BC BIRDING

NewsMagazine of the British Columbia Field Ornithologists

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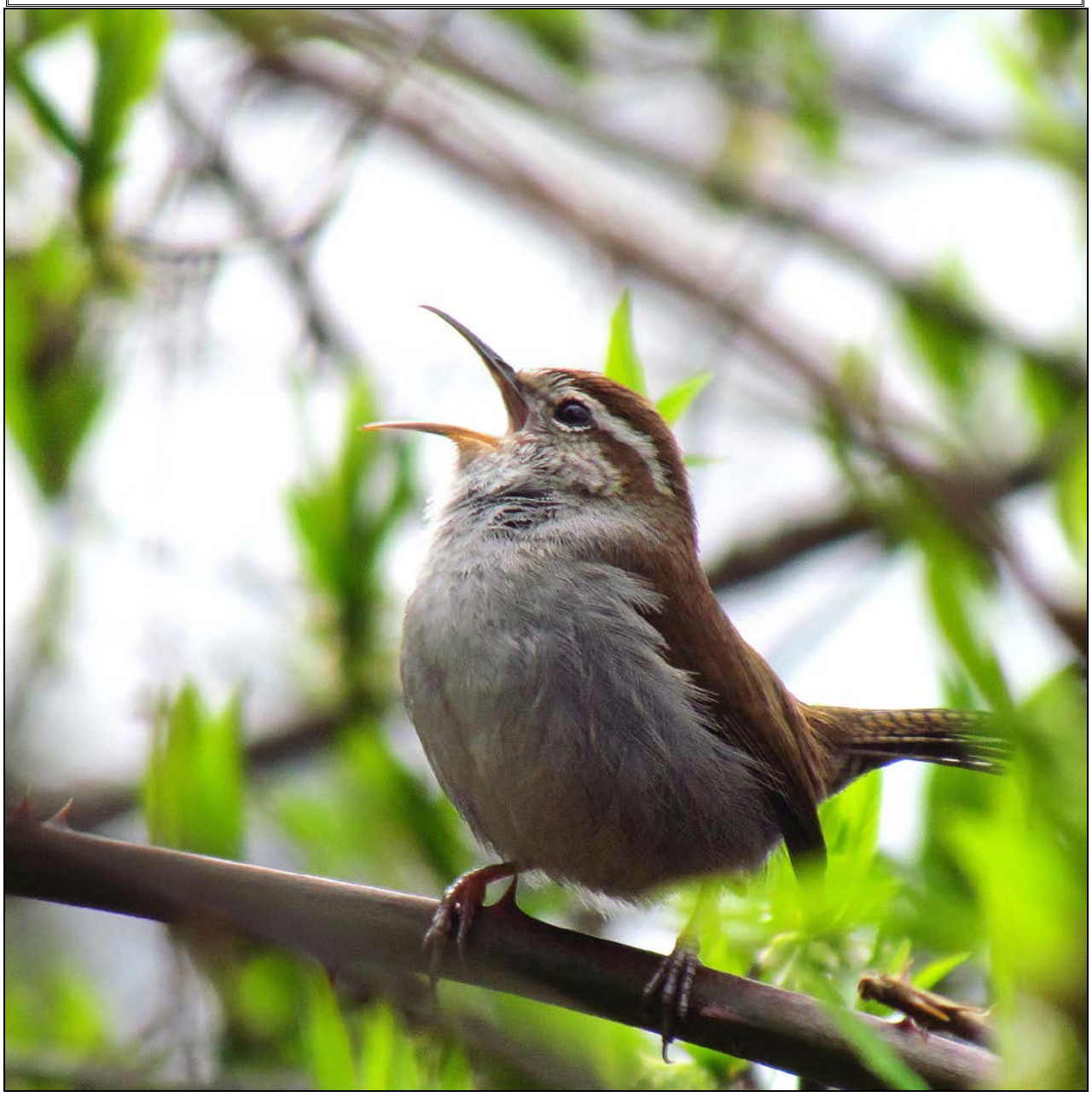

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A subscription to this quarterly is a benefit of membership in the society. Members will also receive a copy of the annual journal, *British Columbia Birds*. Membership in BCFO is open to anyone interested in the study and enjoyment of wild birds in British Columbia.
BCFO objectives include: fostering cooperation between amateur and professional ornithologists, promoting cooperative bird surveys and research projects, and supporting conservation organizations in their efforts to preserve birds and their habitats.
Since November 2003, BCFO has maintained an official partnership with the Changhua Wild Bird Society, Changhua, Taiwan.

Membership Dues

Please send requests, or requests for further information, to:

Membership, PO Box 45507, Westside RPO,
Vancouver, B.C., V6S 2N5

Annual Membership Dues

General Membership (Canada)	$30.
Junior Membership (Canada)	$20.
U.S. and International Membership	$35.

NewsMagazine Submissions

Send material to the Editor at jmryder@telus.net (MS Word format preferred but not essential) or mail to BCFO at above address. Submissions may include articles about birding experiences, casual observations about bird behaviour, site guides, photos, and other topics of interest to birders, preferably, but not necessarily, in British Columbia.

The deadline for receipt of material is the 15th of the month preceding the March, June, September and December issues.

Advertising Rates

Full page: $125 per issue or $112.50 each for 4 or more issues
Half page: $75 per issue or $67.50 each for 4 or more issues
Quarter page: $40per issue of $36 each for 4 or more issues

BCFO Website: http://bcfo.ca/

IN THIS ISSUE

COVER STORY

Photographer: Mike Fung

We all know about the breeding imperative. Yet when a usually skulking wren comes out of its dense cover and breaks into hearty and prolonged singing, we are especially delighted.

This particular Bewick's Wren seemed quite early too. It was only mid-March, at Deer Lake, Burnaby. It was also right after the morning rains had stopped. Photo taken with a Canon PowerShot SX30, a rainy day standby.

Two months later, the birder/photographer was to encounter another lustily singing Bewick's, on the beach at Lily Point, Point Roberts.

BRITISH COLUMBIA BIRDS

Needs submissions

….. of original manuscripts on wild birds in British Columbia. This is the journal of record for reporting rarities or range expansions, the general status of species, and avian ecology and behavior. We publish new observations on birds, or even a single bird. Suitable topics include distribution, abundance, extralimital occurrence or range expansion, reviews of status, banding, identification, plumage variation, moult, behaviour, feeding, breeding, habitat, ecological relationships, reviews, or history and biography of ornithology. Information for authors is available on the BCFO website at:

www.bcfo.ca/journal – author – invitation.php .

BCFO RESEARCH GRANTS

BCFO encourages submission of proposals for financial assistance for bird surveys and other ornithological research. It also wishes to foster greater connections between applicants and the society. Potential applicants are reminded that:

1. Requests for funding must be for planned, rather than completed, projects.
2. Under normal circumstances applicants should be, or be willing to become, members of BCFO.
3. Projects and their results are to be reported in BCFO's journal ***British Columbia Birds.***
4. In order for BCFO Directors to give a timely response to project proposals, deadlines for submission are January 1 and July 1.
5. All reasonable requests up to a $1000 limit and within the financial strength of the organization will be considered, with any larger requests requiring approval at the AGM.
6. Applicants should obtain a copy of the grant policy and the application guidelines from a member of the executive before making a submission.

PRESIDENT'S MESSAGE

Pemberton and Beyond

With our AGM in Pemberton including two days of excellent birding just about to begin, those attending can look forward to seeing and birding a part of BC that is relatively unknown to many of us: the transition zone between Coast and Interior. Typical birds of the zone will include: Veerys and Swainson's thrushes, Alder and Willow flycatchers, Nashville and McGillivray's warblers, American Redstarts and Catbirds, Sooty and Ruffed grouse, Black and Vaux's swifts, Townsend's and Black-throated Gray warblers, among many others.

Not that everyone is limiting themselves to the weekend of the AGM to get in some good birding. The pre-conference Two-Day Field Trip to Lillooet is full with a waiting list, and the Extension to the Kamloops grasslands and higher elevation forests is also at capacity.

However, we are noticing a troubling trend. Our Pemberton and Sidney AGM's have far fewer attendees than many of our earlier AGMs, not reaching the 60 to 80 attendees previously typical. It seems timely then to be asking some questions in advance of the Board's September planning meeting. We'll certainly be asking Pemberton attendees for their thoughts, but we'll also be asking you to let us know via a survey what adjustments, changes, and innovations we need to make to encourage more to attend. Look out for the survey, and please give us some feedback.

We're interested to know for example, is it location, date, diversity or rarity of birds in a location, accommodation, distances travelled, or costs that are deciding factors for choosing to attend AGM's? We'd also like to hear from members about our Two-day Field Trip program. Some are over-subscribed, whereas others have had very few takers and have been cancelled.

Your directors continue to work to add interest and value to your BCFO membership, and keep us connected to the birds and birders of the province. Members have asked for some time now to have the ability to join or to renew memberships on-line. We will soon have that capability on the BCFO website. Look for the PayPal button and bid farewell to mailing cheques and completing membership forms, unless of course you prefer to do things that way. We're just adding an option, but if you prefer to use a cheque, we'll be more than happy to accept it. The latest report of the BC Bird Records Committee will appear soon on the website, and a new highlight on-line will be the addition of a "Featured Articles" component under the Features tab drop-down menu. The birding "Links" information is now published and available. Let us know what you think.

I hope your spring birding is as enjoyable as mine, and for those at the AGM, expect some ramping up of your enjoyment and even some new birds. It certainly is a great time of year to be out there.

George Clulow, President

B.C.BREEDING BIRD ATLAS -- APPEAL FOR B.C. BIRD PHOTOGRAPHS

The Atlas Publication Committee is still seeking **free contributions** (i.e. unpaid) of very high quality, colour photographs of every **breeding bird (i.e. spring/summer)** species in B.C.
We do stress that the overall well-being of the birds is our top priority, and photographers should not cause any stress or harm to wildlife or habitat while obtaining photos. We will not use any photographs that were unethically acquired, or that did not follow the **"Ethics of Birding" guidelines.**
All the details on photo submissions can be found in the "Latest News" section of the Atlas website www.birdatlas.bc.ca. Once we have enough photos, we will start to narrow the list to the species we still need.

EDITOR'S NOTES

Dear Members: Please forgive my tardiness in the production of this issue of BC Birding. I could blame it on the intractability of a new computer (new operating system, new programs) but, I admit, it was also partly because I took off on some spring birding excursions within the timespan that I normally reserve for preparation of our NewsMagazine. I spent a few days in SE Alberta with Eagle-eye Tours to find grassland birds that I had not previously encountered, such as Sprague's Pipit, Chestnut-collared and McCowan's longspurs (coincidentally described in Richard Knapton's article in the current issue of *BC Nature)*. My regular early-June survey of Common Loons on lakes near Merritt (Bird Studies Canada Loon Lake Project) also took up several very enjoyable days, as we managed to spot (from a distance) loons on their nests and a surprisingly large number of few-days-old chicks. Then most recently, I joined the BCFO field trip to Lillooet and heard and then *saw* my first Flammulated Owls!

You will find that this issue contains the usual mix of interesting articles. Note particularly Alistair Fraser's observations in *Dippers and Ice,* and go to our website for the full text of this article, including better views of Alistair's excellent photos. (Go to http://bcfo.ca and click on the new "Features" tab.)

My thanks to all who have contributed to this issue.

June Ryder, Editor

MEMBERSHIP NOTE

The website membership list will be revised in the weeks following the Pemberton AGM. (Some fairly new members have asked why their names do not yet appear on the list.) The list has usually been revised each year in September, but with the ease of changing documents on the website I will make the changes after my return from the Kamloops (post AGM) field trip and update monthly from that point on, as needed.

Larry Cowan. Membership Committee

UPCOMING: BCFO TWO-DAY FIELD TRIP

SALMON ARM: *August 30 – 31, 2014*

If you kicked yourself for having missed the remarkable 2012 outing to interior BC's shorebird capital, we're now offering a second opportunity to visit the same locations in and around Salmon Arm Bay. Last time Ted Hillary and the group saw 103 species including: American Golden Plover, Upland Sandpiper, and Hudsonian Godwit. We can't guarantee the same species this year, but who knows what else will show up?

Leader: Ted Hillary **E-mail***: tedhillary@shaw.ca* **Tel:** *250 832 5755*

How the Trips Work: BCFO two-day field trips are member-led, but participants make their own arrangements for accommodation, food and travel.

Schedule: Day 1: am birding; pm birding, evening get-together (see below). Day 2: am birding, pm optional birding.

Carpooling is encouraged. For the birding trips, car-pooling will be arranged on the morning of Day 1.

Register in Advance*: IMPORTANT* Register *at least two weeks in advance.* E-mail or phone the trip leader with names and numbers of participants. The leader will give you specific details of when and where to meet. If needed, additional leaders may be recruited to keep group sizes small.

Cost per Two-day Event

Members: $10. per person
Non-members: $40* (includes BCFO membership).
*Note: BCFO general memberships are family memberships.

The Social Side

At the end of Day 1, where possible, leaders will make arrangements for participants to meet for dinner at a nearby restaurant to recap the day, tally species seen, and confirm arrangements for Day 2.

UPCOMING MEETINGS & EVENTS

Compiled by Wayne C. Weber

The following meetings and other events are those that take place in BC and immediately adjacent areas or that potentially include information on birds that occur in B.C. Information on additional meetings is listed in the bimonthly *Ornithological Newsletter* at www.birdmeetings.org and on the BIRDNET website at www.nmnh.si.edu/BIRDNET/ornithol/birdmeet.html.

For most meetings, festivals and other events, the website is the main source of information, and registration can often be accomplished online as well. Wherever information can be obtained through a phone number or e-mail address, we have included these as well; if no contact information is listed, it can be assumed that none was provided by the organization, at least not before the date when this listing was compiled. It is usually not necessary to contact a particular individual, except for scientific meetings when one is interested in making a presentation. Names and contact information for individuals are listed whenever they are available.

EVENTS IN 2014:

June 6-8-- 26TH ANNUAL MOUNT ROBSON PROVINCIAL PARK BIRD BLITZ. For information, e-mail Gail Ross at gailross1@telus.net, or phone Nancy Krueger at 250-563-7896.

June 13-15-- BCFO AGM, Pemberton, BC.

June 13-16-- WASHINGTON ORNITHOLOGICAL SOCIETY Annual Conference, Yakima, WA. For information, check the WOS website at http://www.wos.org/2014conference.html . Online registration begins at 8:00 am, March 30, 2014.

June 20-22-- MANNING PARK BIRD BLITZ, Manning Provincial Park, BC (based at Loneduck Campground on Lightning Lake). For information and to register, check the website at http://www.hopemountain.org/programdetails.html?&programID=11. Inquiries may be made by e-mail at info@hopemountain.org or by phone at 604-869-1274.

July 31-Aug. 5-- INTERNATIONAL SOCIETY FOR BEHAVIORAL ECOLOGY, New York, NY. For information, check the website at http://www.isbe2014.com/registration.html or send an e-mail message to ISBE2014@gmail.com .

Aug. 18-24-- 26TH INTERNATIONAL ORNITHOLOGICAL CONGRESS, Tokyo, Japan. Contact: Erik Matthysen (e-mail: erik.matthysen@ua.ac.be) or Keisuke Ueda (e-mail: keisuke@ioc26.jp) . The conference website is at http://ioc26.jp .

Aug. 26-27-- ORPHANED WILDLIFE REHABILITATION SOCIETY (OWL) OPEN HOUSE, Delta, BC Contact: OWL, 3800-72nd St, Delta, BC; phone (604) 946-3171; e-mail owlrehab@dcnet.com. website: www.owl.Canada.org.

Sep. 5-7-- 28TH ANNUAL OREGON SHOREBIRD FESTIVAL, Oregon Institute of Marine Biology, Charleston, OR (Near Coos Bay). For information and to register, check the website at http://www.fws.gov/oregoncoast/shorebirdfestival.htm , or contact Dawn Harris at (541) 867-4550.

Sep. 5-7-- PUGET SOUND BIRD FEST, Edmonds, WA. For information, check the website at http://www.pugetsoundbirdfest.org , or phone Sally Lider with the Edmonds Parks and Recreation Dept. at 425-771-0227.

Sep. 18-21-- WESTERN BIRD-BANDING ASSOCIATION annual meeting, Arcata, California. Events will be hosted by the Humboldt Bay Bird Observatory near Arcata. For information, please contact C.J. Ralph at cjr2@humboldt.edu (phone 707-499-9707), or check the WBBA website at http://www.westernbirdbanding.org/ .

Sep. 22-28-- 132ND STATED MEETING, AMERICAN ORNITHOLOGISTS' UNION, 84TH ANNUAL MEETING, COOPER ORNITHOLOGICAL SOCIETY & 32ND ANNUAL MEETING, SOCIETY OF CANADIAN ORNITHOLOGISTS, Estes Park, Colorado. The website can be found at http://birdmeetings.org/aoucossco2014/files/aoucossco2014-poster.pdf . For further details, contact Susan Skagen (skagens@usgs.gov) or Sara Oyler-McCance (sara_oylermccance@usgs.gov) for information.

Sep. 24-28-- RAPTOR RESEARCH FOUNDATION ANNUAL CONFERENCE, Emerald Beach Hotel, Corpus Christi, Texas. For information, contact Tom Langschied, local committee chair, at thomas.langschied@tamuk.edu or Kate Davis at raptors@montana.com , or check the RRF website at http://www.raptorresearchfoundation.org/conferences/current-conference .

Sep. 25-28-- BC NATURE FALL GENERAL MEETING, Salmon Arm. Contact: Betty Davison, BC Nature, Heritage Centre, 1620 Mt. Seymour Rd., North Vancouver, BC V7G 2R9; phone: (604) 985-3057; email: manager@bcnature.ca ; website: www.bcnature.ca .

Sep. 26-28-- OREGON BIRDING ASSOCIATION annual meeting, Bandon Conference Center, Bandon, OR. Full details not available yet, but check the OBA website at http://www.orbirds.org .

Oct. 8-12-- WESTERN FIELD ORNITHOLOGISTS annual meeting, San Diego, CA. Contact details yet to be announced, but check the WFO conference webpage at http://www.westernfieldornithologists.org/conference.php .

Nov. 5-8-- 38TH ANNUAL MEETING, WATERBIRD SOCIETY & XIII CONGRESSO PARA EL ESTUDIO Y CONSERVACION DE LAS AVES EN MEXICO, La Paz, Baja California, Mexico.
Website, http://www.waterbirds.org/waterbirds-in-the-news/annual_meeting-2013 ; for details, contact the Local Committee Chairman, Felipe Chavez-Ramirez (fchavez@gcbo.org).

B.C. BIRDING NEWS BRIEFS

Compiled by Martin K. McNicholl

COSEWIC News

At a meeting of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in Halifax, Nova Scotia in May 2014, Western Grebe was declared a Species of Special Concern because of considerable declines in numbers wintering along coastal B.C. The subspecies of Loggerhead Shrike that breeds in the prairie provinces was reconfirmed as Threatened, while the subspecies breeding in Quebec and Ontario was reconfirmed as Endangered. –based on Anonymous. 2014. *Bird Studies Canada Latest News* 23 May 2014:21.

Barn Swallow Studies

Greg Ferguson is studying the status of Barn Swallows in B.C., with emphasis on the "lower mainland." He would appreciate observer contributions by e-mail at suncity28@gmail.com. –from Anonymous. 2014. *B.C. Nature Monthly e-mail* of May 2014. A collaborative project by Bird Studies Canada, Earth Rangers, Environment Canada and provincial/regional nest record schemes recently received funding from the Schad Foundation for studies on nesting and conservation of this species. –based on Anonymous 2014. *Bird Studies Canada Latest News* 2 May 2014:1.

Ryan Cathers

During May 2014, Nanaimo naturalists lost their Christmas Bird count organizer, Ryan Cathers, when he was killed in a vehicular accident near Westlock, Alberta shortly after starting work on bird research nearby. –based on Anonymous. 2014. *B.C. Nature Monthly e-mail* of May 2014.

U.B.C. Student Awarded

The Society of Field Ornithologists included David Santiago of U.B.C. among five 2014 North American recipients of E. Alexander Bergstrom Awards for his study on population and community-level niche conservation in antbirds along a tropical population elevational gradient. –based on Anonymous. 2014. *AFO Afield* 19(1):3.

Migratory Shorebird Project Awarded

Many B.C.F.O. members participate in the Migratory Shorebird Project of ten countries in the Americas, documenting populations migrating through and wintering in the Americas; B.C. studies of Dunlin and Western Sandpipers by Bird Studies Canada, the western office of the Canadian Wildlife Service and Simon Fraser University feature prominently in the Canadian portion of the studies. These efforts were awarded a Wings Across America Award during March 2014 –based on Anonymous. 2014. *Bird Studies Canada Latest News* 21 March 2014:2.

Greater Sage-Grouse Declines

Emergency protection for the remnants of Canada's Greater Prairie-Chicken population was introduced by the federal Minister of the Environment in December 2013 and came into effect on 18 February 2014. However, the Western Stockholders, a ranching organization, have protested against habitat provisions in the protective order, noting studies that indicate that the re-introduction of extirpated predators, harassment by biologists, students, birders, hikers, counters, hunters and government staff, and tapeworms may be more important factors in the decline than grazing pressures. They are thus agitating against the recent protective measures until these other factors are assessed. –based on e-mail sent by Jude Grass on 20 March 2014 and accompanying article by B. Warnyca. 2014. *Alberta Beef Magazine* February 2014:11-14

The Reflective Birder #8

Beak or Bill?

Clive Keen

Have you noticed that birders talk about a bird's *bill*, while everyone else calls it a *beak*? Is there something just a bit snooty about this?

If you ask Mr Google, you'll not get an answer to that, but instead be offered vague advice about the difference between beaks and bills. Don't believe a word. The truth is that calling a beak a bill is one of the badges of office, showing that you're a birder and not a member of The Great Unwashed.

All interest groups do this sort of thing. Getting the jargon right is the first step in showing that you're a bona fide member. Don't call a caver a *spelunker*, for instance, or you'll get the withering look reserved for those seriously out of the loop. Much of one's time at university, in truth, is spent learning in-group jargon: mastering ten-dollar words that others don't really understand, so you can say things you don't really understand either, but in an impressive way. You have to get something for all those tuition dollars.

Birding is, fortunately, far less afflicted with this tendency than most activities, and we should rejoice in the fact. *Birder's World* magazine could rename itself *Birdwatching* with hardly a sneer from our community. Even real experts don't insist on being called "Field Ornithologists." One factor keeping snootiness in check, I suspect, is that our bibles, our field guides, have to be prepared for a wide audience. Using terms like "eyebrow" and "mustache" leads to better sales than the posher "supercilium" and "malar stripe." Not that there is no value in technical terms. When I first came across the phrase "patagial bar," my ability to ID Red-tailed Hawks at a distance improved instantly. But the term is stodgy, and is not likely to produce comprehension in a newbie. We do much better when we point out the Red-tailed Hawk's "backpack straps".

That was a very clever, immediately comprehensible, phrase, seized on by Bill Thomson in *Identify Yourself*. That book gets the cake for unpretentiousness. Rather than bludgeoning readers with expert-speak, it nudges them gently in the direction of understanding with a congenial smile and turns of phrase everyone can remember. I don't know if Bill invented the term "wingpit", but if he did, he should be inducted immediately into the Plainspeak Hall of Fame. "Wingpit ... I get it ... armpit, sort of" we'll think, and thereby gain lifelong access to a fine ID tool.

And perhaps we should give out honorable mentions for all those other memorable descriptions that add to our understanding without giving us a long face. The author of "pocket handkerchief" for the wing stripe of the Townsend's Solitaire surely deserves one. And there are probably hundreds of small boys who'll turn into birders because someone had the wit to transcribe the WTSP song as "I gotta go wee-wee now".

Note, though, how I just used an AOU Alpha Code to give this article a veneer of credibility. An acronym too – nothing beats an acronym to show that one is *au fait*. Dropping a phrase from a foreign language is good, too, to demonstrate one's superiority. One always has one's pride to consider.

This is one of 55 articles in the newly published second edition of the eBook *Birding: a Flock of Irreverent Essays,* available from Amazon, at http://www.amazon.com/dp/B00K09F1JQ, and can be read on a Kindle or on any computer by downloading a free app from Amazon.

Editor's note: Readers are invited to write a review of this book for publication in this magazine.

YOUNG BIRDERS GATHER AT THE MEADOWLARK FESTIVAL

George Clulow

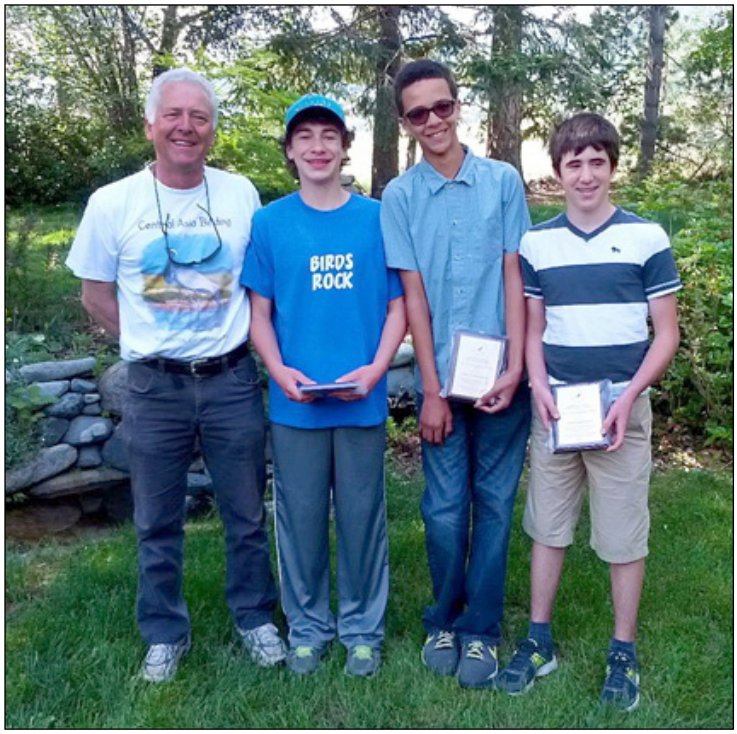
The annual Okanagan Big Day Challenge, part of the Meadowlark Festival, provided the perfect excuse, not that one was really needed, for a group of ten young birders from around the Province to participate in some intensive, high level birding over the May long weekend.

The group included the three inaugural recipients of the 2014 BCFO Young Birder Award along with other keen young birders invited by Russell Cannings to gather at his parents' house, stay the weekend and use it as a base to explore the South Okanagan's rich birdlife, and participate as a team in the Big Day competition on Sunday.

The team of young birders, the Western Teenagers, *not Tanagers*, racked up an impressive 133 species on the day, and won the coveted Flammulated Owl Award for highest species total.

Above is part of the Western Teenagers team at the Monday morning Big Day brunch and count-up, telling the story of their birding day.

Having all these young birders together in one place raised the energy level of the traditional gathering considerably, and gave our president the chance to present Young Birder Award plaques to each recipient in person.



BCFO Young Birder Award recipients (from left to right) Logan Lalonde, Khalid Boudreau and Liron Gertsman, with George Clulow.

Dippers and Ice

Pictures and text by Alistair Fraser

Local dipper

There are five dipper species in the world, but this note treats only the local one: the American Dipper (*Cinclus mexicanus*). Indeed, all these observations of dippers were made around Kokanee Creek, a stream that flows into Kootenay Lake (elevation, 532m).

Surface ice on the creek

The dipper's primary dependence on food from the creek bed would suggest it might have trouble with ice when the temperature drops. Indeed, dipper survival does plummet with the temperature. However, there are complexities to the formation of ice that affect dippers.

In a reasonably calm creek, the water becomes stratified: denser water on the bottom, less dense water on the top. A curious aspect of water is that it is less dense at 0^{o}C than at 4^{o}C, so the colder water rises to the top while the warmer water sinks. As a result, in calm waters, ice forms at the surface. Surface ice covering calm waters can readily be penetrated by an otter, but not by a dipper. This is not a good thing for a bird that prefers to feed on the creek bottom.

However, surface ice has difficulty in bridging a turbulent creek. The issue is that turbulence mixes the water and so prevents the stratification which puts the coldest water at the surface. Surface ice can still form along the more tranquil edges of the creek and is now referred to as border ice. So, a dipper can continue to forage in the central turbulent portion of the creek. It is plausible that this might influence a dipper's preference for such fast-flowing creeks: as the temperature drops, surface ice does not readily prevent access to the creek bottom as it would in a gently flowing creek. In cold weather, turbulence keeps a portion of the creek bottom open to dippers for a longer time.

But, if the cold is such that surface ice covers even a turbulent creek, what is the dipper to do? On a coastal stream, a dipper would descend to open water at a lower elevation. Here, the lowest water is that of Kootenay Lake (532m), which gets border ice, but stays open. Indeed, the primary time that dippers are seen out along the lakeshore is during the dead of winter.

Anchor ice: Turbulence giveth and turbulence taketh away

It is possible that one reason local dippers favour a fast-flowing creek is that turbulence prevents the water stratification that produces the surface ice that, in turn, blocks access. Yet, dippers still have to deal with the scourge of anchor ice. The turbulence that inhibits surface ice is precisely that which favours the formation of anchor ice.

Turbulence does not prevent water from getting colder; mixing merely ensures that the temperature drops uniformly throughout the water column (not solely in a thin upper layer). Ultimately, the temperature in the turbulent stream can decrease to 0^{o}C and ice does form, both as crystals on the creek bottom and as frazil throughout the water depth. Frazil, shown here in waves along the lakeshore, is composed of individual particles of ice prevented from sintering (bonding) by the turbulence.

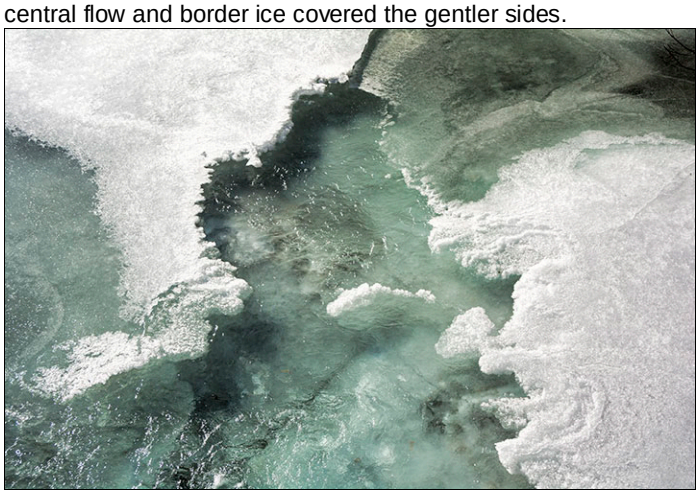
Frazil forms throughout the water column and some of it brushes against rocks and sediments on the creek bottom where it sticks. Then more frazil sticks to that and ice builds up on the floor of the creek. This is anchor ice, also known as bottom-fast ice. So, the very turbulence that prevents the formation of surface ice can, with sufficient cold, engender anchor ice. Clearly, anchor ice can also block a dipper's access to the creek bottom. In this view, whitish border ice covers the tranquil sides of a creek while greenish anchor ice covers the bottom of the turbulent central portion.

Of course, anchor ice still leaves much of the depth of the water open for hunting and this still allows dippers to hunt for small fish. In my limited experience, they seem to go after fish more often in the winter than the summer. This December picture shows a dipper that has captured the fry of a rainbow trout. Even though the dipper had considerable difficulty in swallowing this fry, it had been skilful in capturing it, having first clipped its caudal fin to prevent escape.

Goldilocks to the rescue

This section records observations made over two days in early February, 2014, when the air temperature ranged between -10^{o}C and -15^{o}C.

Ice was common. On the turbulent portions of the creek, no dippers were seen hunting, even though they frequented this location under milder conditions. Anchor ice covered the creek bottom in the turbulent central flow and border ice covered the gentler sides.



In the tranquil waters of the creek mouth, surface ice bridged the creek. Dippers had hunted here during mild weather, but were now absent. The dark marks on the snow covering the ice are from boots and skates (see photo next page).

Now comes the surprise. Between these two regions was a third, call it a Goldilocks zone: one that was not so turbulent that anchor ice formed, and not so smooth that surface ice bridged across. This is one of three dippers seen at this region where the turbulence and ice were just right.

Questions

The existence of a dipper's Goldilocks zone was unexpected. The anecdotal nature of the observation prompts questions:

• Would even the Goldilocks zone vanish with another 10^{o}C drop in temperature? Probably, but it does extend the freezing conditions a dipper can tolerate.

• My observations were made on Kokanee Creek. Is it likely that all local creeks will have such a Goldilocks zone? No, I think it is unlikely that this is a universal feature.

• Might the existence of a Goldilocks zone influence a dipper's choice of creeks? Probably, in that it makes the creek habitable under a wider range of conditions.

• Am I likely to be able to settle these conjectures? No.

Habitability of a dipper's creek

It is possible that a dipper's preference for hunting in creeks results from the scant competition it faces for resources there?

However, it is likely that the local dipper's preference for fast-flowing creeks is at least in part the result of the turbulence that forestalls the formation of the surface ice that would have blocked access in gentler flows. Certainly, in the southern portions of the dipper's range, creeks might not freeze, but the bird's preference for turbulent streams could have developed where ice was bothersome.

In northern climes, all turbulent creeks are unlikely to be equal, and a dipper probably picks ones with a Goldilocks zone: a region where it is not so turbulent that anchor ice forms, and not so smooth that surface ice bridges across. The existence of such a zone would greatly increase the winter habitability of a creek for a dipper.

Then maybe it is just all the work of robodipper as it keeps creeks safe for dippers everywhere.

Appreciation

I appreciate having received advice about draft versions from: Dick Cannings, Carlo Giovanella, David Green, Gary Davidson, and Dorothy Fraser.

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To see the complete text and more photos, go to http://bcfo.ca and click on "Features" tab.

MILK BOTTLE MYSTERY (REVISITED)

One of the more endearing behaviours in bird lore is that of British tits – specifically the Great Tit (*Parus major*) and Blue Tit (*Cyanistes caeruleus**) –piercing the foil caps on pints of milk delivered early mornings (too early, obviously) to the doorsteps of British households and scoffing the cream. This behaviour apparently was first observed in 1921 and subsequently has spread widely in Great Britain. The question is how? Is this an example of rampant social learning amongst the birds or of inspired individual tits in many places?

To study the propensity of Blue Tits to learn socially (that is, by a naïve bird watching a skilled bird and then emulating its behaviour) researchers captured 12 groups of eight wild birds and subjected each group to one of three experiments (4 replicates each). In one set of groups, one bird in each group was trained to tear foil caps off receptacles that contained yummy food (a waxworm; yummy if you are a tit). In another group, the trained bird learned to flip open cardboard covers. In the third group (the 'controls') there was no training. The groups were then introduced to the same experiment, in which they were presented, along with their trained member, with trays of many receptacles covered with an equal mixture of foil and cardboard and the results were observed.

With the foil-rippers, 61% of the initially naïve birds succeeded to emulate their trained member and get at the worm. With the cardboard flippers only 36% of individuals succeeded. Apparently, that is a harder task. But amongst the controls, no individual solved either problem even though 85% of the birds did investigate the covered receptacles. Evidently, social learning is an effective means of skill transfer amongst tits.

The experiments were arranged in such a way that the researchers could detect some interesting aspects of social learning. They subjected the birds individually to a separate problem-solving test in which the bird had to pull a lever in order to get at the worm. Whether or not they solved this task (41% did) and how long it required led the observers to a test score for 'innovativeness'. In the main experiment they found no correlation between the birds' learning success and either physical condition or socializing tendency (separately observed and scored), but they did find striking correlations with 'innovativeness' and dominance in the pecking order. The *lower* the bird was in its pecking order, the *more likely* it was to learn. Furthermore, females were more successful than males, and juvenile females most successful of all – in fact, their success conditioned some of those other correlations. (School teachers will detect an emerging picture here that sounds distinctly familiar.)

The results imply that social learning in these birds be governed by a "copy-if-dissatisfied" motivation: that is, birds lower in the pecking order may seek to improve their position by improving their skills. Females might also prioritize such learning because of high nutritional needs for reproduction. (This seems unlikely in this experiment, however; it was conducted in winter and the birds were well-fed.)

Whatever their motivation, the experiment establishes the plausibility of social learning as a basis for widespread milk bottle vandalism by flocks of tits. The consensus of thinking about the behaviour is that both social learning and multiple innovations drove its diffusion across Great Britain. Actually, the most interesting thing about this history is not the learning ability of the birds but the lack of any sign of learning ability amongst the dairymen who, in 90 years, have failed to come up with a tit-proof bottle cap! Maybe some new social learning experiments are in order.

* Also known as *Parus caeruleus*. There is some scientific dispute over the classification of this bird.

Aplin, L.M., Sheldon, B.C. and Morand-Ferron, J. 2013.Milk bottles revisited: social learning and individual variation in the blue tit, Cyanistes caeruleus. Animal Behaviour 85: 1225-1232. doi: 10.1016/j.an.behav.2013.03.009.

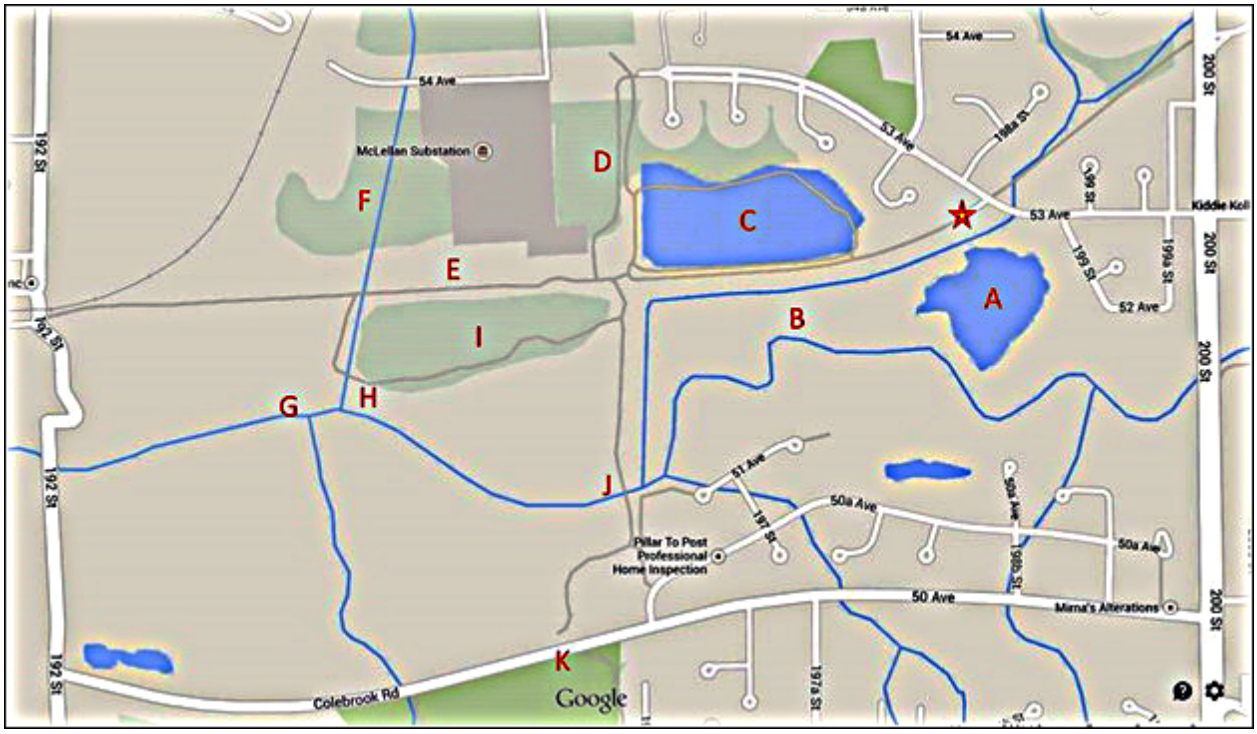
Summary by M.Church

Great Tit drinking cream:

At the beginning of the 20th Century milk was delivered to British doorsteps in bottles that had no tops so birds had easy access to the fat-rich cream that settled at the top of the bottle. Birds lack the enzyme necessary to digest lactose, and milk will actually cause birds to suffer diarrhoea. The cream, however, has no lactose in it and is fully of energy – this is what the birds were after…….. T*his article continues at* http://www.britishbirdlovers.co.uk/articles/blue-tits-and-milk-bottle-tops

Brydon Lagoon, Langley: Site Guide

by Randy Walker



Brydon Lagoon and the surrounding floodplain is an excellent birding location at all times of the year. It is accessed by turning west onto 53rd Ave from 200th St in the City of Langley. There is a parking lot a couple blocks down on the left, as shown by the star in the map above.

Immediately adjacent to the parking lot is a natural marshy area ('A'). A scope is useful at this location, given that it is not accessible except from the main path. The best viewing location is from the two elevated green metal platforms between the marsh and the parking lot. In the winter, large flocks of Long-billed Dowitchers and Green-winged Teal are common. Virginia Rails can occasionally be heard from this location as well. Migration brings a variety of shorebirds, waterfowl, and gulls. The water level here can fluctuate quickly, with far fewer birds found when the water level is high.

While walking west towards the lagoon a number of species may be seen in the floodplain ('B'). Red-tailed Hawks are common, and other raptors including Bald Eagles, Cooper's and Sharp-shinned hawks, and Northern Harriers may be seen. Spring and fall may bring Lincoln's and White-crowned sparrows along the trail. Marsh Wrens and Common Yellowthroats are easily heard in the summer months. Four species of swallows are common over the floodplain and lagoon – Barn, Violet-green, Tree, and Northern Rough-winged.

The lagoon ('C') from fall through spring is very productive for waterfowl. A number of species are commonly found here, including Mallards, Northern Shovelers, Canvasbacks, scaup, Common Goldeneyes, Ring-necked Ducks, Buffleheads, Common and Hooded mergansers, Gadwall, American Wigeon, and occasionally Ruddy Ducks. Cormorants are found here in good numbers in the winter. Pied-billed Grebes are regularly found throughout the year. Occasionally a Green Heron may be found. Golden-crowned Sparrows are easily found near the Mallard-feeding area at the entrance to the lagoon. Belted Kingfishers are often seen fishing on the west edge of the lagoon. A variety of songbirds can be found in the trees surrounding the lagoon.

At the west edge of the lagoon, a path runs north/south along a wooded area ('D'). This path is great during migration for warblers, Black-headed Grosbeaks, and Western Tanagers. Creepers are found all year, and kinglets

are easily found (Golden-crowned in the winter and Ruby-crowned in spring and fall). Both Black-capped and Chestnut-backed chickadees are often found here. There are a few access points to enter the woods where occasionally a Barred Owl or Pileated Woodpecker may be found.

If continuing west along the path south of the McLellan Substation ('E') watch for towhees, Savannah Sparrows, and Rufous Hummingbirds in the summer. Flycatchers, including Western Wood-Pewee and Pacific-slope Flycatcher may be heard, and Willow Flycatchers are generally easily seen in the summer.

Once McLellan Creek is crossed the path branches off north and south. The path north leads into another wooded area ('F') and follows the creek. In mid-November salmon can be seen swimming up the creek. Listen for Pacific-slope Flycatchers in the summer. Pacific Wrens and Ruby-crowned Kinglets may be heard singing in the spring, and Golden-crowned Kinglets and Brown Creepers are commonly seen in the winter.

By following the path south, the Nicomekl River can be accessed ('G'). This is a nice lookout point that will occasionally provide some interesting species such as Wood Duck. Savannah and Song Sparrows, Marsh Wrens, and Common Yellowthroats are easily heard in the summer. Belted Kingfishers are often seen and heard from this location as well. An active Bald Eagle nest is seen at the corner where the path turns east ('H').

There are a couple access points to the wooded area along this path ('I'). These woods often have creepers, kinglets, and Varied Thrush in the winter, Pacific Wrens in the spring, and Bewick's Wrens year-round.

The trail turns and offers an option to go south and cross the Nicomekl River ('J'). If continuing along this trail, Colebrook Road may be crossed revealing the entrance to High Knoll Park. This park has some excellent trails and provides a variety of woodland bird species.

A complete list of bird species with an abundance bar chart for Brydon Lagoon and the surrounding floodplain can be found at:
http://ebird.org/ebird/canada/GuideMe?cmd=decisionPage&getLocations=hotspots&hotspots=L350184&yr=all&m=

Request for Nominations

THE STEVE CANNINGS AWARD FOR B.C. ORNITHOLOGY

In 2007, B.C.F.O. presented its first award for contributions to B.C. ornithology, now named *the Steve Cannings Award for B.C. Ornithology*, to Dr. Ian McTaggart-Cowan. Subsequent awards have been presented to David Stirling (2008), Madelon Schouten (2010), Dr. Jeremy Tatum (2010), .Ralph Ritcey (2011), and Glenn Ryder 2012..

The award recognizes contributions over a long period of time to ornithology in British Columbia in one or more of the following three categories: (1) research on bird biology and/or ecology, or detailed documentation of the avifauna of a portion of B.C.; (2) conservation of birds and/or bird habitats in B.C.; (3) public education about birds in B.C. The award is to be announced and, if possible, presented to the recipient annually during the banquet at the B.C.F.O. annual meeting.

We request nominations from any B.C.F.O. member for candidates for future Steve Cannings Awards. Nominations should include at least a brief statement as to why the nominator(s) believe that the nominee is deserving of the award. Nominations should be sent in writing to Dr. Wayne C. Weber, Chair of the Steve Cannings Award Committee, either by mail to 51-6712 Baker Rd., Delta, B.C. V4E 2V3, or by e-mail to contopus@telus.net.

The recipient of a given year's award is recommended by a three-person Awards Committee (Richard J. Cannings, Martin K. McNicholl and Wayne C. Weber) and approved by the B.C.F.O. board. All nominees not chosen in a given year will be considered automatically in future years without requiring another nomination, but updates or expansions to previous nominations are welcome.

All nominations for the award will be gratefully received.

HUMMER HISTORY

Hummingbirds are remarkable in almost every way, including their history. A recent study based on genetic analysis has confirmed that they originated about 42 million years (Ma) ago (that's in the middle Eocene Epoch for geological types) when they split from their nearest relatives, the swifts and treeswifts. This event apparently occurred somewhere in Eurasia, where most swift diversity is found. Evidently ancestral species migrated to the New World sometime before 22 Ma, presumably via the Bering land bridge (since hummers are physiologically unsuited to make long flights over open water). The end of the European fossil record at 28 Ma, indicating extinction there, and the appearance of the first South American fossil at only 22 Ma leaves a gap in their history. While they probably entered the New World via North America they initially congregated in South America, whence all extant species derive. Arrival in South America must have involved some open water crossing (since the Panama isthmus was but a string of islands then).

Since their arrival, they have diversified as quickly as any animal family on Earth. Diversification began slowly and has consistently picked up speed. Today they number 338 species grouped in nine major clades. (A clade or 'monophylum' is a group consisting of a single ancestral species and all of its descendents – a single branch on the tree of life. Small clades can, of course, be nested within larger ones, in keeping with the tree-like structure of diversification.) Part of hummers' diversification has been the evolution of species more tolerant of temperate conditions, permitting their re-invasion of North America about 12 Ma ago.

The history of their diversification contains some interesting variations. In South America, hummers can be divided into Andean species (at least 140 of them, mainly from two clades, the 'Coquettes' and the 'Brilliants') and Lowland species. The Andes, comprising 7% of the land area of the Americas, then, are home to 40% of all hummingbirds. Their diversification in the mountains appears to have occurred in substantial measure during major Andean mountain uplift between 10 and 2 Ma ago, no doubt encouraged by the creation in the mountains of high topographic diversity and 'niche' environments where a specialist species might evolve and persist. Some species exist in only a single mountain valley. Overall, hummingbirds have small range areas compared to birds generally (about one-third as large), while Andean species have, on average, ranges only 25% as large as hummers elsewhere. Another circumstance that has aided their rapid diversification is the development by these nectarivorous (yes, that's a word in hummer-speak) birds of specialist feeding strategies by which bill development peculiarly fits a particular species to feed on a single flower species; the result is

microniche specialization within a common geographical area, permitting many species to share space. In the Andes, it requires about 53 thousand years (ka) to produce a new species; elsewhere it requires on average 47 ka.

About 12 Ma ago (mid-Miocene Epoch) hummingbirds reinvaded North America (three clades: first, 'Mountain Gems', virtually all North American species now; then 'Bees' and a few 'Emeralds', both at about 5 Ma). Perhaps the Andean experience adapted some of these birds to cooler environments that allowed them to move out of the tropics. North American birds have diversified at a much slower rate than the South American species – about 69 ka, on average, to produce a speciation – but the rate is increasing in the same way that it did in the tropics. Hummers finally crossed the water to the Caribbean Islands about 5 Ma ago and their diversification there has, accordingly, been slower still. But the histories are consistent, merely displaced in time.

Researchers have applied models of speciation and extinction to predict that the increase in diversification must eventually slow down as the number of species grows to the point that the rate of extinctions catches up with speciation. At that point, far in the future, they estimate that there will be about 770 hummingbird species. Think what that may do for your life list, if you live so long.

*McGuire, J.A., Witt, C.C., Remson, J.V.jr., Corl, A., Rabosky, D.L., Altschuler, D.L, and Dudley, R. 2014. Moleculalr phylogenetics and the diversification of hummingbirds. Current Biology **24**: 910-916.*

The article does not dwell on the technicalities of the phylogenetic analysis (available online as supplementary material) and is relatively accessible to general readers.

Summary by M. Church

Above: Ecuadorian Hillstar (Corey, 10000 Birds) is native to grasslands at 3500 – 5200 m elevation in the Andes.

Left: Sparkling Violetear (Wikepedia) is a bird of semi-open habitats near forests in the Andes from Argentina north.

The Western Wood-Pewee is common enough and often heard calling from the forest canopy, but getting a close view of them is usually another matter. When on migration in May, they often perch lower down, affording an opportunity for photographs. Moreover, pewees have the habit of sallying out for an insect, then returning repeatedly to same (or several) perch. On this day I noticed an individual using a nearby snag, so all I had to do was take up an advantageous position and fire away. :Carlo Giovanella

2014 BC Shorebird Survey: Volunteers Wanted

After an extremely successful first year, the British Columbia Shorebird Survey returns this summer. The project was launched in 2013 by Bird Studies Canada and Simon Fraser University to study Western Sandpiper abundance and behaviour with help from Citizen Scientists. The 2014 surveys will occur on the weekends of July 19-20 and August 16-17 at several sites around Vancouver, Victoria, Eastern Vancouver Island, Tofino, and Washington. We're looking for volunteers able to commit to two to three days of surveys, lasting two to three hours each day.

To learn more, and to register as a new or returning volunteer, visit
BC Shorebird Survey webpage or
http://www.sfu.ca/~dhope/volunteer.html

If you have questions, please contact Karen Barry (bcprograms@birdscanada.org) or David Hope (dhope@sfu.ca).

A bird's eye view….

Jenny Hards

RED CROSSBILLS FEEDING ON A CONCRETE FOUNDATION

Janice Arndt text and photos
(photos taken May 10, 2014)

Four Red Crossbills were discovered feeding on the vertical concrete wall of an old cabin in the Pend d'Oreille Valley near Trail on May 10. The plant-based diet of crossbills and some other finches may be lacking in certain minerals, causing them to seek alternate sources of important salts such as sodium or calcium. Although crossbills also may ingest grit it seems unlikely in this case that they were scraping bits of concrete off the wall, but appeared instead to be using their tongues to get what they were after. The chipped and cracked areas of the wall may have provided better grip for the birds, or perhaps that's where the minerals were more readily obtained.

Movie Review -- The Central Park Effect

Clive Keen

If you've not seen it, get *Birders: The Central Park Effect*. That's an order. Well, OK, if you're averse to being ordered around, and I really can't blame you, please take my word for it that it's one of the most joyous documentaries you'll ever come across. If you still don't believe me, read the following synopsis from Films Transit International.

"New York's Central Park acts as a beacon to travel-weary feathered fliers throughout the year. Dozens of different birds, and their calls, make an appearance here as the seasons cycle through. Bird numbers everywhere may be declining, but to anyone with binoculars, in Central Park the little fliers are still the best thing going. Birders, a colorful documentary about birds and birders in New York's Central Park, is a delight for everyone. Bird watchers will find affirmation and even explanation for their vocation. People who can't tell a sparrow from a lark will just wonder at the sheer beauty of it all."

If you still don't want to see it, I have no hope for you. Others, read on.

For sixty minutes we follow seven birders around, as they watch, comment, and explain why they go birding. There are some lovely views of scores of birds (117 species, in fact), and if you're like me, you'll be on the edge of your seat trying to ID them before their name is given. Yes, there's a Prothonotary Warbler, and a Blackburnian, and an Indigo Bunting and a heck of a lot more stars to help show non-birders why Central Park can be such a magic place at the height of migration. But it's the comments of the birders that make this documentary a real treasure. For instance, one of the birders recalled when he'd first been handed some binoculars and told where to look. “It was like the trees were hung with ornaments; it was one of those rare times in an adult’s life where the world suddenly seems more magical rather than less.”

That was just one of the many memorable and wise comments made as the movie follows the birders around. It helps that they are engaging individuals, and that their enthusiasm is genuine and infectious. You see a kind of childlike, wide-eyed joy in what they are doing. One of the birders said that this was no doubt the essence of uncoolness, but if that's so, please preserve me from ever being cool.

I'm hesitant about giving too many examples of their remarks, because it might spoil it for the movie, but I'll give a few more instances. One birder explained his seven reasons for going birding, all worth hearing. But one of the reasons really hit the spot for me, as it conveyed a truth I'd never before articulated. He explained that once one has got to know the more common birds, and has studied the field guides, the less common birds get to be known in theory, but they are like mythological figures, remaining known and admired from afar. Then, he says, one day, it as if this unicorn comes walking out of the forest, and we realize that they really do exist and share the same world with us. Perfect.

Comments from another thoughtful birder appealed to the philosopher in me. He'd been tackling the rather difficult issue of why it is that we want to get ourselves out into the natural world. There does seem to be a "love of nature" in everyone, he says, though he immediately adds that "love" doesn't really nail it: rather, we grew up inside nature, so we need nature around us to *feel more like ourselves*. There's a deep insight there. He'd previously pointed out that for him birding was not a hobby, any more than raising his children was a hobby. I'd love to spend an evening in the pub with this guy.

The film has, I'm glad to say, received some excellent reviews. The one from the *New York Times* surprised me, saying "I found myself repeatedly on the edge of tears ...." which may seem odd, as it's a gentle and understated movie, but then the supposedly hard-hearted *Wall Street Journal* wrote that the movie "is a treat for the eyes and heart, full of affectionate, close encounters of the bird – and human – kind.” It would have been the affection, lyricism and beauty that touched the heart of the *New York Times* reviewer, certainly not any sort of sadness.

I've a parting reason why you must get this movie. If you know someone who really doesn't understand why you go birding – and I'll bet you do – you'll just have to show them *Birders: The Central Park Effect*. Before the sixty minutes are up, they'll understand entirely.

Birders: The Central Park Effect (2012), is available in DVD from Amazon at $14.06, or can be seen at lower resolution on uTube.

RARE BIRD REPORT SUMMER 2013

June 1 – July 31

British Columbia

June was dominated by low pressure aloft with frequent showers and temperatures only gradually warming through the month. The last week of June saw a transition take place with high pressure taking hold. The warmest temperatures of the period fell on the ten days centered on the beginning of July. High pressure dominated south of 54N latitude in July giving very dry and warm conditions. Weather was more variable to the north with frequent showers, some heavy at times.

WATERFOWL THROUGH ALCIDS

Paul Lehman and kin saw several exciting pelagic species off BC's coast during the summer months in 2013 while birding from repositioning cruises. On 1 Jun a **Murphy's Petrel** was observed at the Heck Seamount off Vancouver Island (Paul Lehman, et al). There are about half a dozen previous records for the province. Even more exciting was the discovery of a **Hawaiian Petrel**, 220 km, S.W. of the tip of the Brooks Peninsula on Vancouver Island, 12 Jul (Paul Lehman, et al). This is only the second record of Hawaiian Petrel in British Columbian and Canadian waters. In the Hecate Strait thousands of molting Short-tailed Shearwaters were noted 6 Jun (Paul Lehman, et al). More common as a spring and fall migrant, June is an unusual time for such large numbers of Short-tailed Shearwaters to be present. Although seen regularly off BC waters now, Manx Shearwaters are still very noteworthy. One was seen behind a fishing trawler, 50 km west of Central Vancouver Island, 6 Jun (Paul Lehman, et al). In the Okanagan, where Double-crested Cormorant is annual but still rare, one was seen at Swan Lake in Vernon 26 Jun (Chris Siddle). A Great Egret was a nice find along the Iona foreshore in Richmond, 9 Jun (Terry Dadswell, m.ob). Even more unusual was a Great Egret at Kinbasket Lake in the Rocky Mountain Trench, north of Golden, 25 Jun (James Bradley). An immature Broad-winged Hawk was at Panama Flats in Victoria 2 Jun, an odd date for this species to appear in southern BC (David, Geoffrey & Jean Newell). Also an unusual species for southern Vancouver Island, an immature Swainson's Hawk seen 4 Jun over Swan Lake in Victoria was of note (Aziza Cooper). In the Okanagan there was excitement at Robert Lake in Kelowna, where the valley's first White-rumped Sandpiper appeared 8 Jun (Daniel Mitchell, et al). The appearance of 5 Arctic Terns over the post office in the Cariboo town of Quesnel on 11 Jul was highly unexpected (Rod Sargent). Although they breed in BC at Triangle Island, Thick-billed Murre is a species rarely encountered by most birders in the province. A Thick-billed Murre was seen from a repositioning cruise at the S.E. end of the Haida Gwaii island chain, 6 Jun (Paul Lehman, et al). Up to 7 Parakeet Auklets were noted off the West Coast of Haida Gwaii 1 Jun (Paul Lehman, et al). While still considered casual, there have been several recent reports of this species in BC waters. An adult **Least Auklet** paralleled observers aboard a repositioning cruise for 5 minutes, 97 km N.W. of the tip of Vancouver Island 6 Jun (Paul Lehman, et al). There has been only one previous record of Least Auklet in BC. An adult Crested Auklet was photographed from a whale watching boat near Cleland Island, off Tofino on Vancouver Island 1 Aug (Jay Feaver).

DOVES TO BUNTINGS

A female type Purple Martin at Sunshine Bay Park in Harrop on the West Arm of Kootenay Lake 18 Jun provides a very rare interior record of this species for the province (Janice Arndt). South of

Crested Auklet, Cleland Island, BC
July 30 Photo by Jason Feaver

Prince George, 2 Gray Catbirds were found along Blackwater Road 6 Jul (Daniel Williams). This represents just the third record of catbird for the North-Central BC checklist area. In Princeton, a Northern Mockingbird was a nice find at the corner of River Road and Old Mill Rd 27 & 28 Jul (Amanda Lahaie, et al). Another Northern Mocking-bird, this one on Vancouver Island, turned up at Comber's Beach near Tofino 6 Jul (Adrian Dorst, et al). A Brown Thrasher was a great find at the Hakai Beach Institute on Calvert Island, N.E. of Port Hardy, from 13 to 15 Jun (Keith Jordan, et al). Rare in the Okanagan during the summer, a female Black-and-white Warbler was a great find at the north end of Osoyoos Lake 1 Jul (Clive & Ben Keen). On the Lower Mainland, another female Black-and-white Warbler turned up in Pitt Meadows at Pitt Lake 9 Jun (John Tabak). A Tennessee Warbler was a nice surprise at a West Bench property in Penticton, 16 Jul (Russell and Dick Cannings). A Nashville Warbler, thought to be of the eastern 'ruficapilla' subspecies was singing in a spruce bog west of Moberly Lake, north of Chetwynd 25 Jun (Russell Cannings). The prize warbler of the summer season in the province however was a male **Black-throated Blue Warbler** found along the Trans Canada Trail in Princeton 11 Jul (Rhys Harrison). The spring Lark Bunting invasion in southern BC continued into the summer season, with a male at Brisco, north of Invermere in the East Kootenays 6 Jun (Cam Gillies). Another male Lark Bunting was in a backyard in the East Kootenay town of Fernie

21 Jun (Mike Bentley). Prince George's second record of Brewer's Sparrow was found along the Nechako River 24 Jul (Nancy Krueger). Due its location, this bird was most likely of the 'Timberline' race which breeds above tree line in northern BC. A Nelson's Sparrow found singing in a flooded field near Lumby 22 & 23 Jun provides one of very few records of this species west of the Rocky Mountains in the province (Stacey Carnochan). On Vancouver Island, a male Rose-breasted Grosbeak visited a feeder in Bowser 19 to 22 Jun (Robert McFetridge, m.ob). In Prince George, where Lazuli Buntings are fairly rare, the presence of up to 6 singing males in the Salmon Valley 22 Jun was impressive (Lee Foster). Very rare outside of the Peace River area in BC, a singing male Baltimore Oriole at the K.O.A. Campground in Revelstoke 1 Jun was outstanding (Robyn Abear). Single male Bobolinks ventured north of their usual range to Prince George where one was seen in a farmer's field west of town 2 Jun (Sara Sparks, et al). Another male Bobolink was discovered in Prince George at the Shelley Lagoons, 22 to 28 Jul (Jack Bowling, Brien McGaughey, et al).

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MH

BIRDS WORK FOR COFFEEHEADS

Coffee is one of the tropical world's most important commercial crops. Today, most of it is grown on shade-free plantations, the natural forest having been removed. (Alternatively, coffee may be 'shade-grown' under tree cover.) The question that arises is whether forest remnants in the vicinity of open-grown coffee may still confer benefits. This question was studied in Costa Rica where the African coffee berry borer (*Hypothenemus hampeii*) has recently become established. This 2 mm beetle can cause harvest losses of up to 75%, while the only partially effective control measure – endosulfan – is a neurotoxin. Researchers set out determine whether beetle predators, namely birds and bats, might be effective controllers of the beetle and how the proximity of a forest environment might affect their activity.

Groups of coffee plants were either enclosed with nets or left as controls on two plantations with nearby (<600 m) forest copses. The nets admitted the insects but not the predators. The enclosures were opened either diurnally (admitting birds only), nocturnally (bats only) or not at all (no predators). After two seasons of study, it was determined that borer infestation almost doubled in the absence of birds, but that bats had no notable effect (the flight phase of the borer's spread occurs during the day, so it is likely that bats – aerial feeders – simply didn't encounter them). The birds saved 25-70 kg of berries per hectare, worth $US75-310. For a typical commercial plantation that amounts to $3500-$9400 per year and, for small holdings, the savings might double annual income!

Specific bird predators were determined by analysing for borer DNA in bird faeces (whoever imagined that research was straightforward?!). Five principal species were identified, Buff-throated Foliage Gleaner (*Automolus ochrolaemus*), Rufous-breasted Wren (*Pheugopedius rutilus*), Rufous-capped Warbler (*Basileuterus rufifrons*), White-tailed Emerald (*Elvira chionura*) and Yellow Warbler (*Dendroica petechia*). These are all small, forest-dwelling insectivorous birds (the latter is our Yellow Warbler – a winter migrant to Central America). Hence it is no surprise that these birds were more abundant on plantations with higher forest cover. And it is consistent with these appearances that borer infestations decreased with increasing forest cover *even though the coffee was not shade-grown*. In short, forest element cover increased the effectiveness of bird control of the borer.

With increasing pressure to increase agricultural production worldwide the controversy over whether or not to convert forest land is usually couched in terms of the necessity to intensify agriculture on cleared areas in order to be able to spare extensive forest tracts. There are certainly biodiversity values to be conserved by setting aside extensive areas, but the synergy between agricultural and natural values that can be gained by retaining dispersed small elements of forest cover in agricultural landscapes has largely been overlooked. In other studies, the preservation of remnant natural cover has been shown also to increase pollination, because the cover retains pollinators. Some of the forest fragments in this study were as small as 1 hectare. They are voluntarily retained by the agricultural community and, no doubt, with this new information to hand, will be more than ever carefully guarded and replicated.

There is a deeper lesson here, as well. The data of this study make it possible to assign an economic value to each of the birds involved in borer control. In a world in which the value of everything is increasingly adjudicated in economic terms, this sort of valuation can become an important argument for both species and ecosystem conservation. It won't work for all the important aspects of nature, of course, but it does provide the basis for a powerful demonstration that nature matters.

Karp, D.S. and six others. 2013. Forest bolsters bird abundance, pest control and coffee yield. Ecology Letters 16: 1339-1347. doi: 10.1111/ele.12173.

Summary by M.Church

Photo credits
Above: Rufous-capped Warbler, Mauricio Rueda, Colombia.
Left: Rufous-breasted Wren, Luis R.Figueroa, Venezuela.
Both from The Internet Bird Collection

Birds in the hand: Yellow-rumped Warblers -- Audubon's (left) and Myrtle -- at the Vancouver Avian Research Center banding station at Colony Farm. *Mark Habdas*

Young Glaucous Gull at Penticton. It had just woken up and was doing calisthenics *Clive Keen*