

TORONTO FIELD NATURALISTS' CLUB NEWSLETTER

Visitors welcome!

Visitors welcome!

JANUARY MEETING

WEDNESDAY, JANUARY 8, 1969 at 8.15 p.m.

(note change in date)

at the

ROYAL ONTARIO MUSEUM

Speaker: DR. MARTIN H. EDWARDS

Subject: BIRDING IN MEXICO (illustrated with colour slides)

Dr. Edwards, the busy President of the F.O.N., is well known as an outstanding nature photographer as well as an active individual in conservation projects.

In the rotunda: Don't miss the special display of Bird Paintings by the gifted young artist FRANK de MATTEIS.

AUDUBON WILDLIFE FILMS. Tuesday, Jan. 7, 1969, Wilfred E. Gray, 'Four Seasons', 8.15 p.m., Eaton Auditorium. 'A portrait of a year in British Columbia...colorful and dramatic close-up sequences...'

THE F.O.N. BOOKSHOP (1262 Don Mills Rd.) will remain open on Saturdays throughout the year. A free list of books and nature supplies available may be obtained by telephoning 444-8419.

FEES If you received only the first two pages of your newsletter, it means that according to our records you have not renewed your membership. Upon receipt of your fee, we shall be glad to send the missing portion. Send cheque or money order to the Secretary. Single: \$4; Family: \$6; Corresponding: \$2. Full-time student (aged 16 or over): \$1.50.

JANUARY OUTINGS

Sunday TORONTO WATERFRONT - Birds Leader: Mr. Gordon Bellerby
Jan. 12 Meet at the parking lot on the south side of Lakeshore Blvd., just east
9.30 a.m. of Parkside Drive. This is near the footbridge which crosses Lakeshore
Blvd. from the intersection of Roncesvalles and Queen Sts. Morning only.

Sunday VIVIAN FOREST - Birds, etc. Leader: Mr. Ed. Franks
Jan. 26 Meet at the crossroads in Ballantrae at 10 a.m. Ballantrae is a small
9.15 a.m. hamlet on Highway 48 about 11 miles north of Markham. Those wishing and
& 10 a.m. those willing to give rides meet on Yonge St. at the Glen Echo loop not
later than 9.15 a.m. Warm clothing and suitable footwear for snow or
wet conditions are a MUST. Morning only but lunch recommended.

* * *

* * *

* * *

On behalf of all the club membership, may we express the appreciation due to all those who during the past year served as leaders of the outings.

Although nothing spectacular was reported relevant to either bird or botany findings, still the interest was maintained and the outings were well attended. This was without doubt in no small measure due to the courtesy extended to, and the interest shown, in the newer members by all the leaders and other knowledgeable members of the club. Many of the new members, on numerous occasions, have indeed expressed their personal appreciation of the leadership provided.

To all those who may be interested, the newly formed Toronto Chapter of the Michigan Entomology Club are holding their next monthly meeting on Saturday, January 25, 1969, at 2 p.m. in Room 4 of the ROM. All visitors are welcome.

Outings Chm: Mr. Walter Hutton, 782-5955

JUNIOR CLUB The Museum Theatre meeting is in charge of the Fish, Reptiles and
Saturday Amphibians Group with 2-3 speakers and 2-3 short films.
Jan. 4
10 a.m. Chm: Mr. Rob't MacLellan, 488-9346

INTERMEDIATE Meet in Room P-1 (near Ethnology Dept.), ROM. A lively and interesting
GROUP meeting is planned. Topic for discussion, 'Mammals.'
Saturday
Jan. 4
1 p.m. Chm: Mr. Paul Catling, 698-3405

BIRD GROUP Meet at St. James-Bond United Church, west side of Avenue Rd., 2 blocks
Thursday north of Eglinton. Please note change in week of meeting. This will be
Jan. 23 a joint meeting with the Toronto Field Biologists' Club. Members of the
8 p.m. TFBC will be speaking on their activities and programs of the past year.
Chm: Mr. Clive Goodwin, 241-1572

BOTANY GROUP Meet at Hodgson School, Davisville Ave., just east of Mt. Pleasant Rd.
Thursday Topic: Where and When to see the plants in the Checklist of Plants in
Jan. 16 Toronto Parks. Mrs. Betty Greenacre will show slides taken in the parks
8 p.m. of Toronto. A panel of members will answer questions on exact locations
and times of flowering in preparation for Botany outings in 1969.
Chm: Miss Edith Cosens, 481-5013

ECOLOGY AND Meet in Room 300 (third floor) of the College of Education Building,
CONSERVATION 371 Bloor St. West (at Spadina.) The topic: The Temperate Forest Biome.
GROUP Parking at rear of building.
Tuesday
Jan. 14
8 p.m. Acting Chm: Prof. W. A. Andrews, 425-4607

President: Mr. John A. Gingrich

Secretary: Mr. H. C. Robson
49 Craighurst Ave.
Toronto 12 (481-0260)



Number 240

Authorized as 2nd Class Mail by
The Post Office Department, Ottawa
and for payment of postage in cash

January, 1969

Mailed from 1164 Broadview Avenue, Toronto 6

CHURCHILL WASN'T CHILLY

by

Joy Pocklington

The last week in June, 1968, when it was cold and wet and miserable in Toronto, I escaped, and with several members of the F.O.N. and the Massachusetts Audubon Society, visited Winnipeg and Churchill, Manitoba, where it was warm and dry and invigorating.

Our first outing was to Delta on Lake Manitoba, where we visited the wildlife station. On the way I was fascinated with the many yellow-headed blackbirds and western kingbirds new to me, as it was my first trip in Canada west of Ontario. We heard very loud plaintive cries which turned out to be marbled godwits nesting near the road, and alarmed at our approach. I was very surprised to learn at the wildlife station that the mallard is practically extinct in Manitoba due to sports shooting. They were breeding mallards at the station from eggs imported from Saskatchewan; another surprise was to see the wild white pelican on Lake Manitoba. What a massive wing span the birds have! Somehow I always imagined all the pelicans were down in the South seas.

We left Lake Manitoba and drove along dusty roads to the West Shoal. I remember it was dusty because I was in the back seat of the station wagon and had to keep my mouth firmly shut (no cracks, please) to avoid getting a mouthful of dust, but it was worth it, for there we saw a pair of avocets, and Wilson's phalaropes and godwits. The Sprague's pipit was there also, acting true to form, twittering high up in the sky and then darting down out of sight.

The Tuesday we were scheduled to fly to Churchill via TransAir at 7 a.m. was rather wrecked as the plane flew off 10 1/2 hours late due to engine trouble. I grew rather tired of scouring around Winnipeg Airport looking at horned larks without the horns, so we took a taxi to the zoo which was very rewarding. It is the best well-kept zoo I have seen in lovely surroundings. The monkeys were housed in large family groups, so much kinder than in pairs or isolation. There were many ducks on a large pond, and I suspect crossbreeding had been going on because they were very difficult to identify. I find ducks hard to leave anyway but these were impossible.

So next we came to the mecca of our trip, Churchill, Manitoba. We arrived there at 10.30 p.m. in daylight. Some eager beavers went out into the tundra as soon as they had dumped their luggage at the hotel, but not me. I like my eight hours sleep; consequently when nearly everyone else saw white whales on the Churchill river at 6 a.m. on the last morning, I was asleep in my cot.

The highlights of the outings in Churchill were the mornings of beautiful sunshine when we strode out over the tundra in our hip boots and every 50 feet came close to a different species of shore bird nesting with eggs or chicks. I have been out with the TFNC for some years and seen shore birds feeding on the mudflats at Whitby and Dundas and the Island, so it was somewhat of a climax to see these birds close up in good light nesting in the tundra. It did occur to me that as years go by one will have to go further and further north to see this, as fear of man is learned and we seemed to frighten them with a camera. We saw dunlin, dowitchers, golden plovers, Canada geese, godwits, phalaropes, nesting.

Each day we visited Cape Merry which is a rocky formation at the northern point of Churchill on the Hudson Bay made into a charming centennial park. The temperature was 75° and there was ice floating in the bay! The ground willow varied in height from one inch to 4 feet in less exposed places and had large fat willow flowers. Before we left Churchill the rhododendrons were like mauve carpets in parts of the park, and I was always reminded of Japanese gardens with the rocks and little pools of water all over the park.

Our visits in and around Churchill included the Eskimo museum, which had some very interesting folklore, the Eskimo handicraft store, the pitiful Indian village of shacks, the rocket range (no smoking) and the huge dump - phew!

I added willow ptarmigan, Parasitic jaeger, Sabine gull, McGowan's longspur and a few others to my life list.

One amusing incident - when the plane landed at Thompson and we all rushed out with our binoculars to the trees, I heard a man say, 'They don't need to rush to the trees - there's a toilet in the airport!'

Finally, we had a very good trip and I think we were very fortunate with the warm weather.

(Ed. note: The FON is arranging a trip to Churchill next summer. If you are interested in going, get in touch with them right away as interest is very high and the places will soon be all filled. Phone 444-8419 (1262 Don Mills Rd., Don Mills, Ont.)

* * *

* * *

* * *

COMING EVENTS

ROYAL ONTARIO MUSEUM: Free Sunday films at 2 p.m.

Jan. 5 - Wild Life Island (Toronto) with 2 other films

Jan. 19 - The Search for Ulysses (a modern voyage retracing the route of the mythical hero)

Feb. 2 - See How They Fly (bird flight) with 3 other films.

ROYAL CANADIAN INSTITUTE: Saturday evening lectures, Convocation Hall, University of Toronto, at 8.15 p.m. Further information: 922-2804. Jan. 25 - Dr. Donald Gunn, 'Sable Island.' Dr. Gunn showed us 'Moosonee' at our December meeting. Should be a good lecture.

UNIVERSITY OF TORONTO, DIVISION OF EXTENSION

Jan. 9 - 'Natural Resources Management'. A 13-week Thursday evening course (7.30 p.m.) which discusses land, air and water resources and their management for fish, wildlife, recreation, food production, forestry and mining. K. A. Armson, Dept. of Forestry. For more information, call 928-2400.

* * *

* * *

* * *

ECOLOGY

Ecology has been defined as the science of the interrelationships of creatures to each other and to their environment. When I was a schoolboy we learned that an interesting relationship existed between English bumblebees and spinsters. We didn't call it ecology in those days. The story went something like this: Bumblebees are essential to the fertilization of red clover. The number of bumblebees depends a great deal on the number of field-mice which destroy their combs and nests. The number of field-mice is largely dependent on the number of cats. And the number of cats is dependent on the number of spinsters since as we all know every spinster keeps a cat or two. Hence the more spinsters, the more cats, the less mice, the more bumblebees and the larger and better the red clover crops.

Recently a more up-to-date version of an ecological 'chain' came to my attention. It seems that some years ago 'the World Health Organization launched a mosquito control program in Borneo and sprayed large quantities of DDT, which had proved to be very effective in controlling the mosquito. But shortly thereafter, the roofs of the natives' houses began to fall because they were being eaten by caterpillars, which, because of their particular habits, had not absorbed very much of the DDT themselves. A certain predatory wasp, however, which had been keeping the caterpillars under control, had been killed off in large numbers by the DDT. But the story doesn't end there, because they brought the spraying indoors to control houseflies. Up to that time, the control of houseflies was largely the job of a little lizard, the gecko, that inhabits houses. Well, the geckos continued their job of eating flies, now heavily dosed with DDT, and the geckos began to die. Then the geckos were eaten by house cats. The poor house cats at the end of this food chain had concentrated this material, and they began to die. And they died in such numbers that rats began to invade the houses and consume the food. But, more important, the rats were potential plague carriers. This situation became so alarming that they finally resorted to parachuting fresh cats into Borneo to try to restore the balance of populations that the people, trigger-happy with the spray guns, had destroyed...' (E. T. and Gordon Harrison, Program Officer, Ford Foundation, from Natural History Magazine.)

* * *

* * *

* * *

SURVIVAL
by
Ray Pannell

One day near the middle of September this year, my wife and I were wandering along the shore of Lake Ontario, not far from Willow Beach. Here we noted a ground cover of some variety of sedum. Unable to identify it, I picked a couple of pieces and dropped them into a small match box, which I deposited in the glove compartment of our car. On returning home, I 'phoned a botanist friend of ours and described the plant. 'It's Sedum acre,' said he. Thus having received the information wanted, I completely forgot the sample in the match box.

On the 29th of November, I was going through the contents of the glove compartment and came across a match box. I opened it, expecting to find a few matches. To my amazement, not matches, but a confusion of sedum was seen, having fresh green shoots up to two inches in length with several yellow flowers at the tips. I was as excited as if I had found a rare bird.

Imagine! - after two and a half months subjected to many cold nights and the heat of the car, this tiny sedum boxed in the dark, grew and flowered. An almost unbelievable story of survival by this tenacious little plant.

* * * * * * * * *

WELCOME! - to our NEW MEMBERS (30 November, 1968): Mrs. Winnifred Arvisais, Nurses Residence, Tor. Hospital, Weston; Mrs. Dorothy Brown, 101 Lawton Blvd., Apt. 5, Tor. 7; Miss Lesley Coles, 183 Bedford Park Ave., Tor. 20; Dr. & Mrs. Douglas Harding, 190 Parklawn Rd., Tor. 18; Miss Anna Heise, 490 Eglinton Ave. E., Apt. 501, Tor. 12; Mrs. Marion Henry, 22 Humbervale Blvd., Tor. 18; Miss Lee N. Jan, 10 Huntley St., Apt. 404, Tor. 5; Mrs. Pat Jones, 128 Medland St., Tor. 9; Mr. Gerhard Mielke, 643 Glengrove Ave. W. Tor. 19; Mr. H. P. Mueller, 485 Eglinton Ave. E., Apt. 909, Tor. 12; Miss Pearl Parnell, 233 St. Clair Ave. W., Tor. 7; Mrs. M. Richardson, Box 254, Adelaide St. P.O., Tor. 1.

* * * * * * * * *

DDT Decimating Some Bird Populations

University of Wisconsin wildlife scientists have concluded that the chemical DDT, used in plant pest control operations, is wiping out large regional populations of predaceous birds located at the tops of food chains in contaminated ecosystems, the Wildlife Management Institute reports. In their work with herring gull eggs from widely separated colonies in the United States, the scientists have established that shell thickness is correlated precisely with the concentration of DDE, the breakdown product of DDT, within the eggs.

As a breeding species, the peregrine falcon, within the last two decades, has been wiped out in the eastern one half of the United States and has declined drastically in the western U.S., Finland, Sweden, Germany, Britain, France and Switzerland. The spectacular decline of peregrines in the U.S. and western Europe will be described in a new book, 'Peregrine Falcon Populations: Their Biology and Decline,' soon to be released by the University of Wisconsin Press. Along with the unprecedented population crashes of the peregrine, regional numbers of some other raptors have declined substantially on both continents. Bald eagles and ospreys are involved in the U.S. and sparrow hawks and

kestrels abroad.

These population nose dives are marked by a characteristic reproductive failure in which adult birds accidentally break their thin-shelled eggs and eat them. Wildlife researchers have shown this breakage of egg shells corresponds with a sharp change in shell thickness beginning in 1947, one year after DDT was used generally.

According to the scientists, DDT or DDE stimulates the liver to produce enzymes that break down sex hormones in the blood. Lowered levels of the hormones keep birds from mobilizing calcium needed to develop normal egg shells.

Both DDT and DDE can travel extremely long distances in water or the world's atmosphere. The long-lived chemicals attach to dust particles, are picked up and carried by winds, and return to earth by rain drops or direct fallout. DDE now is considered the most abundant synthetic compound present as a pollutant in the world's environment.

* * *

* * *

* * *

PLANT FAMILIES

The Borage or Forget-me-not Family - BORAGINACEAE

This family consists of some 1800 species and 90 genera of somewhat hairy annual or perennial herbs. In the tropics they may occur as shrubs or trees. None of the species is of any great economic value but several, such as the garden heliotrope and forget-me-not, are well-known garden flowers. Although found nearly world-wide, the greatest variety and concentration of species, seem to occur in semi-arid climates such as found in the Mediterranean region and California.

There are 17 species found in the Metro Toronto region, of which 8 are mentioned in the Check-list of Plants (1968).

Our species all have quite regular flower parts and may be identified by the following characteristics:

1. The plants are mostly covered with rough hairs on the stem and leaves. The leaves are alternate and entire.
2. The corolla and calyx are regular and 5-parted with the petals forming part of a tube. Flowers are usually blue or purple, although white and yellow are also found. Five stamens alternate with the petals and are usually attached to the corolla tube.
3. The ovary has 4 lobes which develop into 4 dry 1-seeded nutlets (usually.) The style rises between the 4 lobes - a good field mark.
4. The flowers are often found only on one side of a central branch which is rolled up from the end and straightens as the flowers expand. This type of flower cluster is called scorpioid.

Wild flowers or weeds: Hound's tongue (Cynoglossum officinale); stickseed (Hackelia virginiana); Forget-me-not (Myosotis); Virginia cowslip (Mertensia virginica); Small bugloss (Lycopsis arvensis); borage (Borago officinalis); Viper's bugloss (Echium vulgare); Gromwell (Lithospermum).

Garden flowers: Forget-me-not, heliotrope (Heliotropium), alkanet (Anchusa),
Virginia cowslip (Mertensia), Chinese forget-me-not (Cynoglossum) Lungwort (Pulmonaria.)

Ant trees Certain tropical species, the Cordia trees of Brazil, are favorite homes for ants. At the twig tips or where the branches divide, the ants make an ant-house, usually in the shape of a sac or hollow swelling of the branch. The ants make covered ways between their houses or use an 'underground' passage through the hollow interior of the branches. This is another example of symbiosis or a beneficial relationship between living organisms. The ants gain a house and food from the tree and in turn protects the tree from marauders of all kinds - caterpillars, beetles and men.

Charles Darwin observed this and wrote, 'The plant derives protection by the presence of whole armies of virulently stinging ants whose very minuteness renders them the more formidable.' He was talking about the vicious fire-ants of Brazil which have recently invaded the southern U.S.A.

Folk medicines, etc. Comfrey (Symphytum) root has been used as an application to wounds and sores of various kinds. It is also a cattle food and forage crop. An infusion of Borage leaves makes a soothing and cooling drink, and the leaves and flowers are also used in making claret cup and several similar beverages.

Folk stories, etc. There is an old German folk legend that 'forget-me-not' were the last words of a knight as he drowned in getting the flower for his lady. 'Pull-me-out' would have been more practical but not nearly as poetic.

But where does the name 'Viper's bugloss' come from? I don't know - does anyone? A reward of 100 beggars-dice to anyone who can tell me.

* * *

* * *

* * *

BOOK REVIEWS

Darling, Lois and Louis. Bird. (Boston: Houghton Mifflin, 1968)

A book for those who have advanced beyond the stage of mere bird identification and have not had the good fortune to have a zoological training. It is divided into three parts. The first part deals with the history of birds and gives the best and easiest to understand description of evolution I have yet encountered. The second part concerns the behaviour and instincts of birds and the third part is devoted to the anatomy and physiology of birds. There is also a section with suggestions for further reading. The book is beautifully and often amusingly illustrated throughout the text. The text itself is extremely well written, full of exciting information and very easy to read. This is a 'must' in any natural history library, especially for those who have not lost their sense of wonder.

- P.J.

From, Barbara. Ontario Snakes (CARCS.) A 36-page booklet, available free of charge, by writing to: Operation Branch, Dept. of Lands and Forests, Parliament Buildings, Toronto 5. It deals in detail with each of the 15 species of snakes native to Ontario. (Oshawa Naturalist.)

Hutchinson, J. Key to the Families of Flowering Plants of the World, revised and enlarged for use as a supplement to The Genera of Flowering Plants. New York: Oxford; Clarendon Press, 1967. 117 p. \$5.50 (cloth); \$3.75 (paper.) (Canadian Field-Naturalist)

Sherk, Lawrence C. A Checklist of Ornamental Trees for Canada. Publication No. 1343, Canada Dept. of Agriculture, Ottawa, 1968. 23 p. This checklist which shows hardiness classifications is to be used with the Map of Plant Hardiness Zones in Canada, which is available free from the Information Division, Canada Dept. of Agriculture, Ottawa, Ont. (Canadian Field-Naturalist)

Leach, Harley. 100 Mineral Locations in South Eastern Ontario. (Kingston, Ont., 82 Ellerbeck St.) 85 p. \$1.25 (paper)
This book provides reliable directions, together with specific details, for some of the best mineral locations within that area of S. E. Ontario bounded by Brockville, Belleville, Haliburton and Eganville. As further aids there are sections on behaviour, clubs, cutting, diagnostics, equipment, methods, quality, safety and survival.

A bargain for any lapidary or mineral collector.

* * * * * * * * *

Report on Botany Group Meeting, 21 November 1968

Those who attended the November Botany Group meeting learned from Professor Erik Jorgensen, the speaker, that the Dutch Elm disease which has almost destroyed a beautiful tree species, may bring some benefits, since it has forced the study and planting of other Canadian trees. At the present time, a large amount of tree seed and seedling stock sold for city planting in Ontario have been imported from the United States and Western Europe and so are not acclimatized to survive in local conditions.

To remedy this, the Shade Tree Research Laboratory has been established at Government expense under the direction of Professor Jorgensen. In specially prepared plots of ground in High Park seeds from healthy native trees have been planted and successfully rooted. These are available for urban planting in southern Ontario. In addition, seedlings of some deciduous trees are being planted in Sioux Lookout, under nursery conditions. While many of these will be frozen, it is hoped that a few hardy ones will survive. These then will be planted in northern Ontario much farther north than they are growing at the present time.

The Shade Tree Research Laboratory invites the assistance of TFNC members in finding superior trees for further study. If you know of any, please obtain one questionnaire for each tree from Mrs. Mary Robson, TFNC Secretary. All that is necessary is to fill in the tree history and mail it to The Shade Tree Research Laboratory, University of Toronto, Toronto 5.

- Edith Cosens

* * * * * * * * *

ROSEMARY'S TRAVELS (Part II)

by
Rosemary Gaymer

(Ed: Poor Rosemary! It seems we left her stranded on Pike's Peak a year ago and never brought her down. This further excerpt from her delightful diary of western travels should bring her closer home.)

It was a memorable day, ending up about 50 miles northwest of Denver, to which my hosts returned, while I continued on and up, through the Roosevelt National Forest,

glorious dark pine covered hills, edged with bright green young aspens, and long views over to snow-capped peaks and glaciers. At one overlook stop I was treated to a first-class flying expedition by a male Broad-tailed Hummingbird, in the most energetic courtship display I have ever seen. The Broad-tails are about an inch larger than the Ruby-throats, their tails straight and broad, rather than forked; otherwise much the same in colouring except that the male's throat is a light rose-red instead of dark ruby. Actually, one doesn't need to identify the male by appearance, for the trademark is a high, loud trilling sound made by the wings in flight, which is useful because they fly so fast that the trill fades into the distance before one's eyes can focus. This particular male was hovering over one point, but behaving exactly like a yo-yo, zooming up and down perhaps twenty or thirty feet, with astonishing speed, trilling as he went. I watched through my binoculars and for a while deliberately kept them absolutely still ...he went up and down through the centre of the glasses' field three times before swerving at all noticeably to one side.

My goal that night was a lodge at 9000 feet in a beautiful setting on the edge of the Rocky Mountain National Park, in a high valley below the square-topped Long's Peak, giant of the Front Range of the Rockies at 14,256 feet. There was a grand finale to the day - I thought - when the sun went behind a huge-rounded white cloud that promptly turned almost black with blindingly brilliant lacing of white-gold. But it wasn't the finale. After the sunset, there was a build-up of gigantic thunder clouds that formed their own mountain ranges, one behind the other. Deep grey just above the hills, they shaded through paler greys to shining pearl, with the uppermost range of clouds a soft salmon pink - all above starkly black, real mountain silhouettes. And a rising full moon rose up to challenge the remnants of the pink and turn them slightly golden before everything faded.

Next day was the major event of the whole trip, devoted entirely to the delights of high altitude as I followed the famous Trail Ridge Road through Rocky Mountain National Park. First following the wildly twisting Fall River through beaver meadows, it gradually climbs up through heavy forest, with better views around every other corner, and eventually wanders up to 12,183 feet, the highest paved road in the States. One of the most dramatic stops on the way is at the 10,800 feet level, where the mountain drops away from the overlook for a full half-mile - only half the height of the Grand Canyon, maybe, but rather wonderful all the same. As soon as I was out of the car at this vantage point, the rocky slopes were seething with Western Chipmunks (I think - though they may have been Rocky Mountain Chipmunks - I'm not very good yet at western mammals!) and Golden-mantled Ground Squirrels. They pretended to be terribly hungry, although the last carful of tourists had left only moments previously. The huge slope of rocks which support the shoulder of the road and the overlook is, of course, tailor-made for these animals, with thousands of holes and lairs for them to hide in. With each new human victim, they put on a show of shyness, jumping a yard backwards or sideways at one's slightest movement as they slowly approach the outstretched hand with peanut or potato chip. I watched them for nearly half an hour, and the tactic seemed to be a test of the calibre of the people they were dealing with...if the human gave up too easily the ground squirrels particularly wasted no more time on that individual. Once they had taken one bit of food from each new victim, there was no more shyness - just unadulterated boldness. While all this was going on, an observant gallery kept up a constant comment - a gallery of birds perched on the tops of conifers rooted down the slopes. These birds were the Clark's Nutcrackers - allied to the Jays, with shortish tails, fairly long and sharp bills, and a smart uniform of grey, black and snowy white; and possessing the most knowing expression of any birds I've yet encountered. I had so hoped to see some Nutcrackers, having missed them in a trip to Arizona and New Mexico

mountain areas in 1964. But not only did I see them on the Trail Ridge Road; I met them. While keeping very still to photograph a ground squirrel chewing a potato chip from a perch on my foot, at 2 1/2 foot distance, one of the Nutcrackers tried to rifle my shoulder-slung handbag! When I turned to photograph the birds, I had difficulty keeping them far enough away to accommodate my camera's minimum said 2 1/2 foot distance. We became quite well acquainted.

Further up the Trail Ridge Road, above the tree-line, and in true tundra climate, there was more interesting birding: a beautiful Prairie Falcon gave me excellent views as it came and went from a hole in a great vertical face of rock above a small glacier... almost certainly there was a nest, although I could see nothing. Much tramping over the tundra, strewn with rocks of all sizes from gigantic slabs to minute pebbles of ancient granites, eventually rewarded me with my first Brown-capped Rosy Finches (the males are dark brown, with rose-colored wings and rumps) about the size of Purple Finches, which summer on the peaks and high passes, and certainly don't wait for the snow and ice to disappear before taking up their nesting territories. My visit coincided with the first opening of the Trail Ridge for the summer season, and the visitors' centre at the 11,000 foot level was still being dug out of completely enveloping snow... but the finches were busy picking up dead insects on top of the drifts. I never found the White-tailed Ptarmigan - and a party of birders apologized for the fact: they were from the university in Denver, one of their number doing a thesis on the Ptarmigan, and they admitted to having probably chased them away, although they had seen them earlier. Oh well, that left something to come back for another year. There were other things to see anyway...masses of alpine flowers, so tiny and matted to the ground, that hands-and-knees was the only way to have a good look. Unbelievably blue forget-me-nots, each flower less than one-eighth inch across; minute white flowers with dazzling yellow centres, about the same size; large yellow alpine avens; purple flowers that seemed allied to primroses; and many others. The biggest surprise was the brilliance of the lichens, huge splashes of vivid colour from reds, through hot oranges, yellows, all shades of autumn browns, greys and black.

The following day took me gradually down from the heights onto the Colorado plains, northward and slightly east across the huge open spaces of empty Wyoming and into that isolated island of the Rockies, called the Black Hills of South Dakota, where I stayed for several days, just browsing among the many parks and wildlife areas, mining communities and ghost towns, weird and wonderful outcroppings of pale granites, huge quartz veins - pink and white - and a glittering of mica in all the rocks...one even walks on a 'sand' of mica chips; and over and around all the black-green cover of Ponderosa Pines, which really do make the hills look black, especially under cloud.

(To be continued.)

* * *

* * *

* * *

Elmer Talvila, Editor
12 Cranleigh Ct., Islington, Ont.
(231-1064)