



Earliest Records of Franklin's Gull for British Columbia With an Update on its Current Status in the Peace River Region

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Abstract

The status of Franklin's Gull (*Leucophaeus pipixcan*) in British Columbia from 1938 through 1970 has been previously summarized.⁵ Throughout the late 1950s and 1960s, the species became a regular late summer and early autumn visitor to the south coast. Records from the interior, outside the Peace River region where the species was listed as casual in 1938, have remained scarce. New records were recently

uncovered in field diaries, museum collections, and unpublished written works for the interior between 1914 and 1949 which constitute the earliest records for British Columbia and the Pacific Northwest. The early status and occurrence is revisited for Franklin's Gull in interior British Columbia, including an update of the species' status in the Peace River region of the province and possible origin of birds observed in the province.



Figure 1. The narrow red bill with a black ring, wide white crescents above and below the eyes, and large white tips on the primary feathers of adult Franklin's Gull separate it from the similar Laughing Gull (*Leucophaeus atricilla*) of eastern North America. *Photo by Alan D. Wilson.*

INTRODUCTION

The history, distribution, migration chronology, and status of Franklin's Gull (*Leucophaeus pipixcan*; Figure 1) in British Columbia has been previously summarized for the period 1938 through 1970⁵ and updated through 1989.⁹ Not available to these authors at the time were the field diaries of Delbert Grovnor Boyd Ryder and his son Glenn R. Ryder.⁶ Delbert's field notes mainly covered the vicinity of Mount Lehman in the central Fraser River valley (March 1903–March 1910) and Mile 59 House, Clinton, and Green Lake in the southern Cariboo (April 1910–July 1915). Glenn's notes included areas around Penticton and Kelowna in the Okanagan valley (April 1942–June 1946), Celista and Scotch Creek in the Shuswap Lake area (June 1946–July 1954) and many locations in the Lower Mainland in southwestern mainland British Columbia from August 1954 to October 2013.⁶

The purpose of this article is to put on record the earliest unpublished records of Franklin's Gull for British Columbia.

Chronological List of Early British Columbia Records, 1914-1949

Franklin's Gull has only been recorded on nine occasions in five different years for the 45-year period between 1914 and 1949. Details for these observations, both published and unpublished records for this period are listed below.

1914

On 21 June 1914, Delbert Ryder recorded an adult Franklin's Gull foraging with three adult Ring-billed Gulls (*Larus delawarensis*) along the shore at the south end of Green Lake in the south Cariboo area of British Columbia (10U 620887E 5692677N). Green Lake is located about 13 km east of 70 Mile House. The lake is one of the larger lakes in the region, being about 14 km long and averaging 1.5 km in width with an irregular shoreline of 57 km. The surface elevation is 1,073 m.

Field notes describing the Franklin's Gull were as follows:

“1 adult in breeding colours. Back slate in colour.

Head black, eye shows a wide white ring about the eyes or a partly white eye ring. The bill is a blood red with a black narrow bar near its bill tip. Flight feather tips black with large white tips. Tail all white. Breast and belly white. Legs dark I had brought my bird books with me in the saddle bags and went through them to check on the various birds.”

1930

Ronald M. Stewart collected a male at Atlin, BC, (Figure 2), on 10 July 1930. The specimen is in the The Louis Agassiz Museum of Comparative Zoology (Harvard University, Cambridge, MA) as MCZ 328561. This record was overlooked in several significant publications.^{11,21,5,9}



Figure 2. The Franklin's Gull collected along the waterfront in Atlin, BC, in 1930 by R.M. Stewart still remains the most western record for interior British Columbia. The gull was associating with foraging Bonaparte's (*Chroicocephalus philadelphia*) and Mew (*Larus canus*) gulls and Arctic Terns (*Sterna paradisaea*). Photo by R. Wayne Campbell, Atlin, BC, 12 July 1999.

1938

As part of a program to investigate unique and little known regions of the province, the British Columbia Provincial Museum (now Royal BC Museum) organized the first biological reconnaissance of the Peace River district in 1938. Staff biologist Dr. Ian McTaggart-Cowan and assistant Patrick W. Martin spent 26 days between 5 and 30 June collecting and observing wildlife in the vicinity of Dawson Creek, Rolla, Fort St. John, and Charlie Lake.

On 7 June Pat Martin wrote:

“Ran my traps & had one *Zapus*, two *Microtus* & one *Peromyscus*. I collected a female warbler of the Mourning group. Dr. Cowan collected a pair of Franklin’s Gulls.”

While a graduate student in Berkeley, CA, in the early 1930s, Ian became familiar with Harry Swarth’s biological reconnaissance reports on collections of birds and mammals in British Columbia (e.g., Vancouver Island³³ and Atlin³⁴ and initiated a similar series as “Occasional Papers” at the Provincial Museum. The 1938 Peace River expedition was the first in the series.¹¹

The account for Franklin’s Gull read:

“A casual summer visitant to the district that must be identified with care due to its superficial resemblance to the more common Bonaparte’s Gull. Two specimens taken June 7 at Swan Lake constitute the first record for the species in British Columbia.”

Swan Lake is located 29 km southeast of Dawson Creek (10U 688439E 6156755N; el. 729 m). It is 4.5 km long and 1.5 m wide and is the largest water body in the area that attracts migrating and breeding waterbirds.²⁵

The specimens, both adult males, were deposited in the Royal BC Museum as RBCM 7917 and 1918.

About a month later Allan Brooks collected two juvenile Franklin’s Gulls at Okanagan Landing, about 6 km southwest of Vernon, BC.¹ This location (11U 332742E 5568455N; el 342 m) is about 584 km south of Swan Lake. Brooks wrote:

“*Larus pipixcan*. Franklin Gull. Two juveniles taken at north end of Okanagan Lake by Brooks, August 3, 1938, while migrating with Bonaparte Gulls [*Chroicocephalus philadelphia*]; others seen.”

Both specimens are in the Museum of Vertebrate Zoology (MVZ) collections in Berkeley, CA. One is a female (MVZ 82089) and the other a male (MVZ 101362). The collector is listed as A.C. Brooks and the location on the specimen label is North Arm, Okanagan Lake.

The species was new to the Okanagan bird list but the published date 31 August 1938 is erroneous as was the claim that the record was the first for British Columbia.¹⁰ Other Franklin’s Gulls remained in the vicinity of Okanagan Landing until 11 June (Figure 3).



Figure 3. Most records of Franklin’s Gull in British Columbia are immatures (juveniles and subadults) as shown in the photograph. It is the only species of gull that has a complete moult in spring and autumn. It takes three years to reach maturity. The bird in this photograph is transitioning into winter plumage. Photo by Tim Kendrick, Nelson, BC, 11 September 2012.

1941

Ian McTaggart-Cowan spent 31 days between 4 August and 3 September at Alta Lake, 1.3 km west of Whistler, BC, (10U 510320E 5551629N; el. 642 m). During this period he compiled a list of 71 species of birds he observed. The only gulls on his list were Herring Gull (*Larus argentatus*) and Bonaparte’s Gull. K. Racey²⁷, however, published the following account for his updated list of birds of Alta Lake²⁵ which included some of Cowan’s records:

“Franklin’s Gull, *Larus pipixcan* Wagler. – A juvenile was taken by Dr. Cowan on August 9, 1941, from a flock of Bonaparte’s Gulls.”

The specimen, a female, was added to the collections in the Vertebrate Museum in the Department of Zoology at the University of British Columbia and later transferred to the Beaty Biodiversity Museum

(UBCBBM CTB000488). The date on the specimen label is 11 August 1941, the same date published in Munro and Cowan.²¹

1944

While birding for the day in farmland along Guisachan Road, east of Richter Street in Kelowna on 24 August, Glenn and his older brother Donald noticed three gull-like birds in a farm pond. They wrote:

“(3) young Birds at the pond poking about standing on a floating small log all in a row. These Gulls not often seen in this area [Okanagan]. These are not like young Bonaparte’s gulls as these have all dark wing [no pattern], a dirty brownish coloured head and white face and Brownish white tail with a blackish band across the feathers [at tip]. White ring above and below eye and black bill.”

During the day the brothers recorded 57 species of birds. The only other species of Laridae seen was four Black Terns (*Chlidonias niger*) that visited the pond briefly. The description of the “young” birds suggests the Franklin’s Gulls were juveniles.

1946

Glenn started the first of seven pages of field notes on 10 May with, “I skip school for this trip. I take a Bike from school and go out on Bernard Ave to Glenmore Road and up to a road running east Towards this Lake [Robert Lake] and at one Point I hide the Bike and hike into the Lake.” Throughout his life, the compulsion to look for bird nests took priority over attending school and frequently, after students had entered the classroom, Glenn would “borrow” a bicycle to explore sites further afield. The bike was always returned shortly before the school day ended.⁶

Robert Lake is a pear-shaped shallow water body about 8.4 km northeast of Kelowna (11U 327121E 5534365N) at 435 m elevation. It is 0.76 km long and 0.46 km at its widest point.

During the outing Glenn recorded 69 species of birds, including Black-crowned Night-Heron (*Nycticorax nycticorax*) and Loggerhead Shrike (*Lanius ludovicianus*). In addition, he documented details of 26 nests for 10 species of waterbirds. Noteworthy discoveries included two Horned Grebe (*Podiceps auritus*) nests, an American Bittern (*Botaurus lentiginosus*; Figure 4) and Virginia Rail (*Rallus limicola*) nest and three Wilson’s Snipe (*Gallinago delicata*) nests.

Two gull species were also present. He wrote:

“(2) [Bonaparte’s Gulls] flying about this Lake with one Franklin’s Gull, an Adult bird Black main flight feathers of wings show white Tips on each feather also white windows in the inner feathers of wing. Black head, white belly and tail, red bill.” (Figure 4)

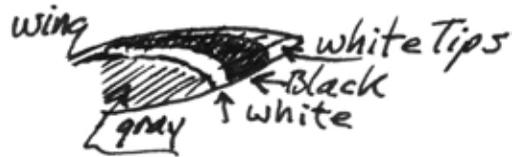


Figure 4. The wing pattern of the adult Franklin’s Gull, showing the white primary tips with alternating black and white bands on a gray wing, quickly separate it from an adult Bonaparte’s Gull in flight. *Sketch from field notes of Glenn R. Ryder, Robert Lake, BC. 10 May 1946.* BC Photo 4146.⁸

Eight days later, on 18 May, while spending the day at Robert Lake again to check nests he had found earlier, Glenn observed another adult Franklins’ Gull. He wrote:

“(1) Adult seen flying across this lake and it kept flying towards Wood Lake or up to Kalamalka Lake.” Wood Lake is about 13 km north of Robert Lake.

On 5 August, during a walk along the southwest shore of Shuswap Lake west of the wharf in Salmon Arm to the Salmon River (11U 337303E 5619037N; el. 347m; Figure 5), Glenn spotted a Franklin's Gull loafing and flying with a flock of 64 Ring-billed Gulls. The bird was a non-breeding adult (see Figure 3). It was characterized by "a dusky partial hood on the head that covered the eyes, both of which showed white lines above and below. The bill and legs were black, the back was gray, the underside was white, and the wings were more brownish than gray. The wing tips were white-and-black."



Figure 5. The observations of Glenn Ryder in the Shuswap Lake area of British Columbia in the mid-1940s were unique as the area was seldom visited by bird collectors. Today, the area is a very popular bird watching site. *Photo by R. Wayne Campbell, Shuswap Lake, BC, 30 May 2010.*

1947

On 3 August, Glenn hiked from Charlie and Mary's Riley's farm in Celista to the north shore of Shuswap Lake for an afternoon swim, recording birds along the way. At the old wharf (11U 335371E 5646291N; el. 350 m) he counted a flock of 69 gulls resting on the water, composed of 14 California Gulls (*L. californicus*), 30 Ring-billed Gulls, 24 Bonaparte's Gulls, and one Franklin's Gull. The latter species was "with Bonaparte's Gulls, all appear to be resting." No other details were recorded.

On 31 August, at the same location, Glenn recorded "(3) immature Franklin's Gulls travelling with Mew Gulls. No other details were recorded.

1948

In summer 1948, Dr. Ian McTaggart-Cowan, a professor at the University of BC, carried out brood surveys and banding operations of waterfowl on at least 16 lakes in the Cariboo region including Chimney Lake. This lake, located about 21 km south southwest of 150 Mile House (10U 571461E 5752126N; el. 873 m), is a tear-shaped lake about 5.5 km long and 1.4 km at its widest point. Participants included government biologists, students, and a game warden that included David Calls, R. Yorke Edwards, James Hatter, Leo Jobin, James A. Munro, Webster Ranson, and John S. Tener.

The single entry in Ian's field notes under Franklin's Gull for Chimney Lake read, "Took a single bird, a juvenile, today [1 August]." No other gulls were noted.

The specimen, a female, was added to the collections in the Vertebrate Museum in the Department of Zoology at the University of British Columbia and later transferred to the Beaty Biodiversity Museum (UBCBBM CTB001794).

There was an additional record for the summer. Ian noted:

"Aug 18/48. Two of these birds were with several young Bonapartes [Gulls] at the S. [east] end of the lake (10U 566805E 5774119N; 572 m). Their dark wing tips & backs made them easily distinguishable."

1949

There were two sightings of Franklin's Gull from the same general location as in 1947 that may be part of the same group.

On 25 May Glenn wrote:

"(1) being chased by this Parasitic Jaeger [*Stercorarius parasiticus*]. Gull seems to be a Breeding Adult with Its Red Bill Black head white neck and breast slately Back white eye ring the Primary flight feathers show large white tips."

On 26 May Glenn's entry read, "(4) Adults seen resting on old wharf." No other details were recorded.

Early Records for the Pacific Northwest

The 1914 record for British Columbia predates the earliest records for the Pacific Northwest (British Columbia, Washington, and Oregon) by 27 years. In Washington State, the first record, a bird “in progressive stages of the post juvenal molt”, was seen by J.L. Slipp³¹ on 14 September and 12 October 1941 at Waughop Lake (not Lake Waughof as listed in the two most recent books on Washington State)^{15,19} at the south end of Puget Sound, Pierce County, and was collected on 25 October 1941. The following year, Slipp saw one or two Franklin’s Gulls at Waughop Lake on 17 September and 20 October and another at the mouth of Chambers Creek in Puget Sound on 20 September. Three birds were collected. All were males of the year.³² As of 2015, Franklin’s Gull is an “Uncommon fall migrant, very rare spring migrant and summer visitant” in western Washington; “rare spring and fall migrant and very rare summer visitor” in eastern portions of the state. It is “casual in winter.”¹⁹

Franklin’s Gull was first recorded in Oregon at the Malheur National Wildlife Refuge, in the east-central part of the state, in 1943 and was confirmed nesting at Malheur Lake on 7 June 1948.^{14,13} The nesting colony grew from a suspected 75 to 100 birds in 1948 to 1,330 pairs in 1981.¹⁷ Currently, the species is common, and breeds, in the southeastern portion of the state; it is rare from spring to autumn elsewhere in the interior. It is very rare all seasons in western Oregon.^{13,17}

British Columbia Habitats and Species’ Associations

All early records in the province, from 1914 to 1949, were from lake habitats with the exception of a farm pond near Kelowna in 1944. The nine lakes ranged in size from Robert Lake in Kelowna (2 ha) to Atlin Lake, British Columbia’s largest lake at 79,000 ha, in the extreme northwest of the province.

From one to four Franklin’s Gulls were observed in the interior flying, roosting, or swimming with migrating or summering Bonaparte’s Gulls, Ring-billed Gulls, California Gulls, Mew Gulls, or Black Terns. One was being harassed by a Parasitic Jaeger.

With increasing numbers of Franklin’s Gulls being reported in British Columbia, habitats used for loafing and foraging have also become more varied. In the Peace River region the gulls use large lakes (Figure 6) and marshes, landfill sites, dikes, beaches, agricultural and sports fields, urban and rural parking lots, and sewage lagoons.^{25,30}



Figure 6. From the mid-1980s onward, hundreds of Franklin’s Gulls were present from late May to early July in mid-lake bathing or resting and frequently loafed in tight flocks in parking lots at Charlie Lake in the southern Peace River region. *Photo by R. Wayne Campbell, 10 June 2007.*

On the southwest coast, including the Lower Mainland, Gulf Islands, and Vancouver Island, Franklin’s Gull has been found in a wide variety of habitats that include sheltered bays and inlets, beaches, tidal mudflats, sewage lagoons, school yards and playing fields, agricultural fields, river estuaries, marine shorelines (Figure 7), landfills, cattail marshes, lakes, and municipal parks⁵ (pers. obs.). It has been recorded with 10 species of gulls and terns of which the highly migratory Bonaparte’s Gull, Ring-billed Gull, and California Gull are the most common.



Figure 7. On the southwest coast, an occasional Franklin's Gull may be seen in flocks of migrating Bonaparte's Gulls loafing on kelp beds. *Photo by R. Wayne Campbell, Clover Point (Victoria), BC, 6 September 1995.*

Origin of British Columbia Birds

In Canada, Franklin's Gull breeds in lakes and marshes in the Canadian prairie provinces from Alberta (east of the mountains) through Saskatchewan to southwest Manitoba. There is a single, isolated breeding record from Kotcho Lake in extreme northeastern British Columbia in 1996 (British Columbia Nest Record Scheme files; Figure 8). The species winters mainly along the west coast of South America.³

The origin of Franklin's Gulls occurring in British Columbia still remains obscure (Figure 9). The species travels the farthest of all regularly occurring, migrant gulls in Canada. A synopsis of banding recoveries for Franklin's Gull from nesting colonies in the Canadian Prairie provinces from 1921 to 1995 showed that hatch-year birds have traveled as far as



Figure 8. In June 1982, a flock of 117 Franklin's Gulls was counted on Kotcho Lake, in extreme northeastern British Columbia, with foraging and nesting Herring Gulls, Mew Gulls, and Bonaparte's Gulls. In 1996, several pairs were found nesting on the island.⁷ *Photo by R. Wayne Campbell, 26 June 1982.*

northern Chile, a distance of 9,475 km. A total of 6,543 birds (all ages) was banded during the 74 years of analysis with 1.9% of those being recovered. The main southward migration occurred through central portions of North America; none was recovered from British Columbia. There have been no Canadian-banded birds reported since 1972 because of the lack of banding activity.¹²



Figure 9. Numbers of breeding Ring-billed and California gulls have been increasing in British Columbia, especially on Whiskey Island in Okanagan Lake, since the early 1970s.⁹ Although colonies in British Columbia have not been banded, it is possible that juvenile Franklin's Gulls follow post-breeding birds to the coast. *Photo by R. Wayne Campbell, 22 May 1993.*

It is noteworthy that early records of Franklin's Gulls in British Columbia correspond to drought conditions and fluctuating water levels at nesting colonies in adjacent Alberta. Major years of drought in Alberta occurred in 1910, 1914, 1917, 1918, and 1919, and the drought between 1917 and 1926 was considered to be especially severe. Less severe drought conditions also continued in the 1930s.¹⁸

Outside the Peace River region of British Columbia, especially on the southwest coast, small numbers of Franklin's Gulls have been reported regularly, starting in the 1960s and 1970s. The species has an extensive period of post-breeding wandering and it disperses many hundreds of kilometres.^{2,3} In

British Columbia, this period occurs mainly from late July through late October and coincides with post-breeding migratory movements of Bonaparte's Gulls and California Gulls.⁸ Vagrants have been recorded in most other months.⁵

Drought on the Canadian prairies cannot fully account for this change as there were no severe multi-decade droughts between the 1930s and 1980s, although single-year droughts occurred in 1961 and 1977.^{16,22,23,24} However, it provides clues to their origin. In the late 1950s and early 1960s R.F. Oldaker started a program to read bands on California Gulls at the old Kerr Road dump that was the City of Vancouver's main landfill between 1944 and 1966. He determined that most of the banded birds originated from nesting colonies in Alberta, Saskatchewan, North Dakota, Montana, Wyoming, and Idaho, a range that overlaps breeding colonies of Franklin's Gulls.³ During five years of reading gull bands (1959-1963), Oldaker recorded one to three juvenile Franklin's Gulls at the garbage dump from 15 July (1960) to 29 September (1963) on 21 different occasions. It seems plausible that the origin of these birds followed the movement of California Gulls from interior colonies to the British Columbia coast (Figure 10).



Figure 10. From mid-July to mid-September large numbers of California Gulls migrate to the southwest coast of British Columbia from breeding grounds in the Canadian prairies. Infrequently, interspersed among the flocks, are small numbers of juvenile and subadult Franklin's Gulls. *Photo by R. Wayne Campbell, Esquimalt Lagoon, BC, 22 August 2007.*

Changing Status in the Peace River Region

Since its discovery in the Peace River region of British Columbia in 1938, numbers of Franklin's Gulls have increased dramatically. This influx occurred mainly in the 1980s and cannot be fully explained by migration or dispersal. In the late 1970s and early 1980s, drought conditions in Alberta became severe and 1984 was the driest year since 1916.²⁸ It is postulated that in years with drought and fluctuating water levels in adjacent Alberta, where Franklin's Gull has been expanding its breeding range northward since at least the 1950s and 1960s²⁹, gulls may invade the Peace River area of British Columbia, especially in the vicinity of Fort St. John (Figure 11) and Dawson Creek.



Figure 11. In the late 1970s, a few Franklin's Gulls visited landfills in the vicinity of Fort St. John and by the late 1980s hundreds of birds were feeding and loafing in summer with other gulls at the Grand Haven landfill. *Photo by R. Wayne Campbell, 24 June 1996.*

Numbers vary from year to year depending on environmental conditions in the Canadian prairies but over the 78 years since its discovery in British Columbia, Franklin's Gull has become at times a very common summer visitant.^{25,30} First birds arrive during the latter half of April, increase in numbers in May when thousands may be present by the middle of the month, decrease slowly in June, and increase again with post-breeding birds in early July.^{25,30} Chris Siddle³⁰ reported seeing 1,500 gulls, the largest single flock ever recorded at this time from the Fort St. John

sewage lagoons on 6 July 1997 (Figure 12). Numbers decreased throughout late July and early August. The latest departure dates, all single juveniles, ranged between 20 August and 26 October.



Figure 12. The sewage lagoons in Fort St. John attract large numbers of summering and post-breeding Franklin's Gulls, especially during drought years on the prairies. *Photo by R. Wayne Campbell, 10 June 2007.*

It is suspected that spring and summer Franklin's Gulls are a mixture of immatures, sub-adults, and failed breeders. It has also been suggested that breeding adults may visit foraging sites in British Columbia from colonies in nearby northern Alberta. Some birds may breed when two years old, but most breed a year later and some not until their fourth year.³ At times it is difficult to identify different age-classes of adult-looking birds. In early July birds seen by Siddle at the sewage lagoons in Fort St. John were "all in adult plumage except for five percent that were first-year birds".³⁰

Since at least the late 1970s, pairs of adult Franklin's Gulls, displaying sexual and courtship behaviour such as head tossing, long calls, copulation, territorial defense, landing in marshes, and swooping aerial displays^{20,3} have been observed in at least six sites. The sites, all lakes with suitable nesting marshland, and listed north to south, include Boundary Lake (northwest corner; 10V 684740E 6249075N; Figure 13), Cecil Lake (south end; 10V 649433E 6244879N; Figure 14), McQueen's Slough (north end; 10U 677612E 618790N; Figure 15), Swan Lake (south end; 10U 687971E 6154086N), and One

Island Lake (west side: 10U 670991E 6132211N). When courtship behavior was observed, each site was searched for nests by canoe or wading following established survey methods.⁴ No evidence of nesting was found. In 1993, Phinney also reported birds “exhibiting courtship behaviour” at McQueen Slough’s and nesting “seemed imminent.”²⁵ †



Figure 13. During in-marsh surveys in the Peace River region of British Columbia from the mid-1970s to mid-2000s⁴ Franklin’s Gulls have infrequently been observed landing, and staying, in suitable breeding habitat along the west side of Boundary Lake. *Photo by R. Wayne Campbell, 19 June 1996.*



Figure 15. Courtship behavior of pairs of Franklin’s Gulls have been observed infrequently at McQueen’s Slough, 5 km northeast of Dawson Creek, BC, but thorough nest searches of the entire wetland proved fruitless. *Photo by R. Wayne Campbell, 13 June 2008.*

Acknowledgements

I am very grateful to the late Glenn R. Ryder and Ian McTaggart-Cowan for entrusting me with their personal field notes. I also want to acknowledge photographers Alan D. Wilson and Tim Kendrick for use of their images and Brigitta M. Van Der Raay for the drawing of the adult Franklin’s Gull. The manuscript benefited from comments by Spencer G. Sealy, Dennis A. Demarchi, and Patricia Huet.



Figure 14. While Franklin’s Gulls copulate during migration, a pair was observed copulating on the vegetation mat at Cecil Lake on 22 June 2004. However, a two-day survey of the entire lake by canoe and wading failed to locate a nest. *Photo by R. Wayne Campbell.*

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Figure 16. The age classes of Franklin's Gulls observed in the Peace River region of northeastern British Columbia in late spring and summer each year is not known. *Drawing by Brigitta M. Van Der Raay.*

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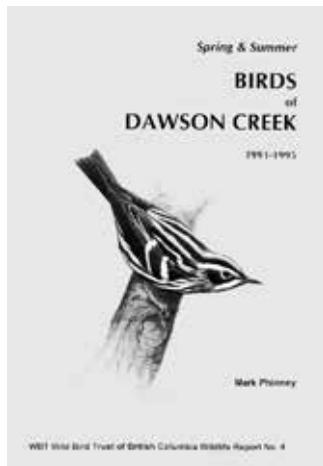


Figure 17. Mark Phinney's book on *Birds of Dawson Creek*, now 22 years old, still remains the only source of comprehensive information on birds in the southern Peace River area of the province. It is hoped the popular out-of-print publication will be updated.

- ²⁶Racey, K. 1926. Notes on the birds observed in the Alta Lake region, British Columbia. Auk 43:319-325.
- ²⁷Racey, K. 1948. Birds of the Alta Lake region. Auk 65:383-401.



Figure 18. Over 70,000 records of birds were compiled and published in Chris Siddle's two-volume treatise on *Birds of north Peace River...* during a decade and a half of observations.

- ³¹Slipp, J.W. 1942. Franklin's Gull in the state of Washington. Murrelet 23:18.
- ³²Slipp, J.W. 1943. Further notes on the Franklin's Gull in the Pacific Northwest. Condor 45:38-39.
- ³³Swarth, H.S. 1912. Report on a collection of birds and mammals from Vancouver Island. University of California Publications in Zoology 10:1-124.
- ³⁴Swarth, H.S. 1926. Report on a collection of birds and mammals from the Atlin region, northern British Columbia. University of California Publications in Zoology 30:51-162.