BC BIRDING

Newsmagazine of the British Columbia Field Ornithologists

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One of the reasons this edition was delayed: Zebra Dove on Big Island, Hawaii, November 2018. See page 16. CNK photo.

Publisher
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A subscription to this quarterly is a benefit of membership in the society. Members will also receive a copy of the annual journal, *British Columbia Birds*.

About the BCFO
Membership in BCFO is open to anyone interested in the study and enjoyment of wild birds in British Columbia.

BCFO objectives include: fostering cooperation between amateur and professional ornithologists, promoting cooperative bird surveys and research projects, and supporting conservation organizations in their efforts to preserve birds and their habitats.

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

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

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

Submissions may include articles about birding experiences, casual observations about bird behaviour, site guides, photographs, and other topics of broad interest to birders, preferably, but not necessarily, in British Columbia. Trip reports by members, both in Canada and overseas, are welcome. Items can be of any length up to a maximum of 2,000 words. Note that this is a news magazine rather than an academic journal, and thus lists of references are rarely included.

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- December edition: November 15

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Vice-President: Gary Davidson, Nakusp, 250-265-4456, gsd37@yahoo.ca
Past President (non-voting): George Clulow, Burnaby, 604-438-7639, gclulow@shaw.ca
Secretary: Mike McGrenere, Victoria, 250-658-8624, mi8624@telus.net
Treasurer: Josh Inman, Langley, 604-532-0455, joshbirder@gmail.com
Jude Grass, Surrey, 604-538-8774, judegrass@shaw.ca
Clive Keen, Prince George, 250-963-9520, clive_keen@ hotmail.com
Adrian Leather, Quesnel, 250-249-5561, q-birds@xplornet.com
Art Martell, Courtenay, 250-334-2979, amartell@shaw.ca
Monica Nugent, New Westminster, 604-220-8816, monica_nugent@telus.net

Responsibilities
Archivist/ Librarian: Les Gyug
BC Birding (Newsmagazine) Editor: Clive Keen; *Associate Editor:* Virginia Rasch. *Print Distribution*: June Ryder
British Columbia Birds (Journal) Editor: Art Martell. *Production Editor*: Neil Dawe
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Contents

Notices & Notes
President's Message 4
Welcome New Members 4
BCFO Notes 5
Bird Listers' Corner 6
BCFO Two-day Trips 7
Upcoming Meetings & Events 8

Young Birders Program
Sooke Hawk Watch 10
Kids' Christmas Bird Count 10
Two Young Birders on a First Pelagic 11

Trip Reports
Quest for a Mega-rarity 13
90, H9, P4, and the Navajo Bridge 14
Birding Big Island, Hawaii 16
Flatland UK, Sept. 2018 18

Features
Ghost Grouse in the Monashee Mountains 20
Tackling Asia's Illegal Trade in Songbirds 21

Briefings
Soaring Storks 17
Tracking Migrants 22
Ravens Out-think Pre-schoolers 26
Hummingbird Acrobatics 27
Darwin's Puzzle and *Rattus rattus* 30

Regular Columns
Featured Species #4: Northern Goshawk .. 23
Gone Pishing: Merlin 24
The Reflective Birder: Don't Wait 31

Book Reviews
How to Be a Bad Bird Watcher 28
Birds of Nunavut 29

Below: words of wisdom spotted by John Gordon at Green Timbers in Surrey.

Christmas Bird Counts 2018 – 2019

The 119th CBC takes place this year between December 14, 2018 and January 5, 2019. Information on dates and contacts for the BC counts, as well as the Bird Counts4Kids, are available at bcfo.ca by clicking on the CBC's tab.

President's Message

The Christmas season is a time to reconnect with family and friends, to shed commercial and work obligations if possible and return to a more familiar world of traditional values and customs. Giving and connecting become more important, for a short time, than material pursuits. Over the years, the Audubon Christmas Bird Count has given me the spirit of the Christmas season as I reconnect with old friends, make new ones, and give to the conservation community by collecting data needed to monitor winter populations of Western Hemisphere birds. Over two thousand localities of counts, each with a 24-kilometre-diameter circle are covered in a 24-hour period to find as many species and individuals as possible. There can be great camaraderie as well as a little friendly competition for a good count with as many special rarities as possible.

All birders contribute to collecting information used to assess the distribution and population trends of birds in order to make important decisions about their conservation. Increasingly, data is being used to predict the impact of global warming on wild bird populations. Please consider joining a count in your area to become part of North America's longest running citizen science project.

The BCFO website is compiling this season's locations, dates and contact information so you may include bird counts in your Christmas season.

I "joined up" in the late 1970s and it has become an important time of the year for me. I have had many adventures from Edmonton, Alberta, to Orange County, California. I have been stuck in snowbanks in the Sierra Mountains and the Butterbredt Spring area of the California desert. The California birders had a habit of sending me to mountain summits, but I had great views, good birds and always managed to get down again. I have had harrowing boat trips with waves crashing over the bow off Octopus Point for the Duncan Count, and brilliant hot, sunny weather off Newport Beach on a yacht counting thousands of Western Grebes and Bonaparte's Gulls for the Orange County Coastal Count. I always head out to a count with a sense of anticipation, for I know it will be a new experience with unexpected results. Consider starting a new count if there isn't one in your area, or renewing one that has been discontinued.

I hope to see you this Christmas season enjoying the birds and count.

Marian Porter, President, BCFO

Below: a Long-billed Dowitcher spotted during the BCFO two-day trip to the Sunshine Coast (see page 7). CNK photo.

BCFO Notes

Congratulations to John Reynolds, who has become the new Chair of The Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

John, a BCFO member since 2006, is an SFU professor, and according to the media release announcing his COSEWIC appointment, is "an internationally renowned expert in both fish and bird biology, and has been a key assessor of the status of marine fishes." John welcomed his new role, saying it gives an opportunity to raise the profile of threatened species in Canada.

BCFO Membership

Membership Secretary Larry Cowan reports that as of September 28 the BCFO had 282 regular members, including 30 new members, 23 honourary Junior Birders Award winners, three life-time honourary members, six complimentary memberships and six institutional members for a total membership of 320. This is slightly down, by seven, over the corresponding numbers in 2017, following five years of considerable growth.

The Vancouver Coast and Mountain region now represents 38% of the membership, Vancouver Island 25%, Thomson/Okanagan 14%, Kootenay Rockies 7%, Northern BC 6%, and Cariboo/Chilcotin/Coast 5%. The remainder are scattered widely, from the US to Finland.

82 members opted to pay the surchange to receive this publication via printed, mailed copy: a slight increase over 2017.

Head-and-Shoulders Please

A recent trip to Reifel showed the need to include in this magazine headshot photographs like the one on the left. On four occasions, I (editor) had been talking to an unknown birder, only to realize when we were about to part that we knew each other perfectly well through correspondence. Knowing one another by sight would have made for an even more congenial day. So don't be shy about providing one, or surprised if you are asked to do so for future editions.

BCFO Checklists

All members will have received by mail a copy of the new BCFO checklist. Copies will also be sent to new members as they sign up.

Bird Records Committee

Full details of the latest decisions of the BRC will be available in the next edition of the BCFO journal *British Columbia Birds.* The Common Ringed Plover was a new addition to the Main Provincial List, and fifteen other reports of rare sightings were accepted. Initial details can be seen at bcfo.ca via the BRC tab.

Featured Photographer

John Reynolds, Belcarra, BC, is the seventeenth Featured Photographer on the BCFO website. You can see a dozen of his photographs (cropped example below) and read about his experience as a recent convert to bird photography at:

bcfo.ca/bcfo-featured-photographer-17-john-reynolds/

Swainson's Thrush by John Reynolds.

Young Birders on Gen Why

This excellent five-minute feature highlighting the Young Birders Program and its highly talented participants can still be seen at

www.youtube.com/watch?v=l2JHz4y5Qns

Trivia Quiz

Is there a bird name using more syllables than *Montezuma Oropendola*? If you can find a name using ten or more syllablews, send it in and see it listed in the next edition of this magazine.

Bird Listers' Corner

Please report your LIFE LIST TOTALS, as of December 31, 2018, for any or all of the areas listed opposite. Space is provided for additional areas for additional lists you may wish to submit. You may submit specialized lists such as birds seen above 1,500 metres in BC etc. If the list for a new area is covered by a checklist, please provide the total number of species on the current list.

Most of the areas listed are those for which published checklists have appeared. The number after each area is the THRESHOLD LEVEL, which in most cases represents 50% of the species included on the most recent checklist for that area. You may report levels below the threshold if you wish. Space permitting, they will be included.

The size of the geographic areas listed varies considerably. The ABA list will have two listings, one as ABA Continental and a second ABA incl Hawaii. Last year I listed totals given for ABA Continental in ABA incl Hawaii. This year totals will only be listed for the area given, i.e., if only an ABA Continental, then it will only appear in the ABA Continental listing.

- North Pacific Pelagic Waters include all species seen more than 3.2 km (2 miles) from shore off Alaska, BC, Washington, Oregon and California.
- Non-motorized Transportation (NMT) consists of species seen/ heard using self-powered locomotion (walk, run, bicycle, canoe, etc.) from your home location.
- ATPT comprises the totalling of all your Canadian Province & Territory lists to create a "total ticks" list.

Areas listed are those having three or more members providing totals for 2017. If more than one family member is submitting a list, individual forms need to be submitted.

Email your list to lawrencecowan@shaw.ca OR mail a completed form to Larry Cowan, #45, 12268 – 189A, St. Pitt Meadows, BC V3Y 2M7.

Deadline
Deadline for submitting listing totals is February 1, 2019.

Acknowledgement
All lists received either by mail or email will be acknowledged if an email address is known. If you do not receive an acknowledgement. I did not receive your list.

—Larry Cowan

BCFO LISTING REPORT FORM
December 2018

Name. . . . . Date . . . . . .

….. British Columbia (240)
….. Canada (350)
….. ABA Continental (400)
….. ABA incl Hawaii (450)
….. World (900)
….. Vancouver (190)
….. Okanagan Valley (160)
….. Yukon (40)
….. Northwest Territories (40)
….. Alberta (190)
….. All Ticks Prov & Territories (ATPT)
….. Washington (190)
….. Victoria (120)
….. Vancouver Island (190)
….. Peace River Area (130)
….. Sea & Iona Islands
….. Westham & Reifel Islands
….. BC Winter Seasonal list
….. World Families (120)
….. Non-motorized (NMT)
….. North Pacific Pelagic Waters
….. Manning PP (90)
….. Prince George (130)
….. Sunshine Coast (120)
….. West Kootenay (150)
….. Creston Valley (120)
….. Fraser Valley (150)
….. Blackie Spit
….. Semiamhoo Peninsula
….. Kamloops (130)
….. Mount Robson PP (80)
….. Princeton (80)
….. Salt Spring Island (110)
….. Haida Gwaii
….. Pitt Meadows
….. North America (500)
….. Comox Valley

(Other)

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BCFO Two-day Trips

Spences Bridge
May 25–26, 2019

Leaders
Brian Murland, Adrian Leather.

Registration
Adrian Leather, 250-249-5561, q-birds@xplornet.com.

Itinerary
Saturday AM: Spences Bridge, Oregon Jack. Lunch at Ashcroft Bakery.

Saturday PM: The Slough, Nicola Valley. Tally-up at The Inn at Spences Bridge (two dinner choices, plus a vegetarian option; please inform the inn of any food restrictions).

Sunday AM: Venables Valley. Lunch at Horsting's Farm, Cache Creek.

Sunday PM: Optional birding at Pavilion or Upper Hat Creek.

Possible Species
Say's Phoebe, Peregrine Falcon, Prairie Falcon, Golden Eagle, Clark's Nutcracker, Chukar, Lewis's Woodpecker, Harlequin Duck, Lark Sparrow, Nashville Warbler.

Accommodation

- The Inn at Spences Bridge, 3649 Hwy 8, Spences Bridge, Tel# 1-877-354-1997. Please call the inn direct when booking, and mention BCFO to receive a discount.
- Acacia Grove RV Park, 3814 Riverview Ave., Spences Bridge Tel# 250-458-2227.

How the Trips Work

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

- Day 1: all-day birding and then evening get together at a restaurant to recap the day and tally species.
- Day 2: morning birding, afternoon optional birding.

Carpooling is encouraged and will be arranged on the morning of Day 1.

Register at least two weeks in advance. The leader will give specific details of when and where to meet.

Cost: Members $10 per person; non-members $40, which includes BCFO membership.

Trip Report

Two-day Visit to Sunshine Coast

It is not often on a BCFO trip that one sees whales and attends a wedding. But that is exactly what happened on the BCFO trip to the Sunshine Coast in September 2018. What is more, both these events occurred at the same location. Read on to find out more.

Eight birders attended the visit which was hosted by Tony Greenfield and John Hodges. Unfortunately the Sunshine Coast did not live up to its name and much of the time there was heavy rain.

Everybody met at the head of Porpoise Bay in Sechelt, in the rain, for some evening birding on the Friday, followed by dinner at the nearby Lighthouse Pub.

An early start on the Saturday had everyone standing at the foot of Roberts Creek pier at 7:00 am in the rain. As the rain got heavier, we abandoned the birding and went to dry out in a coffee shop in Wilson Creek. Wilson Creek estuary was the next location and we wanted to be there before the tide came in and covered the mudflats. Around 9:00 am we braved the rain, which had reduced in intensity, and found a Pectoral Sandpiper on the rapidly shrinking exposed mud. Other highlights in the area were a flock of Surfbirds, a Bewick's Wren and a Cooper's Hawk.

The next stop was a return to the head of Porpoise Bay, where it had stopped raining, and we found a variety of ducks and four Long-billed Dowitchers. We crossed the road and had a walk around Sechelt Marsh. The highlight here was, appropriately, a Marsh Wren, which actually is not common here.

A brief stop at Sechelt Golf Course yielded a Greater White-fronted Goose and the Shores area provided an American Kestrel. A Merlin was seen at the turf farm on Mason Road.

By this time the tide was falling sufficiently to expose the sand and gravel at Mission Point and so that was our next destination. As we arrived, we saw that a wedding was about to take place just next to the vantage point we wanted to use. We hesitated about taking up position so close to the ceremony but decided to do so anyway. It was a public space and birders had travelled from all over BC to be there. I don't think the wedding party was bothered by us, except perhaps when we shouted out "Whales!" as two humpbacks passed close by the shore. The sun actually appeared during the ceremony, creating very pleasant conditions for birding and getting married.

Birding highlights included seven Pectoral Sandpipers which put down briefly, all three species of Scoter found locally, an Osprey, and a murmuration of about 500 Surfbirds around the White Islets, about a kilometre offshore.

Saturday dinner was at Saffron, a restaurant in Sechelt, where we had a tally-up of the species seen.

On Sunday it was raining again but we birded at Sargeant Bay. The rain eased off a bit but did not stop completely. The best birds here were a Green Heron, an Osprey and a Wilson's Snipe being chased by an Anna's Hummingbird. Two birders thought they heard a Gray Catbird but did not see it, dismissing the sounds as an aberrant Red-winged Blackbird. However, in the afternoon, a local birder went to look for the Green Heron but found the Gray Catbird instead.

By the time we left Sargeant Bay it was raining hard again. So, we decided to go to the Halfmoon Bay Café until the weather was suitable for birding at our next stop, Smugglers Cove. In the end, we never got there. The continuous rain led some people to decide to go home. A few brave souls spent a few minutes birding from the dock at Halfmoon Bay but even they eventually decided to go home.

A grand total of 75 species were noted on this two-day field trip.

Upcoming Meetings & Events

Compiled by Wayne C. Weber

The following meetings and other events are those that take place in BC and immediately adjacent areas or that potentially include information on birds that occur in BC.

For most meetings, festivals and other events, the website is the main source of information, and registration can often be accomplished online as well. Wherever information can be obtained through a phone number or e-mail address, we have included these as well; if no contact information is listed, it can be assumed that none was provided by the organization, at least not 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 this URL: https://www.allaboutbirds.org/birding-festivals .

2018 EVENTS

Dec. 14 to Jan. 5 (2019)– CHRISTMAS BIRD COUNTS. For information on dates of counts and contact information for count organizers, check the BCFO website in November and December, or check the December issue of BC BIRDING.

2019 EVENTS

Feb. 14-17– WINTER WINGS BIRDING FESTIVAL, Klamath Falls, OR. For information and to register, please check the festival website at http://winterwingsfest.org .

Feb. 15-18– The GREAT BACKYARD BIRD COUNT, sponsored by the National Audubon Society, Cornell Laboratory of Ornithology, and Bird Studies Canada. For information and to participate, check the GBBC website at http://gbbc.birdcount.org .

Feb. 25-28– ANNUAL MEETINGS, SOCIETY FOR NW VERTEBRATE BIOLOGY and THE WILDLIFE SOCIETY, WASHINGTON CHAPTER at the Great Wolf Lodge, Grand Mound, WA (near Olympia). For details, check the SNWVB website at http://thesnvb.org/annual-meeting ; registration info should be posted by November or December.

Below: Adrian Dorst reports that on October 27, 1,000 Snow Geese and at least 1,150 Cackling Geese were on the ground in the Tofino area. The Snow Geese below were photographed by him at Long Beach Airport.

Feb. 27- Mar. 2– PACIFIC SEABIRD GROUP, 46th ANNUAL MEETING, Kauai, Hawaii, USA. For information and to register, visit the conference website at https://pacificseabirdgroup.org/annual-meeting .

Mar. 15-17– 17th ANNUAL WINGS OVER WATER NORTHWEST BIRDING FESTIVAL, Blaine, WA. For information, please check the website at https://www.wingsoverwaterbirdingfestival.com or contact Debbie Harger (phone 360-332-8311; email dharger@cityofblaine.com).

Mar. 16– First WESTPORT SEABIRDS pelagic birding trip of the year from Westport, WA. Westport Seabirds operates about 20 trips per year from April through October. For the trip schedule and other information, please check the website (http://westportseabirds.com).

Mar. 22-24– 21st ANNUAL OTHELLO SANDHILL CRANE FESTIVAL, Othello, WA. For information, check the festival website at http://www.othellosandhillcranefestival.org , or contact the Grant County Conservation District at 1107 South Juniper Way, Moses Lake, WA 98837 (phone 509-765-9618).

Mar. 23-Apr. 7– BRANT WILDLIFE FESTIVAL, Qualicum, BC. For information, phone Robin Rivers at 1-866-288-7878 (in Greater Vancouver, 604-924-9771), e-mail rrivers@naturetrust.bc.ca , or check the festival website at http://brantfestival.bc.ca .

Apr. 11-14– HARNEY COUNTY MIGRATORY BIRD FESTIVAL, Burns, Oregon (near Malheur National Wildlife Refuge). For further information, check the festival website at http://www.migratorybirdfestival.com/ . Registration opens on February 11.

Apr. 12-14– OLYMPIC BIRD FESTIVAL, Sequim, WA. For information, visit the festival website at http://www.olympicbirdfest.org , or contact the Dungeness River Audubon Center by phone (360-681-4076) or by e-mail (info@olympicbirdfest.org).

Apr. 17-23– GODWIT DAYS, Arcata, California. It's a little way away, but Godwit Days is one of the premier birding festivals in North America. For information, check the festival website at https://godwitdays.org . Registration opens in December.

May 3-5– GRAYS HARBOR SHOREBIRD FESTIVAL, Aberdeen, WA. For information, contact the festival office at PO Box 470, Montesano, WA 98563 (phone 360-289-5048) or check the website at http://www.shorebirdfestival.com .

May 6-12– WINGS OVER THE ROCKIES FESTIVAL (22nd annual), Invermere, BC. For information, contact the Pynelogs Cultural Centre, PO Box 2633, Invermere, BC V0A 1K0, phone 1-855-342-2473, e-mail info@wingsovertherockies.org , or check the website at http://www.wingsovertherockies.org .

May 9-10– Joint Meeting of the ASSOCIATION OF PROFESSIONAL BIOLOGISTS (APBBC) and COLLEGE OF APPLIED BIOLOGY, Thompson Rivers University, Kamloops, BC. For further information, please check the website at https://professionalbiology.com/professional-development-networking/annual-conference .

May 16-19– LEAVENWORTH SPRING BIRD FEST, Leavenworth, WA. For information, email info@leavenworthspringbirdfest.com or check the festival website at http://www.leavenworthspringbirdfest.com .

May 16-20– MEADOWLARK NATURE FESTIVAL, Penticton, BC. The schedule of events and registration may not be available for awhile, but please check the festival website at http://meadowlarkfestival.ca .

June 21-23– BC FIELD ORNITHOLOGISTS ANNUAL GENERAL MEETING, Golden, BC. For further information, please check the BCFO website at a later date (https://bcfo.ca/2019-agm-golden-june-21-23).

June 24-28– 137th STATED MEETING, AMERICAN ORNITHOLOGICAL SOCIETY, Anchorage, Alaska. For further information, check the AOS website at http://www.americanornithology.org/content/upcoming-meetings .

Below: a moment from Birds on Parade*, at the Vancouver International Festival of Birds. "Ladies on a roll" is photographer John Gordon's suitable caption.*

Young Birders Program

Melissa Hafting

Sooke Hawk Watch

Sept. 30, 2018

On the ferry from Tsawwassen we had one Parasitic Jaeger right off the ferry jetty as we were 30 seconds into our departure. We also saw lots of Bonaparte's Gulls, Red-throated, Pacific and Common Loons and many Brandt's Cormorants. When we got off the ferry, we drove straight to Aylard Farm at Beechey Head in Sooke. It was the official hawk watch put on by the Capital Regional district, so there were tons of people out and about. As we walked up the hill on the 20-minute hike with our scopes, we heard several Pacific Wrens.

Last year, we had an incredible time with huge hawk kettles but this year there was far less action. There were no thermals for the hawks to really ride, but we still had a great time. We got to chat with old friends like Kevin Neill, Geoffrey Newell, Ann Nightingale, Kim Beardmore and Mike McGrenere. We also got to meet the new BCFO president Marian Porter and her friend Dan Alcroft.

The weather was not that warm but we did get to see humpback whales from a seawatch from the top. We also saw many Turkey Vultures in a kettle. We saw hundreds of Band-tailed Pigeons which was a treat. We also saw a couple of Evening Grosbeaks and dozens of Red Crossbills that perched in front of us for excellent views. We got to see Red-tailed Hawks, Cooper's Hawks, Sharp-shinned Hawks and a Peregrine Falcon that zoomed in front of us chasing Band-tailed Pigeons. We also had a lone Bald Eagle fly by and we heard a Northern Pygmy-Owl calling softly. (We had two Northern Pygmy-Owls here last year as well.) We saw a large flock of late Violet-green Swallows with some Vaux's Swifts mixed in. We also had a Long-billed Dowitcher fly right over us calling.

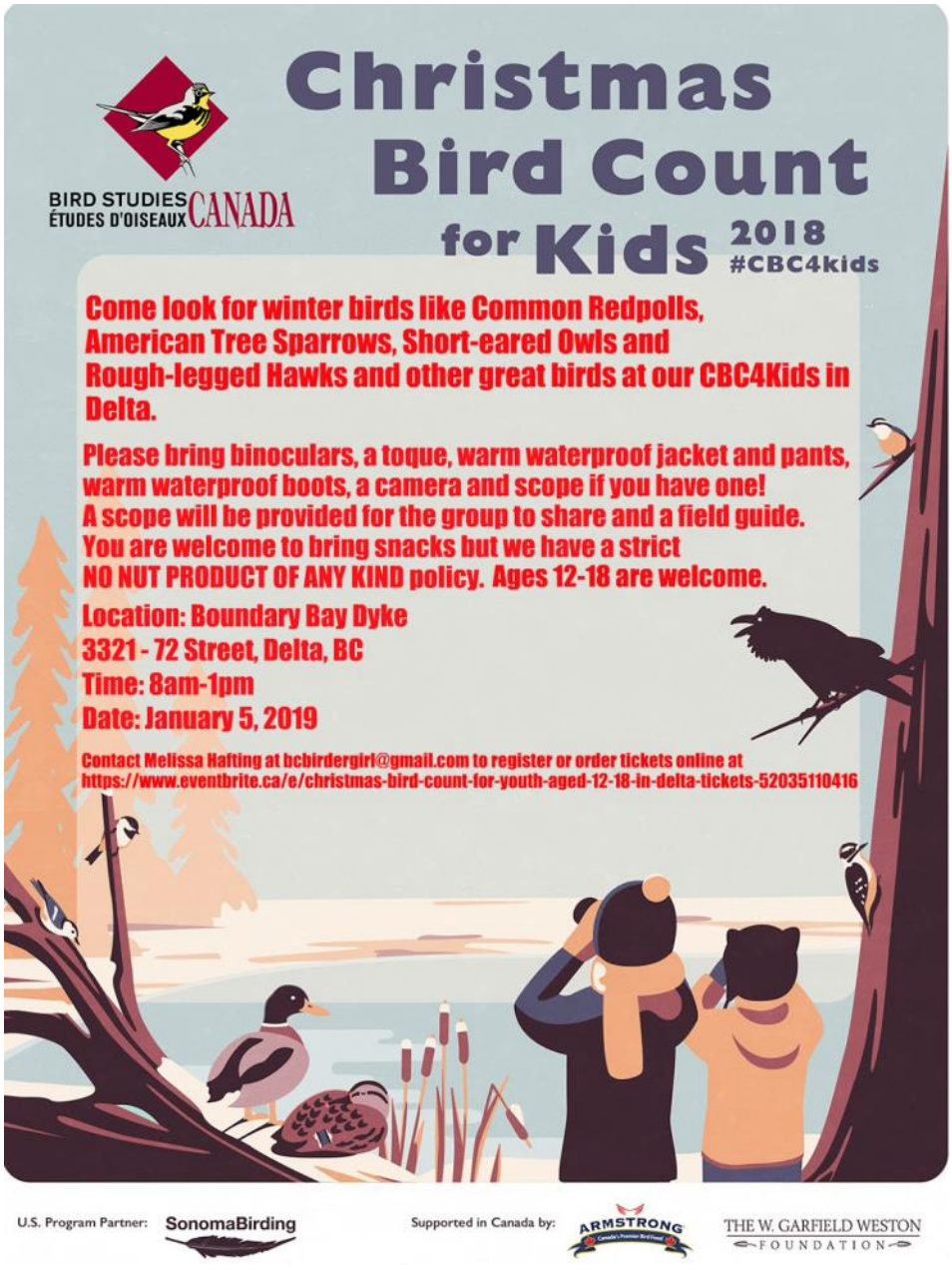
On the ocean, in addition to the Humpback Whale we saw several Heermann's Gulls, Common Murres and Pelagic Cormorants. What was really neat was seeing a late Osprey that circled over the ocean.

We never did see a Broad-winged Hawk, which was what we had hoped for and the activity was starting to really die down and people began to leave, so we left to chase the Red-throated Pipit found by Geoffrey Newell the night before at Saanichton Spit. I love Saanichton Spit, it's so peaceful there on the First Nations land and a real beautiful spot.

We looked all over in every corner of the spit but we could not find the Red-throated Pipit. However, we did find many American Pipits, two Greater Yellowlegs, Surf Scoters, Western Sandpipers, Savannah Sparrows, Common Ravens, Common Loons, Pigeon Guillemots and some Brandt's and Pelagic Cormorants.

I decided to give the youth the option to chase a Brown Pelican, Palm Warbler and Northern Mockingbird at Cattle Point but they wanted to go and try for Skylarks and look for the other Red-throated Pipit that Jeremy Gatten had found (where the Skylarks were). Since we get almost annual Palm Warblers and Mockers on the mainland they wanted to focus on finding the Pipit because it was a mega and they seem to only show up in the Victoria/Saanich area.

So we travelled to Longview Farms (formally Vanreight Bulb Fields). We walked up and down the fallow field and we found the large flock of almost 300 American Pipits. We found two Lapland Longspurs, two Eurasian Sky-



larks (always a highlight with the youth), many Savannah Sparrows, a Golden-crowned Sparrow, Canada Geese and a rare-for-the-area Hairy Woodpecker. Hairy Woodpeckers are not rare on Vancouver Island but you rarely see them flying over a dirt farm field with no large trees around. It was apparently the first Hairy Woodpecker for the hotspot!

We eventually found the Red-throated Pipit as we were immediately alerted to the call. It was a BC bird and lifer for almost all of the youth in the group. We heard the distinctive loud "seep" call twice. We saw the bird fly up in the large flock. We kept walking in the fallow field to flush the flock and we flushed several American Pipits but never the Red-throated again. We tried for an hour and a half after first finding him but sadly could not relocate him for photos or to make a recording.

I wish the days were longer so we could have chased the Palm Warbler and Northern Mockingbird as it would have been a lifer for two of the youth but summer is gone and the short days are now upon us. It is amazing how quickly time flies. I am nostalgic for summer and for all the great young birder trips we had this year. So many of the youth are 18 now and it is their final year in the program. Having watched them blossom and grow over the years, I will miss them. I am however so proud of the young birders now in the community who will continue to enhance it and be great conservationists through their hobby and future careers.

Above: White-morph Northern Fulmar. Below: Buller's Shearwater. All photos by Melissa Hafting.

Two Young Birders on a First Pelagic

On October 21, 2018, I took two young birders, Cole Gaerber and Bridget Spencer, on their first true pelagic. We went out with twelve of my friends (including one from the Yukon) on a trip with Ocean Outfitters out of Tofino. None of our Young Birder pelagics were successful at finding, believe it or not, a Black-footed Albatross, so this was our top goal.

As we were having breakfast on the ferry, Young Birder Bridget Spencer noticed a small passerine flying by and after closer inspection we realized it was a Pine Siskin – a new ferry bird for us all. The poor thing was so tired it was sitting and drinking from the puddles on the car deck. After we went back to our table and resumed eating, Mike Toochin noticed a second passerine fly in. This one seemed a bit bigger but we never could make a conclusive ID as we saw the bird only briefly once more.

The night before I had chased Kevin Louth's Tropical Kingbird in Delta but I promised the two Young Birders that we would look for the reported one in Port Alberni. Bridget needed it for a BC bird so we went straight to the sewage lagoons at Somass Estuary. We saw lots of bear scat but no physical bears and a great variety of birds including a pure Yellow-shafted Northern Flicker. As we walked two kilometres in to the spot, I saw the Tropical Kingbird from a great distance. It was so far I wanted to walk closer to clinch the ID. As we finally got there we got good looks but the bird was skittish and kept dropping down, but we were happy to get him, especially Bridget.

As we were standing there I got a rare bird report text about a Vermilion Flycatcher in White Rock. It was BC's first record and we were all the way on the West Coast of Vancouver Island. For a moment our happiness dissipated but we quickly remembered where we were and how lucky we were to be here and to be going on a pelagic the next day. Sadly that bird was never seen again by anyone.

We headed straight for the Co-op in Tofino where we planned to buy our lunch and breakfast for the next day. Before I could even start the car my friends Cameron Eckert and Joachim Bertrands texted me to let me know they found a Tropical Kingbird at the Co-op! You mean we just walked four kilometres and you can just drive up to a Kingbird? Well we got to the Co-op and walked straight to the bird sitting on the wire. He was actively fly-catching and we watched him catch a large bug. I couldn't believe that I had just seen three Tropical Kingbirds in less than 24 hours in BC! That's never

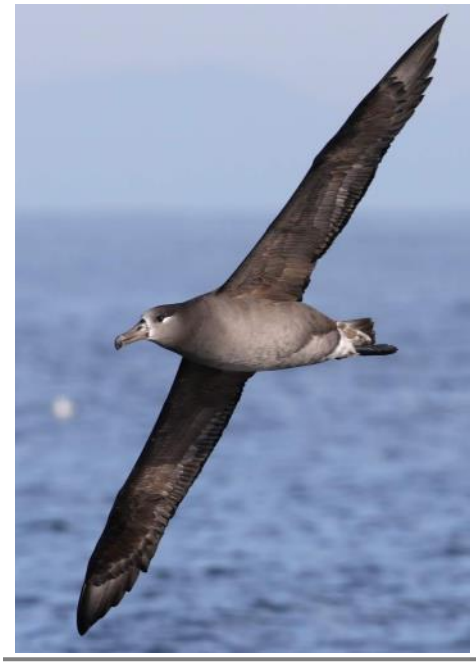
happened to me before and I doubt it will happen again.

After grocery shopping we ended the night with a delicious dinner at Sobo, but before we even got into the restaurant I spotted a Barred Owl which was a new Port Alberni County bird for us all. We stayed at the fabulously renovated Tofino Marina Resort and went to bed with dreams of Red-footed Boobies and rare petrels.

We had stunning weather on our trip. We went out with a few bumpy waves but beautiful sunshine and minimal fog. We were really worried about the fog since on Saturday (the day before) there was thick pea-soup fog and you could barely see in front of you. Well on Sunday it was warm, not raining and no fog! We couldn't believe our luck. Were we really in rainy Tofino? I mean it was October after all.

The two young birders I brought over ended up getting four lifers: Flesh-footed Shearwater, Short-tailed Shearwater, Buller's Shearwater and yes, finally multiple Black-footed Albatrosses! Two adults on board also got lifers in the Short-tailed and Flesh-footed Shearwaters.

There were no lifers for me but it is always a joy to be out on the water and see great birds like Flesh-footed, Short-tailed and Buller's Shearwaters. My favourite bird of the day, though, was the Black-footed Albatross. I am always in awe of their incredible wing span and subtle beauty and cute cries as they tear into rock fish. We saw over 100 of them trailing behind the fishing boat. Seeing the happy smiles on these two youth as they saw their first Black-footed Albatross also warmed my heart.



A fishing boat makes or breaks your pelagic, so it is always essential to find one. A dragger is always preferred because they drag up more fish which creates more smell, which is needed to bring in the tubenoses. We weren't allowed to chum on the boat.

It took us an hour to find a fishing vessel. We did not find a dragger like we did when we found the three Short-tailed Albatrosses in March 2018, but we did find a Longliner. The Longliner rightly called "Fear Knot II" dissipated our worst fears and was actively fishing for rock fish and lingcod. Longliners are really bad news for albatross and cause thousands of their deaths every year, as the birds chase fish on the lines and drown on the hooks. Draggers are even worse, but with new simple cheap technology like putting lights on their nets, commercial fishermen can save many of these birds. Seeing the Buller's Shearwaters with their gorgeous backwing pattern really had us all in awe.

After we left the Longliner, we ended up finding two huge natural feeding frenzies. This was where we would pick up our two Flesh-footed Shearwaters among others. It is not often to come across such large feeding frenzies. I can't forget to write about the Sooty Shearwaters! We saw over 600 of them and they are never tiring to look at. We got to see many of them actively fishing and coming up with fish in their mouths, which you don't often see.

We were surprised that we had seen no Fork-tailed Storm-petrels and no South Polar Skuas. The Long-tailed Jaegers had already headed south but we did see one Pomarine Jaeger. We were all kind of surprised we didn't see a Parasitic. However, we were thrilled to see some Short-tailed Shearwaters. Some sat on the water and others flew close by the boat allowing for some good photos and looks for this difficult ID. Mike Toochin later gave us some very helpful ID tips that none of us were aware of on board which will surely help us on future pelagics.

We didn't see many Pink-footed Shearwaters, only 15, but we saw a good number of all three morphs of Northern Fulmars. Young Birder Cole told us all about how he was fishing off Haida Gwaii and the Fulmars came to his boat and when he fed some by hand they sliced his fingers open with their razor sharp bills. Ouch!

As we were cruising around we were greeted by a male northern fur seal, which was waving his flippers at us, four Humpback Whales and Dall's Porpoises riding the wake of our boat, which was really cool to see. They always remind me of little Orcas even though Orcas eat them.

We saw many Cassin's Auklets that were too full to fly off the water and Mike and Sharon Toochin were the only ones on board who got to see two Tufted Puffins in non-breeding plumage. The rest of us had to settle for Rhino Auklets. We did see some uncommon beautiful Black-legged Kittiwakes though, not to mention some definitive Red-necked Phalaropes and possible Red Phalaropes that were too distant to ID to species.

One of the coolest birds we saw on the trip was a Sandhill Crane which was flying around with the Black-footed Albatrosses. David Bell even got a photo of both the Crane and Albatross in one shot.

On the way back in we saw harbour porpoises, California and Steller's Sea Lions and the most adorable marine mammals – sea otters! It was so cute watching them lie on their backs with their paws up in the air.

We tried hard looking for a Manx Shearwater close to shore but came up empty. I never did see a Laysan Albatross that I had hoped for either. But it didn't matter; it was one awesome trip in beautiful weather.

In the inshore waters we did see a Heermann's Gull, some Pacific Loons and a Bald Eagle dive bombing a poor Cackling Goose. Everything else in shore was expected.

As we got back into the dock we saw the thick fog rolling in and we realized just how lucky we were that we had that small window to do our pelagic so successfully. Another great pelagic in BC shared with two wonderful youth. I can't wait for the next pelagic in 2019 where I hope to finally get a Parakeet Auklet.

Quest for a Mega-rarity

Anne Murray

In June, 2018, I joined a ten-day BirdQuest tour into Qinghai and Xinjiang, China, the primary purpose of which was to look for the rare Sillem's Mountain Finch, *Carpodacus sillemi*. This bird has been observed by only a very few birdwatchers since its initial discovery in 1929.

The story of the bird's identification is interesting. Two specimens were first collected by J. A. Sillem in September 1929 at an altitude of 5,125 metres, in a remote mountainous area of southern Xinjiang, near the Karakorum Pass, during the Netherlands Karakorum Expedition. They were misidentified and labelled as Brandt's Mountain Finch, *Leucosticte brandti*, a widespread Asian species, and tucked away in a drawer in a Dutch museum. This is where Cees S. Roselaar, of the University of Amsterdam's Zoological Museum, discovered them in December 1991, while he was searching for snow finches among the drawers of bird skins. He recognized the finches as an undescribed species, named it *Leucosticte sillemi*, and wrote the first authoritative description (Roselaar, C.S., Bull. B.O.C. 1992 112/225-31).

In June 2012, French nature photographer Yann Muzika (www. thewildernessalternative.com) was on a long, arduous trek into the uninhabited Yeniugou (Wild Yak) Valley in Qinghai (one of two valleys with that name in the province; this one is not far from the Kunlun Pass). Feeling unwell, Yann was resting at his campsite at 5,000 metres, when he got brief views of a bird he did not recognize. Taking some quick photographs, he was later able to confirm, after identification of the mystery bird by Krys Kazmierczak of the Oriental Bird Club, that he was the first naturalist in 83 years to see a live Sillem's Mountain Finch! Furthermore, this location was 1,500 km east of the previous discovery in Xinjiang. Subsequently, following DNA analysis, the finch was assigned its rightful taxonomy as a sister species of the Tibetan Rosefinch, *Carpodacus roborowskii*, which occurs in the same high-altitude habitat and with which it associates (Sangster, G., Roselaar, C. S., Irestedt, M., Ericson, P.G.P. 2015. https://doi.org/10.1111/ibi.12323.)

Muzika's trek was cut short due to health issues but the following year, June 2013, he returned to Yeniugou, found the finch again and took more photographs, reconfirming the sighting. This news obviously excited the birding world so in 2014, Mark Beaman, General Manager of BirdQuest, a well-established British tour company, organized a birdwatching expedition by four-wheel drive vehicle to the same location and successfully found the finches. The way was now open for a regular tour to see Sillem's Mountain Finch!

Only fifteen or sixteen people have ever seen Sillem's Mountain Finch alive. Anne Murray, who took this photograph, is one of them.

Hannu Jännes from Finland was our BirdQuest tour leader and our Chinese guide, Mr Da Wen, organized all the complicated logistics. Participants on the tour, besides myself, were: Karen Rose, my eBirding friend from Australia, Max Berlijn, a Dutch birder, for whom the Sillem's Mountain Finch had particular significance, Werner Mueller, a photographer from Switzerland, and Dave Haigh, an English birdwatcher. We met up in Yushu, Qinghai and spent several days birding while travelling by minibus through a vast treeless landscape beneath an ever-changing sky. The Yangtze River, China's longest, rises in this part of the Tibetan plateau. Commonly seen birds included Saker Falcons, Upland Buzzards, Horned Larks, and several species of snow finches, with ducks, egrets and Black-necked Cranes on the occasional wetlands. Little Owl, Wallcreeper, Hill Pigeon, Great Rosefinch, Tibetan Lark, Tibetan Sandgrouse, and Ground Tit were among the other birds seen en route. The vast Kekexili Nature Reserve has abundant mammals too, including Grey Wolf, Tibetan and Red Fox, Tibetan Antelopes, Tibetan Gazelles, Kiang (wild asses), Wild Yak, Blue Sheep, marmots, and pikas.

Arriving at Xidatan Scenic Area we met up with our camp crew and four-wheel drive vehicles, and headed up a dirt road towards base camp. We planned on a three-night camp, but the weather was poor. That night, I was very cold in the tent, despite a Thermarest mattress and thick sleeping bag.

Setting off early the next morning, ice sheets were lying in the river valley as the drivers negotiated the rocks and silty washout with difficulty, and rain began to fall. There was not much vegetation, just bare gravel and rocky hillsides. The altitude was nearly 5,000 metres (15,000 ft), and we felt the effects as we left the four-wheel drives and started to slowly hike uphill. At this point the weather deteriorated faster, with the rain turning to sleet and a crash of thunder and simultaneous flash of lightning forcing us all into a low huddle on the ground. It then began snowing in earnest. We trudged around for some time, without seeing any birds. Meanwhile, Dave had stayed back with the drivers as he had injured his knee earlier in the trip, and suddenly called us up on the radio: he had a Sillem's! It was a male, in with a group of Horned Larks, pushed down the mountain by the snow. There was nothing for it but to hike back down to the vehicles in the snow, but of course by the time we got

there the finch had left. We tried searching on nearby slopes but only succeeded in exhausting ourselves in the thin air!

That evening, I had little appetite, but by adding some more bedding and extra clothing layers, I at least had a warmer night's sleep. The next morning was brighter, and the snow had melted off the ground, revealing a few delicate alpine flowers and many jagged stones. Hannu had a new strategy and we drove further up the rough terrain in the four-wheel drives, beginning our hike a couple of kilometres farther up the valley, and two hundred metres higher than the day before, over 5,100 m. We headed up the steep slopes scanning the open landscape for birds. A call alerted us, and there they were: a pair of Sillem's Mountain Finch! We were able to sit on the damp ground and admire them as they approached closely, unwary of humans. A female was particularly obliging. Hannu got sound recordings and we took photos. Tibetan Rosefinches and Horned Larks fluttered and called around too as the day warmed. We were all elated!

We struck camp that evening, a day early, gaining more time for the second part of our tour into the Taklamakan desert, Xinjiang, in search of local endemics.

Seeing the Sillem's Mountain Finches, the privilege of only a handful of birdwatchers, was a huge highlight of my trip to China, for which big thanks are due to the BirdQuest organizers, to Hannu and Da Wen, and to my fellow travellers.

Anne Murray will be giving a talk on her China birding trip on May 9, 2019 at the White Rock and Surrey Naturalists meeting.

90, 59, P4, and the Navajo Bridge

Gordon Brown

We had visited Marble Canyon and Navajo Bridge on the Colorado River, just upstream from the start of its journey through the Grand Canyon, a number of times hoping to see the California Condors but with only limited success, having scored as many shut-outs as sightings. I'd managed to photograph the birds on a couple of occasions, but never really to my satisfaction. This year, however, held special hope because in an after-dark conversation with the park ranger patrolling Lee's Ferry campground we learned that there had been a wild birth this year, at a nest site in the canyon wall downstream from the bridge, and that the nestling had fledged only two weeks prior to our visit. I admit to having become all too enthused at the prospect of photographing such a young bird.

Navajo Bridge is actually two bridges. The "old" bridge was built in 1929, a steel spandrel-arch structure which by 1995 had been deemed too narrow for modern traffic, and was replaced by a wider version of virtually identical construction. The two bridges sit side-by-side, spanning the spectacular red walls of the canyon and linking the Navajo Reservation on one side with the Vermilion Cliffs National Monument on the other. The original bridge is now restricted to pedestrian traffic, and provides a spectacular way to experience the canyon, the river, and occasionally the birds.

Our only full day at Lee's Ferry dawned clear and windless, a rare and perfect day in the desert. The coffee seemed even better than usual, in spite of my having to grind beans in the washroom where the only plug-in is found in a campground without services. Having left lawn chairs to claim our site, we drove back to the visitors' centre at the bridge and got a surprise the moment we pulled into the parking lot: through the windshield I could see two large birds flying above the canyon, luckily on the open upstream side as viewed from the old bridge. After a hasty and inaccurate park I was out of the van in seconds and hitting the ground running, camera in hand.

The birds bore wing tags #90 and #P4, the former a three-year-old female hatched in captivity and released in 2017, the latter another female hatched in 2014 and released a year later. Neither of these birds had reached breeding maturity and so couldn't have been a parent to the fledged nestling I was hoping to see; they were simply flying together as friends. Condors are very social and have a strong hierarchy within that social structure, so it's not unreasonable to see two juveniles, close in age, flying together. As we watched, an uninvited guest joined the party when a raven rose up to harass 90 for a few minutes.

In observing the birds, the one-year difference in their ages was discerned by relative development of the white underwing pattern: P4's is almost pure white, while 90's is much greyer, and by head colour: P4's has attained some pink, but 90's is still primarily grey.

They gave me what was probably less than ten minutes of graceful soaring, back and forth along the canyon, before slipping away to the southwest and probably the Vermilion Cliffs feeding station. 90 was the last to leave and as I turned to watch her disappear I saw that I hadn't even managed to shut the camper's door.

Regarding identification, the San Diego Zoo assigns each bird a unique three-digit StudID number which it will bear for life, but the wing tags, comprised of two numbers (often a contraction of the StudID number) or a number and a letter, can change throughout the bird's lifetime. All condors in the population also bear wing-mounted radio transmitters, the latest iteration of which – remote satellite telemetry – is currently used on only a sample group: the 50-gram (about the weight of a small egg) GPS transmitters are solar powered and able to collect the coordinates, speed, heading, and elevation of a bird on a minute-to-minute basis.

Optimists that we are, Jeannie and I decided to return late afternoon, just in case we might encounter birds returning to roost under the old bridge; it's likely that 90 and P4 had emerged from such roosts just before we arrived. This time I was able to park more acceptably, and we commenced a leisurely stroll out onto the bridge. Almost immediately, lightning struck again; we were barely beyond the near abutment when I saw a condor flying above the river toward the bridge, again on the open side, but this time below the top of the canyon; the huge black bird against the hot red rock was something to behold. From the pink head and solid white underwing I knew this was an adult. It bore wing tag #H9, and later we learned it was an older female, hatched in 2008 and released in 2011, the dam of the fledgling I was after and whom she had likely just fed.

Unfortunately, this was as close as I came to the young bird, but I did also learn that its sire was #54 whom I had managed to photograph in 2013. He is something of a success story in the wild population because for fourteen years he has managed to avoid the lead-bullet poisoning that has claimed so many condors. In years of insufficient game attrition, the wild birds feed primarily on carrion left by hunters, who are now being encouraged to adopt copper bullets. But, because the program is dealing with a societal element typically entrenched in its ways, progress is slow.

An online database called "studbook" provided some of this information, but it is four years out of date and of no help at all with the younger birds. The current information was provided by Miranda Terwilliger, Wildlife Biologist, at Grand Canyon National Park. She maintains an up-to-date database for the Arizona and California condor populations on the Grand Canyon website, and I'm most grateful for her help.

All photos by Gordon Brown.

Birding Big Island, Hawaii

Clive Keen

November 12–20, 2018

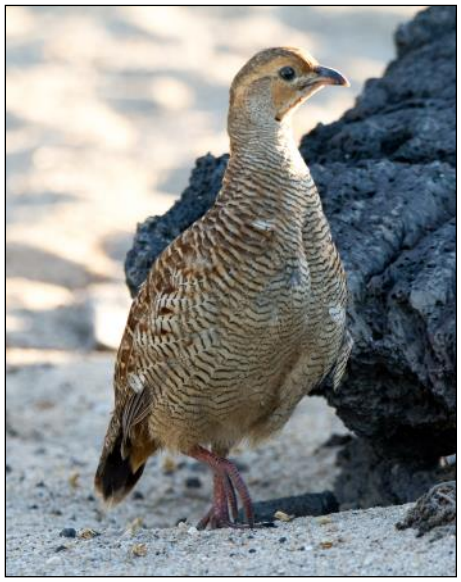
…Yes, I did get the Palila, but more about that later. I should first say that being a small island, Hawaii, Hawaii (it's named twice, like New York) doesn't offer a huge number of ticks, but the quality makes up for it. There are four categories of birds there: introduced suburban birds, long-distance migrants, introduced game birds, and then the endemics. They all offer something special for BC birders.

It took seconds on my first morning in suburban Kona to appreciate the quality of the introduced suburban birds. The soundtrack of Hawaii – the Zebra-Dove chorus – was all around me, and binoculars weren't really needed to see them or the abundant Common Mynas, Spotted Doves, Java Sparrows, Yellow-billed Cardinals, Japanese White-eyes and Saffron Finches. These highly attractive birds seemed everywhere. A few minutes' walk from

Above: Yellow-billed Cardinal.
Top: Gray Frankolin.
Right: Khalij Pheasant.
CNK photos.

the house added Yellow-fronted Canaries, African Silverbills and Common Waxbills, all worthy contestants for beauty competitions. Birding seemed remarkably easy, and my target of 30 lifers seemed no problem.

My host decided that snorkelling was the right thing to do next, so I was taken to where long-distance migrants



hang out. After the abundance of the suburban birds, I was not surprised that Pacific Golden-Plovers were popping up everywhere, but did get a surprise when six White-tailed Tropicbirds flew around a cliff face. Most of the other migrants were ones with which BCFO members would be familiar, but it was good to have close views of them, including Least Terns and Wandering Tattlers. The first of the introduced gamebirds – Gray and Erckel's Francolins – also wandered along nearby for easy photographs, but the Black Frankolin, which is supposed to be an easy roadside tick, always skipped off before I could get my camera in focus. The gorgeous Khalij Pheasants provided ample compensation, giving me some of my most pleasing images.

So far, birding was child's play, but except for the obliging and interestingly different Hawaiian Coot and Hawaiian Goose (Nene) – see the back page – the endemics proved a distinct challenge. It meant heading to high ground, where the endemics were managing, just, to survive the onslaught of introduced mosquitoes and mongoose. The only endemic that really cooperated was the Hawaii Amakehi, which I saw a number of times on all five days I was at high level.

I managed to find the Hawaiian Hawk, Apapane and I'iwi by stumbling around on my own, but it took three days of effort. The I'iwi, fortunately, is sensational: a bright-red nectar feeder with a yellow scimitar of a bill. It would have repaid the days of trek on its own. With only two birding days left, though, I signed up for two guided tours through Hawaii Forest & Trail. This company has access rights to obscure places, and has vehicles capable of negotiating rough 4×4 terrain.

The Palila proved much the easiest of the high-level birds. Though it is very rare, and found in just one small area, it is not too hard to find once you get to the exact spot. The Hawaii Elepaio was a bit more of a struggle, and I was very lucky to get a decent photograph. The Omao, Hawaii Creeper, Akepa and Akiapolo'au, though, proved a real challenge, with just one or two sightings each over two days of searching. I got a hug from the guide by managing the only sighting of the Akiapolo'au, locating it by sound: it is

the nearest thing to a woodpecker on the island, and I heard the pecking sound it makes with the bottom part of its Swiss-army-knife bill. It's hard to believe that the bill actually works. The upper bill is very long and curves through ninety degrees as a grub-extraction device, and would seem to get completely in the way of the straight hole-drilling lower mandible.

At the end of the trip, I'd spotted all the endemics and was just one short of my target of 30 lifers. As a holiday location, it of course had a great deal of the obvious things to offer, to which can be added an excellent locally brewed IPA and superb classical music radio station. Far more could be said about all these things and about the birdiest locations, but it's best to conclude by saying that any readers planning to visit the island is welcome to contact me for tips and suggestions: clive_keen@hotmail.com.

Right: the Palila. CNK Photo.

Briefing 1

Soaring Storks

Many birds migrate in large groups. This raises interesting questions about whether the flight habits of individual birds and their overall trajectory (i.e., the route to their final destination) represent innate behaviour or are socially learned by observing the experience of fellow travellers. Researchers have gained some insight into these questions by studying the autumn migration of juvenile White Storks (*Ciconia ciconia*) from southern Europe to tropical Africa. The storks mostly pass the summer in central and eastern Europe with an outlier population in Spain. The focus of the research was on juveniles in order to record the apparent cues they used on their first migration. Twenty-seven birds, some originating in western Austria and some in eastern Spain, were each fitted with radio-transmitting GPS units and accelerometers in order to track their flight.

Storks are soaring birds; they seek thermal air currents (updrafts) which they ride to altitudes of up to 1500 metres, and then glide for long distances. Between thermals they must flap while searching for the next rising air current. The subject-birds travelled within larger flocks that included older, experienced birds. The researchers observed that the juvenile storks could be classified either as "leaders" – birds that characteristically flew ahead of the others – or as "followers." The leaders appeared to be more efficient at finding and riding thermals. They reached higher altitudes, glided farther, and engaged in less flapping flight than the followers. The latter nevertheless sought to follow the leaders into the thermal currents. No correlation could be found between migratory behaviour and the birds' individual characteristics, such as body size or sex, nor with experience in the nest. However, birds with more pre-migration flight experience flapped less and tended to be leaders. Leaders showed a less regular flight pattern in thermals, presumably as they sought to optimize lift within the turbulent air stream. In contrast, followers circled more regularly and gained altitude more quickly, presumably by learning from the flight pattern of the leaders where to position themselves for maximum effect. All the birds improved their ability to navigate thermal currents as they accumulated experience.

Differences in flight efficiency added up, over the first four weeks of the migration, to a substantial difference in distance travelled. Leaders covered a thousand kilometres or more (up to 4,000 km), reaching well into North Africa. Followers typically achieved 1,000 km or less; birds from central Europe reached Spain while Spanish birds reached Gibraltar or Morocco. Followers might fall behind their original flock and join a following one. There was also higher mortality among the follower birds.

The researchers speculate that differences in body aerodynamic properties or behavioural characteristics may distinguish the birds' migration success. The former might affect their gliding trajectory in particular (i.e., rate of sinking versus forward speed). It seems, as well, that with experienced adult birds in the same larger flocks, the leading juveniles may simply be more adept at social learning – that is, they may themselves be more efficient followers. Overall, the observations reveal that a complex pattern of physical ability and social learning mediates the birds' migration.

Reference

Flack, A. + four others. 2018. "From local collective behavior to global migratory patterns in white storks." *Science* 360: 911-914.

Summary by M. Church

Flatland UK, Sept. 2018

And a review of the new Nikon P1000

John Gordon

Most of my UK visits have concentrated on the west of the country with birding trips in Gwent (Wales) and Gloucestershire. I have also visited the Farne Islands for the Artic Terns, Atlantic Puffins, Razorbills and Guillemots. This time, though, I visited Lincolnshire, one of the least-populated counties in the UK.

The land is flat like the Canadian prairies. Most of the county is only four feet above sea level and there are traditional windmills scattered across the countryside. These are now tourist attractions, with some still grinding grain or converted to tearooms where local produce and crafts can be bought. Historically, Lincolnshire would have been primarily wetlands, most of which, unfortunately, are now long gone, diked, drained and turned over to large tracts of arable land.

The Lincolnshire Wolds rise from the flats and overlook the North Sea and the Wash. The highest point is the village of Normanby le Wold, at approximately 551 feet (168 metres) above sea level. The birding up there is better in the springtime when the woodlands are full of birdsong. During my visit the best birding was on the coastline.

Frampton RSPB is just south of Boston, Lincolnshire, from which one group of the Pilgrim Fathers set out. I was lucky enough to visit Frampton on three occasions as during migration it is arguably the top wader destination in the UK. I saw flocks of two thousand-plus Black-tailed Godwits, Ruff, Spotted Redhank and numerous Little Stints. The latter was a bonus especially after dipping on the Boundary Bay stint earlier in the month.

I was there at the optimum time for migration, but the much-needed easterly winds had all deserted the region, resulting in a distinct lack of vagrants. Easterly winds normally blow birds from the continent toward the UK's east coast, but throughout my stay the winds were south-westers. Even a trip to noted migrant trap Spurn Point with top birders John Clarkson and Phil Hyde failed to produce anything of note.

John and Phil were two of three Lincolnshire Bird Club members I had arranged to meet before leaving Vancouver. Both have seen a formidable 500+ UK birds and their stories about twitches in Shetlands and Scilly Isles were riveting. They went to great lengths to take me to as many locations as time permitted. If indeed there had been anything unusual they would have heard about it.

The weather could have been better. Strong south-westerly winds kept the much-sought-after continental vagrants offshore, and torrential rain put a damper on my attempts to fully test out my new P1000 camera – more on that later. Keeping the camera dry took precedence, only whipping it out when an opportunity arose.

I had also made arrangements to meet up with BirdingPal Steve Keithtley, who agreed to show me his patch. One such stop was to Frampton Marshes RSPB. The area is as good as any of the more fabled locations in nearby Cley and Minsmere. Neither were showing any birds that couldn't be found in Lincolnshire. That was fine with me, as it meant less driving down narrow country lanes and more time birding. Steve had formally been county recorder and was very well connected with everyone we met in the field and through his Bird Guide App.

A few days into my trip Steve texted me about a Spotted Crake at Gibraltar Point about fifteen miles from my base in the market town of Louth. I'm told that even some local birders had never seen one so it was an opportunity I

Below: A migrating Wheatear on the beach at the North Sea Observatory, photographed by John Gordon with the Nikon P1000. Top: A Ringed Plover, rather more easily seen in Lincolnshire than in BC (see page 5).

couldn't let pass. Before I could make my way there myself I received a call from Louth birder John Clarkson: he was already on his way over to pick me up. We were soon at Gibraltar Point.

The marshes at Gibraltar Point provide valuable breeding habitat for Black-headed Gulls, rails and other wetland birds. Marsh Harriers hunt over the adjacent fields and in the Fall Pink-footed Geese begin to arrive. Skylarks and Meadow Pipits can often be seen overhead.

John found the Spotted Crake in less than five minutes. Rails are quite shy and it took off as soon as we got our bins out. Undeterred, we went walkabout on the reserve looking for anything that might have arrived overnight. Overhead John pointed out the V-shaped skeins of Pink-footed Geese arriving from the North. We watched Pied Wagtails – both UK sub-species and the European version. We moved to another hide where John pointed out how to differentiate between Common and Spotted Redshank. Both are autumn migrants from Scandinavia and Iceland, the latter having a finer and slightly upturned bill. In the air Common Gulls (Mew Gulls) wheeled around as did numerous Herring and Black-headed Gulls. Snipe (Common Snipe) were roosting on the edges of the reeds. Hundreds of Black-tailed Godwits sat motionless, eyes half-closed ever ready in the event a predator pounces.

The Nikon P1000

For this trip I brought both my usual travel kit, a Nikon D500 with 200–500mm lens, and the just-released Nikon Coolpix P1000. This 24–3000mm superzoom camera is a handful. It is as big as any pro DSLR although much lighter – it can be carried all day without any discomfort. At 3000mm the lens is a sluggish F8 and with overcast skies the shutter speed plummeted, making shooting handheld difficult. I had to bump the ISO to 400 which is my usual default for birding. Many frames were lost due to the low light especially at maximum zoom or just put it down to operator error.

I had a lot of fun with the P1000, photographing some birds I wouldn't have been able to get with my D500 and 200–500mm lens. The P1000, with its 128× optical zoom, has greater reach even than scopes, which are normally used at up to 60×. When enlarged, the P1000 files at the 2000–3000mm range can look like watercolours, but the ability to grab shots and then go home and closely inspect the finer details of plumage etc. is invaluable.

The P1000 is not a substitute for a DSLR, and does not replace it in any way. The files at the 2000mm range and above will certainly not please some. But when the light is good and a bird is within 30 feet or so the P1000 can produce a very decent image. Other P1000 images work well in the blog form as a method of communicating one's travel etc. Some of the images I would have never captured had it not been for the massive range. One minute I was photographing five-hundred geese and then zooming into just one bird in the flock. Having shot the earlier Nikon P900 since it first came out I will say that at times the replacement P1000 will drive you crazy and other times you will be very happy that it's in your camera bag.

Note: John Gordon has a longer review of the P1000 on his blog at

thecanadianwarbler.blogspot.com

The photographs on this page are not ones that John Gordon would normally display, as they are pushing the cameras (and photographer) to their limits. Nevertheless they show what can still be achieved under extreme conditions.

The Pied Avocet to the right was photographed with the P1000 at Gibraltar Point at 7 frames a second at full resolution.

The Skylark at top right was just a speck in the sky when photographed with the Nikon D500 and 200-500mm F5.6 Nikon Zoom.

Ghost Grouse in the Monashee Mountains

David Bradley and Jeff Landry

Leucism is an abnormal plumage condition caused by a genetic mutation that prevents pigment, particularly melanin, from being deposited properly in a bird's feathers. Due to this mutation, birds may in some cases display plumage that is generally paler in colour and that therefore appears diluted, bleached or faint. Alternatively, a leucistic bird may display a pied or pie-bald plumage pattern with patches of white, contrasted with normal plumage colouration in other feathers. In extreme cases, leucistic birds may appear in a pure white plumage, with feathers much like that of an albino bird, but with normal colouration of body parts such as eyes and feet. In captivity, these pure-white leucistic birds are often artificially selected for; however, in the wild this condition is far more unusual, as it often results in a loss of crypsis and the subsequent capture and predation of affected individuals. Additionally, leucistic birds are usually unable to attract a mate, and so persistence of the genetic mutation is unlikely, further contributing to the rarity of the condition in the wild.

In this note we report on the occurrence of leucism in a game bird, most likely a Spruce Grouse, found by Jeff Landry while hunting for grouse in the Rossland Range of the Monashee Mountains, BC on September 22, 2018.

At 11:00 am, approximately 20 km north of the town of Rossland at an elevation of 1,650 metres, Jeff entered a relatively large area that comprised of many exposed rocks with a moderately dense, young forest. The composition of the forest seemed to be primarily ponderosa pine, with minor amounts of spruce and aspen. This area was surrounded by various blocks of recently clear-cut forest, with young softwood regrowth, an older planted softwood forest, and more diverse blocks of mature forest. While hunting, Jeff was on a generally west-facing slope of moderate grade. Normally while hunting near there, he notes that in the general area it is very common to see Spruce Grouse and to a lesser extent Ruffed Grouse.

On that day, Jeff was hunting with his pointing dog, who normally upon smelling game will indicate the presence of a bird by stopping and remaining still until Jeff approaches and flushes the bird. His dog came to point just off the forest road that he was walking on, and upon reaching him, Jeff immediately noticed a white bird five metres off the road perched on a fallen log, about 15 metres in front of his dog. Unsure at first of the bird's identity, Jeff decided to try to approach the bird to obtain a better look. His observations are that the bird had a physical structure most similar to a Spruce Grouse, with an upright posture and rounded head shape. As with most of the Spruce Grouse in this area, Jeff was able to get fairly close; he approached slowly to a distance of about five metres and took a picture. After doing so, he tried to move closer to get a better look, but the bird flushed almost immediately upon re-initiating movement towards it. Unlike most of the Spruce Grouse in the area, which usually flush off the ground into a nearby tree, this bird flushed and continued flying downhill and quickly out of sight, so following the bird was not possible. The entire sighting lasted approximately one minute.

The identity of this fascinating bird can be determined in several ways. The only photo that was taken by Jeff was on a mobile phone. This image shows the bird in subalpine forest dominated by young conifers with a diameter at breast height of approximately 20 cm. The bird appears to be perched on a log on the ground, presumably originating from previously cut timber. A close-up of the bird (Figure 2A) shows that its general shape and size is clearly that of a grouse or ptarmigan species in the Phasianidae family.

Based on distribution, the candidate species are Spruce Grouse, Ruffed Grouse, Dusky Grouse, or White-tailed Ptarmigan. The Ruffed Grouse is a small grouse with a noticeable crest, giving a peaked head shape, while the Dusky Grouse is a much larger species than Jeff describes. One identification suggestion by a professional biologist is that this bird may be a ptarmigan, and the location of this sighting would suggest a White-tailed Ptarmigan as the species with the closest range. Reviewing available eBird records (eBird, 2018) as a source of sightings of this species reveals an individual ptarmigan seen in extreme northwest Idaho, approximately 75 km to the southeast of the current sighting. However, this option is refuted by the fact that at this time of year adult White-tailed Ptarmigan have yet to undergo definitive prebasic molt and would have at least some darker feathers likely primary feathers. However, the photograph below shows that this bird has no dark feathers on the head (B), the flank (C) or the tarsus (D). An alternative idea is that the bird is a leucistic ptarmigan, as found in Colorado by Braun and Martin (2001). There the authors found two female White-tailed Ptarmigan in a much paler plumage than that of nearby birds during late July to August. They collected one of the birds and inspected the other in the field, and determined that neither had molted from winter plumage into their nuptial or postnuptial plumage. These birds still retained some darker feathers around the neck and head, in contrast to the photographed bird (C). Of note is that the bird does not appear to have a red eye or pinkish beak (B), as is typical of albino birds, which strongly suggests a leucistic individual.

In conclusion, we feel that it is most likely that this bird is a leucistic Spruce Grouse.

Tackling Asia's Illegal Trade in Songbirds

Chris R. Shepherd & Phillip Cassey

Illegal and unsustainable wildlife trade in Asia, especially Southeast Asia, is threatening hundreds of species, and pushing many to the brink of extinction. Of the approximately 850 bird species native to Southeast Asia, 52 are currently assessed as being Critically Endangered by the IUCN Red List of Threatened Species. At current rates of overharvesting and habitat conversion it has been estimated that one-third of Southeast Asia's bird species will be extinct by 2100, with at least 50% of these representing global extinctions.

Among the groups of birds most threatened by the trade are the passerine songbirds. Within Southeast Asia the demand for songbirds, to be kept as pets and for songbird competitions, is enormous and involves hundreds of species and millions of individual birds each year. Indonesia is at the heart of this crisis. Bird markets can be found in most major cities and towns throughout Indonesia, with some of the world's rarest songbirds openly for sale, and in many cases in direct violation of national laws and regulations.

Many species of songbirds are vanishing, with some so near to extinction that a mere handful remain, and others only known from captive specimens. The Rufous-fronted Laughingthrush *Garrulax rufifrons*, endemic to the island of Java in Indonesia, is a prime example. The species has received virtually no attention from biologists, ecologists and scientific ornithologists, and no studies have been conducted on it in the wild, yet qualitative information suggests that due to illegal trapping for the songbird trade, the species is nearing extinction, and is currently now known from only one site.

The Javan Pied Starling (*Gracupica jalla)* is another Indonesian endemic in dire straits. This species has vanished from the wild, largely unnoticed due to the species being included with the widespread Asian Pied Starling (*G. contra*.) All the evidence points to this taxon being virtually, if not totally, extinct in the wild, due to trapping for the songbird trade. This species is frequently supplied to the bird markets by commercial breeders in Indonesia; however, commercial breeders are apparently mixing Javan Pied Starlings with Asian Pied Starlings in captivity which is likely to have reduced the likelihood of there being a pure source of Javan Pied Starling stock for conservation breeding.

Indonesia is not alone in this crisis, and songbird species throughout Southeast Asia are increasingly threatened. However, there is hope. In September 2015, a group of dedicated researchers, conservation practitioners and other stakeholders came together in Singapore for the first Asian Songbird Trade Crisis Summit, hosted by Wildlife Reserves Singapore (WRS). During this summit, a Southeast Asian Songbird Working Group was formed, and commenced planning for a conservation strategy. Later, in 2016, the *Conservation Strategy for Southeast Asian Songbirds in Trade; Recommendations from the first Asian Songbird Trade Crisis Summit 2015 held in Jurong Bird Park, Singapore 27-29 September 2015* was launched. This plan put forth a list of priority species in need of urgent actions to prevent them from extinction, and laid out a number of recommendations and action points to enhance conservation efforts. It also called for the establishment of an official IUCN SSC *Asian Songbird Trade Specialist Group*, to officially represent the Southeast Asian Songbird Working Group and lead the conservation planning and decision making. In February 2017, a second summit was held, again in Singapore, bringing experts together to share updates on developments since 2015, and to discuss opportunities including campaigns by zoos and behavioural change strategies to reduce the unsustainable demand for wild songbirds. One of the recommendations from these summits, and the Strategy, was to better formalise the working group, and in May 2017, the IUCN SSC Asian Songbird Trade Specialist Group (ASTSG) was launched.

The ASTSG is tasked with the implementation of the *Conservation Strategy for Southeast Asian Songbirds in Trade*, and ultimately to prevent any of Southeast Asia's songbirds from further decline or extinction, and to recover these species. The ASTSG focuses on a number of priority themes, led by vice-chairs, including: (i) trade monitoring and policy interventions; (ii) ex situ conservation breeding programs; (iii) education and community engagement; (iv) genetic research; and (v) *in situ* research on wild populations.

The ASTSG is ultimately aimed at guiding conservation and research efforts, informing national and international laws and policies, raising awareness and reducing demand. Furthermore, the ASTSG will provide updated information and recommendations to BirdLife International to aid in future IUCN Red List status assessments. The formation of the ASTSG will greatly assist in catalysing effective conservation of Southeast Asia's songbirds, but much work remains to be done.

A fully referenced version of this article is available from the editor on request.

Chris Shepherd, a BCFO member now located in Big Lake Ranch in the Cariboo, is Vice-Chair of the IUCN SSC Asian Songbird Trade Specialist Group.

Briefing 2

Tracking Migrants

Billions of birds take part in annual migration flights. On the way, millions of them perish in collisions with buildings, automobiles, power lines and wind turbines. Building and other lights attract birds and magnify the toll. Migratory flights are concentrated on certain nights when weather conditions, such as winds, temperature and absence of precipitation, are favourable for the birds. Hence flight nights are difficult to predict in advance, so it is difficult to plan actions, such as turning off building lights and idling wind turbines that might reduce the losses.

In the continental United States, the 143 stations of the Next Generation Weather Radar (NEXRAD) network, which cover most of the country, can pick up radar reflections from birds in flight as well as from meteorological phenomena. Researchers have now developed methods to isolate the bird signatures and count them. The results are represented as numbers of birds in 100-metre-altitude bins from the surface up to 3,000 metres. The radar signals are rendered into bird numbers by assuming that each individual has a radar "cross-section" (reflecting area) of 11 cm^2. This number is typical of a medium-sized songbird and representative of migratory species averaged all together. The data are then represented as numbers of birds per cubic kilometre of air space. With the use of the radar records, 23 years (1995–2017) of springtime nocturnal migration data were obtained over the continental United States.

The researchers then used the North American Regional Reanalysis, a standard representation of daily weather conditions over the continent, to relate the migration numbers to weather conditions. They investigated twelve meteorological and geographical potential predictors, including air temperature, NS and EW windspeed, surface barometric pressure, date, longitude, latitude and altitude. Temperature turns out to be the most important factor in "explaining" migrating numbers – more than three times as powerful as date, the next most important. Temperature contains some of the information of the other variables, however, inasmuch as it reflects northward warming as the season advances and the synoptic occurrence of warm southerly winds favourable for migratory flight. However, all of the candidate predictors named above have some influence. The final model accounts for 79% of the variation in springtime migratory bird numbers over the continental United States.

The predictive capacity of the model was tested by estimating the numbers of migrants from archived past weather forecasts and comparing the answers with the forecast period radar data. For 24-hour forecasts, the model accurately forecast 75% of the migration intensity 24 hours ahead and 71% of the observed intensity three days ahead. It retained 62% fidelity even at seven days advanced forecast.

According to the radar records, migration begins in early March and accelerates to a peak in the first half of May, then falls off steeply by the end of that month. Year-to-year variation in timing is found to be about ten days. The radar data indicate that, at the peak, as many as 600 million birds may be in the air over the United States, many of them destined to cross the Canadian border. Local predictions of migration intensity are more difficult to achieve because factors such as topography and the location of favoured "refueling" places will affect bird movements within the continent. Nonetheless, the median level of prediction for spatial variation was 70%.

The researchers concluded that the current model yields sufficient information to allow steps to be taken, including darkening buildings, pausing wind turbines, and modifying aircraft flight plans, to mitigate part of the inevitable mortality associated with the birds' journey. On a larger scale it might also aid health officials concerned with the spread of avian-borne diseases. No doubt the future will bring better radars and improved models, enabling a significant reduction of migration mortality.

Reference

Van Doren, B.M. and Horton, K.G., 2018. A continental system for forecasting bird migration. Science 361: 1115-1117.

Summary by M. Church

Below: A welcome fall migrant – American Tree Sparrow photographed by John Gordon at Cecil Green, UBC, November 2018.

Featured Species, No. 4

Northern Goshawk
Accipiter gentilis

Status: Rare resident. Retreats to more remote areas in summer. Breeds.

The Northern Goshawk is a superb hunter, inhabiting many forest types and adapted to pursuing its prey even through fairly dense forest vegetation, for this large raptor is remarkably agile. Its breeding range covers forested areas across Canada, Alaska, and the northern and western United States. It is a largely sedentary species on the coast. In the interior, it is reported to move south in large numbers in some years.

Two subspecies occur in British Columbia. *A. g. atricapillus* is found throughout the province east of the Coast Mountains. The subspecies, *A. g. laingi*, also known as the Queen Charlotte Goshawk, inhabits the Pacific coastal rainforest and breeds throughout southeast Alaska, Haida Gwaii, and Vancouver Island. Some authorities include the BC mainland coast in its range, while others do not. Of specimens re-examined, a significant number of coastal individuals were found to have characteristics of both subspecies, even on Vancouver Island.

If we regard birds inhabiting the Pacific rainforest as a distinct population, as does the US Fish and Wildlife Service, there are estimated to be 360 pairs on the BC coast and 300 pairs in southeast Alaska. A population inventory for all of Vancouver Island conducted by the Wildlife Branch of the BC Ministry of the Environment from 1994 to 1998 resulted in 51 goshawk detections and the location of 19 nesting territories. In addition, 16 territories were located by others, bringing the total of known nesting territories on the island to 35. Population estimates are based on such evidence. The Canadian Northern Goshawk Recovery Team estimated that there were 165 breeding pairs on Vancouver Island, not a large number for an island of 32,134 km^2 (12,408 mi^2). The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) stated in its 2013 report that the population of this subspecies in Canada was estimated at just over 1,000 individuals and it was therefore considered threatened. The government of British Columbia has likewise red-listed this subspecies.

Breeding season home ranges for Northern Goshawks may be as large as 4,500 ha for females and 6,000 ha for males. During the breeding season, goshawks are known to hunt Red Squirrels, grouse, ptarmigan, jays, thrushes, woodpeckers, and crows. I could find little information on the specific location of nests on the west coast, other than the fact that nests have been found near Jordan River and in the Walbran Valley.

Because this is a forest hawk that uses stealth in hunting, and because it tends to nest in mature forest far from human habitation, it is rarely seen during the breeding season. Nearly all records we have, therefore, are from the period October to May, after birds have dispersed from their breeding territories to take advantage of a much larger area for hunting. In 1978, Hatler et al. listed eight records for the west-coast region. Today we have 67 records. Most are from the central west coast, but two are from Kyuquot Sound, where, on 25 April 1990 and 15 October 1991, I saw single birds at the mouth of the Tahsish/Kwois River, and another is of an immature perched in a tree in Nasparti Inlet on 7 August 1981.

Most sightings on the west coast occur in fall. There is one record for September, eight records for October, and fourteen for November. Sightings drop off somewhat during December, with seven records, but there are eleven records for January, six for February, eight for March, and seven for April. In the winter of 2014/15, both a juvenile bird and an adult were seen on a few occasions, and possibly overwintered in the mid-coast region.

We have only two records for May and two for June. A bird was seen on the upper Kennedy River on 1 June 2005, and at Sarita Lake on 9 June 2014. An additional August sighting occurred on the upper Kennedy River on 16 August 2010. Two birds were seen on 29 December 2014, a juvenile on Stubbs Island and an adult at the end of Sharp Road in Tofino. June records are generally very rare, except to researchers trying to determine population numbers on the island, and those results are not readily available.

Three of our observations involved birds with prey. On two occasions, a Northern Goshawk was seen feeding on a freshly caught Northwestern Crow. In the winter of 2012/13, and again in the following two years, both an adult and a juvenile Northern Goshawk were seen repeatedly frequenting an area where Eurasian Collared-Doves congregated at a feeder outside Tofino. In February 2015, an adult was observed nearby, feeding on a chicken. In the past, many birds were undoubtedly shot by rural residents for such behaviour, and this may occur occasionally even today.

The Northern Goshawk on Vancouver Island is seriously threatened by the continued logging of its habitat. A 2007 report commissioned by the US Wildlife Service Alaska Region, the Queen Charlotte Goshawk Status Review, states unreservedly that "clearcut logging significantly degrades habitat by creating large forest openings devoid of prey." Second growth is little better, according to the report. "Dense second-growth stands that follow may be suitable for some prey, but these prey are largely unavailable to goshawks because the stands are too dense for the birds to effectively hunt." On Haida Gwaii, according to the same report, the population is already so precarious it is unlikely to survive. Unfortunately, the practice of leaving some trees surrounding a known nest site and logging the rest is entirely inadequate and is a recipe for the bird's continued decline.

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

Gone Pishing

Chris Siddle

MERLIN

I didn't catch sight of the bird speeding low over the shore until it was passing me. It was slender and very fast, and for a second I wondered "Mourning Dove?" but then in a flash of pleasant recognition realized the bird was a Merlin in "fast contour-hugging" flight (Bildstein 2017) along Goose Lake near Vernon, hunting the shore at maybe 40 km/hr for shorebirds, pipits, longspurs, and sparrows that had strayed too far from the sheltering grasses.

If I had to name one favourite bird out of the 10,000+ species of the world, the Merlin might be my top choice. It's a minimalist's dream of a raptor, a compact, graceful little killer. What it lacks in bright colour it makes up for in speed. Merlin literature, and there's a fair bit of it since the bird is found across the Northern Hemisphere, often uses the words "compact" and "dash" to introduce this fast species. Compact it is, one of the world's smaller falcons, weighing in at 160–170 g for males and 220–240 g for females (compared to America Kestrel 80–143 g males, 86–165 g females), making the Merlin about the same size as a kestrel but significantly heavier. I like to think the extra weight translates into strength needed to subdue its mainly avian prey. The American Kestrel has a wider range of prey from insects, rodents, and small birds. The Merlin focuses much more upon small birds, even those as heavy as a Rock Pigeon.

Another common attack pattern involves the Merlin "jumping" a single bird by surprise. This may involve using the landscape as cover, or fast contour-flying, such as I described at the beginning of this piece or spotting the prey while the Merlin is perched or flying

Although I have seen Merlins chasing prey a few dozen times, one memory stands out. On a late September day in the early 1980s an estimated 10,000 Lapland Longspurs were feeding in the farm fields at the tiny farm community of Nig Creek 100 kilometres north of Fort St. John. Among the clouds of longspurs three Merlins coursed, creating panic among the already restless birds. The little falcons worked the edges of the fields, often engaged in tail flights, chasing a longspur from behind. Although dramatic, these chases are often unsuccessful for the Merlins. Flocking is an effective anti-predation strategy used by many species in addition to longspurs.

Prey

Principal prey of breeding Merlins varies across its range. The figures I found in the BNA account were for the north and west of its North American range. In urban Saskatoon principal prey was House Sparrows; in Alaska it is American Tree Sparrows, Dark-eyed Juncos, and Lapland Longspurs; in rural Alberta Horned Larks, and Chestnut-collared Longspurs; in Montana Horned Larks, Lark Buntings, Vesper Sparrows. This selection for prey clearly does not take into account Merlins breeding along the coasts where shorebirds become significant prey. It also doesn't address the diet of Merlins that overwinter in the interior of North America, where, in the northwest at least, Bohemian Waxwings in their fruit-eating hordes are commonly preyed upon by Merlins.

At what speeds does a Merlin attack?

In straight migratory flight Merlins have had their air speed clocked at an average of 39 km/hr. A captive Merlin in straight flight flew at 35 km/hr. But during a shallow stoop, this same captive increased its air speed to 70 km/hr (Sale 2015), certainly fast enough for its impact to stun or kill small prey.

An interesting study of Merlins attacking European Skylarks in winter was carried out by W. Cresswell on the Tyninghame estuary in East Lothian, Scotland. When attacked, besides flying for its life, a skylark may remain mute, sing poorly, or sing well. The Merlin attacking had no way of knowing what its potential prey would do. Skylarks that sang well when being pursued by a Merlin escaped at least twice as often as skylarks that sang poorly and four times more often than larks that didn't sing at all! Also a Merlin pursuing a full singing bird did so for the shortest distance before giving up the chase. Cresswell's data show clearly that Merlins called off the chase of full singing skylarks early. Cresswell hypothesized that larks in good condition with enough energy both to fly well and sing a full song were advertising their fitness, and that the Merlin, in giving up early, was receiving their message and not wasting too much time chasing them.

Some observers have reported Merlins hunting co-operatively in pairs. Sometimes, as in Saskatoon, the attack involved one bird flying along a tree line, flushing waxwings, while the second Merlin followed behind, attacking disturbed singles. When another raptor, like a Northern Harrier, disturbs previously hidden songbirds, Merlins can take advantage of the situation and pursue the prey. Is this true co-ordination, or just the Merlin using the situation to its own advantage?

Besides flushing and chasing a small bird, I have seen a Merlin use a slightly different tactic. BX Dog Park is a field at the foot of a steep wooded hill on its south and southeastern sides. While walking my dog there in late summer, I noticed, for several evenings, up to 100 Red-winged Blackbirds gather in the tallest Ponderosa Pines to sing before flocking away to the cattail beds of Swan Lake to roost for the night. One evening a Merlin left its customary perch atop a pine snag and flew straight and level for about 150 m over the field at tree-top height and straight through the crown of the pine where blackbirds had gathered. There seemed to be no delay as it passed through the crown; it must have had less than a second to attempt a grab at a blackbird. The Merlin emerged from the crown still headed in the same direction, as the blackbirds exploded from their perches to head for their roost early. This unsuccessful attack reminded me more of a Cooper's or Sharp-shinned Hawk's perch-and-wait attack than that of a Merlin's but it does illustrate that as far as tactics go, the Merlin is quite adaptable.

Juvenile Merlins are said to often sally from perches to catch late summer dragonflies. I have seen Merlins doing this, but so far because the juvenile and the adult female so closely resemble each other, I cannot swear that the birds catching dragonflies are all juveniles.

Merlins have benefitted from the European settlement of central and western North America. Townspeople planted ornamental shrubs and trees that bear fruit like Mountain Ash berries. The annual crop attracts swarms of Bohemian Waxwings which, along with House Sparrows, become prey for Merlins that have moved into towns. American Crows and Black-billed Magpies,

also favouring parkland within urban boundaries, build nests that Merlins usurp for their own nesting. With plenty of prey throughout the year, some Merlins have ceased migrating south for the winter, or move into town for the winter from the countryside.

Urban hunting is not without its problems. Merlins and their prey collide with plate glass. Also, buildings can sometimes provide desperate prey with refuge. This didn't stop a Whitehorse Merlin mentioned in *Birds of the Yukon* that chased his prey into the bay of a downtown garage, killed the pigeon and consumed it in front of interested human spectators.

After a Merlin has killed a bird, his problems may have just begun. I encountered a Merlin trying to walk its very dead Rock Pigeon prize along the inner edge of a sidewalk in Salmon Arm. It reminded me of a Warner Brothers cartoon of a baby hawk trying to persuade the rooster, Fog Horn Leg Horn, that he has been captured and should allow himself to be taken away by the tiny predator. The Merlin was searching for a secure spot at which to pluck its prey, prior to eating it. Plucking takes from 5–15 minutes. Because Merlins often select utility poles and street lamps as plucking posts, it's not unusual for a trickle of feathers, including hundreds of tiny contour feathers, to shift down from the Merlin's plucking.

Several times in downtown Vernon I have seen human pedestrians pass through a shower of feathers coming from the top of a power pole where a Merlin is plucking its prey. Concentrating on their cell phones or just preoccupied with other matters, many a person has become an oblivious temporary resting place for a few feathers. I have fantasized about becoming Sherlock Holmes to amaze people with my observational and deductive powers:

"You have within the past hour walked by the intersection of Main Street and 30th Avenue," I observe to a friend visiting me.

"Yes! But how could you possibly know that, Mr. Holmes/Siddle?"

"Simple observation and deduction, sir. I noticed as soon as you came into the room your worn but highly polished shoes. From this and from the general appearance of your clothes, though not the newest, but well cared for, I deduced that you take care to appear neat and tidy. However, you have a sparse dusting of down on your shoulders, not something you would tolerate if you had noticed it. The feathers cannot have been on your jacket very long."

"But where did these wretched feathers come from?"

"There's a lamp post above the traffic light at Main and 30th. While you stood waiting for the light to change, a Merlin that has made the post a favourite perch, plucked the feathered prey he has just captured." I reach out and take a feather from my friend's shoulder to examine it. "House Sparrow," I would say. "Looks like the unworn greater covert of a juvenile, if I'm not mistaken."

"Astonishing, Holmes-Siddle!" replies my suitably impressed friend.

When not dusting people with stray feathers, Merlins commonly cache food in breeding season and in winter. So do their distant relatives, American Kestrels. Food may be hidden in a conifer or on the ground. Cached resources may be retrieved by Merlins to see them through periods of bad weather when hunting is poor, and sometimes as a meal eaten just before roosting for the night.

A male Merlin watches Goose Lake, Vernon, for prey. September 2017. Photo by Chris Siddle.

Breeding

Like all falcons, the Merlin has no song, but as Gary Davidson of Nakusp can tell you, come spring the Merlin announces his presence with an insistent, noisy, slightly shrill "kee-kee-kee-kee" that fades and rises on the air over Nakusp's municipal campground where a grove of pines has provided Merlins with nesting sites for at least 35+ years. The female has a similar call but slightly lower pitched. Courtship involves aerial displays by the male including "power flying" where the male in strongly flapping flight rolls from side to side alternately showing his back and his belly. Males and females are known to power fly together. Less intense with no flapping is the "rocking glide." One of the most common male displays typically performed around the nest site is the "flutter flight" following a circular or figure-eight path. Both sexes soar near the nest in territorial displays (BNA).

In Vernon I live about half a kilometre from nesting Merlins. Another pair or two nests among the tall Douglas-firs, Ponderosa Pines and spruces of Vernon's East Hill. Call me shy, but prolonged periods of hanging around an elementary school or standing around

back alleys of residential neighbourhoods increases my self-consciousness to an excruciating level, preventing me from keeping long watches near nests. Since it is known that Merlins have moved into towns across western North America during the last half century to take advantage of resident populations of House Sparrows and wintering Bohemian Waxwings, where the little falcons have happily taken to nesting in old crow and magpie nests, I will just have to keep looking for a Merlin nest on public property where I can watch the birds in solitude.

When the stick nests of corvids are not available for nesting, Merlins will nest on a ledge on a cliff, or in a tree cavity, or even make a shallow scrape on the ground. The female lays 1–7 eggs (usually 4–5) which are incubated about 30 days since the laying of the last or penultimate egg. The male shares in a mostly minor way with the incubating, with his main role that of provisioning the female. Most of the time the male plucks the prey, usually removing head and wings, at a favoured plucking post often within 150–200 m from the nest, but sometimes he delivers the prey unprepared.

The chicks require brooding by the female for about the first seven days to maintain their body temperatures. Contour feathers first appear in sheaths between 9–11 days; tail feathers break from their sheaths between 15–17 days. The chicks fledge at about 29 days after hatching and are dependent upon their parents for another 1–4 weeks, remaining neat the nest site (BNA 44, 1st ed.).

Once old enough to forage on its own, the juvenal Merlin looks very much like an adult female, and under normal field condition, is difficult or impossible to separate. The adult female has a slate-brown rump and upper tail coverts that contrast with the dark brown of its back. The rumps of immatures are the same colour as their backs (Temple 1972). This is difficult to see since Merlins typically perch in a high place, their rumps out of sight. There are also differences between immature sexes in the shade of the pale tail bands but nothing really helpful to the birder. Unable to differentiate the ages, I have resorted to writing "female-type" or "female-like" in my field book for brown-backed birds.

Rural-hunting Merlins fly up to 15 kilometres into urban areas to roost for the night, selecting the leeward side of conifers, warmer and safer from the Merlin's nocturnal nemesis, the larger owls such as Great Horned Owl known to predate Merlins.

In a publication like *BC Birding* a detailed bibliography seems out of place and takes up space, so I have abbreviated references consulted for this article. Richard Sale's monograph *The Merlin* (2015) was invaluable, as was Keith Bildstein's *Raptors, The Curious Nature of Diurnal Birds of Prey* (2017), the *Birds of North America* Merlin account 44 (1st and 2 versions). Brian Wheeler's recent field guide, *Birds of Prey of the West* (2018); Cramp's *Handbook of Birds of the Birds of Europe, the Middle East and North Africa*, Vol. 2 (1980); Palmer's *Handbook of North American Birds* – Vol. 5 (1988) and S. Temple's paper on sexing and aging Merlins (1972) were very useful. Regional works consulted include Campbell et al's The *Birds of British Columbia*, Vol. 2 (1990); Frank Beebe's *Field Studies of the Falconiformes of British Columbia* (1974); Sinclair et al's *Birds of the Yukon Territory* (2003) and *The Atlas of Breeding Birds of British Columbia* 2008-2012 online.

Briefings 3 & 4

Ravens Out-think Pre-schoolers

One supposes that the behavior of animals (other than us) is entirely mediated by their current environment and condition, that they live in a stream of current consciousness. This is not entirely true. Great apes are known to plan flexibly for future anticipated conditions both in terms of tool use (a technical skill) to achieve a desired end and in bartering (a social skill) for certain outcomes – usually involving immediate or future access to food. These are complex behaviours that have been assumed to be limited to hominoids (great apes and us). Also, apparently, not true. Consider your Common Raven (*Corvus corax*).

Corvids are known as food cachers (and pilferers of each other's caches), behavior that might be interpreted as evidence for conscious planning for the future, but might also be regarded simply as a special adaptation restricted to the business of assuring a food supply. Can such birds really plan in a flexible way for anticipated future conditions? To find out, two Swedish researchers trained five captive and hand-reared ravens to attempt tasks involving forward planning that the species does not perform in the wild (thus eliminating the possibility that the birds would respond to the tasks by performing some innate adaptive behavior). The birds were trained to choose a tool – a stone of a particular size – with which they could operate a mechanism to open a box containing a food reward (a technical task), and they were shown that other objects ("distractors") could not open the box. They were also trained to select a token which they could offer to a keeper for a food reward (a bartering transaction).

The birds were then subjected to four experiments designed to test whether or not they possess planning skills for the future. Each experiment included both a tool and a token trial and was repeated six to fourteen times. Four of the five birds took part in each experiment. In the first, they were initially shown the box which, without a stone, they could not open; it was then removed from their presence. An hour later they were presented, in a different place, with a tray containing a stone and three distractor items. The birds each selected an item. After another fifteen minutes, they were again shown the box. The ravens had selected the stone 89% of the time (over 4×14 trials each), and successfully unlocked the box 86% of the time when they possessed the rock, for an overall success rate of 77% of the trials. But one raven confounded even the scientists: she figured out how to open the box without need of the stone! Next, they tried the bartering trial. Each bird was given the opportunity to select a token from each of three trays that also contained distractor items (so they could accumulate three tokens each). Over 48 trials (4 ×12 trials each) they selected the token in 143 of 144 chances. After 15 minutes the keeper showed up with food and the birds successfully negotiated 77% of

their tokens.

The second experiment extended the waiting period between stone/token selection and the opportunity for reward to 17 hours (overnight). Over both tasks, the birds selected the appropriate tool in 41 of 42 trials (98% success) and successfully claimed the reward in 39 of 42 chances (93%).

In experiment 3, the ravens were tested for self-control in light of future expectations (implying deliberate forward planning in light of experience). A small food reward (less than the potential ultimate reward) was placed on the tool/token selection tray. Would they take it for immediate gratification, or would they select the tool or token in anticipation of a richer future reward? They were first presented with the tray with the small food reward but no tool or token. They all did the sensible thing and grabbed the grub. But, presented with the full tray, they preferred the tool/token in 73% of the trials, even though that reward appeared only later – after a 15 minute delay. In the remaining 27% of the trials they invariably again took the immediate reward. In the last experiment, the birds were given the choice of immediate reward or the "ticket" to a future reward, the character of which they did not know. They chose the future 100% of the time.

The results strongly confirm the ability of the ravens to plan flexibly for the future in light of experience. Their abilities match those of the great apes, but are certainly the result of independent evolution, birds being in effect flying dinosaurs whose evolution diverged from that of the mammals more than 300 million years ago.

And their abilities clearly outmatch the abilities of humans at age four.

Reference

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Hummingbird Acrobatics

There is no doubt that these diminutive birds are the champion avian acrobats. They hover; they fly backward; they turn on a dime; and they do it all at seemingly breakneck speed. These abilities reflect a capacity to integrate sensory information and make decisions very rapidly, and are deployed to facilitate navigation through a cluttered space at high speed. This, in turn, enables the birds to avoid hazards and to obtain nourishment in a complex vegetative environment. A group of researchers has studied hummingbird flight by filming captive birds in flight in a large enclosure at very high frequency (200 frames per second). They filmed 207 individuals, representing 25 neotropical species. (There are at least 338 species of hummingbirds.) They also measured body mass, wing size and shape and muscle capacity of 263 birds and calculated species-average values.

From preliminary studies on a single Anna's Hummingbird (*Calypte anna)*, the researchers defined three basic classes of hummingbird motion: translation, turn, and rotation. Translation was further subdivided into horizontal acceleration, horizontal deceleration and change of velocity (i.e., net acceleration in 3-space). Turns were subclassified as pitch up, pitch down, and yaw (change in horizontal direction), while rotations were subclassified as smooth arcs and pitch-roll turns (i.e., banked turns: PRTs). For each motion a quantitative measure was defined. For example, for the arc turns, turn radius and average velocity in the xy-plane were measured from the film records and maximum centripetal acceleration was calculated. For PRTs, heading change and duration of the action were measured. Finally, the proportion of the bird's turns that were of each type was calculated. Each of the 25 observed species exhibited all of these "performance metrics," though with varying frequency.

The performance metrics were averaged for each species tested, and compared with the measured physical traits of each species. They are strongly correlated, especially the metrics of turns and rotations, indicating (not surprisingly) a connection between the birds' musculature and body architecture, and their flight capabilities. However, the birds could be identified as to species from performance metrics only 34% of the time, suggesting significant variability among individuals. In comparison, physical traits translated into correct identification 65% of the time. Examining individual metrics, it was found that birds with greater body mass and, therefore, musculature, perform faster translations and rotations and create greater centripetal accelerations. However, within a species heavier individuals were slower (sounds much like us – as a generality, bigger is faster, unless overweight). Greater rotational speed and faster turns also are associated with lower wing loading – hence larger wing area – while radius and speed of turns are strongly associated with wing aspect ratio (the ratio of length to width of the wing, hence wing shape). The interplay of musculature and wing characteristics in these comparisons leaves open significant evolutionary degrees of adaptive freedom: neither small wings nor small size is necessarily disadvantageous since one might be compensated by strong development of the other. Hence some of the correlations reported above may be quite variable between species. In summary, hummingbird speed is primarily determined by musculature, while wing development strongly influences turns and rotations. Larger birds with low wing loading are the fastest and most manoeuvrable hummingbirds.

It is well-known that different hummingbird species occupy different elevation bands in tropical mountains. Among all the performance metrics examined in this study, only the use of PRTs was correlated with elevation in the natural environment. Birds at low elevations with lower wing loading use PRTs more. But it has also been observed, in other work, that low elevation birds when moved to high elevation reduce their use of PRTs. This suggests perhaps some influence of air pressure – an environmental factor – affecting wing performance. It appears that the birds do not quite have perfect control over their performance.

The experiments described in this report were conducted in the Hummingbird Aviary, Department of Zoology, at The University of British Columbia.

References

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Summaries by M. Church.

Book Reviews

1. How to Be a Bad Birdwatcher by Simon Barnes

Clive Keen

I make no apology for reviewing a book that has been around for more than a decade. I'm doing you – unless you are fortunate enough to have come across this book already – an enormous favour. It deserves to be up there in the pantheon with *The Natural History of Selborne*, the second-most-read book of all time.

But first, the ambiguous title. It does *not* mean "How to cheese off serious birders," but rather "How to get enormous pleasure from birdwatching even if you're not very good at it." And enormous pleasure in birds is what the book is all about.

> *Birds are life-enhancing: they bring joy when you see them, and it is a constant joy to share your life with them, and to share that joy with fellow humans.*

By turns instructive, funny, inspiring, wise, irreverent, and poetic, it is at all times entertaining and perceptive.

Take the question *Why does it matter if you can name a bird*? Barnes tells us, "You feel noticeably different about Jane than you do about that woman from accounts." That nails it. And isn't birdwatching all about chasing rarities? "Birdwatching at its best is not the chasing of the rare, but the untroubled contemplation of the special."

Barnes' distinction between the rare and the special is one of his many eye-openers. An avocet is not rare – "Go to Minsmere … and you won't be able to chuck a brick without hitting an avocet." But an avocet is special: "The sort of creature that normal mortals are not fit to see."

I read that section just after the Merlin pictured opposite had buzzed all around me and then perched just yards away. Not rare at all, but it gave the greatest birding thrill of the year. "Not rare but special" sums things up perfectly, helping us understand why some birding moments can count for far more than the 932nd life tick.

And Barnes by no means discounts ordinary birds. I mentioned that he is often poetic. This is his comment on seeing "The LBJ of all LBJs," a Hedge Sparrow:

> *There he was against the cold blue sky, every feather picked out by the low winter sun, and he sang his song of spring and gave it absolutely everything. It was a song that made the whole day better. A common bird: a rare moment.*

Barnes' frequent irreverence will of course not be to everyone's taste. He is rather derisive, for instance, about twitching. What it really amounts to, he says, is chasing after some storm-blown creature that has landed somewhere all wrong, and catching a glimpse before the poor thing expires. At another point he says that we should "Revel in nature, not hunt for scalps." I can imagine some BCFO members bridling at all this, and the truth is that Barnes likes potential Bad Birdwatchers more than Good Birdwatchers, because the future of birds, and preservation of their habitat, lies with them, not us. His advice is always aimed at the Bad but it should not be lost on those aiming higher. "Set out with high hopes and low expectations… revel in what you see rather than what you want to see," for instance, is great advice even for those seeking their 933rd life tick.

A great book. Buy it, read it, and then buy lots more for presents.

Below: not rare, but special. A Merlin at the Shelley lagoons, Prince George, August 30, 2018. CNK photo.

2. Birds of Nunavut, edited by J.M. Richards and A.J. Gaston

Michael Church

Vancouver, UBC Press, 2018; 810 pp in 2 vols. ISBN 0-7748-6024-6. Also available as a pdf document, ISBN 0-7748-6026-0. $125 for each; $150 when purchased together.

Nunavut is a recently established (1999) Canadian Territory consisting of the eastern and northernmost portions of the former Northwest Territories, and extending as far west as 110°W in the Arctic islands and to 121°W on the mainland. Nunavut encompasses nearly all of the unique environment of Canada's high Arctic, including nearly all of the Arctic islands and inter-island waterways. This pair of volumes is the first authoritative survey of all the birds known to have occurred in this most remote and forbidding region, currently 295 species. Printed on 8½×11 inch paper of high gloss and weighing in at 3.2 kg it is a work for study and reference – it is no field guide. But it is an absolute tour de force, comparable in quality with *The Birds of British Columbia*, another landmark ornithological reference work from UBC Press. The book is the work of eighteen authors, including the editors, with notes from more than 150 additional contributors.

The introductory sections, in addition to thorough descriptions of the geography and ecology of the region, include essays on the history of ornithology in Nunavut. Valuable information was recorded as early as 1795 (by Samuel Hearne) and the first half of the 19th century (John Richardson), but most focused, species-specific work postdates 1970. Nunavut ornithology is a young science. Nonetheless, conservation is a key issue discussed in the book as is the issue of monitoring the birds. There is also a discussion of climate change and other threats. Contributors are keenly aware that the magnified effect of climate change in the Arctic, and the effects of development that will gather pace with that change, are both concerning and an opportunity – in these matters all the birds are canaries.

In the species accounts the birds are classified as resident or seasonal breeders, suspected seasonal breeders, transients (regular non-breeding species), irregularly recurring visitors, and accidentals. Two listed species are extinct (or thought so). In addition to the formal (Latin) names, names are given in English, French and, when known, Inuktitut or Innuinaqtun (westernmost Arctic Nunavut). Each species account opens with a short paragraph giving general information on the status of the bird in Nunavut and its principal defining characteristics. For breeding birds the subsequent three to five pages describe the bird's abundance, appearance, subspecies, distribution (with a map), behavior, habitat, diet phenology, breeding strategy and, finally, the bird's formal status in Canada. To fill out the accounts, especially of distribution, population trends and habits, the authors have ransacked essentially the entire literature of Arctic ornithology and the list of references is a major research resource all by itself. There are 145 known breeding birds. Birds not positively known to breed in Nunavut are described on one page each.

Volume One includes the species accounts for all non-passerines, of which there are 194, including 104 known breeding species. Of the 119 passerines described in Volume Two, only 41 are known breeders. A high proportion of the passerines occur only in extreme southwestern Nunavut, adjacent to the Manitoba border, where the northern fringe of the boreal forest extends into the Territory. Although both volumes contain a complete table of contents, an index (to both volumes) is provided only in Volume Two. It is an excellent index, giving all bird citations under Genus headings in English, French and Latin. Many other particulars (of places, notable historical students, and context) are also indexed. Volume Two also contains a checklist, which gives only the birds' names (in English) and breeding status (that is, no information on seasonal occurrence), and a list of 19 additional unconfirmed species.

A word about the more than 800 colour illustrations: they are superb, and superbly produced on the high quality, bright paper. Generally, several views of the bird are given, showing principal plumages, and, for breeding birds, photos of chicks and eggs in the nest. But they do not always highlight the key diagnostic marks for field identification, although these are usually given in the written account. Again, this is not a field guide.

All in all, this is a production of which the editors, contributing writers and photographers, and UBC Press can be proud. But inevitably, it is a work in progress. There will surely be species added in the years ahead, and more to be learned about the occurrence and habits of many of the species already identified. The authors certainly know this: they include information on where to send your notes of new findings.

This review also appeared in Nature Vancouver's Discovery 2017. *Michael Church is a geomorphologist and long-time birdwatcher who spent ten seasons in the Arctic ranging from Baffin Island to northern Alaska in the last years before the beginning of detailed ornithological studies.*

Below: an Arctic Tern photographed by John Gordon at the Iona South Jetty on September 2, 2018. Arctic Terns are rare visitors to the lower mainland.

Briefing 5

Darwin's Puzzle and *Rattus rattus*

During the *Beagle* voyage Charles Darwin encountered the coral atolls of the central and south Pacific. Fitzroy (captain of the *Beagle*) directed surveys around several atolls so Darwin learned their marine topography. He developed a theory of atoll formation that, remarkably, remains relevant today. But he remained puzzled by one outstanding question; what is the source of the nutrients that support the rich marine and terrestrial life that is found around the reefs and on the central islands? The answer turns out to be the seabirds that nest on the islands but forage far at sea in waters much richer in food resources than in the vicinity of the coral islands. Their droppings (guano) provide essential imported nitrogen and phosphorus to fertilize terrestrial life on the islands and marine life around the reefs, both directly and via rainfall-runoff water.

A remarkable inadvertent experiment in the uninhabited Chagos Islands, in the mid-Indian Ocean (at about 7°S., 72°E.), demonstrates the powerful effect of the birds. (The islands are administered by the United Kingdom, which maintains a military base on the principal island.)

Black Rats (*Rattus rattus*) were introduced to the islands from merchant ships in the late 18th century. Today, some islands are infested by rats and some are rat-free. Nesting seabirds are abundant on rat-free islands but, due to nest predation by the rats, rare on islands that host rats. Seabird species include terns, tropicbirds, shearwaters, noddies, frigatebirds and boobies. Investigators selected six rat-free islands and matched them to six topographically similar rat-infested ones. At 1,243 birds/ha on rat-free islands versus 1.6 birds/ha on rat-infested ones, they are 760 times more abundant on the rat-free islands. The scientists studied the ecological consequences of this dramatic difference in seabird density between the two groups of islands.

By assessing species-specific quantity and quality of guano and bird residence times, they determined that the nitrogen input per hectare on the rat-free islands was 251 times greater than on those that are rat-infested (190 kg/ha/a versus 0.8 kg/ha/a). Almost all of that nitrogen is imported from feeding areas far at sea where net primary production is estimated to be hundreds to thousands of times greater than in the immediate vicinity of the atolls. By tracing nitrogen isotopes peculiar to the marine environment, the scientists confirmed that the imported nutrients are taken up both by island vegetation and by reef fishes. In particular, they found that, as a result, damselfish around the reefs of rat-free islands grow faster and were larger at any given age. Total reef-fish biomass was 48% greater around those reefs. Herbivorous fishes are particularly important to reefs for they consume the benthic algae that otherwise might smother the corals. The scientists found that reef crests adjacent to rat-free islands are grazed nine times a year, compared with 2.8 times for rat-infested islands. This finding may be particularly important for the prospect of reef recovery after thermal bleaching events. And beyond this potential indirect effect on reef recovery, the phosphorus also delivered by the seabirds is directly effective in enhancing reef thermal tolerance.

Here, then, is an exceptional sequence of observations illustrating how birds play a critical role in the processes and character of the entire ecosystem in which they act, and also the consequences of introducing a destructive exotic species into a stable ecosystem. The role of the birds is rarely so clearly demonstrated as in this remarkable case. It provides a powerful example of the importance of sustaining native bird populations in every environment.

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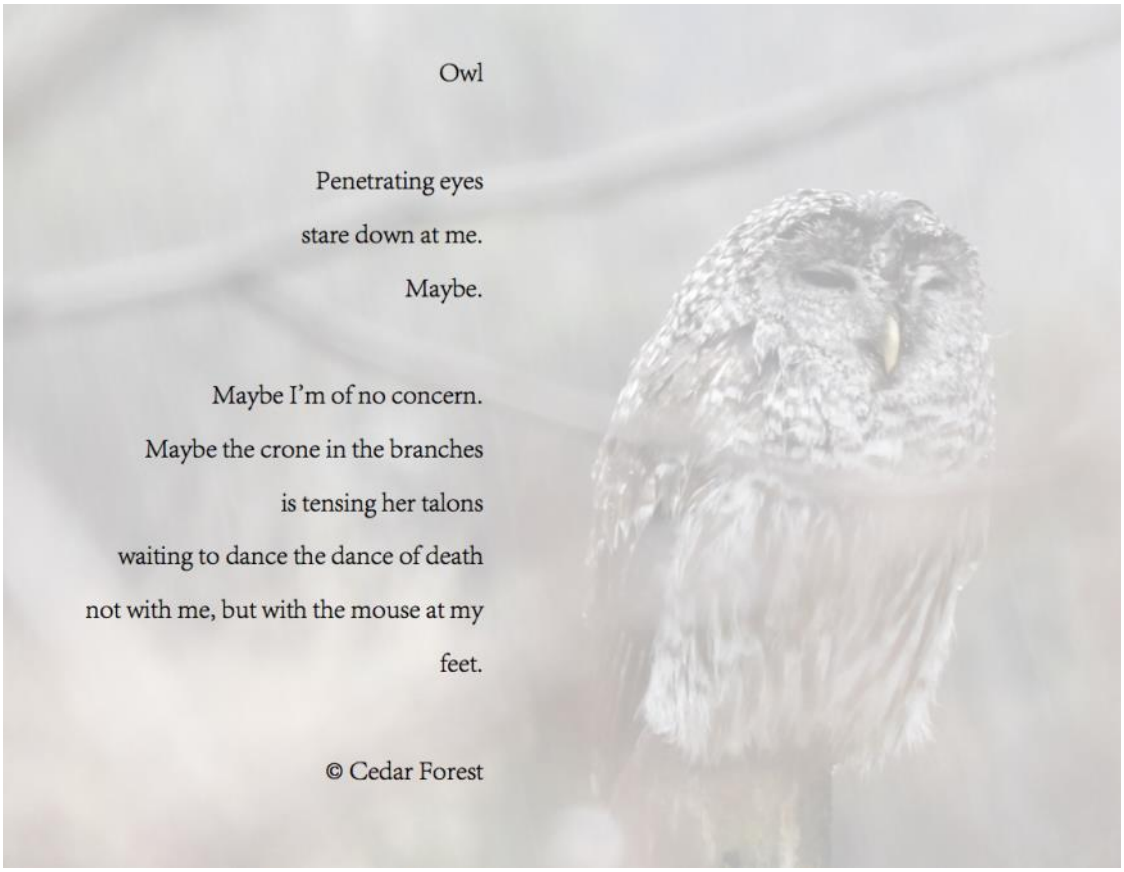
Summary by M. Church.



The Reflective Birder

Clive Keen

The following article spent some years gathering dust, since I suspected that no magazine editor would ever be willing to publish it. But, come to think it, I'm a magazine editor now.

Don't Wait For Me While I, Um ...

Notwithstanding timid editors, this essay is about the occasion, known to all birders, when you've been out birding for a couple of hours and the early morning coffee makes its presence felt. You walk on a bit, but eventually recognize that you are too far from the nearest facility. (The current euphemism is "comfort station," "washroom" now being too indelicate for the hospitality industry.) So eventually, you decide to do what comes naturally, and head off the path for some peaceful communing with nature.

And, halfway through such communing, you hear the sound of a bird you've been hoping for all morning. It's best not to spring into action too quickly, you might have discovered, nor rush off in a state described by that nice word "dishabille." But it's a fact that a surprisingly high proportion of interesting birding observations come when you are concerned with something not specifically birdlike. Why is that?

In the spirit of empirical science, I recently conducted an experiment – yes, it was selfless of me, I know – to find the answer. The first observation was that while in temporary solitude, most sounds made by my companions and me (OK, not all) cease. No footsteps. No rustling. No conversation. So that distant drumming of a Three-toed Woodpecker is a lot more likely to be heard. The scamper of a rabbit, the sound of a falling pine cone, the call-notes of a Chickadee – all these things stand out in clear relief. (Bad choice of words, that: relief.)

But it's not just a matter of hearing. Since you've a certain need for privacy, you've picked a spot where people can't see you, and as a result, you can't see them, or much of anything except for close-by bushes and trees. And this means that your perspective has changed, and you start to focus on a much smaller world.

I first discovered the magic of perspective shift while rockpooling in North Devon, England. Rock pools – known as "tidal pools" in North America – are a naturalist's delight, but you have to learn how to *look.* I'd start my rockpooling by strolling along a good stretch of beach and looking into each pool as I passed. I might see the occasional crab, or perhaps a stranded fish, along with the usual anemones, but I wouldn't see all that much. After a while, though, I'd stop at one of the more likely looking pools, and sit down.

For the first five minutes, I'd see pretty well nothing I'd not already seen on my walk. Then, after I'd almost started to get bored, I'd catch a bit of movement, and realize that an apparently empty winkle shell was occupied by a hermit crab. Once I'd focused on the hermit crab, and readjusted my vision to its Lilliputian world, I'd realize that there were in fact hermit crabs all round the pool. I just hadn't seen them, because I was looking for something in a higher size category. Having changed my perspective, I'd next notice that there were some shrimps swimming round. They are semi-transparent, so unless you know what you are looking for, you look through them, not at them. Having fine-tuned my vision again, I'd come to realize that there were shrimps all over the place. After half an hour of such steady vision-realignment, I'd get to recognize the rock pool as bursting with life.

A friend had an analogous experience at a week-long course on animal tracking. Early in the course, he was told to spend an hour looking at a wooden table top. After five minutes he asked what he was doing it for. He was told just to keep on looking. After ten minutes he started to wonder why on earth he'd travelled across the continent and paid big bucks just to stare at nothing. After fifteen minutes, he was ready to abandon the course. But after an hour, he felt his life had changed. He could see where flies had landed, where a caterpillar had been, where a casual human movement had smudged the tracks of a tiny spider. He then looked around him, and found there were tracks simply everywhere.

Now back in my very small spot in the midst of bushes, I find that as well as my kidneys, my digestive system is in tip-top and enthusiastic order, which necessitates a longer stay, and no longer in a standing position. So now the ability to focus on a smaller world gets a boost. An importunate fly is swatted, and – fascinating this – almost immediately gets carried away by an ant. By staring at some bark, I get to see not just why bark is a larder for some species, but why Brown Creepers go up a tree, while Nuthatches go down. Not having a book to read, I find fascination all around me. Best of all, on this occasion, I find that the Old Man's Beard, hanging from a tree just inches from my face, is not just structurally interesting, but has an eminently practical use.

"Nuthatches like to go downwards."
Photo by the author.

More from Hawaii: an endemic Hawaiian Goose, an endemic Hawaiian Coot, and a definitely-not-endemic Mongoose. The introduced Mongoose is one of the many serious challenges now being faced by Hawaii's dwindling native birdlife.