

tions. The secondary contact in 4a and 4b at y produces sympatric (species geographically overlapping) populations. In 4a the case is clear-cut. The separation has been long enough to make the process of speciation complete. In 4b there is hybridization at y, showing that the process is incomplete.

In this last case no hard and fast rule can be made. It is entirely a matter of the degree of hybridization whether the two populations are considered subspecies or species. An example of how complex this problem can become is the case of Mexican towhees studied by Charles Sibley. His speculative history of the situation as it evolved is that a southern part of the original species became isolated and tended to distribute itself in relict populations at higher altitudes. After some time the northern population invaded the southern area making three zones of contact with the southern populations. In the southernmost zone of contact, Oaxaca, there is no hybridization. At Mount Orizaba there is a slight hybridization and at Cerra Viejo, the northernmost point of contact, there is complete hybridization. In the last two areas the separation was not long enough to complete the speciation process. (In time here is included mutation rate and degree of selection pressure.) Here is a tough decision.

In summary then the species is based on biological distinctiveness rather than morphological differences so it is a biological rather than a morphological problem. The species is made up of populations rather than individuals, but it is defined by isolation from other populations rather than by relations among its own populations.

THE REGINA, CANADA MEETING

LILLIAN C. STONER

The Regina, Canada, meeting of The American Ornithologists' Union August 25-30, 1959 at Saskatchewan Natural History Museum was well attended by people coming from widely scattered localities. In fact the registration of 389 was the next to the largest attendance in the history of this organization.

The distinction of coming the greatest distance goes to M. A. Badshah, of the Madras Forest Service, South India, and to J. B. Alvarez of the Philippines. Other ornithologists came from California, Louisiana, Texas, Florida, Eastern and intervening states as well as many provinces in Canada. Included in this were 12 members of our Federation of New York State Bird Clubs, Inc.; namely six from Buffalo, two each from Albany and Ithaca, and one each from New York City and Pittsburgh, Pennsylvania.

Papers were presented by the following four Federation members during the three day paper sessions.

Harold D. Mitchell of Buffalo Ornithological Society, Buffalo, used motion pictures and slides to illustrate his paper entitled "A Nesting Involving Prothonotary and Yellow Warblers".

Ralph S. Palmer, New York State Museum, Albany, spoke on "Reproductive Pattern of the Loons".

Kenneth C. Parkes, Carnegie Museum, Pittsburgh, Pennsylvania pre-

sented with slides a paper by him and Philip S. Humphrey, Peabody Museum of Natural History, Yale University, New Haven, Connecticut, titled "Apparent Departures from Typical Sequences of Plumage and Molts".

Motion pictures of "Birds of Southeastern Australia" were given by Lawrence I. Grinnell, Laboratory of Ornithology, Cornell University, Ithaca.

Much could be written of all the papers, field trips (where new and different birds were seen) and extra meetings, but the writer will mention only one of the latter here, namely the evening devoted to "Opening of Canadian Bird Art and Bird Photo Exhibition" at Norman Mackenzie Art Gallery. Many of the exhibitors were in attendance at the reception which followed the short talk about the pictures. Especial tribute was paid to past noted Canadian Artists such as Allan Brooks and others. The exhibit consisted of paintings mainly oil and watercolor of 19 Canadians and those who had worked in Canada. The pictures were loaned by the artists or by private collectors. About 30 of these were listed for sale with price ranging from \$40.00 to \$750.00. The majority of the pictures both here and at the special A.O.U. British Art Exhibit at the Public Library showed "Birds of Prey and Game Birds" predominating.

The local committee of which Dr. Robert W. Nero, Assistant Director of Saskatchewan Museum of Natural History, was chairman, not only gave us much needed information but provided also for our comfort and enjoyment in every possible way.

Each registrant at this meeting received maps, leaflets and the larger publications. In this latter group, the one, 132 pages, was the September 1959 number of "The Blue Jay" which is the quarterly journal of the Saskatchewan Natural History Society of Regina, Saskatchewan. The other gift was the 205 page book "THE BIRDS OF THE SASKATCHEWAN RIVER CARLTON TO CUMBERLAND" by S. Stuart Houston and Maurice G. Street. Dr. Nero in the foreword of this book said that at the 1958 A. O. U. meeting, President Ernst Mayr spoke of the contributions amateurs can make and are making to Ornithology; so appropriately, as an example, this August 1959 publication is presented to this session. Dr. C. Stuart Houston, who is a practising medical doctor has not only co-authored this book but he has contributed much to scientific bird-work on other avian subjects.

All visitors enjoyed both the exterior and interior of this new (as it has been opened only four years) Museum in Regina, Canada. Across the front of the building near the roof there is a sculptured frieze which shows in relief some 325 Saskatchewan birds and animals. Then within the building, the many habitat groups and other exhibits, and the large auditorium make this a popular and educational center. The area adjoining the Museum is a beautiful park with many trees and a lake. Here some of the bird observers saw quite a few early fall migrant warblers on last day of the meeting.

The newly elected President of The American Ornithologists' Union is Dr. George H. Lowery, Jr. of Museum of Zoology, Louisiana State University, Baton Rouge, Louisiana. It was announced that the next A. O. U. meeting will be held the last week in August, 1960 at Ann Arbor, Michigan.

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