BC BIRDING

Newsmagazine of the British Columbia Field Ornithologists

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An unexpected side of Calliope courtship – see page 16. Photo by Gordon Brown.

Publisher
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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*.

About the BCFO
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.

Membership
See the website (http://bcfo.ca) for details, or write to the BCFO address given above under "Publisher."

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

Newsmagazine Submissions
To submit material to this publication, contact the Editor by email (clive_keen@hotmail.com). Books for review should be sent to 10790 Grassland Road, Prince George, BC V2K 5E8.

Topics may include birding experiences, casual observations about bird behaviour, bird project reports, site guides, birding equipment, bird photography, trip reports (including overseas trips), and other subjects of broad interest to BC birders. Brief items are always welcome, but average submissions tend to be in the 400–800 word range. For longer submissions the normal maximum length is 1,500 words. Note that this is a newsmagazine rather than an academic journal, so formal reference lists etc are inappropriate.

Articles should be in plain text, either as the content of an email, or as an attachment (preferably Word). Photographs – remember to give the name of the photographer and a caption – should be sent as separate attachments, not embedded in text.

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Heather Baines (Whistler) had the good fortune to photograph this Western Grebe courtship display near the pier at Salmon Arm.

Back Page Photographs

These male and female Rufous Hummingbirds were photographed by Gordon Brown (Kaslo) at approximately the same time as the shots of the Calliope Hummingbirds featured on the cover and on page 16.

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President's Message

Gary Davidson, Nakusp

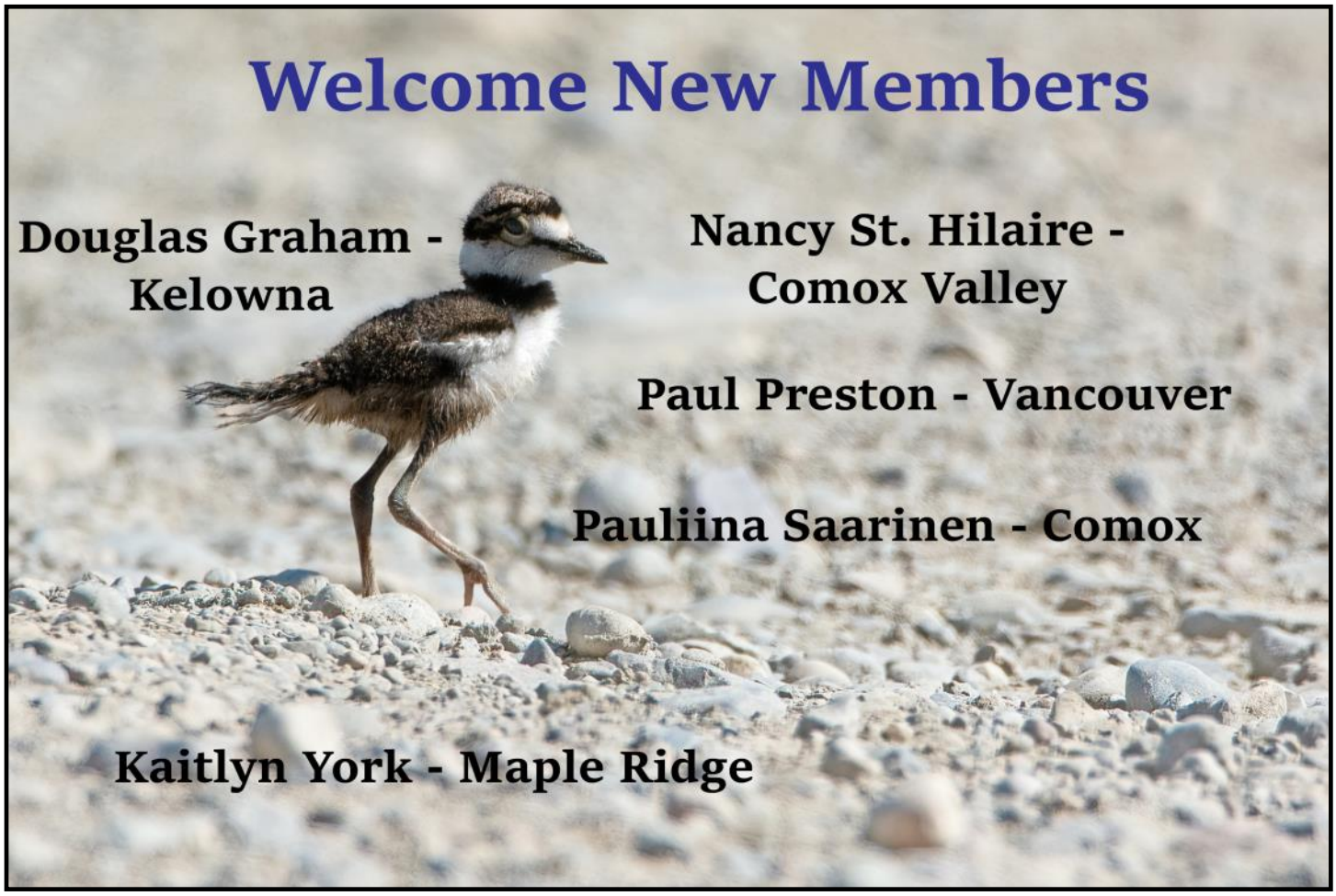
It is an honour and a privilege to be chosen as the next president of the BCFO. I want to thank my fellow directors for believing in my ability to serve the organization well. After serving as vice-president for the last three years, I look forward to the challenge of leading the BCFO through the coming year.

During my term as vice-president, Marian Porter has been president. I'd like to acknowledge the hard work and dedication she put into the organization during that time. Marian has been a member of the BCFO since its inception in 1991 and has served two terms on the board: 1991 to 1997 and 2016 to the present. During that period, she held the position of president for five years. I very much appreciate that she will be serving as vice-president for the coming year; I expect I will need to draw on her knowledge and experience from time to time!

There have been other changes to our board of directors. Mike McGrenere and Virginia Rasch are leaving the board. Mike has served two terms on the board: 1992 to 1996 and 2015 to 2021. During that time, he served as president for four years and secretary for the last three. When COVID forced a change in the way we operate, Mike jumped in and volunteered to set up a BCFO Zoom account. He hosted all our meetings and presentations during this awkward time. Mike's contributions to the BCFO have been invaluable; he will be missed. Thanks for your time and effort, Mike! Virginia has also made a valuable contribution to the BCFO. In addition to serving as a director she has been the copy-editor for our newsmagazine, *BC Birding*, since 2016. Although she will no longer be a member of the board, we are very pleased that she will be continuing as copy-editor.

Filling the vacancies left by Mike and Virginia will be Krista Kaptein and Paul Foth. Krista joins the board with years of experience in natural history and wilderness issues. She has been an active member of Comox Valley Nature, BC Nature and the Strathcona Wilderness Institute for many years. She is a keen birder and has travelled widely. She served as IBA Coordinator for BC and worked throughout the province with local IBA caretakers and First Nations stakeholders. At our first board meeting, she stepped up and volunteered to take over Mike's position of secretary. Paul is an active birder currently living in 100 Mile House. He grew up in Western Washington where he developed an interest in birds at an early age. He later married a Canadian and moved to Chilliwack where he became an active member of the Fraser Valley birding community. After moving to Creston in 2019, he spent two years on the Creston Birdfest Committee. He maintains a birding website and offers tours and workshops. You can

Below: A very new Killdeer spotted at the Shelley lagoons, August 2021. CNK photo.



visit his website at www.gopishing.com.

As you are all aware, health regulations and restrictions have had a significant impact on our ability to provide services to our members. Our annual conference, scheduled for Smithers, has twice been postponed. We are cautiously optimistic that next year we will finally be able to visit this very interesting region of our province. Two- and three-day field trips have also been a victim of the pandemic. It is our hope that these, too, will again be offered in the coming year. In lieu of field trips we offered monthly Zoom presentations to members. Although not running through the summer months, these very successful presentations will again be offered in the fall. We are fortunate to have so many members willing to share their adventures and experiences in various parts of the world with all of us. A special thanks goes out to Larry Cowan, who has assumed the task of finding willing speakers and organizing the presentations.

Board News

The next meeting takes place on September 1, and results will be summarized for the next edition of this newsmagazine.

Smithers Conference and AGM

The conference is still planned to go ahead on June 24–26, 2022 with the post-conference extension trip to Terrace and Kitimat taking place from the afternoon of the 26th to noon on the 29th. Extension participants are advised to book accommodation in Terrace.

Creston Field Trip

Marian Porter is organizing a field trip to coincide with the Creston Valley Bird Festival, which takes place on May 13 to 15, 2022. Participants may join the festival celebrating their 10th anniversary from May 13-15, 2022 before the BCFO field trip. Our trip will include highlights of the festival and some areas not covered in the previous weekend. The final details will be included on the BCFO website and in the next issue of this newsmagazine.

BCFO Monthly Zoom Presentations

Larry Cowan

We are approaching another season of our popular BCFO Zoom Presentations. They were initiated in January of 2021 in an effort to replace our well-attended 2 & 3 Day Field Trips, cancelled due to COVID-19.

These Zoom presentations proved very popular with members, participation averaging in the high 60s to over 100 for Alan Burger's Antarctica presentation.

To date we've vicariously experienced birding trips to Australia, Peru, Madagascar & Antarctica. Following this year's AGM, David Bradley's presentation summarizing his Long-billed Curlew project in the Prince George area was also well received.

Going forward, BCFO Zoom presentations will take place every year from September through April, excluding December, on the third Wednesday of the month at 7:00 PM.

Here is the listing for this year's presentations:

- September: *Botswana/Okavango Delta*, Kevin Neill
- October: *Argentina*, Lee Harding
- November: *Endangered Williamson's Sapsucker*, Les Gyug
- January: *Namibia*, Tom Plath
- February: *Important Bird Area program*, Liam Ragan
- March: *Canada in 60 days*, John Gordon
- April – *New Guinea*, Peter Candido.

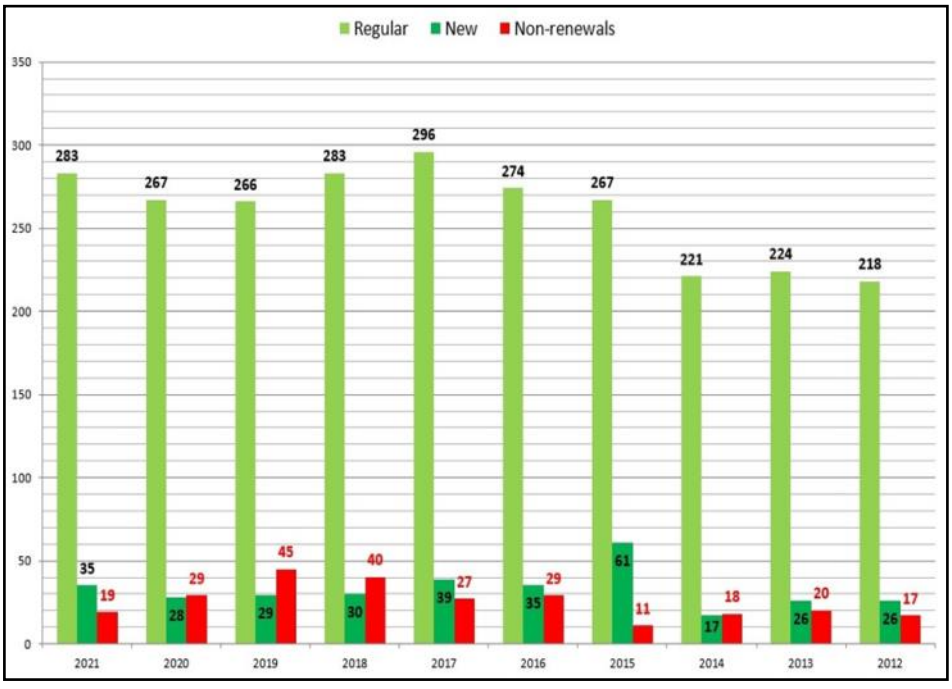
The Zoom Presentation dates and topics, with more details on each topic, will be available shortly on the BCFO website. So mark your calendars and sign on each month to enjoy these informative presentations.

BCFO Membership

Larry Cowan

As of August 11, BCFO membership numbers were as follows with full-year numbers for 2020 in brackets:

- Regular: 283 (267)
- Honorary: 3 (3)
- Junior Award Winners: 16 (16)
- Institutional: 6 (6)
- Complimentary 3 (4)
- Total: 311 (295)



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 BC.

NOTE: Because of the COVID-19 epidemic, many scheduled meetings and events for the next few months have been cancelled, gone virtual, or been postponed until 2022. Events that have not yet been cancelled could still be cancelled at a later date. Please be sure to check event websites before you plan to attend or register for any events. Also, note that you will not be able to attend events in the USA until the international border is reopened (unless you fly there!).

For most meetings, festivals and other events, the website is the main source of information, and registration can usually 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 on 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.

For a detailed listing of birding festivals all over North America, please check the Cornell "All About Birds" website at www.allaboutbirds.org/birding-festivals.

Sept. 4. First WESTPORT SEABIRDS pelagic birding trip of the fall from Westport, WA. Westport Seabirds has 11 trips scheduled between September 5 and October 3. For information on the trips, schedules, and to reserve a spot, please visit the Westport Seabirds website at westportseabirds.com. Each trip will carry only 12 birders; at press time, space is available only on the October 16 trip, but other spaces may open up through cancellations.

Sept. 11–12. PUGET SOUND BIRD FESTIVAL, Edmonds, WA. For information and to register, check the festival website at www.pugetsoundbirdfest.org , or contact Jennifer Leach at the City of Edmonds Parks Dept. (phone 425-771-0227), or email her at jennifer.leach@edmonds.wa.gov.

Sept. 12. First OREGON PELAGIC TOURS bird trip of the fall from Newport, OR. This is the first of seven tours scheduled this fall. For further information and to sign up, please visit Oregon Pelagic Tours' website at www.oregonpelagictours.com. Each trip will carry a maximum of 16 birders to help minimize the risk of Covid-19. Space is still available on several trips.

Sept. 24-26. Third annual WINGS OVER WILLAPA BIRDING FESTIVAL, based in Ilwaco, WA. For information and to register for events, please visit the festival website at wingsoverwillapa.org.

Oct. 2. BIRDS AND BLUEGRASS FESTIVAL, Ridgefield NWR, Ridgefield, WA (near Vancouver, WA). For information, visit the Friends of Ridgefield website at ridgefieldfriends.org/birdfest-bluegrass .

Oct. 8-14. RAPTOR RESEARCH FOUNDATION annual meeting, Boise, Idaho, USA. For further details and to register, visit the society website at www. raptorresearchfoundation.org/conferences/current-conference.

Nov. 1-5. 28TH ANNUAL CONFERENCE OF THE WILDLIFE SOCIETY. The Wildlife Society's conference has gone virtual again this year. For information and to register, visit the conference website at twsconference.org.

Dec. 20 to Jan. 6 (2022). CHRISTMAS BIRD COUNTS. For information on dates of counts and contact information for count organizers, check the BCFO website in November and December, or check the December issue of *BC Birding.*

2022 EVENTS

Feb. 18-20. WINTER WINGS BIRDING FESTIVAL, Klamath Falls, OR. For information and to register, please check the festival website at winterwingsfest.org . Full details should be available by mid-November.

Feb. 24-26. PACIFIC SEABIRD GROUP, 49th ANNUAL MEETING at the Scripps Institute of Oceanography, La Jolla, CA (near San Diego). For information and to register, visit the conference website at pacificseabirdgroup.org/annual-meeting. If you wish to present a paper, please contact Dr. Rachel Sprague at programchair@pacificseabirdgroup.org.

Mar. 18-20. 21st ANNUAL WINGS OVER WATER NORTHWEST BIRDING FESTIVAL, Blaine, WA. For information, check the website at www.wingsoverwaterbirdingfestival.com or contact Debbie Harger 360 332-8311, dharger@cityofblaine.com.

Below: Great Blue Heron at Stanley Park by Sage Pasay (Vancouver).

Member Photographs

The request to readers to send in photographs was unusually successful, and more were received than could be fitted into this edition – please keep sending them. They are an essential element of the magazine.

Above: Black-and-white accentuates the elegance of the GBH, photographed at Reifel by John Konovsky.

Left: Jo Ellen Floer spotted this Eastern Kingbird and its young in the middle of a headwave, as they tried to cool themselves as best they could.

Leucistic Cowbird

John Gordon

A bird-friendly farmer I know often calls me with his unusual sightings. From his vantage point on the escarpment he has great views of Glen Valley over the Fraser River and the Golden Ears. In the past he has had some really good birds including Say's Phoebe, Western Kingbird and now this oddity. He phoned me and asked me to come over and identify a "white bird" which he had spotted riding on the backs of a herd of domestic goats. The bird turned out to be a leucistic Brown-headed Cowbird. It would perch for short periods on the backs of the goats (always too far for a decent image) all the time pecking away, presumably feeding on parasites. The bird would then drop to the ground, feed in the long grass. On one occasion it flew up to a fence post where I captured this image.

Right: A panting Bank Swallow at Duck Lake, Creston Valley Wildlife Management Area. Photographed by Marc-Andre Beaucher.

Below: Another of Gordon Brown's superb hummingbird photographs: a female Black-chinned.

Common Loon and Pacific Wren, photographed by Rand Rutland on the Sunshine Coast.

Featured Photographer

Kalin Ocaña is the latest BCFO Featured Photographer. You can see more examples of her work at

bcfo.ca/https-wordpress-com-page-bcfo-ca-18134

Eighteen-year old Kalin writes

"My heart dropped when I made eye contact with this owl in a dense fir only about six feet from where I was standing. I had seen Long-eared Owls before, but they always seemed frightened. This one seemed rather unbothered and dozed back to sleep after a few photos. "

Eponymous Bird Names

The following article is reprinted from the September 2021 edition of BC Nature.

A Rose by Another Name Needn't Smell Funny

Clive Keen, Prince George

A half-lifetime ago I ran a public relations & marketing company, and two of our more lucrative activities involved creating new logos and coming up with a new name for something. The former – creating new logos – engaged peoples' passions in a way that should never be underestimated. But it was nothing compared with changing names: passions could then become incandescent.

The American Ornithological Society (AOS) is now deeply into considering new names for "eponymous" bird species – the ones named after some person such as Wilson, Steller, Cassin, or Townsend. Emotions will, to put it mildly, run high in the naturalist world, particularly since the issue was raised because of concerns about social justice.

One thing I learned from running that PR firm is that in such situations it is essential to search for things that people can agree upon, and stay far away from all the things they will never agree about. Touch any of the latter, and you'll be sure to fly off forever into Tangent Land. Nothing will get done, even if the opportunity has arisen to do something which is really useful to all involved. Which is exactly what we have in this case.

There are two things that all naturalists can agree on. The first is that eponymous bird names are no help at all in identifying a bird. Take "Swainson's." Even if you've memorized the field guide, you still don't know if the name applies to a hawk, a thrush, or a warbler. I don't know a single case of an eponym that would help a beginner identify a bird or jog the memory of those of us past our prime. Descriptive names, by contrast, can be a tremendous help. Compare "Barrow's Goldeneye" with "Crescent-cheeked Goldeneye," my suggestion for one of the replacement names.

The second thing that naturalists will agree upon is that getting more people interested in, and caring about, nature, is an unalloyed good thing. Making it easier to recognize species will undoubtedly help. For example, members of my family who are not birders will still let me know, after I've pointed out the bird to them just once, that they have a White-crowned Sparrow in their yard. If the sparrow had been called Swainson's, Smith's or Cassin's, I suspect the bird would have passed unremembered and thus unnoticed.

Eighty-eight of the birds in my field guide to North American birds are named after people, starting with Cassin's Auklet and ending with Lewis's Woodpecker. Imagine if all 88 birds were given names which really help with identification and would stick in the memory. There'd surely be more people whose interest in an aspect of nature gets captured, and as a result, more people likely to want habitats preserved, cats kept indoors and the window-collision problem solved.

I, for one, hope that the AOS forms committees to come up with replacements for every single one of our eponymous bird names. I just hope that there's at least one poet on each committee. Helpfully descriptive names like "Black-throated Green Warbler, "Black-throated Gray Warbler" and "Black-throated Blue Warbler" are all very well, but it's sure nice when we get something that both helps us identify the bird and reflects something of the bird's glory. If I were a Wilson, a Townsend, or a Swainson, I'm sure I'd happily withdraw my surname in favour of something like "Amethyst-throated Sunangel."

Below: A Crescent-cheeked Goldeneye?

Spark Bird and Tonic

Corey Mazurat, Kelowna

It was an LBB, a G&T, and an app that started this whole mess.

Erika and I were sitting on our balcony at the end of May 2020. Dr Henry's lockdown had gone on longer than expected and we were taking a break from our roles as delivery drivers for our elderly relatives who were hesitant to expose themselves to COVID. We had a fresh bottle of gin, several limes, tonic, and ice. We also had a visitor on the roof across the parking lot from us, and thus began the obsession.

"That's a weird robin," I said.

"Not a robin, I think," Erika replied. She had banded Peregrine Falcons for several summers as a university student and was much more savvy about the varieties and vagaries of birds. "Seems more like a jay or something."

"No," I said, full of ginny confidence, "Blue Jays are blue. Even I know that. That's sorta browny-grey-white. Not blue, anyway."

Back and forth it went. Camera with telephoto lens and binoculars were dug out of a closet, Merlin was downloaded, drinks were refreshed, and after much squinting, futile pleas to please-stand-still-you-damn-bird, equally irrelevant prayers for better magnification and clearer binoculars, and a non-trivial amount of inventive cursing, an ID was finally agreed upon: *Tyrannus tyrannus*, aka Eastern Kingbird, aka our first Little Brown Bird (it's not brown, I know, but my colour discrimination is certainly in the bottom 5% of the population), aka the gateway-drug bird.

I have often wondered how it is that a simple fluffy grey bird — a common flycatcher, an unremarkable wee bug-eating beastie — could have effected such change in me. I was the original city boy — never lived on a farm or even in a rural area, never comfortable in nature, never interested in animals beyond a vague appreciation for cute puppies and kittens.

Lockdown and its concomitant lack of stimuli have stoked many near-dormant fires into fanboy-and-girl infernos, certainly, but this was different. We had lived in Uganda for a year and routinely had 50 or 60 species in the mango and banana trees in our backyard, but they had never captured my imagination like that little grey *Tyrannus tyrannus*. What had been a non-interest for me became, virtually overnight, a full-fledged (pardon the pun) passion, and an old hobby was fiercely reawakened in Erika.

Within weeks we were card-carrying BCFOers. eBird took pride of place on my phone's home screen. Our vocabulary became richly seasoned with terms and acronyms seemingly from another language — BAK4! Eclipse plumage! RTHA! PISI! — and we even bought birding hats.

For the first time I began to appreciate — truly appreciate, not just oh-yeah-it's-pretty-here-but-is-there-WIFI? — nature and all it offers. Suddenly a morning off work became a chance to hear tweets instead of another few hours spent doomscrolling Twitter.

Now it is just over a year later and our lives have become bird-centric. Every chance we get we head out, field guide and bins in hand, to spot birds. Our friends and family have accepted with good grace our newfound hobby, and have even joined us on occasion. We are slow, methodical birders — the ungenerous may say ploddingly, maddeningly poky — and we often spend three hours yet only travel 2km. Our life lists are small but growing, and we are still fresh enough that almost every trip results in something new that we've never ID'd before.

Everything is exciting to a new birder — at least to us, it is — but there have been some birds that have simply imprinted themselves upon our minds. Last year we were near Lac du Bois and heard, recorded, and saw three magnificent Sandhill Cranes as they flew over us en route to their nest. This spring we had the great good fortune to stumble upon a Harlequin Duck in one of the small tumultuous creeks that feeds Lake Okanagan. We saw a Caspian Tern near Swan Lake earlier this spring, too — truly an epic bird.

We still sit on our balcony (or we do when the air is breathable, at least — the air quality in Kelowna has been somewhat Hades-esque this last month or so) and we still drink G&Ts, and we still marvel at the LBBs that we see around us, though perhaps now we have a modicum more knowledge than before. I still mistake brown for grey, and Erika still correctly IDs twenty birds for my one. We are now birders, I think, and we even have the hats to prove it.

Cedar Sapsucker?

Gary Davidson, Nakusp

On 16 June I observed this Cedar Waxwing feeding at Red-naped Sapsucker wells. Initially I thought it may have been attracted to insects at the wells. But I watched it for several minutes while it fed at one particular hole; it definitely appeared to be eating sap. I have not noted this behaviour previously nor have I found any reference to it in the literature.

Birding The Great Basin: Nevada and Beyond

Lee E. Harding, Coquitlam

The Great Basin, a dry, intermountain plateau of the western United States, lies between the Rocky Mountains to the east and the Sierra Nevada and Cascade mountains to the west. It is bounded by the Columbia Plateau in the north and the Colorado Plateau in the south and encompasses most of Nevada and parts of Utah, Wyoming, Idaho, Oregon and California. This is a land of sagebrush and wide-open skies. Although ecologically similar to our South Okanagan, the Great Basin is much less populated. In a recent trip, it seemed that there were more deserted cabins than occupied houses.

It is also ranching country and with the cattle comes a strongly anti-government ethos. Ranchers resent that the federal Bureau of Land Management (BLM) owns most of land in the Great Basin, leasing grazing and water rights to ranchers, but also managing numerous conservation lands. Malheur National Wildlife Refuge in Eastern Oregon was the scene of an armed occupation from January 2 to February 11, 2016, when its headquarters was seized by ranchers that ended with most of the leaders being arrested and one killed by federal officials. The ranchers demanded that the federal government relinquish control of the refuge so that, according to the occupiers, "the people can have their resources." That said, after the widespread draining of marshes and overuse of water in previous centuries, ranching now rests lightly on the natural environment. Many bird species and mammals such as pronghorn antelope are best seen on ranches.

Although private property is sacrosanct and many ranchers resent conservation lands, I've found them friendly to birders and willing to grant access for birdwatching. Just be sure to ask first.

Besides waterfowl, desert birds that you have to work to see in BC, such as Loggerhead Shrikes, Sage Thrashers, Lark Sparrows, Clay-coloured Sparrows and Say's Phoebe, are everywhere. Common Nighthawks sit around on fence posts during the day. But you may have to listen for its relative, the Common Poorwill, which we heard one evening at the Malheur NWR Field Station.

Speaking of which, the Malheur NWR Field Station, a few miles away from the Malheur NWR Headquarters/ Visitor Centre (malheurfieldstation.org) is a great place to stay, and cheap. They have accommodations for visiting scientists that are rarely used to capacity and they happily rent units to birders by the day. Its Dining Hall is open seasonally for its visiting scientists; when it is, other guests are welcome. They offer hot breakfasts, sack lunches and hot dinners. But in case their meal schedule conflicts with your birding habitats, you might want to bring groceries.

The Malheur NWR Field Station is central to some interesting habitats outside of the refuge. On Steen's Mountain at nearly 3,000 metres (9,733'), you have a chance to see both Grey-crowned and Black Rosy-finches. You could also see California Bighorn Sheep there. From the north side, you can drive right to the top with two-wheel drive, but you would need a 4x4 to continue down the south side to make a circuit. Unfortunately, this road is often closed due to snow during the spring bird courtship period, when birding is at its best.

A good circuit is to follow Highway 205 (Catlow Road) south to Frenchglen, a delightful respite: lunch in the hotel (an alternate place to stay – email fghotel@yahoo.com), groceries and gas in Frenchglen Mercantile. Further south is Fields,with a good café and great birding across the street in a small, dense cottonwood thicket called Fields Oasis in eBird (e.g., Great Horned Owls, Bullock's Orioles, Black-billed Magpies, various warblers). Then retrace your path a mile or so, turn right (to the northeast) and follow the Fields-Denio Road across the Alvord Desert and along the majestic Steen's Mountain escarpment, until you meet Highway 78 and thence back to the refuge. This takes a full day: keep your gas tank full and carry plenty of water.

Below: Great Horned Owl chicks at Malheur HQ. Photo by Lee E. Harding.

This is hawk heaven: Ferruginous, Rough-legged and Swainson's Hawks each outnumber Redtails. Golden Eagles, Prairie Falcons, Cooper's Hawks and Northern Harriers are common.

Hart Mountain National Antelope Refuge is not far southeast of Malheur. Access is off Highway 395. This is your best bet for Sage Grouse and great for other desert birds. Summer Lake State Wildlife Area (Fremont Highway NW of Paisley, Oregon), on the ecotone between the desert and forested mountains, is

worth a side trip for the Black, Caspian and Forster's Terns, White-faced Ibis, Franklin's Gulls, American White Pelicans, Wilson's Phalaropes, American Avocets and Black-necked Stilts.

Just across the Nevada state line is the Charles Sheldon National Wildlife Refuge. It was created to protect habitat for pronghorns and other wildlife, native fish and plants; it also contains an active opal mine. It is another place to see Greater Sage Grouse, Chukar, Say's Phoebes and rare mammals including the pygmy rabbit and yellow badger.

Crossing into California—across the Warner Mountains—you come to Modoc National Wildlife Refuge and Tule Lake National Wildlife Refuge (which is huge and extends into Oregon). Lava Beds National Monument commemorates the last First Nations war in the United States, and is a great place for Rock Wren, Ash-throated Flycatchers and other desert birds. In Oregon, following Highway 97 north, are the Lower Klammath National Wildlife Refuge, Upper Klammath National Wildlife Refuge and Bear Valley National Wildlife Refuge: great for waterfowl and shorebirds. The Klammath marshes were especially good for Soras and Virginia Rails.

Above: The Painted Hills section of the John Day Fossil Beds National Monument.

This brief account can hardly do justice to the varied habitats and vast vistas of the Great Basin. You'll have to see it for yourself.

Briefing 1

Summary by M. Church, Vancouver

High Flyers

Most non-soaring long-distance migratory birds – that is, most migratory songbirds – fly at night on their long journey. Most apparently fly below about 2,000 m (6,560 ft) above the ground. Selection of the flying altitude that gives the most favourable wind assist, or that has the best air temperature for regulation of body temperature, may exercise important influence over the flight strategy. Birds have also been observed to fly high – up to 5,000 m (16,400 ft) – in order to cross a major barrier, such as open sea or a mountain range.

Recently, European researchers have tracked the migratory flight of Great Reed Warblers, a medium-sized passerine (length ≈ 20 cm; similar to our Yellow-breasted Chat, 19 cm), using miniature transmitting data loggers attached to the birds. These birds are widespread in summer in Europe south of southernmost Scandinavia and winter in the African Sahel. So in migration, they must cross major barriers posed by the Mediterranean Sea and the immediately adjacent Sahara desert. To achieve this they may extend their nocturnal flight into day. Remarkably, they have been found to increase their flying altitude abruptly at dawn from, on average, 2,400 m (7,900 ft) to 5,375 m (17,700 ft), with an extreme altitude record of 6,267 m (20,558 ft). The data are based on 23 records (9 in autumn and 14 in spring) obtained from 14 birds. At sundown, birds still airborne abruptly drop again to nocturnal flying altitude.

Why they do this remains unclear. There must be a strongly compelling reason since the birds must work harder to maintain altitude in the thinner atmosphere at 5,000+ m than at lower altitudes. The researchers forward five hypotheses.

(1) Birds might change altitude to gain the best advantage of favourable diurnal/nocturnal winds. (2) Birds may seek lower temperatures (below 15C) aloft during the day in order to minimize body moisture loss. However, winds and daily variation in ambient temperature commonly are limited in the troposphere above 1,500 m (4,900 ft) so that relative advantage at high altitude for these reasons would appear to be minimal. (3) Migrating birds are exposed to predation by diurnally active falcons over the Mediterranean and Sahara. Eleonora's Falcon breeds around the Mediterranean shores in summer and crosses the Sahara to wintering grounds. It is reputed to hunt to about 3,500 m (11,500 ft) altitude. (4) At high altitude during the day, the warblers may significantly extend their range of sight of the surface in the search for a stopping place or for navigational landmarks. (5) Solar radiation can affect the birds' heat balance during the exertions of flight, so that the lower ambient temperatures of high flight (daytime temperatures of around -10C versus +20C at lower altitude) may help energy conservation. Much more research will be required in order to sort out these possibilities.

Reference

Sjöberg, S. + 10 others. 2021. Extreme altitudes during diurnal flights in a nocturnal songbird migrant. *Science* 372: 646-648.

A Triumphant Pelagic

Vancouver Island's Wild Side

Kathryn Clouston, Courtenay

I just got back from a fabulous trip to Vancouver Island's Wild Side with Maple Leaf Adventures. I studied my pelagic birds in hopes of seeing something without really expecting much more than a bunch of murrelets/auklets, which I had seen before in this area. I did see a ton of Rhinoceros Auklets with their namesake horns all over the channels on the north end of Vancouver Island. I also saw a Leach's Storm-petrel where my studying worked out as I recognized it right away despite never previously seeing one. Pictures of a dinky little bird from the deck of a 138 ft catamaran were not as satisfactory!

We also saw plenty of orcas and humpbacks and phalaropes in amongst the islands, islets and rocks north of Port Hardy. Also seen was a feeding frenzy of gulls, cormorants and auklets at Nakwakto rapids which was really interesting. This was especially good as we weren't planning to go there but bad weather around Cape Scott led to a change of plans and a deke north for something fun before heading around the corner.

Back on plan we anchored in Shushartie Bay so we could go to the actual northernmost point on Vancouver Island, Cape Sutil, which most people skip as it is hard to get to and they think that Cape Scott is the northernmost point. That is not so since Vancouver Island is tilted west which puts it south of Cape Sutil. There were lots of birds on the Nawhitti Bar and a Minke Whale on departure so it was a great stop for me.

As planned, the weather was good and the trip around the corner was interesting with lots of birds again across the Nawhitti Bar and further along the coast until we rounded Cape Scott. There were Rhinoceros Auklets everywhere, some Pacific Loons, a couple of Marbled Murrelets, Red-necked Phalaropes close enough to photograph, and a hint of what was to come with some Common Murres and one Sooty Shearwater.

As we proceeded down the Wild Side the Rhinos started to thin and the Murres replaced them as the dominant species. Sooty Shearwaters also started to appear in clumps and large groups offshore of San Josef Bay. Frustratingly, they started taking off just as we got within decent camera range even though we were nowhere close, so I mostly got shots of rumps disappearing ahead of us. My disappointment was appeased when we got to Solander Island and had some Tufted Puffins show up for us.

We spent some time in the Checleset Bay area including a traditional salmon BBQ on Spring Island at the West Coast Expeditions camp before returning basically the same way we came down. This time we were attracted farther out to sea by an unusual whale which turned out to be an orca with a flopped-over dorsal fin that we wanted to document for the whale watchers, as that is very unusual in the wild. Good thing we did because we almost ran over a Black-footed – it was so close! A second one was flying around, and it was total chaos on the boat as someone would yell, "Orca," and someone else would say, "Albatross," and although we had been delighted to see the puffins earlier, now it was – get out of the way puffins! There were even some humpbacks breaching in the distance, so there was something for everyone.

Nothing could beat that but we still had some good wildlife sightings on the way back to get off the boat at Coal Harbour. The hot tubbers even saw a couple of wolves on shore. The shearwaters had moved south of the entrance to Quatsino on the way back so we got a chance for a second look, but they were still frustrating to photograph.

It was an awesome return to normalcy as we all had to provide proof of vaccination before the trip and then we got a rapid test in Port Hardy before entering the boat and then another test three days later just to be sure, so we could relax and enjoy ourselves.

Top: Tufted Puffins with a Common Murre
Left: Black-footed Albatross.
Photos by Kathryn Clouston.

Seabirds of Witless Bay, NL

Larry Joseph, Hazelton

Nature endows Newfoundland and Labrador with some of the largest, most spectacular, and accessible seabird colonies on earth. Just a 30–45 minute drive south of St. John's, four million seabirds dwell on four small islands at the Witless Bay Ecological Reserve. My June 8, 2019, visit to Witless Bay during the breeding season was a spectacular experience.

This essay emphasizes seabirds and my experience at Witless Bay. For good measure, it summarizes my custom-made five-day birding tour of the Avalon Peninsula. Photos and videos from three of my cameras were used to recreate my visit.

The "Witless Bay Ecological Reserve Management Plan" (1989) and its associated legislation governs the reserve. Year-round, eBird indicates 74 species in the reserve. Seabirds breed on Gull, Green, Great, and Pee Pee Island. They are Northern Fulmar, Leach's Storm-Petrel, Herring Gull, Great Black-backed Gull, Black-legged Kittiwake, Common Murre, Thick-billed Murre, Razorbill, Black Guillemot, Atlantic Puffin, and Manx Shearwater. During winter, Common Eiders, King Eiders, Thick-billed Murres and Dovekies inhabit Witless Bay.

On my first morning at St. John's, I visited Mundy Pond, five minutes from Donna & Jerry's wonderful AirBnB ($49/night). Ten taxa were easy to observe during 45 minutes there. The spring season was one of the coldest in decades. Pond visitors wore toques, mittens, and winter coats. Along the paths, everyone greeted me in a friendly way. I felt like I was back home in my northwestern BC village. I fell in love with the city right there at Mundy Pond.

Bay Bulls

A leading bird guiding service had used a boat tour company at the reserve. So, I did my own study about bird life at the reserve. Consequently, my tour was inexpensive but an informed budget tour.

Bay Bulls, a small fishing town, hosts the tour terminal. Forty passengers boarded the Atlantic Puffin, a new tour boat. Its heated cabin filled up first. The canteen, bar, and restrooms were on the bottom level but I went to the top deck for a better view. At 2:00 PM thick fog hid our departure as the vessel sliced through Main River Gut into Carpenters Cove then to Bay Bulls. A popular folk singer from St. John's music scene was our tour host. His microphone enabled everyone to easily hear his voice. I was dubious at first but I soon changed my mind about him.

Fifteen minutes after departure an iceberg appeared in the fog. Then 20 minutes later a Minke whale briefly surfaced near the cruiser. The cold wind quickly chilled me.

The North Atlantic foamed and boiled and the wind swept spray among Baboul Rocks. Visibility was 100–400m at best. The Atlantic Puffin skirted within 500m of the jagged, sawtooth shoreline. Thick fog strengthened the drama.

The Avalon Peninsula separates Bay Bulls and Witless Bay. Its ancient, magenta-coloured sedimentary rock layers from ancestral North America towers almost 80m high.

The host sang well-known Newfoundland folk songs to lift our spirits. He was accompanied with stamping feet and some passengers sang along with him. Beer flowed from blue bottles of Iceberg beer made at Quidi Vidi with pure 30,000-year-old iceberg water from Greenland. The golden beer elicited primeval screams and laughter. And the singing grew louder as we sailed deeper into the rain and thick fog.

Witless Bay: Gull Island

In 50 minutes, the Atlantic Puffin arrived at the north end of Gull Island. Thousands of Atlantic Puffin seabirds emerged from the fog foraging in the gentle swells. The boat flushed the Puffins from its path. The Puffins were from North America's largest Atlantic Puffin colony.

A few minutes later, the boat slowly approached the north end of Gull Island. From above, the island looks like a bear-paw print in the sand (400m x 800m excluding a thin peninsula). Eight to ten metres of bare rocks ringed the island. At the northwestern side of Gull Island, Puffins dug nests among the hummocks and green grass. The tour host explained the Puffins use specialized claws to dig their nesting burrows. "Each one of those holes...represents the entrance way to a two-room puffin condominium," the host explained. The clamour of innumerable bird calls, songs, and movements of numberless seabirds filled me with awe.

Breeding season was in full swing. Puffins typically lay one egg. Gulls were near the puffin and Storm Petrel holes. They prey on Puffins and their chicks. Great Black-backed Gulls can catch adult Puffins in flight. So, it's not easy being a pretty Puffin.

Most Leach's Storm Petrels breed on Great and Gull Islands. Approximately 9.5% of the global population inhabits the islands (continued overleaf)

Below: Cape St. Mary's Ecological Reserve. Photo by Larry Joseph.

during breeding season. They leave and return to their nest burrows in darkness.

Bond and three Canadian researchers published a census in 2016 of large gulls in Witless Bay. The large gull population has declined approximately 40 to 80% since 1970. The decline varies by island. Capelin, a small fish from the smelt family, lays its eggs close to shore. Capelin arrives late now and causes food shortages. So, the gulls have increased predation on Leach's Storm Petrels and other seabirds. For example, Bond et al estimate the large gulls take approximately 100,000 Storm Petrels per year at Great Island alone. Ecotourism contributes to the population decline too.

Approximately one million Murres inhabit the reserve according to the tour host. Common Murre huddled among the grassy hummocks too. The management plan explains "Common Murres … occur on Gull, Green and Great Islands, laying a single egg on the bare rock of narrow cliff ledges." In fact, the second largest colony in eastern North America inhabits Green Island. Our tour did not go to Great and Pee Pee Islands. This would reduce the impact of ecotourism on the ecological reserve.

Green Island

Expeditiously, we cruised 1km past Gull Island to Green Island. The tour merely touched briefly on two thin peninsulas of Green Island.

We then proceeded 500m to the southwest of Green Island to a large iceberg. We did a full circle around the iceberg taking 30 minutes (2:45 PM – 3:15 PM). A large number of gulls roosted on the dome-shaped iceberg. Countless seabirds circled and soared through thick fog above the iceberg.

Then the Atlantic Puffin headed northwards. Just minutes later, at the south end of Green Island, the cruise boat encountered a massive number of Common Murre. They frantically escaped our cruise path. There were so many Murres swimming and splashing that the water seemed to boil. This sobered me as I reflected on my contribution to the negative impact of ecotourism.

Return to Bay Bulls

Then the cruise ship proceeded northwards to the cruise terminal. At 3:55 PM, the town of Bay Bulls appeared in the fog. The host broke into song again. His rendition of "Peter Street" brought some passengers to their feet. A pair of dancers whirled to the music. Hands were clapping, heads were nodding, and feet were tapping.

At 4:02 PM, the Atlantic Puffin drew within a few metres of its dock. Our host brought the tour to a climax by singing the great Newfoundland folk song "Mary Mack." A team of medical health professionals from St. John's danced on the top deck bringing an awesome and fun tour to its completion. Yet, this boat tour ($60), just 25km in length, merely touches on the great natural spectacle that is Newfoundland and Labrador.

Five-day Tour

The next day, it was cold. I began to drive through fog and rain along the coast to the southern tip of the Avalon Peninsula. My ultimate goal was Cape St. Mary's. It's the most accessible seabird colony in North America. Unexpectedly my AirBnB hostess, Donna, phoned me. Her mother was enjoying sunshine at her home near Cape St. Mary's Ecological Reserve. So, I abandoned my trip on the Irish Loop and drove diagonally across the Avalon Peninsula to Cape St. Mary's. This decision was crucial to the success of my tour. Sunshine and warm weather at the Cape enhanced my experience of this great spectacle of nature. What is more, interpretation centre officials directed me to the wandering herd of Woodland Caribou nearby. I was awestruck to see them on the world's southernmost subarctic tundra.

On June 10, I drove northwards to Dildo Island at Trinity Bay. Dorset Inuit people inhabited the island from about 150 CE to 1500 CE. The nearby town of Cupids and its Legacy Centre fascinated me. It's the first English settlement in Canada.

The tour finale was at The Rooms at St. John's. It's the Art Gallery, Archives, and Museum for Newfoundland and Labrador. Nathalie Djan-Chékar – Natural History Collections Manager, showed me the collection of bird specimens. She showed me Roger Tory Peterson's incredibly beautiful original paintings of birds of Newfoundland and Labrador. Then Elaine Anton, MA, Registrar, The Rooms Provincial Museum Division, did a private showing for me of Dorset artifacts. They were evidence of one of the first peoples of Newfoundland.

Top – Gull nests, and below – Razorbills, on Witless Bay.
Photos by Larry Joseph

Calliope Courtship

Gordon Brown, Kaslo

From our little corner of Shutty Bench, our little strip of Kootenay Lake shoreline, this has been a most unusual year for hummingbirds. Typically, we have only Rufous as summer residents, with occasional migratory sightings of Calliope and even fewer of Black-chinned. We've had feeders out since 1986 and never had breeding birds other than Rufous. Across the lake at Johnson's Landing, 7.2 km away as the hummingbird flies, all three of these species are regular breeders, but not here. Until this year.

In forty-five years, I can count on one hand the number of Black-chinned males we've seen, and on two hands the number of Calliopes; inexplicably, this year everything was turned upside down. The Rufous males arrived first, as usual, with Beezlebub (the first, and therefore dominant) staking his claim on April 24. Nothing new there. We did get a glimpse of a Calliope male on April 30, but he passed on after a quick drink, leaving us with three or four Rufous males in competition for the ladies who began to arrive on May 9. Our typical Rufous-only pattern seemed to be in place for yet another year. But, on June 17, seven weeks after the first Rufous arrived, we suddenly had a male and female Calliope appear together,

All photos by Gordon Brown.

present a wonderful courtship display, and then stay for three weeks. This may have been facilitated in part by the sudden and atypical departure of all but one of the Rufous males, a full month before we would have expected them to be gone. This departure may also

have been responsible for the second major anomaly, the appearance on July 12 of a male and female Black-chinned pair, just in time to coincide with an explosion of newly fledged juveniles of all three species. Although unseen, the Black-chinned adults had obviously been somewhere in the vicinity throughout the nesting period. The Calliopes left first, but adults of all species had departed by July 24.

The first Calliope courtship display shots, where the male is facing the camera, wouldn't have been made at all had I not been having coffee on the deck, camera in hand and focused on the feeder which hangs about fifteen inches above those potted flowers. I had seen photos of the male's flared gorget, but

because we've had so little experience with the species I'd never witnessed it. Needless to say, I couldn't believe my eyes when it happened right in front of me, eight feet from my coffee cup.

The second display shots were made three days later at Johnson's Landing, where the birds appear in greater number. I'd hoped for some flight shots, and was focused on a female who had just backed away from a feeder. The male suddenly exploded into the frame and the courtship display enacted; their brief interaction was over in just a few high-speed exposures. On this occasion I was fortunate to have recorded the male's gorget in both side and back views, but for me the most remarkable aspect of this interaction was the fact that the female puffed out her throat in response to his. It should also be noted that, like some other species, the pair was in conversation throughout the courtship.

The Central Chilcotin's Wetland Gems

Paul Foth, 108 Mile Ranch

I've had mixed feelings about the stretch of Highway 20 in the Chilcotin between Hanceville and the Coast Mountains to the west; the plateau is covered with stunted pines and brush from extensive logging and forest fires, with little to break the monotony. But a bird survey this summer brought me to some hidden wetland gems, home to a satisfying mix of breeding birds and a few surprises. Over six days I tallied 116 birds across three wildlife areas in the Central Chilcotin, including a few eastern or northern species mixing with their western counterparts.

The goal of this survey was to count breeding birds in three large provincially managed wetland properties. These included Chilanko Marsh, a long system of sloughs, marshes and riparian habitats along Tatla Creek and the Chilanko River. This well-birded site borders the dry fields of the Puntzi Mountain Airport, just minutes north of Highway 20. I also surveyed the two properties that together form the Chilcotin Lake and Marshes wildlife area, about 35 kilometres north of Highway 20 off Redstone-Chezakut Road. The Chilcotin Lake property is comprised of a large lake with a marshy arm, dense riparian habitat along the Chilcotin River, some limited grassland and a large wet meadow. The whole site is ringed with an open coniferous forest with occasional mature patches. This lake is difficult to access, and I did spend half an hour digging my poor Subaru out of a mud hole. The Chilcotin Marshes property has a large dyked marsh ringed by brushy and wet meadows and woods, as well as a couple of smaller ponds. The site is reminiscent of a coastal marsh or a large interior wetland, like those in Creston Valley.

For six mosquito-filled mornings in early July, I counted birds along point counts and transects that covered as many habitats as possible, spending two days at each site. After the morning counts, I wandered the wildlife areas recording incidental observations of waterfowl, any breeding bird evidence, and any species I may have missed. In total I counted 116 species; this included 89 at Chilanko Marsh, 79 at Chilcotin Lake, and 93 at Chilcotin Marshes.

The main channel of the Chilanko River through Chilanko Marsh was dominated by Common Loons, a few foraging American White Pelicans, and gathering flocks of Yellow-headed and Red-winged Blackbirds. Killdeer, Soras and Virginia Rails called from the edges and the reeds. The smaller back channels were full of broods of breeding ducks, geese and coot. Three Black Terns made a brief flyby. The range of Red-naped and Red-breasted Sapsuckers meets in the area, and I found one unusual hybrid of the two with a solid black face. A pair of Say's Phoebes was perched at the edge of the wildlife area near the airport, and I found one singing Gray Catbird (uncommon in this part of the Chilcotin) near an old homestead in the middle of the marsh. A few migrant Least Sandpipers flushed from the east end of the marsh along the road into the airport. I found nesting Hooded Mergansers, Pied-billed Grebes, Barn Swallows and Cliff Swallows, the latter in the buildings of the old homestead. The highlight of Chilanko Marsh was the riparian habitat at the west end of the property, with singing Northern Waterthrushes, Yellow Warblers, American Redstarts and an unexpected Tennessee Warbler. The biggest surprise, though, was a singing and calling Swamp Sparrow in a bush-strewn grassy marsh along the meandering river.

At Chilcotin Lake, the lake itself was inaccessible (and outside the study

area). Extensive riparian habitat along the Chilcotin River yielded the expected warblers, Warbling Vireos, both Willow and Alder Flycatchers, Swainson's Thrushes and Veerys (the only ones I encountered in the area).

While looking for a dry path through a wet meadow I was divebombed by an agitated Greater Yellowlegs, which was followed at a more timid distance by two Lesser Yellowlegs. The Greater did the same thing to a perched Osprey that afternoon, so it wasn't just me. The pair of Lessers later performed an aerial courtship, with the male singing as they flew overhead. I also encountered an aggressive male Northern Waterthrush in the open woods, circling around me and calling before breaking into song.

The unique mix of eastern, western, interior and coastal birds was striking at one stand of aspen snags, where both a Red-naped and Red-breasted Sapsucker alternated feeding, and a trio of Northern Flickers—one Red-shafted male, one Yellow-shafted female, and an unidentified third female—did a bouncing courtship dance. Red-naped Sapsuckers and Northtern Flickers nested in other aspens nearby.

In the eastern half of the wildlife area, I glimpsed over seventy American White Pelicans feeding on the lake. I found a decent mix of breeding ducks and Red-necked and Pied-billed Grebes on the marshy inlet of the lake. In the woods on the hill overlooking the lake I also encountered Hermit Thrushes, Townsend's Solitaires, and one hooting Great Horned Owl.

The best birding location was the expansive Chilcotin Marshes area. Common Nighthawks buzzed and boomed overhead each morning, and Sandhill Cranes called in the distance. Dozens of Black Terns hovered over reeds where broods of ducks and young Soras were feeding. The abundant waterfowl included a lone Trumpeter Swan and an unexpected female Northern Pintail. I found four species of grebes, and a good number of breeding and early migrant shorebirds (including both Yellowlegs, Wilson's Phalaropes, Least and Semipalmated Sandpipers, and Long-billed Dowitchers). The brushy fields surrounding the marsh had the only Clay-Coloured Sparrows I encountered on the survey, along with the usual White-crowned, Lincoln's, Savannah, Chipping and Song Sparrows. At least five Olive-sided Flycatchers sang throughout the area. A second singing Tennessee Warbler at one of my last stops was a fitting conclusion.

These three sites are some of the larger wetland complexes I have come across in the Cariboo-Chilcotin. With 116 species counted, perhaps eight or so of those migrants, these wildlife areas provide great breeding habitat for wetland birds and songbirds. I counted at least 46 flying adult Black Terns from one stop on a dyke at Chilcotin Marshes, indicating that this it could be a significant colony. Black Terns show up here and there in the Cariboo, but I have found few reliable sites, and none as bountiful as what I witnessed there. These wildlife areas, and Chilcotin Lake in particular, seem to be valuable feeding grounds for the Chilcotin's American White Pelican colonies at their nearby breeding colonies at Stum and Puntzi Lakes

The Central Chilcotin is particularly interesting for the insight it offers into bird species distribution. The surprising Swamp Sparrow is an example of a bird found outside of its expected breeding range, but close enough that it warrants further investigation in the area. Aside from the odd migrant, most summer Cariboo records of Swamp Sparrows are from a few lakes around Quesnel, certainly not as far west or south as this part of the Chilcotin—but it is worth investigating to see if these are perhaps more regular in this vast part of BC. Likewise, Tennessee Warblers, which are more regular in the northern portions of the Cariboo, were still unexpected. Potentially breeding Lesser Yellowlegs were also somewhat surprising, if indeed their alarmed behaviour and courtship was the sign of nearby breeding. Other known Lesser Yellowlegs Chilcotin breeding sites are further west near Anahim Lake. Closely related species and subspecies also meet in this expansive plateau; I found one Alder Flycatcher for about every two Willow Flycatchers, occasional Red-breasted Sapsuckers with the more common Red-naped (and one hybrid), and both Red-shafted and Yellow-shafted Flickers. Who knows what more birding effort in the area could reveal?

Birders on their way to look for the breeding Arctic Terns at Eagle Lake would not regret stopping at Chilanko Marsh just off Highway 20, or spending some time exploring the Chilcotin Marshes. I for one plan to come back to these excellent sanctuaries for breeding birds. In spite of the heavily logged surroundings, the remote wetlands have something of the surprise and wonder of wilderness.

Left: a Lesser Yellowlegs at Chilcotin Marsh.
Photo by Paul Foth.

Birding in Paraguay

Val George, Victoria

Above: Yellow-chevroned Parakeet. Overleaf: Bare-necked Ibis. Photos by Val George.

Paraguay is not a country that readily comes to mind when thinking about a destination for your next birding trip. In fact, when I told my birding friends and acquaintances that I was going there, most had only a very vague or no idea where it was. Yet, the country has a rich and diverse avifauna with many species that can't be found in other regions of South America.

Paraguay is in the centre of the South American continent. It's about half the size of BC but has a bird checklist of about 700, i.e., about the same as the whole of Canada. Our checklist for the trip was about 350 species, a very satisfying though not amazing total. What was surprising for me was that, though I had previously birded in several other South American regions, from Ecuador in the north to Tierra del Fuego at the southern tip, about 200 of these were lifers for me.

Geographically, the country is rather flat with a highest elevation about 800 metres. Despite its being landlocked – and therefore not having any coastal or pelagic habitats – it has a great diversity of ecosystems, including the vast wetlands of the Pantanal to the semi-arid Chaco in the west and the Atlantic Forest in the east. The climate is generally semi-tropical.

Several years ago, one of our well-known BCFO members, Rand Rudland, decided he wanted to do a birding trip to Paraguay, so he persuaded another eight birders to join him for a three week trip. When we got there, Rand had arranged for two excellent local guides.

The Pantanal is the world's largest tropical wetland. Most of it is situated in Brazil, but a small part at the southern end extends into Paraguay. This part is very remote and difficult to access by dirt roads – that seem to take forever to drive – and a boat trip up the Rio Negro, which is a large tributary of the Rio Paraguay. The habitats we birded were wetlands, grasslands with palm groves, and deciduous forests adjacent to the wetlands.

Birds of the waterways and other wet areas included: egrets (Cattle, Great, Snowy); other herons such as Cocoi and Whistling; and storks such as Wood and Maguari, as well as the very impressive 140cm-tall Jabiru. We saw several ibis species, including the Buff-necked and Plumbeous. Wattled Jacanas walked on the water hyacinth – native to South America, unlike in other parts of the world where it has been introduced and creates serious problems – that choked the waterways in some places.

We saw many raptor species, including kites such as the Gray-headed and Snail, Crested Caracaras, and hawks, such as the Great Black and Black-collared. As for most other areas of our tour, vultures were often in the air (Black, Turkey, and Lesser Yellow-headed).

Amongst other birds of the wetlands were Limpkin and kingfishers (Green, Amazon, Ringed).

Habitats other than the wetlands gave us many small birds: many flycatchers (about half the approximately 40 species we saw on the whole trip); several icterids (cowbirds, Crested Oropendola, Chopi Blackbird, etc.); and an impressive hummingbird, the Swallow-tailed Hummingbird, which as its name implies has a long, Barn Swallow-like tail.

From the very wet to the very dry, the Chaco ecosystem covers the western third of the country. This is a semi-arid region. Though very sparsely populated, the habitat has been greatly impacted by human activity, especially by cattle ranching, which is a major industry in Paraguay. However, much original habitat remains, consisting of thorn shrubs, and savannahs with palm groves and low forests; parts of the region have many species of cacti (of all sizes, some tree-like), and there are some wetlands.

The Chaco area of South America – which extends into Bolivia and Argentina – has a large number of endemics, about twenty of which are on the Paraguay checklist. These include such species as the turkey-like Chaco Chachalaca, the Many-coloured Chaco Finch, and the Chaco Owl, whose numbers are rapidly declining due to forest loss. Regarding owl species, it was the Chaco area where we saw most of our owls for the trip (Tropical Screech, Ferruginous Pygmy, Burrowing, etc.).

Some of the more impressive birds of the Chaco are the Ostrich-like Greater Rhea, the largest land bird in South America, the large grey, ground-dwelling Black-legged Seriema, and Southern Screamer.

Large flocks of doves are a common sight in the Chaco. Pigeon hunting is very popular in the country and is encouraged by the locals to minimize damage to agricultural crops. Some of the species we saw were the Picazuro Pigeon, the little Picui Ground Dove and the White-tipped Dove.

In the more open country we often saw raptors: the ubiquitous vultures, of

course; hawks such as the Roadside and Black-collared; and falcons such as the Laughing, Bat, and Aplomado, amongst others.

The third major ecosystem we birded was the Atlantic Forest of the eastern part of the country.

This very large forested area extends for over 3,000 km along the Atlantic coast of the continent. In Paraguay it has been hugely destroyed by clearing for agricultural purposes like growing soybeans – Paraguay is one of the world's major exporters of this crop – and grains. The remaining areas, however, are quite productive for birding.

The habitats in this region are, as well as the actual broad-leaved forests, sub-tropical grasslands, shrublands and savannas. These harbour many endemics for the ecosystem; our trip checklist listed about 70 – we saw about 40 of them. Notable Atlantic Forest endemics were: Red-breasted Toucan; colourful birds like the Chestnut-bellied Euphonia and Chestnut-headed Tanager; and cotingas such as the Red-ruffed Fruitcrow and Bare-throated Bellbird, which, as its name implies, has a very loud, metallic-like call.

Paraguay has twenty species of woodpecker on its checklist; we saw fifteen of them. Almost every day seemed to turn up a new species for us – even our guides were surprised at the number we checked off. The Atlantic Forest region was where we saw the majority, including the well-named White Woodpecker and the highly endangered, large – similarly-coloured to our Pileated – Helmeted Woodpecker.

This region was also where we saw most of the hummingbirds for the trip. Paraguay doesn't have the large number of hummingbird species seen in the more northerly countries of the continent, like Ecuador and Venezuela; however, some of them are endemic to the Atlantic Forest such as the appropriately-named Plovercrest and Black Jacobin.

Space doesn't permit listing any of the other species we saw in this region, but we checked off many flycatchers, antbirds, woodcreepers, tanagers, finches, icterids, etc.

To conclude: a few words about field guides for the country. When we went there were no guides specific to Paraguay, so we had to use guides for the adjacent areas. These were adequate, but barely so. However, one of our guides, Paul Smith, was just in the process of finishing up one for the country (*Field Guide to the Birds of Paraguay*), and I believe this is now published. Paul, incidentally, is also creator of the very useful general website FAUNAParaguay.

And to conclude this conclusion: If you're considering a destination for your next birding adventure, think about Paraguay – you won't be disappointed if you go; that is, so long as you go in the dry season because in the wet season many of the dirt roads you need to travel are almost impassible.

Briefing 2

Summary by M. Church, Vancouver

All the Oceans Are the Stage

The world's oceans are subject to a number of anthropogenic insults. Prominent ones are global climate change, leading directly to warming and increased acidity of ocean waters; fishing, leading to impoverished ecosystems; and pollution, leading to local and regional changes in water quality and increased loadings of foreign objects. Yet there remains no single measure of the integrated effect of all these insults, and none that can measure regional differences in the summary effect across the oceans. In the oceans, birds are top predators, in which environmental effects are prominently concentrated. A new analysis tests seabird breeding success as an integrated measure that identifies a significant difference between the oceans of the northern and southern hemispheres. Regional data (mostly associated with individual seabird colonies) provide relevant information most abundantly available across all the oceans (although reporting remains by no means uniform).

There are good reasons to expect differences. The northern hemisphere oceans are associated with a larger land area with a greater human population, greater marine fishing effort, and greater pollutant loading. But fishing effort has increased more rapidly since 2000 in the southern oceans.

For analysis of seabird breeding, the birds were divided into guilds based on feeding habits. These were planktivores (consumers of zooplankton and larval fishes); piscivores (small pelagic fishes); and omnivores (anything they can capture). A cross-classification separately considered surface feeders (e.g., albatrosses, petrels, gulls, terns) and subsurface feeders (e.g., penguins, puffins), it being expected that the surface feeders are more susceptible to the effect of ocean changes.

There are both positive and negative trends amongst individual species in all guilds over the period 1960–2020. However, overall, omnivores suffered declining breeding success in both hemispheres, in the northern hemisphere most strongly of any class, anywhere. Piscivores actually increased breeding

success in the southern oceans while declining moderately in the north. Finally, planktivores increased productivity in the north while remaining stable, within statistical resolution, in the south – the actual trend being slightly down.

Probability for nest failure in individual years shows that favourable trends (declining incidence of failure) occurred before 1980, while unfavourable trends have occurred since 2000 or, amongst piscivores, have been slowly but consistently increasing over the entire period.

The results for piscivores appear to implicate the steady increase in ocean fisheries over the entire period of study as a significant factor underlying the trends. The other guilds appear to be more strongly affected by the increasingly strong effect of cumulative climate change and pollution since the turn of the century. However, the study authors caution that total statistical explanation of their results remains low (i.e., much of the year-to-year variation in breeding success remains unexplained by the regional analysis) so that factors such as bad weather during the breeding season or other conditions that might affect food supply remain untested as affecting the observed trends. The results nonetheless present a disturbing picture that is consistent with what we know about the human impact on the global environment.

Reference

Sydeman, W.J. + 39 others. 2021. Hemispheric asymmetry in ocean change and the productivity of ecosystem sentinels. *Science* 372: 980–983.

The Alberta Birds of Prey Centre

Anyone travelling through southern Alberta is strongly recommended to drop into the Alberta Birds of Prey Centre in Coaldale. Many hawks, eagles and owls can be observed up close in the Hawk Walk, and rescued Great Grey, Snowy, Saw Whet and Burrowing Owls, Ferruginous Hawks and more can be seen in the aviaries around the 70-acre site. Flying displays and hands-on experiences are on offer, but even more pleasing to this visitor were the very attractive wetland areas, making the centre seem almost like a miniature Reifel. And that meant that wild birds, like this Great-Horned Owl, photographed on August 12, could be observed, and not just the many rehabilitating house guests. It's a gem of a place – see Alberta Birds of Prey Foundation (burrowingowl.com) – and be sure to spend a few hours there if you are in the vicinity.

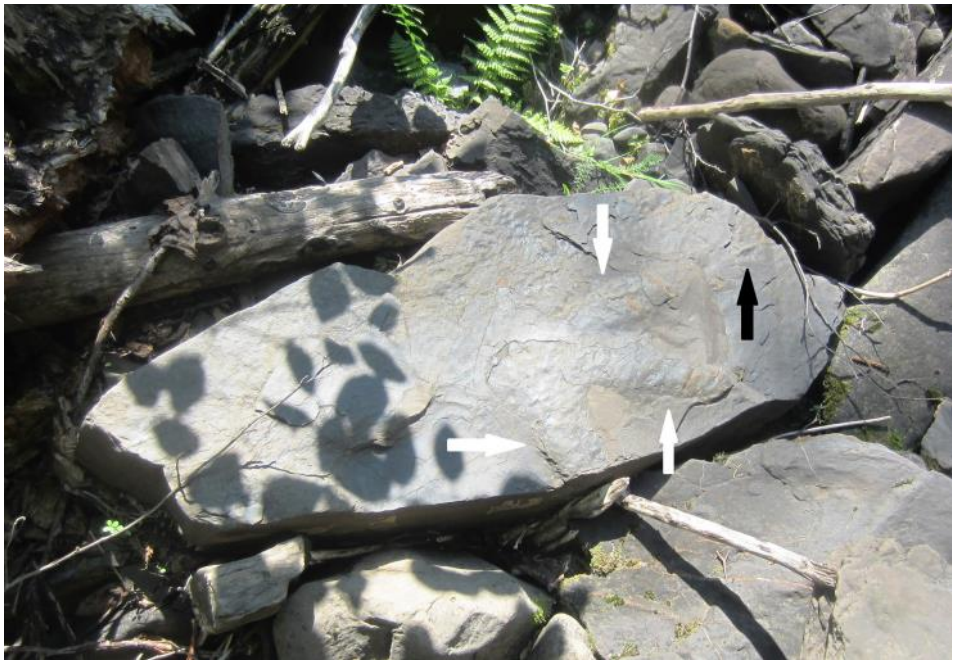
Ancient Bird Tracks in "Tim's Creek," Tumbler Ridge

Charles Helm, Tumbler Ridge

The front-desk staff of the Tumbler Ridge Medical Clinic was well trained: anyone bringing in photos of fossil tracks would be quickly ushered in to see me before my next patient. Remarkably, over a period of decades this system was never abused, and no-one tried to sneak in a quick request for a medical opinion while showing me fossil tracks. So it was that one day in 2010 a nice gentleman named Tim, who operated a remote ranch far up the Wolverine Valley, was sitting in my examining room armed with photos.

I had written a few books on the Tumbler Ridge area, in which recent dinosaur track discoveries featured prominently. Tim had a few Australian summer students staying with him on the ranch. They had read the book, and had decided to go prospecting in the unnamed creek that flowed past the ranch, and up the deep canyon upstream. Incredibly, within a few hundred metres they found what they thought were dinosaur tracks, and took photos.

Looking at what Tim was showing me, there was little doubt about what they had discovered. However, all our dinosaur tracks up to that point had been in Cretaceous rocks, less than 100 million years old. Tim's ranch was in rocks of the Minnes Group at the Jurassic-Cretaceous boundary, around 140 million years old. This was therefore of great potential significance, and I immediately arranged to visit Tim at his ranch on my next free afternoon.



The track-bearing slab as it was found beside Tim's Creek. White arrows indicate natural casts of three theropod digit impressions; the black arrow indicates the area in which the bird tracks were found.

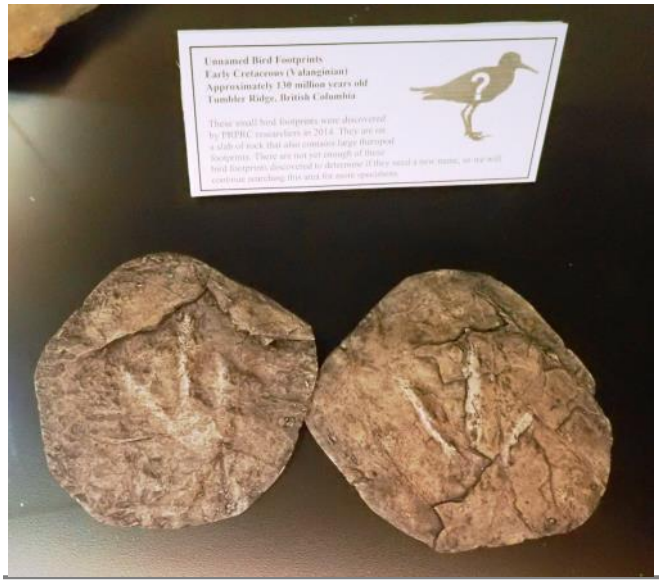
As I headed up what came to be known as "Tim's Creek" into the canyon, I managed to confirm not just the dinosaur tracks that the students had discovered, but found a number of other sites as well, featuring theropod and ornithopod footprints on loose slabs in or beside the creekbed. I documented these sites and reported them to our Research Centre at the Tumbler Ridge Museum.

A few years later, in 2013, funding was secured for helicopter time, and I returned to Tim's Creek with Dr Richard McCrea, palaeontologist and curator of our museum. We relocated the track-bearing slabs and found some new ones, and identified the best candidates for being long-lined out of the canyon and onto a flatbed trailer, on which they would be transported to the Research Centre. Had this not been done, they would inevitably have been lost in subsequent flood events. Once the specimens were safely recovered, the tracks could be examined in optimal conditions under angled lighting, and that is when an unanticipated discovery was made. In addition to the obvious theropod tracks (which were cool but not unexpected) were a couple of smaller, thin-toed tracks, just under 6 cm long.

It was concluded that these were clearly avian tracks, and the age of the rocks of ~130–140 million years meant that these were some of the oldest bird tracks ever recorded. The theory that birds evolved from theropod dinosaurs in the Middle Jurassic Period has become widely accepted. Because bird skeletons are so fragile and are infrequently preserved, tracks often provide the best means of learning about ancient birds. Replicas of the tracks were made, and form part of the palaeo-ornithology exhibit in the Tumbler Ridge Museum (a "guaranteed sighting").

Birds don't leave tracks when they fly, or when they perch in trees or on cliffs, and their tracks are very unlikely to be preserved in forest and other vegetated settings. The avian track record is thus biased towards beach and dune and wetland palaeo-environments,

A replica of the avian tracks is on exhibit in the Tumbler Ridge Museum.



where their footprints were recorded (alongside those of dinosaurs in the Mesozoic). The Tim's Creek tracks have not formally been described (a larger sample size would be needed), but may have been registered by an ancestral shorebird. Every discovery of this nature can be regarded as a miracle of preservation: track-containing sediments were buried for millions of years, then re-exposed through erosion or cliff collapse, and identified and recovered in the brief window of time between re-exposure and destruction.

There are lessons to be learned from this. Having eyes looking at the ground is important, and tracking dinosaurs and birds provides a great opportunity for citizen science. People like Tim and his students are the heroes in this tale. Furthermore, dinosaur tracks, being large and deep, are easy to identify. Not so with bird tracks, which are often small, fragile, and shallowly impressed. BC's Peace Region is a global hotspot for both dinosaur tracks and bird tracks, but the latter may therefore be commoner than we think. A bright LED light shone from an angle might help identify such occurrences during fieldwork, and should become an essential accessory when prospecting for fossil avian tracks in suitable surroundings.

We can wonder how many hundreds or thousands of such fossil avian track-sites have come and gone in the Peace Region without ever being identified. Finding such sites does not just happen; it requires dedicated searching, but the joy of discovery and the glimpse into deep ornithological time makes this a most rewarding exercise.

Briefing 3

Do Birds Have a Nose?

Compiled by M. Church from various sources

Not obviously. But they do have a sense of smell, despite a long-standing conviction that they do not. How that conviction arose is not entirely clear. One story is that the failure of vultures to detect a dead pig hidden by John James Audubon under a pile of brush prompted the belief. The absence of anatomically obvious nostrils is a more likely reason for its persistence, at least among those of us who are not bird anatomists.

But in recent years many examples have appeared of the employment by birds of an olfactory sense. More than 50 years ago new experiments with vultures showed that they certainly were attracted to hidden carcasses provided they were not too decomposed. Audubon's pig probably was simply too rotten to eat, and the vultures could smell that fact!

In Germany, a perceptive primary school student noticed that White Storks invariably found their way to freshly mown fields (where their insect and small rodent prey is more easily located), even when they could not initially see the field. How do they do it, the student wanted to know. Researchers followed a flock of storks and confirmed the student's observation. Further, the fields were always upwind from the birds. To confirm that smell was the operative sense the researchers sprayed a synthetic chemical with a cut-grass odour onto fields that had not been mowed. The birds came flocking.

It has recently been shown that European tits find insects in pine trees that are under attack by detecting the odour of volatile chemicals that are released by the injured trees. At sea, albatrosses and shearwaters locate fish prey by smelling a chemical released by plankton that the fish eat. Most fundamentally, "preen oil," which birds secrete from a gland at the base of the tail and rub onto their feathers, serves as a means of olfactory communication between birds. Females – in most cases less showy than their males – produce the oil more abundantly. The oil likely serves as a medium to advertise their fitness in absence of the more colourful plumage and songs of the males.

Geneticists have now studied bird genomes and found genes for olfactory receptors – proteins in the nasal passage that detect odours and pass information to the brain. Species that do not rely much on smell (e.g., us) often have mutated and non-functional versions of some of these genes, but in birds they are generally intact and functional, suggesting that olfaction is an important sense for them. Some of the best-studied birds in this respect are hummingbirds, chickens and emus. The olfactory sense in Emus is particularly significant because they are closely related to the earliest true birds, suggesting that the olfactory sense is a deep and persistent sense in birds. The Emu's diminutive ratite relative, the Kiwi smells its subsurface prey – worms, grubs and small invertebrates – by smelling them via nostrils at the end of their long, probing beak – a unique organ amongst all birds.

There remains much to learn about bird olfaction, including how or whether it is a sense that may be used in navigation. But there is no doubt that it is of vital importance for many birds, even though they lack obvious nostrils.

Welcome House Guests

Joan Nicholson, Vancouver

I've had this "decorative" birdhouse on my front balcony for twenty years just because I liked the design. Imagine my absolute surprise and delight when a pair of chickadees took up residency and produced two chicks. Those parents worked very hard each day to keep the chicks fed and I'm hoping they'll come back and nest again.

Chopaka Customs IBA eBird Count 2021

Matthias Bieber

At dawn on the morning of June 13th, a dedicated group of birders set out to count breeding birds across the Chopaka Customs IBA south of Cawston, in the South Okanagan-Similkameen region of BC as part of an official IBA eBird Count. Warm, sunny weather made for pleasant conditions during the early morning proceedings, with light showers later in the morning helping to keep the temperature down and the birds active.

The goal of an IBA eBird Count is to inventory bird populations during the breeding season within a particular IBA in one morning, essentially providing a snapshot of the birds breeding in that IBA on any given day. The objective is to cover the IBA reasonably well, by dividing birders into small teams and assigning each a designated area for them to count in. In this way, the protocol is similar to that of a Christmas Bird Count. These counts also provide important data on numbers of rare birds in our Important Bird Areas, such as the Yellow-breasted Chat and Lewis's Woodpecker. The fourth of its kind in the South Okanagan in as many years, this count was again funded by the BC Field Ornithologists and administered by the IBA Canada Program and BC Nature.

IBAs – Important Bird and Biodiversity Areas – are locations designated for the essential habitat they provide for birds and other life, part of a science-based program and global initiative led by BirdLife International. Canada's IBA program has been operational since the 1990s and involves a network of volunteer Caretakers who engage in activities ranging from habitat restoration, stewardship and monitoring, to outreach and education.

The Chopaka Customs IBA is the smallest of five in the South Okanagan with an area of 10.1 km^2. It encompasses wide swaths of native grassland and sagebrush shrub-steppe on either side of Crowsnest Highway (Highway 3) between Cawston and Richter Pass, south to the Canada–USA border. Elevation in the area ranges from 353m in the Similkameen River valley at the west boundary of the IBA, to about 1,012m in elevation at the lower southern slopes of Richter Mountain at the north end. The IBA is located within unceded traditional territory of the Syilx First Nation, with a large proportion of the land ownership comprised of the South Okanagan Grasslands Protected Area (Provincial Park designation), and the rest private or Crown.

Despite the majority of the area consisting of arid grasslands – home to a number of rare sparrow species and the Endangered Sage Thrasher - a variety of habitats can be found. These include Ponderosa pine woodlands where nationally significant numbers of Threatened Lewis's Woodpeckers breed; rare old growth cottonwood stands along the Similkameen River which provide habitat for federally Threatened macfarlanei subspecies of Western Screech Owls and Endangered Yellow-breasted Chats, as well as a myriad of other riparian species; and steep grassy hillsides, ravines, talus slopes and rugged cliffs. The IBA is known to support additional avian species of conservation interest including Common Nighthawk, Long-billed Curlew and the occasional Barn Owl. Furthermore, the area is home to several important non-avian wildlife species, including Western Rattlesnake, Great Basin Gopher Snake, Western Yellow-bellied Racer, Western Harvest Mouse, Great Basin Pocket Mouse, and American Badger, with the latter making a brief appearance during the survey in the form of a pair crossing the road in front of one survey group.

The Chopaka area is situated along the edge of the southernmost part of the Similkameen River in BC, as it carves its way through the narrow Similkameen Valley, a land with steep mountain slopes and breathtaking views. While the Similkameen River is not nearly as heavily modified as the neighbouring Okanagan River, much of the adjacent lands have been converted to agriculture and most of the native riparian forests have been lost. The Chopaka IBA supports one of the last remaining old-growth Black Cottonwood stands in the valley. Increased agricultural development, including land conversion to orchards and vineyards, has also diminished the amount of native grassland habitat in the IBA. Other threats to birds in the IBA include: intensive grazing on much of the land; invasive species – plants such as cheatgrass and knapweed which compete with native species and alter the grassland habitat and European Starlings which compete with Lewis's Woodpeckers for nesting cavities; and recreational activities such as horseback riding and hiking which have the potential to disturb ground-nesting birds, spread weeds, and cause localized erosion and habitat degradation.

The post-survey count-up. Photo by Krista Kaptain.

Twenty-two skilled birders, the largest turnout yet for IBA counts in the Okanagan, divided and traversed the IBA over a six-hour period from sunrise to about 11:00 AM in six teams of 3–6 members. A combined 40 party observation hours and 52.6 km were logged, almost entirely on foot! We estimate that between 60–70% of the total IBA was covered during the count, with about 15% of the area being inaccessible due to rugged terrain.

A total of 1,236 individual birds of an impressive 93 species were documented. Highlights include 12 species at risk, of which seven are listed federally, and five additional species that are considered at risk in BC. Federally listed species at risk included 16 Lewis's Woodpecker (Threatened: SARA and COSEWIC) and 1 Yellow-breasted Chat (Endangered: SARA and COSEWIC), 1 Bank Swallow (Threatened: SARA and COSEWIC), 3 Barn Swallow (Threatened: SARA and Special Concern: COSEWIC), 16 Common Nighthawk (Threatened: SARA and Special Concern: COSEWIC), 1 Peregrine Falcon (Special Concern: SARA), and 1 Evening Grosbeak (Special Concern: SARA and COSEWIC). Species detected during the count that are listed solely in BC included 1 Grasshopper Sparrow (Red-listed in BC), 26 Lark Sparrow, 25 Brewer's Sparrow, 1 Canyon Wren, and 2 interior Herodias subspecies Great Blue Heron (all Blue-listed in BC).

The most abundant species counted were Western Meadowlark (139), Vesper Sparrow (122), American Robin (73), Western Wood-Pewee (65), and Western Kingbird (45). Not every species known to regularly occur within the IBA during the breeding season was detected, as to be expected. Some missed species include Common Poorwill, White-throated Swift, Osprey, Northern Harrier, Great-horned Owl, and Cliff Swallow.

A singing Brewer's Sparrow photographed by Tristan Semeniuk.

Conducting bird counts such as these are vital as they provide valuable baseline data over large areas. This is particularly important for ecosystems of conservation concern that are under pressure from development, such as the grasslands being lost to agricultural conversion in the Chopaka Customs IBA. Increased presence of birders in more remote areas can also identify and bring attention to less apparent issues like habitat degradation from unsanctioned recreation such as motorized vehicle use.

Thank you to the BC Field Ornithologists for funding this count, which covered fuel and lunch for the participants as well as compensation for time spent on count organization, and to Liam Ragan, the BC IBA Coordinator, for submitting the grant application and helping organize volunteers. Special thanks this year to the Kamloops Naturalist Club and their Next Generation Naturalists for coordinating and supporting a group of four youth to attend the survey. Thanks also to the participants for their efforts and making this a successful endeavour, Lee McFadyen and Marilyn Bergen, the caretakers for this IBA, and the landowners in the area who granted land access permission for the count.

Rare Bird Alerts

Since the last edition of this newsletter, the alert has reported:

- BLACK PHOEBE in Rosedale - August 7–10th
- MANX SHEARWATER near Port Hardy: July 28th
- INDIGO BUNTING in Coquitlam: July 21-30th
- ORIENTAL TURTLE-DOVE in Prince Rupert: July 15th
- TRICOLORED HERON in Cowichan Bay: July 12th
- WOOD SANDPIPER in Victoria: July 5–9th
- GREAT-TAILED GRACKLE in Colwood: July 4–19th
- INDIGO BUNTING in Wardner: July 4-30th
- DICKCISSELS in Nakusp: June 26 –30th
- CHESTNUT-SIDED WARBLER in Vancouver: June 17th
- SNOWY PLOVER in Kelowna: June 15–17th
- COSTA'S HUMMINGBIRD in Delta: June 12th
- ACORN WOODPECKER in Bralorne: June 10–16th
- HOODED ORIOLE in West Vancouver: June 8th

For details head to :

bcbirdalert.blogspot.com

A Rare Encounter

Fiddle Music Written to Mimic Song of an Indigo Bunting

Virginia Rasch, Kimberley

Nonbirders help us find some good birds. In Wardner, BC, near Cranbrook, Alan Barnard's neighbour and friend Shelagh lives in a log house at Ha Ha Lake. Back in early July, Shelagh was having her coffee on the deck and for two mornings she heard a bird singing that she had never heard.

Although she's not a birder, she is a talented musician and fiddle player. She knew this was a bird song she'd never heard before. She called up her fanatical birder neighbour, Alan.

Alan came over on July 4 and identified the Indigo Bunting and snapped some photos. The rare sighting was posted on eBird and sent out on alerts, so many birders have made the trip to Wardner to see this Indigo Bunting, which was still there as of this writing.

"Shelagh got excited when all the birders arrived and she might become a birder," said Alan.

Some of her friends were around the next weekend and they all listened to the singing bird. Fiddler Leah Gardner was inspired to compose a song.

"The gang wrote a fiddle tune called *Indigo Bunting* in honour of our little local lost feathered friend," said Shelagh. "In part of the song, we had him singing sadly over and over looking for a mate who never comes."

Alan admired all of the songsters—feathered and unfeathered.

"They sure got the rhythm of the bunting's song down in the recording," he said.

Photo by Bob Whetham. Daryl Calder points out that the Indigo Bunting is one of the few birds that sing all summer – not just if they lack a mate.

Bird Photographers' Corner

Going Mirrorless, Part 1

Clive Keen, Prince George

DSLRs have been such an amazing boon for bird photography that abandoning them could seem almost sacrilegious. But the camera makers seem convinced that the future lies with mirrorless cameras, and upgrades to DSLRs have slowed to a crawl. With my Nikon DSLR showing signs of age, but with a full armoury of Nikon lenses, I accepted what appears to be the inevitable, and finally splashed out on a new Nikon Z7 ii. (Ouch. It's not cheap.) Here is my first impression, 30 minutes after opening the box.

The essential difference between DSLRs and the new mirrorless cameras is spotted immediately, as it lies in the viewfinder. Whereas the DSLR produces an optical viewfinder image via a mirror and pentaprism, the mirrorless camera in effect uses a tiny TV screen as a viewfinder. The photo-framing experience does not at first seem very different, but three important advantages quickly become apparent.

1. Viewfinder Brightness

Aiming the mirrorless camera at my low-lit night-time room, I was startled to find that the room seemed brightly lit. The electronic viewfinder (EVF) automatically compensated for the darkness. This would have been incredibly useful when I was attempting to photograph a Great Tinamou in a dark Costa Rica forest. With my DSLR I could see almost nothing and photographed virtually blind. With the EVF, I could have seen every feather.

2. WYSIWYG

With an EVF, what you see is what you get when you press the shutter. This would be invaluable on the numerous occasions I photograph birds against a contrasting background – particularly against an overcast sky. With the DSLR I'd guess at the amount of exposure compensation needed. One stop? Two stops? Stop and half? I'd be spending far more time bracketing exposures and comparing the results in the monitor than looking at the bird. With the EVF, you see immediately what you'd get if you press the shutter, and you see immediately the result of any exposure compensation. Getting the exact exposure needed takes no more than a second with a bit of practice, and you never have to take your eye off the bird. The same is true if you are photographing, say, a Snowy Owl or Common Raven, where automatic exposure nearly always needs a bit of assistance. For some bird photographers, this would on its own be a killer feature.

3. FX to DX

By far the most important reason I'd hesitated to go mirrorless is that these cameras are nearly all full frame (FX) which means that they apparently miss out on the extra "reach" of most DSLRs, with their smaller sensors (DX or similar). The new mirrorless camera has a 46 megapixel sensor, so the extra cropping required to regain DX magnification should not mean compromised print quality (it is still 19.5 megapixels), but would it lose the advantage of the extra viewfinder reach? No! The camera allows you to quickly switch from FX to DX mode, and the EVF immediately enlarges the view appropriately. WYSIWYG again.

After just 30 minutes, I might be already sold on mirrorless. The battery level has been sinking by the minute, though…. More in the next edition.

Golden Eagles 1: In the Rocky Mountains

Vance Mattson, Wasa

In the March 2020 edition of this publication, I reported findings of a then two -year study on the breeding population of Golden Eagles in the Rocky Mountains of British Columbia. Research of this kind had not been conducted in the region, and studies in other areas of Canada have been few and on a small scale, though studies in other countries, such as Switzerland, Italy, Scotland, and various regions in the Western United States, have become more common and sustained in recent decades. The goal of the study was to establish a baseline population for the region so that monitoring and conservation would be possible going forward.

Therefore, commencing in 2018, I began to explore the backcountry of an approximately 8,200 square kilometre region, from Radium Hot Springs in the north, south to the US border, and east across this entire range to the Alberta border. The methodology was ground surveys using specific indicators to identify breeding pairs: undulating display flights, multiple flights in the same area, pair flights, nest discovery and/or common perches, confirmation of the same sites on separate dates, observation of fledgling birds, and chasing flights against intruding eagles or the previous year's offspring.

After the first season, consisting of 45 days, 456 hours, and 4,204 km travelled, 38 breeding territories were discovered. These findings warranted further research, so two additional years, funded by the British Columbia Field Ornithologists, were undertaken, which significantly refined the results of the pilot study. By the close of the 2020 season, 136 distinct breeding pairs had been discovered, based on 141 days, 1,437 hours, and 15,208 kilometres travelled (7 additional territories have been discovered thus far in 2021, bringing the working total to 143 pairs). While the project is still ongoing, significant strides have been made toward establishing the baseline population, which has furthermore allowed preliminary comparisons with areas of sustained Golden Eagle research.

Globally speaking, home range size varies widely, between 20km^2 and 200km^2, depending on habitat, prey abundance, and the degree of human alteration to the landscape.[i] The 143 pairs to date produce an average territory size of 57km^2. A cautious estimate based on the remaining, mostly inaccessible, terrain predicts a final territory size of 50km^2. These figures are close to established data from the Swiss Alps (between 41.5km^2 and 56km^2), Italian Alps (as low as 32km^2 in protected areas), and the French High Alps[ii] (66km^2), where the mountainous terrain is roughly comparable to the Rockies.

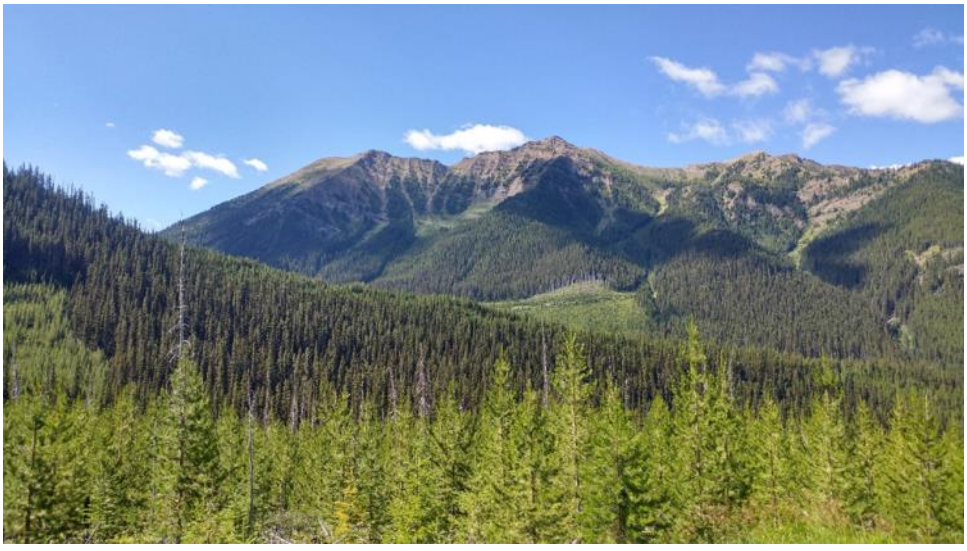
Another measure commonly used to determine Golden Eagle populations is the distance between nesting sites. The emerging rule in the study region, given suitable (versus marginal) terrain, is that nest sites can be found approximately every 6km. This compares to an average distance in Wyoming of 5.3km, the Snake River region of Idaho of 5.2km[iii], and the Brooks Range of Alaska at 6.4 ± 4.0 km[iv]. Similarly, the authors of a 2014–16 Canadian study on the Chilcotin and Fraser Rivers (which produced 14 "occupied home ranges"), suggest that "home ranges would probably be found every 4–6 km along the Fraser River[v]."

In terms of territory indicators, multiple flights were witnessed in most instances (86%), pair flights in 57% of cases, display flights in 39% of cases, and perching on "home rocks" in 38% of cases (based on approximately four hours of observation at each site). Sites that were revisited on different dates (either of the same year or in a different year), were confirmed in 90% of cases (usually within 1.5 hours of observation); this confirms the accepted view that Golden Eagles utilize the same territories through successive generations.

The most general finding of the study is that Golden Eagles are present, if not abundant, in the Southern Canadian Rocky Mountains. This is noteworthy not only given the lack of previous data, but also considering the reported declines of the species at several migration sites over the past 30 years (including at Mount Lorette, AB, as monitored by the Rocky Mountain Eagle Research Foundation[vi]). However, it is presently unclear how healthy the population is given the lack of previous data, the absence of systematic studies on fledgling success, as well as related research on the specific challenges faced by the species. Golden Eagles in the region must compete with both human settlements and industry, as logging and mining are pronounced throughout most of the study area.

Italian researchers have found that Golden Eagle numbers have increased significantly in recent decades, attributed mainly to a growth in protected areas, leading to habitat restoration and a consequent revival of prey species[vii]. This is also likely witnessed in Denali National Park and Preserve, Alaska, where territory size is very low (28km^2

Classic Golden Eagle Terrain in the Fording River Valley, east of Elkford, BC. Photos by author.



per pair)[viii]. Further research will hopefully shed light on the role these and other variables play in determining the health of the Golden Eagle in the Rocky Mountains.

Lastly, from a birder's perspective, one may wonder, if Golden Eagles are relatively present, why are they rarely seen, especially when compared to their more famous cousin, the Bald Eagle? Indeed, many avid hunters, anglers, and hikers are simply not aware the species lives here. Aside from the Bald Eagle's near-universal reliance on water sources for food (and the lower elevation of these sources), the reasons become understandable once one begins to study the raptor. To begin, Golden Eagles are solitary birds of remote and rugged terrain, and thus their territories are not usually immediately accessible. Secondly, it may not be initially obvious where to look, especially given the vast stretches of mountain landscape. The species prefers high, alpine terrain with steep cliffs for nesting and broken terrain for hunting. Once such landscapes are identified, patience becomes necessary. In brief, one must look up, and often, but if the territory suits the eagle, they will be seen without too much delay, soaring, gliding, hunting, or displaying usually just over the ridges and peaks.

While observing the Golden Eagle in its natural habitat is its own reward, a more concerted effort also permits a clearer picture of its natural history, offering widening glimpses into an otherwise unseen world. It is hoped that mapping the breeding territories in the Rocky Mountains becomes a first step toward conservation of the species and its habitat in the challenging decades ahead.

The author would like to thank the British Columbia Field Ornithologists for their generous financial assistance for the 2019 and 2020 seasons.

Golden Eagle Site at Albert Creek near Height of the Rockies Provincial Park, BC

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Golden Eagles 2: In Southwestern BC

Joseph Walters, White Rock

The Golden Eagle had not previously been the focus of much study in British Columbia. The province features extensive suitable habitat but extraordinarily little of it has been surveyed specifically for these huge yet reclusive raptors. In recent years, however, there have been efforts in a few areas of the province to gather some preliminary data on the presence of occupied territories and nest sites. Inspired by these projects and their encouraging results, I decided to initiate a similar effort.

At the time, I was living on the south coast in White Rock, so I zeroed in on the coastal ranges that encompass the Lower Mainland. In preparation for this project, I consulted with Vance Mattson who had already completed two summers of intensive eagle surveying in the southeastern corner of the province. The impressive results from his study can be in the March 2020 issue of *BC Birding* (and above: editor).

I followed a similar methodology to his project but unfortunately had much more restrictive time constraints. The ground surveys were conducted as overnight trips into suitable habitat in the backcountry. The aim of the survey was to locate occupied territories within suitable habitat in the southern coast

ranges. In accordance with criteria used both in Mattson's study as well as similar efforts in the Lower 48, various observations were considered indicators of an occupied territory including, but not limited to: an adult pair together, undulating flight display by an adult, and repeat sightings of an adult in the vicinity of suitable nesting and foraging habitat.

Unfortunately, the logistical demands and time constraints on this project were even greater than I had anticipated and so only five areas were surveyed at least once. Two of the five surveyed areas featured an occupied territory. At another two sites, single Golden Eagle sightings were noted and these locales merit further surveying effort. At one location, no Golden Eagle presence was observed, but given the brevity of a single visit, I would recommend that it also be revisited in the future.

Despite the limited scope and success of this initial season of surveying, there were certainly valuable insights gathered on Golden Eagle presence in the coast ranges. The two occupied territories were over a hundred kilometres apart in two completely distinct regions of the project area.

One territory was found in the Lillooet ranges northeast of Pemberton. These mountains contain extensive suitable alpine and subalpine nesting and foraging habitat. I suspect that these rugged, comparatively arid mountains (in the rain shadow of more westerly ranges) extending from the Stein Valley area northwest to the South Chilcotin may be some of the most suitable Golden Eagle habitats in the region. I observed no Columbian ground-squirrels during my surveying there nor do I find any evidence for them in these ranges in the literature. Presumably, hoary marmots (which were abundant in the area) are key breeding-season prey here.

The other occupied territory was in the Bedded Range south of the Coquihalla River. The region at large does not seem to provide as much suitable habitat as the Lillooet Ranges to the north, but nonetheless, the area that this pair occupied featured abundant potential prey (including Columbian ground-squirrel, hoary marmot, mountain goat and white-tailed ptarmigan) and extensive subalpine and alpine habitat. I would guess that similar landscapes to the south in Manning Provincial Park may also feature pairs of goldens.

The Cheam Range southeast of Chilliwack is worthy of special mention. The Fraser Valley Birding website suggests possible breeding of Golden Eagles in that range and certainly the habitat and prey are there. I made two visits (including one spontaneous trip in early March of this year, when adults are often more visible during the pre-nesting season) to the more easily accessed part of the range near Cheam and Lady peaks. I also visited the southern end of the range near Welch and Foley peaks.

At both locations, Golden Eagles were observed. However, I only had one brief observation of an unaged Golden in the southern part of the range and the area demands further effort. In the northern part of the range, I have recorded several observations of single adult Golden Eagles (including a breathtaking moment of one pursuing a pair of Ravens) as well as one sighting of an immature Golden. It does seem likely that at least one pair of Golden Eagles may occupy the range. More effort will be required to determine this.

The only survey site that provided no evidence of Golden Eagle occupancy was north of the territory in the Bedded Range by about twenty kilometres. There did appear to be somewhat less suitable foraging habitat there. Once again, further effort is needed.

That is arguably the most significant finding of this initial season of surveying. The amount of potential habitat and the time required to survey it thoroughly will require much more effort in the future.

Unfortunately, as I continue to pursue a career focused on Golden Eagles in western Canada, my post-secondary academic path has taken me to Edmonton, Alberta, and so I am now unable to continue my efforts as I had originally intended. Nonetheless, the beginnings of a database are there; and to the far more successful and fully-fledged efforts that have come before, this little beginning may be added.

I have many to thank for making this survey possible but in a special way, I would like to thank the British Columbia Field Ornithologists for their generous financial assistance and for their patience and support in this initial season of surveying.

Left: Golden Eagle breeding season habitat in Lillooet Ranges. Photo by Joseph Walters.

Briefing 4

Summary by M. Church, Vancouver

Garbage Gobblers

Social learning amongst birds (and other animals), which implies the occurrence of persistent cultures in species-specific communities, is well established. But opportunities to observe the establishment and spread of a particular learned behaviour remain rare. An unusual opportunity was recently experienced in Sydney, Australia, where Sulphur-crested Cockatoos in search of a free meal have learned to open the lids of refuse bins – no mean feat for a bird weighing less than 800g (nonetheless relatively large as parrots go). The refuse bins in question are the "wheely bin" type commonly distributed these days by municipalities to facilitate automated pickup. The lid is a heavy plastic cover.

To achieve the trick the bird must first stand on the lid and pry it slightly ajar. It then must gain purchase on the rim of the bin and start to lift the lid. With the lid held in its beak, it then walks back along the side of the bin, progressively raising the lid as it approaches the rear hinge. Success is achieved when the lid flips open. Individual birds have engineered variations on the basic procedure.

This talent was observed in three of Sydney's numerous suburbs prior to 2018. Investigators then organized an online "citizen science" survey asking for reports of cockatoos opening bin lids. Over the next two years they received 388 positive reports from 44 of 478 suburbs, from which they obtained 1,396 reports in total. In more than 90 percent of cases, more than one bird was present, providing ample opportunity for social learning (these birds commonly travel about in gangs). The suburbs from which positive reports came are clustered in four separate groups, providing further circumstantial evidence for social transmission of knowledge, but also for repeated independent invention of the procedure.

The investigators applied a computational model of behavioural diffusion (a topic extensively developed by academic geographers) to the case, controlled for reporting rate (number of participants in each suburb), suburb size (a proxy for likely number of birds), and number of dwellings (hence, number of bins – interpretable as event opportunity). The model very strongly supported the hypothesis that the observed results are the consequence of social learning. An additional study of 114 identifiable individuals observed nine birds cracking 112 bins and 27 birds making 94 unsuccessful attempts. The successful birds were mainly heavier (and likely older) dominant males, implying – not surprisingly – that considerable parrot-strength is required to complete the task.

Only one other case of bin opening by a bird is known; the culprit was the New Zealand Kea, another large parrot. One might have guessed as much considering the apparent intelligence of the bird (see "Need a statistician? – hire a parrot!: *BC Birding*, June, 2020). In the present study, both the pattern of direct observations and the modelling exercise confirm the reality of social learning among the cockatoos.

Reference:
Klump, B.C. + 5 others. 2021. Innovation and geographic spread of a complex foraging culture in an urban parrot. *Science* 373: 456-460.

Syrup Consumption of Rufous Hummers

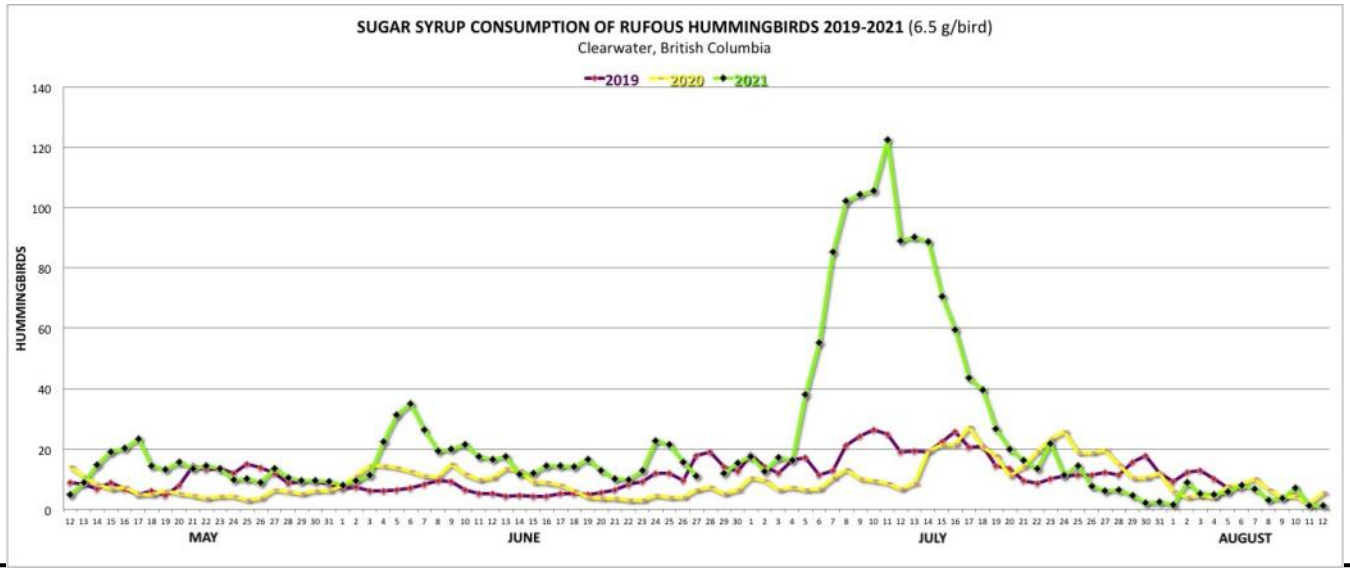
Dennis Leonard, Clearwater

Continuing with my research of sugar consumption by Rufous Hummingbirds since 2013 which was published in the *BC Birds Journal* last spring, there appears to be an increase in the number of hummingbirds this year, 2021, compared to the low numbers estimated the last two years, 2019 & 2020. Still, nowhere near the number estimated for earlier years in the research paper. Somewhat surprising results considering the high temperatures and smoke from forest fires this summer.

Although not measured daily, another location within half a kilometre of mine had high numbers in July as well, up to 168 birds. Like me, the owners put up a third feeder due to the heavy consumption that month.

The July peak seems to occur around fledging time and the beginning of southward migration from elsewhere in the province.

A small group has done some weighing this year, expanding my research to a few other locations in the province and I'm always hoping for more.



Featured Species No. 15

Adrian Dorst, Tofino

Whimbrel

Status: Common spring migrant, uncommon to locally common in summer, rare in fall.

This large shorebird occurs widely throughout the world, nesting in Arctic and subarctic regions of North America, Europe, southern Russia, and Siberia, with a different subspecies for each of these regions. The American subspecies, *N. p. hudsonicus*, was originally known as the Hudsonian Curlew until the British name for it was adopted. It breeds south and west of Hudson Bay, in the extreme north of the Northwest Territories, in northern and western Yukon, and in most of Alaska except for southern areas.

Until recent years, it was thought that the north slope of Alaska was populated by birds that migrate along the Pacific coast. In 2008, however, a bird that was radio-tagged in Virginia travelled 5,000 km (3,200 mi) on a nonstop 146-hour flight to the Mackenzie River Delta on her way to the breeding ground on the North Slope of Alaska. It remains a mystery where exactly western migrants nest (perhaps in Alaska's interior?). We do know that they winter along the Pacific coast, from northern California south to southern Chile. Some individuals have wintered as far north as Washington and even British Columbia.

Not all Whimbrels seen on our shores are necessarily western birds. One radio-tagged individual from Alaska's North Slope was tracked crossing Alaska and the Gulf of Alaska, to arrive in Puget Sound, Washington. From there it flew to Grays Harbor, and from there directly east to the Great Lakes and beyond. This was an eastern bird taking a western route for part of the distance.

The most important feeding area for Whimbrels in British Columbia is undoubtedly the mudflats of Clayoquot Sound, near Tofino. Within the sound, the preferred feeding area is Grice Bay at low tide, where birds feed on ghost shrimp on rising and falling tides. As the tide rises, many birds travel to Jensen's Bay, where the mud is exposed for a longer period. At high tide, birds congregate primarily in two rest areas – the spit on Indian Island in Grice Bay, and the tidal meadows in Jensen's Bay. Nights are spent on rocky islets on the outside coast. Whimbrels can often be seen flying west over Chesterman Beach in the evening on their way to Wilf Rocks, islets in the La Croix Group, or Cleland Island. Birds may also feed on sandy beaches and on rocky islets, but to a far lesser extent than on mudflats.

In spring, the first birds usually arrive by mid-April or shortly thereafter. The earliest arrival dates we have are 29 March in 2015, 9 April in 1993, and 8 April in both 2012 and 2014. By the third week of April, Whimbrels have usually begun arriving in flocks, and by the end of April they are present in large flocks, when as many as 100 to 150 birds may be seen at Grice Bay or at the viewing stand at the end of Sharp Road in Tofino. During the first half of May, from 200 to 250 birds have been seen, and in several years they have peaked at 270 birds or more. After mid-May, numbers begin to decline, though smaller flocks are seen throughout the month and well into June. A small number of nonbreeding birds often persist throughout the month of June and into July, making it somewhat difficult to determine first arrival dates for southbound birds.

The southward migration occurs largely in July. First arrivals are usually detected in the first week of July, supplementing birds that have remained throughout the month of June. Even so, in the first week of July, numbers do not exceed 30 birds. In 2002 and 2003, the first detectable increase occurred on 25 June and 27 June, respectively. There is a gradual increase in July, though numbers never approach those seen in spring. High counts of 40 to 60 birds are usually the maximum, but 69 birds were counted on 19 July 2014 and 80 birds on 12 July 2015.

By the last week of the month, most birds have passed through. It appears that the vast majority of birds bypass the area entirely on the southward journey, possibly flying by far out at sea. A few birds are seen on the central west coast in August, for example, 40 birds on 6 August 2000; 17 on 24 August 2001; 26 on 5 August 2002; and 8 on 21 August 2013. A few stragglers may be seen throughout September in most years. For October we have only a single record, with 3 birds seen at Combers Beach on 8 October 1984. The latest sighting ever recorded was on 26 December in 1982, when a single bird was seen at Jensen's Bay, Tofino. There are many records of Whimbrels, from singles to flocks of 20 or so, from April through August on numerous rocks, islets, and islands along the entire west coast of Vancouver Island.

Note

This is an extract from Adrian Dorst's *The Birds of Vancouver Island's West Coast*, UBC Press, which covers 360 species in its 550 pages. The book can be ordered at ubcpress.ca.

Whimbrel photo by Adrian Dorst.

Conserving Breeding Bird Habitat in Coquitlam

Adam Dhalla, Coquitlam

It is hard not to miss the large forested lot at 1175 Pinetree Way, in Coquitlam BC, when walking in the area. This lot, covering approximately 20,000m^2, stands out as one of the last undisturbed natural areas in the central Coquitlam area, with a forest floor littered with ferns and mosses, punctured by dozens of some of the tallest Red Cedar in the area. Importantly, the presence of a large amount of snags in the lot provides a locally unprecedented amount of nesting habitat for a variety of birds. The area is planned for development (although no deals have been made), and this short paper outlines why the loss of this lot would stand as a major loss for local ecology and birdlife, and will hopefully encourage you to help conserve it.

Ecological Significance

Little native and dense second-growth forest remains in the urban Coquitlam area—the nearby forested area (mostly Black Cottonwood) at Lafarge Lake is thin, often disturbed, and limited, and supplies little habitat for birds to breed and nest. This lot allows for a "wildlife corridor" to exist through urban Coquitlam, allowing migratory birds, as well as other native organisms, that aren't comfortable in a developed area, to pass through. Without this lot, there will be no large forested lot between Coquitlam River Park and Hoy Creek. Preserving this plot would prevent further fragmentation of wildlife areas by urban development. Uniquely, the lot is one of the last areas that host a large amount of dead trees, or snags, that are critical for nesting of many native species, especially woodpeckers. Additionally, an abundance of ground-level vegetation, offers cover for feeding wrens and sparrows. A short, informal survey period over May and June 2021 revealed locally unparalleled density of nesting and breeding birds.

What follows is a list of breeding (**) and suspected breeding (*) birds seen in the park. Suspected breeding is proven by the carrying of food by adult birds, which indicates a nearby nest, or, a pair in suitable habitat. Red-breasted Sapsucker nesting is especially notable, since these birds are generally wary of urban settings. This further shows the importance of the location as a small "wild area."

Species Breeding

- Anna's Hummingbird*
- Red-breasted Sapsucker **
- Northern Flicker**
- Willow Flycatcher*
- Black-capped Chickadee**
- Pacific Wren*
- Wilson's Warbler*
- Spotted Towhee*
- Song Sparrow*
- White-crowned Sparrow*
- American Robin*
- European Starling **

Additionally, there are several species that frequently feed in the park and are rarely seen elsewhere in urban Coquitlam, like Pileated Woodpecker, Swainson's Thrush and Yellow Warbler. The fact that we have habitat in urban Coquitlam that regularly offers view of three woodpecker species, two of which are nesting, is incredible.

Current Status

Currently, the land cannot be trespassed and is managed by the municipal government, but is planned to be used for condominium development in the future. Critically, there are no deals with companies, yet, offering a small window of time to conserve the habitat. The land is regularly trimmed and maintained (gardening tools were seen on multiple occasions coming dangerously close to nests, so we were able to put an end to that). Additionally, there are (as of June 21, 2021) two small spots in the lot that the weedkiller Roundup is being used to remove invasive Japanese Knotweed.

Our Mission

Simply, our mission is to conserve this lot from any development projects indefinitely and allow it to continue serving as valuable habitat for birdlife. As well as its ecological significance, it is also a beautiful piece of land in the middle of Coquitlam for residents to enjoy walking and living around, as well as to be close to nature. Conserving this land also presents a unique opportunity to create a space of education on local wildlife. Information boards can be put around the perimeter of the park explaining local birdlife. To enhance the land, birdhouses for several species can be put up. A fence could line the perimeter of the park. If approved by local ecologists, a wooden boardwalk, preferably with rails to prevent infringing on habitat, can be put diagonally across the lot, allowing local residents to immerse themselves in nature and get from Westwood Street to Pinetree Way easily. Conserving this land would save priceless nesting habitat and will help keep Coquitlam green for the coming decades. Please join us in our effort.

Below: Adam Dhalla, a BCFO Young Birder Award recipient, is now aged 16. Previous editions of this magazine have reported on his Find The Birds *game, created to encourage young people to take up birding. See adamdhalla.com*

Gone Fishing

Chris Siddle, Vernon

Vernon's Herons Succumb to Heat Wave

Vernon's Great Blue Herons, 20–30 pairs that nest in the remnants of a cottonwood grove along 24 Street west of 48th Avenue in the city's northeast, have survived urban onslaught many times since the colony was established in 1986. The grove they chose to nest in was once much more expansive, covering many acres when the herons first arrived at the tall trees. However, the colonists chose to build in one clump of trees.

The colony's site was strategic for the adults. Feeding areas were close, important for the adults and later crucial when the parents had to provision their nest-bound chicks for several weeks. Producing as many as four chicks per nest, the heron parents faced the challenge of feeding the growing chicks' rapacious appetites. It was only two kilometres as the heron flies from the colony to Swan Lake, a shallow frog-and-fish-rich lake to the northeast, 7 kms to Okanagan Landing's marshy foreshore, and 15 kilometres from Kalamalka Lake's beaches and wharves. In the early days of the colony there was good foraging ground much closer to home with a meandering creek only a long glide east of the grove or stocked fish ponds in any number of urban backyards, and grassy areas where voles abounded. Sticks for nest building were easy to find among the edges of the old farm meadows. At the beginning, life was good for the birds.

The herons would arrive at the colony in March, the first birds most common at the colony in the early mornings, presumably enjoying the warmth of the rising sun. Usually by mid-to-late March some herons were present most of the day, courting, building new nests, refurbishing old nests, finding sticks at the foot of the colony, breaking off thin branches from nearby willows, stealing sticks from neighbours' nests, even as the human neighbourhood, services, stores, and light industry along 24th Street and human residents along 20th Street tripled over the years, with buildings and work yards constructed right up to the fence that marked the western boundary of the little grove. The northern third of the grove was cleared for a housing development with the unintentionally ironic name, Heron Glen. The establishment of Heron Glen effectively halved the potential for herons building nests in "fresh" trees within the now diminished grove as the original nest trees aged and died.

Aside from aging nest trees, Vernon's Great Blue Herons proved to be remarkably resilient to human-caused noise, construction, high winds during a recent summer storm, and the occasional early spring visitations of Bald Eagles to the colony. One thing they did not like was the proximity to the colony of hot air balloons, but balloon flights proved rare enough that the colony as a whole survived.

April was egg-laying and incubation time. Eggs hatched during May. June was the time of growth and development of the chicks with fledgling beginning as a process of the chicks "branching" and thereafter gliding short distances to neighbouring nests, with full-on fledging occurring between late June and mid-July. The heat wave of 25 June to 4 July caught some heron chicks

> *"Local citizens tried impromptu rescue efforts, setting up sprinklers and filling kiddie plastic wading pools…"*

before they fledged and others after fledgling. The open saucer nests offered little or no protection to the herons from the scorching sun. Heron chicks in the full sun were exposed to temperatures at or above 45 degrees Celsius.

With little relief from the high temperatures even after sunset, most birders, including me, stayed home and tried to stay as cool as possible. Meanwhile other people began to notice that unfortunate events were unfolding at the heron colony. Rita Bos, owner of the grove and local champion of the herons, reported to CHBC TV news that she witnessed young herons simply dropping from the nests, presumably overcome by the heat. Several did not survive the long fall to the ground or were already dead as they fell. Some perished of heat stress on the ground.

Other people noticed herons, ages unspecified, wandering around the neighbourhood. Jennifer Kerr was quoted by the *Vernon Morning Star* newspaper (online edition of 30 June 2021 5:40 pm) as saying, "They're just dropping…. They're over by Walmart [about 400m from the colony]; they are everywhere and just panting." Local citizens tried impromptu rescue efforts, setting up sprinklers and filling kiddie plastic wading pools around the grove. The *Vernon Morning Star* reported a few days after the event that at least 12 herons died, with 35 rescued. Twenty-one were sent to an animal sanctuary in Kelowna and three were taken to Kamloops Wildlife Centre.

On 30 June a heron fledgling walked into a large retail store for men and women's workwear about a block from the heronry and sought refuge atop a sales table in the air-conditioned comfort of the store. The store management cordoned off the area around the heron and a conservation officer retrieved the bird. Rory Greenhall, a customer who reported the event to Vernon's *Castanet* online newspaper, photographed the adolescent lounging next to a discount sign. "It turns out that he was not 50% off," Greenhall joked.

Not the Only Victims

Herons were not the heat wave's only avian victims. CHBC television news (Kelowna) ran a news story about SORCO (South Okanagan Rehabilitation Centre for Owls), a long-established wildlife rehab centre near Oliver, caring for an influx of Osprey nestlings in the south Okanagan. Where the nestlings were when rescued was not mentioned, except in one case where Fortis, a local utilities company, used a crane and platform to remove a chick from a nest. Considering that by late June-early July local Osprey chicks are still weeks from fledging, I assume that the relatively helpless, tender-skinned chicks left their nests prematurely because of the extreme heat.

A few minutes spent searching the internet turned up a couple of other items about Pacific Northwest birds suffering because of the heat dome of 2021. National Geographic ran a short online item about Washington and Oregon's Cooper's and Swainson's Hawk nestlings, "lacking adult feathers to regulate [body temperatures]" jumping prematurely from nests, with some of the survivors in rehabilitation. Other reports focused on a roof-nesting colony of Caspian Terns being decimated by the extreme heat.

Briefing 5

Summary by M. Church, Vancouver

Immigrants

Sea level rise, a major consequence of the relentlessly warming global climate, presents a major problem for people settled on seashores. For other species, too.

Albatrosses are birds of the open ocean. They come to land only to breed, mainly on the remote ocean island where they themselves were born. The two albatrosses that occur off the British Columbia coast are the Laysan Albatross and the Black-footed Albatross. They nest on beaches, mainly on atolls of the Hawaiian chain of islands, sometimes in mixed colonies. More than 21,000 pairs of Black-footed Albatrosses (about one-third of the total nesting population) nest on Midway Atoll along with Laysan Albatrosses. The nests are located on low beaches, vulnerable to major storm surges, tsunamis or, eventually, secular sea level rise of about a metre (projected to occur, as a global average, by the end of the century). A two-metre rise would flood more than 90 percent of the nests on Midway's Eastern Island. The 2011 Tohoku (Japan) tsunami destroyed 30,000 nests. What to do about this?

Wildlife managers have begun to move birds to new, more secure breeding territories at safer sites. Initial "migrations" have occurred within state territories. For example, both the Midway species have successfully been moved to a beach on Oahu. But wider dispersal is desirable as a survival strategy for the species, so international migration is under way (despite all the efforts of state bureaucracies to inhibit international transfer of "exotic" species).

Guadalupe Island, a Mexican possession 260 km off the coast of Baja California, is today being managed as an ecological reserve. Invasive goats and feral cats have been eliminated (the cats not entirely, but fences exclude them from seabird nesting sites). Laysan Albatrosses have by themselves established a colony there. This provides an opportunity to attempt to establish Black-footed Albatrosses there as well. In January this year 21 eggs were brought from Midway and entrusted to Laysan pairs who had for various reasons lost their own egg or chick. The Laysans are tolerant of this substitution and also of human visitors, so they are relatively ideal foster parents. In February nine one-month Black-footed chicks were also brought to the Guadalupe colony. Timing in the life of the immigrants is important; the chicks must "imprint" on their new home, not their former one, if they are to return as adults to sustain the new colony. To increase the chance of success, managers have also arranged to play recorded Black Albatross calls and have set out decoys to encourage the chicks to think they are growing up in a normal colony of their own species.

The Gulf of Alaska, where seafood is abundant, is a favorite hunting ground of the albatrosses. Inasmuch as the direct route from Baja California to the Gulf passes off our coast the success of this venture will hopefully lead eventually to an increased number of albatross sightings in our waters.

The chicks are now maturing and flying off to sea. Success will be known only in five years' time when these chicks first return to breed.

Reference

Pérez Ortega, R. 2021. Black-footed albatrosses find a new home across an ocean. *Science* 373: 12-13 (news article).

2021 AOS Supplement

You have probably heard that the Mew Gull has been renamed *Short-billed Gull*, as a result of being split from the Common Gull. Larophiles will no doubt rejoice, but even lumpers have something to cheer about, with the lumping of Crested and Southern Caracaras. Most other changes concern genus, rather than English-language checklist revision.

For details, head to www.aba.org/the-2021-aos-supplement-is-out.

Joshua Brown took this fine photograph of a female Ruffed Grouse along the Stewart-Cassiar Highway near the Yukon border.

The Reflective Birder

Clive Keen, Prince George

The "BC Bird Trail"

Like most birders, I like to travel to new places so I can see new birds. I therefore pay attention whenever I see an advertisement for birding somewhere I've never been. Sometimes the advertisement gives me a reason why I should head there, and I go. But too often I'm given no reason whatever.

Many of the advertisements really say nothing more than "Come here! We've got birds!" If they add the usual hyperbole: "This is a paradise for birds!" it's best to stop reading, because you'll be given more empty fluff with words like "Birds and Birders are Flocking Here!" and nothing to explain why.

One of the clearest indications of an advertising agency that hasn't actually asked birders what would attract them is their lead photograph of a Great Blue Heron. If they'd asked, they'd know that GBHs can be seen practically everywhere in North America, giving no reason at all to travel to see their particular members of this species.

How Does BC Fare?

British Columbia's tourist agency has now got on the bandwagon, and is promoting the province as a birding destination. It is indeed a great birding destination, so this makes plenty of sense. And the agency has obviously heard of Texas's prize-winning campaign promoting its bird trail, which thoroughly deserved the award. I went there, and highly recommend the various loops of the Great Texas Coastal Birding Trail. Imitation being the sincerest form of flattery, BC's tourist agency has followed suit and is naming their campaign *The BC Bird Trail*.

That sounded very interesting, and I wondered where this bird trail was. Looking up their website I immediately see a photograph of – a Great Blue Heron. Not the best of starts. But fortunately the tourist folks add one more species of bird to whet our appetite. A Canada Goose. I was almost feeling surprise that they didn't add a Rock Dove to make it irresistible – but then they did – see their Richmond Delta page.

But I kept reading. A bird trail, after all, might be something worth following. I find, though, that there isn't actually *A* birding trail; there seem to be three: in Central Vancouver Island, Fraser Valley, and Richmond Delta. Other fine birding areas might be miffed to be left out, but three trails would still be good, so let's see the maps!

I head to the section on Central Vancouver Island, and am again welcomed by a photograph of a Great Blue Heron. I scroll down to try find details of the trail, and on the way find a list of the ten birds I might see, the first three of which are Great Blue Heron (of course), American Robin and American Crow. Not one of the ten, unfortunately are species that North American birders would need to travel to see. But I restrain my disappointment and look for the map of the trail. And find there is no trail. There are in fact a number of disconnected maps, and most of the points on the "trail" are restaurants, stores and hotels. Tourist agencies know about them, but not, it seems, about birds, or what birders are looking for.

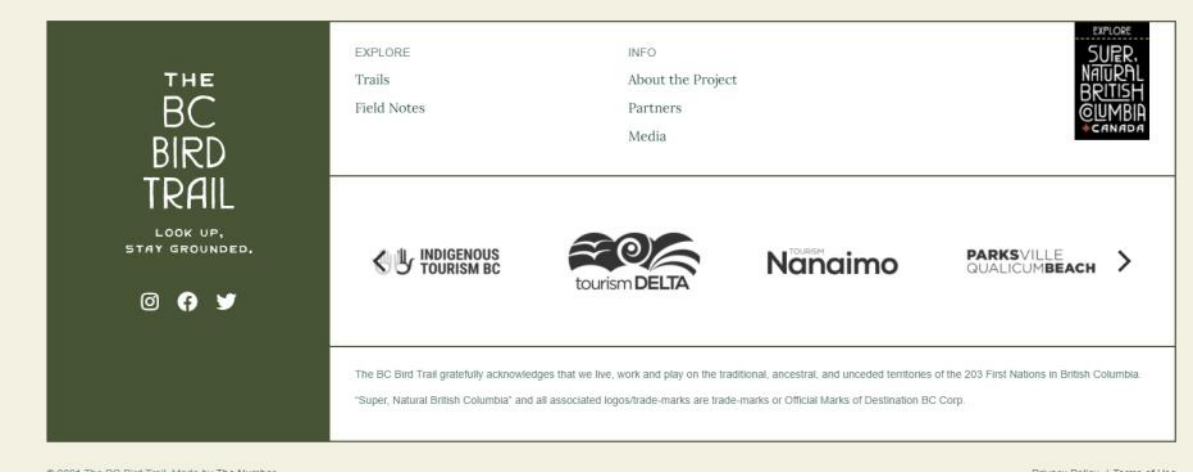
Go to www.bcbirdtrail.ca and check out the site for yourself.

Let's be Positive

It is certainly good to see tourist agencies taking birders seriously; once the agencies start taking advice, they could provide genuinely useful information, making travel for birders even more rewarding. All that is really needed in this instance is for them to ask BCFO what would attract birders to the province. We could advise them to start out by saying that BC has the most bird species – 516, according to eBird – of any Canadian province, and then add photographs of birds rarely seen elsewhere in the country. We might continue by listing all the birds that would add to the life lists of people from the eastern side of the continent, such as those western hummingbirds and flycatchers. Getting eastern birders drooling is, actually, a no-brainer. Ontarians have only one species of hummingbird, poor things. Next would be to add useful information on some of our world-class birding locations, of which we have quite a few. Then we could give dates and locations for events that are worth any serious birder's time to attend.

It wouldn't be that hard for us to put all this and a lot more together. A donation to the Conservation and Education Fund of the BCFO would generate enthusiastic and knowledgeable volunteers. Having previously been in the promotion business I'd be first on the case. We could then turn the current tabula rasa into another tourism prize winner. They only have to ask.

Below: The banner from the BC Bird Trail website.

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