"IOU Flutter"

The Official Newsletter of the International Ornithologists' Union

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IOU News!!!

Make sure that you mark your travel calendars for August 14-22, 2022 to attend the 28th IOCongress® in Durban, South Africa. The IOU is pleased to partner with the University of KwaZulu-Natal to organize the IOCongress2022, once again in the great seaside city of Durban where it was last held in 1998! Many things involving ornithology and bird conservation have changed in those 24 years in the massive continent of Africa and it will be quite interesting to revisit this part of the world, renowned for its unique biological diversity, as well as for its vibrant research in avian biology and ecology. Visit https://www.internationalornithology.org/blog/10791 for more information!

The call for symposium proposals is now open. Please see https://iocongress2022.com/call-for-symposia/

and submit your symposium proposal. The deadline was officially set at December 3, 2020, but the Scientific Program Committee will continue to accept proposals. Please contact the Chair of the SPC. Professor Will Cresswell at wrlc@st-andrews.ac.uk for more information.

Message from the President

Dear IOU Members, Friends, Volunteers and Supporters:

My last message was written while I was on sabbatical in Australia doing fieldwork on the feeding behavior and ecology of cockatoos and. And I followed, with concern and sorrow, the development of a new pandemic. I was fortunate to be on an island continent that had more options to control the spread of the corona virus and was able to do so successfully. Although many specific data on Covid-19 are still to be uncovered and understood, the basic behavior of a virus has been known for a long time. Masks, social distancing, quarantine, and border closures are time-tested measures to control outbreaks of deadly infectious diseases, such as the plague, smallpox, cholera, and other scourges of humanity. When complaining about the implementation of such measures, however, it behooves us to consider the much more radical measures that are used to control outbreaks of pandemics affecting animals, such as Q Fever, Bovine Tuberculosis, Bovine Spongiform Encephalopathy (BSE), H5N1 Bird Flu, Hoof-and-Mouth Disease, Distemper, and Ornithosis, to name just a few. A recent example is the government actions towards farm minks that were infected with Covid-19 by the people handling them.

I am now back in Baton Rouge and have been preparing to teach again my course “Environmental Issues”, for which my recent sabbatical in Europe, India, and Australia has provided me with first-hand information and materials. Each place I visited has been dealing with existing and looming environmental, social and political crises that have grown essentially from injustices perpetrated against Nature, women, or minority populations. The differences in the approaches towards dealing with these issues by these countries, as well as many other countries I have visited at other times,

reminded me of the underlying historical events and conditions responsible for the analogous social, economic and political inequities among nations.

Inequities among nations have been uncomfortably exposed by Covid-19. Poorer countries often do not have the resources to even test for the virus, not to mention to care appropriately for sick patients. And while some richer countries have been able to purchase sufficient vaccine to inoculate their citizens several times over, poorer countries will likely have to wait and hope for charities to provide them with the needed vaccines. The example of Covid-19 vaccines exemplifies the disturbing economic imbalance among nations: Richer countries are appropriating resources at prices they dictate because they are in a position to do so, and poorer countries need to be content with what they can get. As many in the richer countries have been aware of these inequities, they have created charities to provide healthcare and education in countries in need. Such efforts, while laudable, cannot, by themselves, rectify the fundamental resource and power inequities among nations. However, richer countries, instead of trying to purchase resources on the international market place at the lowest possible price, could pay for resources (e.g., bananas and other exotic produce, cobalt and other rare minerals, and T-shirts and other apparels and textiles) at prices that would remedy at least the economic inequities among nations. Such an approach would also reduce the need for subsidies that poorer nations require from richer countries to address the current environmental crisis. We live in perilous times and we need to seek new solutions to old problems.

Inequities among countries also exist in science and ornithology. The IOU, as a global ornithological organization dedicated to research and its dissemination and application, has been keenly aware of them and has been taking measures to do its part in mitigating them. Ornithology, as a modern science, developed in Europe for historical reasons and spread in the era of European colonialism to other countries and continents. Interestingly though, Europe is the least avidiverse continent. For a European seeing for the first time the large and diverse avifauna in other continents was a bewildering and eye-opening experience, as Charles Darwin described well in his “Voyage of the Beagle”. The encounter with the much more numerous and diverse species was catalytic for European science. In the following decades, European ornithologists staged expeditions to other continents with greater avidiversity and brought with them – for better or worse – their social mores and languages, as well as their knowledge of natural history based on Linné’s System of Classification and Darwin’s Theory of Evolution. While these ornithologists collected specimens and brought them back to European and North American museums of Natural History, students from bird-rich countries increasingly flocked to European and North American countries to study ornithology. This lopsided exchange of ornithologists and knowledge has had some problematic effects: A possible loss of expertise in bird-rich countries and, as the eminent ornithologist Professor Soekarja

Somadikarta explained at the 25th International Ornithological Congress in Brazil in 2010, some incongruous situations, such as that he had to travel to museums in the Netherlands to study specimens of his native Indonesia. But as more countries, including bird-rich countries, have been able to develop economically, they have also invested in institutions that support ornithology as a science and have been able to offer employment not only to home-grown, but also to a new generation of internationally trained and polyglott ornithologists, thereby accelerating the spread and practice of scientific ornithology, as well as an interest in and understanding of traditional ornithological knowledge of native cultures.

The International Ornithologists' Union (the IOU) and its predecessor organization, the International Ornithological Committee (the IOC), recognized the imbalance between the number of ornithologists and the number of birds and bird species early on and has been trying to rebalance it by moving its International Ornithological Congress (confusingly also called the IOC at that time) out of the "West" to places interfacing with or in bird-rich regions to promote interactions with scientists that hitherto had been excluded from the center of science for a variety of reasons. It was under the leadership of Donald Farner that this trend was realized for the first time with the 17th IOCongress in West-Berlin in 1978. This IOCongress allowed Russian colleagues to meet western ornithologists and start planning for the 18th IOCongress in Moscow four years later. And western ornithologists were allowed to cross Checkpoint Charlie to establish personal contacts with colleagues in East-Berlin who were forbidden to attend the IOCongress in West-Berlin. It may be difficult today to appreciate how daring these early initiatives of "birds know no borders" were at the time of the Cold War. The IOU has since then continued to use its IOCongresses as a friendly diplomatic vehicle to further international relationships among ornithologists and to help build capacity in the host countries, often anticipating political developments, such as the end of Apartheid in South Africa with the preparations for the first IOCongress in Durban in 1998. In effect, the IOU and its predecessor organization have worked towards lessening inequities and increasing diversity in science long before these concepts had entered public consciousness.

The world has changed in the meantime and so have the international issues affecting ornithology, but the IOU continues to use its IOCongresses to promote science, international collaboration, and collegial interactions among ornithologists. In addition, by developing the original IOCommittee into the membership-supported, tax-exempt IOU, it is able to support initiatives of global importance through its IOU Working Groups, such as a unified Global Checklist of Birds (see https://www.internationalornithology.org/working-group-avian-checklists), or the Pronunciation Guide for Scientific (Latin) Bird Names (soon to be available on the IOU web page). Generous past presidents have created endowments to provide travel grants to support the attendance of

IOCongresses by ornithologists from low-income countries (see https://www.internationalornithology.org/east-and-southeast-asia-travel-fund and https://www.internationalornithology.org/walter-j-bock-travel-fellowship). And our membership dues are differentiated to take into account the various status of ornithologists from students in low-income countries to established ornithologists in high-income countries. As the IOU sees itself as a "big ship" for ornithology, it also offers subsidized memberships which are paid by the IOU membership as a whole at no cost to the member. There is much more to be done, and as the IOU will continue to grow, so will its capacity to support ornithology around the globe.

In closing, I would like to thank Jane Popowich for her critical review and incisive comments on an earlier draft of this text. And I would like to add my very best wishes to you all for the holiday season, as well as for patience, perseverance, and strength during our current challenging times, and most of all for good health.

With best wishes and kind regards, until the next issue,

Prof. Dominique G. Homberger, President, International Ornithological Union

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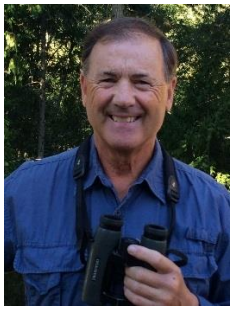
From the Editor



Dear IOU members:

Are you getting as excited as I am about the next International Ornithological Congress being held in Durban, South Africa? But I confess that I worry that I might not see your smiling face in person at the actual venue because you have decided to "attend" the event virtually. You might be considering that alternative for a number of reasons. Perhaps your travel budget might not allow you the luxury of travelling to Africa, something that we all have to consider. Alternatively, the pandemic, which we

all hope will be largely vanquished by the development of a vaccine by 2022, could still linger with us and perpetuate our fears of co-mingling with large numbers of humans from a wide variety of countries either during travel to and from the congress and at the venue itself. My greatest fear though is that the pandemic has taught us how to gather together electronically, even for the largest of conferences such as the highly successful North American Ornithological Conference (NAOC). Some of the benefits are obvious. That's smaller numbers of humans expending fossil fuels on airplanes, which combats climate warming, one of the greatest challenges facing us (and our birds!) in modern times. Many more people such as those on tight budgets, especially students and folks from low-income countries, were able to 'attend' the NAOC meeting. Perhaps another less important benefit for attending virtually is the relative ease of just using a keyboard click to move back and forth between concurrent sessions. For those reasons, while I believe that the IOC will be well 'attended' by ornithologists all over the world, there may be far fewer physically present at the venue in Durban in August 2022. Which would be an incredible shame! And here's why….

To look at the big picture, I have been fortunate enough to attend close to a hundred conferences, big and small, all over the world, in my academic career, on a number of related subjects, e.g., ornithology, raptors, wildlife biology, drones, etc. Because of those conferences, I not only got to see the world, but more important, I also created many very close, lifelong friendships with folks in a wide number of countries, people who have welcomed me into their home and who have allowed me to host them in Canada. I sat beside biologists and conservationists from a variety of diverse cultures listening to talks. I sat at tables in the same room with Israelis and Palestinians and Russians and Americans where we all put our political differences aside to discuss mutual wildlife conservation issues. After hours at these events, I enjoyed immersing myself in the cultures of the host country, e.g., eating bratwurst in Berlin, twirling to the Mexican Hat Dance in La Paz, enjoying night life in thriving Tokyo, watching the Maori rituals in New Zealand, etc. These experiences have enriched my life immensely.

And yes, I did attend the 22nd IOCongress held in Durban way back in 1998. I cannot wait to return to that coastal city in eastern South Africa's KwaZulu-Natal province, with its African, Indian and colonial influences. Refurbished for soccer's 2010 World Cup, a beautiful seafront promenade connects uShaka Marine World, a huge theme park with an aquarium, to the futuristic Moses Mabhida Stadium. The city is also home to the Durban Botanical Gardens showcasing African plant species. But there is more to see than just Durban in South Africa. Nature abounds everywhere! In my experience having spent much time in Kenya and Uganda, nothing rivals Kruger National Park for the very best opportunities to see 'The Big Five' up close and personal. I also have fond memories of seeing my first African crowned eagles in a riparian forest near the coast and lammergeiers dropping

bones on rocks in a windswept barren landscape in the Drakensburg Mountains. And one cannot visit South Africa without making a cultural trip to the amazing southern port city of Cape Town. The Stellenbosch wine region, Table Mountain and Robben Island are sights not to be missed! All in all, I hope that I have convinced you to at least give some very serious consideration to physically attending the IOC in Durban in 2022!

My very best to all of you……stay safe….and stay sane!

Emeritus Prof. David M. Bird, Editor

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Member Profile

Editor's note: In each newsletter, we will feature a brief profile on hard-working volunteers who make the International Ornithologists' Union an effective and useful organization for ornithologists all over the world. If you are a past or present officer or Council member of or otherwise active in the IOU, please send me a brief profile (250 words or so) of yourself written in first or third person, as well as a photo, just like the one below!

John Wingfield, *Past President of the IOU 2006-2010 and Chair of the Scientific Program Committee of the 21st IOCongress in Vienna in 1994*

My research focuses on how birds cope with a changing environment through the integration of endocrine control mechanisms and field work in natural environments from arctic Alaska to the Cape Horn region of extreme southern Chile. The first International Ornithological Congress (IOCongress) I

attended was in 1978 in what was then called West Berlin, and I have been fortunate to attend every IOCongress since. What continues to impress me about the IOCongresses is the breadth of science covered with birds as a common theme interfacing with conservation biology. I always come away from IOCongresses inspired by people I met from diverse backgrounds and with international perspectives. Many collaborations and long-term friendships began during that meeting in Berlin and have been a driving force for my research career ever since. Over the decades discussions of forming an organization to foster the IOCongress came up frequently. At the Hamburg IOCongress in 2006, I became President and one of my charges was to explore the possibility of forming an International Ornithologist's Union (IOU). Current President Dominique Homberger, then Secretary, and I were able to incorporate the IOU so we could have a legal basis to develop and move forward. New statutes and bylaws were drawn up. At the 2010 IOCongress in Campos do Jordão in Brazil, the founding of the IOU was approved. Now there is a clear inter-congress platform for researchers from developed countries to communicate and work with researchers from emerging countries. It is with great anticipation that I look forward to attending future congresses.

Requests for Assistance

Editor's Note: This newsletter exists to help IOU members. If you need some help with a project of some kind, please forward a brief version like the one below for me to post.

IOU Code of Ethics General Statement:

The Working Group Ethics in Ornithology (WGEO) https://www.internationalornithology.org/ethics-ornithology is establishing an IOU code of ethics and conduct practices. In particular, the IOU is in the process of developing guidelines for under-represented categories.

The IOU Code of Ethics will begin with the following categories:

1. Avoidance of glass collisions
2. Drones
3. Ecotourism
4. Ethical birdwatching

5. Ethical photography
6. Scientific collecting
7. Sports activities
8. Winter feeding

Please note that the IOU Code of Ethics will be a living document subject to change as it develops. It will be drafted with input from the WGEO group, members' suggestions and in coordination with codes of ethics of other organizations. Please see the WGEO reading list under 'code of ethics' for links to ethical codes and conduct practices of other ornithological organizations. The IOU code of ethics is to be published on the IOU Website https://www.internationalornithology.org/.

Call for volunteers:

The IOU invites volunteers interested in contributing to the development of an IOU Code of Ethics and conduct practices to please contact Jane Popovich at WGEO@janepopowich.com

Opinion Letters/Articles

Photo by Flavio Amiel on Unsplash

Are Birders' Favourite Birds Among the Most Affected by Climate Change?

When it comes to climate warming affecting avian species, most scientists feel that there will be winners and losers. New research out of Utah State University by Clark Rushing and three collaborators suggests that there could be dire consequences for the bird species that birdwatchers like to see the most. The scientists divided North American bird populations into three categories. The first is "resident birds" such as vultures, gamebirds, owls and woodpeckers which are adaptable enough to find food year-round. The second includes temperate birds like your cardinals and wrens which migrate within the continent of North America. And the third category is neotropical referring to birds that migrate from North America to Central and South America. This includes

warblers, buntings, and orioles. By examining long-term data collected for the North American Breeding Bird Survey since the 1960s, the researchers focused on the breeding patterns of 32 eastern North American birds from 1972 to 2014. Over that 43-year period, the birds in each of those three categories showed significant changes in their migratory patterns. The first two, resident and temperate birds, have responded to climate warming by expanding their ranges northward into the now warmer sub-Arctic regions. But it is the neotropical birds, the ones that we like to see the most while birding, that we must be very concerned about. According to this recent study, their southernmost breeding ranges have not only shrunk in size. but they are also not expanding their range northward like the other birds. This suggests that the neotropical birds are not adapting well to climate warming, which is likely affecting their breeding grounds, their wintering grounds, and their staging areas during migration. And they already have enough to contend with in the form of pesticides, window collisions, cat predation, and habitat degradation due to urbanization.

Original Paper: Rushing, C. S., J. A. Royle, D.J. Ziolkowski and K. L. Pardeck. 2020. Migratory behavior and winter geography drive differential range shifts of eastern birds in response to recent climate change. *Proc Nat Acad Sci* 117(23): 12897-12903.

What Really Made Those Birds Drop Dead Out of the Sky in New Mexico?

This past September, the world reacted with horror after hundreds, perhaps thousands, of birds were dropping dead out of the sky over New Mexico, U.S. In some places the carcasses of several hundred birds, composed of various species of swallows, warblers and flycatchers, were strewn on the ground. The media was quick to blame the record-breaking wildfires in California and other western states, stating that it was the smoke choking the breath out of the migrating birds. Others said that, no, it was more likely that a lot of the habitat where these birds feed during migration had been destroyed by the fire. Still others felt that the fires had forced the birds to flee before they could replenish their fat stores so necessary for the long-distance migration. In the end though, it was not really the fires at all. However, it was indeed related to food, or the lack thereof. First, an unseasonable cold snap coupled with wet snow, perhaps related to climate change, likely caused juvenile birds to become hypothermic and die outright. Second, almost all of the dead birds were insectivores and that sudden onset of chilly weather either killed off most of their insect food and/ or caused the insects to become dormant and unavailable. Interestingly, during those weeks of speculation, the general public expressed much empathy over these little birds dropping dead of the sky. Yet, each year more than one billion birds are killed by free-ranging pet cats along with another

100 million to a billion dying in window collisions in the U.S. alone. So, where is the public outrage about that?

----- **David M. Bird, Editor**

Recently Published Papers: Editor's Choice

Photo by chuttersnap on Unsplash

Birds Demonstrating Sympathy Toward Less Fortunate Conspecifics

It has long been held that only humans and some of the other more social mammals like primates show sympathy to their fellow creatures to the point of caring about their fate. This trait, known as prosocial behavior, has now been demonstrated in birds, azure-winged magpies to be specific. Jorg Massen of Utrecht University and colleagues from other European institutions studied captive birds of this species by giving one magpie an abundance of mealworms, a highly desired food for these birds. It was also given the opportunity to share the worms with other magpies through wire mesh walls, some also having access to mealworms and some with none at all. They found that the birds with plenty were not only willing to share their bounty, but they were also able to discern whether the recipients had need of the food. In other words, they were demonstrating sympathy with the less fortunate individuals whether the latter begged for food or not. And there was a sex difference in the motive for generosity – the females mainly shared with those birds which had nothing, but the males shared with all other birds. According to the scientists, the males were advertising themselves by saying: "look at how generous I am", whereas the females did it merely to help the others out. However, whether the birds are showing sympathy or empathy is yet to be determined.

Original Paper: Massen, J. J. M., S.M. Haley and T. Bugnyar. 2020. Azure-winged magpies' decisions to share food are contingent on the presence or absence of food for the recipient. *Sci Rep* 10(1) https://lup.lub.lu.se/record/349eae2c-760b-4c5b-871b-5c9796c89326

Birds in the news

Photo by Roman Kraft on Unsplash

Editor's note: If you have some late-breaking news on some exciting ornithological research that you would like to share with IOU members, send along a summary and a photo if you wish for inclusion in the next issue of The Flutter

New World Record Holder Among Migratory Birds!!

The birds have a new world record holder among them! A male bar-tailed godwit, a medium-sized shorebird, flew all the way from Alaska to New Zealand non-stop. The bird left southwestern Alaska on September 16 and arrived 11 days later to alight at a bay near Auckland, New Zealand. The bird, recognized by four colour identification rings affixed to its leg, was tracked by Global Flyway Network, a conservation organization that studies long-distance migrating shorebirds. These fast-flying, light-weight birds, with wingspans of roughly 30 inches, breed in the Arctic regions of the northern hemisphere and then fly south as far as New Zealand and Australia. To get to the latter places, the godwits must traverse the Pacific Ocean. Wearing a 5 g GPS tracking tag and flying up to 55 miles per hour, this particular bird apparently flew about 7,500 miles without stopping for a rest, beating the former record holder, a female bar-tailed godwit in 2007, by about 300 miles. What is really amazing about these birds is that they are able to seemingly fly these distances without eating or sleeping….an absolutely incredible feat, if you think about it!

Popular Article: Rasha Aridi October 16, 2020, *Smithsonian Magazine*
https://www.smithsonianmag.com/smart-news/bird-designed-jet-fighter-sets-new-world-record

Extraordinary Colour Vision in Hummingbirds!

I can't exactly where and when it was that I first laid my eyes on a colour TV after spending my childhood in black and white. But I do remember what a shock and delight it was. And if I were suddenly blessed with the eyes of a hummingbird, I would be totally shocked again! According to a recent study out of Princeton University done by Mary Caswell Stoddard and her colleagues, hummingbirds can see a very different, and impressive, array of colours that are invisible to our eyes, In a series of experiments involving sugar water and LED tubes, the researchers found that wild broad-tailed hummingbirds can discern colors created from various combinations of ultraviolet and visible light. This ability likely helps these birds home in on nectar-bearing flowers covered in patterns that are imperceptible to people. I'll bet that you did not know that the average human eye can distinguish around one million different colors. Our color vision depends on three types of cones—special cells sensitive to red, blue, or green light. However, many birds, reptiles, and fish have an additional kind of cone that can pick up ultraviolet light. And that ability gives them a whole other dimension to perceive colours. Stoddard's team put out two feeders for wild hummers in Colorado, one containing sugar water and the other a nutritious sugar water. Beside each feeder was an LED tube, each of which emitted a different colour. After 19 experiments designed to eliminate memorization and the sense of smell, the team found that the hummingbirds could readily perceive colors from the visible light spectrum such as red, pure ultraviolet light, and different blends of UV and visible light such as ultraviolet mixed with red. They could even tell apart two hues created from different mixtures of red and ultraviolet light. Being able to discern UV light is likely not just invaluable for finding food, but also for choosing mates and avoiding predators.

Original Paper: Stoddard, M.C., H.N. Eyster, B.G. Hogan, D.H. Morris, E.R. Soucy, and D.W. Inouye. 2020. Wild hummingbirds discriminate nonspectral colors. *Proc Acad Sci* 1919377117 DOI: 10.1073/pnas.191937717.pdf

Cooling the Bill to Prevent Starvation

We knew that toucans could use their massive beaks to help themselves keep cool by shedding excess heat, but scientists have now learned that birds in the wild appear to be able to do the opposite, that is lower their bill temperature to prevent heat loss in order to preserve energy when food is scarce. The team of scientists at the University of Glasgow used thermal imaging technology to measure the

body surface temperatures of great tits living in the wild during times of food shortage as well as on captive counterparts in Sweden. Shortly after the food became unavailable, the birds allowed their bills to cool. Their bill temperature remained below the normal temperature maintained when food is available, but after about an hour, it began to rise. This suggests that the bird can control how much the bill is allowed to cool and a possible relationship between bill cooling and reduced functionality. According to the researchers publishing in the Journal of Experimental Biology, the birds are reducing heat loss from their bill by selectively restricting blood flow well before they enter a period of starvation. In other words, when a reliable food supply is cut off, the birds are actually predicting an energetic shortfall and taking steps to lessen the amount of energy lost to minimize the depletion of body reserves. This adaptation can come in quite handy in small birds with constantly changing winter conditions.

Original Paper: Winder, L.A., S.A. White, A. Nord, B. Helm, and D.J. McCafferty. 2020. Body surface temperature responses to food restriction in wild and captive great tits. *J Exp Biol* 2020 223:jeb220046 doi: 10.1242/jeb.220046

The Heaviest Flying Bird Ever!

Some writers are billing it as an albatross with a hacksaw for a mouth and paleontologists are claiming that it may constitute the largest known flying bird ever, with wingspans of roughly 20 feet. It is called the pelaornithid and it flew the skies about fifty million years ago. The story goes like this. During the 1980s scientists were searching for fossils on Seymour Island, part of Antarctica and found some delicate bird bones, a jaw and part of a foot to be specific, in a rock formation laid down about 37 million years ago. The bones eventually found their way to the University of California Museum of Paleontology and like any bony-toothed jaw, they immediately stood out. Especially this one! Looking like a woodcutting tool rather than a bone, the jaw has a series of large and small spikes, which look somewhat like teeth. Normally on a live animal, it would have been covered in keratin and given the creature a saw-toothed smile. It was identified as belonging to a pelagornithid, a group of birds that evolved about 56 million years ago. To make a long story short, the paleontologists found a foot bone in the collection and put two and two together to conclude that they had found the largest flying bird to date. The huge creatures likely used their hacksaw bills to reach beneath the surface of the water to grab fish and squid. Because they could fly such long distances like our modern-day albatrosses, this would explain why their fossils have been found all over the world.

Original Paper: Kloess, P.A., A.W. Poust, and T.A. Stidham. 2020. Earliest fossils of giant-sized bony-toothed birds (Aves: Pelagornithidae) from the Eocene of Seymour Island, Antarctica. *Sci Rep* 10: 18286 https://doi.org/10.1038/s41598-020-75248-6

Tools for Research and Conservation

Photo by Hunter Haley on Unsplash

Editor's note: If you have some late-breaking news on a new ornithological research tool that you would like to share with IOU members, send along a summary and a photo if you wish for inclusion in the next issue of The Flutter.

The Latest Poop on Using Penguin Feces as a Dietary Analytical Tool!

Using feces to determine eating habits of various kinds of mammals is not a novel concept, but with birds, it is much more difficult. After all, most bird poop consists of liquid uric acid with a dark dollop of feces somewhere in the mix……in other words, all of the consumed items look the same at that point. But researchers at the University of Otago in New Zealand have come up with a brand new way to analyze feces, that is by identifying the DNA of the prey species. Yellow-eyed penguins are an endangered species in that country and knowing what they eat is an important piece of knowledge for any conservation programs. Melanie Young, a PhD student, and her colleagues collected over 300 fecal samples from these penguins all along the Otago coast and then extracted a specific gene found in all animals, known as Mitochondrial 16S, to identify individual prey species in their diet. Blue cod was shown to account for a large portion of the penguins' menu. This is not good news for the future of the yellow-eyed penguin. Several key diet species that were once eaten quite regularly by the penguins in the 80s are apparently no longer available to the birds. This means that the penguins are quite reliant on the fate of the blue cod instead of having a varied diet. It is well known that any species, bird or otherwise, that hangs its future on just one or two prey species, is less likely to be resilient in terms of its long-term survival. In other words, those species

with a more specialized diet are less likely to adapt to any changes in their diet. No blue cod – no yellow-eyed penguins! It's that simple! On the plus side though, this novel use of DNA to determine diets in birds holds much promise for the conservation of many species all over the world.

Original Paper: Young, M.J., L. Dutoit, F. Robertson, Y. van Heezik, P.J. Seddon, and B.C. Robertson. 2020. Species in the faeces: DNA metabarcoding as a method to determine the diet of the endangered yellow-eyed penguin. *Wildl Res* 47(6): 509-522 https://doi.org/10.1071/WR19246

"I See a Turbine and I Want to Paint It Black" – Rolling Stones (1966)

Researchers in Scandinavia have discovered a simple solution that will allow us to benefit from wind energy without harming wildlife. The U.S. Fish and Wildlife Service estimates that anywhere from 140,000 to 500,000 birds are killed annually in the United States due to wind turbine collisions. To see how they could cut down on the fatalities, researchers from the Norwegian Institute for Nature Research and Sweden's Lake Ånnsjön Bird Observatory recently published a study that examined the effectiveness of simply painting a single turbine blade black. The results are encouraging. They settled on painting one blade black due to previous studies showing that this cuts down on motion blur. As birds have a narrow front field of view and are often using their peripheral vision to look for prey and predators, anything that can better signal a moving object would theoretically cut down on incidents. To test their hypothesis, the researchers conducted a study in the Smøla archipelago off the coast of central Norway. Starting in 2006, dogs were used to find bird fatalities on the island's wind farm. This initial study lasted seven and a half years, after which blades on four of the turbines were painted black. The next three and a half years were used to study the impact. What they discovered during the initial, unpainted phase was that those four turbines had killed 11 birds. Once painted, that number decreased to six birds, while in the control group, which was left unpainted, the number of fatalities increased. Overall, there was an average 71.9% decrease in the annual fatality rate after painting the turbines relative to the control turbines. This is promising information, as the cost of implementing this system is relatively small—particularly when done prior to wind turbines being installed. Of course, the researchers caution that further study is needed to solidify their findings. As fatalities fluctuated from year to year, a longer study—and one using more turbines—would certainly be useful. But even so, these initial findings are certainly positive.

Popular Article by Jessica Stewart, *My Modern Net*, August 28, 2020
https://mymodernmet.com/painted-wind-turbines-bird-fatalities/

Original Paper: May, R., T. Nygård , U. Falkdalen, J. Åström, Ø. Hamre, and B. G. Stokke. 2020. Paint it black: Efficacy of increased wind turbine rotor blade visibility to reduce avian fatalities. *Ecol Evol* 10(16) https://doi.org/10.1002/ece3.6592

Bird Conservation in the News

Photo by Dr Dejan Stojanovic

Editor's note: Please forward any conservation issues or ongoing efforts for inclusion in the next issue of The Flutter.

Innovative Bird Species Less Likely to Go Extinct

It is one of those things that we biologists knew to be true --- but until it is actually proven or disproven, that is verified quantitatively, by some sort of bonafide scientific study, we cannot just conclude that it is the case. According to a new study published in the scientific journal, Nature Ecology and Evolution, those bird species that are able to develop new ways to find food and to incorporate new foods into their diets are less likely to go extinct. In other words, problem-solving birds can adapt to environmental changes that alter their habitat, whereas less innovative species are more vulnerable to sudden change to their habitat. It actually pleases me to tell you that the findings were based upon an earlier study performed by my McGill

University colleague, Professor Louis Lefebvre, and his undergraduate students. In an effort to determine which bird species were the more intelligent ones, they perused both the scientific literature and the observations of birdwatchers to document more than 3,800 instances of bird foraging innovations. They are basically examples of what we scientists refer to as behavioural plasticity. Some examples include blackbirds eating insects squashed on the radiators under a car's hood, herons using bread and insects as bait to lure fish into beak-striking range, and crows laying out hard nuts on the pavement to be cracked open by car tires. So, Simon Ducatez, a post-doctoral student at McGill from Barcelona, and associates decided to compare the frequency of documented innovative behaviours with each species's risk of extinction according to the Red List of the International Union for the Conservation of Nature. And they found a strong inverse relationship between the two variables. Birds that had been widely observed performing innovative foraging behaviors were less vulnerable to extinction. Basically, the greater the number of innovations described for a species, the greater the probability that its populations are stable or increasing. In brief, the greater the innovative capacity, the lower the risk of extinction of the species. Just to be clear though, it does not give them a "get-out-of-jail for free" card! They can still be killed by myriad threats to their existence such as illegal harvesting and invasive species. But it certainly does help to be innovative whether it is for foraging or for nesting or other aspects of a bird's lifestyle.

Original Paper: Ducatez, S., D. Sol, F. Sayol, and L. Lefebvre. 2020. Behavioural plasticity is associated with reduced extinction risk in birds. *Nat Ecol Evol* **4,** 788–793 https://doi.org/10.1038/s41559-020-1168-8

Conferences

Photo by Mikael Kristenson on Unsplash

Editor's note: This list is by no means exhaustive. If I am missing some noteworthy events, please let me know so that I can include them in the next issue. Also, note that, due to the Covid-19 pandemic, some meetings are being cancelled, some are being postponed, some are being done online, and some are still under consideration. Thus, since things are rapidly evolving, it is always best to check the actual web site for the conference you are planning to attend.

2021

February 21-22, 2021: The **International Conference on Genomics and Molecular Biology** 14th meeting via Webinar. For more information, visit https://www.clocate.com/conference/international-conference-on-genomics-and-molecular-biology/35754/

????, 2021: The Standing Committee of the **Convention on International Trade in Endangered Species (CITES)** postponed until 2021; no dates or venue known as yet. For more information, visit https://cites.org/eng

February 15-16, 2021: The 10th **International Conference on Biodiversity and Conservation** will be held in London, U.K. For more information, visit https://waset.org/biodiversity-conservation-and-sustainable-development-conference-in-february-2021-in-london

May 3 - 6, 2021: The **Society for Environmental Toxicology and Chemistry (SETAC)** will hold its annual European meeting virtually. For more information, visit https://europe2021.setac.org/

Editor's note: Other more local **SETAC** meetings planned for 2021 are listed on their web site: https://www.setac.org/events/event_list.asp

October 9 – 12, 2021: The **Raptor Research Foundation, Inc.** and **Neotropical Raptor Network** will hold a joint meeting in Boise, Idaho. For more information, email Sarah Schulwitz Schulwitz.Sarah@peregrinefund.org or Rick Watson rwatson@peregrinefund.org

August 9 - 14, 2021: The **American Ornithological Society** is holding its annual meeting virtually. For more information, visit https://americanornithology.org/meetings/

February 11 – 12, 2021: The **International Conference on Avian and Exotic Animals** will be held in Barcelona, Spain. For more information, visit https://waset.org/avian-and-exotic-animals-conference-in-february-2021-in-barcelona (Editor's note: For other similarly themed conferences too numerous to list here, visit https://waset.org/wildlife-conferences

March 30 - April 1, 2021: The **British Ornithologists' Union** annual conference themed upon "Restoring Bird Populations" will meet in Nottingham, UK. For more information, visit https://www.bou.org.uk/bou-conferences/

April 2021: The Council of the **Wilson Ornithological Society** is holding a virtual meeting to be held jointly with the Northeast Natural History Conference and Association of Field Ornithologists in Albany, NY. For more information, visit https://wilsonsociety.org/meetings/2021-meeting/

Late July 2021: **BirdsCaribbean** will hold its 23rd International Conference on the island of Trinidad. For more information, visit https://www.birdscaribbean.org/2020/02/birdscaribbean-2021-conference-to-be-held-in-trinidad/

August 1 – 6, 2021: **The Ecological Society of America** will hold its 106th annual meeting in Long Beach, California. For more information, visit https://www.esa.org/events/meetings/future-esa-meetings/

September 20 – 24, 2021: The **World Owl Conference** will be held in Onalaska/La Crosse, Wisconsin, USA. For more information, visit https://www.internationalowlcenter.org/futureconferences.html

September 26 – 30, 2021: **The Wildlife Society** will hold its 28th Annual Conference in Baltimore, Maryland. For more information, visit https://wildlife.org/learn/conferences-2/

October 5 - 10, 2021: The **Asian Raptor Research Conservation Network** is meeting in Kuching, Borneo, East Malaysia. For more information, contact Chong Leong Puan, University Putra Malaysia chongleong@upm.edu

November 15 - 19, 2021: The **Pan-African Ornithological Congress** will be held in Victoria Falls, Zimbabwe. For more information, visit https://www.paoc15.org/

2022

August 14 - 22, 2022: The **International Ornithological Union** will hold the 2022 IOCongress® in Durban, South Africa. For more information, visit https://www.internationalornithology.org/blog/10791

August 14 - 19, 2022: **The Ecological Society of America** will hold its 107th annual meeting in Montreal, Canada. For more information, visit https://www.esa.org/events/meetings/future-esa-meetings/

June 27 - July 1, 2022. The **American Ornithological Society** is holding its 140th stated meeting in San Juan, Puerto Rico. For more information, visit https://americanornithology.org/meetings/

November 6 – 10, 2022: **The Wildlife Society** will hold its 29th Annual Conference in Spokane, Washington. For more information, visit https://wildlife.org/learn/conferences-2/

September 11 – 16, 2022: The 18th **International Behavioral Ecology Congress** will be hosted in Melbourne, Australia. For more information, visit http://www.behavecol.com/meetings-conferences/

March 30 - April 1, 2022: The **British Ornithologists' Union** annual conference themed upon "Avian Reproduction" will meet in Nottingham, UK. For more information, visit https://www.bou.org.uk/bou-conferences/

2023

August 6 - 11, 2023: **The Ecological Society of America** will hold its 108th annual meeting in Portland, Oregon. For more information, visit https://www.esa.org/events/meetings/future-esa-meetings/

Courses and Workshops

Photo by Rita Morais on Unsplash

Editor's Note: Workshops that benefit ornithologists are not easy to locate on the internet and they are often buried in the web site of an upcoming conference. If you know of any upcoming courses or workshops of interest to our members anywhere in the world, please forward the information to me.

Courses and workshops for PhD students, postdocs, and professional researchers, and those wishing to become ornithologists:

Ornithological Technical Services is an industry leading scientific consultancy that specializes in aviation ornithology. Since 2003, we have provided expertise and delivered high standard projects relating to aviation wildlife hazard management, avian conservation, pest bird management and avian environmental impact assessments. For more information, visit https://www.ornithologicaltechnicalservices.com/training

The **Cornell Laboratory of Ornithology** based in Ithaca, New York offers outstanding courses and workshops on ornithology that may be useful to those interested in improving their skills in the study and conservation of birds on both a professional basis and for citizen science. For more information, visit https://www.birds.cornell.edu/home/education/

The **British Trust for Ornithology** offers a wide range of **courses** each year around the country in a variety of venues and habitats, for **beginner birders**, developing surveyors and conservation professionals. For more information, visit https://bto.org/develop-your-skills/training-courses

Courses and workshops for those wishing to become ornithologists:

Online Course: How to Become an Ornithologist | EnvironmentalScience.org Visit https://www.environmentalscience.org/career/ornithologist

Online Ornithology Courses - Fat Birder Top fatbirder.com Visit https://www.coursef.com/ornithology-online-programs?rid=5e8fb68b8dcd2c6600c988a7

Editor's Note: For more online courses in ornithology, visit https://www.coursef.com/ornithology-online-programs

Grants, Fellowships, Internships, and Positions

Photo from unsplash.com

Editor's Note: If you know of other opportunities for ornithological grants, fellowships, internships and positions, please forward them to me for posting. I am also posting other databases rather than duplicating all pertinent listings in The Flutter.

General Grants and Awards Databases:

Editor's Note: This is a reasonably up-to-date database of recurring grants, awards, prizes, scholarships, fellowships, etc. in the field of ornithology. While it does include some of the opportunities listed below, there are other useful ones. For more information, visit https://ornithologyexchange.org/funding/grants/

World-wide:

British Ecological Society Training & Travel Grants: These grants help PhD students and postgraduate research assistants to meet the costs of specialist field training courses and to network and publicise their research by presenting their work at workshops and conferences.

Read more: https://www.britishecologicalsociety.org/funding/training-travel-grants/

Captain David Simpson Award: The Royal Navy Birdwatching Society administers a fund left by the late Captain David Simpson, MN for a scholarship in his name. A budget for research grants and conservation work is set each year at the annual meeting. Researchers are encouraged to apply for grant funding in support of scientific seabird studies with clear aims and objectives. Contact the General Secretary at secretary@rnbws.org.uk for details and read more at http://www.rnbws.org.uk/about-us/

Chicago Zoological Society, Conservation Leadership Awards: The awards were created in 2005 by the Board of Trustees of the Chicago Zoological Society to honour the lifelong legacy of animal welfare and the worldwide conservation leadership of George Rabb.
Read more: https://www.czs.org/Chicago-Zoological-Society/Conservation-Leadership/Conservation-Awards

Darwin Initiative Funding for Biodiversity: The Darwin Initiative is a UK government grants scheme that helps to protect biodiversity and the natural environment through locally based projects worldwide. Deadline: July 2021
Read more: https://www.gov.uk/guidance/darwin-initiative-applying-for-main-project-funding

Frank M. Chapman Collection Study Grant, Frank M. Chapman Fellowship, Frank M. Chapman Grant, American Museum of Natural History comprise several continuous grant schemes aimed to assist ornithological research.
Read more: https://www.amnh.org/our-research/vertebrate-zoology/ornithology/grants

Hawk Mountain, Graduate Student Program: internship programs and competitive grants for graduate students working on raptors at major universities throughout the United States and elsewhere.
Rad more: https://www.hawkmountain.org/about/careers/graduate-student-programs

Holohil Grant Program: supports endangered species research and educational work world-wide that makes significant use of Holohil transmitters for data collection.
Read more: http://www.holohil.com/grant-program/

Idea Wild Equipment Assistance: grants for the acquisition of field equipment. IDEA WILD encourages the use and reuse of equipment and gives preference to proposals that clearly explain how the equipment will be used when the project is finished.
Read more: http://www.ideawild.org/apply.html

Professional Development Grants, World Wildlife Fund: Professional Development Grants (PDGs) provide support for mid-career conservationists to pursue short-term, non-degree training to upgrade their knowledge and skills through short courses, workshops, symposiums, conferences, and professional exchanges.
Read more:
https://c402277.ssl.cf1.rackcdn.com/publications/1095/files/original/PDG_Guidelines_2020.pdf?1568057598

Small Grants for Nature Conservation, The Rufford Foundation: funds nature conservation projects across the developing world.
Read more: https://www.rufford.org/rsg/

Sophie Danforth Conservation Biology Funds: supports conservation programs that protect threatened wildlife and habitats worldwide.
Read more: http://rwpzoo.org/danforth-conservation-grants

Raptor Research Foundation, Inc.: The Raptor Research Foundation, Inc. offers several grants to amateurs and students with limited access to alternative funding to support research on birds of prey and also gives out several awards annually to deserving individuals contributing to the biology and conservation of raptors world-wide.
Read more: www.raptorresearchfoundation.org

The International Osprey Foundation: research grants awarded annually for osprey and other raptor-related research in the United States and worldwide.
Read more: https://www.ospreys.com/styled-4/index.html

Waterbird Society: various grants to support projects producing significant scientific advances in the biology, ecology, or conservation biology of wading birds (i.e. herons, storks, ibises, and their taxonomic allies).
Read more: https://waterbirds.org/awards/

Young Explorers Grants, National Geographic: currently offering Explorers a variety of funding opportunities in the fields of conservation, education, research, storytelling, and technology, including birds.
Read more: https://www.nationalgeographic.org/funding-opportunities/grants/

British Ornithologists' Union: Small research grants of up to £2,000 per project aimed at supporting small projects outright or to part-fund medium-sized research programmes.
Read more: https://mailchi.mp/bou.org.uk/funding-ornithology-july-564053?e=1cb38bcd10

Africa:

African Bird Club Conservation and Expedition awards: The ABC's Conservation Programme supports small- to medium-sized conservation and expedition projects in Africa. For Undergraduate Students, Masters Students, Doctoral Students, Postdoctoral, Early Professionals, and Established Professionals. Next deadlines: end of June, end of October.
Read more: https://www.africanbirdclub.org/conservation-fund-awards

Raptor Research Foundation, Inc.: Leslie Brown Memorial Grants offered specifically for research on birds of prey in Africa.
Read more: https://www.raptorresearchfoundation.org/grants-and-awards/leslie-brown-memorial-grant/

Australasia:

Australian Bird Study Association Research Fund: Each year, the Association awards grants to its members to support specific projects that increase our knowledge of Australian birds. Usually, two grants are awarded. The purpose of the grants is to fund equipment purchases to enable new projects to get started, or to sustain long-term projects.

Read more: https://www.absa.asn.au/grants-2/fund-for-avian-research/

Birds Queensland Research Grant: Each year Birds Queensland offers small grants for research relating to the conservation of birds and their habitats in Queensland, especially those under threat.
Read more: http://birdsqueensland.org.au/research_grants.php

Nearctic:

American Ornithology Society: a variety of research and travel awards aimed at student and post-docs and various prestigious awards for professionals, publications, service, and presentations.
Read more: www.americanornithology.org

Wilson Ornithological Society: a variety of research and travel awards aimed at students and various prestigious awards for professionals, publications, service, and presentations.
Read more: www.wilsonsociety.org

Birds Canada: jobs for ornithologists at all levels, as well as plenty of opportunities for citizen scientists dealing with birds; also offer annually two main research grants, one for Canadian-based species and another dedicated to murre populations.

Read more: www.birdscanada.org

American Bird Conservancy: offers job opportunities for ornithologists in the area of bird conservation in the U.S.
Read more: https://abcbirds.org/about/employment/

Cornell Laboratory of Ornithology: for those seeking jobs and volunteer positions as well as opportunities for students. Visit www.birds.cornell.edu/home/jobs/. They are also once again offering one UK Birder between the age of 16 - 18 the opportunity to win the Cameron Bespolka Scholarship to attend Cornell Lab of Ornithology Bird Event, in Ithaca, New York in 2021. For more information, visit
https://www.cameronbespolka.com/sponsorship-to-attend-cornell-university-ornithology-event

Carolina Bird Club grants: The CBC provides grants to support research, education and conservation of birds of the Carolinas and their habitats. Grant applications are accepted on an ongoing basis. The CBC Grants Committee meets quarterly to review applications.
Read more: https://www.carolinabirdclub.org/grants/

Delaware Museum of Natural History, Collection Research Grants: The Collections & Research Division of the Delaware Museum of Natural History announces the availability of graduate student grants in support of research in the Museum's collections.
Read more: http://www.delmnh.org/collections-research/collection-research-grants/

Neotropics:

Neotropical Bird Club Awards and Grants: for conservation work or research that has an intended conservation benefit. Next deadline: July.
Read more: https://www.neotropicalbirdclub.org/conservation/conservation-fund/conservation-fund-guidelines/

Pamela and Alexander F. Skutch Research Award, Association of Field Ornithologists: supports minimally invasive research into the life histories, especially social relations and reproduction, of little known birds of the continental Neotropics, including Trinidad and Tobago. Deadline: 15 July.
Read more: http://afonet.org/wp_english/grants-awards/skutch-award/

Oceania:

Pacific Seabird Craig S. Harrison Conservation Fund, Pacific Seabird Group: The Conservation Fund makes grants for conservation of seabirds in the Pacific Ocean, and for expanding seabird expertise in developing countries within or bordering the Pacific Ocean.
Read more: https://pacificseabirdgroup.org/grants/

Obituaries

Editor's note: If you wish to include an obituary, tribute or memorial piece for some individual who has made contributions to ornithology and/or bird conservation in some meaningful way, please submit no more than 250 words and an accompanying photograph.

Films and Videos

Check out the documentary film **"The Future of Birds"** at https://www.mondefilms.com/synopsis . The past IOU president Dr. Lucia Severinghaus, and other members affiliated with the IOU – Yossi Leshem and Alexandre Roulin, feature prominently in the film.

Contact:

For feedback or more information, or to provide information to be included in the next issue of the IOU Newsletter, please contact the editor at:

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The next deadline for material from IOU members is March 15, 2021.

Please stay safe!!