anticipated as the social event of the year. He very much enjoyed the atmosphere and camaraderie of "happy hours" at local bars and parties – sharing pitchers of beer, stories, and jokes with co-workers, friends, and others. Even when relaxing solo at a bar, Rod could easily strike up a conversation with a total stranger sitting next to him on the adjacent bar stool; and as a result of his talent at telling stories and jokes, make a new friend (at least for a short time). A new interest for Rod evolved from his love of beer, together with the mushrooming of microbreweries and tap rooms in the Pacific Northwest, California, and Alaska. Opportunistically visiting these sites to sample locally brewed beers, Rod became a student of microbrewed beers. He learned American hop varieties and beer rating values (abv's, ibu's, and og's); and then used these values, along with tasting, to fine tune his preferences. The kegerator at his shop in Goldendale was typically filled with his favorite microbrew for sharing with friends when the workday was over. Finally, and in summary, Rod

- was a loving husband and father
- a true professional as shown through his love for, dedication to, and passion for waterfowl resources
- a great and respected co-worker
- a great and true friend
- had a wonderful sense of humor
- a presence about him that commanded attention
- knew how to have a good time
- and was FUN to be around!





THE WILDLIFE SOCIETY

ALASKA CHAPTER

The Alaska Chapter of The Wildlife Society strives to enhance the ability of wildlife professionals to conserve biological diversity, sustain productivity, and ensure responsible use of wildlife resources in Alaska for the benefit of society.



March 12th, 2019

Acting Secretary David Bernhardt
Department of the Interior
Attn: Coastal Plain Oil and Gas Leasing Program EIS
222 West 7th Ave. #13
Anchorage, Alaska 99513
Blm_ak_coastalplain_EIS@blm.gov

Re: Alaska Chapter of The Wildlife Society Comments on the Draft Environmental Impact Statement on the Coastal Plain Oil and Gas Leasing Program

Dear Acting Secretary Bernhardt,

This letter represents the Alaska Chapter of The Wildlife Society's public comments on the Draft Environmental Impact Statement (DEIS) on the Arctic National Wildlife Refuge Coastal Plain Oil and Gas Leasing Program. The Wildlife Society (TWS) was founded in 1937 and is a non-profit scientific and educational association of over 15,000 professional wildlife biologists and managers, dedicated to excellence in wildlife stewardship through science and education. Our mission is to inspire, empower, and enable wildlife professionals to sustain wildlife populations and habitats through science-based management and conservation. Our professional membership represents and serves the community of scientists, managers, educators, technicians, planners, and others who work actively to study, manage, and conserve wildlife and its habitats worldwide. The Alaska Chapter of TWS has about 200 members in Alaska representing wildlife scientists and resource managers including those working for state and federal agencies, Native organizations, universities, non-profit groups, and consulting biologists.

The Arctic National Wildlife Range was established in 1960 to preserve unique wildlife, wilderness, and recreational values. In the Alaska National Interest Lands Conservation Act of 1980 (ANILCA), Congress enlarged the Range to 19.6 million acres, renamed it the Arctic National Wildlife Refuge, and designated 8 million acres of mountains, foothills, and coastal plain as Wilderness. ANILCA established the following purposes for the Arctic Refuge:

1. To conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, the Porcupine Caribou Herd, polar bears, grizzly bears, muskoxen, Dall sheep, wolves,



wolverines, snow geese, peregrine falcons and other migratory birds, Dolly Varden, trout, grayling, whitefish, and burbot.

2. To fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats.
3. To provide, in a manner consistent with the purposes set forth in subparagraphs I and ii, the opportunity for continued subsistence uses by local residents.
4. To ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph I, water quality and necessary water quantity within the Refuge.

Section 1002 of ANILCA required the Secretary of the Interior to assess the petroleum and wildlife values of a 1.5-million-acre portion of the Arctic Refuge coastal plain often referred to as the 1002 Area. Section 1003 of ANILCA reserved the decision of whether to allow oil and gas leasing and production or development leading to production within that area to Congress. The necessary assessments of the 1002 Area are complete and indicate it may contain substantial amounts of oil and gas, and that it is also of vital importance to many wildlife species.

Decades of biological study and scientific research have confirmed that the coastal plain of the Arctic Refuge is a vital component of the biological diversity of the refuge. Within the narrow (15-40 miles) coastal plain, there is a unique compression of habitats which concentrates a wide array of wildlife native to the Arctic, including polar bears, grizzly bears, wolves, wolverines, caribou, muskoxen, Dolly Varden char, Arctic grayling, and many species of migratory birds. In fact, according to the U.S. Fish and Wildlife Service, the Arctic Refuge coastal plain contains the greatest wildlife diversity of any protected area above the Arctic Circle.

At the request of Congress, the National Research Council (NRC) of the National Academy of Sciences evaluated the cumulative environmental effects of oil and gas activities on Alaska's North Slope and published a report in 2003. Led by Dr. Gordon Orians, University of Washington, this report was prepared by a panel of prominent scientists following an extensive review of the literature and consultations with experts. It remains the best, most comprehensive synthesis of the effects of oil development on wildlife and the landscape of Arctic Alaska. Among the report's "major findings" (Chapter 11) are the following:

- Three-dimensional seismic surveys require a high spatial density of trails. "Seismic exploration can damage vegetation and cause erosion, especially along stream banks."
- The effects of roads, pads, pipelines, and other infrastructure extend beyond the physical footprint itself and distances at which impacts occur vary according to the environmental component affected. "Effects on hydrology, vegetation, and animal populations occur at distances up to several kilometers..."
- "Roads have had effects as far-reaching and complex as any physical component of the North Slope oil fields."



-
- Denning polar bears are among the animals that “have been affected by industrial activities on the North Slope.”
 - Readily available food supplies in the oil fields attract higher-than-normal densities of predators, which then prey on birds and their eggs and young. The reproductive success rate of some bird species in the developed parts of oil fields “has been reduced to the extent that it is insufficient to balance mortality.”
 - The spread of industrial activity, especially to the east where the coastal plain is narrower than elsewhere [i.e., the Arctic Refuge], “would likely result in reductions in reproductive success” for caribou.

The NRC stated that “The effects of North Slope industrial development on the physical and biotic environments and on the human societies that live there have accumulated despite considerable efforts by the petroleum industry and regulatory agencies to minimize them... Continued expansion is certain to exacerbate some existing effects and to generate new ones...”

Based on limited knowledge and understanding of the cumulative effects of oil and gas exploration and development on Alaska’s North Slope, and the difficulty of accurately predicting the timing or extent of potential development scenarios, it is challenging to quantitatively predict the long-term, cumulative effects on the wildlife and ecosystem processes of the Arctic Refuge’s 1002 Area. Thus, it is unlikely that a mitigation plan could be developed with any degree of certainty. We believe it is prudent to more fully understand these effects before risking leasing and development of other, more sensitive areas. The NRC report identified a list of gaps in current knowledge regarding effects of oil and gas development on wildlife.

Studies of wildlife and vegetation on the 1002 Area of the Arctic Refuge during past decades have provided considerable baseline information on structure and function of an arctic tundra ecosystem that has been relatively undisturbed by human activities. Few arctic areas have baseline data as extensive as the 1002 Area. There are considerable scientific and cultural values in maintaining undisturbed arctic regions where effects of long-term global changes can be identified and distinguished from localized human influence. This is particularly the case today where climate change is accelerating faster in the Arctic than anywhere else on Earth.

The Wildlife Society believes that the 1002 Area of the Arctic National Wildlife Refuge is an area critical to the abundance and diversity of wildlife in the entire Refuge, as well as some populations of both national and international importance. Furthermore, this area possesses significant cultural, aesthetic, recreational, and scientific values in its present state. Industrial activities that are expected to occur as a result of petroleum exploration and development are likely to have significantly negative effects on these values, including introduction of invasive species and habitat fragmentation. Adverse effects on some wildlife species of petroleum at existing oil fields on the North Slope have not been avoided, and the unique aspects of wildlife resources and the environment of the 1002 Area are such that mitigation of the



impacts of oil and gas development may not be possible. Additionally, the long-term cumulative effects on wildlife resources are unknown.

Specific concerns re: the DEIS for the Coastal Plain Oil and Gas Leasing Program

In the limited time available to review the DEIS, the Alaska Chapter of TWS identified the following concerns:

- **It is important that the DEIS explicitly address the conflicting Refuge purposes.** The DEIS does not explicitly address or resolve potential conflicts between the proposed leasing program and the original four purposes (identified above) for which the Arctic Refuge was established. These conflicts must be explicitly discussed and resolved. Specifically, the DEIS must address how the original Refuge purposes for wildlife, fish, and water conservation, treaty obligations, and subsistence uses will be maintained through petroleum exploration and development.
- **The DEIS needs to address in detail the geographical variation across the landscape of the North Slope.** Nearly all of the current petroleum exploration and development to the west of the Refuge (e.g., Prudhoe Bay and the northeastern NPR-A) have occurred in a landscape much different than the Refuge coastal plain. The narrow, compressed coastal plain of the Refuge makes large-scale resource development much more problematic as there are many fewer options for wildlife to avoid development infrastructure. This is particularly an issue for the Porcupine Caribou Herd. In addition, the lack of water in lakes, which is much different from the vast wetlands to the west where oil and gas activities are expansive, has significant implications for the feasibility, design and cost of an industrial-scale oil and gas program on the Refuge coastal plain, as well as for impacts on fish, wildlife and the natural landscape. These differences must be clearly addressed in the DEIS.
- **The DEIS should outline an explicit plan to acquire more comprehensive baseline information for the coastal plain of the Arctic Refuge.** The DEIS draws on incomplete and old baseline data. This inadequacy should be addressed with additional surveys, monitoring, research, and synthesis. Specific priorities include: analyzing detailed caribou movements and habitat use; assessing population dynamics and habitat use for the Southern Beaufort Sea subpopulation of polar bears; updating wetlands inventories and bird surveys; and predicting how these populations will respond to petroleum exploration and development in the narrow landscape of the coastal plain, how they will respond to accelerating climate change, and the interaction of these two forces. These analyses are needed not only to meet the legal requirements of NEPA but are necessary to predict potential cumulative impacts to Refuge resources and to develop an adequate research and monitoring plan for the Refuge coastal plain.
- **The DEIS must rigorously describe the 2,000-acre limitation on development of the coastal plain of the Arctic Refuge.** The DEIS does not adequately address how the area to be covered by



production and support facilities will be limited to 2000 acres as required in P.L. 115-97. This is especially important in view of the NRC's finding that the impacts of Arctic development extend far beyond the physical footprints of the necessary facilities and infrastructure. The DEIS provides a limited interpretation of this restriction, with a number of associated structures (e.g., gravel mines, ice roads and elevated pipelines) not counting toward the cap. Additionally, the DEIS would allow further construction outside the 2000 acres if the original developed areas are reclaimed. However, there is limited evidence of the efficacy of this approach and no clear definition of the standards by which adequate reclamation would be determined based on scientific information.

- **The DEIS must clearly develop science-based justifications for its conclusions.** The DEIS lacks adequate scientific justifications for its conclusions. Literature citations are incomplete and the DEIS relies too heavily on the 2015 Arctic Refuge Comprehensive Conservation Plan (CCP). That plan did not explicitly address petroleum exploration and development in a comprehensive manner.
- **The DEIS must conduct a thorough, quantitative, cumulative effects analysis of oil and gas exploration and development on the coastal plain of the Arctic Refuge.** The Arctic Refuge is one of the wildest, most ecologically intact and important protected areas in the world. The DEIS fails to thoroughly assess cumulative effects of a leasing program and subsequent development in the context of oil and gas activity, as well as a changing climate, across Arctic Alaska and the circumpolar Arctic. The DEIS provides only a cursory analysis of individual industrial and climate impacts and does not explicitly assess how these impacts may be additive and interactive across the Arctic landscape and beyond. For example, there is an inadequate cumulative effects analysis for caribou and polar bear populations that use the coastal plain of the Refuge. Polar bears—listed as “threatened” under the Endangered Species Act—are already struggling with deteriorating sea ice and increasingly are forced to den on land on the eastern Beaufort Sea coast, including the coastal plain of the Arctic Refuge. In fact, three-fourths of the Refuge coastal plain is designated as critical habitat for polar bears, which are highly vulnerable to disturbance due to oil and gas activities.
- **The DEIS must develop and explicitly describe a comprehensive monitoring plan and conservation strategy for the coastal plain of the Arctic Refuge and describe how this monitoring program will be coordinated with monitoring across the entire North Slope. The monitoring plan must be capable of determining adverse effects of oil and gas development on the wildlife, plants, waters and frozen soils of the coastal plain and substantiating beneficial effects of any mitigation measures proposed in the DEIS.** Other than the Arctic National Wildlife Refuge, there are no landscape-scale protected areas on the coastal plain of our nation's only Arctic ecosystem. Climate change is occurring much more rapidly in the Arctic than anywhere else in the U.S. Without a comprehensive monitoring plan and a network of protected areas to serve as a baseline for scientific monitoring, scientists will be unable to evaluate the effects of climate change on arctic fish and wildlife or the ecosystems that support them. It would



be highly risky to commit the entire coastal plain of America's only Arctic ecosystem to industrial development without a master plan for conservation and monitoring. The DEIS is seriously flawed unless it can explicitly address this important issue. We recognize that there will be significant impacts from development infrastructure on fish and wildlife resources, their habitats, and the human uses of those resources, including subsistence use and wilderness recreation. Without a scientific benchmark to serve as a control and a comprehensive monitoring plan, industrial development of the entire arctic coastal plain (including the Arctic Refuge) would be very risky for conservation of Refuge resources and would not provide an opportunity for adequately assessing potential environmental effects and for comparing costs vs. benefits of development.

In summary, the Alaska Chapter of The Wildlife Society recommends maintaining the coastal plain of the Arctic National Wildlife Refuge in an undeveloped state for the conservation of Refuge resources, as identified in the original purposes for which the Refuge was established, and for long-term studies of the effects of climate change in the Arctic on wildlife resources and ecosystem processes.

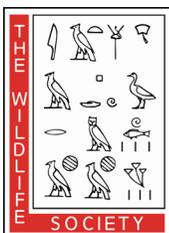
Thank you for considering our comments on the Coastal Plain DEIS.

Sincerely,



Nathan Svoboda
President
Alaska Chapter of The Wildlife Society

Is it time to renew your membership?



New memberships and renewals to The Wildlife Society and the Alaska Chapter are available online at The Wildlife Society [website](#), click

Join or **Renew** to obtain membership forms. On The Alaska Chapter [website](#) click on **Membership**.



Find us on Facebook!

You can "like" us on Facebook! On our [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



In Memoriam - Dot Simpson (1928 - 2019)

Dorothy (Dot) Simpson Chidester, 90, of Boones Mill, Va., went to be with her Lord on Sunday, January 20, 2019. Dot was born in Asheville, N.C., on March 14, 1928. She was preceded in death by her first husband of 49 years, Donval Carl Simpson, PHD; son, D. Carl Simpson Jr.; parents, Clyde Mayo Taylor and Theodocia Ruth Gatlin; and sister, Ruth Taylor Reynolds (James). She is survived by two nephews, Rev. David Reynolds (Charlotte) and J. Willam Reynolds (Becky); and brother-in-law, Charles Simpson (Mickey).

She was preceded in death by her second husband of 10 years, Rev. A. Benjamin Chidester Jr. and daughter, Susan B. Hill (William). She is survived by her daughter, Julia M. Caplick (Jacob); Sons, A. B. "Chip" Chidester, III (Janet), Philip L. Chidester, Thomas B. Chidester, and James B. Chidester (Trish). She is also survived by 12 grandchildren and 11 great-grandchildren.

Dot attended Greensboro College and Graduated from Berea College and Appalachian State University. She spent 34 years in Fairbanks, Alaska as a biologist for the Alaska Department of Fish and Game. Dot was an active member of Boones Mill United Methodist Church and Boones Mill Lions Club. In lieu of flowers, the family requested memorial contributions be made in her name to her beloved church, Boones Mill United Methodist Church, P. O. Box 288, Boones Mill, Va. 24065.



2020 Alaska Chapter of the Wildlife Society Annual Meeting

Let us know your availability to participate in future Annual Meetings by filling out this survey. Only 4 questions required!

<https://docs.google.com/forms/d/e/1FAIpQLSclApfN7aVp7mZNeRwdc8M6QE0qehLqL0HkrW26xhAKzLYg/viewform>

Send any suggestions and requests, including TOPICS and SPECIAL SESSIONS to twsalaska@gmail.com.

This meeting will be held in Anchorage.

UAF Student Chapter Annual Wild Game Dinner and Silent Auction!

Date: Sunday, April 14

Time: 5 - 6 p.m. Silent Auction/Social

6 - 7 Dinner

7 - 8 Quiz Bowl

**Location: Dog Musers Hall
925 Farmers Loop Rd**

If you would like to donate anything for the Silent Auction, please contact Student Chapter President, Cade Kellam. Or, auction items can be dropped off between 4 - 5 p.m. Sunday night.

Food will be provided, but feel free to bring a dish if you would like.

Please join us and spread the word!

Transforming Science Communication and Literacy

A new report from Wiley sheds light on one of our profession's biggest challenges

by Cameron Kovach, TWS General Manager

We live in interesting times... I could stop there, link the report, and call it quits, but I'm not going to because I'm fascinated by the topic of science communication. In fact, nearly a decade ago I altered my career from studying wildlife to studying new frontiers in wildlife conservation. I say new frontiers because our profession is increasingly operating in uncharted territories. The world is changing, public attitudes are shifting, and skepticism towards science is increasing.

Gone are the days when we could produce a standalone scientific report, retreat to the field, and expect society to exhibit a heightened level of deference towards our research. Some may point to partisan politics or blame millennials because that seems to be a thing, but perhaps, we as a profession have failed to keep pace with the changing times. Our science may reach other scientists but is seemingly lost in the glut of information available to policy-makers and the public.

So, what's the solution? Unfortunately, there's no simple answer to that question, but Wiley's report—*To Know the World: Transforming Science Literacy and Communications to Improve Research Impact*—touches on several timely and thought-provoking concepts including:

- Recognizing the need for “translated” scientific information;
- Fostering curiosity and improving scientific literacy by inspiring others to ask questions and seek science-based answers;
- Making science relatable and the profession welcoming to all through providing diverse portrayals of scientists and by highlighting the personal stories of scientists;
- Contextualizing science and the scientific process; and
- Developing innovative ways to expand the audience and understanding of research.

This is not about becoming activists or about attacking the messaging of others. It's about improving our own messaging, becoming better storytellers, and figuring out ways to enhance our communication while still preserving the depth and integrity of our work. How can we as individual wildlife professionals shape our own personal networks, touch the lives of those around us, and inspire the next generation? Not every aspect of Wiley's report is relevant to wildlife professionals, but I hope the report sparks dialogue within your Section, Chapter, or Working Group while demonstrating that, while these are interesting times, we face boundless opportunity to forge new paths through the unknown.

What do you think? Is the increased skepticism towards science a good thing? What role should wildlife professionals play in communicating science? How do you share your science? Share your thoughts with us on social media @wildlifesociety or #wildlifesociety.

Wiley is the publisher of TWS' three premier wildlife journals—*The Journal of Wildlife Management*, *Wildlife Monographs*, and the *Wildlife Society Bulletin*.

The next issue of *The Journal of Wildlife Management* is now available on early view through *The Wildlife Society's* new journal [hub](#).

With online access included as a membership benefit, TWS members are increasingly engaging with the latest research findings in wildlife science and management. Simply login to [Your Membership](#) directly through the hub to access the latest content or browse archive issues of *The Journal of Wildlife Management*, *Wildlife Monographs*, and the *Wildlife Society Bulletin*.

Not a member of TWS? You can still access abstracts and some full studies through the hub. In fact, during the month of November everyone can access—[Survival and cause-specific mortality of desert bighorn sheep lambs](#)—a study with important management implications and difficult data to obtain.



In Memoriam – Jean Ernest

Jean (Jeannette) Ruth Ernest, 82, of Chena Hot Springs Road in Fairbanks, died peacefully in the presence of loving family on February 14th, 2019, in Anchorage, following a brief illness.



She is survived by adopted family at Whispering Meadows Ranch in Fairbanks: her daughter, Mary Brusco, and her grandchildren Kyle, Oscar, Elijah, Clarence, and Alona; by her niece Josephine Marie Ernest; her nephew Dwight Allen Ernest; her grand-nieces and -nephews Jennifer, Dane, Bryan, David, Drew, Paige, Peyton, and Elliott; her great-grand-niece Isabella; her horse, Adel; and by her dog, Mercedes.

She was preceded in death by her brother, David Andrew Ernest; nephew Dale Andrew Ernest; and her parents, Ruth Jeannette Ernest (nee Watts) and Delmar Andrew Ernest. Jean was born in northern Ohio in 1936.

From an early age Jean was very enthusiastic about and fascinated by small animals. In her teens, she kept a thriving menagerie at home including racoons, rabbits, cats, dogs, and woodchucks. She attended North Olmsted High School, then studied at Baldwin Wallace University, Ohio State



University (spending most summers at its Stone Lab at Put-in-Bay, Ohio), and Colorado State University, where she received her masters and completed all but the thesis of her doctorate in biology.

She was recruited by the Alaska Department of Fish and Game in 1967, where she served her entire career as a small animal endocrinologist, undertaking extensive field collection work. She was delighted to have had the chance to make her home in Alaska.

Always fascinated by horses, Jean became a devoted owner and friend of Norwegian Fjords (her license plate was FJORDZ). They will be well cared-for by the Whispering Meadows family. She also participated enthusiastically in mentoring others who wanted to learn about this wonderful, friendly breed, both online through Facebook, and in person. Jean enjoyed teaching and helping 4 - H participants and trail riders. Her vulnerability, loving kindness, sweet nature, and generosity will be sorely missed by all who survive her.

March was Women's History Month

For an excellent video about the legacy of Women in Early North American Conservation, click [here](#).

YouTube

Search



#conservationmatters #womenshistorymonth

Women in Early North American Conservation



TWS Alaska Chapter Leadership

Your 2018-2020 Executive Board

President: Nathan Svoboda, Alaska Department of Fish and Game, Kodiak Archipelago, nathan.svoboda@alaska.gov phone (907) 486-1863.

President-Elect: Kim Jochum, CSU CEMML, Natural Resources USAG Fort Wainwright, kim.jochum@colostate.edu, phone (907) 873-1616.

Past-President: Scott Brainerd, Alaska Department of Fish and Game, 1300 College Road, Fairbanks, AK 99701, scott.brainerd@alaska.gov, phone (907) 459-7261, fax (907) 687-4527

Secretary-Treasurer: Kaithryn Ott, U.S. Fish & Wildlife Service, 101 12th Ave. Room 110, Fairbanks, AK, 99701, kaithryn_ott@fws.gov, phone (907) 456-0277.

Northern Representative: Kerry Nicholson, Alaska Department of Fish and Game - 1300 College Road, Fairbanks, Alaska 99701, kerry.nicholson@alaska.gov, phone (907) 328-6117.

Southcentral Representative: Kim King Jones, Alaska Department of Fish and Game, 1800 Glenn Highway #4, Palmer, Alaska, 99645, kim.jones@alaska.gov, phone 907-861-2110.

Southeast Representative: Susannah Woodruff, Alaska Department of Fish and Game, 802 3rd Street, Douglas, AK 99825-5412, susannah.woodruff@alaska.gov phone (907) 465-4353.

Newsletter Editor (non-voting): Kaithryn Ott, U.S. Fish & Wildlife Service, 101 12th Ave. Room 110, Fairbanks, AK, 99701, kaithryn_ott@fws.gov, phone (907) 456-0277.

UAF Student Chapter TWS Representative (non-voting): Cade Kellam, President, UAF Student Chapter of TWS, Department of Biology and Wildlife, 412 Irving 1, University of Alaska Fairbanks, Fairbanks, AK 99775, uafwildlife@gmail.com.

Webmaster (non-voting): Heidi Hatcher, Alaska Department of Fish and Game, 186.3 Glenn Hwy, P.O. Box 47, Glennallen, Alaska 99588-0047, heidi.hatcher@alaska.gov, phone (907) 822-3461.

You can contribute. We need your story ideas. Help keep AK-TWS members connected.

Are you working on an interesting project you'd like to share with other Alaska TWS members? Do you have news to share with colleagues? Please make note of upcoming events, projects, personnel changes, issues, or anything else of interest to other Alaska TWS members, and pass them on to your regional representative for inclusion in our next quarterly newsletter. If you know of something that would make an interesting newsletter article and can't write it up yourself, please contact newsletter editor Kaiti Ott at kaithryn_ott@fws.gov or 907-456-0277.

Help us keep this newsletter interesting and informative!

