

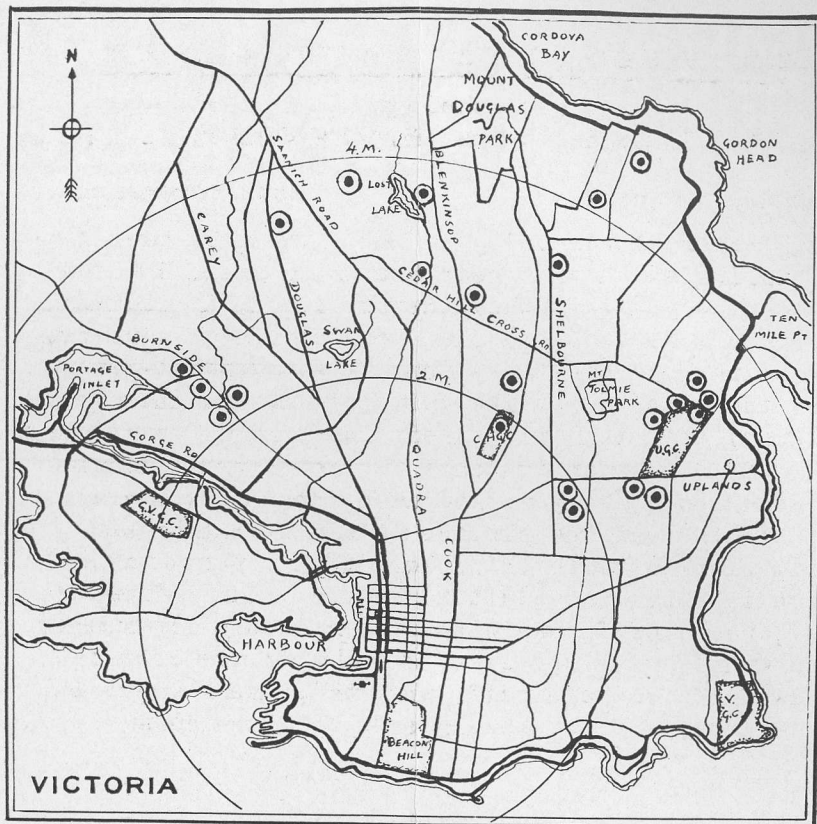
The
**VICTORIA
NATURALIST**

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YOUNG SKYLARKS



NESTING AREAS OF SKYLARK

THE VICTORIA NATURALIST

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The English Skylark.

Alauda arvensis, L.

Every nature lover enjoys a thrill when he sees Skylarks soaring and hears their beautiful song, but few have seen the young in their nests, and it is doubtful if they would be distinguished even at close quarters. Covered with long, feathery down of a yellowish-green colour, they look more like tufts of moss or fine grass (see Cover) and blend with their surroundings perfectly. The eggs also show an instance of protective colouration, being so heavily marked with spots of brown and neutral tints that the surface is almost completely covered, blending with the colour of the earth where the nest is set. The adult birds are brown, streaked on head, back and flanks with darker brown; underparts buffish white, with spots and streaks on the breast; the eye-stripe is pale buff; the bill, black above and brown beneath; irides, hazel; legs, reddish-brown; Length 7.7 ins.

In the past, several attempts were made to introduce the English Skylark into different parts of Canada and the United States, until the practice was frowned upon by the authorities, due to the disastrous consequences resulting from the importation of the English Sparrow. According to the older reference books, some success was achieved at Flatbush in the Long Island area, where a small colony was established in 1887, and was still in existence in 1907, but since this date there is no further record, and the colony evidently died out. F. M. Bailey in his book mentions that the birds are established in Oregon, but as neither Hoffman or Pederson in their later books of Western Birds refer to the Skylark, it is doubtful if they have managed

to survive there. It therefore appears that Victoria is the only place on the continent where they have been able to colonize.

When these birds are taken from their natural environment and liberated in a strange country, they seem to lose the urge to migrate, and have therefore to combat the rigours of the winters in their new home. In Victoria where the winter climate is comparatively mild, they have managed to survive since 1902 when a number were liberated. It is a fact that when we get a few consecutive mild winters the increase in numbers is remarkable. In the spring of 1942 I marked on a map the different places where I had noted them singing and soaring, and, as they stay very near their nests in the breeding season, it is not hard to make an accurate count in any given area. There were several localities I did not visit, but a glance at the map (page 14) will give a good idea of the probable nesting pairs in these areas. In that year, if the whole area, including Gordon Head and Royal Oak, were carefully checked, the number of breeding pairs would be considerable.

The photo of the young was taken at Cedar Hill Golf Course, alongside a wagon road, on the 10th June 1942.

A. L. Meugens.

Violet-green Swallows consider feathers so necessary for the lining of their nests, that they will on occasion pluck them from the hand if they are held up for them.

A.L.M.

GLACIATION IN SOUTHWESTERN B.C.

Summary of address given at the Monthly Meeting, April 11th, 1944.

Like other parts of the world, Southwestern B. C. suffered from more than one invasion by ice during the last 1,000,000 years. Beginning with a cooling or a dampening of the climate, snowfields appeared in the high mountains, then grew in size and number. These, in turn, changed to glaciers which extended farther and farther down the mountain valleys, then out onto the lower lands. They merged into a single ice sheet which covered the Interior Plateau of B.C. and flowed southward into the State of Washington. Ice also flowed from the Coast Mountains into the Straits of Georgia forming another sheet of ice, several thousand feet deep, much of which moved southward to the vicinity of Victoria, then a part passed westward through the Strait of Juan de Fuca, the remainder south into the Puget Sound area of Washington.

The ice, by its erosion, effectively modified the landscape. At the source of the glaciers in the high mountains 'headwall sapping' gave rise to basin-shaped amphitheaters known as 'cirques'. 'Plucking' by the ice of fractured bed-rock deepened and widened the valleys and gave to them a characteristic U-shaped cross-section. The more rapid downcutting of the main valleys left the tributary valleys 'hanging' and the streams issuing from them now cascade down the walls of the main valley to its floor. The ridges which formerly extended into the valleys were cut back and 'faceted'. Some valleys were cut so deeply that the sea has since invaded them and given rise to 'fiords'. 'Abrasion' of the underlying rock by rock fragments held in the ice has produced stream-lined mounds of rocks or 'roches moutonnees', with polished, scratched and grooved surfaces, so often seen around Victoria.

The material picked up by the ice near its source was later deposited, either as isolated boulders or 'erratics', in many cases quite unlike in character that the underlying bedrock, or as more or less continuous sheets of assorted rock debris known as 'glacial till' or 'boulder clay'. Some of the till is modelled during deposition into oval-shaped hills, oriented parallel to the ice movement, known as 'drumlins'. A great deal of material is scattered by the streams of meltwater flowing from the ice and is laid down as sheets of sand and gravel known as 'outwash'. Some material may be thus deposited into the sea or into lakes to form flat-topped deltas. The finer particles may be carried out into the water and laid down on the sea or lake floor as clay.

In many parts of the world there are records of four distinct periods of glaciation, separated by intervals in which the climate was as temperate as at present. In B.C. there are records of only two periods of glaciation. During the first period a layer of till was laid down on glaciated rock surfaces. On this till was deposited a great thickness of outwash, gravel, sand, silt and some fossiliferous peat, probably filling the Puget Sound area to about 200 feet above the present sea-level. This deposit was subsequently dissected by rivers and, still later, by a second ice sheet. The latter ultimately left a second layer of till, which in Victoria rarely exceeds a few feet in thickness. The climate then became dryer or warmer and the melting of the ice sheet at its front exceeded the accumulation of fresh snow at its source. Thus the ice wasted away and somewhat more than 8000 years ago it disappeared from the Strait of Georgia area, leaving a barren land on which all vegetation and animal life had subsequently to find a footing.

W. H. Mathews.

FAIRY SHRIMPS

Harbingers of Spring.

A common inhabitant of fresh-water ponds in the vicinity of Victoria is the fairy shrimp and yet it is very little known even to those who delight in exploring the outdoor world. Possibly part of the reason for the relative obscurity of these precursors of fine weather is the fact that they are of small size, less than an inch and a half in length, and are almost transparent.

At this time of year many temporary ponds on the outskirts of the city contain these graceful creatures. Examination reveals that they are true crustaceans with many leaf-like legs (from which they get their more technical name, Phyllopoda) and the peculiar habit of swimming upon their backs. In colour they are somewhat iridescent with tinges of yellow, green and blue and bluish-white tips to the tail processes. The males have enormously developed antennae which almost hide the head region; females carry elongated brood pouches containing eggs. They thrive in cold water; as the weather warms the adults die off, the eggs, released from the pouch, float to the edge of the pond where they lodge in the mud to hatch the following season when rainy weather returns.

Our common fairy shrimp goes by the name of Eubbranchipus oregonus Creaser and on Vancouver Island it is known only from a few localities outside of the Victoria district. The writer would welcome any further information regarding distribution from any Society members who have chanced upon this creature in their rambles.

G. Clifford Carl,
Provincial Museum.

NORTHERN BALD EAGLE.

Illustration (page 23)

The Northern Bald Eagle, our commonest large raptore, was at one time distributed widely across the entire continent but at present the only part that can claim any numbers is the Northwest Coast from about the vicinity of the mouth of the Columbia northward to the aleutians.

The bird is sufficiently distinctive that it can be confused with only one other-- the Golden Eagle. The latter is very rare on the Coast but is more common inland. Dead birds can always be told one from the other in any plumage by the scaly legs (tarsi) of the Bald as opposed to the feathered tarsi of the Golden Eagle. In the field, distinction is more difficult. First year Bald Eagles cannot always be distinguished from adult Golden Eagles, as both birds appear uniformly dark. Second year Bald Eagles show considerable gray; first and second year Golden Eagles show white at the base of tail from both above and below and show a whitish patch at the bases of the flight feathers from below. Second year Bald Eagles are unique in being larger, both in measurements and weight than the adult. Only in the third year is the distinctive white head and tail attained. Even the eye changes color, from brown to yellow.

With regard to food habits our Coast Eagles are above reproach except perhaps during the winter when they may congregate along salmon streams and prey upon spawning fish. In summer on the other hand they are more often seen about the meadows near timberline, and they have at this time been accused of feeding on birds and mammals, which they undoubtedly do. However the harm they may do is purely relative, and depends on the point of view. If they do harm killing grouse the harm is not that they kill grouse but that they kill grouse that some man wishes to reserve for himself to kill.

(Continued)

Our Coast is their last stronghold, and our mountains would lose more in the loss of the eagles than in the loss of most of the lesser creatures on which they feed. Let us protect our Eagles.

Frank L. Beebe,
Provincial Museum.

Reports of Meeting:

During April the Society held a number of interesting meetings. The Monthly meeting held in the provincial Library on the 11th was well attended. A summary of the address given at this meeting by Mr. W. H. Mathews appears on Page 17. An interesting film was shown in connection with the address.

The ornithology group met at Uplands on the 8th. Due to the Easter holiday, the attendance was small, but under the leadership of Archdeacon Connell the meeting was instructive.

A field trip, attended by 26 members of the combined Botony and Marine Biology groups was enjoyed Saturday 15th on the South East shore of Foul Bay. The sun exposed slopes above the sea-cliffs revealed a number of early spring flowers of the shore-line in bloom. The waters of the beach below were seen to yield an association of algae and animals differing markedly from that of the seaward slopes of a small protecting island. Tide-pool communities in these two areas also showed decided differences. This should prove an interesting field for further systematic and detailed investigation.

The Zoology group met April 18th at the home of Mr. and Mrs. C.A. Field on Linden Ave. at which two very interesting talks were given. The first by

22. (Continued)

Mrs. Kenneth Watson on Salamanders, their structure and habits, followed by Mr. J. Cunningham on Clans and their internal mechanism which he illustrated by dissecting one, he also spoke on their natural enemies. Mr. Woodward read a short essay from a past experience of his, when he had watched a tarantella kill a young quail only to be killed in turn by a hawk-wasp which was immediately caught and killed by a shrike, demonstrating the constant war for survival.

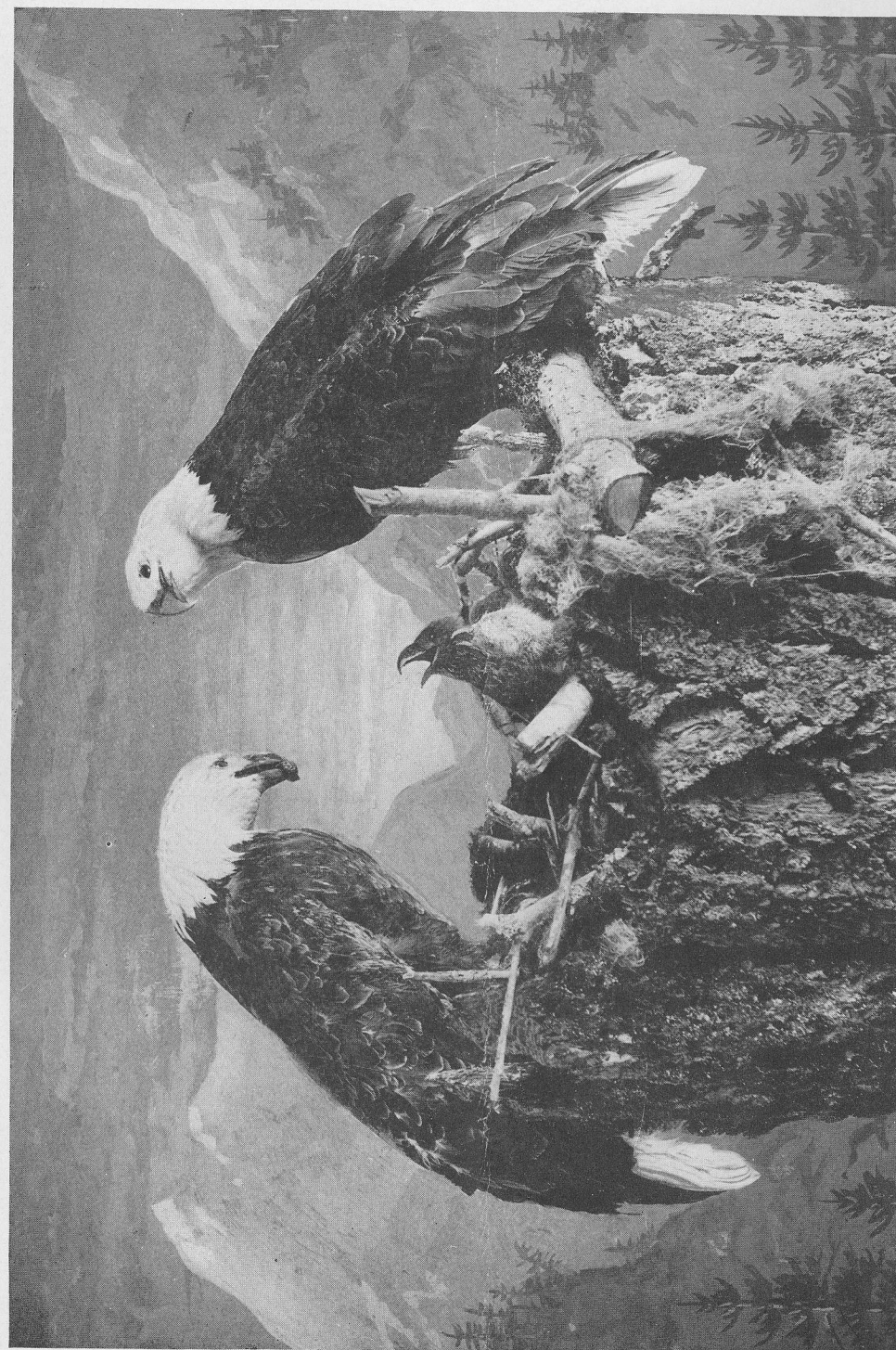
About a dozen members of the Botany Group visited the Oak Bay Native Plant Garden on Beach Drive opposite the Oak Bay Beach Hotel on Saturday, April 15th, at the kind invitation of Mrs. H.R. Beaven who has been responsible for the creation of this preserve. Mrs. Beaven also kindly showed those present her own lovely garden, a series of wild flower paintings by her sister, Mrs. Dean-Drummond.

The next monthly meeting on May 9th will be held in the same place as last month. This will be under the auspices of the Society for the preservation of Native plants. Mr. C.P. Lyons, Asst. Forester of the Forest Branch, will speak on:

"A British Columbia Parks System;
its possibilities and planning."

This is the last issue of the Magazine before the summer recess, the next issue will be September 1st, when the regular monthly meeting will be resumed. This September issue will only be mailed to members in good standing before that date.

Extra copies of this issue and No. 1 can be obtained at Diggon's or The Oak Bay Library at 25¢ each.



NORTHERN BALD EAGLES

(courtesy Provincial Museum)

To Mr. I. E. Cornwall,
584 Vincent,
Victoria, B. C.



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NOTICE OF NEXT MEETING

The next meeting of the Society will be held in
READING ROOM OF PROVINCIAL LIBRARY, PARLIAMENT BUILDINGS
at 8 p.m. on Tuesday the 9th May, 1944