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Harvey

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COVER PICTURE: PYGMY NUTHATCH

By Enid K. Lemon

PYGMY NUTHATCH (*Sitta pygmaea*)

By Enid K. Lemon

The pygmy nuthatch, the smallest of the three species which are resident in British Columbia, is closely restricted to the Ponderosa pine forests of the Dry Forest Biotic Area, and is found nowhere else in Canada.

This summer I had the good fortune to photograph and observe for a few days the breeding and feeding habits of this grey midget of the nuthatch family. Although it only measures about four inches, this small bird is equipped with a remarkably strong bill which can crack open the pine cones or pry, with an amazing amount of noise, the insects which are hidden under the bark.

The feeding pair I photographed had made their nest in the top of a rotten fence post. The nest, containing six young, was composed of plant down, feathers and some dog hair. No doubt owing to the fact that there were so many mouths to feed, the adult birds became very tame, eventually allowing me to get to within six feet and to obtain an interesting series of slides.

In the autumn, you may often find the pygmy nuthatches travelling with the black capped chickadees, helping to keep the insect population of the forests in check.

I am most grateful to Mr. T. Sowerby for the black and white reproduction from my 35 mm colour slide.

COLLECTING MINUTE LAND SHELLS

Some of the most interesting shells are those of the minute snails that form a great part of our non-marine fauna. These minute snails vary in size from barely visible to the size of a grain of rice. Because of their small size, they are seldom collected and it almost goes without saying that they are often hard to identify. To reveal the beauty of these highly interesting creatures it is necessary to use a fairly powerful magnifier or, better yet, a stereoscopic microscope.

These snails turn up in the most unusual places such as window flower boxes and potted plants. In a suburban garden near Vancouver, I collected not one or two species under a single rock, but six!

In the woods, one must carefully sift the earth beneath the leaf litter as well as search the leaves themselves.

One of the most important aspects of studying land and freshwater mollusca is access to a good library on the subject.

The following notes deal with six of our commoner species:

1. Pupilla muscorum (Linne)

The Pupillidae are a very ancient group of minute, cylindrical, many-whorled snails whose apertures are guarded by teeth. The apex is blunt.

P. muscorum is a far ranging species being found across this continent as well as in Europe. The shell is brownish in colour with 5 1/2 to 7 1/2 whorls. The aperture has a small palatal fold (sometimes absent). I have collected this species under leaf litter, usually close to a source of water. The length is 3.2 - 4.0 mm.

2. Vallonia pulchella Muller

V. pulchella is one of the most beautiful land shells when viewed with a hand lens. It is barely 2.5 mm. wide and is almost transparent. One of its most diagnostic features is a flaring rim around the lip. It ranges from Manitoba east to Prince Edward Island, New Brunswick, Newfoundland, and Nova Scotia west to California, Washington, and British Columbia. Its type locality is Denmark. This snail is often collected in window flower boxes and greenhouses.

3. Cionella lubrica (muller)

Shells of this genus are very glossy and almost translucent. C. lubrica is a common resident of suburban gardens and is often found with V. pulchella. It has 5 1/2 to 6 whorls, is of a yellowish-corneous colour and is about six to seven millimetres in length. It is found over the entire continent with the exception of California (LaRocque, 1953) and has been recorded from the Pleistocene of Iowa (Yarmouth interglacial).

4. Euconulus fulvus (Muller)

Burch (1962) gives this excellent description of the shell: "Shell cinnamon to pale brown, glossy, thin, fragile, minutely perforate or imperforate. The periphery is rounded or weakly angular. The lip is thin and is dilated at the columellar margin." The snail is circumpolar in distribution and is found from British Columbia east to Newfoundland. I have collected this shell with regularity, but have never found it to be too abundant.

5. Striatura milium pugetensis Dall

The snail goes by the common name of the Puget Sound Zonite. The shell is less than one-sixteenth of an inch in diameter and is of a reddish-brown colour with a silky lustre. It ranges from British Columbia to California (LaRocque, 1953) Type locality is Seattle, Washington.

6. Vitrina alaskana Dall

This species is another member of the Zonitidae and in the vernacular is called the Alaska Glass-snail. Its shell is very thin, consists of three whorls of which the third is much the largest, and has a large, oblique, rounded aperture. The diameter is 1/4 inch. Keep (1935) states that this species dwells at high altitudes in California, Oregon, Washington, and elsewhere. I have collected this specimen at Point Roberts, Washington, and near Parksville, both localities being near the shore. LaRocque (1953) gives the type locality as Carson Valley, Nevada.

Collecting land shells offers a great challenge to those who will accept it.

REFERENCES 1) Burch. J. 1962 How to Know the Eastern Land Snails. Wm. C. Brown Co. Dubuque. 2) Keep, Josiah 1935. West Coast Shells Stanford University Press 3) LaRocque, Aurele. 1953. Catalogue of the Recent Mollusca of Canada NMC Bull. No. 129.

AIX SPONSA (Wood Duck)

"Bride of the Woods"

Aix sponsa (bride) our most beautiful duck of woodland habitat, was thought by many conservationists to be on the road to extinction in the early 1900's because of the reduction in its habitat and because of heavy market shooting. The Migratory Birds Treaty Act of 1918 granted the wood duck full protection. But their numbers remained critical for many years.

A programme of providing nesting boxes for wood ducks was started at Soote's Paradise near Hamilton, Ontario in 1947 by Dr. A.E. Warren of McMaster University. This experiment proved successful, and interested persons throughout the wood ducks' breeding range now provide nesting boxes. These boxes are helping considerably to bring the wood duck back to its previous abundance.

Locally, our wood duck nesting box programme has met with limited success, the first box having been successfully used in a swamp near Beaver Lake. This box is presumed to have produced eight young to the age of approximately two months. June 7, 1967, was the latest date on which they were observed all together.

This box was used again in 1968 and produced a batch of seven ducklings. Every egg hatched. This is indeed a continuing breakthrough because I have not heard of another case on Vancouver Island of wood ducks using artificial nesting sites. We will concentrate on providing nesting boxes for natural propagation in locations the ducks themselves choose.

Our three pair of wood ducks in Beacon Hill Park were all observed on October 12, 1967 in company with either a young female they had raised or one that dropped in to visit. This newcomer was quickly photographed for the record.

Female wood ducks are known to return year after year to the area in which they were raised. Let's hope our new female will woo a marital partner into joining her and take up tenancy in one of the boxes provided in Beacon Hill Park.

It is apparent now that the six permanent wood ducks in Beacon Hill Park were lost over last winter. This was

possibly due to ice conditions giving predators such as rats, mink, coons, dogs and great horned owls an advantage. Victoria Parks Administrator, W.H. Warren, had suggested at the beginning that this could possibly happen.

To those interested, although wood duck are on our local bird check list as rare, they may be seen in Beaver Lake almost any time during the summer season. Because wood duck are, by nature, shy, they may only be observed by those using extreme caution, and by stalking them as a hunter would, and preferably at daybreak.

The same shy ducks will respond to kindness and caution. My barber, who lives on Elk Lake and who feeds the ducks, geese and swans daily, has the wood ducks practically eating out of his hand.

These brilliantly plumaged ducks seem to be increasing locally over the past few years. Let's hope this trend continues. Any information regarding wood duck on the Island would be appreciated by the writer whose address appears on the back of this issue.

C.W. Morehen.

* * * * *

A REPORT TO PONDER: The August Newsletter of the Fish and Wildlife branch of the Department of Recreation and Conservation gives a number of highlights from the Reports of 46 States to the U.S. Federal Water Pollution Control Administration.

- 1) Construction company, pouring cement for pillars in river, pumped cement-laden water into river rather than settling ponds. Cement coated river bottom for approximately 3/4 of a mile downstream, killing 1,500 fish.
- 2) Petroleum products, de-greasers, and other unknown materials discharged into stream from airplane washing and maintenance. Effects extended downstream 7 miles. Game fish had been killed in this stream in 1965, so kill on this occasion (1,000 fish) represented minimum population.
- 3) Farmer disposed of baled hay by dumping it into small stream. Oxygen deficiency from decomposing organic matter caused 2,000 fish to be killed.
- 4) Road oil used in resurfacing highway and river bridge leaked through water drain holes in bridge and escaped into stream killing 100,000 fish.

(Report highlights continued, Page 8).

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RHODODENDRONS RECOGNIZED AND SPARED

The pink flowered Rhododendron, R. macrophyllum, grows wild within 30 miles, as the crow flies, from Victoria. They were discovered in an area being logged by the B.C. Forest Products Company, north of the Renfrew Roac, within a mile east of the summit at an elevation of 1600 feet, between the San Juan and Koksilah River watershed. Mr. C.R. Sworder, in charge of logging operations, spared the spot where they are growing above a rocky limestone outcrop. It is a very small stand of about 100 feet square; but the plants are thriving and in all sizes. One plant, estimated at one hundred years or more, had a 20 foot branch sprawling across the ground. They were examined by Mr. and Mrs. Howard Howden of the Cowichan Valley Natural History Society and the writer on June 5 when they were in flower.

The only other known stands on the Island are near Parksville and at the head of Cowichan Lake. It would seem reasonable to suggest that there may be other stands still undiscovered, either in the ridge lying between the San Juan Valley and Cowichan Lake, or in the mountains lying north of the West Coast road to Port Renfrew.

Rhododendrons are protected by law. W.H. Warren.

* * * * *

BOOK NOTE: FLORA OF THE PRAIRIE PROVINCES is by Bernard Boivin. The author has included table of contents, keys and index, and has hopefully aimed his publication at "college students, biologists, botanists and naturalists." Part 1 at \$3.00 is now available with the other three parts in the press. Set complete is \$10.00 or, by subscription, \$8.00. Address author 223 Knox Crescent, Ottawa 8. M.C.M.

THOSE ANNUAL DUES: As our fiscal years ends on April 30 annual dues would be welcomed by our Treasurer, Mr. E.E. Bridgen, 2159 Central Ave. Victoria, B.C. Cheques or Money Orders should be made payable to the Victoria Natural History Society and sent to Mr. Bridgen. Or pay at the September meeting, which will be in the Cafeteria at the Douglas Building. (See last page.)

JUNIOR JOTTINGS

Here we are again. Another summer has come and we juniors are lapping up the sunshine by clearing up around Francis Park, preparing the park for summer visitors and sightseers. As it was a very warm Saturday one week, we went for a swim out at Ardmore Beach. The refreshing splash of the salt water was enjoyed by most members and it was a successful outing. Then came the highlight of the summer - Camp. Camp started on a Sunday and ended on the next Saturday. Twenty-two members of the junior branch attended our camp at Goldstream. A survey of trees was taken on the campsite area. Their age, height, circumference and the surrounding vegetation were noted. Afternoons were taken up by swimming, hikes and extra activities. We all enjoyed Skip's campfire talks which were followed by one of our own campfire singsongs. We certainly all agree that camp was a great success again this year.

Our special thanks go to our wonderful cooks, Mrs. Storey and Mrs. Scott, to Ozzie our all round fix-it lady, and to our great commander-in-chief, Skip.

Following camp, the younger juniors went on an all day picnic to Goldstream Park and all had a wonderful time.

Jane Moyer.

* * * * *

In our May, 1968, issue, members were asked the meaning and origin of monadnock and nunatak. Now one of our members has a letter from the New Hampshire State Library which states that in The origin of certain place names in the United States 2d ed. by Henry Gannett (U.S. Geological Survey. Bulletin # 258, 1905) this definition is given: "Monadnock, mountain in New Hampshire. From the Indian 'man' meaning surpassing, 'adn' mountain, and 'ock' place - place of the surpassing (unexcelled) mountain."

So monadnock and nunatak make an interesting pair - one from the Indian language and the other from Eskimo.

AUDUBON WILDLIFE FILMS

Our twenty-fourth season opens on October 4th and 5th, with Mr. John Earl Taft presenting his film "Central California's Coastal Plain", at the Newcombe Auditorium, British Columbia Provincial Museum.

The entrance to the auditorium is at the south end of the Museum. Those coming by car should use the Government parking lot south of the Museum, which is approached via Superior Street. There is also street parking on Government and Elliot Streets.

Full particulars of all the lectures and speakers is contained in the enclosed folder.

Please note that the local number of the Museum is now 3570 or 3571 and not as printed on the folder. I regret this inconvenience but it was unavoidable.

Season tickets will be on sale at the monthly meeting on September 10th. Be sure to get yours and enjoy the lectures in great comfort at our new location.

MORE POLLUTION HIGHLIGHTS: 1) Lime used by water treatment plant as a rust preventative discharged into creek. Bottom of stream covered with sediment for about 1/4 mile killing 500 fish. 2) Herbicide spilled accidentally into a stream by a sugar plantation, killing 100 fish. 3) Hot effluent and high acid balance in water from phosphate fertilizer plant killed 30,000 fish. Fish died on at least three separate days. 4) Grain company's defective valve in liquid fertiliser tank (25% ammonia solution) caused loss of 20,000 gallons into stream and death of 270,700 fish. 5) Stone company dumped 3,500 gallons of diesel fuel into a storm sewer which emptied into a stream. In addition to 101,400 fish being killed, all aquatic life was destroyed. Some ducks and varied amphibians were also killed.

BIRDS FOR THE RECORD

by G.N. and G. Hooper, 2411 Alpine Cr. (477-1152 eve.)

Mountain bluebird (4) - Parksville -	Apr.15 -
Horned lark (2) -	
	Cy and Lois Morehen
Townsend's solitaire (1) - Pike Lake -	Apr.16 -
Black-throated gray warbler (1) - Highland Rd.	Apr.25 -
	Terese Todd
Black-throated gray warbler (1) - Gabriola Is.-	Apr.20 -
	George Sirk
Solitary sandpiper (1) - Martindale Rd. -	Apr.26 -
	Ralph Fryer
Great horned owl (2) - Ten Mile Pt. -	May 1,2 -
	Grace M. Bell
Cinnamon teal (5 male) - Quick's & Hastings -	May 4 -
Black-legged kittiwake (1 imm.) - Clover Pt. -	
Northern phalarope (5 male, breeding plum.) -	Clover Pt.-
Solitary sandpiper (1) - Quick's Pond -	
Virginia rail (2) - Ascot Drive -	
	Allen Poynter
Green heron (1) - Witty's Lagoon -	May 5 -
	Allan Schutz
Bank swallow (1) - Hunt Rd. -	May 5 -
	Ralph Fryer
Glaucous gull (2) - Clover Pt. -	May 11 -
	Allen Poynter
Wilson's phalarope (2) - Martindale Rd. -	May 12 -
	R. Mackenzie-Grieve
Western kingbird (2) - Cadboro Bay Rd. -	May 20 -
	Mr. & Mrs. R.D. Turnbull
Bullock's oriole (1 male) - Penrhyn St. -	May 23 -
	R. Mackenzie-Grieve
Sora rail (1) - Ascot Drive -	May 25 -
	Allan Schutz

Migrants and summer residents:

House wren (1)	Apr.22 TB	S-p plover (40)	May 4 AP
Wilson's w.(2)	Apr.29 TT	Pur.martin (5)	May 4 AP
MacGill. w.(1)	Apr.30 Tues	W. tanager(3)	May 20 RDT
Lincoln sp.(1)	May 2 GMB	Mourn. dove(5)	June 6 GNH
Ruddy turn.(1)	May 4 AP	Blk. swift(300)	June 19 AP

BEFORE MAN

A new series suggested for this volume proposes to show the similarity between man's inventions and their prototypes in Nature. To be asked to write the first article is very flattering and I will attempt to do so with great pleasure.

Man claims among his inventions such things as aircraft, diving bells, streamlining, camouflage, domestication of animals, cold storage, the manufacture of cement, paper, varnish and many others which were being used by animals eons before the appearance of man and which are still being used.

Among the inventions of interest, especially to boatminded people are 1) development of the streamlined shape for submarines, 2) camouflage painting of ships in order to make them less conspicuous, 3) development of smoke-producing devices which, when activated, allow damaged vessels to be maneuvered out of range, 4) jet propulsion developed for propulsion of boats operating in shallow weed-infested waters.

All these devices have been used by the squids for thousands of years. The squids have been around for a long time as evidenced by the fossilized remains of hundreds of species, and the ancient seas must at one time have supported large populations. Their evolved characteristics have thus stood the test of time.

I had seen a good number of squids before but always as preserved specimens or in bait tubs. Not until 1932 did I see them in their natural environment. We were tied up at an old cannery wharf at Sidney Inlet on the west coast of Vancouver Island and, glancing over the side, I saw hundreds if not thousands of squids, Loligo opalescens, moving with military precision forward and backward, not by turning about but just reversing.

1) Squids are often referred to as torpedo-shaped, but I feel that a torpedo should be called squid-shaped. The fins operate like the horizontal rudders of submarine craft. 2) They can change colour to blend with their environment. This is accomplished by expansion and contraction of pigment-bearing cells (chromatophores). 3) When in danger, they discharge a cloud of inky fluid, produced by a special gland and delivered through the

siphon. The resulting opacity of the water allows them to escape from their enemies. 4) Water is taken into the body cavity and is expelled with force through the siphon. When the latter is directed forward, the squid moves backwards. When directed backwards the squid reverses instantaneously. The usual mode of travel is backwards with the tentacles trailing behind and acting as a rudder.

Anthony Dehen.

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COVER COLOUR: With the start of a new volume, we have a new colour on the cover. The change of colour is to simplify quick volume identification. Certain points affect the choice of colour. It must not obscure the crest. A standardised colour from the colour chart is cheaper than a special mix. It should be a colour that we know well from examples of natural history.

Indeed, a winter parlour game for naturalists might be to think of a colour and, within minutes, write down where it is found in local natural history. Take blue, for instance. Or yellow. Or almost any colour you can think of. Quick now. Ten examples of orange-red in sixty seconds!

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THE FALL SURPRISE

On our farm in the Mount Douglas area, we have spring-fed ponds from which I pump water on to the land. So that the intake pipe will not get silted up, I put its end into an old 5-gallon paint can or an old milk churn.

One fall as I was preparing to put the pump into the barn for the winter, I found that the churn was unusually heavy as I dragged it to the surface. Examining it, I found that it was completely full of uneaten corn cobs.

I can only think that the cobs came from the corn patch about 30 yards away, and that they had been gathered and stored by the muskrat which lived at that time in the bank of the pond.

L.E.C.

PROGRAM FOR SEPTEMBER

- Executive Meeting: Home of Mrs. S. Prior 8 p.m.
1903 Shotbolt Road.
Tuesday, Sept. 3
- General Meeting: Douglas Building Cafeteria at
8 p.m. Mr. Allen Poynter will
speak on: "A Camera in British
Columbia."
Tuesday, Sept. 10
- Bird Field Trip: Meet at Monterey Parking Lot
9:30 a.m. or Island View Beach
10 a.m. Bring lunch.
Saturday, Sept. 21
- Junior Group: Meet every Saturday 1:30 p.m.
Monterey Parking Lot, Douglas
at Hillside for field trips.
Leader: Mr. Freeman King.
Phone 479-2966.

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INDIAN PICTOGRAPHS: In February, 1966, Mr. J. Corner gave us an illustrated talk about Indian pictographs in the interior of British Columbia. Mr. Corner has now published a book Pictographs in Interior of B.C. With limp cover, 124 pages, it may be obtained by writing J. Corner, R.R. 4, Vernon B.C. A quick telephone check will show that at least one Victoria book store has a few copies available at \$4.00 each. Although pictographs and carvings on rock (petroglyphs) are protected by law, pictographs may well disappear through weathering of the rock on which they are found, through flooding by the lakes created during what we might call British Columbia's dam-building phase. And regrettably, the vandals are always with us. Mr. Corner's book was reviewed by Arthur Stott on page 5, Victoria Daily Times, August 7. This modest book performs a public service and may, one day, be a collector's item.

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