

The Blue Jay Bookshelf

WILDLIFE HABITAT IMPROVEMENT. By Joseph J. Shomon, Byron J. Ashbrough and Con D. Tolman. Sketches by Ned Smith, diagrams by Robert F. Holmes. 1966. National Audubon Society, 1130 Fifth Avenue, New York. 96 pp. \$2.50.

The Saskatchewan Natural History Society recently received a complimentary copy of this bulletin, sent to us by the Canadian Audubon Society with which we are affiliated, in the belief that it could be of help to clubs acting collectively or to individual members who wish to improve land and water areas for wildlife. While some of the subject matter pertains to conditions and species found only or mainly in the United States, the basic principles of habitat improvement outlined in the book apply equally to Canada.

In the *Foreword*, Ira N. Gabrielson, President of the Wildlife Management Institute, congratulates the Nature Centers Division of the National Audubon Society for providing planning services on nature centres and for preparing this manual on what and how things should be done. He points out how important it is that the government's national policy of creating parks, forests and wildlife refuges be supplemented by efforts on the local community level. He knows that "tens of thousands of children have never seen a green hillside or known a ruffed grouse, and each day the opportunity for them to do so becomes further removed," but he believes that almost any city or town has the potential to do something about this. The National Audubon Society's guidebook is obviously an attempt to offer encouragement and practical help to communities and individuals interested in this vital task.

The chapters deal with elementary principles of wildlife management and habitat improvement for birds and mammals, and with the application of

these principles to homesites and special areas. Sketches and an eight-page insert of photographs make the bulletin attractive. Both the discussions in the chapters and the 60-point summary of measures that organizations or individuals can take to improve wildlife habitat in their area, have of course a limited application for us on the Canadian prairies, and even where the recommendations are applicable we must accept the fact that they are not always economically feasible for the small farmer.

Copies of the book may be obtained from the Canadian Audubon Society, 46 St. Clair Ave. E., Toronto 7.—*Margaret Belcher, Regina.*

PLANTS OF BOTTINEAU COUNTY, NORTH DAKOTA. By Dr. A. O. Stevens. 1966. North Dakota State University Institute for Regional Studies, Fargo, N.D. 37 pp. Free on request.

This brochure represents another publication added to the many natural history studies from this author. Since the county studied borders 60 miles of Saskatchewan and Manitoba, it is of interest to our prairie residents. Most of this county is prairie and its plants are similar to those on the Canadian side of the border, and the wooded growth is comparable to that of southern Manitoba.

The brochure contains a check-list of plants collected over the last 50 years by the writer, Emeritus Professor of botany, North Dakota State University Institute for Regional Studies, Fargo, N.D.

The added historical background, description of physical features, and comments on the character of the flora make a valuable addition to the available information on this area.—*Elizabeth Cruickshank, Regina.*

THE ELK. By John Madson. 1966. Conservation Dept., Olin Mathieson Chemical Corp., East Alton, Ill. 125 pp. Illus. \$1.00.

"Long ago, man and elk made a mutual decision that elk do not belong in crowded farmlands or suburban woodlots. It was one of those rare deals in which wildlife came out ahead. Man still lives in his teeming warrens and congested countrysides, while today's elk is a successful exile in two broad American ranges that are unequalled anywhere on earth for sheer wild splendor."

With these words Mr. Madson begins his very interesting booklet on the elk, or *wapiti* as our American elk should be called. The name *wapiti*, a Shawnee word meaning "white deer", has been used since 1806, but is not as commonly used as the name elk. By whichever common name it is called, the species is scientifically recognized as *Cervus canadensis*.

This monograph is well illustrated with numerous photos and drawings, and supported with an extensive bibliography. Those interested in the deer family will find it an appropriate addition to their library.—*Anthony J. Hruska*, Gerald.

DO YOU KNOW? Exploring nature around Prince William Sound, Alaska. By Cecil Lee Shumaker. 1967. Exposition Press, New York. 82pp., illustrated by the author. \$3.50.

The little book, *Do You Know*, by Cecil Lee Shumaker, is a collection of short essays on familiar subjects that raise questions in young minds. The area, an out-of-way place, provides a variety of subjects for discussion. The subjects, including whales, mosses, mosquitoes, bats, fungi, sealions, and birds, may be large or small.

Recording experiences met in day-to-day living, the author raises questions which she answers in easy-to-read style. The booklet is written especially for children. The illustra-

tions, line drawings by the author add to the pleasure derived from the book.

Mrs. Shumaker and her husband operated a blue fox and land otter ranch in Prince William Sound, Alaska.—*Elizabeth Cruickshank*, Regina.

CYPRESS HILLS PLATEAU. Guidebook of the 15th annual field conference of the Alberta Society of Petroleum Geologists. Part I—Technical papers, ed. by R. L. Zell, 288 pp.; Part II—Program, geological road logs and maps, ed. by Irmgard Weihmann, 22 pp. 1965. Available from Riley's Reproductions Ltd., 631 - 8th Ave. SW, Calgary, Alberta. Part I, \$5.00; Part II, \$2.50.

These two paper-bound volumes were issued as handbooks to a field trip to the Cypress Hills in September 1965 sponsored by the Alberta Society of Petroleum Geologists. The area covered in their principal geologic map is Twps 1 to 11, Ranges 19 W 3rd to 8 W 4th, that is from the Trans-Canada Highway south to the U.S. border and from Eastend west to Milk River Canyon. The work is oriented to the professional geologist; yet, upon acquiring a copy, I felt that it has much to teach general naturalists, especially those that know and love the Cypress Hills. For this reason I would like to let the readers of the *Blue Jay* know about this collection of information.

"Part I, Technical papers" consists of 23 separate essays on the geology and natural history of the Cypress Hills. These are of very unequal interest to the general naturalist. I can here try only to give an idea of the subject matter of each paper; space forbids much of a discussion on any one.

These papers have been arranged by subject matter into five groups each containing from two to six papers.

The group of Introductory Papers begins with a contribution from R. W. Landes covering briefly the history of geological exploration in the Cypress Hills area and in more detail the story of the disposition of mineral rights and of oil and gas production in the area. M. Y. Williams then takes up the story of the history of geological exploration of the area through a literature survey of all major geological reports dealing with the Cypress Hills, in which the conclusions reached by each geologist are quoted as much as possible in his own words. W. B. Gallup, under the title, "Plateau of Empire", then traces the ordinary or civil history of the Cypress Hills from 1801-2 to 1882. To the Hills first came Peter Fidler's pitch-gathering parties; then the Palliser expedition, then the American whiskey traders of the 1860's. These people's Indian-killing proclivities obliged the Canadian Government to send west the N.W.M.P. through the establishment of old Fort Walsh by the Mounties in 1875 the area was held for Canada until the coming of the C.P.R.

The next group "Recent Biotia of the Cypress Hills Plateau" includes only two longish papers, but *Blue Jay* readers will find them perhaps the most interesting. S. R. Halliday gives us "A General Survey of the Natural History", with most emphasis on mammals and birds. In "Some Particular Aspects of the Biotia of the Cypress Hills" Bruce McCorquodale (formerly with our Saskatchewan Museum of Natural History) discusses the oddities of the fauna and flora. He points out that the forms found in the area whose main range lies further south, such as the yucca, the rattlesnake, the horned lizard, and the sage grouse, find habitats in the low hot country at the foot of the Cypress Hills; while the life-forms unusual to plains residents that are found in the high cool wooded hills proper are ordinary Rocky Mountain species; and furthermore, the fact that the top of the Cypress Hills was unglaciated has nothing to do with the present flora and fauna.

The next group of papers on "Land Forms and Pleistocene Geology" is tougher going for the field naturalists, but will repay study to those who marvel at the topography of the Cypress Hills. C. H. Crickmay, in discussing the land forms of the area, points out that the Cypress Hills are in fact a flat topped plateau. The top of the plateau, or "Main Bench", is a geologically old land surface with its own shallowly incised drainage pattern upon its face. Erosion of the plateau is taking place not by normal river erosion upon its surface, but by crumbling of the resistant cliffs at its edge. A. J. Broscoe gives an account of the development of the landscape forms (geomorphology) of the Alberta Cypress Hills and the country from there south as far as Milk River. J. A. Westgate gives a formal discussion of the glacial geology (Pleistocene deposits) of southeastern Alberta. W. O. Kupsch has a small item upon boulders lying cracked in gravel pits near Dollard, believed to be caused by stresses exerted by flowing ice. A. MacS. Stalker performs geometrical calculations from the altitudes of unglaciated highlands in the south of Alberta and Saskatchewan and gets the position and gradient of the Laurentide ice sheets in the area. He finds a good deal of southeastward motion to the ice sheet in our area. As he points out, the existence of the famous driftless area at Rockglen, Saskatchewan, cannot be understood without assuming mainly southeastward flow.

There next follows a group of six papers on "Surface Palaeontology and Stratigraphy"—a mixed bag. Here L. S. Russell enumerates the locations for naked-eye fossils in the Cypress Hills area. W. A. Clemens describes a technique for wet screening small vertebrate bones out of soft rocks, which helps with the study of the small and hard to find Cretaceous mammals. Next J. A. Vonhof gives an important paper showing that much of what looks to the eye to be quartzite gravels similar to the Cypress Hills formation (of Oligocene

age), and which had earlier been included in this formation in geologic maps, is in fact younger. Such material has been eroded off the Main Bench and redeposited at lower levels to make up what he has named "Redeposited Cypress Hills Formation". In the past I have wondered about this matter myself. I remember climbing to the bench level a few hundred feet up from where Highway 21 crosses the Frenchman River just east of Cypress Lake, to stand on cobblestones which the geologic map marked as "Cypress Hills Formation". Yet hard to reconcile with this was the fact that away off to the northwest some 8 or 10 miles rose the Main Bench (Provincial Park area), some 500 feet higher, also capped by cobblestone conglomerates of the Cypress Hills formation. The dip of this Cypress Hills formation in the Park area, so far as one could judge by geological reports and one's own eyes, was neither steep enough nor southerly enough for the two cobblestone gravels to be part of the same bed without some marked folding. I concluded that the solution of the problem was beyond me, but it is now plain what was going on; the cobbles on the lower bench were redeposited material.

Also in this group is a paper by R. A. Folinsbee and others about absolute dates in years obtained from Bearpaw shale outcrops by a radiochemical method; a rather technical discussion by J. R. Patterson on just where the Cretaceous-Tertiary (Age of Reptiles to Age of Mammals) transition ought to be drawn in our area and a description of the exposed Cretaceous formations of the Cypress Hills area by M. B. B. Crockford and W. A. Clow. This last paper should be read before the others of its group as a first meeting with the formations of the area. It would have served this purpose better still had its authors included a similar review of the exposed Tertiary beds above the Cretaceous ones.

The last group of papers is of lesser interest to the field naturalist. M. O.

Fuglem outlines the oil and gas reserves of the Cypress Hills area. L. O. Lindoe describes the ceramic clays of the area; this paper should be noted at it contains a description of the exposed Tertiary strata, not treated elsewhere in this volume. J. D. Campbell treats of the coal resources of the area. The volume closes with four papers on the subsurface structure. Here J. E. Christopher writes on the Jurassic, D. M. Kent on the Devonian, H. van Hees on the Cambrian, and R. A. Burwash on the Precambrian, of the area. As these rocks are deeply buried, the papers do not concern the field naturalist.

In the pocket of Part I are four maps. One is to accompany Vonhof's paper, showing what outcrops of seeming Cypress Hills formation are in fact redeposited. Another is a large but not very clear composite air photo of the Alberta half of the area to accompany Broscoe's surface geomorphology (land forms) paper. The other two are large illustrations for the subsurface structure papers.

"Part II: Programme, geological road logs and maps", is a much thinner volume. Most of it is occupied by geological road logs compiled by T. P. Chamney for their field convention that is, for every route the buses were to follow, there are given directions, mileages, and descriptions of the interesting geological sights along the way. In one day they were to visit Fort Walsh, Bald Butte, Eastend, and Ravenscrag Butte; the second day they were to see Eagle Butte, Elkwater Lake, Lodge Creek, and the Milk River Canyon. They must have been really moving!

A brief description of the exposed geological formations and a list of references to the geology of the Cypress Hills area were contributed to this volume by E. J. W. Irish. These refer to and explain the large, coloured, more or less contoured geological map of the area (scale 1 inch to 1 mile approx.) to be found in the back pocket of the booklet. The route described in the road logs have also been plotted onto this map. By mean

of Part II, then, one can then find the way to many of the points of interest in the Cypress Hills, even if one were unfamiliar with the country beforehand.

I have given a rather complete account of the contents of this work,

so that the *Blue Jay's* readers may make up their own minds about whether they would like this publication. For my own part, I shall take my copy along the next time I am visiting the Cypress Hills.—*John H. Hudson, Saskatoon.*

Letters and Notes

OBSERVATIONS OF WATERFOWL AND SHOREBIRDS NEAR KELVINGTON IN 1966

During the summer of 1965 about 7 inches of rain fell in our local area (Township 36-12-W2, approximately seven miles southwest of Kelvington). Because of this and a snowfall of nearly four feet the following winter 1965-66 the water level was very high. Sloughs and lakes were very full and remained so for most of the summer of 1966. Runs between bodies of water were more active than they had been since the wet 1950's. As a result, different species of birds and larger numbers stopped in the area than have done so in recent years.

One of the species which was prevalent was the Common Snipe. The first snipe were seen on May 4, when two flocks of seven and eight were sighted. They were seen off and on during the season and probably nested. Flocks of 25 were seen on September 11 and 17 and on September 24. The last bird was seen on September 30.

We always have a few flocks of Whistling Swan pass through in spring migration; in 1966 we had more flocks, though these were not very large. The first flock was noted on April 25. It contained 25 swans. Migration was further noted on April 30, May 4, 6, 7, 8, 10 and finally May 11.

We were surprised on April 25 to observe a Common Loon on one of the Meadow Bank lakes (located five miles west and three miles south of Kelvington). These lakes are about 1½ miles long and a few hundred yards wide and contain no fish and

very little other aquatic life. A loon was seen again on June 5.

Other interesting spring migrants were Pectoral Sandpiper (May 19), Northern Phalarope (May 29), Whimbrel (May 29), Black-bellied Plover (June 1) and Baird's Sandpiper (75 seen on June 2). Waterfowl observed were Canada Geese, Mallard, Gadwall, Pintail, Green-winged Teal, Blue-winged Teal, American Widgeon, Shoveler, Redhead, Canvasback, Lesser Scaup, Common Goldeneye, Bufflehead, Ruddy Duck, and American Coot.

Large numbers of ducks were present during the breeding season. The most interesting was the **Bufflehead** which was observed regularly during May. Then to our surprise on June 28 a female and seven young appeared on Meadow Bank Lake. This is the first **breeding record** that I know of in the area.

Horned Grebes were very common throughout the season and seven nests were found. Soras were common, and Wilson's Phalarope were also believed to breed.

There was not a mass movement during the fall migration; no large flocks of ducks came in from the north, and few geese and cranes. Interesting migrants were a Great Blue Heron (September 20), Spotted Sandpiper (August 10), and a Black-bellied Plover (September 3). A flock of 400-500 Mallards, Pintails and Blue-winged Teal—probably raised locally—congregated on Meadow Bank Lake from September 8 to October 19 and a local flock of 350 American Coots gathered about September 30.—*Brian Irving, Kelvington.*