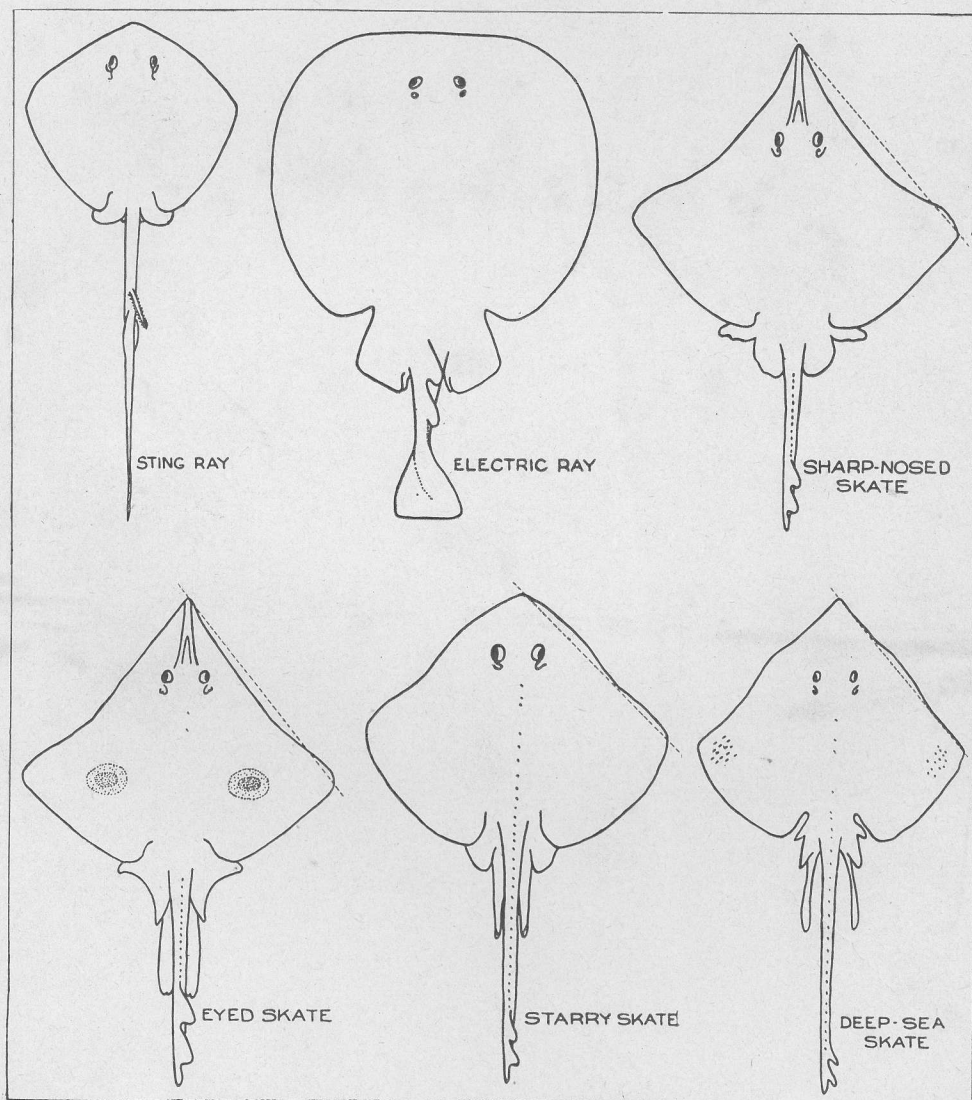


The  
**VICTORIA**  
**NATURALIST**

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February, 1954



(Courtesy Fisheries Research Board of Canada.)

Skates of British Columbia.

Published by the  
**VICTORIA NATURAL HISTORY SOCIETY**  
Victoria, B.C.

PLATE I



2



3



4

SKATES OF BRITISH COLUMBIA

The skates and rays form an interesting group because they are so markedly different from other fishes. As in the case of sharks which belong to the same class (Selachii) the skeleton is of cartilage (no bone), the skin has prickly scales, the gill openings form a series of slits and the teeth are arranged in several bands which are constantly being replaced. In these creatures also, the body is depressed, i.e., flattened dorso-ventrally, and extended into a long slender tail.

The following species occur in British Columbia. (See "Fishes of the Pacific Coast of Canada" by Clemens and Wilby for further details).

Sharp-nosed or Long-nosed Skate: (*Raja rhina*). Length up to 4 feet 6 inches. The Pectoral fins are sold on the market as "winds"; they are less palatable than those of other species.

Big Skate or Eyed Skate (*Raja binoculata*). Length up to 8 feet. Egg-cases of this species are sometimes found cast up on the beach; they are known as "mermaids' purses".

Deep-sea Skate (*Raja abyssicola*). Length to 4 feet 6 inches. Represented by one specimen only taken in 1,585 fathoms in 1895 off Moresby Island.

Prickly or Starry Skate (*Raja stellulata*). Length to 2 feet 6 inches. A rarely seen species taken off the West Coast of Vancouver Island and off the Queen Charlotte Islands.

Black Skate (*Raja kincaidi*). Not illustrated. Length up to 2 feet 9 inches. Another rarely seen fish recorded from channels among the Gulf Islands and from Porcher Island.

Rat-tailed Sting Ray (*Dasyatis dipterurus*). Length to 6 feet. The stout spine on the flexible tail can inflict a painful wound which is easily infected. Several specimens were taken on salmon gear off Kyuquot in 1928.

Electric Ray (*Tetranarce californica*). Length to 3 feet. The electrical discharge produced by bands of muscles in the "wings" is sufficient to kill small fish or to paralyze temporarily the arm of a man. Specimens have been taken on fishing gear off the West Coast, in Saanich arm and other local areas.

G.C.C.

## CHRISTMAS BIRD COUNT. December 26th, 1953

- A. City and East to Gonzales Bay: H.D.R. Stewart, Sloan Johnston, H. Lynch Staunton.  
 B. Shoal Bay to Spoon Bay (Uplands): J.O. Clay, Mrs. J.A. Berry.  
 C. Cedar Hill Crossroad, Finnerty Road, Sinclair Road, Queenswood and Ten Mile Point: A.R. Davidson, B.R. Pattenden.  
 D. Sidney shores, Bazan Bay, John Dean Park Road, Keatings: Miss M.C. Mellburn, Miss Leila G. Roberts.  
 E. Elk Lake: J. O. Clay, Mrs. J. A. Berry.  
 F. Cadboro Bay, from Spoon Bay to Telegraph Bay Road, Queenswood Road to Hobbs Road: Mrs. H.M.S. Bell, Mrs. J. R. Inglis.  
 G. St. Patrick Street area: Mrs. H.M.S. Bell, Mrs. J.R. Inglis.

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
Loon. Common		6	2				
" Pacific			2	6			
Grebe, Holboell's			1				
" Horned	12	19	263	47			
" Eared	4	41	14		3		
" Western		78	2	10			
Cormorant, Baird	19	23	57	32		1	
Heron, North-west Coast				3			
Swan, mute					1		
Goose, Canada					8		
Mallard	186	9	15	8	1	23	
Baldpate	614	219	36	138	24		
Pintail				2	20		
Teal, Green-winged				27		2	
Shoveller	6	104	3	4		34	
Canvas-back	2			51	15	3	
Scaup, Greater	535	420	32	31		22	
Goldeneye, American	9	17	5	38			
" Barrows				3			
Bufflehead	106	118	12	57	2	16	
Old Squaw		17				2	
Harlequin	11	57	14			4	
Scoter, White-winged,	1	56	45	10		9	
" Surf,		17	20	21		1	
" American				1			
Ruddy Duck				3		2	
Merganser, Hooded				8		2	

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
Merganser, Red-breasted	4	14	15	18	15	6	
Hawk, Sharp-shinned			1				
" Cooper's				1			
" Sparrow			1			2	
Quail, California			25	52			
Pheasant, Ring-necked			1		7	1	
Coot	1			6	50	33	
Oyster Catcher		5					
Plover, Killdeer			78	28			
Black-bellied		13					
Turnstone, Black	40	26	2				
Curlew, Hudsonian		1					
Sandpiper, Aleutian		5					
" Red-backed		23		9			
Gull, Glaucous-winged	323	40	200	153	30	29	
Gull, Herring	4	10			5		
Gull, California				5			
Gull, Short-billed		110	25			11	
Gull, Bonaparte		31					
Guillemot, Pigeon			4	4			
Murrelet, Marbled			1	3			
Kingfisher				3		1	
Flicker, North-western		3	18	34	5	4	
Skylark, European	1		25				
Woodpecker, Pileated,				2			
" Downy				1	2	2	
Jay, Stellar's				3			
Raven					1		
Crow, North-western		2	22	140	10	26	30
Chickadee, Chestnut-backed			47	6	3	21	10
Bushtit, Coast			10	12			6
Nuthatch, Red-breasted						2	
Creepers			1				
Wren, Winter	2		20	1		1	
" Seattle			4	9	2	1	
Robin, North-western	2	100	99	203		1	60
Thrush, Varied,			8	3	4		
" Hermit			1				
Bluebird, Western			6				
Kinglet, Golden-crowned		3	96	1	16	70	
" Ruby-crowned			4	15			1
Pipit, American			2				
Waxwing, Cedar			8	25			6
Shrike, North-western				1			

	A	B	C	D	E	F	G
Sparrow, House			30	27		11	50
Meadowlark	1		37				
Blackbird, Brewer's				20			
Finch, Purple			9	7		6	
" House							35
Siskin, Pine			360	20		90	
Towhee, Oregon			13	22	1	1	3
Junco, Oregon			90	82	6	37	20
Sparrow, Puget Sound							1
" Golden-crowned		3	2	62	2		4
" Fox		4	7	1	3		2
" Song		1	12	9			2
Number of species	21	33	52	54	25	34	14

Total number of species ... 83.... of individuals 7716.

Weather dull, cloudy, poor visibility; wind S.W.22. MPH.  
temp. 45 degrees.

J. O. Clay.

Photographs taken in the Cariboo Parklands Area.

No. 2. Bonaparte gulls in flight at 105 Mile Lake.

No. 3. The old Cariboo Road.

No. 4. Mouse-ear Chickweed.

### SONG FROM THE THISTLEHEADS

By J. W. Winson.

When the goldfinch comes fluttering along the roadside, rising and sinking in flight as if it had to leap like a deer, we know that summer has come, whatever the date. Early robins have raised their first broods, with few survivors from marauding crows, jays and cats. Swallows have repaired their last year's nests; waterbirds have secret cares hidden in the reeds.

But the gay and golden finch has the carefree air of a butterfly. He would not come before the dandelions turned grey-headed. He had been feeding on them while fluttering northward, needing their concentrated yellowness

to keep his feathers bright, for no other feathering can dim his aureate splendour.

Later on, he will be just as eager to rob the thistle heads; always preferring downy seeds, before they fly; asters, wild lettuce, chicory and willow. When these have flown, the burdock clusters will be broken up. For the goldfinch is the chief weed destroyer among the birds.

Not that he has any serious intent to aid the farmer or anyone else. His heart is as light as the down of the dandelion when he has nipped the seed from it. If he had any complaint it would be against the stem of the flower that will not support his weight while he snaps up the seeds.

The other flower stalks are sturdier, he likes to swing on them as he pecks. He can cling to the thistle spines without hurt, a good 'head' is almost a meal. From east to west he is known as the thistlebird, though he enjoys a dessert of early berries.

Thistle down has a further service, for when he has taken the seeds, he gathers the down in mouthfulls to pad his nest, the neatest, strongest, best-built cradle in the bush. It's grassy fibres are bound and padded by spiderweb and down of thistle, willow and other seed fluff, all so carefully rounded and matted as to resist a wetting.

So fond is the goldfinch of the thistle that he will sometimes build the nest in the spiny plant, waiting until late summer when the stalks are sturdy. In these areas, however, the family is started a little earlier, and the perfect cradle is lodged in the fork of a low shrub.

So light-hearted a creature is not held by any rule however, and this season a nest was completed and an egg laid before May was out. Probably a second family is intended, though this would be a serious undertaking for creatures that love to spend their later summer days with the family among the thistle patches and the berry thorns, chirping like canaries the day through.

Their resemblance to canaries has caused that name to cling to them in many localities. This is a pity, as it caused confusion with another bird, the yellow warbler, whose only resemblance is in the coloring.

The yellow warbler is slightly smaller, having brown 'freckles' on the breast with no other color to the greenish brown of the tail. The goldfinch is smarter with a deep black cap. The wings and tail are black with white lines and trimmings; it is altogether a brighter bird.

The finch too, being a 'seed-eater', has the strong beak of the sparrow. The warbler, has a milder bill, as it takes only the soft insects from the foliage of the bush. Both have a vivid, flashing coloring that lightens the summer greenery, and cheers it with glittering song, but though the one is a warbler, the 'wild canary' has the more gladsome music.

(from the Vancouver Daily Province)

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FALCONRY and HAWKING

Mr. Frank Beebe of the Provincial Museum staff gave a very interesting lecture on the above subject at the last general meeting of the Natural History Society held in the Provincial Library on Jan. 12.

The speaker began with a short outline of the growth of what had been for primitive man a grim necessity and is now a sport for the elite.

Falconry can be traced back far into the history of Asia, India and Europe. Here in America it was eclipsed by the precision firearm and is only now becoming popular again in sporting circles.

Mr. Beebe went on to explain how the various types and species of hawks are used for hunting in different parts of the world.

In America, we have goshawk, Coopers hawk, peregrine, merlin, prairie falcon, golden eagle, sparrowhawk, red-tailed hawk and gyrfalcon.

In Europe, the goshawk, peregrine, merlin, sparrowhawk, kestrel and gyrfalcon are all used.

While in Asia, where game as large as deer and sometimes wolves are hunted, a heavier, fleshier bird is required, and goshawks, golden eagles, peregrine, saker, and Bonelli's hawkeagle are commonly used.

The difference was pointed out between the true falcons and the accipiters. A falcon will not work among trees or brush, whereas the accipiters or short winged hawks prefer to work around hedges, scrub and on the edge of woods.

Contrary to popular opinion, Mr. Beebe went on to explain, young birds taken from the nest (eyass) and raised by hand

do not make the best hunters, but the hawk or falcon taken in the trap after it has already been hunting on its own and then tamed and trained more often becomes the falcon of its owners dreams.

The use of the lure was then explained, and the method of training, along with the necessary harness, hood, jesses, lead, bell and heavy glove. This was followed by the showing of a real live goshawk hooded and in harness complete with bell and jesses, on the wrist of its trainer owner Mr. Ted. Hamer.

Mr. Beebe made a spirited defence of his favorite sport. He pointed out in comparison to shooting there was no danger to a third person, nor was there much chance to get a huge bag, but above all, there was nothing to be compared to the thrill of watching the hunter ascend and then swoop with terrific suddenness on the quarry, speaking for himself, he felt all the time in tune with the hunter, not with the hunted, and experienced a sense of exaltation at the sight of the chase even though it did not always end in a kill.

There was some discussion on the use of live lures for entering and retrieving the hawks after the chase, however Mr. Beebe pointed out that it was very seldom necessary and generally speaking was confined to such birds as were too valuable to lose.

Throughout his talk the speaker emphasized the amount of patience and tact needed to gain the confidence of these wild and sometimes fierce birds of prey.

Professor Cunningham in thanking Mr. Beebe for his very interesting and instructive address, mentioned that the subject to most of the audience was entirely new and opened up fresh fields of exploration.

J. H. W.

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BIRD NOTES

On December 23rd a Pileolated Warbler paid a visit to my garden. It was in the company of a small group of Golden-crowned Kinglets, Chickadees and one Ruby-crowned Kinglet. The golden yellow plumage of the warbler was a striking contrast to the dull greenish-brown of the Kinglets and the black and chestnut of the Chickadees. The black cap, which is a positive identifying feature of this warbler,

was not fully formed, showing, I presume, that it was an immature bird.

In the 'Review of the Bird Fauna of B.C.', by J. A. Munro and I. McT. Cowan, this warbler is called the 'Black-capped', the name of our local variety being Wilsonia pusilla chrysiola. It seems to me we could easily scrap the uncomfortable title of pileolated given this bird, and use the proper name 'Wilson's Warbler' or that given it in the 'Bird Fauna of B.C.', the Black-capped warbler.

Another warbler, known as 'MacGillivray's' (Opororis tolmiei) fairly common in Victoria, should really be called the Tolmie warbler. This bird was discovered by Mr. J. K. Townsend, a prominent ornithologist of his day, and dedicated by him to his friend Mr. W. T. Tolmie of Fort Vancouver. Audubon disregarded Townsend's prior rights and gave it the name of a scotch naturalist who never saw North America. As W. T. Tolmie was undoubtedly an ancestor of our Simon Fraser Tolmie, a Conservative premier of B. C., and since the bird's specific name is 'Tolmie' why should not it be so called?

The 83 species listed in the Christmas Bird Count would appear to be something of a record for Victoria and district. Nine additional species were also seen during the Christmas period. A Hummingbird was observed in an Oak Bay garden on January 6th, while the weather was still mild, and another on Dewdney Avenue in Oak Bay on January 18th after four days of low temperatures, snow and a near blizzard. During the last four days of wintry weather, two Red-breasted Sapsuckers have been reported, one by Miss Leila Roberts on Cedar Hill Cross Road on the 16th, and the other by Mrs. Hobson, who lives on Argyle Street, Mount Tolmie, on the 19th.

There have been some reverberations of discontent heard from certain members of the Society that a subject like 'Falconry' should be heard at a Natural History Society meeting; this in spite of the able manner in which this sport was presented, as Mr. Beebe is undoubtedly an expert and an enthusiast. The way it was put to the writer is that underlying all the activities and philosophies of natural history societies is conservation.

A. R. D.

### SEED DISSEMINATION

The higher plants are not able to move about but remain fixed in the place in which they grow. The fruits and seeds of these plants furnish about the only means by which they can be spread from one place to another. One of the principal functions of the fruit is the spreading or sowing of the seed, although the seed itself may possess structures that facilitate dispersal. The actual dispersal is brought about in a number of ways, but mainly by wind, water and animals.

The wind is probably the most important agency in seed dissemination. Many seeds are light in weight, have relatively large surface areas and may be carried many miles by air currents. Many species of trees like maple, elm, birch and ash have winged fruits, others like the conifers have winged seeds that are carried considerable distances by the wind. Many of the legumes such as honeylocust have thin, dry, elongated pods, which are easily blown about by the wind. Sometimes the seeds themselves are so tiny and light, like those of many orchids, that they are blown through the air like dust. In the dandelion, wild lettuce and goats beard, tufts of hair are found on the small, single seeded fruits and act like parachutes that permit the wind to carry them great distances. Some of our most troublesome weeds have seeds that are carried in this manner. In the milkweed the tufts of hairs are out-growths from the seed itself. In the so-called "tumbleweed," like some of the mustards and grasses, the whole plant breaks off at the base and forced by the wind, rolls over and over distributing the seed as it goes. The poppy, evening primrose and others produce tiny seeds in capsules that open at the apex. When the wind blows the seeds are scattered in all directions.

Some plants, such as the vetches and legumes have explosive fruits. As the pod ripens, unequal forces and strains are set up in the tissues which finally cause the pod to burst open forcibly and scatter the seeds in all directions. In the "squirting cucumber" the seeds are ejected while the fruit is still soft and succulent.

Many seeds fall into rivers and streams and are transported considerable distances. Some water lily seeds have buoyant coverings that enable them to float. The coconut is probably distributed along tropical shores in this manner, hence it has a salt water resistant outer husk.

Animals disseminate seeds in a variety of ways. In some cases they are eaten and pass through the digestive tract unharmed. Birds distribute the seeds of many berries in this manner. Squirrels and other animals are also instrumental in disseminating seeds.

Some plants have seeds that are spinous, prickly, or otherwise roughened which become entangled in the fur and hair of animals. This is true of Beggar-ticks, Cockle-bur and Sand-bur. The grains of many grasses have long awns that cause them to adhere to the wool of sheep.

Finally it should be mentioned that the widest dissemination of seeds has been brought about by man himself through his agricultural and industrial operations.

William A. Hubbard.

### BIRTH OF THE TREES

by M. Eugenie Perry

Not by the wave of a wand, and 'Let there be trees,'  
Were the giants born. Nature the tireless the toiling  
Prefacing the dawn of day for man or mite:  
Spinning and using, forever balancing the whole -  
The algae of the sluggish pond, lichens and mould,  
These the beginnings the creeping foundation of growth.

This in the Carbon Age, in the silence of nothing alive:  
Gathering texture and depth, the slime and the fungi ad-  
vancing,

The confervae massing, creating a surface of bog;  
Then from the mosses, slow-tufting to plant-kind,  
Slim venturing fingers uplift, and now there are stems.

Reeds rise in phalanx in the marshes, and the ferns  
Are uncurling their fronds - incredibly slow, evolution;  
And no bird is singing, no bee skims the poisonous air.  
Soon - in the time-space of millions - the atmosphere clears;  
The carbon absorbed by the stalks and the fronds is debris;  
Essential in living and dying these green things of earth,  
Preparing the scene for the insect, the saurian, and man.  
Now the bannering conifers, order of firs, join the race;  
Amazing in beauty, and bringing rare gifts, trees are born!

(Previously published in The Canadian Poetry Magazine)

### JUNIOR PAGE

Chairman: Bruce Colvin

Secretary: Marie Barr

On Tuesday, January 12th, Miss Newton took a group of children down to Mr. Beebe's office to see ducks cast with rubber. The molds are made by liquid rubber painted on and let harden. This is kept up until the mold is thick enough, then a coating of plaster of Paris is poured over and left to harden. When this is taken off the rubber is peeled off and the cast is finished.

Genevieve Whale.

### STUDY OF NATURE IN GIRL GUIDES

The study of nature comes into Guides for their second class badge. In order to earn this one must know the following:

1. Three Canadian trees
2. Three insects
3. Three Canadian birds.
4. Three wild flowers of Canada.

These must be drawn and if possible, collected as in the case of flowers or leaves of trees, etc. The habits, nest, coloring of the birds and their eggs must be known. The harm or good that the insects do must also be known and where they are most prevalent.

Genevieve Whale.

NOTICE OF MEETINGS

1954

- Tuesday  
Feb. 9th: GENERAL MEETING: In the Provincial Library at  
8 p.m.  
"Natural History in Britain and Scandinavia."  
Illustrated.  
Dr. Ian McTaggart Cowan, Head of Department of  
Zoology, U.B.C.
- Monday  
Feb. 15th: UNIVERSITY EXTENSION LECTURE: At Victoria College,  
8 p.m. "The World of Insects."  
Professor G. Spencer of Department of Zoology,  
U.B.C. (Admission 50¢)
- Tuesday  
Feb. 16th: MARINE BIOLOGY: In Biology Lab., Victoria  
College, 8 p.m.  
"Corals" Prof. J. A. Cunningham.
- Tuesday  
Feb. 23rd: BOTANY GROUP: In the Museum 8 p.m. "The Plant  
Cell" (Continued). To be followed  
by coloured slides on "The Vege-  
tation of Manitoba." Prof. C.W. Lowe

Tuesday, March 2nd,

will be the last meeting of the Juniors until the  
Tuesday after Easter. Instead on Saturday morn-  
ings Natural History films will be shown by  
Dr. Carl; one show at 9:30 and the other at 11 a.m.  
Bring your membership card to be sure of a seat.

- - - - -

## Errata:

Would readers please change the last line of the  
poem 'Snowdrops' by A.O. Hayes, on page 86 of  
the January issue, to the following:-

"How can loneliness a welcome find wherever  
friendly flowers live?"



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