Birds use feathers 'to touch'

Birds may use their feathers for touch, using them to feel their surroundings just as cats use their whiskers. The revelation that feathers have this hitherto unknown function comes from research on auklets, birds that sport prominent plumes on their heads. Auklets with bigger crests, that stick out further, bump into things less. A wider analysis suggests that numerous birds, from parrots, penguins, pheasants and hummingbirds, also use their feathers to feel their way. Details of the discovery are published in the journal Animal Behaviour.

Many species of bird sport elegant long feathers, either crests, beards or whiskers that adorn the head and face, or striking tail feathers. Many of these feathers are thought to have a sexual function, being used to advertise a bird's virility to potential mates. But Dr Sampath Seneviratne of the University of British Columbia in Vancouver, Canada and Professor Ian Jones of Memorial University in St John's, Canada suspect they may also have a tactile function.

Bumping Heads

They explored why a group of birds called auklets have evolved such elaborate head feathers. Within the genus Aethia, a number of species have different shaped feathers, but both males and females tend to look the same.

The birds usually breed in dark, rocky crevices. The researchers placed individual auklets into a dark experimental maze, designed to resemble a natural crevice, and recorded how often they bumped into things. Both crested and whiskered auklets bumped their heads 2.5 times more often if their feathers on their heads had been artificially flattened.

Also, "without the aid of the crest, naturally long-crested individuals had more head bumps than short-crested indi-

Continued-on page 2
The two ornithologists then conducted a wider comparative analysis: checking which bird species sport long ornamental feathers against their lifestyles and where such birds live. What emerged was a striking pattern.

"Birds that live in complex, cluttered habitats and are active at night tend to have a greater probability to express such facial feathers," says Dr Šeneviratne. "We found a highly significant correlation for the observed trend."

**Penguins to Parrots**

The pattern held true across all non-passerine birds, which comprise about half of all bird species. The researchers did not include passerine, or perching birds, in their analysis. That means that various species of penguin, parrot, cormorant, owl, hummingbird, kingfisher, woodpecker and game birds such as partridge and pheasant, may all use certain feathers for touch. Such ususly called crests, beards, bital plumes.

Dr Šeneviratne and Prof Jones such as the long streamers pin and forked tails of other speers on some birds' wings, may Biologists have long wondered ornamental feathers. Many do so startle predators, or to advertise their prowess. For example, "long facial feathers are generally thought to be 'sexy ornaments' used to seduce choosers and for assessment of the presenter," says Dr Šeneviratne.

**Cat Whiskers**

But while such feathers may have acquired these functions, their original purpose may have been to provide a similar function as a cats' whiskers or a blind person's cane. By providing sensory feedback to a bird about its environment, such feathers can provide a distinct advantage, particularly to birds living in dark or crowded environments.

"Birds living in complex habitats are likely to encounter greater density of objects or clutter that they have to avoid." So such feathers could help birds avoid bumping into burrow ceilings, tree branches and undergrowth. Feathers around the face would prove especially useful, as they might stop a bird damaging vital organs, such as eyes, eardrums, nostrils and bill.

"We describe the first comparative evidence for this widespread but entirely overlooked sensory function of long facial feathers. We argue that this provides a hitherto missing explanation for the origin of ornamental feathers," says Dr Šeneviratne.

"This provides a hitherto missing explanation for the origin of ornamental feathers"

Dr Sampath Šeneviratne
University of British Columbia

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**Upcoming Events at the BRMBR**

**March 13**
Tundra Swan Day

**March 20**
Sense of Wonder Day — Celebrating Rachel Carson

For more information, visit the Bear River Migratory Bird Refuge's website at http://www.fws.gov/bearriver/.
Board of Trustees Meeting: BAS Trustees meet at 7 p.m. at the Cache Valley Learning Center, 75 S. 400 West, Logan. Enter through the building's west doors. All are welcome to attend.

General Meeting: Wetlands — Recognizing, Appreciating, and Protecting Them: Join us at our same great location, the Cache Valley Learning Center (75 S. 400 West), as Cindy Johnson will describe the defining characteristics of wetlands and their important functions and values, with local examples. The current status of wetland regulations will be discussed briefly. The discussion will end with suggestions of what concerned citizens can do to help protect wetlands in and near our communities. The meeting will start at 7 p.m. Enter through the building's west doors. All are welcome to attend and refreshments will be provided by Crumb Brothers and Caffe Ibis. We hope to see you there!

Benson Birding: Join local birding expert Reinhard Jockel as he leads a field trip to the Benson area. This area is prime area for raptors. But, we'll be on the hunt for early Sandhill Cranes. Meet at 8:30 a.m. at the parking lot between Caffe Ibis and the Logan Fire Station. Bring binoculars and dress for the season. Beginning birders are welcome. Carpooling will be available. We will finish up around noon.

Hyrum Dam: Join local birding expert Reinhard Jockel as he leads a field trip to the South end of the valley, specifically Hyrum Dam. We'll be on the lookout for mergansers, loons and osprey in addition to the expected gulls, ducks and geese. Meet at 8:30 a.m. at the parking lot between Caffe Ibis and the Logan Fire Station. Bring binoculars and dress for the season. Beginning birders are welcome. Carpooling will be available. We will finish up around noon.

4th Annual Sunflower Seed Sale Continues

Allen Christensen has agreed to continue selling high quality black-oil sunflower seed. The 50 pound bags are still priced at a fantastic $25! Why would you want to buy this seed? This high quality seed is provided by a local grower and is guaranteed to be cleaner than other seed. Allen is willing to deliver the bags. Simply call Allen at (435) 258-5018 and stock up on your Winter supply while supporting a local grower!
March is a good time to plan for pollinating our fruit trees using one of our native bees, the blue orchard bee (Osmia lignaria). Back in last April’s Stilt, you learned that the blue orchard bee (BOB) is not social, that every female is fertile and tends to her own nest. Their single adult generation is in early spring. During fruit tree bloom, they busily make and provision their nests in linear tunnels in dry dead wood. Each female BOB progressively subdivides such a wood tunnel into a series of nest cells, each cell receiving a pea-sized provision of pollen moistened with nectar, followed by a single egg. Nest cells are partitioned, and ultimately capped, with mud, earning this kind of Osmia its other common name of "Mason bee". You can see pictures in my archived April 2009 Stilt article.

Now is the time to make preparations if you want to try initiating your own backyard population of blue orchard bees. They prefer a tunnel diameter of 5/16 of an inch, and at least 4 inches deep (6" is ideal). The easiest way to start is with a dry, seasoned round of conifer, cottonwood or aspen log. Drill 20 or more holes toward the center, as deep as you can, on one side of the round. Stand it on end, facing the side with holes southeastward. Females appreciate morning and midday sun so that they can warm in their nest entrance on chilly spring mornings. If female BOBs adopt your drilled nest tunnels, then you will see steely blue bees busily coming and going all day long during fruit tree bloom. They tote their loads of dry yellow pollen in a brush of hair beneath their abdomen, which as you will see, necessitates some charming acrobatics to unload. Once you attract a starting population of BOBs, successive generations will stick around to nest every April for you. Repeated nest reuse eventually leads to disease and parasite problems, which you can remedy using more formal nesting substrates (drilled wooden blocks with paper straw inserts, or cut lengths of thick-walled Phragmites reeds, to name two) described at my lab’s website: http://www.ars.usda.gov/Services/Services.htm?modecode=54-28-05-00. There, under "products and service" we have had to cram such information for users. I’d be happy to answer your questions as well.

While you are logged on the computer and dreaming of spring, and if you want to plant flowers that feed other kinds of native bees, including good choices for the water-wise garden, an illustrated listing is available for reading or download at Gardening for Native Bees and Beyond in Utah (http://extension.usu.edu/files/publications/factsheet/plants-pollinators09.pdf).

—by Jim Cane

"BirdsEye" Guides You to the Birds

"BirdsEye is the best invention for birding since binoculars," says Kenn Kaufman, renowned birder, author of the Kaufman Field Guide to Birds of North America and team member of a partnership that has created BirdsEye, a new birding app for the iPhone® and iPod touch®. "It's like having thousands of local birding experts in your pocket," Kaufman says. The application was developed by Birds in the Hand, LLC, of Virginia, and brings together content from the Cornell Lab of Ornithology, the Academy of Natural Sciences, and Kaufman. BirdsEye is now available on the App Store. If you are in search of a particular bird, BirdsEye will show you where it has been observed, and even give you directions. If you are new to birding or an experienced birder who is on the road, BirdsEye will give you a list of birds seen nearby and a map of birding hotspots for any location

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in North America (the contiguous 48 states, Canada, and Alaska). The application includes images and audio for the 470 species most frequently observed in North America. Additional content is available for more elusive birds—for a total of 847 species. Bird sounds come from the Cornell Lab of Ornithology's Macaulay Library archive, the largest collection of bird and animal sounds in the world. Images are from the VIREO collection at the Academy of Natural Sciences. Acclaimed birder and author Kenn Kaufman wrote text for each species account—with a specific goal in mind.

“Even when you’re in the right location, it helps to know something about the bird’s behavior and habitat in order to find it,” says Kaufman. “Will you find this bird in flocks up in the treetops, or solitary individuals lurking in the thickets? Are you likely to hear it before you see it? I wrote each of these short accounts as if I were giving advice to a friend who was hoping to see this bird for the first time.”

BirdsEye provides real-time access to bird observations submitted to the eBird database at the Cornell Lab. eBird, a joint project of the Cornell Lab and Audubon, receives 1.5 to 2 million bird observation reports each month from birders all over North America. Ability to submit observations to eBird directly from BirdsEye is already in the planning stage.

“It’s amazing to have instant access to all the birds reported to eBird within a 30-mile radius of your location,” says eBird co-leader Brian Sullivan at the Cornell Lab of Ornithology. “Anyone can step off a plane, turn on their iPhone or iPod touch to see what’s been reported, target the locations showing the best birding potential, and head into the field!”

“Our goal is to give people more great birding opportunities,” says Todd Koym, leader of the programming team and the person who first envisioned the power of building an iPhone app based on eBird. “BirdsEye is a means to an end—with the end being seeing more birds.”

Team member Pete Myers, former senior vice president for Science at the National Audubon Society, as well as a former Audubon board member, says, “BirdsEye combines iPhone ease and elegance with some of the most trusted and authoritative names in birding, helping make everyone’s birding experience richer and more fun. Experienced birders get a quick heads-up about opportunities to add birds to their life list. Beginning birders can quickly discover nearby hotspots to go birding.”

Portions of BirdsEye sales go back to the Cornell Lab of Ornithology to help support its research, education, and citizen science projects focused on birds, and to the Academy of Natural Sciences to support VIREO, the world’s largest collection of bird photographs.

More Information:
BirdsEye: www.getbirdseye.com
iTunes App Store: http://itunes.com/app/birdseye
Cornell Lab of Ornithology: www.birds.cornell.edu
eBird: www.ebird.org

Contacts:
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Kenn Kaufman, (419) 957-7790, kenn.kaufman@worldnet.att.net
Brian Sullivan, eBird, Cornell Lab of Ornithology, (609) 694-3280, bsl42@cornell.edu
Pat Leonard, Cornell Lab of Ornithology, (607) 254-2137, pel27@cornell.edu

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Local Bird Spotlight

Shrikes

For a bird I don't see that often, the shrike remains an enduring favorite. This is a songbird that thinks it's a hawk.

You don't want to be on the business end of a shrike's hooked bill, with which it kills and tears apart everything from insects to other birds, reptiles to small mammals. Both species in North America—Loggerheads and Northern—are deftly efficient killers. (There are 30 shrike species worldwide.) Shrikes are famous for impaling their prey. Thorns or barbed wire are surrogates for a strong grip, which shrikes do not have. So with the prey thus impaled, shrikes can rip it to pieces. Where there are no thorns, shrikes will drape or wedge their victims among branches.

Sometimes thorns or barbed wire become, for shrikes, grocery stores. Shrikes will kill and impale their prey only to leave them for later consumption. They'll come back to dead-festooned thorns to eat the crucified. According to The Birder's Handbook, shrikes typically have an epic memory: one study in Texas showed that eight months after creating a cache of dead frogs the songbirds returned to eat the dried remains. In his charming 1936 edition of Birds of America, T. Gilbert Pearson writes that the caching behavior gives the birds a storehouse against "hunger resulting from adverse fortunes of the chase."

These are hungry birds. Over two months, one pair of parents and their youngsters (seven) eat the equivalent of nine kilograms of food, which, reports the definitive The Birds of North America, "equals about 75 birds...222 microtine rodents...and 394 bumble-bees."

Gilbert Pearson writes that the caching behavior gives the birds a storehouse against "hunger resulting from adverse fortunes of the chase."

Not long ago I listened to recordings of a Loggerhead Shrike. Harsh high two-syllable tweets. A clustered whistly call, a trill of sorts. A burry, fast call that reminds me, appropri-
ately, of a hawk. The Northern has
whiny, fast, hawkish call and its
own high-pitched, busy, abrasive
clattering of notes and a spring
song “suggesting that of the Cat-
bird,” says Pearson. None of these sounds
are especially fetching. But they get
one’s attention. They might also attract
other species as shrikes will, some
say, resort to mimicry to draw in birds the
better to eat them. Then again, The Birds
of North America claims that the North­
er is “often tame
and unsuspicious
and will] sometimes
sings a feeble though
pleasing and rhythmical
song, even in win­
ter...”

In Northern Utah,
both Northerns and
Loggerheads can be
found in winter.
Warmer weather
sends the Northern to
the north, while Loggerheads can be
found throughout the lower 48
and Mexico year-round. Some Log­
gerheads also move north to breed
and nest.

But loss of shrubby, woody, short-
grass habitat, use of pesticides and
the impact of vermin control are all
reasons why, across the continent,
Loggerhead Shrikes are in decline.
(The only natural predators for adult
shrikes are raptors.) According to
Canada’s Species at Risk Public
Registry, “A study of the toxicology
of road dust suppressant in Ontario
found that it reduced songbird and
fish viability and had a particularly
pronounced impact on shrikes be-
cause they hunted insects attracted
to the moisture on the road. The
Ontario Ministry of Environment
subsequently banned the use of the
chemical as a road dust suppres­
sant.” Because shrikes are near
the top of the trophic ladder, chemi-
Northern Shrikes making their
breeding grounds in the vast and
wild taiga and tundra country of
high Canada and Alaska makes it
that much more difficult to know
the population’s status. Perhaps not surpris­
ingly, sources are mixed on whether this
shrike species is declining or increasing; in
some areas, the former; in others, the lat­
er. Shrike migration patterns aren’t well-
studied either, for that
matter.
If I were to happen on a
shrike’s nest I’d leave it
alone. I’d want to save
my scalp from this
stabby, fierce bird and
not alert predators to
the nest’s location.
Loggerheads “make a
great outcry when one
disturbs the nest,” T.
Gilbert Pearson writes,
“and will pop their bills
in a manner that sug­
gests grinding of teeth
in rage.” Such rage can
be directed to other
threats, such as brood parasites
like the brown-headed cowbird. I
love birds that recognize the brown-
headed cowbird’s tricky habit of
laying its own eggs on top of the
eggs of the original nester.

That’s yet another reason to cheer
on Team Shrike–Loggerheads and
Northerns—and provide for Logger­
heds the chemical-free habitat
they need to reverse population
declines while making certain en­
ergy development does not impact
the Arctic habitat of Northerns.

Christopher Cokinos
chris.cokinos@usu.edu
Bird Brains:
Reflections on the State of the Union

It hasn’t snowed much lately. I decide to run up the canyon rather than ski. I am getting the knack of going uphill on the skis, but going down is a crap shoot. The sun is creeping north again. If I time my runs right, the sun perches on top of the Wellsville Mountains across the valley and beams directly up Dry Canyon. My body is elated to feel the sun on my back as we hike. We don’t go very far up the canyon. Chico has been wearing his dog pack. I pack his water, some treats (for him and me), poop bags (just for him, but you never know), and a small square foam pad which I use as a seat in the snow, in his pack. About two miles in, the canyon narrows, some bigger boulders have been left behind by those having given up on eternity, and eventually, in a nice grove of big-tooth maples, I sit under a large doug-fir. I pull the water from Chico’s pack, give him some treats, untie the foam pad, and sit down to write.

I tell Chico to stay close or a mountain lion will eat him. He usually doesn’t wander too far. He stays within eye-sight and busies himself with sticking his head into the snow and trying to smell the ground far below. A bit of snow collapses off a juniper branch; in the silence, a small group of what to my untrained eye appears to be mountain chickadees flit upon the melting boughs. I don’t know what a group of chickadees is called. It is a congregation of plovers—they run back and forth in worship with the ocean; it is a covey of quails, a quarrel of sparrows, a conspiracy of ravens, and a murder of crows. Sometimes they call them a congress of crows; after watching our own Congress, the word is unfair to the crows.

Perhaps, like finches, the chickadees are trembling; however, as they dart high above me in the doug-fir, they don’t appear to tremble. Then, I hear the turning winds from a larger bird swooping though trees; I see just a glimpse of the spread rectrices as the mystery bird disappears down the canyon. Whatever the large bird was, if the chickadees tremble, they do it in silence.

In Alaska, I spent hours staring through binoculars watching the convocation of eagles as the tide poured into the lagoon. When I would fillet fish, they would sit in the distance and wait; the more daring birds like magpies and crows came close to steal what they could before the eagles staked claim. On warm days, hundreds of them take flight in the rising thermals off the hillside. They circle for hours and hours, high up into the air, and then disappear across the mountains. Sometimes, I watched, as Whitman called it, the dalliance of the eagles. Locked onto each other midair, they helicopter down towards earth. Could conception be perceived any better? Sometimes they crash into the water, copulation incomplete.

Because we don’t own a television, we stream the State of the Union speech on the internet and watch it on my laptop. We go to the government’s website. Of course, it freezes over and over again. I get angry because my favorite part is watching the people stand up to clap...or not stand up to clap. I really enjoy the outliers—the people who start to stand up and then sit back down, the people who look around to make sure everyone else stood up when they did. I think they call it a gaggle of congressmen/women.

In Chico, I used to go up above the park along the cliff edges as the sun was setting and watch the young turkey vultures learn to fly. It is a wake of vultures. And if you have ever seen a group of them sitting in a tree with their wings sunning in the first break of morning, you know why. They circle death. Perched in the digger pines on the south side of the canyon, they fall from the trees, catch similar thermals, and learn to ride them into the sunsets. Awkwardly, they crash down through the air to come to roost back in the pines. Tomorrow they look for carrion.

—January 31, 2010 by Nathaniel Miles Millard
Welcome to BAS

New Members
Young Ben-Jacob
Steve & Jeanna Livingston
Shirley L. Rees
David Turner

Renewing Members
Robert Atwood
Patricia Bahler
J. Boettinger
Stephen C. Bromley
Ms. June Callahan

Rebecca S. Echols
Kurt A. Fornoff
David Liddell
Jaron Livingston
Mrs. Rosalie Mueggler
E. Schupp
Ms. Diana I. Toth
Wayne Wurtsbaugh

Bridgerland Audubon

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2009-2012 Ron Goede, 752-9650; Frank Howe, 787-1859
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Sanctuary Jim Cane, 713-4668, jmcane@cc.usu.edu
Hotline Nancy Williams, 752-4780, nanwill@cc.usu.edu
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Webhost www.xmission.com

National Audubon Society
Chapter Membership Application
Yes, I'd like to contribute to Audubon and receive the Bridgerland Audubon newsletter, The Stilt, and the National AUDUBON magazine, as a:

New member of the National Audubon Society and Bridgerland Audubon.

My check for $20 is enclosed (this is a special first-year rate).

Name
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National Audubon occasionally makes its membership list available to selected organizations. To have your name omitted from this, please check this box.

Note to new National Audubon members: To get on The Stilt newsletter mailing list without the usual 8-week delay, contact Susan Durham, 752-5637, sdurham@cc.usu.edu.

Prefer the local newsletter only? Send $20 (make checks payable to Bridgerland Audubon Society) and this form to: Bridgerland Audubon Society, PO Box 3501, Logan, UT 84323-3501 for a subscription to The Stilt.
Ballot
BAS 2010 Election of Board Members

Board of Trustees
(Three-Year Term)

Vote for Four:

☐ Chris Cokinos
☐ Jack Greene
☐ Reinhard Jockel
☐ Ryan O’Donnell

Only BAS members may vote and each membership is entitled to one vote. To vote, clip this ballot and mail to Bridgerland Audubon Society, P.O. Box 3501, Logan, UT 84323-3501. Alternately, you may vote at the banquet in April. All ballots must be received by April 15, 2010.