

#208

TORONTO FIELD NATURALISTS' CLUB NEWSLETTER

JANUARY MEETING

Monday, January 4th, 1965, at 8:15 p.m.
at the
ROYAL ONTARIO MUSEUM

Film Night:

Visitors Welcome

1. "The Enduring Wilderness" - One of the most recent films by Christopher Chapman, whose "Quetico" and "The Four Seasons" are so well known and appreciated by naturalists and conservationists.
2. "The Eternal Gem" - The story of diamonds, one of nature's most sought-after treasures, from their rough stages while being mined in Africa, to their refined state of flawless perfection, of faceted beauty.
3. "Kilauea" - A volcano erupts in Hawaii.

JANUARY OUTINGS

- Sunday Wilket Creek Park - Birds
 Jan. 10
 9:30 a.m. Meet at the parking lot at the entrance on Leslie St. just north of Eglinton Ave. E. There is a bus service on Eglinton from the subway. Morning only. Leader: Mrs. Eve Cobb
- Saturday Rear of Boyd Conservation Area - Birds
 Jan. 23
 9:30 a.m. From the intersection of hwy. 400 and 7, travel west about 2-1/2 miles on #7. Turn north at the sign pointing to Mart Kenney's Ranch. Drive north about 2 miles, as far as possible on this road without turning east or west. Park on the side of the road. Morning only, but lunch recommended.

IF THE REST OF YOUR NEWSLETTER IS MISSING, it means that according to our records you have not paid your fee. Upon renewal we will gladly send along the missing portion. If you think there has been an error, please let us know. Single Membership \$4.00 Family (adults) \$6.00 Corresponding \$2.00

BOTANY GROUP Meet on Thursday, January 21, at 8. p.m. sharp, at Hodgson School, on Davisville Ave. just east of Mt. Pleasant Rd. Parking entrance from Millwood Rd., one block north. Dr. James H. Soper will speak on "Botanizing in the Upper Great Lakes Region of Ontario". Visitors welcome. Secretary - Miss Erna Lewis, HO 5-3422

JUNIOR CLUB Meet at the Museum theatre on Saturday, January 9th, at 10:00 A.M. The Fish, Reptiles & Amphibians group will present the program. Visitors welcome. Director - Mr. Robt. MacLellan, HU 8-9346

FLORIDA, ANYONE? Any person interested in a group trip to the Everglades this winter please contact Mrs. Esther Carin, HU 8-7134. NOTE: This is a private undertaking, not an official Club project.

President - Mr. R. F. Norman

Secretary- Mrs. H. Robson,
49 Craighurst Avenue,
Toronto 12, HU 1-0260

Toronto Field Naturalists' Club.



NEWSLETTER

Number 208

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December 1964

I Saw A Million Birds

By Walter M. Tovell*

The morning of January 6th, 1964, broke with its usual haste and, in spite of the early tropical sun, a haze soon descended over the desert landscape. This is a typical "summer" morning fourteen degrees south of the equator, in the vicinity of Paracas, Peru. Paracas, a small village located 150 miles south of Lima, is famed for archaeological treasures of magnificent worth; it is also a port from which Government boats set out for the Chinchas, a group of small "Bird Islands of Peru," situated about 15 miles off the coast and constituting the homes of millions of sea birds which produce an annual "crop" of guano. From the harbour of Paracas this particular morning I set out for these islands, accompanied by my brother, the Canadian Ambassador to Peru, and my sister-in-law. In deference to my distinguished companions, a special launch was placed at our disposal by the Government corporation which controls the guano production.

Bird watching began from the moment we approached the pier from which we were later to depart. Flocks of shore birds darted hither and yon, looking for the appropriate feeding spots in the tidal zone; sanderlings were the only ones I could recognize. Pelicans, cormorants and gannets (boobies) were perched on the masts, gunwales and

*We are greatly pleased to have from our previous president, Walter Tovell, a vivid account of his visit last year to the Guano Islands off the coast of Peru. His seeing eye demonstrates anew how much at home is the naturalist in any part of the world.

railings of vessels which rode at anchor in the harbour. These, I am told, were "old" birds--birds no longer active in the community life of the colonies on the islands.

The Chincha Islands are just a few of the very many bird islands of Peru which lie at varying distances off the coast. These islands, ranging in size from a single rocky crag to hundreds of acres, support a bird population estimated to number around 18 million. Originally, when they were first discovered in 1800 or so by Alexander von Humboldt, the population was estimated in the vicinity of 40 million. The Chinchas are good examples of these truly unique colonies.

No one knows exactly how long these birds have colonized the islands. Suffice it to say that they had nested on them long enough to build up over 100 feet of guano--their excrement--on some of them. Humboldt alerted the western world to the value of this material as fertilizer, and so it was that, in the late 1800's, ships from all over the world congregated off the coast of Peru to load up with the valuable product. Their efforts were such that very soon the bird population (which is non-migratory) was reduced drastically. Around the turn of the century the Government stepped in, and with good management and restricted "harvesting" the population has now risen to 18 million. The Chinchas are one of the largest centres for guano production among bird populations today, and about 4 million birds live in the area.

The reason for the large concentration of birds on these islands is not difficult to understand. They are located in the northerly-drifting Humboldt, or Peruvian, Current--a wide belt of cold water that brings waters from Deep in the Southern Hemisphere to near the equator, before bending westward. In this stream fish life abounds, especially anchobetas or anchovies, to such an extent that even 40 million hungry birds had plenty to eat! In addition, this current controls the Peruvian climate, and is responsible for the Peruvian Desert. The haze that greeted us as we started forth is also a product of the Humboldt Current.

This was the background information I had acquired prior to my visit to the Chinchas, but little did I realize what they would really be like.

By the time we left Paracas harbour and were out on the calm Pacific, gannets, terns, gulls, and cormorants were flying all over. It would have been a successful day even in the first half hour, particularly when an albatross flew across our bow. En route to the Chinchas we cruised by the first of the islands of the Ballestas group. It was snow-white on top, with dark patches which, it turned out, were immense concentrations of birds--cormorants, or Guanays. Such concentrations consist of about 6 birds to the square yard. In this instance most of the birds were absent from the island, out fishing, perhaps 25 to 30 miles away. It has been estimated that 1,000 tons of fish per day are required to sustain the 4 million bird colony in this area.

This particular island was steep and craggy; sea lions roared as they lay on the narrow beach at the base of the cliffs, while others had been spotted swimming. Of especial interest to me as a geologist was the presence of "raised beaches" on the islands, indicating the very recent uplift from the sea. I learned later that, when the guano was quarried out in the early days, beds of boulders were found between the guano and the bedrock of the island. These phenomena indicate extremely recent uplift of the islands (perhaps less than a million years)--recent, that is, to a geologist. The island also displayed magnificent sea caves, as well as marine arches.

From this island we proceeded towards our goal, across 10 miles of open ocean. The numbers of diving birds increased by the minute until, as we neared the Chinchas, the sky

was full of flying and diving cormorants, pelicans, and boobies (know locally as Piqueros). Occasionally I spotted what has become my favourite South American bird--the Inca Tern--a lovely creature, mainly grey, with red feet, a red tern-like bill, white at the back edge of the wings, a white line back of the bill, and a yellow dot under the eye.

We landed at the main Chincha Island for lunch; this was the site of Robert Cushman Murphy's headquarters as he studied the "Bird Islands of Peru." Among the first animals to draw our attention away from the birds were small lizards, which had been imported to control certain pests--spiders, flies, and rodents--that damaged eggs. We also saw a vulture or two (the same species as our Turkey Vulture); they are important in disposing of dead birds. Gulls were rare on the island; they are managed to the point of shooting them as they attack nests, and in some instances nesting colonies of gulls have had to be destroyed.

Guano islands are white, in spite of the fact that the rock is granite. They stick out of the water like icebergs. Each island is cropped of guano once every two or three years, and the cropping is done in rotation. This allows the birds to move from island to island and breed. The cropping operation is literally with shovels, brooms, and several hundred men. The product is "swept" into special boats and taken to a drying and grinding plant, where it is finally bagged, then shipped literally around the world. At the moment, some 15,000 tons are produced each year, valued at \$120.00 per ton. The product comes from an avian fauna consisting of cormorants 85%, boobies 10%, and pelicans 5%.

Because of the nesting birds we could do little exploring on the island where we dined, since the authorities do not permit wandering around during this period. However, after lunch I walked to a point on the island and looked out to sea; it was around 2:00 p.m. and the birds were coming home to roose after their morning's fishing. The cormorants were flying in groups of from 5 to 50, and as I scanned the open ocean with binoculars they were coming from all directions. My viewing field was filled at all times with untold numbers of birds--it was like looking at mosquitoes over a swamp. I estimated I had seen a million birds! Anyway, it was many more than I had ever seen or expect to see again for a long time.

Two hours later we were landing at Paracas, and while walking along the dock I noticed a flock of terns. As I Paused and raised my glasses my brother said: "Come on, Walter, you've seen enough birds for today!" He was right--I had!

Reference: Robert Cushman Murphy. Bird Islands of Peru. G. P. Putnam's Sons, 1925.

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Nature Notebook*

By W. G. Girling

The story that follows this introduction has never been published before. The events

*This article which appeared in a recent number of The Cardinal (Flight No. 50, October 1964), the publication of the McIlwraith Ornithological Club of London, will interest all our members but especially those who have known White's Bush and who have joined their efforts with other Ontario naturalists to save this fine piece of untouched woodland from destruction. Bill Girling has given us a very feeling picture here of the late Mr. White and his concern for nature.

in the story took place some time prior to the outbreak of the war in 1939. The story was written shortly after. How the manuscript survived all these years, I will never know.

The persons who participated in this memorable evening were Keith Reynolds (now Dr. Keith Reynolds of the Dept. of Lands and Forests), Frances Jacobs (now Mrs. W. G. Girling), Fred White and the writer.

The story is being published as a tribute to the real "down to earth" conservationist and to one who really enjoyed the out-of-doors. Fred White of Springwater (near Aylmer, Ontario) was known to many of us, and White's Bush lives on. After Fred White's death, the area finally passed into the hands of the Catfish Creek Valley Authority. At the moment the future plans for this area are not too clear. As a memorial to the one man who knew this area so well, why not re-establish the beavers, as he did those many years ago?

Friend of the Beaver

We were to see beaver!

It was early autumn; the night air was clear and a foreboding silence lay over the whole Ontario countryside. The magnificent autumn stars shone brightly, casting their multiple reflections in the still mirror-like pond. Suddenly, this peaceful scene was interrupted by the lusty ringing of a heavy dinner bell, each clanging note jarring the quietude of the evening. A questioning great-horned owl boomed in deep-voiced exclamations from the depths of the surrounding woods. Presently the whistled strains of "Show Me the Way To Go Home" floated out across the quiet waters--a weird unharmonious tune in such enchanting surroundings. Why was this fellow making such a disturbance? No sooner had the whistling ceased, when the air was again filled with the lusty calling of a man's voice, pleading, "Come on boys, come and get it, come on boys." It all seemed very strange to us as we stood there in the dark of the night. We waited breathlessly, one, two, three,--five minutes. Nothing happened! Suddenly, a resounding 'smack' on the surface of the pond reverberated through the still night air. What did this signify--a warning to all abroad at this hour? Another wait--then suddenly there was a splash in the water. "Yes," we exclaimed excitedly, "there it is!" It was coming nearer to shore, a real beaver, wild! "Watch it now!" Soon it slipped close to the edge of the pond; its sleek body shone as the flashlight was directed on it. It swam restlessly to and fro at the edge of the pond, then, as if sensing its security, it came quickly ashore. It crouched upon the bank eager to begin its meal. "Crunch, crunch, crunch," went its teeth, making a hard gnawing sound. Hardly had it begun to eat than other ripples in the water indicated the arrival of more visitors. Soon their sleek bodies could be seen as they too left their watery retreat to enjoy their portion of the night meal. Shortly, all were busily at work, and the air was resounding with the steady rapid grinding of many teeth on twig-bark and apples.

Thus we were introduced to the night-life of the wild Canadian beaver. This feeding is a nightly occurrence on the edge of a small pond in Western Ontario. For several years now, Fred White with his free lusty voice and a clanging dinner bell, and with his faithful dog, Guv'nor, has considered it his privilege to feed these children of Nature, so that he might learn more of their ways and habits.

Food for his beaver consisted of raw apples, bran and a few freshly-cut branches of poplar. The apple and bran diet has always continued throughout the winter, the food being given to his charges through a hole cut in the ice. One year it had taken about forty bushels of apples--and probably more of bran--no account being kept of the amount

of bran consumed. He honestly confessed that he sometimes thought that he spoiled the beaver by giving them apples and bran all the year round. "But their natural food is there for them to obtain and if they get tired of my hospitality, they don't have to accept it!", Mr. White confided.

"This feeding is worth it though," declared our host. "One gets repaid a thousand times by watching their cunning antics and habits." Our host knew them all by name too. "Hasn't that one over there only one foot?" he questioned. We flashed the light upon it, examining the feet carefully. To be sure, it had but one front foot! "Well, that's Old Tom," our host went on, "he lost his foot last year or so in a trap some interfering neighbour set for muskrats. And that little one over there, that's Tommy, he's not two years old yet!"

Then it was, he told us their story.

"About seven years ago there was a pair of wild beaver that made their home at this pond. Then somehow, one was killed and rather than see the place devoid of these fine creatures, I petitioned the government to send another pair from the north. In time a pair arrived by some form of express, all tied up in a sack. As the game-warden discharged his animal cargo, he exclaimed, 'Look out or they will bite you!' I took his warning and handled them with gloves; but since then, I have learned that the beaver is very meek; one of the most docile of all wild animals. They won't hurt you. Some beaver-man in Saskatchewan says they will bite molesters of their private retreats, but I have never seen such a thing.

"Since the government sent me those two, the colony has grown every year. True, there have been a few casualties, but all in all, they seem to be doing very well."

On a journey up to the head of the pond earlier in the day, Mr. White told us of some of the engineering feats of the beaver. "You know the beaver are great engineers? They always build their dams in such a position and in such a location so that they will be used to the greatest advantage." Proudly Mr. White pointed to two beaver dams that had been built some time ago--one an old mud dam, the second a neat structure of twigs and mud.

"And did you know that the beaver are terribly wasteful animals! They destroy far more trees than they can use. I think that they must just cut down the trees to keep their teeth in good repair! A beaver's teeth are sharp too! The incisor teeth keep on growing all during a beaver's life. The outer surface of the teeth are covered with a hard orange-coloured enamel, the inner surface being of a softer material. The continual cutting on bark and twigs tends to wear down the softer material, and this leaves a remarkable chisel-like edge. This has been formed for the sole purpose of cutting and gnawing the trees, twigs and branches."

All about us were the stumps and stripped trunks of poplar trees, mute evidence that Mr. White's busy friends had passed through this area of the woods.

Mr. White had many stories to tell us of the beavers--his own personal observations of their many cunning antics--and we were reluctant to bid him goodbye. We promised him though, that we would return for another nightly visit with him and his very interesting beaver friends.

Truly, we have here another Grey Owl of the Beaver. Mr. White, however, will never forsake his beaver and sanctuary for a different environment, for it plays too important

a part in his life. Mr. White lives to enjoy Nature and he is never happier than when he is with his faithful dog, sitting on a log at the edge of his pond, ringing his dinner bell and calling his beaver friends about him!

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A note and newspaper clipping from Miss Winifred Chute, a member of the T.F.N.C. who now resides at Wolfville, Nova Scotia, informs us that an egret flew into Halifax early in October and landed in a local park. Apparently this wanderer from the south was given a hot reception by the local waterfowl, ducks, geese and swans, and a particularly belligerent gull. Eventually the egret was ousted and had to fly away to some more suitable feeding place. The trouble seems to have been that this fellow was considered an interloper by the local birds that were used to being fed by people in the park in a way similar to our black-mallard ducks at High Park. Such fights amongst birds over feeding territories are common enough. Evidently these local birds had worked out some modus vivendi amongst themselves but they were unwilling to have a complete stranger cut in on the easy food scheme from which they all benefited.

Egrets ordinarily wander northward after the breeding season is over as we know from experience here in Toronto and throughout southern Ontario. The bird in question could have come from Massachusetts, as egrets breed nowadays close to Boston. The wandering as far as Nova Scotia is somewhat farther than usual but by no means out of the way. Indeed, under protection egrets are steadily extending their breeding territory northward--there are colonies in Ontario now--and so when the time of wandering comes they tend to appear farther and farther to the north. Like the extending breeding range, the greater wandering range is a tribute to the success of protective measures in behalf of a once dangerously reduced species.

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In view of the projected wild flower garden in Toronto that was mentioned in the last Newsletter it will be of interest to our readers to note what is being done in the Forest Preserves of Cook County in Illinois with regard to the restoration of wild flowers. The Forest Preserves resemble both our conservation areas and some of our Metropolitan parks. The following article is Nature Bulletin No. 755 (May 9, 1964) published by the Forest Preserve District of Cook County.

Wildflower Restoration in the Forest Preserves

Wildflowers are among the main attractions of our forest preserves. From the time the first blooms appear in spring until the last ones are killed by frost in autumn, thousands of visitors come to enjoy them. The greatest abundance of native flowers and the widest variety of kinds are invariably found in those areas which had been disturbed least by man before they were set aside as forest preserves.

Too often, other parts of our holdings have a previous history of plowing, draining, grazing, logging and burning. Wildflowers were sharply reduced or almost completely wiped out. In the woodlands, which ordinarily yield the finest displays of early spring flowers, some were cleared of trees and planted in farm crops. In others only the best trees were cut, the rich leaf mold and ground cover burned to promote the growth of grass, then pastured and trampled by livestock.

Today, after as much as forty years of protection as forest preserves, many parts of these woodlands have regained their natural leaf mulch and understory of shrubs and small

trees. Conditions again seemed suitable for many kinds of wildflowers but they have been slow in spreading naturally into these restored areas.

Beginning about ten years ago, one of our naturalists who is a skilled gardener, began to transplant several kinds of conspicuous and colorful flowers from areas where they were plentiful into promising spots that lacked them--bluebells, white trillium, Dutchman's breeches, bloodroot, shooting star and wild columbine. As this was continued on a small scale for several years, it was found that a surprising number of these plants survived and multiplied in the new locations.

Then he began to grow his own plants in garden plots from seed, or from bulbs, root cuttings and other underground parts. Almost every species was a separate problem which must be solved by ingenuity and experimentation. Very little practical information could be found in books. Seeds of the different kinds must be gathered at different seasons, stored in special ways, or perhaps refrigerated to break their dormancy before planting. Each has its own requirements of soil, moisture, drainage, sunlight or shade, which is best learned by studying conditions where the flower grows in the wild.

Two years ago a five-acre wildflower nursery was started with the purpose of propagating the more showy and interesting kinds for restocking the preserves. At present about thirty species are being grown, with more to be added as the project develops. These are about equally divided between spring woodland bloomers and the sun-lovers of prairies and open country.

Most of the woodland species being grown have large underground stores of plant food--roots, bulbs, tubers or corms--which allow them to push up rapidly in spring, bloom, set seed and recharge their stores before the leafing trees cut off the sunlight. Others such as fire pink, blue phlox and wild columbine are grown from seed. At every opportunity these--as well as other kinds--are rescued from areas where highways and other construction projects threaten them with destruction.

With few exceptions, the prairie species in the nursery are grown from seed. These give bright bands or splashes of color in summer--cardinal flower, great blue lobelia, coreopsis, purple coneflower, blazing star and butterfly mildweed, to name a few. An exception is the picturesque Turk's cap lily which is propagated from scales on the root.

Of the former prairies in the Chicago region only a few fragments have survived. As part of this wildflower project it is planned to restore about a dozen areas of one or two acres each where people can get a glimpse of some of the flowers that made Illinois the "Prairie State".

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Highlights of the T.F.N.C. Field Trips (September 1964 - November 1964)

The field trips this fall began on September 5 with a botany hike in Wilket Creek Park, led by Dr. Fletcher Sharp, who showed the 65 people who turned out, a large and widely representative sampling of the late summer plants of this area, a good one for both botanist and birder.

On the next Saturday, September 12, Earl Stark took some 40 people along Scarborough Bluffs where they saw a migration of hawks, mostly accipiters and small falcons, of flickers and of monarch butterflies. The bluffs are on a favorite migration route for birds and likely to be rewarding on any favorable day in the autumn migratory period.

September 13 found Jim Simon leading the botanical enthusiasts through High Park. In spite of the almost complete eradication of the wild parts there still remain hereabouts relict groups of interesting plants as the group's list for that day shows. They saw, for instance, hog peanut, blazing star, fern-leaved foxglove, lion's foot, tick trefoil, white lettuce and blueberries, the last in fruit.

The next weekend, September 19-20, was also shared between the botanists and the birders, the former (about 25) going to Lambton Woods on the 19th with George Mark and the latter (about 35) to Whitby and the lakeshore on the 20th with Jim Baillie. The Whitby Harbour area has been particularly good this fall because of the low lake level that has left half the "harbour" a sea of mud much favoured by shorebirds. These birds were seen on this weekend in great number but the outstanding observation was of Hudsonian godwits, a life bird for many of the observers. Several of these godwits stayed on at Whitby for several weeks and were the objective of many visits by numerous birders.

On Saturday, September 26, Len Butcher was able to introduce a group of 36 interested people, mostly beginners, to a list of 44 birds at Wilket Creek Park. A good sight of two ospreys was perhaps the outstanding observation but it was also very good for the group to be able to see both scarlet tanager and rose-breasted grosbeaks in the immature or female plumage as some people find these difficult birds.

Another successful botany walk in Wilket Creek Park on October 3 was followed the next day, October 4, by a bird outing along the Humber, from Bloor Street to Dundas Street. This latter was led by Earl Damude, who was able to show a good assortment of birds, highlighted by an immature red-headed woodpecker, to some 45 people.

Sunday, October 18, saw 75 people turn out for a bird hike at Toronto Island. Gerry Bennett and Jack Gingrich split this large number between them and the two groups made a very successful exploration of the Island for they saw between them 63 kinds of birds, a high count for this time of year. One group, the earliest arrivals, saw brant geese off Ward's Island, and others, the late stayers, saw sawhet owls, but everyone appeared to have a profitable and enjoyable outing with the birds. Monarch butterflies and some viceroy were also seen migrating along the shore.

On Saturday, October 24, Earl Damude and Eric Lewis gave a party of 51 an introduction to the Bruce Trail in the Speyside region. If they saw but few birds, one was a Cooper's hawk and another was a winter wren. In addition they came upon signs of beaver work on poplar saplings, saw rare ferns and an abundance of Euonymus along the trail. It was a good all-round nature ramble along a path that is bound to become more and more popular with our naturalists.

Thirty-two persons toured the waterfront from the Humber to Woodbine with Peter Iden on November 8, seeing in an assortment of waterfowl at least six white-winged scoters. The highlight of this trip, though, was a fine snowy owl; it may have been two, for one was seen at the Humber and one at the Island airport. This is the winter for a snowy owl invasion. These were among the first reports and since then more than 20 have been observed. Goatsbeard in full bloom at Cherry Beach was another good sight on this jaunt.

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Book Reviews

The Atonement of Ashley Morden. By Fred Bodsworth. (Toronto. Dodd, Mead & Co. (Canada) Limited. 1964)
Pp. 468. Price \$6.95.

Fred Bodsworth, former President of the Toronto Field Naturalists' Club and present President of the Federation of Ontario Naturalists, is a naturalist-author who has a deep pity for and understanding of those who suffer and are persecuted, be they human or animal. For years he has thought, felt and written about such themes, his sympathy always leaning toward the underdog. In this vein we have seen him deal with The Last of the Curlews, the story of a bird species that is facing extinction, and with The Strange One, an interwoven account of a buffeted bird and a culturally-stricken, moribund social group. Now in this new book he takes up his theme in its broadest and most decisive aspect, the fate of mankind itself.

Using as the conveyor of his argument the anguishing experiences of Ashley Morden the author shows how this peculiarly sensitive son of an Anglican parson from a small Ontario town is torn away from his home moorings, physically and spiritually, and turned from a potential missionary into a religious disbeliever by the horrifying impact of the war. Slaughter, brutality, cruelty, the nasty mentality of war and treachery are all parts of the excruciating career that drives this feeling young man into disgrace and failure in the Air Force and ultimately sends him home to Canada broken, with a gnawing sense of remorse and guilt for his role in the holocaust. For this he knows that he must atone.

A missionary he no longer can become so he turns his atoning hopes to medicine, struggling under the most difficult conditions that are compounded by his wartime disgrace to a medical degree, only in the end to be diverted into science in the form of bacteriology. In this field he continues to hope that he may find a way of helping mankind and a means of atonement, only to be met, after making a great scientific discovery, with a peremptory demand from the military authorities that his findings be made the basis for the creation of a new weapon of war, the most horrible of all. Argued into submission to their demands he is being flown into the remote Arctic north to carry on his experiments when his plane is brought crashing down in the wilderness.

Here in this northern world he is saved by an Anglo-German refugee girl whose experiences have been as heartrending and awful as his own and whose life has now become committed to this wild and lonely northern land. She has learned to live with nature and from the creatures of the wild to take her cues for human living. This lesson she conveys to Ashley Morden who comes to see in it the one philosophy of life that can make further life on this earth possible and viable since the way mankind is now going means certain annihilation. Along the line of this philosophy then will Ashley Morden find at last the means of making his atonement to humanity.

In this usually fast-moving and well-written novel our naturalist-author has made his interest in nature serve as grace-notes to a symphony of horror in the first part of the book and as a means of survival in the last part. Particularly in the later sections is his wide knowledge of animals, plants and birds most evident.

Fundamentally this work is a violent protest against man's inhumanity to man and at the same time a plea for man to see his place in nature for what it truly is and to find peace and a basis for same living therein.

Poisonous Fruits. By F. H. Montgomery. (Don Mills, Ontario. Federation of Ontario Naturalists. Special Publication Number 1. 1964). Pp 24. Price \$1.00.

In this informative pamphlet, prepared by Professor Montgomery of the Botany Department of Ontario Agricultural College, a group of plants that have more or less poisonous qualities are identified, by black-and-white drawings and by descriptions, so that people, especially those responsible for small children, may know what to avoid in the local plant world. Useful distribution maps, prepared by Professor J. H. Soper of the University of Toronto Botany Staff, add greatly to the value of the pamphlet, indicating where these plants are likely to be encountered. All interested may obtain the pamphlet from the F.O.N.

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As in previous years we bring at this time to the attention of the readers of the Newsletter the opportunity to take part in the continuing continental study of birds and bird migration. This is becoming an ever more important piece of research in which many observers all over the continent are cooperating. It is clear that the more complete the data that can be gathered together the more accurate and satisfactory will be the results. If you have not yet contributed any of your observations, here is your chance to get in on the project. If you can give information about only some of the species listed on the form it will still be of help. For your convenience a copy of the report form is hereby appended. The directions for its use are on it. Once you have made yourself known to the Center where this research is being correlated you will receive further forms directly. This is one way in which amateur as well as professional observers can make important contributions to biological knowledge of this continent.

R. M. Saunders,

Editor.

U. S. DEPARTMENT OF THE INTERIOR, BUREAU OF SPORT FISHERIES AND WILDLIFE
MIGRATORY BIRD POPULATIONS STATION, LAUREL, MARYLAND, 20810

COOPERATIVE MIGRATION STUDY - FALL OF 19__

Thank you for your migration reports of past seasons. The present list contains the same species as in recent fall seasons. We do not expect anyone to provide arrival and departure dates for all 23 species on the list. Dates and counts (or careful numerical estimates) for even one species will be appreciated. Avoid using terms such as "common". In the "Peak" columns please include any dates when migratory movement was detected. The "Last Noted" column is for the last fall date on which migrating individuals were seen or heard. Please do not include any wintering individuals on this form. Use a separate form for each locality.

Observations submitted on this form will be put on punch cards and a machine listing will be sent to you for verification.

We should like to have fall records by January 10. Late reports, as well as records for these same species from prior years can still be used.

We shall appreciate your cooperation in soliciting reports from other active observers. Additional forms will be sent on request, either to you or to lists of people you can send us.

Please keep one copy of your report and mail the other to Chandler S. Robbins, Migratory Bird Populations Station, Patuxent Wildlife Research Center, Laurel, Maryland, 20810. If your report is completed by Nov. 30, it may be sent through your Audubon Field Notes Regional Editor. If this is your first report, kindly put a large star (*) in the top right corner and we shall put you on our mailing list.

Persons not heard from for 3 consecutive years will be dropped from our list.

STATE: _____ COUNTY: _____ LOCALITY: _____ LAT: _____ LONG: _____

OBSERVER: _____ ADDRESS: _____

Species	Code No.	First Migrant		Peak		Peak		Peak		Last Noted	
		Date	No.	Date	No.	Date	No.	Date	No.	Date	No.
Whistling Swan	180										
Canada Goose	172										
Mallard	132										
Broad-winged Hawk	343										
Common Snipe	230										
Mourning Dove	316										
Common Nighthawk	420										
Chimney Swift	423										
Gt. Crest. Flycatcher	452										
Catbird	704										
Hermit Thrush	759										
Golden-cr. Kinglet	748										
Myrtle Warbler	655										
Red-winged Blackbird	498										
Baltimore Oriole	507										
Common Grackle	511										
Rose-br. Grosbeak	595										
Evening Grosbeak	514										
Slate-colored Junco	567										
Tree Sparrow	559										
White-cr. Sparrow	554										
White-thrted. Sparrow	558										
Fox Sparrow	585										

Chandler S. Robbins, James H. Zimmerman