



British Columbia Coast

BirdWatch

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Coastal Waterbird Data Used in Analysis of Marine Bird Declines

By David Bradley

The BC Coastal Waterbird Survey data was recently put to very good use by a cross-border team of scientists from the University of California, the Washington Department of Fish and Wildlife, the USDA Forest Service, and Bird Studies Canada. In September the team published a paper in the journal *Conservation Biology* reporting their study, which used Coastal Waterbird Survey data from BC combined with aerial survey data from Washington, and Christmas Bird Count data from both Canada and Washington. The BC Coastal Waterbird Survey dataset filled an important gap that otherwise would not have been available.

The goal of the study was to identify important clues about the commonalities of species that are more likely to lead to declines or changes in habitat use. The analysis involved determining the population trend of each species from the surveys, and their respective ecological traits and dietary specializations. The researchers excluded any species that occurred in less than 1 in 20 counts, and focussed on 39 species that represent the core marine bird community (e.g. persistent, abundant, and biologically associated with the Salish Sea). The team then developed a model to test the hypothesis that changes in prey abundance are driving bird population changes, with the prediction that declines in bird population size would be most extreme in species with greater foraging energy expenditure (such as those birds that dive and chase food underwater).

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Pigeon Guillemot (T. Middleton)



Black Scoters (R. Hocken)

Coastal Waterbird Survey Used in Marine Bird Analysis (continued)

The results of the analysis were consistent with this hypothesis, revealing that 93% of declining species were diving birds such as loons, grebes, and alcids (murre, auklets and puffins). In contrast, 64% of the birds showing an increasing trend were surface-feeding birds such as ducks, gulls and geese, whereas only 36% were diving birds. The team also addressed the association between declines in count numbers and foraging strategy, dietary specialization, and whether the species breeds locally. They found that diving birds wintering in the Salish Sea were approximately 11 times more likely to have undergone declines than non-diving birds. Furthermore, bird species feeding on fish were 8 times more likely to have undergone declines than those that do not feed on fish. Even for birds that feed on fish, those that dive deeply and do not feed on demersal fish (i.e. on or near the sea floor) were 16 times more likely to have undergone declines than birds that do feed on demersal fish. Local-breeding status also influenced a species' likelihood of decline; those birds that bred locally were 3 times less likely to have undergone declines than non-local breeding birds.



Coastal Waterbird Survey at Neck Point (K. Barry)

These changes in abundance also influenced the community structure of birds wintering in the Salish Sea between 1994-1999 and 2000-2010. In general, alcids and seaducks were more abundant in surveys conducted in the 1990's, and non-diving birds and those birds with a diverse diet were more abundant in recent surveys in the 2000's.

The observed shifts in the composition and structure of bird communities in the Salish Sea can possibly be explained by changes in availability and quality of fish prey such as Pacific herring, surf smelt, and Pacific sand lance. These fish stocks are declining, in part, due to the alteration or removal of shoreline habitat and vegetation, and the dredging and construction of seawalls and other coastal modifications.

This study is one of the first to combine transboundary marine bird data from multiple monitoring programs and exemplifies what can be done with the information collected by Bird Studies Canada volunteers!

The full paper can be found at: <http://onlinelibrary.wiley.com/doi/10.1111/cobi.12378/pdf>

or tinyurl.com/kmvthql



Piscivorous diving birds specializing on forage fish and without local breeding colonies (e.g., Common Murres) had the highest probability of undergoing declines (Photo by R. Tizard)

BC Coastal Waterbird Survey: Observations from 2013-14

By Karen Barry

The British Columbia Coastal Waterbird Survey (BCCWS) is a long-term citizen science monitoring program aimed at assessing population trends and identifying habitat use patterns of BC's wintering waterbirds using coastal and inshore marine areas. Since it began in 1999, over 500 volunteers have surveyed more than 300 sites throughout BC. September 2014 marked the start of the 16th season of this program and the database now includes over 20,000 surveys! We sincerely thank all of the volunteer Citizen Scientists who have contributed to this monitoring effort. This article features a general summary of the most recent winter season from September 2013 to April 2014. During this season, over 180 sites were surveyed and more than 220 volunteers were involved, including several new surveyors.

Large Flocks

Overall, the largest flocks were observed for shorebirds in Boundary Bay which is part of the Fraser River Estuary Important Bird Area. In March 2014, over 15,000 Dunlin were recorded at the Boundary Bay 112th Street site (Jeremy McCall). Another large flock of 12,000 gulls was recorded on Denman Island in March 2014 (Mike Morell and Harold Birkeland).

Gulls

The BCCWS is one of the only monitoring programs regularly capturing population data on Thayer's Gull. Hotspots for Thayer's Gulls in 2013-14 included Powell River, Hornby Island, Black Creek, Parksville-Qualicum and Nanaimo River estuary. It can be difficult to distinguish Thayer's from some of the other large gulls therefore many gulls recorded on surveys are recorded as "unidentified gull." We encourage volunteers to try to identify to species as much as possible to improve our ability to measure long term changes at the species level. For assistance, we encourage you to use the gull ID sheets (see tinyurl.com/kruwr8m) or send us your photos or questions.

Heermann's Gulls were recorded regularly on surveys in 2013-14, especially near Victoria and also at sites in the Gulf Islands, Comox, Jordan River and other areas on the east coast of Vancouver Island. The maximum count of Heermann's Gulls was 185 at Witty's Lagoon in October 2013 (Ian Cruickshank).

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Flock of shorebirds
(U. Easterbrook)



Thayer's Gull (T. Carr)



Heermann's Gulls
(G. Gadsden)

BC Coastal Waterbird Survey Results (continued)

Loons

Large flocks of Common Loon are relatively uncommon although groups of over 30 Common Loon were recorded on several occasions in White Rock in September 2014 (Leona Breckenridge, Alison Prentice, Ken Summers, Fred Simpson) and in Comox (Terry Thormin and Frank Bosco). Large groups of over 100 Pacific Loons were recorded on several occasions in White Rock and at several sites on the east coast of Vancouver Island, from Mayne Island to Black Creek. The highest count was 712 on Denman Island in February 2014 (Mike Morrell and Harold Birkeland).

Grebes

Large flocks of Western Grebe are not seen as often in the southern Strait of Georgia compared to many years ago. Studies indicate that Western Grebe have shifted their winter distribution southwards to California. However, good numbers were regularly observed during 2013-14 at a site in Viner River estuary in the Broughton Archipelago (Yvonne Maximchuk and Bill Proctor). Over 700 Western Grebe were recorded in this area during October 2013, December 2013, and January-March 2014. Red-necked Grebe were seen at most sites throughout the BC coast. Counts over 100 Red-necked Grebe occurred in September 2014 at Comox, White Rock and Denman Island with a maximum count of over 600 at White Rock (Leona Breckenridge and Alison Prentice). Horned Grebe were recorded at many sites and were most abundant at Cordova Bay in Victoria, Kitty Coleman-Seal Bay in Comox, Denman Island and Nanaimo.



Red-necked Grebe (R. Hocken)



American Wigeon (K. Stewart)

Dabbling Ducks

High numbers of dabbling ducks including American Wigeon, Green-winged Teal, Mallard, and Northern Pintail were seen in many areas, in particular Boundary Bay-White Rock-Roberts Bank. Dabbling ducks are most abundant during the fall and early winter, from September to December. A count of 12,500 American Wigeon was recorded at Roberts Bank in November 2013 (Kevin Bell, George Clulow, Larry Dea and Khalid Boudreau). Eurasian Wigeon continue to be commonly sighted at sites in the lower mainland (especially Roberts Bank and Boundary Bay) and on the east coast of Vancouver Island.

Raptors

As Bald Eagle numbers continue to increase, they are influencing other waterbirds from increased disturbance levels and predation. Bald Eagles are an important top predator in BC preying on many waterbird species, as well as scavenging fish, marine mammals and birds. The presence of eagles can affect the distribution of many other species including ducks, grebes, herons, cormorants, gulls and alcids. In 2013-14, the maximum count of Bald Eagles was 95 on Denman Island in March 2014 (Mike Morrell and Harold Birkeland). High counts of Eagles were also observed at the same time in March 2014 at several other sites: 67 in Comox (Margaret Fowler), 37 at Kye Bay in Comox (Sharon Niscak and Norma Morton) and 37 on Hornby Island (Bev Bullen).

Alcids

Marbled Murrelet are widely distributed around the BC coast, usually in low numbers, but larger flocks were recorded in the fall and winter in the Broughton Archipelago with 70 seen in November 2013 (Yvonne Maximchuk and Bill Proctor). Flocks of Marbled Murrelet are also reported in the spring – summer. For example, 93 Marbled Murrelet were recorded in June in Port McNeill (Peggy Sowden), 77 were recorded in April off Denman Island (Mike Morrell and Harold Birkeland), and 72 were recorded in Kitimat in May 2014 (Walter Thorne).

Most Rhinoceros Auklet were recorded from sites around Victoria, southern Vancouver Island, and Mayne Island. Many were also observed further north on surveys at Viner River estuary and Malcolm Island. The highest count was 710 Rhinoceros Auklet at Witty's Lagoon in September 2013 (Ian Cruickshank) followed by 400 in June in Viner River estuary (Yvonne Maximchuk and Bill Proctor) and 139 in June at Cordova Bay (Mike McGrenere).

Unusual Sightings

Volunteers who have conducted surveys for a number of seasons have the opportunity to get to know their site and the usual bird species present. As with any birding experience, it is always fun to add a new or unusual species. Here are just a few of the sightings from the 2013-2014 season that were new or unusual at a site:

- A Black-necked Stilt seen in White Rock in October 2013 (Gareth Pugh)
- An albino (leucostic) or Iceland Gull seen in McKay Channel, Nanaimo, in January 2014 (Trudy Chatwin)
- Three immature Ross's Geese seen in Campbell River Estuary in December 2013 (Ed & Thelma Silkens)
- Yellow-billed Loons seen at a number of sites including Belcarra Regional Park (January 2014 by Andrea Paetow and John Black), Viner River Estuary (December 2013 by Yvonne Maximchuk and Bill Proctor), Bere Point (February 2014 by Gord Curry), and Lang Creek Breakwater near Powell River (February 2014 by Neil Hughes)
- Spotted Sandpipers were notable in White Rock in September 2013 (Leona Breckenridge) and in West Vancouver in March 2014 (Bob Dyer)
- A Greater Yellowlegs surprised Bernard and Herbie Rochet on Mayne Island in August 2013 and a Wandering Tattler surprised Karen Barry in Nanaimo in June 2013



Bald Eagles (T. Hobley)



Marbled Murrelet (T. Middleton)

Looking Forward to 2014-2015

We are now well into the 2014-2015 survey season. We appreciate the ongoing participation of many volunteers and wholeheartedly welcome new participants to the survey (see page 11)! As of October 2014, responsibility for the Coastal Waterbird and Beached Bird Survey programs passed to the new BC Program Manager David Bradley (see page 15). David can be reached at BCPrograms@birdscanada.org or dbradley@birdscanada.org or 604-350-1996 or 1-877-349-2473.



Beach Combing with a Purpose: Results from 2013 Beached Bird Surveys

By Krista Englund



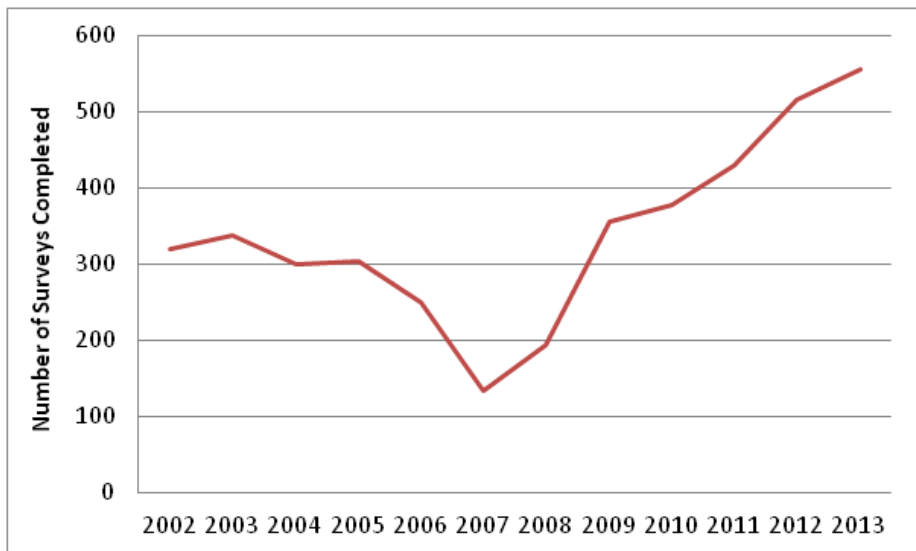
Karen Barry conducting a Beached Bird Survey (E. Demers)

The BC Beached Bird Survey is a citizen science program that has been coordinated by Bird Studies Canada since 2002. Predefined stretches of beach are walked each month by volunteers who look for carcasses of waterbirds that have washed up onshore and signs of oiling on beaches. The survey collects invaluable information about the causes and baseline rates of waterbird mortality along British Columbia's extensive coastline.

Survey Coverage 2013

In 2013, over 100 volunteers participated in the program and collectively conducted 555 surveys at 77 beaches! Figure 1 shows how the number of surveys completed has grown over the past five years to a new high in 2013. The number of sites surveyed in each region varies substantially, with more sites surveyed in areas with higher population (Table 1). Surveys in more remote regions are often conducted opportunistically. Seven new routes were established on Vancouver Island (e.g. Cowichan Bay West and East, Maple Beach, Islandview Road to Beachcomber RV, Cherry Point, Cordova Bay and Port Hardy-West Beach) and one was established on Gabriola Island at Sandwell Beach. Several routes around False Creek and in Boundary Bay were also reorganized to improve survey efficiency. We appreciate the continued participation of our volunteers and thank those who retired in 2014 (see page 10). There are one or more vacant routes in each region, so please contact us if you know of any individuals who might be interested in joining the program.

Figure 1. Total number of BC Beached Bird surveys conducted by year.



Swan carcass (M. Keller)



Mallard wing (D. Kramer)



Beached Buffhead (P. Fafard)

Results 2013

In 2013, volunteers searched a total of 852 km of beach and found 95 dead birds (e.g. 1.1 birds per 10 km of beach) (Table 2). The regions with the greatest number of birds found per length of beach walked included Boundary Bay, Southern Vancouver Island (greater Victoria north to Duncan), the Strait of Georgia (Sunshine Coast and east coast Vancouver Island north of Duncan), and the West and North Coast of Vancouver Island. These trends are consistent with previous years' results. Although some volunteers rarely find birds on their beaches, these 'zero' observations are still very important for establishing baseline data.

Approximately half of the beached birds found were gulls, the most common gull being Glaucous-winged Gull (Table 3). Gulls were primarily found on Southern Vancouver Island, in Boundary Bay and particularly in the Strait of Georgia (e.g. Mitlenatch Island). One quarter of the beached birds found were ducks, swans or geese, with most showing up in Greater Vancouver and Greater Victoria areas. Alcids comprised 9% of the beached birds found, with two dead Cassin's Auklets and two dead Rhinoceros Auklets found on Triangle Island off the north coast of Vancouver Island, which is a large seabird breeding colony. Other species found included four cormorants, a Black Turnstone on Lennard Island, an unidentified shorebird at French Creek North on Vancouver Island, three Sooty Shearwaters at Chesterman Beach and Schooner Cove on the west coast of Vancouver Island, several

Table 1. Number of active Beached Bird Survey sites by region.

Region	# Sites
Boundary Bay	7
Lower Mainland	13
Gulf Islands	8
Southern Vancouver Island	19
West & North Coast Vancouver Island	6
Strait of Georgia	21
North and Central Coast	3
Total	77

Northwestern Crows, and one Bald Eagle on Triangle Island.

In most cases, the cause of death is difficult to determine, but some volunteers found clues that helped them identify a possible cause of death. For example, a Glaucous-winged Gull found at Little Campbell River to East Pier appeared to have ingested a plastic bag. Many of the Glaucous-winged Gulls on Mitlenatch Island appeared to have been predated by Bald Eagles. Predation was also the suspected cause of death for a Northern Pintail and unidentified scaup at Iona Beach South, an American Wigeon at Witty's Lagoon, and a Cassin's Auklet on Triangle Island. A number of other birds also had signs of predation or scavenging, although it was not always clear if predation was the initial cause of death. A Marbled Murrelet found at Cadboro Bay and a Black Turnstone found on Lennard Island appeared to have broken wings. No oiled birds or signs of oiling were reported in 2013.

Volunteers can collect fresh and intact carcasses and we will submit them to the lab for post-mortem examination through a collaborative carcass collection program with Environment Canada- Canadian Wildlife Service. Please note that any carcass collected must be fresh, intact and put in a freezer as soon as possible.

Story continued on next page.

Table 2. Beach length surveyed, number of birds found and deposition rate by region.

Region	Beach Length Surveyed (km)	# Birds Found	Deposition Rate (birds/km)
Boundary Bay	124	18	0.15
Lower Mainland	165	11	0.07
Gulf Islands	57	1	0.02
S. Vancouver Island	168	23	0.14
West & North Coast Vancouver Island	80	12	0.15
Strait of Georgia	248	30	0.12
North & Central Coast	10	0	0.00
Total	852	95	0.11

Results from the 2013 Beached Bird Survey (continued)

Future Needs

BSC is always looking for new volunteers to join the Beached Bird Survey, particularly in regions where we have vacant sites, although we can also set up new routes. No experience is necessary to participate and the survey is suitable for all ages. It provides a great reason to get out for a walk along a local beach and collect valuable information along the way! To sign up, please contact David Bradley at bcprograms@birdscanada.org.



Table 3. Species of beached birds found by region.

Species	Boundary Bay	Lower Mainland	Gulf Islands	Southern Vancouver Island	West and North Coast Vancouver Island	Strait of Georgia	Total	% of Total
Gulls	9	2		8	1	26	46	48%
Ducks, Geese & Swans	5	5	1	13			24	25%
Alcids	1	1		2	4	1	9	9%
Cormorants	2	1			1		4	4%
Tubenoses					3		3	3%
Crows		1			1	1	3	3%
Loons	1	1					2	2%
Shorebirds					1	1	2	2%
Raptors					1		1	1%
Unknown						1	1	1%
Total	18	11	1	23	12	30	95	100%

Recent Seabird Mortality Events in 2014

Several volunteers reported unusually large numbers of beached birds during late summer/fall of 2014. Nearly one hundred seabirds washed ashore in the Boundary Bay/Pt. Roberts area in late August and early September, coinciding with the salmon net fishery. Common Murre was the most frequent species found, comprising 80% of the total number. Other species included Common Loon, Pigeon Guillemot, Rhinoceros Auklet, Pelagic Cormorant, Surf Scoter, Bufflehead, grebes and gulls. Thirty-nine dead birds were collected, and post mortem examination confirmed birds were entangled in nets and drowned. The majority of Common Murre were (molting) adults.

On the West Coast of Vancouver Island, volunteers noticed a high number of alcids washed up on beaches in September and October, following two large storm events. Over 270 seabirds were found dead on beaches from Tofino to Bamfield, mostly Common Murre. Nineteen were collected and will be examined for cause of death. Pete Clarkson with Parks Canada believed the majority of the birds to be hatch year birds. There was no evidence of oiling.

In November and December, higher than normal numbers of Cassin's Auklets were found on some west coast Vancouver Island beaches, and large numbers of young of the year Cassin's Auklets washed up along beaches in Washington, Oregon and California (as of Nov 19th, an estimated 500 birds had been reported). The poor body condition of the birds, their young age and involvement of only a single species suggests that these birds died from starvation. The 2014 breeding season saw the highest recruitment ever for Cassin's Auklets (98% fledging success on Triangle Island), so there are many young birds competing for a lower than normal amount of krill. Further details on this event have been published in the article "Large-scale die-off of small seabird along Sonoma Coast" (<http://www.pressdemocrat.com/news/3145997-181/large-scale-die-off-of-small-seabird?page=0> or tinyurl.com/n7cb98x).



Common Murre and Common Loon found at Boundary Bay in late August 2014 (T. Carr)



Common Murre found at Cape Beale Lighthouse Station in October 2014 (K. Zacharuk)



Cassin's Auklet found at Cape Beale Lighthouse Station in November 2014 (K. Zacharuk)



Thank you 2013 BC Beached Bird Survey Volunteers!

A huge thank you to the volunteers and their assistants who contributed observations to the BC Beached Bird Survey in the 2013 survey season: Adrien Amadeo-Vittone, Gary Amadeo, Stella & Derek Atkins, Robert Auger, Nathan Badry, Karen Barry, Marjorie Miller, Karen Boissonneault, Linda Miller-Boyes, George Boyes, Leona Breckenridge, Amber Brown, Stephanie Bryant, Barbara Burnside, Bill Campbell, Darlene Choquette, Jennifer Chow, Debbie Cleveland, Linda Cole, Merrily Corder, Stu Crawford, Christina Cutbill, Danielle Dagenais, Eric Demers, Jennifer Devey, Joanne Dickeson, Dalyze Epp, Phyllis Fafard, Eckhardt Ferdinandi, Bev Ford, Graham Ford, Sally and Al Frost, Marilyn Futer, Jeff George, Daniel Grima, Barry Hall, Fred & Connie Handley, Pat Hanrahan, Catherine Hebert, Pauline Hedger, John Henrichson, Mark Hipfner, Denis Hughes, Nigel & Jan Hurford, Catherine Jardine, Daryl Johnson, Malcom Jolly, Lori Jordan, Erika Justmann, Andy Kaye, Martha Keller, April Kendrik, Al Kirkley, Don & Vanessa Kramer, Penny Lancaster, Christina Lee, Maggie Little, Robert & Mara Love, Valerie MacDevitt, Ian MacDonell, Helene Malvet, Eric Marshall, Art Martell, Mike & Barbara McGrenere, Sharon McInnes, Geoff Meggs, Janice Melvin, David Nussbaumer, Jan O'Brien, Marijke Olson, Stan Olson, Lilliana Paz, Margaret Pearson, Alison & Andrew Prentice, Gareth Pugh, Anu Rao, Ilze Raudzins, Connie Miller-Retzer, Dave Robinson, Doug Rowell, Janet & Ervin Russwurm, June Ryder, Janet Schindler, Chuck Sherer, Catherine Soper, Linda Soper, Phil Soper, Christina Steele, Bill & Michelle Stewart, Eve & Ildiko Szabo, Gayle & Derek Tedder, Brian Titaro, Bob & Jan Walker, Anita Watts, Ling Weston, Anne Whyte, Becky Wigen, Brian Wigen, Brandie Williams, Mac Willing, Neil Wilson, Chris Winstanley, Janet Woolgar, Robyn Worcester, Toni & Ron Wyckoff, Lucas Zak.

We greatly appreciate the contributions of the following surveyors who retired in 2014 and wish them all the best: Anita Georgy, Janet O'Brien, Lilliana Paz, Alison & Andrew Prentice and Genevieve Singleton.

Our warmest welcome to new volunteers for the Beached Bird & Coastal Waterbird Survey!

Beached Bird Survey: Terry Carr, Terita Deare, Heather-Leigh Dysart, D. Ross Fisher, Helen Fox, Alicia Gimenez, Denis Hughes, Moira Izatt, Sadie Karmazyn, Karen Kline, Iain Lawrence, Frieda Miller, Leah Strong, Paulus Vrijmoed and Karen Kyle Zacharuk.

Coastal Waterbird Survey: Lee Carter, Jean Gartner, Agnes Lynn, Peter McAllister, Allison Mells, Neil Moss, Renata Neftin, Pauline O'Toole, Louise Pederson, Yves Perraeault and Jill Sechley.

Thank you 2013-14 BC Coastal Waterbird Survey Volunteers!



A huge thank you to the volunteers and their assistants who contributed observations to the BC Coastal Waterbird Survey in the 2013-14 survey season: Jim & Fran Askey, Heather Baines, Donna Baker, Ron Barre, Karen Barry, Lonny Bate, Andrew Baylis, Jason Beattie, David Bedry, Kevin Bell, Diane Berry, Margaret Beswetherick, Jan Bevan, Janet Bingham, Harold Birkeland, John Black, Darren Bond, Frank Bosco, Kahlid Boudreau, Sandy Bowie, Neil Boyle, Leona Breckenridge, Betty Brooks, Janice Brown, Dorothy Bruce, Grant Bruce, Bev Bullen, Ian Burnett, Clyde Burton, Rob Butler, Joanne Cahill, Mikell Callahan, Peter Candido, Russell Cannings, Cathy Carlson, Douglas & Sheila Carrick, John Chandler, Vaughan Charley, Trudy Chatwin, Jannaca Chick, Linda Chue, Vi Chungranes, Michael Church, Colin Clark, Jennifer Clark, George Clulow, Thomas & Evelyn Constable, Elaine Couling, Jenna Cragg, Patricia Crossley, Christine Croton, Ian Cruickshank, Gord Curry, Christina Cutbill, Chris Dale, Grant Danielson, Marcia Danielson, Larry Dea, Bryan Debou, Raymond Demarchi, Eric Demers, Meredith Dickman, Anna Ditommaso, Fred & Evelyn Dobson, Nancie Dohan, Wanda Dombrowski, Daniel Donnecke, Warren Drinnan, Michael Dunn, Phillinda Dunne, Richard Dunne, Bob Dyer, Hilary Dymond, Nadene Ebell, Christine Elliot, Krista Englund, Patrick Fawkes, Jane Field, Kerry Finley, Walley Fletcher, Anna Fodchuk, Graham Ford, Dennis Forsyth, Margaret Fowler, Bryan Gates, Pierre Geofray, Christine Gibertson, Pam Gordon, June Gracie, Jim Gracie, Catherine Grima, Daniel Grima, Joan Hainer, Hugh Hamilton, Liz Hammond-Kaarremaa, Connie Handley, Sherri Hanney, Heather Harbord, Lee Harding, Rhys Harrison, Terry Harrison, Carol Hartwig, Anika Hazra, Todd Heakes, David & Pam Helem, Hannah Hereward, Judith Holm, Sue Horner, Dennis Horwood, Frank Hovenden, Sheila Howlett, Julian Hudson, Neil Hughes, Barbara Iarocci, Vanessa Isnady, Allan Jensen, Bert & Daphne Jervis, Daryl Johnson, Rob Johnson, Gavin Johnston, Keith Jordan, Krista Kaptein, Ruth Keogh, Bill Kinkaid, Al Kirkley, Caroline Knox, Anne Marie Koch, Adrian Koolman, Vanessa Lambertus, Kristen Lambke, Murray Lankester, David Lassman, Jennifer Lawson, Christina Lee, Jim Lindenberger, Susan Lindenberger, Kitty Lloyd, Erika Lok, Joan Lopez, Bev Lownie, Rob Lyske, Gwynna MacCaskill, Valerie MacDevitt, Greg & Barb MacKenzie, Alan MacLeod, Angus Macleod, April Macleod, Patrick MacNamara, Alison Maingon, Loys Maingon, Kathryn Manry, Eric & Dorothy Marshall, Art Martell, Sue Martell, Monica Mather, Yvonne Maximchuk, Jeremy McCall, Catherine McEwan, Skye McEwan, Mike McGrenere, Hilary McGuire, Gerald McKeating, Alyssa Menzies, Jim Meyer, Else Mikkelsen, Gail Mitchell, Wallis Moore Reid, Rob Miekarski, Art Morgan, Mike Morrell, Karen Morrison, Norma Morton, Neil Moss, Judy Muir, Chris Murell, Brian Murphy, Larry Murray, Bob Nation, Sue Ness, Heather & John Neville, Amanda Newman, Fran Newson, Sharon Niscak, James Nolan, Remi Odense, Stan Olson, Andrea Paetow, Bonnie Parks, Chris Pileau, Margaret Pim, Joan Plysiuk, Alison & Andrew Prentice, Bill Proctor, Gareth Pugh, Tony & Carol Quin, Doug Race, Ellie Race, Sandra Raftery, Ilze Raudzins, John Rawsthorne, Sheila Ray, Carol Rennie, Paul Rennie, Paul Richardson, Karl Ricker, Eileen Rico, Loretta Rihtamo, Karin Ristau, Alden Roberge, Mary Robichaud, Dave Robinson, Bernard & Herbie Rochet, Sheila & Doug Rogers, Steven Roias, Donald Ross, Donna Ross, Donna Roth, Amelie Rousseau, Rand Rudland, Harriet Rueggeberg, Janet Russwurm, June Ryder, Bob Sarti, Stuart Scholefield, Terry Scott, Margie Shepherd, Julia Shewan, Muggs Sigurgeirson, Ed & Thelma Silkens, Michael Simmons, Roger Simms, Fred Simpson, Shanna Sinclair, Mindy Skinner, Angus Smith, Jodi Snijders, Pam Soo, Catherine Soper, Peggy Sowden, Anne Stewart, Bill & Michelle Stewart, Michael Stewart, Kira Sufalko, Michael Sullivan, Ken Summers, Leo Sutherland, Mark & Ingrid Taylor, Roger Taylor, Bryon Thompson, David Thomson, Donna Thomson, Terry Thormin, Brian Thorne, Jim Thorne, Liz Thorne, Walter & Susan Thorne, Marti Tilley, Russ Tkachuk, Sheryl Tomlinson, John Treen, Keith & Bea Valentine, Jason VanRooyen, Amanda Vaughan, Sheena Vennesland, Bob Vergette, Judith Vetsch, Joy Wade, Fern Walker, Ken Walker, Leona Wall, Lea Walsh, Gillian Watson, Diane Webster, Ray Webster, Stephanie Weinstein, Diane & Art Weismiller, Alex Welcel, Kurlen Wen, Bruce Whittington, Indira Wick, Megan Willie, Mac Willing, Julie Wilmott, Neil Wilson, Janice Wilson, Jim & Lyn Wisnia, Mike Woodworth, Wendy Woodworth, Robyn Worcester, Lisa Zervakis, Ann Zielinski, Cowichan Estuary Nature Centre, Quest University Participants.

We greatly appreciate the contributions of the following surveyors who retired in 2014 and wish them well: Julie Foster, Pat Hanrahan, Julian Hudson, Stan Olson, Alison & Andrew Prentice, Mark & Ingrid Taylor, and Mike Woodworth.

In Memoriam: Bert and Daphne Jervis of Pender Island, and Mark Taylor of Victoria, were dedicated volunteers for the Coastal Waterbird Survey who passed away in 2013 & 2014. They will be greatly missed.

Beached Bird Survey: From Coast to Coast!

By Andrew P. Coughlan, Bird Studies Canada

Canada is simply huge and with the longest coastline of any country, it may come as no surprise to learn that while Beached Bird Surveys are being diligently conducted in British Columbia, likeminded individuals over 5000 km away in Québec, almost at the other extremity of the country, are conducting very similar surveys in the Estuary and Gulf of the Saint Lawrence.

The Saint Lawrence is one of the deepest and largest estuaries in the world and together with the Gulf, extends from Tadoussac (just over 200 km east of Québec City) all the way out to the Atlantic Ocean. It comprises unique and diverse ecosystems and represents an important area for seabirds, shorebirds and waterfowl. It also forms part of the Great Lakes Saint Lawrence Seaway System, which allows boats to travel from the Atlantic to the Great Lakes and the heart of North America. As such, the area is heavily used by commercial shipping with over 6000 transits each year.

The Québec Beached Bird Survey was initiated because it was felt that birds and other wildlife in this area may be at risk from the illegal dumping of oily bilge waste. The region also houses several potentially important hydrocarbon reserves, and there are current plans to develop an oil terminal port at a site situated at the southwestern extremity of the Beached Bird survey area. Therefore, the survey not only monitors the state



Mont-Saint-Pierre, Gaspé Peninsula (Andrew P. Coughlan)

of beaches and the likely causes of bird mortality, it is also providing base line information regarding carcass encounter rates prior to the development of other projects within this marine environment.

The survey was developed in partnership with the Regroupement QuébecOiseaux (which groups and represents the province's bird clubs), Explos-Nature's Observatoire d'oiseaux de Tadoussac (a member of the Canadian Migration Monitoring Network) and Environment Canada, with funds made available through the Birds Oiled at Sea program. It was deployed in 2009, and is currently being run by Bird Studies Canada with financial support from Environment Canada, and with help from a regional coordinator for the Bas-Saint-Laurent region.

The survey area stretches from Tadoussac to Sept-Îles along the northern shore of the Estuary and Gulf, and from Cacouna in the Bas-Saint-Laurent region on the southern shore, around the Gaspé Peninsula to Newport, and then out to the Magdalen Islands. The program, which uses the same protocol as that used in BC, complements data generated by other surveys that were historically conducted in the Maritimes, and along the Lower North Shore of Québec and the Labrador and Newfoundland coasts. Surveying in Québec is largely limited to the period from May to October, when the shores are free of ice and snow, and this also covers the period when shipping is most active.



Les Islets-Caribou, North Shore (Andrew P. Coughlan)

Since the start of the program, participation has continued to grow and now exceeds 200 visits to approximately 50 beaches. Carcass encounter rates are generally low, with between 60 and 80 carcasses being reported each year. Gulls, Northern Gannets and waterfowl form approximately 70% of the carcasses found. While oiled birds and by-catch victims have been reported, the vast majority of the carcasses seem to be of birds that died of natural causes—with predation by raptors being particularly high in the fall.

Most of the beaches in the survey are typically infrequently visited by ornithologists. Therefore, as well as providing information on dead birds, participants are also helping to provide valuable information on the use of the study sites by live birds, with over 150 checklist covering about 45 000 live birds being submitted annually. The fact that there are no reports from participants of oil having been deposited on the surveyed beaches and only two oiled birds have been encountered since the start of the program, suggests that the Estuary and Gulf of Saint Lawrence, and the extensive shoreline that borders it, can currently be given a generally clean bill of health in terms of illegal dumping of bilge waste.



Northern Gannet (Andrew P. Coughlan)



Double-crested Cormorant (Andrew P. Coughlan)



L'Anse-à-Blondel, Newport (Andrew P. Coughlan)

Taking the Pulse of Western Sandpipers in BC

By Karen Barry and David Hope

Bird census results have led many to fear that many once-abundant shorebird species may be declining. A hemispheric effort is now underway to explore possible explanations. Factors that are hypothesized to potentially cause shorebird population declines include breeding, wintering or stopover habitat loss; decline in habitat quality; recovering predator populations; climate change; or a combination of these factors. Alternatively, changes in shorebirds' migratory behaviour could influence census counts.

In 2013, a new collaborative project was launched by Bird Studies Canada and Simon Fraser University to study Western Sandpiper abundance and behavior with help from Citizen Scientists. The goal of the project is to understand characteristics important for birds in site selection during southward migration – and how changing conditions, such as increased predator presence or human disturbance, affect these decisions. These decisions can then be used to understand the effect of behaviour on census counts. David Hope, a Ph.D. student at SFU supported by NSERC in partnership with Bird Studies Canada, is conducting the research. Volunteer surveyors have been enlisted to conduct simultaneous counts from several sites in the Salish Sea and Vancouver Island region, and to document the presence of falcons.



Western Sandpiper (D. Hope)

The first field season in 2013 was a great success with over 40 volunteers conducting surveys on 2 weekends in July and August. Surveys were conducted at over 30 sites in BC and Washington–Puget Sound. At Sidney Island, a banded Western Sandpiper was found on August 17, 2013. Researchers from Kansas State University and SFU had banded it as a chick on June 28 in Nome, Alaska. In just 50 days, it grew to full size and made the journey of over 3000 km south to Sidney Island!

A second field season was conducted in 2014. Over 60 volunteers conducted surveys on July 19-20 and August 16-17. Data was recorded from 36 sites and once again a banded sandpiper was observed on Sidney Island, this time during July. Records indicate that this Western Sandpiper was banded on October 9, 2013 (as a 2012 hatch year bird or earlier) at the Mississippi River Delta, at Elmer's Island Wildlife Refuge, Louisiana.

Preliminary maps from 2013 surveys show that Western Sandpipers were seen at several sites in August 2013, with the greatest number observed at Boundary Bay. A few falcons were also observed at these same sites. Work is continuing to analyze the 2014 data and to develop a model to generate predications and test hypotheses about shorebird site use.

Through this project, we hope to inform conservation management and planning by discovering whether changes in abundance at a particular site can be attributed to changes in the population size, or to other factors such as redistribution among sites.

Funding for this work has been provided by the Natural Sciences and Engineering Research Council of Canada, Simon Fraser University, Environment Canada, and Bird Studies Canada.

Sincere thanks to the many volunteers who have contributed to this project. To learn more, please visit www.sfu.ca/~dhope/. We are already looking for volunteers for 2015! To participate, please email dhope@sfu.ca or BCprograms@birdscanada.org.

News & Announcements



Thank you Karen and Best Wishes!

We have all had the pleasure of working with Karen Barry, who coordinated the Beached Bird and Coastal Waterbird Survey programs from November 2008 to November 2014. During her six years at Bird Studies Canada, Karen worked with volunteers to maintain existing survey sites and expand to new areas, resulting in more surveys being conducted than ever before. Karen also played a key role for the organization as Acting BC Program Manager for the past year, overseeing and contributing to other programs including the Important Bird Areas program, Western Sandpiper migration monitoring, a pilot invasive species project on BC's seabird breeding colonies, and many others. Karen will continue on as a volunteer with Bird Studies Canada, but will be greatly missed as the BC Program Coordinator.



Welcome David Bradley!

David started as the BC Program Manager in October, where he came from the BSC office in Ontario. There he worked as a post-doctoral researcher examining the migration and behavioural adaptations of Tree Swallows to climatic variation. David has previously worked on conservation and management studies in New Zealand, Costa Rica, and here in Canada. He hopes to bring his experience to his new role, and looks forward to meeting as many volunteers as possible!

Spotlight on Western Grebe

5 May 2014 - At the May meeting of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), held in Halifax, COSEWIC assessed the Western Grebe as a species of Special Concern due to population declines that have been taking place on its Pacific coast wintering grounds. Jon McCracken (Bird Studies Canada's Director of National Programs), who co-chairs COSEWIC's birds subcommittee, says that we don't yet know the extent to which some of the decline may just represent a geographic shift in the grebe's wintering distribution. Because the species congregates in large numbers, it is vulnerable to a variety of threats.



Western Grebe (G. Gadsden)

Surveyor's Scrapbook



Discovery Beach, Campbell River, Beached Bird Survey site (D. Ross Fisher)



Triple Island Lighthouse Station, Coastal Waterbird Survey site (R. Neftin)



Coastal BC beauty (N. Boyle)



Double-crested Cormorants in South Surrey/White Rock (T. Carr)

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