

WINTER OCCURRENCE OF SUMMER BIRDS ON VANCOUVER ISLAND, BRITISH COLUMBIA

By IAN McTAGGART COWAN

Victoria, situated on the southern tip of Vancouver Island, is the southernmost city in British Columbia. Eastward, in the Strait of Georgia, lie the American islands of San Juan, Orcas, Lopez, and several of lesser size. Still farther to the east on the adjoining mainland can be seen the perpetually snow-capped peaks of Mount Baker and Mount Rainier in the Cascade Range. To the south and southwest of Victoria, across the Strait of Juan de Fuca, the majestic Olympic Mountains recede from 9000 feet to an ever decreasing altitude westerly, finally to submerge themselves in the Pacific Ocean at Cape Flattery, sixty miles west of Victoria. Lying thus within the rain-shadow of the Olympics and its own high central mountain chain, the low elevations of southeastern Vancouver Island are florally and in some respects faunally different from any other part of British Columbia.

The flora of the area immediately surrounding Victoria and extending in a narrow, discontinuous strip up the eastern side of the island as far as Comox, is coastal Transition Zone in character. Particularly in the southern parts, Garry oak (*Quercus Garryana*) parkland is a typical vegetational type. Arbutus (*Arbutus Menziesii*) is a dominant tree species, and on the drier hillsides manzanita (*Arctostaphylos tomentosa*) forms an open chaparral. Broom (*Cytisus scoparius*) and gorse (*Ulex europaeus*), introduced in the vicinity of Victoria some seventy-five years ago, now form extensive dense thickets on the once open hillsides and provide an abundance of food and shelter for ground birds.

These notes concerning the presence in winter of certain bird species usually regarded as migrant have been derived from specimens in the Provincial Museum and from my own field notes covering the winters of 1935-39.

To investigate the possibility that a change in weather conditions might be involved I have compared below the mean monthly temperature in degrees Fahrenheit and the mean monthly precipitation in inches at Victoria for the ten years 1887-96 and the ten

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
					Temperature							
1887-1896	37	37	43	46	52	56	59	59	54	49	42	41
1929-1938	39	41	45	50	54	58	61	61	58	53	45	42
					Precipitation							
1887-1892	4.6	3.1	2.8	1.5	1.1	1.1	.4	.5	1.9	2.6	6.0	7.3
1929-1938	5.0	3.3	2.6	1.1	.9	1.3	.6	.6	1.2	2.6	3.6	5.5

years 1929-38. It is apparent that while the rainfall was much the same during these two periods, the mean monthly temperature was uniformly greater during the more recent years. Although the observed difference is small it may represent a change in critical minimum temperatures sufficient to make possible the survival of birds that would formerly have perished.

As regards the Lewis Woodpecker and the Golden-crowned Sparrow it is thought that these observations may indicate a change in the migratory habits of some populations of these species. Other instances can be regarded only as sporadic occurrences, resulting perhaps from maladjustment of the individual to stimuli that normally provoke migration. If, however, these avian pioneers can survive the winters in this latitude, it is conceivable that there may arise a hardy wintering population which will add this territory to the normal winter range of the species.

Columba fasciata fasciata. Band-tailed Pigeon. This pigeon is a common to abundant visitor on southern Vancouver Island during the summer months, but the greater part of the population migrates in late September and early October. In the winter of 1936, at least two individuals were seen re-

peatedly on Albert Head, twelve miles west of Victoria. They spent the winter months in a large mixed grove of fir, maple, and arbutus, and fed on the berries of the last.

Asyndesmus lewis. Lewis Woodpecker. The abundance of nesting sites resulting from the logging operations on Vancouver Island has probably contributed to an increase in the population of this woodpecker. It is now an abundant breeding species. The majority migrate during the first two weeks of September and return early in May.

During the winters of 1936-38, a single bird remained in an oak grove in Beacon Hill Park. On April 30, 1937, May 2, 1938, and May 5, 1939, the wintering individual was joined by a second, thought to be its mate. This winter (1939-40), two Lewis Woodpeckers have remained in this grove. Twelve to fourteen others are known to have spent the winter of 1938-39 in the extensive oak groves at Uplands. On December 1, 1939, a pair was seen in that locality but no search was made to determine how many others were present.

Hyalocichla guttata. Hermit Thrush. During some winters hermit thrushes remain in fair numbers. I have encountered one or two every winter since 1935. There is a specimen from Comox, taken December 21, 1924, and three others collected at Albert Head, near Victoria, on February 8 and March 31, 1936, in our collections. Of the two specimens taken on February 8, one is typical of the race *nanus* and the other apparently represents the race *guttata*.

Sialia mexicana occidentalis. Western Bluebird. This species is a common migrant and a rather scarce summer resident on southern Vancouver Island. Winter records are as follows: Saanich, February 28, 1936; Comox, January 2 and 17, 1925, and January 31, 1926.

Myadestes townsendi. Townsend Solitaire. Brooks and Swarth (Pac. Coast Avif. No. 17, 1925, p. 119) report the solitaire as occasional in winter in the Fraser Valley of extreme southwestern British Columbia. Though I have not personally encountered the species in the last four winters, there are a number of specimen records in the museum collections. Specimens representing both sexes have been taken at Victoria on March 15, 1896, and on January 25, 1895; at Comox on February 25, 1895; and at Langford on December 2, 1933.

Bombycilla cedrorum. Cedar Waxwing. This bird is an uncommon summer visitant to southern Vancouver Island, but during the winter of 1938-39, it remained in small numbers. The abundance of hawthorn trees that grow semi-wild in and about Victoria provided an adequate food supply of berries until the advent of spring produced a more varied diet.

On January 5, 1939, a flock of about ten waxwings was seen twice during the day, feeding in some hawthorn trees near the museum. They were not seen again until March 8, when seven waxwings and a number of robins came to the same trees. This or another flock was encountered on April 11. On June 6 the first of the returning migrants arrived and several flocks were seen.

Dendroica auduboni. Audubon Warbler. Several of the winter records of this warbler at Victoria are probably best interpreted as illustrating a very early migratory movement northward.

The autumn migration takes place early, usually in late August and early September. In the last four years I have seen none later than August 30. However, on February 2, 1936, I watched a warbler of this species fly in over the Strait of Juan de Fuca and land in some low trees in Beacon Hill Park. I saw the bird several minutes before it reached shore, and followed it with my glasses. It appeared to be coming northward across the strait from the Olympic Peninsula. On February 7 of the same year, I saw several more under similar circumstances.

In 1937, the first Audubon Warbler was seen on February 1, and the second on February 9. A week later they were being seen regularly. On December 24, 1938, a single male was watched at close range as it fed in the oaks of the hospital grounds, but no others were observed until March 20, 1939, when several were feeding in the trees bordering the lake in Beacon Hill Park.

Agelaius phoeniceus caurinus. Northwestern Red-wing. The red-wing is an abundant summer visitant in the region, but only a few remain through the winter. Specimens in the museum were taken at Langford, December 6, 1934; Comox, February 7, 1926; and Victoria, February 26, 28, 1896.

Zonotrichia leucophrys gambelii. Gambel White-crowned Sparrow. This sparrow occurs as a migrant on Vancouver Island where the breeding race is *Z. l. pugetensis*. The single winter specimen in the museum collection was taken at Comox on January 30, 1926, by R. M. Stewart.

Zonotrichia coronata. Golden-crowned Sparrow. During the winter of 1938-39, this sparrow occurred in fair numbers from Victoria north at least to Cowichan Lake. On January 4, 1939, I saw several in an abandoned gravel pit near Victoria. The sides of the pit were covered with dense broom thickets, and in these the sparrows spent the winter. One was taken and is now in the Kenneth Racey collection. On March 13, 1939, a juvenile was shot at Cowichan Lake. In early December, 1939, I saw Golden-crowned Sparrows at Cowichan Lake and near Victoria.

Provincial Museum, Victoria, British Columbia, January 9, 1940.