
FRIENDS OF ORNITHOLOGY

Newsletter

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Grus, The Crane (Willughby & Ray 1678)



From the Curator

Kevin Winker

What a year. We've been on a roller coaster of highs and lows, with more lows in sight. Let's start with a high: the late Brina Kessel (my predecessor) made a very generous donation in her will to an endowment at the UA Foundation to support northern ornithology. It will be some years before this fund achieves its full potential, but it was seeded with some funding to get it started on its main purpose: supporting graduate students. And so I am delighted to welcome Fern Spaulding and Kathleen Collier as the first Brina Kessel graduate students. Fern began with us in January, and Katie began in August. Brina's gift complements but does not overlap substantially with the Friends of Ornithology fund. Brina worked closely with us in establishing this fund, so the two do different things. For example, the Friends have been critical in funding graduate and undergraduate student research; the Kessel fund pays the grad student stipends, so we can have more graduate students than in the past. It's a win-win, and we wish Brina were still around to see her careful planning come to fruition.

Another high occurred with the American Ornithological Society's meeting in Anchorage in June. Current and former members of the Bird Lab gave many different presentations to over 1,000 of our colleagues.

The proverb that bad news will follow good was aptly demonstrated this year when Alaska's governor set out to dramatically cut the university's budget. His unprecedented levels of cuts made national news, and at one point his administration proposed to cut 100%

of the Museum's state appropriation. Fortunately, the worst was averted, but we're still undergoing substantial cuts—our sixth year of them—with more projected into 2020-2022. This is a morale-sapping environment, and many are choosing to leave the university and the state. But the steadfast, unwavering support and enthusiasm that our many Friends provide help us immensely, and we're very grateful to you all.

The Department of Ornithology

Our existence and many of our activities are centered around the Bird Collection, but it is the people involved who make it all happen:

Residents

Kevin Winker (Curator)

Jack J. Withrow (Collections Manager)

Students

Fern Spaulding

Symcha Gillette

Rebecca Estrada

Tishri Prentice

Kathleen Collier

Research Affiliates

Daniel D. Gibson

Johannes Erritzoe

Rose A. Z. Meier

Kevin G. McCracken

Christin L. Pruett

Kyle K. Campbell

Matthew Miller

Volunteers

David W. Sonneborn

Fern Spaulding

Chris Maack

Alaska Checklist Cmte.

A SAMPLING FROM STAFF

Jack Withrow

Archiving seabird specimens from the *Selendang Ayu* oil spill

In December 2004, the M/V *Selendang Ayu*, a 738-foot cargo ship en route from Seattle to China, ran aground near Spray Cape on Unalaska Island in the Aleutian Islands after it experienced engine trouble. Over 350,000 gallons of fuel oil spilled, causing the deaths of thousands of birds. At least 1,700 bird carcasses were recovered from beaches in the area. The National Fish and Wildlife Forensics Laboratory in Ashland, Oregon could not handle the number of birds recovered from the spill, so the UAM Department of Ornithology was contracted to identify the avian items that the Federal lab could not process. To do this properly, a reference specimen (or specimens) against which a conclusive identification can be based must be specifically cited for legal reasons. Our collection was incredibly valuable in this respect. No key is available to identify auklets by their hand bones, yet because of predators and degradation, identifications sometimes descended to such levels. One surprise from this work was the identification of a set of wings from a koel (*Eudynamis*), a common Asian cuckoo often kept in captivity (using specimens UAM had salvaged in Singapore). As it turned out, the koel remains were from ground zero and likely represent a shipboard pet or a bird that died aboard while the ship was in SE Asia. There are maybe a handful of collections in the world that possess the skin and skeletal material of all the age and sex classes of seabirds necessary to do this job well and enable us to resolve a needle-in-a-hay-stack case such as the koel.

Following identification, the birds were returned to the U.S. Fish and Wildlife Service pending legal action against the owners of the *Selendang Ayu*. When the legal case was concluded, a subset of the carcasses deemed to be of scientific value were returned to UAM for possible archiving. Unfortunately, legal settlements in these cases cannot be used to pay for archiving of birds killed by the spill. Thus, while we have the facilities and expertise to do so, we lacked the kind of dedicated support needed to complete an accession of this sort. In 2018 a proposal we wrote to the North

Pacific Research Board was accepted, and the project was co-funded by the Oil Spill Recovery Institute. It allowed us to hire undergraduate students to help us process this material. Through 2018 and 2019 five undergraduate students—Jessica Herzog, Elise Stacy, Tishri Prentice, Rebecca Estrada, and Symcha Gillette—worked diligently on converting many carcasses fouled by bunker oil into scientific specimens.



An oiled puffin.

We are adding 1,116 seabird specimens from this work, mostly auklets, murrelets, cormorants, sea ducks, and grebes. The data associated with these specimens is available through our online database (Arctos), and specimen material will be available to researchers through loans or visits. We presented on this work at the Alaska Bird Conference and the American Ornithological Society meetings in 2019, thus reaching a large cross-section of the most likely users of this research resource. This material presented a unique opportunity to archive samples of avian taxa that are difficult to acquire. It substantially increases existing sample sizes of many of these taxa and provides a unique opportunity to retroactively sample a time (15 years ago) that can't be revisited. Archived specimens of seabirds provide useful material for many studies that contrast changes through time and space in genetics, stable isotopes, and contaminants. Seabirds are excellent marine

bioindicators; they represent a biological record of the ecosystem and the factors influencing it at a given time. The grounding of the *Selendang Ayu* was a significant detrimental factor in the ecosystem of these birds. By preserving a good sample of this mass mortality event, we can help shed light on past and future aspects of the Bering Sea ecosystem.



tray of *Aethia* auklet skeletons. Each skeleton is housed in an archival quality, clear plastic box.

Fern Spaulding
(Masters student)

Becoming a competent collector with knowledge, respect, and empathy

I've been working in the bird lab for over five years. I started in the lab my first semester of freshman year because I needed one more credit to be a full-time student and had an interest in birds. Now, I am a graduate student pursuing a Master of Science degree, using specimen-based research to examine the genomic relationships of Asian and North American avian taxa. My research and the work I do for the museum requires specimens, so I now actively collect for the museum. When out in the field, I am honored to carry Dr. Brina Kessel's smoothbore .22 LR/.410 over-and-under shotgun. It has a lot of character to say the least, from the chipped and worn wooden stock, to the hand-engraved "Kessel" on the action. Though I never had the opportunity to meet Brina, carrying her undoubtedly beloved shotgun out in the field with me

gives me a sense of connection to the history of ornithology in Alaska.

Growing up in rural Alaska, I have been exposed to hunting and am an avid hunter myself. Hunting provides an opportunity to connect and immerse oneself into the outdoors. I feel that same sensation while I am out collecting—a sense of purpose to provide information to others that cannot be gained any other way. However, active collecting has come under scrutiny in recent years, and it is considered by some to be an outdated and



archaic practice. This disconnect between museum collections, collectors, and some members of the public stems from a lack of discussion and outreach about the importance of active collecting. But often, the many decisions and choices that a collector must make in the field are not visible. Because of this, much of the work a collector does goes unnoticed—and is often underappreciated. The friction between active collecting and public opinion has spurred me to reflect and consider how we can better explain why collecting is necessary, and why it should not be controversial. I think that it is an important dialogue to have, and I openly talk about the many decisions we as collectors have to make and the skills we need to have.

I believe that three qualities make up the foundation of a collector: knowledge, respect, and empathy. Collectors need to be knowledgeable on many subjects, from accurately identifying birds to understanding the fine print of our permits. A collector must also have a deep understanding of

the firearm they are using, and safety and responsibility are of the utmost importance. These are only a few examples of the questions and decisions that we have to think about as collectors. The second quality of a competent collector is respect. You need to have the respect and ability to properly take care of your specimen, from the field, to the lab, and finally to the collection. Within the scope of specimen aftercare, taking proper field notes and data ensures that these specimens have value and will be maximally useful for other researchers. Treating your specimens with respect demonstrates to others that you care about your work and the birds that you are collecting.



A male Rock Ptarmigan (*Lagopus muta*) collected in spring 2019 near Twelvemile Summit, Interior Alaska, being prepared as a study skin. While creating the study skin itself, we take other samples: heart, liver, skeletal muscle, lower gut, and stomach. We also save a partial skeleton. These will be useful for diverse researchers asking a variety of questions.

Finally, the third quality a collector must possess is the ability to be empathetic. We understand that many people are not familiar with the work we do, and as a consequence might view collecting negatively as just the act of killing a bird for a specimen, and not recognize the contributions made by collecting to our knowledge of birds. As collectors, we know how few individuals we actually take relative to avian population sizes. We know how many shots were not taken, and how many birds were not collected due to circumstances and decisions being made. In conclusion, being a competent collector involves much more than

just collecting birds. It involves demonstrating that you are knowledgeable, respectful, and have empathy for both the birds and the people that you interact with. As scientists and active collectors, we need to be both effective in the field and participate in public outreach to discuss the importance of collecting and the work we do.



Final labeled study skin of the same Rock Ptarmigan.

ANNUAL REPORT - ORNITHOLOGY, FY19

This year we completed our large *Selendang Ayu* oil spill bird carcass salvage effort. This was funded by the North Pacific Research Board (NPRB) and the Oil Spill Recovery Institute. It archived a large number of unique seabird specimens killed during this tragedy in 2004. We were involved with these birds soon after the spill occurred, identifying the remains using legal chain-of-custody techniques. The birds then sat in freezers as part of the long legal case against the responsible party. When they were cut loose as evidence no longer needed in the case, we began seeking funds for their preparation. Unfortunately, U.S. law does not require the responsible party to pay for specimen preparation or archiving of wildlife killed in oil spills. We thank the funders for recognizing the value of these specimens and also the many talented students who worked so assiduously to preserve these birds for science.

The collection continues to support a lot of diverse science, and its *b*-index is up to 61 (a measure of the importance of the science produced using it). We had a lot of students working with the collection again this year, too. In January 2019, Fern Spaulding began with us as a Masters student. The collection grew by 1,370 specimens this year.

Department staff, students, and research associates produced eight publications and gave an unprecedented number of presentations (13) at state and international meetings. Fieldwork was conducted at Hyder, Kodiak, the Yukon River, the Alaska Range, the White Mountains, Talkeetna, and various sites in interior Alaska. Many thanks to our students, volunteers, and the Friends of Ornithology for their ongoing support.

Volunteer hours	1,015
Acquisitions	1,370
Publications	8
Reports	7
Loans	17
Data requests	218*
Professional visitors	39
Student visitors	17
Public contacts	~4,517**
Students working with collections	
PhD	9
MS	1
Undergrad	6

* Excludes 21,871 electronic database requests downloading >19 million records.

** Excludes Halloween (512) and Open House (890) events.

FRIENDS OF ORNITHOLOGY

Founders

Brina Kessel†

David & Alexandra Sonneborn

Robert W. Dickerman†

Benefactors

Harold F. John

Carol Juergens & Mark Withrow

Kodiak Island Medical Associates

Kevin Winker

Dorothy Jones (in memory of Bob Jones†)

Quentin & Margaret Kessel

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Deborah Rocque & Kelly Auer

Michael T. Schwitters

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Phil Davis

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David O. Hill

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Sid O. & Erna F. Morgan

Candace A. Myers, Ph.D.

Robert Roadcap

Mark M. Stevenson, M.D.

Gordon Tans

Jeff Walters

If you know of someone who might like to become a member, please pass along a copy of the enclosed membership materials or point them to our web page:

www.universityofalaskamuseumbirds.org

RECENT PUBLICATIONS

(FY19)

(**Bold** denotes students)

Everson, K. M., J. F. McLaughlin, I. A. Cato, M. M. Evans, A. R. Gastaldi, K. K. Mills, K. G. Shink, S. M. Wilbur, and K. Winker. 2019. Speciation, gene flow, and seasonal migration in *Catharus* thrushes (Aves: Turdidae). *Molecular Phylogenetics and Evolution* 139:106564.

Geraldes, A., K. K. Askelson, E. Nikelski, F. Doyle, W. Harrower, K. Winker, and D. E. Irwin. 2019. Population genomic analyses reveal a highly differentiated and endangered genetic cluster of northern goshawk (*Accipiter gentilis laingi*) in Haida Gwaii. *Evolutionary Applications* 12:757-772.

Winker, K., T. C. Glenn, J. Withrow, S. G. Sealy, and B. C. Faircloth. 2019. Speciation despite gene flow in two owls (*Aegolius* spp.): Evidence from 2,517 ultraconserved element loci. *Auk* 136:1-12.

Winker, K., T. C. Glenn, and B. C. Faircloth. 2018. Ultraconserved elements (UCEs) illuminate the population genomics of a recent, high-latitude avian speciation event. *PeerJ* 6:e5735.

Winker, K. 2018. [Review of] HBW and BirdLife International Illustrated Checklist of the Birds of the World, Volume 2: Passerines. *Loon* 90:130-132.

Chesser, R.T., K. J. Burns, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V. Remsen Jr., D. F. Stotz, B. M. Winger, and K. Winker. 2018. Fifty-ninth supplement to the American Ornithological Society's *Check-List of North American Birds*. *Auk* 135: 798–813. <https://doi.org/10.1642/AUK-18-62.1>.

Winker, K. 2018. A bibliometric approach for managing institutional and personal scientific investments, with examples from the biological sciences. OSFpreprints doi: 10.31219/osf.io/6enwt

Gibson, D. D., L. H. DeCicco, R. E. Gill, Jr., S. C. Heinl, A. J. Lang, T. G. Tobish, Jr., and J. J. Withrow. 2018. Fourth report of the Alaska Checklist Committee, 2013-2017. *Western Birds* 49:174-191.



Bird Lab, current and past, at the 2019 American Ornithological Society meeting in Anchorage, Alaska (Jack Withrow, Matt Miller, Christie Pruet, Kevin Winker, Jessica McLaughlin, Symcha Gillette, Rebecca Cheek, Fern Spaulding, Kyle Campbell, and James Maley).

University of Alaska Museum's
Friends of Ornithology
The birds of Alaska have never been in better hands.



Variation in Alaska Rock Sandpipers (*Calidris ptilocnemis*).