

Newsmagazine of the British Columbia Field Ornithologists

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A Great Gray Owl mousing over a secluded Prince George field, January 31, 2022. See page 26.

Publisher

BC Birding is published four times a year by the British Columbia Field Ornithologists, P.O. Box 61670, RPO Brookswood, Langley, BC V3A 1K0.

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 (<u>clive_keen@hotmail.com</u>). 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.

Deadlines (i.e. *final* dates for submission) are as follows:

• March edition: February 15

• June edition: May 15

September edition: August 15December edition: November 15

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Quarter page: \$40 per issue or \$36 each for four or more issues.

BCFO members are welcome to include classified ads, of up to 25 words, at no cost.



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Two-day Trips: Vacancy

Website: George Clulow, Neil Dawe Zoom Presentation Coordinator: Larry Cowan

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Cannings Award Committee: Wayne Weber (Chair), Art Martell, Dick Cannings.

Conservation and Education Committee: Gary Davidson (Chair), Art Martell, Gerald McKeating, Stephen Partington, Marian Porter.

Young Birder Awards Committee: Carlo Giovanella (Chair), George Clulow.



IMPORTANT DATES

SMITHERS CONFERENCE & AGM 2022

REGISTRATION

April 4

Online registration opens for Conference & AGM and post-conference trip.

EVENT DATES

June 24 – 26

Smithers Conference & AGM.

June 27 – 30

Post-conference extension trip to | Terrace and Kitimat

CLOSING DEADLINES

June 7

Registration for the post-conference extension trip.

June 10

Registration for Smithers Conference and AGM.

ZOOM PRESENTATIONS

March 16

UK Birding from West Coast to East Coast – John Gordon.

April 20

New Guinea - Peter Candido.

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President's Message

Gary Davidson, Nakusp

Annual Conference

The BCFO's Annual Conference in Smithers is still three months away. Although there is still some uncertainty regarding health regulations, the Board is optimistic, and planning is going ahead. We are scheduled to be in Smithers during the weekend of June 24, 25 and 26. Details of the conference activities can be seen on following pages, and the full schedule will also be available on the website. The post-conference field trip will visit Terrace and Kitimat on June 27–30.

Field Trips

The Board is also hoping to restart twoand three-day field trips this year. The first trip is scheduled for May 16 and 17 at Creston. This trip is being held in conjunction with the Creston Valley Bird Fest which is scheduled for the weekend of May 13, 14 and 15. You might want to consider combining the two for an extended visit to this very birdy location. For more information on the Creston festival visit

www.wildsight.ca/branches/creston-valley/birdfest.

To register for the BCFO two-day field trip contact Marian Porter. (See also page 8.)

Education and Conservation

The BCFO Education and Conservation Committee received an application for funds earlier this year. It is the first application we've had since the "covid era" began. It's encouraging to see that some things are starting to return to normal. All members are reminded that the committee does have funds available for members conducting new research. Check the website for details on eligibility.

Zoom Presentations

Members are also reminded of our monthly Zoom presentations. These

events continue to be very popular and very well attended. The schedule of topics and dates is available on the website.

BCFO Young Birders Award 2022

James Park (see photo on page 13) is the recipient of this year's Young Birders Award. From Korea but in Canada for schooling, James has been birding around the Lower Mainland for about two years. His sponsor for the award, Carlo Giovanella, met him first when James was aged 13, and found that since he planned to be an ornithologist, was exceptionally motivated and focused. James has become well known to the local birding community, as he shows up at all notable sightings.

Carlo noted that while James usually birds alone, he submits many reports to eBird, finds lots of "good" birds, and has birding skills well beyond the level considered a threshold for the BCFO award.

Welcome New Members

Megan Buers - Kelowna
Kim DeLisle - Comox

Margaret Dohan - Victoria
Anthony Gaston - Ottawa

Anica Gorlick - Vancouver
Evan Harlos - Vancouver

David Bird - North Saanich

Johanne Bolduc - Maple Ridge



BC Birding March 2022 Edition 32 (1)

BCFO 32nd CONFERENCE & AGM, June 24 – 26, 2022, Smithers, BC

Schedule of Events

Location: Prestige Hudson Bay Lodge & Conference Centre, 3251 East Highway 16, Smithers, B.C.V0J 2N0.

Friday, June 24

5:00 PM to 8:30 PM – Registration and Social at the Prestige Hudson Bay Lodge, Cascade Room. Pick up your conference package, socialize with fellow birders and confirm your trip selections. There will be appetizers and a cash bar.

Saturday and Sunday, June 25 & 26

Breakfast: 5:30 to 6:00 AM, prior to field trips (both days), Prestige Hudson Bay Lodge, Cascade Room.

Conference Field Trips: 6:15 AM departures both days from the Prestige Hudson Bay Lodge

Trip 1 - Hudson Bay Mountain

Trip 2 - The Bluff Trails

Trip 3 - Telkwa High Road to Tyhee Provincial Park

Trip 4 - Malkow Lookout Trail Trip 5 - Pacific Wetland Trail

Trip 6 - Suskwa River Valley (Sunday only)

(see next page for details)

Lunch: 12:00 to 1:00 PM (both days).

Afternoon Speakers: 1:00 to 2:30 PM, Saturday. Frank Doyle: *Harvesting for Goshawks*; Curt Gesch: *Habitat restoration for birds on farmland*.

Annual General Meeting: 2:30 to 3:30 PM, Saturday. Field trip selection for the Sunday trips will occur after the AGM.

Social Hour Cash Bar: 5:30 to 6:30 PM, Saturday.

Banquet: 6:30 to 7:30 PM, Saturday.

Banquet Keynote: 7:30 to 9:00 PM, Saturday. Michael Kawerninski: Birds of the Bulkley Valley.



TO REGISTER FOR THE AGM/CONFERENCE

Via Regular Mail

Complete the registration form in this issue of *BC Birding* and mail it along with your cheque for payment to:

P.O. Box 61670 RPO Brookswood Langley, BC V3A 1K0.

Via the BCFO Website (PayPal or eTransfer)

Go to the AGM/Extension Payments tab under the Events > Annual Conference drop-downs.

A fillable registration form is available for completion. *To pay for more than one registration*, simply make sufficient single payments for each person you wish to register.

TO REGISTER FOR THE POST-CONFERENCE EXTENSION TRIP

Via the BCFO website

Note: The only way to register for the extension trip is via the website.

Payment may be made either by cheque, or eTransfer to:

BCFObirders1@gmail.comeTransfer or via the PayPal button.

Go to the *AGM/Extension Payments* tab under the *Events > Annual Conference* drop-downs. The fillable registration form will include the opportunity to indicate your desire to attend the post-AGM Extension.

To pay for more than one registration via PayPal, simply make sufficient single payments for each person you wish to register.

Online registrations open on April 4 at 9:00 am PDT.

BC Birding March 2022 Edition 32 (1)

BCFO 32nd CONFERENCE & AGM, June 24 – 26, 2022, Smithers, BC Registration Form Name(s) Address Email Phone **Conference Registration** Maximum registrations: 80. Attendance is limited to BCFO members and accompanying spouses/family members. If spaces are available, non-members may join BCFO at the same time as they register for the Conference.* Full conference fee includes: Friday night Meet & Greet, Saturday & Sunday breakfasts, lunches and Saturday evening Banquet plus all field trips and talks. @ \$195 /person = **BCFO Young Birders** $\langle a \rangle$ \$90 /person = Social events ONLY (Meet & Greet, and Banquet) @ \$75 /person = *Membership fee for non-members @ \$30.00 - single/family = (see BCFO website for membership details) Total registration fee(s) for the Conference = Will you be attending the Friday evening reception: Yes Do you have any dietary requirements: Yes... Requirement All registrants for the conference and extension trip are required to complete the WAIVER OF LIABILITY AND RELEASE OF CLAIMS form, available at the Conference at the time of registering for field trips. Please make cheque or money order payable to BC Field Ornithologists. If registering by mail, send your registration and payment to BC Field Ornithologists, P.O. Box 61670, RPO Brookswood, Langley, BC V3A 1K

Post-Conference Extension Trip to Terrace & Litimat

Date: June 27 – 30, 2022

The Guides

Walter Thorne and Diane Weismiller will be our guides. Walter conducts a Breeding Bird Survey in the Kitimat region and the BC Coastal Waterbird Survey at MK Bay. He is the Northern Clubs' co-ordinator and is on the Education Committee of BC Nature, and a director of the Kitimat Valley Naturalist Club. Diane has been the compiler of the Terrace Christmas Bird Count since 1973 and has conducted the local Kwinitsa Breeding Bird Survey since 1974.

Post-conference participants will be based in Terrace. Field trips will begin early on the morning of June 27, with the option of a dinner meeting on June 26.

Itinerary

Ferry Island is located in the Skeena River with park trails where we may find Black-backed Woodpecker, Merlin, Veery, Alder Flycatcher and a good variety of warblers including Magnolia.

New Remo is a local birding hotspot on the Skeena River with waterfowl, shorebirds, a good variety of warblers and Alder and Least Flycatchers. Rusty Blackbird has been recorded, as well as Northern Goshawk.

Exchamsiks River Provincial Park is 50 km west of Terrace with a short nature trail through old-growth Sitka Spruce, and Kasiks Wilderness Resort is 5 km farther with a lunch stop in old growth forest. Lakelse Lake Provincial Park is another site with waterfowl which may include Red-necked Phalarope.

The estuaries near Kitimat are rich in birdlife with the possibility of grizzly and whale sightings from the beach flats at Elmsley Cove. MK Bay, Kitimaat Village, Minette Bay and Magee point are birding locations with many species of ducks, shorebirds, grebes and alcids including Long-tailed Duck and Marbled Murrelet. (Walter confirmed a first Canadian record of a Grey-tailed Tattler at Minette Bay on June 23, 2020.)

Ross Lake Provincial Park near Hazelton will be a stop en route to Smithers. The lake has a wide variety of ducks, grebes, loons, gulls and shorebirds with the possibility of uncommon species such as Rusty Blackbird, Say's Phoebe, Townsend's Solitaire, and Golden Eagle.

BCFO 32nd CONFERENCE & AGM, June 24 – 26, 2022, Smithers, BC

Accommodation

Smithers

Prestige Hudson Bay Lodge

3251 East Highway 16, Smithers 250-847-4581 Toll Free: 1-877-737-8443

Stork Nest Inn

1485 Main Street, Smithers 250-847-3831.

Capri Motor Inn

3984 Highway 16 West, Smithers 250-847-4226.

Sandman Inn

3932 Highway 16 West, Smithers 250-847-2637.

Smithers Guesthouse Hostel

1766 Main Street, Smithers 866-430-4982.

Terrace

Holiday Inn Express and Suites

3059 Highway 16 East, Thornhill, Terrace 778-634-3977

The Lodge at Skeena Landing

4035 Motz Road, Thornhill, Terrace 250-638-0444

These two locations are convenient to the extension-trip guide residence.

Conference Field 7rips

Trip Selection & Waiver Form

Trip selections for June 25 trips will be made during Friday registration at 5:00 PM, when you will be asked to complete your conference waiver form and review the BCFO Code of Ethics. Field trip selections for June 26 will take place after the AGM.

If possible and with demonstrated interest, a wetlands canoe trip could be arranged for Sunday morning.

Where & When to Meet

Trips depart at 6:15 AM from the Prestige Hudson Bay Lodge.

Trip Leaders

Mel and Evi Coulson conduct birding field trips for the Bulkley Valley Naturalists. Ken White has birded Smithers for 25 years and has conducted the local Breeding Bird Survey since 2004. Alex Woods was a research forest pathologist for the BC Ministry of Forests, Lands and Natural Resources, and for many years has been involved with Christmas Bird Counts.

Hudson Bay Mountain

Alpine meadows are accessible on an easy hike from the T-bar at the base of the ski hill to Crater Lake where species such as Willow, Rock and White-tailed Ptarmigan, Gray-crowned Rosy Finch, Horned Lark, Lapland Longspur and American Pipit may be found. Below timberline will yield Clark's Nutcracker, Spruce Grouse, Boreal and Moun-

tain Chickadee, Pine Grosbeak, Red and White-winged Crossbill and Hermit Thrush. The boreal forest may also yield American Three-toed and Blackbacked Woodpeckers, and Northern Goshawk and Golden Eagle are a possibility. Probable sightings of mammals include mountain goats and marmots. A wetland en route to the mountain will be checked for Blackpoll Warbler.

The Bluff Trails

This begins with a 500-metre board-walk traversing a willow-thicket wet-land rich in warblers such as MacGillivray's and Yellow, as well as American Redstart and Common Yellowthroat. The trail ascends to an aspen forest with birds such as White-throated Sparrow, Least Flycatcher and Western Tanager. It ends in mixed deciduous and conifer forest with birds such as Magnolia Warbler, Cassin's Vireo, Goldencrowned Kinglet and Pacific Wren. A wetland concludes the trip, adding Sora, swallows, more warblers and Redwinged Blackbird.

Telkwa High Road to Tyhee Lake Provincial Park

Calliope Hummingbird and Lazuli Bunting may be found en route to the park, which offers waterfowl and wetland species as well as Red-breasted and Yellow-bellied Sapsucker, Alder, Least and Dusky Flycatcher, and White -throated and Lincoln's Sparrow.

Pacific Wetland Trail

This offers warblers including Blackpoll and Tennessee, Northern Waterthrush and Yellow-breasted Chat. Sparrows include White-throated and Lincoln's, plus flycatchers including Willow, Dusky, Least, Alder and Olivesided. The Riverfront Park has recorded Northern Shrike, American Bittern, Sora, Red-eyed Vireo and Magnolia Warbler.

Malkow Lookout Trail

This is a 3-km hike through pastureland and mature aspen forest, ending in mountain and valley views of the region. Lazuli Buntings may be seen in the fields, and Dusky Grouse can be found at the summit.

Suskwa River Valley

A special tour southeast of New Hazelton will be led by Ray Sturney on Sunday. The high-elevation valley has lakes and wetlands, forest and a four-year-old burn that will yield a diverse species list of birds. Mountain and Boreal Chickadee, Fox Sparrow, Black-backed Woodpecker, Townsend's Solitaire and Golden-crowned Sparrow inhabit the valley and a Northern Hawk Owl is possible. Warblers such as Tennessee, Yellow, Wilson's, Blackpoll and Orangecrowned will be found in the mixed forest and wetlands. You will be surrounded by forest at the base of the Skilokis Mountain range in an area unknown to most birders.



BCFO Creston Valley Two-day Field Trip

May 16-17, 2022

This field trip will follow the Creston Valley Bird Festival, taking place on May 13 to 15, 2022. BCFO participants are encouraged to arrive early to join in with festival events such as birding, kayaking and wine tasting. For information on that event, see:

wildsight.ca/branches/creston-valley/ birdfest/

Locations

The BCFO field trip will cover Duck Lake, Leach Lake and sites that had birding highlights during the festival. These areas are included in the 17,000-acre Creston Valley Wildlife Management Area, known for over 300 species of birds, including a breeding population of Forster's Terns, six species of grebes and high density of Ospreys.

Field Trip Leaders

The leaders are BCFO President Gary Davidson, also a trip leader for the festival, and Paul Foth, BCFO board member and former coordinating committee member for the festival.

To Register

Please contact Marian Porter at marianmporter@gmail.com if you are interested in this field trip.



Membership Report

Larry Cowan, Pitt Meadows

A comparison of the final numbers for 2021 to the year-to-date figures as of February 10 indicate we are on track for a membership equal to or better than 2021. New memberships are lagging but as the Smithers Conference

2022		2021
270	Total	316
245	Regular	288
3	Honorary	3
15	Jr Award	16
6	Institutional	6
3	Complimentary	3
13	New	45
26	'22 renewed '21	45
56	eTransfer	
166	PayPal/CC	
23	Cheque	
85	Paid BC Birding	96
2	No email	2
101	BC Birds, web	111
31%	Member activity	65%

approaches, I am confident the number will improve.

Members opting to receive printed copies of *BC Birding* continue to grow as does the reverse for printed copies of *BC Birds*.

With BCFO offering the option of paying dues via eTransfer the payment split is as follows: 23% eTransfer; 68% PayPal/CC; and 9% cheque. This has resulted in savings for BCFO in PayPal/CC costs.

It is too early to make comparisons for membership activity in BCFO events from the 65% we experienced in 2021 (compared to our five-year average of 43%).

Rare Bird Alert

Since the deadline for the December edition of this magazine, the BC Rare Birds Alert has reported the following sightings:

- Blue Grosbeak, Tofino, Dec 16
- Brambling near Quesnel, Dec 23
- Tufted Duck, Duncan, Dec 23
- King Eider, Victoria Dec 17
- Red-shouldered Hawk, Agassiz, Dec 12

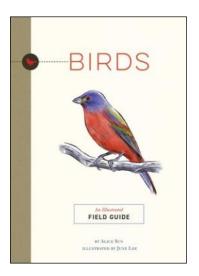
- White-winged Dove, Osoyoos, Dec 8
- Emperor Goose, Haida Gwaii, Dec 6
- Brambling, Revelstoke, Nov 19
- Eurasian Skylark, Haida Gwaii, Nov 18

Alice Sun

Past junior BCFO birder Alice Sun has now added a book on birds to her achievements. She has been very busy since heading off to McGill University for a BSc in Environmental Biology, as you can see from her website at:

www.alicesun.ca

Featured Photographer



The 23rd BCFO featured photographer is Michael Force of Kelowna. A dozen of his photos can now be seen at:

bcfo.ca/michael-force-january-2022-2

Birdwatcher's Digest

Sadly, *Birdwatcher's Digest* is no more. Recent editions had carried the sad news of the death of key people, and the pandemic has further undermined attempts to keep the magazine afloat. Founded in 1978, the publication has been a favourite read of many BCFO members, and it will be sorely missed.

The final edition is available on line for free at:

<u>birdwatchersdigest.net/issues/bwd/2022-march-april.pdf</u>

Curlews: Volunteers Needed

Birds Canada is launching a BC-wide Long-billed Curlew survey this spring, and has asked for help. The goal is to update the population estimate for the species ahead of this year's COSEWIC Status Report – the last BC population estimate, at 7,436 individuals, was made way back in 2005.

Volunteers are sought for locations in Okanagan–Similkameen, Thompson–Nicola, Cariboo–Chilcotin, Prince George–Nechako, and East Kootenay regions. Teams of 2–3 people will be allocated a road along 30-km transects, and will be required to carry out the survey on one day (to be specified by Birds Canada) between April 23 and May 8.

If you are interested in taking part, head to:

www.birdscanada.org/bird-science/ long-billed-curlew-survey

Curlews: PG

Prince George birders received excellent news about "their" curlew, given the name of Peter: his transmitter started up again, letting us know that on January 23, he was in Big Sur country. There has been a major wildfire north of this location, so he is likely to stay in place for a while, but PG birders are already counting off the days before the various flagged and transmitter-carrying curlews return. The curlew survey for Birds Canada in the Prince George region is guaranteed plenty of volunteers.

Bird-friendly Glass?

Vancouver Island birders have been concerned in recent months about the planned Telus Ocean building, recently approved by the city of Victoria. This eleven-storey tower has an exterior which gives the impression of being practically all glass – potentially a huge

BC Bird of the Year

Kevin Neill's annual contest offered the following candidates for BC Bird of the Year:

- Pochard Feb Parksville 2nd BC Record
- Redwing Feb Saanich 4th BC Record
- ♦ Bristle-thighed Curlew May Haida Gwaii 3rd BC Record
- Curlew Sandpiper May Delta
- ♦ Great-tailed Grackle July Colwood
- ♦ Wood Sandpiper July Victoria 3rd BC Record
- Tricolored Heron July Cowichan Bay 1st BC Record
- Oriental Turtle Dove July/Nov Prince Rupert 4th/5th BC Records
- ♦ Short-tailed Albatross Aug off Tofino
- Ferruginous Hawk Aug Edgewood
- ♦ Orchard Oriole Sept Metchosin
- ♦ White Wagtail Oct Haida Gwaii
- Emperor Goose Dec Haida Gwaii
- Red-shouldered Hawk Dec Agassiz 1st BC Photo Record
- ♦ Blue Grosbeak Dec Tofino 2nd BC Record

Kevin notes that it was a close race for a while, but the Red-shouldered Hawk finally prevailed, with 37% of the votes cast. The win, he suspected, owed to the fact that it stayed around long enough for many to see, and was a lifer for some and a Canada bird for others.

Coming second in the votes was the Tricolored Heron, garnering 24%, followed by the Wood Sandpiper at 18%. For the first time, Kevin adds, almost every bird on the list got at least one vote.

source of bird mortality through collisions.

There are no bird-friendly design guidelines for the city of Victoria, unlike Vancouver, so addressing the problem is entirely in the hands of the developer. In response to queries, the developer's project team wrote:

Telus Ocean will be designed to integrate best practice birdfriendly design features that will ensure the continued health of our ecoysystems and local bird populations. The designers at Diamond Schmitt along with the broader project team are actively exploring mitigation strategies that can warn birds of an obstacle well before a potential collision. Some of the strategies being explored include: patterned or fritted window glass, UV patterned glass that is designed to be highly visible to birds but not humans, along with the use of screen, latticework, louvers, and other external building façade and/

or façade curtain with features.

Lumpers Rejoice Again

For years lumpers have been muttering about Hoary Redpolls, saying that they should never have been split from Common Redpolls. It looks as though they are right. Geneticists at the University of Colorado at Boulder have concluded that Hoaries, Commons, and the Lesser Redpolls of Europe are in fact all members of a single species. The researchers have found that the genomes of the three named birds are virtually identical, but each bird possesses a supergene controlling multiple linked traits that lead individuals to appear different in identifiable ways. The types are not, they conclude, species or even subspecies, but morphs.

Serious listers will likely have to scratch at least one tick, and perhaps two. The AOS has taken note of the research, and we will no doubt hear more next summer, with the publication of the 2022 AOS Checklist Supple-

ment.

www.birdguides.com/articles/ genetics-suggest-redpolls-are-onespecies-not-three

Splitters need hardly despair, though. Another study indicates that they'll win big if they spend any time in the neotropics:

www.birdwatchingdaily.com/news/ science/study-suggests-isolated-tropical -bird-populations-merit-species-status

WebNotes

 Hooded Crows are being trained to clear up cigarette butts:

> www.youtube.com/watch? v=TklOxbWfRDM

 More about the Steller's Sea Eagle that has been wandering Canada and the US for the past 17 months:

> www.youtube.com/watch? v=2fX0W1he-ZI

 Chris Charlesworth talks to CBC about the Christmas Bird Count – and gives a hoot:

> https://www.cbc.ca/listen/live-radio/1 -110/clip/15885371

eBird now has a remarkable animated site showing the changing locations of species on a week-by-week basis:

ebird.org/science/status-and-trends/rosgoo/abundance-map-weekly

BC Bird Trail

The BC Bird Trail website, to be found at <u>bcbirdtrail.ca</u>, has been substantially developed since it was reviewed in the December edition of this magazine. The main thrust of that review was that the website would need some serious input from the birding community if it was to succeed in attracting visiting birders. Perhaps, though, that has never been the intention of the website. The recent developments would seem to show that its main goal is to get non-birders out and about, looking at birds perhaps for the first time – and as a result going to the featured hotels, restaurants, and

stores. It does a fair job at this, but it would be nice if at some point the promoters were serious about including real birders among their audiences. We stand by ready to give advice if that day should ever come.

Briefing 1

Summary and comments by M. Church

Running the Gauntlet: High Mortality in Migration

In August-September, 2020, birdwatchers in the mountain states of the western United States reported unusually high mortality amongst migrating songbirds, in particular warblers, tanagers, flycatchers and swallows. The carcasses were generally emaciated, indicating that the birds had not been feeding successfully. In the same period there were severe wildfires in the region (31,570 km² were burned by 44,700 fires). In addition, a severe snowstorm occurred in the mountains of the Pacific Northwest in early September. Fire might cause migrating birds to lose their orientation or could present a barrier to progress, the effect of which they fail to solve, and can destroy food resources. Fire smoke may be toxic. Snow can eliminate food resources and may present a direct physical threat to survival (in the snow storm temperatures declined by up to 40°C over some hours).

Using data from the crowd-sourced website iNaturalist, scientists have investigated the possible correlation between these events and the unusual bird mortality. Reports were divided into three periods, 1-15 August, 16-31 August and 1-23 September, for which they gathered 94, 80 and 362 observations respectively. The bulk of the observations shifted south as the season advanced. The data were aggregated into 25×25 km cells, and 21 environmental variables related to fire, weather and land use were collected to test for possible causes of the mortality. Using spatially weighted correlation methods the investigators found that, in the first period, area of urban land, area of water bodies, distance to fire, carbon monoxide and atmospheric pressure together accounted for 72% of the variation in mortality reports. In the later two periods additional factors included more land use classes and different atmospheric gases, but "explanation" declined to 31% and 22%. Distance to fire and air quality persistently emerged as the most significant factors. Perhaps surprisingly, the snow was not a prominent predicter.

About these results, several things may be said. First, in comparison with other citizen science data gathering efforts, these data probably are relatively good; bird watchers are a keen and largely expert lot (and carcasses were recovered). Most of the data in this study were rated as "research grade." On the other hand, the persistent prominence of urban land and parks among the significant explanatory terms probably reflects the distribution of observers and may have had little to do with the actual distribution of mortality events. In urban places, as well, building collisions may have contaminated the mortality statistics. A particular factor is that in 2020 – the first year of COVID – the urban majority of birders may have curtailed their excursions into the wilderness. The prominence of insectivores amongst the apparently starved victims may also hint at another intervening issue between the birds and the fires - the impact of fire on food resources at just the time when the birds have greatest need at the outset of their migration.

Fire is not new in the western mountains, but the scope and intensity of the 2020 fires was without precedent. Migratory birds may have some innate capacity to appraise and avoid fire, but the extent of the 2020 fires and the scale of the air quality effects may simply have been too far beyond their ability to adapt their behaviour. The history of the 2020 autumn migration remains a consequence of climate change that is far from being understood.

References

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Learn, J. R. 2021. Mass bird die-off linked to wildfires and toxic gases, *Eos*, *102*. doi.org/10.1029/2021EO156447.

Ipcoming Meetings &

Compiled by Wayne C. Weber, Delta

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.

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.

At least one event, the Olympic Bird Festival, has apparently been cancelled for 2022.

Mar. 18-20: 19th ANNUAL WINGS OVER WATER NORTHWEST BIRDING FESTIVAL, Blaine, WA. This will be a virtual event. For information, please check the website at

www.wingsoverwaterbirdingfestival.com or contact Debbie Harger (phone, (360) 332-8311; email, dharger@cityofblaine.com).

Mar. 25-27: 26th annual OTHELLO SANDHILL CRANE FESTIVAL, Othello, WA. Current plans are for an in-person festival, with a final decision to be made by March 1, depending on the status of the Covid pandemic. For information, check the festival website at www.othellosandhillcranefestival.org, or phone (509) 989-5606.

Mar. 26: First WESTPORT SEABIRDS pelagic birding trip of the spring from Westport, WA. Westport Seabirds will be operating 21 trips this year from March through October. A detailed schedule of trips for 2022 can be seen at the Westport Seabirds website (westportseabirds.com).

April 1-16: BRANT WILDLIFE FESTIVAL, Qualicum Beach, BC. This festival, unlike most, does not occur on a single weekend, but is a series of events running from April 1 to April 16. For information, check the festival webpage at brantfestival.bc.ca, or phone the Nature Trust of BC at 1-866-288-7878 (toll-free).

Apr. 6: Annual meeting, CANADIAN SOCIETY OF ENVIRONMENTAL BIOLOGISTS (online). For information, check the website at <u>tcsebscbe.org/cseb-annual-general-meeting-3</u>.

Apr. 7-8: Annual conference, COLLEGE OF APPLIED BIOLOGY OF BC, at the Delta Ocean Pointe Resort, Victoria, BC. For information, please check the website at www.cab-bc.org/news/registration-open-colleges-2022-agm-conference. Registration is currently open.

Apr. 15-17: 28th annual GODWIT DAYS, one of the premier North American birding festivals, at Arcata, CA (near Eureka). For information, please visit the festival website at www.godwitdays.org. This will be a hybrid event (partly virtual, partly in-person). Registration is currently open.

Apr. 21-24: HARNEY COUNTY MIGRATORY BIRD FESTIVAL, Burns, Oregon (focusing on Malheur National Wildlife Refuge). This year's festival will be a virtual event. For further information, check the festival website at www.migratorybirdfestival.com.

Apr. 29-May 1: GRAYS HARBOR SHOREBIRD FESTIVAL, Aberdeen, WA. This year's event will be online only. For information, contact

Glynnis Nakai, Refuge Manager at the Grays Harbor NWR, at 360-753-9467, or check the website at www.shorebirdfestival.com.

Apr. 27-May 1: ASSOCIATION OF PROFESSIONAL BIOLOGISTS OF BC annual conference. The 2021 conference will be a virtual event. For further information and to register, visit the APBBC website at professionalbiology.com.

May 9-15: WINGS OVER THE ROCKIES FESTIVAL (23rd annual), Invermere, BC. For information, contact the Pynelogs Cultural Centre, PO Box 2633, Invermere, BC V0A 1K0, phone 1-855-342-2473, email info@wingsovertherockies.org, or check the website at www.wingsovertherockies.org.

May 13: Annual General Meeting and Professional Biology Conference of the ASSOCIATION OF PROFESSIONAL BIOLOGISTS OF BC. This will be a virtual conference. For information, please visit the APB website at <u>professionalbiology.com</u>.

May 13-15: 10th annual CRESTON VALLEY BIRD FESTIVAL, Creston, BC. For information, please check the website at wildsight.ca/branches/creston-valley/birdfest.

May 19-22: LEAVENWORTH SPRING BIRD FEST, Leavenworth, WA, sponsored by the Wenatchee River Institute. Check the festival website at <u>wenatcheeriverinstitute.org/bird-fest/bird-fest-2021.html</u>. The 2022 schedule should be posted in the near future.

May 20-23: 24th Annual MEADOWLARK NATURE FESTIVAL, Penticton, BC. The schedule of events and registration is available now at meadowlarkfestival.ca. Tickets will go on sale on April 7.

June 1-July 7: NORTH AMERICAN BREEDING BIRD SURVEY. This long -established program, supervised by the Canadian Wildlife Service and US Fish & Wildlife Service, is for experienced birders who are skilled at identifying birds by songs and calls as well as by sight. It involves running a roadside survey route once every year during June or very early July. There are several "vacant" (i.e., unassigned) routes in various parts of BC. If you are interested, check the Canadian Wildlife Service website at https://www.canada.ca/en/environment-climate-change/services/bird-surveys/landbird/north-american-breeding/overview.html, which includes further details and has contact information for the CWS staff in charge of the program.

June 24-26: BC FIELD ORNITHOLOGISTS ANNUAL GENERAL MEETING in Smithers, BC. For details see pages 5–7.

June 27-July 2: 140th annual meeting of the AMERICAN ORNITHO-LOGICAL SOCIETY in San Juan, Puerto Rico, in conjunction with Birds Caribbean. For details, please check the AOS website at a later date at americanornithology.org/meetings/annual-meeting.

July 17-20: 103rd annual meeting of the Wilson Ornithological Society at Santa Fe, New Mexico. For information, please check the society website at https://wos2022.org.

Sept. 7-11: 46th annual WESTERN FIELD ORNITHOLOGISTS conference, to be held at the Whitney Peak Hotel, Reno, Nevada. For information, please visiy the WFO website at westernfieldornithol-ogists.org/conference.

Sept. 10-11: PUGET SOUND BIRD FESTIVAL, Edmonds, WA. For information and to register (starting Aug. 1), check the festival website at www.pugetsoundbirdfest.com or contact Jennifer Leach at the City of Edmonds Parks Dept. (phone 425-771-0227), or email her at jennifer.leach@edmondswa.gov.

Oct. 10-13: Annual meeting, ASSOCIATION OF FIELD ORNITHOLOGISTS, Plymouth, Massachusetts. For further information, please visit the AFO website at <u>afonet.org/events</u>.

Nov. 6-10: Annual conference of the WILDLIFE SOCIETY, the professional society for wildlife biologists, to be held in Spokane, WA. For information, please check the conference website at $\frac{\text{wild-life.org}}{2021-\text{conference}}$.

Guest Editorial

Why the Canada Jay Should be Canada's National Bird

David M. Bird, North Saanich

Birding (aka birdwatching) continues to be one of the fastest growing hobbies in North America. One in five Canadians spends an average of at least 133 days a year watching, monitoring, feeding, filming, or photographing the 450 or so different kinds of birds in our country. It almost doubles the 70 days a year Canadians spend gardening. than a quarter of our households have installed feeders and bird houses in our backvards and almost ten percent of us have bought bird identification books and binoculars and taken trips specifically to see birds and attend hundreds of bird festivals all over North America. That is big bucks for our economy!

But it's not just about the money. Birds do a lot for humans. They eat pests, pollinate our plants and crops, disperse seeds; their eggs and meat (yes, chickens are birds!) feed us and their feathers keep us warm. They have even helped us win wars by teaching our military about flight, camouflage, sentry systems, and acting as vital message carriers. Birds have saved human lives not just by serving as literal "canaries in coal mines" but also by globally warning us of other environmental health hazards such as carcinogenic pesticides and industrial byproducts.

However, we also celebrate birds because of their intrinsic value. Who can deny that birds entertain us in so many ways with their beauty, their song and their flight? How many great writers, artists, film makers, and even aviators and astronauts were inspired by these amazing unique creatures? In short, a world without birds will not just be a biologically diminished world but also an emotionally diminished one. And if we lose our birds, we will lose ourselves.

Wikipedia's List of National Birds indicates that 106 of the world's 195 countries have official birds. But Canada is not listed – we do not have one! Yet our country does have national symbols – the beaver, the maple tree,

and two sports. We've even got a national horse! But alas – no official bird.

And why not a bird? Many countries have one, the U.S. with its Bald Eagle being a prime example. They take a lot of national pride in their bird too. It is high time that Canada graces itself with a national bird and that it should be the Canada Jay (or Whiskeyjack).

In no order of importance, here are no fewer than eighteen reasons (some arguably more laudable than others) why the Canada Jay would be a great choice for the national bird of Canada.

It is

- 1. Found in all thirteen provinces and territories;
- 2. A member of the jay and crow family, arguably the smartest birds on the planet;
- 3. Not an official bird species for any of the ten provinces and recognized territories nor any other country (see page 17);
- 4. Very hardy, like all Canadians, having highly adapted to living in very

- cold regions and nesting in temperatures of -30 C;
- 5. A year-round resident, i.e. not a "snowbird" like the Common Loon;
- 6. A bird with strong cultural significance for many of Canada's First Nations. The widely used name, "Whiskeyjack," is derived from one of the Canada Jay's names in the Algonquian family of languages, quite likely wiskicahk, one of the words used by the Cree. "Whiskeyjack" is one of very few English vernacular names for a Canadian bird species borrowed from an Indigenous language, and the only one in common use today;
- 7. The first bird, and perhaps the only bird, to greet thousands of explorers, fur trappers, prospectors, settlers, and First Nations folk, around their campfires in the dead of chilly Canadian winters;
- 8. Not an endangered species, and thus not at a serious risk of disappearing;

A Canada Jay photographed by Neal Hutchinson at the Elk River Valley near Fernie.



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- 9. A bird that figures prominently in the boreal forest ecological zone, constituting a vast and distinctive part of our country;
- 10. Not a hunted species, so not shot by Canadians;
- 11. Like all Canadians, extremely friendly toward humans, and conspicuous residents of our national and provincial parks from coast to coast;
- 12. A species that could not have a better name for the national bird, as it is now, once again, officially called the Canada Jay in English (and "mésangeai du Canada" in French);
- 13. Not widely regarded as an obnoxious or nuisance species;
- 14. Not likely to be confused with any other bird species;
- 15. Not a circumpolar species, i.e. not found in other northern countries (as is the Snowy Owl);
- 16. Not flamboyantly coloured and so easily reproducible in logo format;
- 17. Not a common backyard feeder bird and thus, will hopefully force Canadians to get out into nature and to enjoy and appreciate our extensive boreal forests and our great parks, and at the same time, improving one's health and well-being;
- 18. The official logo bird of the historic International Ornithological Congress in Ottawa in 1986; it was "the most Canadian bird" they could find!

In short, it is hard to conceive of a more Canadian bird! While most Canadians do not see this bird in their backyard every day, many states and provinces as well as other countries have official birds that the public does not see on a regular basis and may in fact never see them as a live wild bird. The fact is that once the Canada Jay is officially chosen, we can promote the bird so that Canadians make an effort to visit our boreal forests to become very familiar with it and indeed, be proud of it as our National Bird.

In 2015, the Canadian Geographic Society (CGS) initiated an online survey, a contest if you will, for the general public to weigh in on this matter. Fifty candidates were nominated, including the then-named Gray Jay. When the contest ended in late August

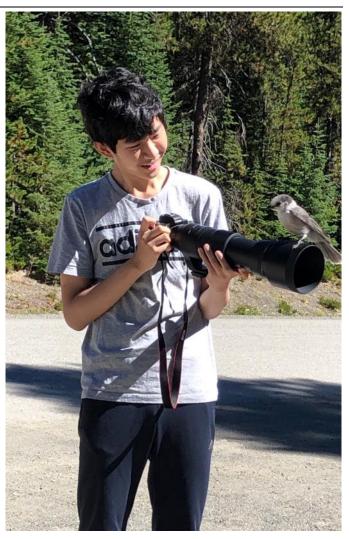
of 2016, the frontrunner was the Common Loon with 13,995 votes followed by the Snowy Owl with 8,948. In solid third place was the Gray Jay with 7,918 votes! Who knows how the latter would have fared had it been called the Canada Jay (see below).

It is noteworthy that both the Common Loon and Snowy Owl are already established as the official birds of the two most highly populated provinces in the country, i.e. Ontario and Quebec, respectively. The former bird has also been honoured on our dollar coin. With that in mind, the CGS announced the Gray Jay as their official choice at The Royal Canadian Geographical Society's College of Fellows Annual Dinner November 2016.

While the poll run by the CGS was very effective in initiating a dialogue about choosing a potential candi-

date for the national bird for our country, it is important that this has been followed up by some intelligent discussion and debate among Canadian ornithologists about such an important matter as opposed to just having a winner chosen from a popularity contest. For example, Canada's flag was not chosen by means of a public contest, but by an appointed committee. Nor did we simply adopt one of the provincial flags from our two largest provinces - we chose something "fresh and new" for ALL Canadians. Our Canadian flag with its red-and-white maple leaf design is now something that Canadians now look upon with great national pride.

Regrettably, Canada's 150th birthday in 2017 came and went, as did the occasion of the International Ornithological Congress in Vancouver in 2018,



Above: James Park, recipient of this year's BCFO Young Birders Award, would no doubt concur fully with the proposal.

and still no announcement from the federal government. Perhaps the most important development in the last five years was the reinstatement of the old name in 2018. It was called the Canada Jay for almost 200 years until it was erroneously renamed the Gray Jay in 1957 by the American Ornithological Union's Checklist Committee. In May 2018 and after much diligent research by Dan Strickland, arguably the world's foremost authority on the bird, that same body, now renamed the North American Classification Committee of the American Ornithological Society, agreed to reinstate the old name and it is once again called the Canada Jay. But still deafening silence from Canadian federal politicians.

The next step? On April 22, 2022 a promotional book entitled *The Canada Jay – the National Bird of Canada*? and

authored by yours truly, Dan Strickland, Ryan Norris, Alain Goulet, Aaron Kylie, Mark Najidwan, Michel Gosselin, and Colleen Archer will be officially released by Hancock Publishing House in Surrey, British Columbia. The book has been endorsed by such prestigious Canadian organizations as Birds Canada, the Society of Canadian Ornithologists, OuébecOiseaux, and the Nature Conservancy of Canada. Free copies will be given to each and every Member of Parliament of all parties and to selected Canadian celebrities. The book will be available to all Canadians

in as many outlets as possible. Meanwhile, one can visit the website –

www.Canadajay.org

– and sign the ongoing petition.

Team Canada Jay is quite open to all forthcoming suggestions as to how to facilitate the official selection of the Canada Jay as Canada's National Bird. Not only is it a fresh, new choice, it is a very prominent bird in our boreal forest and in our national and provincial parks, it is vulnerable to climate warming, and thus, we call upon all Canadi-

ans to support this cause and pass around the word!

David M. Bird is a well-known writer on all things ornithological, leader of Team Canada Jay, and Emeritus Professor of Wildlife Biology at McGill University.

Briefing 2

Summary by M. Church, Vancouver

Fear of Feathers

Many birds line their nests with a few or many feathers. The feathers are often scavenged from their feeding territory and are not necessarily feathers of their own species. It is commonly considered that the feathers serve to soften the nest and insulate it, to the benefit of adult occupants and chicks. But could feathers in the nest serve other purposes? Two avian ecologists think they can be, in effect "occupied: keep out" notices posted by resident birds to discourage interlopers, and that they may also serve as indicators of the presence of predators.

The scientists studied three small cavity-nesting passerines; Blue Tit and Pied Flycatcher in mixed forest near Oslo, Norway, and Tree Swallow in open grasslands in British Columbia. They located birds that had just established nests and placed two suitable nest boxes near the nest site. They then blocked access to the birds' original cavity nest, inducing them to investigate the nest boxes as alternative nest sites. The boxes were prepared with varying nest materials, including various combinations of white and dark feathers, white and no feathers, white feathers and white paper, or three or six white feathers, in order to observe the birds' reactions to these arrangements. In one experiment, feathers were scattered on the ground near the Blue Tit nests in order to observe whether the birds would collect them for the nest. The feathers were commercially prepared except in the case of varying numbers, when downy feathers of Wood Pigeon were used.

In ten experiments (four on each species in Norway; two on the swallows), the birds always hesitated much longer between first visit to and first entry into a box with white feathers in comparison with no feathers, dark feathers or paper. Hesitation was greater when six feathers were present (versus three). In 29% of the cases, the birds did not enter the box with white feathers at all (versus 5% for the other box, whatever it contained). Numbers of trials in each experiment varied between 20 and 30, so the results appear robust.

All three species exhibited hesitancy to enter boxes with white feathers. The investigators interpret this as a conflict avoidance reaction or fear reaction: conflict avoidance on the assumption that the nest is already occupied and fear that the presence of the feathers possibly indicates the presence of a predator. Most birds defend nests. hence the possibility of a conflict avoidance reaction but, in the present experiments, the birds had already selected a nest site immediately adjacent to where the experimental boxes were set up, so they were presumably satisfied that there was little chance of conflict for possession of the nest site. On the other hand, small passerines are subject to predation by Pygmy Owls, that are able to enter nests that are occupied by small passerines, and by small carnivores, such as weasels and martens.

Feathers appear to be the key indicator – the birds were not unduly concerned with the paper, so feather colour may not be critical. But in a tree cavity or nest box dark feathers are probably not noticeable. In fact, white is a wide-spread indicator of alarm amongst animals (think of the "white tail" alarm signal of deer species). For the birds, the pale feathers appear to serve as an initial indication of potential danger. In 71% of the trials the birds were willing to enter the box with white feathers after a sufficiently long period of observation to convince them that the feathers did not indicate a present danger.

While fear of predators is a reasonable interpretation of the birds' reaction to white feathers, the experiments do not close off the alternative possibility that prominent materials are placed in the nest by the birds as a "certificate of ownership" or prior occupation. Further, it is known that some birds deliberately decorate their nest as part of the ritual of attracting a mate. In the case of the small cavity-nesting passerines in this research, however, this appears irrelevant; one cannot see what is in the nest cavity until one enters it or, at the least, perches in the entrance.

Reference

Slagsvold, T. and Wiebe, K.L. 2021. Nest decoration: birds exploit a fear of feathers to guard their nest from usurpation. *Royal Society Open Science* 8: 211579. https://doi.org/10.1098/rsos.211579.

(Karen Wiebe is Professor of Biology in the University of Saskatchewan.)

Avian Encounters

Pygmy Owl vs Kestrel

Catherine McLean, Gary Davidson

On December 13, 2021, we were birding along Inonoaklin Valley Road near Edgewood in the West Kootenay region of BC. Our day was almost complete when we noticed an American Kestrel fly up onto a fence wire farther up the road. This is not a common bird here in winter. We glanced at it through binoculars and then noticed a second bird perched atop the fence post, less than two metres from the kestrel. The bird had its back to us and was a dark-brown colour, clearly not another kestrel, but too far away to identify. The kestrel left its perch and swooped over the second bird a couple of times before resuming its perch on the wire.

As we moved closer the second bird flew up across the road into a tree. We could now see that it was a Northern Pygmy Owl. Seconds later, the kestrel followed. Both birds were now perched within a metre of each other.

At this point we thought the kestrel had had enough because it flew away. But a minute or so later, it returned. Again, the kestrel swooped over the owl a couple of times; the owl was unmoved. It is not unusual to see various species harassing owls, so we assumed



that was the case here. But then we noticed that the Pygmy Owl had prey, a small mammal of some kind. Was the kestrel trying to steal it? They remained on the branch for a minute or two before the owl flew up to a dead snag and entered a small cavity. Moments later it re-emerged without its prey and flew to another tree along the road. The kestrel made no attempt to follow this time. Northern Pygmy Owls are known to stash prey for later consumption. Whether this was just a routine stash, or an attempt to escape the scrutiny of the kestrel, is hard to say.

The 7-km walk we did that morning was a monthly outing for us in 2021. Ferret Road makes a nice loop through hayfields and grazing land, with a creek and riparian habitat through the centre and forested habitat around the outside. The varied habitat provides a good mix of birds at some times of year. Our monthly species count ranged from a low of 14 in January to a high of 60 in June. The cumulative species count was 108.

Photos by Catherine McLean.



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Gyrfalcon vs Harrier







Above: On December 5 Scott Edwardson (Delta) spotted this Gyrfalcon at Dyke Trail near 72nd Street, Boundary Bay. He notes that it was attracting a lot of unwanted attention from a Northern Harrier and Bald Eagle, with the Harrier being particularly persistent. The birds made no calls and the Gyrfalcon did not put up much protest, but eventually moved on.

Left: Also spotted by Scott in the Boundary Bay area was this Shorteared Owl, photographed at sunrise. The temperature with windchill was minus 20C, which was unusually cold for the Lower Mainland, but apparently the owl was unbothered.

Scott used a Canon EOS R5 with an 800mm lens, set to f11, 1/2000 second, ISO 1000.

Black-capped vs Mountain Chickadee

Sage Pasay spotted this chickadee in Ten Mile Lake Road near Quesnel, in December 2021. She noted a thin white eyebrow on both sides of the head, much weaker than would normally appear on a Mountain Chickadee, plus a messy border at the bottom of the black throat patch and the body coloration. That led to the conclusion that the bird must be a hybrid between Mountain and Black-capped.



Hawk Puzzler

Kevin Hood, Nanaimo

If someday you hear tell of a bird called a "Chicken Hawk," don't look for it in eBird or in any of your favourite bird guides. *Chicken Hawk* is just a colloquial name or alias for a species of raptor that preys on or is perceived to prey on chickens.

It turns out that there are other species that have aliases named for a type of prey. After an extensive (but non-exhaustive) search I have added 15 additional species aliases (North American species only) to

keep the Chicken Hawk company. All 16 are listed alphabetically below. See how many of the colloquial names you can associate with a raptor species.

- 1. Bird Hawk
- 2. Chicken Hawk
- 3. Duck Hawk
- 4. Fish Hawk
- 5. Frog Hawk
- 6. Goose Hawk
- 7. Grasshopper Hawk
- 8. Grouse Hawk
- 9. Hen Hawk

- 10. Locust Hawk
- 11. Mouse Hawk
- 12. Pigeon Hawk
- 13. Quail Hawk
- 14. Sparrow Hawk
- 15. Squirrel Hawk
- 16. Starling Hawk

Note that all of the species, with one exception, fall into the taxonomic families of *Falconidae* or *Accipitridae*.

For the answers, see page 39.

Provincial Birds

It is indeed odd (see the guest editorial) that Canada does not have a national bird, since each province and territory has made a careful choice. The following are their official birds:

Alberta: Great Horned Owl

BC: Steller's Jay

Manitoba: Great Grey Owl

 New Brunswick: Black-capped Chickadee

 Newfoundland and Labrador: Atlantic Puffin

• Northwest Territories: Gyrfalcon

Nova Scotia: Osprey

• Nunavut: Rock Ptarmigan

• Ontario: Common Loon

• Prince Edward Island: Blue Jay

Quebec: Snowy Owl

Saskatchewan: Sharp-tailed Grouse

• Yukon: Common Raven

Canada is not alone in lacking a national bird. Britain has also been lacking one, but their birders are also trying to cure that. The leading contender, unsurprisingly, is the European Robin.

The male Wood Duck below was photographed at Reifel by Anica Gorlick (age 12) on January 2, 2022 during the Christmas Bird Count For Youth.



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Rig Rirds through the Ages

Charles Helm, Tumbler Ridge

I was recently privileged to be invited to be a co-author on a research article on large, unwebbed avian tracks from the Mesozoic and Cenozoic. My role was relatively minor, and mostly confined to the Pleistocene, but I learned a lot about palaeo-ornithology from eminent ichnologists Martin Lockley of the University of Colorado and Nasrollah Abbassi of the University of Zanjan, Iran. Our article was published in the international palaeontology journal *Lethaia* in December 2021.

We chose 10 cm as the cut-off for "large bird tracks," partly because the record of tracks of this size from the Mesozoic and Cenozoic is rather sparse, compared with smaller tracks. Currently about 10% of species meet this size criterion, and interestingly the evidence we do have suggests a similar percentage in the past. Of note was the fact that large Mesozoic and Cenozoic tracks were very different: large pachydactylous (thick-toed or robust) forms predominated in the Mesozoic, whereas leptodactylous (thin-toed or gracile) forms were predominant in the Cenozoic.

Although we have a probable ostrich track from South Africa, in general large flightless species are poorly represented in the track record. There is a preservational bias in that most fossil bird tracks are found in shoreline settings, and that perching birds are unlikely to leave tracks. There is an extensive Cenozoic record of large thin-toed tracks similar to those of cranes and herons today.

In contrast, when Aves evolved and separated from theropod dinosaurs in the Jurassic, we can expect challenges in identification – were these bird tracks or the tracks of bird-like dinosaurs like the aptly named ornithomimosaurs? Ichnogenus names like *Archaeornithipus* and *Magnoavipes* suggest that these are avian forms, but things have changed since they were so named, and

nowadays the consensus seems to be that they more likely represent bird-like dinosaurs.

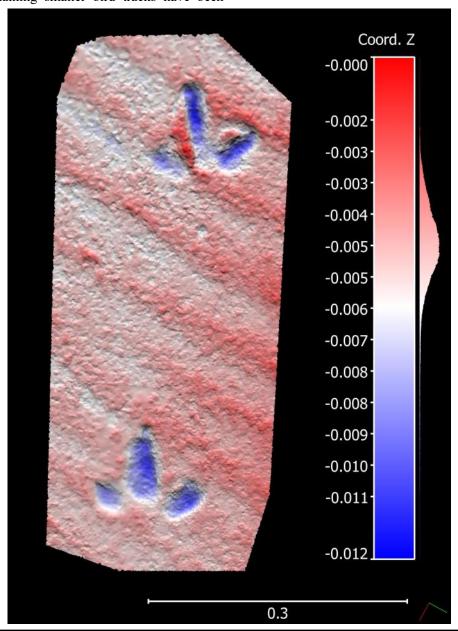
On the Cape South Coast of South Africa, where I do much of my research, we have found more than 30 Pleistocene avian tracksites. Those with large bird tracks made it into the article, including a photogrammetry image of large crane tracks, which is reproduced here.

The Tumbler Ridge area, with its numerous dinosaur tracks and a potential wealth of suitable surfaces of the right age on which to look for bird tracks, is a global palaeo-ornithology hotspot. As described in a recent edition of *BC Birding*, a well preserved *Magnoavipes* track has been found close to town, and a number of tracksites containing smaller bird tracks have been

discovered in recent years. The search is on for tracksites of large Mesozoic birds, which can add to the sparse global record of such trackmakers, and be the subject of future research.

¹ Lockley, M.G., Abbassi, N., Helm, C.W. 2021. "Large, unwebbed bird and bird-like footprints from the Mesozoic and Cenozoic: A review of ichnotaxonomy and trackmaker affinity," *Lethaia*, 19 pages. doi.org/10.1111/let.12458

Below: 3D image of Pleistocene crane tracks from the Cape South Coast, South Africa; horizontal and vertical scales are in metres.



Fraser Valley Big Vear

John Gordon concluded his Fraser Valley Big Year with 206 species – six more than his target. The following are extracts from the summary he wrote for his blog at

thecanadianwarbler.blogspot.com.

"Birding in the Fraser Valley was different right from day one. Unlike Metro Vancouver where a well-oiled network of birders share finds 24/7 the FV has no such network, none I could find initially. At first I hardly ever met another



"Driving along Sumas Prairie an American Kestrel was hunting alongside the road. The car made for a great blind, opening a car door would no doubt have flushed the bird and more importantly lost any chance of the bird making a kill."



"It was June 14 when John Vooys alerted me to a rare Yellow-breasted Chat. His keen ear had picked up the bird in a far corner of Willband Creek and he had asked me to see if I could check it out and make sure of the ID with a photograph."

while standing on the roadside. I cannot imagine what the neighbours were thinking but it was a fruitless and frustrating exercise. The only birds we did see were House Finches and Dark-eyed Juncos. The Harris, we were told, was travelling with a few White-crowned Sparrows but they rarely showed



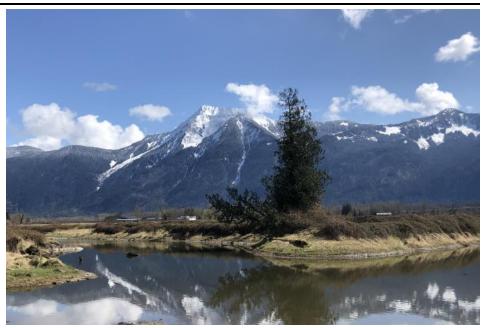
birder. That changed as the months passed by and I began to make a few contacts, some of whom have become good friends. The only time birders seemed to meet en masse would be for a twitch. A good example was the recent sighting of a Red-shouldered Hawk at the Tuyttens Road wetlands in Agassiz. ...

"...Sometimes a bird proves really elusive. One such case was the Harris's Sparrow in Abbotsford. Once it was reported, a number of us went to have a look. The bird was coming to a balcony feeder. Several of us spent hours in the cold and rain peering at the feeder



up and always without the Harris. After two attempts I decided to be proactive and knock on the door of the house across the street where Krissi had seen it fly to. I knocked on the neighbours' door, explained the concept of a Big Year, and politely asked if I could peer over their backyard fence to see if I could see the bird. I tried twice and both times could only stand the bitter cold for about thirty minutes.

"I finally came up with a cunning plan and vowed to return. The third visit I brought along some bird seed and asked the owner to spread some on the ground. Being ground feeders, it only took a few minutes for both the Whitecrowned and the Harris to appear out from the undergrowth, and bingo, I had my two-hundred and sixth species for the year and what eventually turned out to be my last FV tick."



"I had some good birds at Tuyttens ... all the while surrounded by stunning scenery."

Magical Merlin Sound JD

Larry Joseph, Hazelton

Introduction

Millions of eBirders are now using the Merlin Bird ID app. The Cornell Lab of Ornithology made another leap forward by adding Sound ID to its Merlin Bird ID app in June 2021. I will share a story about a wonderful experience I had during a day-trip at Jasper National Park. It was at Maligne River in early September 2021. It provides a nice example of the magical capabilities of Sound ID in a noisy environment. And as an additional point, I will conclude with a few suggestions for improvement of the app.

Sound ID listens to birds and records audio of their voices. The app uses machine learning, a branch of artificial intelligence (AI). It utilizes algorithms, a set of computer instructions, to analyze sound patterns and makes suggestions for bird species identity. Sound ID can identify 458 bird species in Canada and the United States. That is why the Cornell Lab of Ornithology calls Sound ID one of its major advances.

I jumped at the opportunity to download and use Sound ID on the first day it became available. Since its release, I have recorded bird voices over 2,000 times. I use an iPhone 7 and a Rode VideoMic Pro shotgun microphone with my cameras. I nicknamed

the new tool SID. SID has become my constant birding companion since the third wave of the coronavirus pandemic. Like a true friend, SID freely helps me to be a better and more observant birder. In a similar way, the app has become a major advance for me in my birding life.

Maligne Valley

The Maligne Road begins at Jasper and follows the Maligne River southeast-wards through Maligne Valley. It ends at Maligne Lake, 48 km distance. Amazingly, the river ends at Medicine Lake. The lake disappears during the fall and winter into an underground cave system. Then it flows underground for 17km to reappear at Maligne Can-

"Sound ID functions like a magical hearing aid"

yon.

Medicine Lake nestles high (elevation 1,442 m or 4,731 ft) in a narrow valley in the Rockies. Maligne Lake, the largest lake in the Rockies, drains into Maligne River at an elevation of 1,681 m. Consequently, the river quickly descends 240 m through 13km. White water and rapids cover the entire length of the river between the lakes. This is perfect habitat for American

Dipper.

The American Dipper, a tough, resilient, cheerful bird, survives the harshest winters in BC, Yukon, and Alaska. Fast flowing, cold mountain streams like the Maligne River high in the mountains provide the best habitat for the American Dipper.

Half-way between the two lakes, I turned into Bruce's Picnic Site for a rest break. As I got out of my vehicle at the parking lot, a bull moose waded the river. I just had a few seconds to get a sequence of snapshots. Then I rushed to get closer to it.

I walked quickly upstream along a path at the river's edge. The moose disappeared into the forest. So, I turned my attention to birding. I looked all around me for birds. Seeing none, I listened for birds but the white water made ear-birding almost impossible. Nevertheless, I took out my iPhone 7 and opened the Merlin Bird ID app to listen for birds. Immediately, the image of the American Dipper appeared in Sound ID. The text for the Dipper in the app blinked yellow. I was stunned! I couldn't believe Sound ID could identify the bird in such a noisy environment.

The waist-high bush blocked my view of the river's edge. So, I stepped towards the river bank and stood on cobbles in the bush. There was no bird beside me at the river's edge nor could I see a bird in flight in front of me. Then I focused my attention on rocks and a moss covered log at the opposite river



A bull moose wades into the white water of the Maligne River at Bruce's Picnic Site. Photos by Larry Joseph.

side. There it was, 50m across the rapids on the opposite shore! An American Dipper was standing on a large rock, bobbing its knees and tail, singing cheerfully. I was thrilled to find it. I would have probably missed it if I didn't get help from SID.

Sonogram

The eBird sonogram (https://ebird.org/canada/checklist/S94430937), a visual representation of sound, for my observation of the American Dipper, is faint. It also has a lot of background noise from the rapids. Yet, the low-quality recording still alerted me to the Dipper's presence.

Visual confirmation should be done but it's not always possible. Northern Saw-whet Owl and Pygmy Owl have been calling all winter long at my Hazelton neighbourhood. Up till now, I have not seen them but I have their sonograms.

My practice is to get close to the bird and record at least three call notes or a song. Even a few call notes can be enough to get a bird's identity. This approach can substitute for a visual observation in my opinion when it was not possible to see or find the bird.

Then careful examination and comparison of the observation sonogram to the reference sonogram in the app is sufficient in my view. If the sonograms are the same, I use the Sound ID result in my eBird report.

Conclusions

Although Sound ID can be magical, there is still room for a lot of improvement in the app.

The help centre for the app does not have work flows to show users how to upgrade the sound recordings to Library of Congress standards. I have had to figure out a solution myself with a desktop computer app called Switch. It extracts audio from camera videos then it can convert the audio to a higher standard. The result of this work flow is that my recordings often appear in the

top audio recordings for the day in Canada for eBird. All users of the app could do this too with more support from Cornell Lab. These tasks can also be done in an iPhone with the Voice Record Pro app.

My iPhone is filling up with audio recordings. I would rather fill up the cloud with my sound recordings of bird songs and calls. There is no easy way to delete a large number of audio files in a batch operation. Another drawback is that the app does not store recordings in iCloud, Apple's cloud service, as the default operation.

Nevertheless, Sound ID provides an amazing ability to distinguish bird calls that are very difficult to determine by ear. This is especially true when I am in an unfamiliar location and habitat with five to eight bird species singing and calling. SID has alerted me countless times to species that I would have missed through conventional earbirding even in my own neighbourhood. Sound ID hears very low and high frequencies that are very difficult to hear. So, Sound ID functions like a magical hearing aid.

What I really love about Sound ID is that it helps me to review and learn bird songs and calls in the field every time I use it. When a bird sings or calls, the identity of the bird appears in the phone and it blinks yellow when the bird vocalizes. That's an ingenious and a magical way to learn!

American Dipper at Bruce's Picnic Site.



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Find the Birds Goes Global

Adam Dhalla, Coquitlam

My mom was born in Kyoto, Japan, and I have been there several times, to visit her relatives and do some birding. While the country is not on the top of many people's lists of where to travel to see exotic species, the varied terrain and climate, coupled with the fact that it is comprised of a series of islands, have, despite its very modest size, gifted Japan with as many species as geographical giant Canada, including several endemics.



Having visited many excellent spots there and photographed some of its unique species, I have always wanted to highlight Japan's birds to the world. The success of *Find the Birds*, the educational mobile game I produce as part of my role at the non-profit organization Thought Generation Society, coupled with support from the Masason Foundation, have finally given me this tremendous opportunity.

I am pleased to announce that Japan is the third location (after Arizona and



British Columbia) in the game. It includes three of the country's best places to find birds: Okinawa (screenshot at bottom), Mount Fuji, and Hokkaido (screenshot at top). These places represent remarkably diverse species and habitats – tropical rainforest & beaches, mountain & lake, and northern snow-fields, respectively. The season of focus for Japan is winter (although Okinawa is still extremely hot then).

Some of the amazing sixteen species in the Japan location of the game are the Japanese Paradise Flycatcher (game image to the left), the endemic and endangered Okinawa Rail (game image to the right), the critically endangered and endemic Okinawa Woodpecker, and the endangered Blakiston's Fish Owl, the largest owl in the world.

As usual, the game features very scientific information about all the species, provided by the Cornell Lab of Ornithology: videos, photos, and spectrograms/sounds, which comprise the

content of the species cards that players collect as rewards for finding birds.

As usual, conservation quests are a key part of the educational and realistic gameplay. In the Japan location, players complete a typical birder's list, to confirm which species have been spotted in the Fuji area.



They also try to take (simulated) photographs of some of the rarer species in Okinawa, such as the Ryukyu Robin. Conservation photography provides activists with evidence that rare birds are living or breeding in specific areas, and can help them successfully lobby against urban developments that will destroy crucial habitat, like golf courses, which are a real problem in Japan, where many businesspeople love this sport, partly as a status symbol and way to network with financial connections.

Please visit <u>www.findthebirds.com</u> to get more information and download this free game.

Images courtesy of Thought Generation Society.



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There's Something about Anna

Gordon Brown, Kaslo

No one knows where she came from, but she arrived in Kaslo the first week of October, more than a month after all the others had gone south for the winter, the "others" being Rufous, Calliope, and Black-chinned. She appeared, infrequently at first, at a home where a few feeders were still in place, but soon became more of a regular. The bird-loving residents responded by eliminating all but a single feeder in order that her needs could be more effectively managed. She roosted in proximity to the residence, but the exact location was never determined.

In the subsequent weeks she could be seen hawking from a nearby perch for



tiny insects, the protein supplementing her 4-to-1 energy drink. As the fall weeks dragged on, becoming progressively colder, the feeder was taken in at night and replaced in time for her breakfast visit, occurring each day at almost exactly 7:30. As temperatures worsened and snow arrived, feeder maintenance became more difficult and the need for a heated model became apparent; it was ordered from Minnesota, arrived in a timely fashion in spite of circumstances induced by COVID-19, and was in place on December 10.

She continued to remain active, although her range from the feeder progressively decreased as the cold limited her ability to acquire protein. The extreme cold snap beginning the week of December 20 produced overnight temperatures of -12C, and during this period she perched on the feeder for periods of time, but still roosted at her established location. December 26 was the coldest of those nights, and on the afternoon of the 27th she fell from it to the snow below. That was the morning of the Kaslo Christmas Bird Count; she was alive and included, but died later that afternoon.



She had been in Kaslo for 85 days. As it happened, another female Anna's had been cared for in the Balfour/Proctor area, the West Arm outlet from Kootenay Lake. She was first spotted on October 1 and died on December 26, 87 days later; certainly a remarkable parallel to the Kaslo bird. Only one other Anna's has appeared on the Kaslo Christmas Bird Count since records have been kept, but four were counted in Creston on the 2021 CBC.

Anna's Hummingbird is particularly interesting because, unlike other hummingbirds, the species is non-migratory. So, it's not as though these Kootenay birds missed a bus departing southward with all the other hummers in late August. They are wanderers, called "postbreeding dispersers" and are known to choose any point of the compass, quite possibly ending up in the Kootenays after breeding in the Okanagan, their easternmost known breeding location in BC.

Prior to the 1960s, Anna's were known to breed only in California and Northwest Baja, but here is a statement from a paper describing its current status: "The range of Anna's Hummingbird (*Calypte anna*) spans the west coast of



North America from Baja California to British Columbia, into inland areas of California, Arizona, New Mexico, Oregon, and Washington. This distribution is a result of an 80-year history of range expansion in the West that has been described through broad-scale analysis and modelling of data from the core of the range. While climate change can contribute to widespread distributional shifts for some species, modelling suggests that for the Anna's Hummingbird, urbanization, landscaping with non-native plants, and supplementary feeding are extending the species' realized niche into otherwise unsuitable locations, particularly areas with colder and harsher climates."

Apart from these unusual early-winter Kootenay sightings, there have been occasional summer sightings of individual birds in the Kootenay Lake valley. It was presumed these birds had wandered here from the Okanagan, but the question of source is complicated by the Idaho population. It doesn't seem unreasonable to suggest that birds recorded in the East Kootenay at Windermere, Kimberley, and Invermere (eBird), as well as those found in Creston and north along Kootenay Lake, could just as easily have made a journey from Idaho than from Osoyoos or Okanagan Falls, valleys being easier than passes.

Caution has been advised regarding the question of range expansion, but that has been precisely Anna's story; the recent Idaho breeding records would seem to confirm the fact that there is breeding in greater proximity to the Kootenays than was known. One can't but wonder whether a breeding record for, say, Creston will show up on eBird at some time in the plausibly foreseeable future.

Photos by author. Below: The log kept by Anna's carers covering her final days.

A	rna L	209	
16/	Anna L	Temp	Light
16/12/21	7:28	-8°	bright
18/12/21	7:45	-4°	snowing
19 12 21	7:40	-2°	clear
20/12/21	-7,25	-100	
21/12/21	7.28	F110	"clear
22/12/21	7.35	-10-	e snowing
23 12 21	7.28	+2°	swow
24/12/21	7.32 7.52	l°	overcast
25 12 21	7.52	earpurfort	overcast
26/12/21	7.31	-5°	blowing
27 12/21			- clear
Anna fell	from fo	oder 1	30 pm
v. weak, n She died	at 330	gom R	18

Bird Photographers' Corner

Adrian Dorst, Tofino

Following on the heels of Clive Keen's article in the previous issue, *Time to Retire the DSLR? Going Mirrorless, Part 2*, the discussion that follows may be timely.

A More Affordable Option for Bird Photography

When choosing a camera and lens for bird photography there are many factors to consider. If you want high-quality bird photos, sensor size, pixel count, and glass quality are probably paramount. And sure, if you have \$4,000 or more to spend on a camera body and \$5,000 to spend on a lens, you're instantly in the game. I knew one photographer who had two \$15,000 lenses, one a zoom and the other a prime lens. Fortunately, good-quality photography can be accomplished for considerably less even if your choice is to buy a DSLR and a detachable long lens. But be prepared to spend \$4,000 to \$5,000 and up. If you don't mind the bulk and weight and your bank account can handle it, this is probably the best way to go for the serious photographer. There is, however, another option.

Most camera manufacturers now offer mirrorless cameras with a built-in zoom lens that eliminates the need to purchase and carry multiple lenses. Some of these zooms have astronomical magnification. For example, Canon, Nikon and Panasonic make cameras with a maximum magnification of 65×. They accomplish this by having a small 16mm sensor, and by in-camera cropping. Essentially, the smaller the sensor, the higher the magnification. With bird photography the biggest challenge is getting close enough to the subject: thus, the higher the magnification, the more success you're likely to have.

For a three-year period I used a Panasonic Lumix with a 1200mm optical zoom and a 16mm sensor. In-camera cropping extended the power to 65×. It was wonderful up to a point, but in the

end the picture quality was disappointing and I started looking for an affordable alternative within my limited budget. I discovered that there were three mirrorless cameras on the market with a one-inch sensor and a built-in zoom lens. They are the Panasonic Lumix FZ1000 ll with a 25 to 400mm zoom lens, the Sony Cyber-shot DSC-RX10 lV with a 24–600mm zoom, and the Canon Powershot G3X with a 24–600mm zoom lens. All boast 20 megapixels or just above.

I was immediately sold on having one of the two cameras with a 600 mm reach and, lacking deep pockets, settled on the more affordable Canon Powershot G3X over the Sony. Because of the one-inch sensor, the maximum focal length at 600mm is doubled to 1200 mm, or 25×. In-camera cropping can double that again to 50×. Indeed, more often than not when shooting birds I shoot at 50×, hand-held. Yes, the image stabilization allows you to do this. Beyond 50× the quality rapidly diminishes. In bright lighting conditions the results range from very good to excellent. In low light the quality declines - however, for birds I often prefer overcast skies providing the drop in light isn't too great.

I have not yet mentioned one of the most distinguishing aspects of this camera, which is its size. Fully extended, the lens is 5½ inches long and camera and lens weigh a mere 1.62 lb (733 grams), making it ideal on long walks and for travel. And of course it has all the electronic bells and whistles we've come to expect in modern cameras including a tiltable LCD screen and WiFi. The fact that this camera is not a burden to carry means you will have it with you when you spot that vagrant Rustic Bunting on your morning walk. Remember, you're only a photographer when you have the camera with you.

Because I had made a living as a freelance photographer for many years, when I first began using the Canon G3X, I presumed I was smarter than the camera and started off manually setting ISO, f-stops, and shutter speed. What a fool I was. I quickly learned that this camera can accomplish all of this in the blink of an eye and more accurately than I could. Three and a half years and many thousands of photos later, I am still in love with this camera. Indeed, I recently purchased a second one as a backup, since all cameras do eventually wear out.

To summarize, this camera's three great strengths are its small size, its great zoom range, and the one-inch sensor. It's worth mentioning that the sensor, combined with 20.2 megapixels, also allows for terrific landscape photos as well, be they taken at short or long

The two photographs accompanying this article and many others appearing in various editions of this magazine, were all taken by Adrian Dorst using the Canon Powershot G3X.

Below: Two Bald Eagles survey a snowy world from snags in Tofino, taken at 50× from Campbell Street, Tofino.



focal length. But, the camera also has a few drawbacks. The camera is slow to activate. From the time you push the ON button to the time the zoom is extended and you're focused, five or six seconds may have elapsed. The zoom is electronic and is also somewhat slow. For shooting birds in flight this camera is generally poor, though a soaring hawk or a skein of geese passing overhead are easily doable. Battery life is fairly short but is easily overcome by carrying spares. Generic-label batteries can be bought online for a third of the price of Canon-made batteries. I usually carry two or three extras.

Canon sells this camera without an electronic viewfinder, so you'll have to buy that separately since the LCD screen will not suffice for telephoto shots. Total price for the camera and viewfinder, including shipping and tax, was roughly \$1,500, though I have friends who later bought one for less. The backup camera cost me considerably less since I already had the viewfinder.

Canon has apparently discontinued production of the G3X and to purchase one now you will likely have to locate an online store that sells them. As long ago as three years back, Canon was rumoured to be working on an updated



A Bald Eagle clutches a Glaucus-winged Gull at Long Beach.

version but it has thus far not materialized. When I first heard that the camera was discontinued I immediately ordered another one and there was no difficulty. But that could change. If all else fails, try eBay.

By all accounts, the Sony Cybershot DSC-RX10 IV is excellent as well and would likely be a suitable substi-

tute. It has a built in viewfinder and retails for \$2,000 before tax. That's less expensive than it was three years ago. The Panasonic Lumix version with the 400mm zoom is listed at \$1,000.

A Note on Topaz Labs

Clive Keen, Prince George

Previous articles in this series have given rave reviews to *Sharpen A1* from Topaz Labs. Bird photographers are in great need of sharpening tools, as we use long lenses, nearly always have to crop, and our subjects won't keep still. Sharpen AI is a remarkably powerful tool for solving the inevitable fuzziness problems. The improvement is often jaw-dropping, yielding crisp images from shots that would otherwise be trashed.

But Topaz produces two other tools: Denoise AI, and Gigapixel AI. Are these as valuable in bird photography?

Denoise AI certainly has a lot to recommend it. The main reason is that it allows bird photographers to use ISO levels far higher than we'd otherwise dare. For years I'd refused to shoot at more than 800 ISO, fearing that the resulting noise would ruin the shot.

Denoise AI does away both with the noise and the inhibition; you can set your camera to auto ISO and relax. As with Sharpen AI, the improvements are often jaw-dropping, making horrid noisy areas smooth and appealing. Denoise AI is also a great tool when you have to lighten underexposed shots or treat shadow areas, which can get very noisy. Having said that, I don't use Denoise AI anything like as often as Sharpen AI, but when there *are* light problems, it saves the day.

I'd been most hesitant about Gigapixel AI, which is an "upscaling" tool allowing small images to be enlarged without betraying the fact. I'd thought that it would only be useful for creating, say, 13 x 19 prints, so the tool struck me as special-purpose only – and to some extent that is true, and I don't use it regularly. But most bird photographers crop heavily, and whether they like it or not will end often up with lower-resolution images than they need. If you blow up such images to a useful size, they can appear very soft, and pixelation can be evident. This is where

Gigapixel AI steps in, creating an upscaled image that appears as if it were high resolution all along.

Gigapixel has been a particularly useful tool for this magazine. Many submitted photographs, clearly extreme crops, have benefited hugely from editorial attention, and I've now started to use the tool even if I'm just producing 4×6 prints from my own heavily cropped images.

So, my recommendation is: definitely get Sharpen AI, add Denoise A1 if you want the luxury of shooting at high ISO, and be sure to get Gigapixel if you need to upscale cropped images.

If you're a serious photographer, all three programs can be bought as an economy package: fortunately you can own Topaz Lab products rather than rent them. On top of that, you have the option of buying update plans so that improvements (which flow regularly) are automatically available to you. This is a business model others – Lightroom take note – should follow.

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Gone Wishing

A Swainson's Hawk Tale

Chris Siddle

If you want to see Swainson's Hawks in BC, good places to check from late April to early September are:

- 1. Knutsford (a tiny community on Highway 5A south of Kamloops)
- 2. The Anarchist Mountain grasslands on roads off Highway 3
- 3. Vernon.

If you visit Vernon, begin your search for Swainson's Hawks along:

- 1. Old Kamloops Road on the west side of Swan Lake
- 2. Herry Road off Pleasant Valley Road (east side of Swan Lake)
- 3. Otter Lake Road at Wallbridge Road (south of Armstrong)
- Larkin Cross Road (south of Armstrong), especially where the road descends a hill
- 5. Highway 97 on the south edge of Vernon at the Army Camp.

With luck, you will eventually spot a slim, trim Swainson's Hawk perched atop a pole or fencepost, or, more likely, soaring with wings held at a slight dihedral. Don't expect to find a classic light adult shown in most field guides. Most BC Swainson's Hawks here are intermediate or dark morphs, plumages shown in Sibley's or the National Geographic's field guide. You may notice that its wings are long, reaching to or stretching beyond the tip of the tail. Swainson's Hawks have evolved long wings to handle their famously long migrations.

Twice a year Swainson's Hawk migrates the longest distance of any New World raptor. Each spring most of the world's population departs its wintering grounds in Argentina, funnel up the length of South America, along the Isthmus of Panama and fan out over Mexico, with most settling in interior western United States and Canada, with some flying as far as central Alaska. That's a distance one way of 10,000 kilometres, a migration unmatched in length among North American raptors

only by the occasional Peregrine Falcon.

Swainson's Hawks arrive in the Okanagan between mid- and late April. Prior to European settlement, the hawks were denizens of native grassland, a habitat virtually gone from BC now. Degraded by decades of overgrazing, its natural vegetation replaced by aggressive European grasses and weeds, the original prairie is rare indeed. Fortunately, Swainson's Hawks adapted to the changes in grass species, accepting hayfields and some other

agricultural croplands as suitable replacements. In the North Okanagan look for Swainson's Hawks around extensive hayfields. Isolated conifers around farms, narrow shelter belts, and veteran Douglas-firs and Ponderosa Pine growing in sheltered folds in the otherwise treeless topography are favoured by Swainson's as nest trees. It's a bird that likes open spaces around its nest site.

The other buteo that you will see commonly around the North Okanagan is the Red-tailed Hawk, which locally outnumbers Swainson's Hawk at least five to one. While Swainson's Hawks are birds of open fields, Red-tailed Hawks are birds of semi-open marsh and woodland. However, there's much overlap between the raptors' habitats. It's not unusual to have both buteos in sight at the same time.

Because Red-tails may reuse a nest year after year, the nest can grow to quite a size. Often atop conspicuous trees like veteran Ponderosa Pines, a Red-tail Hawk's nest is based upon thick, long-lasting sticks and can become a third of a metre in height. In contrast, North Okanagan Swainson's Hawks build less sturdy nests, many so flimsy that they don't survive the next winter. Hal Harrison, author of Petersen's Field Guide to Western Birds Nests, reported finding Swainson's nests in Colorado made almost entirely of tumble weeds! I have seen a Vernon nest being built with dried stalks of knapweed. Thus many Swainson's Hawk nests don't survive the winds of autumn and winter.

A birder stopping their vehicle for a photo of a Swainson's Hawk on a near-



Juvenile photographed on August 6, 2016 along Larkin Cross Road, south of Armstrong. All photos by author.

by telephone pole is usually able to get off a few shots before the hawk flushes, usually uttering with a peevish "keeyar," softer and seemingly less hostile than the similar utterance of a Red-tail. Red-tails will flush as the birder exits their car. While tamer around fields than the camera-shy Redtail, Swainson's Hawk is usually a wimp when defending its nest. Around the nest Swainson's Hawks will usually circle and call, in a show of noisy impotence, but seem less angry sounding than Red-tails in a similar situation. However, occasionally, Swainson's Hawks can be at least as aggressive in nest defense as Red-tail Hawks can be.

In early May 2018, as a bird consultant, I received a call from the Canadian military. A pair of Swainson's Hawks at the Vernon Army cadet camp had been causing trouble for the past year or two, and were showing signs of doing so again. The officer requested that I confirm the identity of the offending hawks and make suggestions about controlling their obnoxious behaviour. The hawks had taken to very aggressively diving at camp personnel and summer cadets. In a military summer camp where cadets were learning about marching in step with its attendant themes of control, order, and military precision, the hawks were causing chaos in the ranks.

The Vernon army camp sits atop a terrace on the south edge of town and is a well-known military establishment proud of its hundred-year-old history. Before it was a summer training centre for cadets, it was the home to infantry and before that, of cavalry. The camp is

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A newly arrived adult along Otter Lake Road, Armstrong, 12 April, 2019.

well kept, tidy and attractive with stately Douglas-firs and other conifers, most well over 50 years old or more, lining the narrow lanes between rows of one storey barracks. Beyond the camp are parade grounds, playing fields and large expanses of grassland. Groves of tall trees surrounded by grassland – perfect Swainson's Hawk territory.

According to a staff sergeant, in previous summers, a pair of hawks had nested in one of the conifers and after their chicks had hatched the adults had begun strafing lone pedestrians as well as groups of marching cadets. Caps may or may not have been knocked from heads by the screaming hawks. Stories that expanded the aggression of the hawks grew faster than the nestlings.

As I drove Highway 97 to the camp, I smiled to imagine the cadets coming home from camp and telling their friends of their hot summer in Vernon, of the routine of military life, punctuated by tales of single-minded hawks, fierce-eyed and sharp-taloned displaying the ultimate warrior spirit as they beat wide wings to speed their dives upon the file of cadets. However, it's unlikely that the kids saw any similarity between the hawks' spirit of defense and the cadets' own dreams of becoming warriors defending a nation.

The commanding officer asked me

to verify the hawks' identity. Easily done. He also asked for my solutions that would eliminate the birds' hostile behaviour. Not so easy. It was early May, a fair day. I quickly found an adult Swainson's Hawk hunting in a field and returning with a pocket gopher to the top of a Douglas-fir. Nearby, in the top of another tall conifer dangled a large kite with a giant eye painted on it. Trapped in the branches opposite the hawk's tree, the kite flapped in the spring breeze. A sergeant told me that the eyeball-kite was a previous attempt by a professional animal control company to scare off the hawks; an utter failure I'd say. As the warming air fluttered the tangled kite, the hawk's attention was on me and nothing else as I walked around the camp. But the bird remained on its perch. Below the hawk's tree, a narrow paved lane ran parallel to the row of Douglas-firs. This lane was ground zero for aggressive hawk-cadet encounters, I was told.

The next day the hawk in the Doug-

las-fir was joined by a smaller second. Swainson's, its partner, judging from their comfort with each other. Almost immediately the new hawk screamed and diving from the tree, passed over, clearing me by a metre and screaming again. I write this calmly but the experience rattled my nerves. Take into consideration that I knew what was com-

ing, I have some previous encounters with hawks diving at me, and the nest was still in the refurbishing stages — these factors would have minimized the impact of the dive. A month of two later, with chicks in the nest, their parents would be much more aggressive. Their dives would be energetic, determined and close to the heads of cadets wholly new to the world of protective raptors.

Solutions?

The solutions I offered were basic:

- 1. Parade the cadets along a different lane, as far from the nest tree as possible.
- 2. If #1 isn't possible, erect a very long open-sided tent along the

- length of the lane, a sort of canvas awning protecting the cadets.
- 3. If #2 is too expensive, have at least some of the cadets, especially those in front and behind the parade, carry umbrellas.

None of these suggestions met with favour. In fact, every solution I offered was met with, at best, an obvious lack of enthusiasm, and at worst distain. After the agreed upon two days of observation, I was deemed to have fulfilled my contract and I was dismissed. The military paid me but discarded me like a powderless grenade. Don't call us; we will call you, was in the air.

Did I fail to come to the aid of the future protectors of the nation? The answer depends upon which set of protectors I'm writing about. The armed forces of Canada are ordered to protect the birds, beasts, and children that inhabit its bases. The hawks are protected by that mandate. So, in failing to come up with an acceptable solution to sepa-



One of the Vernon Army Camp adults in an aggressive posture, May 6, 2018

rate angry hawks from frightened children, yes, I failed to protect the army. But no, I didn't fail to protect the hawks. My unwanted "solutions" left the hawks secure in their nest tree, because the military also failed to come up with solutions to their hawk problem. Cutting down the tree was not an option since it was likely the hawks would relocate to one of the many others on the base. So the hawks were safe in their chosen tree, raising a new generation, protecting their young with all the fervour of soldiers defending their country.

The Reflective Birder

Clive Keen, Prince George

Situational Ethics

Owl photography understandably gets a bad rap these days, as the birds can be so harassed that their hunting, and thus survival, is compromised. Birding ethics, though, tend to be, and need to be, understood as situational. For instance we might advise people not to feed bread to ducks in an inner-city pond, where they are already given far too much of the stuff, but it's really not a problem where feeding is uncommon. Bread isn't poisonous, just bad nutrition for birds in too-large quantities. Judgement and a sense of proportion is needed before we lecture.

A similar situational approach has to be applied to owl photography. The bird shown on this page was first spotted by local birder Jeff Dyck, and the location was shared with a few members of the Prince George birding group. It was not publicly announced, so there would be no crowds, just a few experienced birders, who would observe unobtrusively.

This particular Great Gray also proved to be relaxed in the presence of





a single photographer. There was never a need to stalk the bird – a counterproductive practice anyway – since it would come to you. Observe from a respectful distance and wait, and sooner or later the owl would come within range of a long telephoto lens.

Patience, and checking for signs of unease, are key. After a long-enough wait many birds become oblivious to your presence. In this case, though, I wondered if the owl actually liked having me around, as it would fly in quite close after mousing and take a nap nearby. It seemed mildly curious about me, and even flew amiably beside me

when I left after a couple of hours.

The birding community would certainly be more relaxed if we all accepted that our ethical rules need to be treated not as imperatives but as situational, requiring careful judgement. But as Douglas Bader told us, rules are for the strict obedience of fools, and the guidance of the wise.

These photos and the front page cover are by the author using a Nikon Z7 ii with Tamron 150–600 Gen 2 lens. The action shots were set to f6.3, 1/4000 second, 1000 ISO, with +1.3 f stops exposure compensation.



BCFO Listers' Corner 2021 Lists

NOTE: If a total is not supplied for two consecutive years the listing will be dropped.

<u>Tables:</u> % compared to total species in area list; incr increase from 2020; * preceding number indicates total not submitted; **Red bold** indicates largest increase from the previous year; *Red italics* indicates a significant plateau or other significant increase.

Welcome to the 2021 BCFO Listers' Corner. Another year of limited travel for most. Submissions were received from 60 members with the following seven members new to Listers' Corner: Joshua Brown; Jo Ellen Floer; Paul Foth; Doug Kragh; Peter McIver; Liam Ragan; Ken White; & Katie York. Welcome all to the listings.

BC: Ken Willis had the largest increase with 34. *Roger Foxall* added 1 to reach the 450 mark. *Kathryn Clouston* pushed over 300 by adding 14.

BRITISH COLUMBIA - 530					
#	2021	Name	%	incr	2020
1	485	Mike Toochin	91.5		486
2	460	Sharon Toochin	86.8		461
3	456	Dale Jensen	86.0		456
3	456	Tom Plath	86.0	2	454
5	*451	Wayne Weber	85.1		451
6	450	Roger Foxall	84.9	1	449
7	448	Dan Tyson	84.5	2	446
8	444	Brian Stech	83.8	3	441
9	443	Carlo Giovanella	83.6	1	442
10	442	Peter Candido	83.4	1	441
11	441	Val George	83.2	3	438
12	439	Michael Force	82.8		439
13	438	Brian Self	82.6		438
14	435	Guy Monty	82.1	1	434
15	432	Kevin Neill	81.5		432
16	427	Tony Greenfield	80.6		428
17	425	Mike McGrenere	80.2	1	424
18	*414	Dick Cannings	78.1		414
19	413	John Vooys	77.9		413
20	412	Keith Riding	77.7		412

	BRITISH COLUMBIA - 530					
#	2021	Name	%	incr	2020	
21	411	Larry Cowan	77.5		412	
22	407	Bryan Gates	76.8	4	403	
22	407	Len Jellicoe	76.8	2	405	
24	405	Hank Vanderpol	76.4	1	404	
25	404	Chris Charlesworth	76.2		404	
26	401	Russ Tkachuk	75.7		401	
27	399	Barbara Begg	75.3		399	
28	397	Rand Rudland	74.9	1	396	
29	390	Doug Kragh	73.6	r	new	
30	389	Gary Davidson	73.4	1	388	
31	386	Quentin Brown	72.8	2	384	
32	381	Eric Tull	71.9	2	379	
33	376	Don Wilson	70.9		376	
34	375	Monica Nugent	70.8	3	372	
35	373	Laird Law	70.4	1	372	
36	370	Ken Morgan	69.8		370	
37	369	John Gordon	69.6		369	
37	369	Ken Willis	69.6	34	335	
39	367	Gwynneth Wilson	69.2	1	366	
40	366	Bruce Whittington	69.1	1	365	
41	*362	Art Martell	68.3		362	
42	360	Ben Keen	67.9		360	
43	352	Paul Clapham	66.4	2	350	
44	351	Andy Buhler	66.2		351	
44	351	Marilyn Buhler	66.2		351	
46	345	Josh Inman	65.1	5	340	
47	339	Peter Boon	64.0	6	333	
48	333	John Sprague	62.8		333	
49	328	Rosemary Claphan		4	324	
50	327	Ted Goshulak	61.7		328	
51	325	John Hodges	61.3		325	
52	324	Dorothy Copp	61.1		324	
53	321	Paul Foth	60.6	r	new	
54	317	Krista Kaptein	59.8	10	307	
55	314	Janice Arndt	59.2		314	
56	313	Kathryn Clouston	59.1	14	299	
57	310	Lee Harding	58.5		*310	
58	292	Eric Newton	55.1	16	*276	
59	265	Liam Ragan	50.0	r	new	
60	224	Sandra Eadie (ON)	42.3		225	

Canada: Ken Willis and Krista Kaptein both saw an increase of 19. This brought *Krista* to the 350 plateau. *Laird Law* added one pushing him to the 400 mark.

CANADA - 685					
#	2021	Name	%	incr	2020
1	557	Roger Foxall	81.3	1	556
2	538	Tom Plath	78.5	1	537
3	519	Mike Toochin	75.8	•	520
4	514	Michael Force	75.0	2	512
5	507	Dan Tyson	74.0	1	506
6	505	Eric Tull	73.7	1	504
7	502	Sharon Toochin	73.3	•	503
8	497	Dale Jensen	72.6		497
9	496	Brian Self	72.4		498
10	*491	Wayne Weber	71.7		491
11	484	Kevin Neill	70.7		484
12	482	Peter Candido	70.4		482
13	480	Carlo Giovanella	70.1	1	479
14	478	Mike McGrenere	69.8		478
14	478	Russ Tkachuk	69.8		478
16	*474	Dick Cannings	69.2		474
17	472	Brian Stech	68.9	5	467
18	467	Keith Riding	68.2	1	466
19	462	Len Jellicoe	67.4	2	460
20	459	Rand Rudland	67.0		459
21	456	Barbara Begg	66.6		456
21	456	Chris Charlesworth	66.6		456
21	456	Hank Vanderpol	66.6	1	455
24	455	Larry Cowan	66.4		456
25	454	John Vooys	66.3		454
26	*448	Art Martell	65.4		448
27	445	Monica Nugent	65.0	1	444
28	442	Doug Kragh	64.5	r	new
29	438	Tony Greenfield	63.9		439
30	437	Ken Morgan	63.8		437
31	429	Bryan Gates	62.6	2	427
32	427	Quentin Brown	62.3	1	426
33	424	Gwynneth Wilson	61.9		424
34	423	Don Wilson	61.8		423
35	420	John Gordon	61.3		420
36	419	John Sprague	61.2		419
37	418	Sandra Eadie	61.0		419
38	416	Gary Davidson	60.7		416
39	411	Josh Inman	60.0		411
40	403	Janice Arndt	58.8		403
41	400	Andy Buhler	58.4		400
41	400	Marilyn Buhler	58.4		400
41	400	Laird Law	58.4	1	399
44	391	Ted Goshulak	57.1		391
45	384	Ken Willis	56.1	19	365
46	382	Paul Clapham	55.8	2	380
46	382	Dorothy Copp	55.8	1	381

CANADA - 685						
#	2021	Name	%	incr	2020	
48	375	John Hodges	54.7		375	
49	365	Peter Boon	53.3	6	359	
50	356	Liam Ragan	52.0	new		
51	352	Lee Harding	51.4		*352	
52	350	Krista Kaptein	51.1	19	331	

ABA (Continental): Brian Stech managed an increase of 6 followed by *Peter Boon* with 5. *Krista Kaptein* joined the list at 402.

	ABA (Continental) - 1,015						
#	2021	Name	%	incr	2020		
1	805	Hank Vanderpol	79.3	1	804		
2	791	Mike Toochin	77.9		792		
3	787	Roger Foxall	77.5		787		
4	740	Russ Tkachuk	72.9		740		
5	729	Brian Stech	71.8	6	723		
6	*728	John Vooys	71.7		728		
7	*724	Art Martell	71.3		724		
8	722	Dorothy Copp	71.1	1	721		
9	716	Dale Jensen	70.5		716		
10	710	Eric Tull	70.0		713		
11	709	Sharon Toochin	69.9		710		
12	691	Chris Charlesworth	68.1		691		
13	689	Dan Tyson	67.9		689		
14	673	Brian Self	66.3	1	672		
15	669	Peter Candido	65.9		669		
16	666	Gary Davidson	65.6		666		
17	655	Keith Riding	64.5		655		
18	649	John Sprague	63.9		649		
19	*644	Dick Cannings	63.4		644		
20	641	Andy Buhler	63.2		641		
20	641	Marilyn Buhler	63.2		641		
22	640	Kevin Neill	63.1		641		
23	632	Gwynneth Wilson	62.3		632		
24	631	Don Wilson	62.2		631		
25	626	Barbara Begg	61.7		626		
25	626	Carlo Giovanella	61.7		626		
27	*624	Mike McGrenere	61.5		624		
28	621	Monica Nugent	61.2	1	620		
29	614	Tony Greenfield	60.5		615		
30	611	Len Jellicoe	60.2		611		
31	596	Sandra Eadie	58.7		597		
32	588	Ken Morgan	57.9		588		
32	588	Rand Rudland	57.9		588		
34	574	Larry Cowan	56.6		575		

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	ABA (Continental) - 1,015						
#	2021	Name	%	incr	2020		
35	572	Bryan Gates	56.4		572		
36	562	Laird Law	55.4		562		
37	561	Val George	55.3	3	558		
38	539	Clive Keen	53.1		539		
39	526	Josh Inman	51.8		526		
40	520	Ted Goshulak	51.2		520		
41	470	Doug Kragh	46.3	r	new		
42	465	Lee Harding	45.8		*466		
43	450	Paul Clapham	44.3	1	449		
44	441	Janice Arndt	43.4		441		
45	421	John Hodges	41.5		421		
46	412	Liam Ragan	40.6	r	new		
47	410	Peter Boon	40.4	5	405		
48	402	Krista Kaptein	39.6	10	392		

ABA + **Hawaii: Mike McGrenere** had by far the largest increase at 33 taking him over the 650 plateau.

ABA + Hawaii 1,127							
#	2021	Name	%	incr	2020		
1	847	Mike Toochin	75.2		848		
2	830	Roger Foxall	73.6		830		
3	*776	Art Martell	68.9		776		
4	765	Sharon Toochin	67.9		768		
5	762	Dale Jensen	67.6		762		
6	760	Eric Tull	67.4		763		
7	752	John Vooys	66.7		752		
8	*742	Wayne Weber	65.8		742		
9	729	Brian Stech	64.7	r	new		
10	722	Dorothy Copp	64.1	r	new		
11	673	Gary Davidson	59.7		673		
12	672	Gwynneth Wilson	59.6		672		
13	663	Kevin Neill	58.8		664		
14	657	Mike McGrenere	58.3	33	624		
15	649	Monica Nugent	57.6		649		
16	648	Barbara Begg	57.5		648		
16	648	Carlo Giovanella	57.5		648		
18	642	Don Wilson	57.0		642		
19	619	Rand Rudland	54.9		633		
20	611	Larry Cowan	54.2		612		
21	606	Ken Morgan	53.8		606		
22	589	Val George	52.3	3	586		
23	583	Bryan Gates	51.7	1	582		
24	580	Josh Inman	51.5		580		
25	576	Michael Force	51.1	r	new		

ABA + Hawaii 1,127					
#	2021	Name	%	incr	2020
26	572	Laird Law	50.8	1	571
27	568	Clive Keen	50.4		568
28	*541	Ted Goshulak	48.0		541
29	480	Doug Kragh	42.6		new
30	475	Janice Arndt	42.1		475
31	474	Lee Harding	42.1		*475
32	471	Paul Clapham	41.8	1	470

World: Sandra Eadie had the biggest increase with 101. Roger Foxall flew over the 6,000 plateau with an increase of 27 after missing last year by 3. Peter McIver joined the list in 10th place with a respectable total of 4,046.

Piak	WORLD - 10,692					
#	2021	Name	%	incr	2020	
1	7,790	Keith Riding	72.9	43	7,747	
2	6,024	Roger Foxall	56.3	27	5,997	
3	6,008	Nigel Mathews	56.2		6,008	
4	5,485	Mike Toochin	51.3	34	5,451	
5	4,951	Peter Candido	46.3	17	4,934	
6	4,853	Sharon Toochin	45.4	15	4,838	
7	4,822	Eric Tull	45.1	14	4,808	
8	*4,689	Art Martell	43.9		4,689	
9	4,065	Brian Self	38.0	30	4,035	
10	4,046	Peter McIver	37.8		new	
11	3,595	Rand Rudland	33.6	11	3,584	
12	3,589	Laird Law	33.6	13	3,576	
13	3,374	Dale Jensen	31.6		3,374	
13	3,374	Brian Stech	31.6	3	3,371	
15	3,352	Dorothy Copp	31.4		3,352	
16	3,282	Barbara Begg	30.7	2	3,280	
17	3,234	Hank Vanderpol	30.2		3,234	
18	*3,224	Dick Cannings	30.2		3,224	
19	3,198	Val George	29.9	2	3,196	
20	2,947	Gary Davidson	27.6		2,947	
21	2,786	Don Wilson	26.1		2,786	
22	2,485	Sandra Eadie	23.2	101	2,384	
23	2,440	Michael Force	22.8	7	2,433	
24	2,409	Josh Inman	22.5	3	2,406	
25	2,397	Andy Buhler	22.4		2,397	
25	2,397	Marilyn Buhler	22.4		2,397	
27	2,385	Ken Morgan	22.3		2,385	
28	2,358	Lee Harding	22.1		*2,359	
29	2,326	Chris Charlesworth	21.8	5	2,321	
30	2,218	Monica Nugent	20.7	6	2,212	

		WORLD - 10,6	92		
#	2021	Name	%	incr	2020
31	2,120	Bryan Gates	19.8		2,120
32	2,118	Paul Clapham	19.8	6	2,112
33	1,857	Rosemary Claphar	17.4	6	1,851
34	1,697	Mike McGrenere	15.9	2	1,695
35	1,669	John Hodges	15.6	4	1,665
36	1,649	Larry Cowan	15.4		1,650
37	1,602	Tony Greenfield	15.0		1,602
38	1,536	Ben Keen	14.4		1,536
39	*1,228	Wayne Weber	11.5		1,228
40	1,105	Clive Keen	10.3	69	1,036
41	1,062	Ken Willis	9.9	9	1,053
42	1,049	Peter Boon	9.8	5	1,044
43	1,011	Kevin Neill	9.5		1,011
44	951	John Sprague	8.9		951
45	929	Kathryn Clouston	8.7	8	921

World Families: Rand Rudland had an increase of 5 followed closely by *Sandra Eadie* with 4. *Tom Plath* joined the listing in 9th.

World Families 248							
#	2021	Name	%	incr	2020		
1	232	Peter Candido	93.5		232		
2	231	Roger Foxall	93.1		231		
3	224	Eric Tull	90.3		224		
4	221	Mike Toochin	89.1		221		
5	217	Brian Self	87.5		217		
6	*215	Art Martell	86.7		215		
7	213	Rand Rudland	85.9	5	208		
8	213	Sharon Toochin	85.9		213		
9	211	Tom Plath	85.1	r	new		
10	209	Laird Law	84.3		209		
11	202	Barbara Begg	81.5		202		
12	193	Peter McIver	77.8	r	new		
13	182	Sandra Eadie	73.4	4	178		
14	180	Ken Morgan	72.6		180		
15	175	Paul Clapham	70.6		175		
16	168	Rosemary Clapham	67.7		168		
17	165	Josh Inman	66.5		165		
18	157	Lee Harding	63.3		*160		
19	145	Bryan Gates	58.5		145		
20	124	Kevin Neill	50.0		124		
21	119	Larry Cowan	48.0		119		

North America: Sandra Eadie had the largest increase at 245. Three members added their totals

to this year's listing. *Tom Plath* and *Peter Candido* entered with totals over 1,000.

		North America	2086		
#	2021	Name	%	incr	2020
1	1,632	Brian Stech	78.2	2	1,630
2	1,616	Dorothy Copp	77.5	4	1,612
3	1,481	Mike Toochin	71.0	2	1,479
4	1,475	Roger Foxall	70.7	4	1,471
5	1,433	Keith Riding	68.7	3	1,430
6	*1,346	Art Martell	64.5		1,346
7	1,327	Tom Plath	63.6	1	new
8	1,178	Rand Rudland	56.5	2	1,176
9	*1,141	Wayne Weber	54.7		1,141
10	1,120	Barbara Begg	53.7		1,120
11	1,082	Eric Tull	51.9	1	1,081
12	1,051	Gary Davidson	50.4		1,051
13	1,046	Monica Nugent	50.1	4	1,042
14	1,041	Peter Candido	49.9	1	new
15	995	John Hodges	47.7	1	994
16	967	Laird Law	46.4		968
17	943	Sandra Eadie	45.2	245	698
18	855	Larry Cowan	41.0		856
19	821	Kathryn Clouston	39.4	10	811
20	761	Josh Inman	36.5		761
21	759	Paul Clapham	36.4	1	758
22	712	Ted Goshulak	34.1	4	*708
23	708	John Sprague	33.9		708
24	689	Krista Kaptein	33.0	9	680
25	671	Rosemary Claphar	32.2	2	669
26	657	Doug Kragh	31.5	- 1	new
27	611	Lee Harding	29.3		*612

AOS North (AOU): Brian Stech and **Dorothy Copp** joined the listing in 1st and 2nd respectively. *Krista Kaptein* had the best increase with 9. An impressive 5 members added their totals to the list.

	AOS North (AOU) 2,160							
#	2021	Name	%	incr	2020			
1	1,632	Brian Stech	75.6		new			
2	1,616	Dorothy Copp	74.8		new			
3	1,531	Mike Toochin	70.9	3	1,528			
4	*1,396	Art Martel	64.6		1,396			
5	1,206	Rand Rudland	55.8	2	1,204			
6	*1,184	Dick Cannings	54.8		1,184			
7	1,129	Eric Tull	52.3		new			
8	977	Laird Law	45.2		new			

	AOS North (AOU) 2,160						
#	2021	Name	%	incr	2020		
9	943	Sandra Eadie	43.7		new		
10	891	Larry Cowan	41.3		892		
11	779	Paul Clapham	36.1		new		
12	689	Krista Kaptein	31.9	9	680		
13	671	Rosemary Clapham	31.1		new		
14	667	Doug Kragh	30.9	1	new		

ATPAT: Rand Rudland added the most "ticks" with 53. *Janice Arndt* reached the 1,500 plateau by adding 15.

Α	All Ticks Provinces And Territories - 5,313							
#	2021	Name	%	incr	2020			
1	3,035	Eric Tull	57.1	2	3,033			
2	2,976	Roger Foxall	56.0	1	2,975			
3	*1,921	Dick Cannings	36.2		1,921			
4	*1,789	Wayne Weber	33.7		1,789			
5	1,502	Dan Tyson	28.3	4	1,498			
6	1,500	Janice Arndt	28.2	15	1,485			
7	1,312	Rand Rudland	24.7	53	1,259			
8	1,274	Barabara Begg	24.0	1	1,273			
9	1,258	John Sprague	23.7		1,258			
10	1,256	Laird Law	23.6		1,256			
11	*1,102	Josh Inman	20.7		1,102			
12	985	Sandra Eadie	18.5		986			
13	918	Brian Stech	17.3	4	914			
14	910	Larry Cowan	17.1		911			
15	838	Doug Kragh	15.8		new			
16	760	Dorothy Copp	14.3		760			

BC Winter: "Winter" - Dec/Jan/Feb to Dec. 31, 2020. **Paul Clapham** had the best increase at 4. Carlo Giovanella reached the 250 mark by adding 2.

	B.C. Winter List - Dec / Jan / Feb							
#	2021	Name	incr	2020				
1	311	Dan Tyson		312				
2	309	Mike Toochin	1	308				
3	292	Tom Plath		301				
4	*276	Wayne Weber		276				
5	250	Carlo Giovanella	2	248				
6	243	Roger Foxall	n	iew				
7	228	Larry Cowan		228				
8	214	Paul Clapham	4	210				
9	196	Eric Tull	2	194				

B.C. Winter List - Dec / Jan / Feb							
#	2021	Name	incr 2020				
10	171	Paul Foth	new				
11	138	Janice Arndt	138				

Canada Winter: Two joined this list.

Canada Winter							
#	2021	Name	incr	2020			
1	312	Dan Tyson	r	new			
2	312	Tom Plath		312			
3	310	Mike Toochin	1	309			
4	306	Roger Foxall	r	new			
5	256	Eric Tull		256			

Alberta: One joined the list.

	ALBERTA - 432								
#	2021	Name	%	incr	2020				
1	*364	Mike Mulligan	84.3		364				
2	360	Eric Tull	83.3		360				
3	323	Hank Vanderpol	74.8		323				
4	273	Tom Plath	63.2		273				
5	*248	Wayne Weber	57.4		248				
6	244	Chris Charlesworth	56.5		*244				
7	241	Roger Foxall	55.8		241				
8	235	Dan Tyson	54.4		235				
9	222	Bryan Gates	51.4		222				
10	220	Gary Davidson	50.9		220				
11	215	Monica Nugent	49.8		215				
12	214	Len Jellicoe	49.5		214				
13	*214	Dick Cannings	49.5		214				
14	209	Josh Inman	48.4	1	208				
15	193	Janice Arndt	44.7	r	new				
16	190	Larry Cowan	44.0		190				
17	185	Tony Greenfield	42.8		185				
18	184	Mike Toochin	42.6		184				
19	181	Dale Jensen	41.9		181				

Yukon Territory: No change.

YUKON TERRITORY - 323							
#	2021	Name	%	incr	2020		
1	*172	Dick Cannings	53.3		172		
2	166	Tony Greenfield	51.4		166		
3	155	Eric Tull	48.0		155		
4	142	Roger Foxall	44.0		142		
5	126	Laird Law	39.0		126		
6	123	Gary Davidson	38.1		123		

	Ü	YUKON TERRITO	DRY - 32	3	
#	2021	Name	%	incr	2020
7	113	John Sprague	35.0		113
8	112	Rand Rudland	34.7		112
9	*109	Wayne Weber	33.7		109
10	*106	Art Martell	32.8		106
11	102	Brian Self	31.6		102
12	91	Dan Tyson	28.2		91
13	86	John Hodges	26.6		86
14	80	Dale Jensen	24.8		80
15	80	Mike Toochin	24.8		80
16	64	Dorothy Copp	19.8		64
17	64	Brian Stech	19.8		64
18	53	Paul Clapham	16.4		53

NWT: Paul and **Rosemary Clapham** each managed an increase of 7.

	NORTHWEST TERRITORIES - 297								
#	2021	Name	%	incr	2020				
1	189	Laird Law	63.6		189				
2	180	Eric Tull	60.6		180				
3	155	Tony Greenfield	52.2		155				
4	133	Rand Rudland	44.8		133				
5	129	Janice Arndt	43.4		129				
6	105	Roger Foxall	35.4		105				
7	98	Brian Self	33.0		98				
8	97	Barbara Begg	32.7		97				
9	86	Mike Toochin	29.0		86				
10	84	John Sprague	28.3		84				
11	77	Paul Clapham	25.9	7	70				
11	77	Rosemary Clapham	25.9	7	70				
13	*71	Art Martell	23.9		71				
14	54	John Hodges	18.2		54				
15	53	Gary Davidson	17.8		53				
16	*52	Wayne Weber	17.5		52				
17	*40	Dick Cannings	13.5		40				

Yukon-NWT-Nunavut: Two members joined this listing.

Yukon - NWT - Nunavut - 385							
#	2021	Name	%	incr	2020		
1	205	Eric Tull	53		205		
2	204	Laird Law	53		204		
3	196	Tony Greenfield	51		196		
4	*173	Dick Cannings	45		173		
5	170	Rand Rudland	44		170		

Yukon - NWT - Nunavut - 385							
#	2021	Name	%	incr 2020			
6	127	Barbara Begg	33	new			
7	120	Paul Clapham	31	new			
8	109	Wayne Weber	28	109			

US Lower 48: Four members joined the listing with *Roger Foxall* joining in 1st place.

	Lower Forty Eight US - 933							
#	2021	Name	%	incr 2020				
1	688	Roger Foxall	73.7	new				
2	*681	Wayne Weber	73.0	681				
3	661	Mike Toochin	70.8	662				
4	651	Brian Stech	69.8	new				
5	648	Dorothy Copp	69.5	new				
6	633	Eric Tull	67.8	637				
7	*551	Dick Cannings	59.1	551				
8	486	Sandra Eadie	52.1	new				

US "minus" Hawaii: Two members joined the list.

	United States (minus Hawaii) - 1,007							
#	2021	Name	%	incr	2020			
1	759	Mike Toochin	75.4		759			
2	*672	Art Martell	66.7		672			
3	661	Eric Tull	65.6		665			
4	606	Gary Davidson	60.2		606			
5	486	Sandra Eadie	48.3	n	ew			
6	*434	Rand Rudland	43.1		434			
7	416	Laird Law	41.3	new				
8	408	Larry Cowan	40.5		409			
9	379	Ken Morgan	37.6		379			

Washington: Two members joined the list.

WASHINGTON STATE - 521							
#	2021	Name	%	incr	2020		
1	*413	Wayne Weber	79.3		413		
2	338	Dan Tyson	64.9		338		
3	326	Mike Toochin	62.6		327		
4	311	Brian Self	59.7		311		
5	302	Tom Plath	58.0		303		
6	286	Hank Vanderpol	54.9		286		
7	265	Roger Foxall	50.9		265		
8	256	Keith Riding	49.1		256		
9	252	Brian Stech	48.4		252		
10	249	Doug Kragh	47.8	ı	new		
11	236	Dale Jensen	45.3		236		

	WASHINGTON STATE - 521							
#	2021	Name	%	incr	2020			
12	232	Dorothy Copp	44.5		232			
13	231	Eric Tull	44.3		232			
13	*231	Art Martell	44.3		231			
15	223	Larry Cowan	42.8		224			
16	213	Paul Foth	40.9	r	new			
17	194	Josh Inman	37.2		195			

Alaska: Two members joined the list.

ALASKA - 561								
#	2021	Name	%	incr	2020			
1	316	Mike Toochin	56.3	1	315			
2	216	Eric Tull	38.5		217			
3	206	Dorothy Copp	36.7	new				
4	196	Brian Stech	34.9	new				
5	*183	Wayne Weber	32.6		183			
6	163	Bruce Whittington	29.1		163			
7	151	Monica Nugent	26.9		151			

Vancouver: For expedience sake I will list all eBird & the historical checklist area totals as one. **Josh Inman** registered the best increase with 14.

	VANCOUVER AREA - 421							
#	2021	Name	%	incr	2020			
1	381	Mike Toochin	90.5	2	379			
2	366	Dan Tyson	86.9	1	365			
3	361	Sharon Toochin	85.7	3	358			
4	360	Carlo Giovanella	85.5		360			
5	*359	Wayne Weber	85.3		359			
6	358	Brian Self	85.0		359			
7	355	Tom Plath	84.3		356			
8	352	Roger Foxall	83.6	1	351			
9	350	Keith Riding	83.1		350			
10	349	Peter Candido	82.9	1	348			
11	343	Quentin Brown	81.5		343			
12	333	Brian Stech	79.1	1	332			
13	330	Larry Cowan	78.4		331			
14	314	Paul Clapham	74.6	4	310			
15	312	John Vooys	74.1		313			
16	310	John Gordon	73.6	3	307			
17	299	Rosemary Clapham	71.0	5	294			
18	296	Kevin Neill	70.3	2	294			
19	*288	Dick Cannings	68.4		288			
20	287	Monica Nugent	68.2	3	284			
21	284	Doug Kragh	67.5	r	new			

0	VANCOUVER AREA - 421							
#	2021	Name	%	incr	2020			
22	278	Ted Goshulak	66.0	1	*277			
23	270	Ken Willis	64.1	6	264			
24	245	Josh Inman	58.2	14	231			
25	235	Bryan Gates	55.8		235			
26	234	Don Wilson	55.6		234			
27	213	Eric Tull	50.6	1	212			

Vancouver Island: Kathryn Clouston had the largest increase with 15 with *Krista Kaptein* close behind with 13. *Bryan Gates* topped the 350 plateau with his increase of 4.

02 ()	Vancouver Island - 435							
#	2021	Name	%	incr	2020			
1	370	Mike McGrenere	85.1	5	365			
2	360	Guy Monty	82.8		360			
3	353	Barbara Begg	81.1	2	351			
4	351	Bryan Gates	80.7	4	347			
5	327	Mike Toochin	75.2	3	324			
6	317	Bruce Whittington	72.9	1	316			
7	315	Kevin Neill	72.4	6	309			
8	298	Tom Plath	68.5	2	296			
9	296	Eric Tull	68.0	10	286			
10	288	Ken Morgan	66.2		288			
11	*287	Wayne Weber	66.0		287			
12	*278	Art Martell	63.9		278			
13	275	Krista Kaptein	63.2	13	262			
14	271	Roger Foxall	62.3	1	270			
14	271	Dan Tyson	62.3		271			
16	265	Peter Boon	60.9	r	new			
17	249	Kathryn Clouston	57.2	15	234			
18	212	Larry Cowan	48.7		212			
19	207	John Sprague	47.6		207			

Victoria: Monica Nugent continued her march up the list with an increase of 20. *Kevin Neill & Eric Tull* had decent increases of 8 & 9 respectively.

	Victoria Area - 390							
#	2021	Name	%	incr	2020			
1	355	Mike McGrenere	91.0	5	350			
2	338	Barbara Begg	86.7	2	336			
3	337	Bryan Gates	86.4	5	332			
4	305	Bruce Whittington	78.2	1	304			
5	291	Kevin Neill	74.6	8	283			
6	278	Eric Tull	71.3	9	269			
7	277	Mike Toochin	71.0	2	275			

	Victoria Area - 390								
#	2021	Name	%	incr	2020				
8	*267	Wayne Weber	68.5		267				
9	249	Tom Plath	63.8		249				
10	235	Keith Riding	60.3		235				
11	229	Dan Tyson	58.7		229				
12	228	Liam Ragan	58.5		new				
13	193	Monica Nugent	49.5	20	173				
14	177	Larry Cowan	45.4		177				
15	133	Ted Goshulak	34.1	2	*131				

Okanagan: Brian Stech topped the 200 mark with a list best improvement of 12. *Hank Vanderpol* had a respectable increase of 7.

	Okanagan Valley - 349							
#	2021	Name	%	incr	2020			
1	325	Chris Charlesworth	93.1		327			
2	311	Gwynneth Wilson	89.1	1	310			
3	*310	Dick Cannings	88.8		310			
4	*298	Don Wilson	85.4		298			
5	297	Michael Force	85.1	3	294			
6	278	Hank Vanderpol	79.7	7	271			
7	277	Mike Toochin	79.4	1	276			
8	*271	Wayne Weber	77.7		271			
9	269	Doug Kragh	77.1		new			
10	265	Gary Davidson	75.9		265			
11	260	Dan Tyson	74.5		260			
12	255	John Vooys	73.1		255			
13	235	Tom Plath	67.3		235			
14	235	Keith Riding	67.3		235			
15	234	Tony Greenfield	67.0		234			
16	224	Laird Law	64.2		224			
17	201	Brian Stech	57.6	12	189			
18	193	Bryan Gates	55.3		193			
19	188	Larry Cowan	53.9		188			
20	175	Eric Tull	50.1		175			
21	162	Dorothy Copp	46.4		162			

North Pacific Pelagic: Michael Force improved his already impressive total of 199 by adding 4 and pushing himself over the 200 plateau. With such an impressive total, mark your calendar for his Zoom presentation "Confessions of a Seabird Addict" scheduled for October, 22 of this year.

90 3	North Pacific Pelagic Waters								
#	2021	Name	incr	2020					
1	203	Michael Force	4	199					
2	136	Mike Toochin		136					
3	105	Ken Morgan		105					
4	87	Tom Plath		87					
5	79	Bruce Whittington	1	78					
6	*72	Art Martell		72					
7	71	Kevin Neill		71					
8	70	Brian Self	r	new					
9	*49	Monica Nugent		49					
10	45	Bryan Gates		45					

	Peace River Area - 304							
#	2021	Name	%	incr	2020			
1	245	Laird Law	80.6		245			
2	228	Tom Plath	75.0		228			
3	209	Tony Greenfield	68.8		209			
4	207	Mike Toochin	68.1		207			
5	184	Bryan Gates	60.5		184			
6	*182	Wayne Weber	59.9		182			
7	164	Dan Tyson	53.9		165			
8	155	Larry Cowan	51.0		155			
9	129	Brian Stech	42.4	1	128			
10	128	Dorothy Copp	42.1		128			

Prince George Area - 297							
#	2021	Name	%	incr	2020		
1	283	Laird Law	95.3	2	281		
2	280	Cathy Antoniazzi	94.3	2	278		
3	193	Don Wilson	65.0		193		
4	168	Dan Tyson	56.6		168		
5	144	Larry Cowan	48.5		144		
6	*134	Wayne Weber	45.1		134		
7	133	Gary Davidson	44.8		133		

West Kootenay: Gary Davidson improved by an impressive 7 to move him over the 300 mark.

1 (8)	West Kootenay Area - 339							
#	2021	Name	%	incr	2020			
1	303	Gary Davidson	89.4	7	296			
2	264	Janice Arndt	77.9		264			
3	257	Peter McIver	75.8	r	new			
4	*196	Wayne Weber	57.8		196			

Creston Valley: Paul Foth and Peter McIver added their numbers to the list landing in 1st and 2nd respectively.

	Creston Valley Area - 311							
#	2021	Name	%	incr	2020			
1	220	Paul Foth	71	new				
2	219	Peter McIver	70	r	new			
3	193	Gary Davidson	62		193			
4	177	Janice Arndt	57	1	176			
5	*142	Wayne Weber	46		142			

Fraser Valley: John Gordon added an impressive 60 to his total surpassing the 200 plateau.

	Fraser Valley - 334								
#	2021	Name	%	incr	2020				
1	260	John Vooys	77.8	4	256				
2	252	Dan Tyson	75.4	4	248				
3	234	Paul Foth	70.1	new					
4	218	John Gordon	65.3	60	158				
5	*214	Wayne Weber	64.1		214				
6	208	Lee Harding	62.3	r	new				
7	163	Larry Cowan	48.8		164				

	Manning PP - 227							
#	2021	Name	%	incr	2020			
1	156	Mike McGrenere	68.7	1	155			
2	*125	Wayne Weber	55.1		125			
3	111	Dan Tyson	48.9		111			
4	110	Brian Self	48.5		110			
5	91	Larry Cowan	40.1		91			

		Sunshine Coas	t - 307		
#	2021	Name	%	incr	2020
1	284	Tony Greenfield	92.5	1	283
2	275	Rand Rudland	89.6	3	272
3	266	John Hodges	86.6	3	263
4	257	Russ Tkachuk	83.7		257
5	179	Dan Tyson	58.3		180
6	*145	Wayne Weber	47.2		145

Comox-Strathcona: Krista Kaptein achieved the best improvement with 21. *Kathryn Clouston* also improved by double digits moving her past the 250 mark.

Comox-Strathcona - 323							
#	2021	Name	%	incr	2020		
1	*259	Art Martell	80.2		259		
2	257	Krista Kaptein	79.6	21	236		
3	241	Kathryn Clouston	74.6	14	227		
4	239	Guy Monty	74.0	4	235		
5	177	Brian Gates	54.8	r	new		

	Salt Spring Island - 239						
#	2021	Name	%	incr	2020		
1	191	Ren Ferguson	79.9	3	188		
2	174	John Sprague	72.8		174		
3	136	Marian Porter	56.9	2	134		
4	*114	Wayne Weber	47.7		114		

Haida Gwaii - 190							
#	2021	Name	%	incr	2020		
1	134	Mike Toochin	70.5		134		
2	110	Bruce Whittington	57.9	2	108		
3	97	Laird Law	51.1		97		
4	79	Krista Kaptein	41.6		79		
5	*56	Keith Riding	29.5		56		

Westham & Reifel Islands: Three members added their totals to the list with *Brian Self* coming on tying for 1st with Mike Toochin who added 8 to his total.

	Westham & Reifel Islands (Vanc) - 280							
#	2021	Name	%	incr	2020			
1	233	Brian Self	83.2	r	new			
2	233	Mike Toochin	83.2	8	225			
3	*228	Wayne Weber	81.4		228			
4	215	Tom Plath	76.8		215			
5	211	Dan Tyson	75.4		211			
6	167	Paul Clapham	59.6	r	new			
7	160	Larry Cowan	57.1		161			
8	140	Rosemary Clapham	50.0	r	new			

	Sea & Iona Islands (Vanc) - 300							
#	2021	Name	%	incr	2020			
1	292	Mike Toochin	97.3		292			
2	280	Tom Plath	93.3		280			
3	245	Dan Tyson	81.7		245			
4	*244	Wayne Weber	81.3		244			
5	208	Paul Clapham	69.3	r	new			
6	181	Larry Cowan	60.3		182			
6	181	Rosemary Clapham	60.3	r	new			

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	Blackie Spit (Vanc) - 237							
#	2021	Name	%	incr	2020			
1	*186	Wayne Weber	78.5		186			
2	181	Dan Tyson	76.4		183			
3	132	Brian Self	55.7	2	130			
4	122	Larry Cowan	51.5	1	121			

	Semiamhoo Peninsula (WA) - 245						
#	2021	Name	%	incr	2020		
1	231	Carlo Giovanella	94.3	1	230		
2	227	Roger Foxall	92.7	6	221		
3	221	Dan Tyson	90.2	5	216		

City of Pitt Meadows - 229						
#	2021	Name	%	incr	2020	
1	206	Larry Cowan	90.0	5	201	
2	*205	Wayne Weber	89.5		205	
3	114	Katie York	49.8		new	

	Princeton					
#	2021	Name	incr	2020		
1	129	Tom Plath		new		
2	110	Larry Cowan		110		
3	*90	Bryan Gates		90		

		Non-Motorized Transport		
#	2021	Name & location	incr	2020
1	319	Mike McGrenere - Victoria	3	316
2	169	Janice Arndt - Nelson		169
3	116	Larry Cowan - Pitt Meadows	1	115
4	115	Barbara Begg - Sidney		115
5	167	Paul Foth - 108 Mile Ranch	r	new

eBird Regions					
Region	2021	Name	+ 2020		
Bulkley-Nechako	181	Ken White	new		
Capital (RD)	*184	Liam Ragan	184		
Cariboo	237	Paul Foth	new		
Central Kootenay	299	Gary Davidson	new		
East Kootenay	225	Jo Ellen Floer	new		
Okanagan-Similkameen	245	Eric Newton	new		

ARDAT (All Regional Districts Added Together): Only listing totals supplied this year by members are used. Most totals from last year were supplied by Wayne Weber gleaned from eBird.

еE	eBird - All Regional Districts Added Together - 8,465					
#	2021	Name	%	incr	2020	
1	3,311	Dan Tyson	39.1	11	3,300	
2	2,545	Joshua Brown	30.1	new		
3	2,032	Krista Kaptein	24.0		2,090	
4	1,944	Paul Foth	23.0	1	new	
5	1,884	Larry Cowan	22.3	new		
6	1,125	Doug Kragh	13.3	1	new	

		YEAR LISTS	
	Briti	sh Columbia - 53	2
#	2021	Name	%
1	334	Keith Riding	62.8
2	309	Mike Toochin	58.1
3	193	John Hodges	36.3
	٧	ancouver - 421	
#	2021	Name	%
1	274	Mike Toochin	65.1
2	264	Roger Foxall	62.7
3	261	Keith Riding	62.0
		Canada - 685	
#	2021	Name	%
1	309	Mike Toochin	45.1
	Eas	st Kootenay - 307	
#	2021	Name	%
1	212	Jo Ellen Floer	69.1

The remaining listings are for areas with 1 or 2 submissions, grouped where possible by BC Tourism Zones.

Vancouver Coast & Mnt.	2021	Name	+	2020
Abbotsford	*218	John Vooys		218
ATMAT (Vanc)**	2,807	Dan Tyson	r	new
ATMAT (Vanc)**	2,495	Carlo Giovanella	57	2,438
Colony Farm RP	173	Larry Cowan	2	171
Colony Farm RP	142	Dan Tyson	new	
Cypress PP	93	Brian Self		93
Cypress PP	76	Dan Tyson	r	new
lona	278	Mike Toochin		278
lona	261	Sharon Toochin		261
Nathan Creek	*80	Ted Goshulak		80

Vancouver Coast & Mnt.	2021	Name	+	2020
Powell River	*77	John Hodges		77
Reifel	228	Brian Self	2	226
Richmond (inc Sea/lona)	305	Mike Toochin	1	304
Richmond (inc Sea/lona)	290	Tom Plath		291
Vancouver CBC Circle	310	Dan Tyson	1	309
Vancouver Winter	254	Dan Tyson		new
Vancouver Winter	234	Carlo Giovanella		234
** ATMAT - All The Months Added Together				

Kootenay/Rockies	2021	Name	+	2020
Columbia Valley	127	Bryan Gates	0	127
Mt. Robson PP	148	Laird Law	0	148
Revelstoke	*150	Wayne Weber	0	150
Yoho NP	124	Wayne Weber	0	124

Vancouver Island	2021	Name		2020
Nanaimo District	309	Guy Monty		302
Nanaimo	250	Peter Boon	17	233
Saturna Island	102	Tony Greenfield		102

Thompson/Okanagan	2021	Name	+	2020
Kamloops	*258	Wayne Weber		256
Nicola Watershed	*256	Wayne Weber		254

NBC	2020	Name	+	2019
Gwaii Haanas NP	87	Bruce Whittington		87

Cariboo/Chilcotin	2021	Name	+	2020
Williams Lake Area	*160	Bryan Gates		160

USA	2021	Name	+	2020
ldaho	*214	Wayne Weber		214
Montana	207	Eric Tull		207

Other	2021	Name		2020
ABA (c) Photographed	658	Brian Stech	3	655
BC / Alaska	543	Mike Toochin		543
NA + Hawaii	814	Josh Inman		814
Over 1,500m	113	Mike McGrenere		113
Over 1,500m	*106	Wayne Weber		106
World Photographed	3,196	Peter Candido	r	new
World Photographed	2,352	Brian Stech		2,352

Back Page Photo

Rand Rudland (Halfmoon Bay) spotted this adult American Kestrel patrolling the beachfront in Sargeant Bay near Sechelt.

A reminder, there are other opportunities for your listings with categories not encompassed by BCFO Listers' Corner. These include the **American Birding Association** and **Canadian Listers' Corner**.

http://www.neilyworld.com/neilyworld/listerscorner/listerscorner.htm

As you may know this will be the last Listers' Corner I will be authoring. I took on the task for the Spring issue of 2011 and have enjoyed putting the listings together since. I thank all the loyal listers who contributed to the effort over the past eleven years. Kathryn Clouston has graciously volunteered to take over the task. I trust you will afford her the same courtesies you have me.

Thanks, Larry Cowan

Editor: The ARDAT (All Regional Districts Added Together) lists for December 2021 will be appearing in the June issue.

Hawk Puzzler (page 17) Answers

- 1. Bird Hawk: Sharp-shinned Hawk
- Chicken Hawk: Cooper's Hawk, Sharp-shinned Hawk or Red-tailed Hawk
- 3. Duck Hawk: Peregrine Falcon
- 4. Fish Hawk: Osprey
- 5. Frog Hawk: Northern Harrier
- 6. Goose Hawk: Northern Goshawk
- 7. Grasshopper Hawk: Swainson's Hawk
- 8. Grouse Hawk: Northern Goshawk
- 9. Hen Hawk: Cooper's Hawk or Red-shouldered Hawk
- 10. Locust Hawk: Swainson's Hawk
- 11. Mouse Hawk: Rough-legged Hawk, Red-tailed Hawk, Red-shouldered Hawk or Northern Harrier
- 12. Pigeon Hawk: Merlin
- 13. Quail Hawk: Cooper's Hawk
- 14. Squirrel Hawk: Rough-legged Hawk or Ferruginous Hawk
- 15. Sparrow Hawk: American Kestrel
- 16. Starling Hawk: I made this one up, but wouldn't it be nice!

If I had to choose a species to hold the title of *Starling Hawk* it would be the Peregrine Falcon. In some urban settings and during migration European Starlings make up a significant part of the diet of the Peregrine Falcon. Check out the videos of Peregrine Falcons hunting Starlings at www.nickdunlop.com. Some of the footage is amazing.

- Kevin Hood

