

of Steep Creek; Dr. and Mrs. Stuart Houston, of Yorkton.

From Winnipeg, Manitoba: W. Turnock, H. R. Wong; from Ventura, California: S. Stueck; and from Melbourne, Australia: Dr. C. Anderson.

### List of Birds Recorded at the Summer Meeting, Emma and Christopher Lakes June 13-15, 1958

Species list: Common Loon, Red-necked Grebe, Horned Grebe, Pied-billed Grebe, **WHITE PELICAN** (Museum staff, G. Ledingham), Great Blue Heron, American Bittern, Mallard, Gadwall, Pintail Green-winged Teal, Blue-winged Teal, American Widgeon, **SHOVELER** (Museum staff), Redhead, Ring-necked Duck, Canvasback, Lesser Scaup, Common Goldeneye, Bufflehead, White-winged Scoter, Ruddy Duck, Common Merganser, Sharp-shinned Hawk, Red-tailed Hawk, Bald Eagle, Marsh Hawk, Osprey, Sparrow Hawk, Ruffed Grouse, Sandhill Crane, Virginia Rail, Sora, American Coot, Killdeer, **COMMON SNIPE** (T. Beveridge, G. Ledingham), Spotted Sandpiper, Lesser Yellowlegs, Wilson's Phalarope, Ring-billed Gull, Franklin's Gull, Forster's Tern, Common Tern, Black Tern, Mourning Dove, Black-billed Cuckoo, Common Nighthawk, Ruby-throated Hummingbird, Yellow-shafted Flicker, Pileated Woodpecker, Yellow-bellied Sapsucker, Hairy Woodpecker, Eastern Kingbird, Eastern Phoebe, Traill's Flycatcher, Western Wood Pewee, Olive-sided Flycatcher, Tree Swallow, **BANK SWALLOW** (Museum staff), **BARN SWALLOW** (many members), Purple Martin, Gray Jay, Blue

Jay, Raven, Common Crow, Black-capped Chickadee, Boreal Chickadee, **WHITE-BREASTED NUTHATCH** (E. Brooman, J. Hogg), Red-breasted Nuthatch, House Wren, Long-billed Marsh Wren, **SHORT-BILLED MARSH WREN** (Museum staff and others), Catbird, Brown Thrasher, Robin, Swainson's Thrush, **GRAY-CHEEKED THRUSH** (Museum staff), Veery, **MOUNTAIN BLUE-BIRD** (Museum staff and others), Ruby-crowned Kinglet, Cedar Waxwing, Solitary Vireo, Red-eyed Vireo, **WARBLING VIREO** (Museum staff), Black-and-white Warbler, Tennessee Warbler, Yellow Warbler, Magnolia Warbler, **CAPE MAY WARBLER** (nearly everyone saw one or more of these), Myrtle Warbler, Black-throated Green Warbler, Blackburnian Warbler, Chestnut-sided Warbler, **BAY-BREASTED WARBLER** (Museum staff, R. Bremner), Ovenbird, Mourning Warbler, Yellowthroat, Canada Warbler, American Redstart, House Sparrow, Yellow-headed Blackbird, Redwinged Blackbird, Brewer's Blackbird, Brown-headed Cowbird, Rose-breasted Grosbeak, Purple Finch, Pine Siskin, American Goldfinch, Savannah Sparrow, Le Conte's Sparrow, Sharp-tailed Sparrow, Slate-colored Junco, Chipping Sparrow, Clay-colored Sparrow, White-throated Sparrow, Swamp Sparrow, Song Sparrow.

A total of 119 species were seen, a few of these by only one observer but most of them by several members. Two others, the Hermit Thrush and Great Crested Flycatcher, were heard but not seen. In the above list names in capitals indicate new records for the Emma Lake region. The standard list is that of Farley Mowat, in the May-June issue of the Canadian Field Naturalist, 1947, Vol. 61:105-115. Name of the observers for these additional species are given in brackets—Frank Roy, Saskatoon (compiler).

## FOREST CONSERVATION

By the Honourable **A. G. Kuziak**,  
Minister of Natural Resources,  
Government of Saskatchewan

**EDITOR'S NOTE:** The programme of the S.N.H.S. summer meeting at Emma Lake, dealing as it did with numerous aspects of forestry, stimulated our interest in Saskatchewan's forests and the problems of forest conservation. These problems were dealt with in a radio address by the Honourable **A. G. Kuziak**, during Forest Conservation week (May, 1958), which we have the Minister's kind permission to publish. We are also happy to have a paper from **H. Kagis** of the Department of Natural Resources in which he summarizes the discussions he had with a group of members of the Natural History Society at the summer meeting.

Our sharply rising populations and the resulting increase in forest utilization make forest conservation a vital factor in our economic life today. Our forest lands are a legacy to us, to be developed, protected and used wisely. We are not owners, but merely trustees of our forest wealth. Unless wise conservation measures are employed, these resources can become depleted and eventually non-existent.

A forest is a community of soil, water, trees and other plant life, birds, animals and insects. Forest lands must not be considered merely in terms of trees, but in terms of all component parts. Changes in any one of these parts can affect the others. For example, destruction of a certain bird species may result in increased numbers of harmful insects, which, in turn, can destroy valuable timber.

More than 50 per cent of Saskatchewan is forested, covering an area of some 149,000 square miles. While many people think of this vast forest area as being used only for production of wood products, other important uses of our forest lands include watershed control, recreation, wildlife habitat and the grazing of domestic stock.

Trees play a vital part in watershed management and in the control of water supplies to lakes and streams. Forest vegetation builds soils and leaf litter, which, in turn, will protect subsoil from erosion. In addition, tree roots and their minute

root hairs hold the soil physically and prevent its erosion into streams, rivers and reservoirs. In the spring, forests provide the shade which prevents over-rapid melting of snow. This limits flooding and reduces spring run-off.

Forest lands provide habitat for most big game species and some game birds. Recreational use of Saskatchewan's forests is increasing yearly and forests must be managed to maintain a continuing fish and game population for the growing numbers of hunters and anglers. In addition, forest areas containing lakes and streams, attract campers, picnickers and others who simply wish to enjoy, study or photograph the scenic beauty, animals and plants that are found there. Swimming, water-skiing, and boating are enjoyed in bodies of water bordered by forest land.

The forest provides food and shelter for most fur bearers, upon which many trappers in Saskatchewan's wooded areas depend for a livelihood. The beaver is considered of valuable assistance in forest conservation. Beaver dams help control water levels, prevent erosion and may eventually lead to the formation of rich glades in the forest, known as beaver meadows.

Cattle grazing is permitted in Saskatchewan's provincial parks and in some parts of the provincial forest. Grazing must be prohibited in recreational areas. Excessive grazing in forests reduces forest reproduction and competes with the food needs of wildlife.

Perhaps the most important conservation measure that we can apply in any forest area is fire prevention. Each year, thousands of acres of valuable timber land are destroyed by fire and about 85 per cent of these fires are caused by human carelessness. Forest conservation should therefore not be restricted to Forest Conservation Week. As custodians of our forest heritage, it is our responsibility to take every precaution against fire, all year round, when camping, fishing, hunting or travelling in a wooded area. One tree will make a million matches—don't let one match destroy a million trees!

## A NATURAL APPROACH TO NATURE

By **H. Kagis**, Department of Natural Resources

Even animals seem to indulge classification: they eat certain things and reject others. Consequently there are two "classes" of things for them—edibles and non-edibles. Human beings who are so proud of their science often use classifications the main features of which recall the "classification" just mentioned: first, pure utilitarian criteria are used; second, a single distinguishing feature is applied.

The simpler such classifications are the easier it is to express them in popular doctrines and even slogans. Such doctrinized classifications can hamper the development of the human mind by offering ready-made explanations and blocking scientific examination. We have to remember that in principle no classification should be anything more than a tool for understanding. We have to remember, furthermore, that any part of nature is related to its surroundings, or, to use the scientific term, an open system.

Such an approach to nature in general and to living nature in particular is gaining more and more ground. Science has gone from studying single plants and animals to studying them as societies and has finally arrived at attempts to understand whole areas as natural units comprising soil and plant life and animal life, including microscopic organisms. A very important feature of such an approach is that these units are not viewed as unchanging and that an attempt is made to see the changes that occur as each constituent element influences the others. Many scientific names are used for such units, as ecosystems, biocoenoses, biogeocenoses, etc.; each of these terms has a somewhat different meaning, but they all tend to embrace a natural unit in its entirety—a concept fundamental to such a classification.

During the little walk at Emm Lake, an attempt was made to distinguish some such natural units and to see the functions and interrelations of their constituent elements. The first of such units was