pelagic observations and sea-watches. The Group is further active in seabird conservation and policy statements. The regional reports (from Alaska to México) list a surprising number of studies under way: Alaska 19, British Columbia 22, Washington 8, Oregon 7, California 35, Hawaii 2. Conservation policy statements are published concerning Seabird Conservation in the Gulf of California, and Alaska Oil and Seabirds. A book review, sundry news items, and membership list, with research topics of the 152 charter members complete this issue. The Bulletin is planned to be issued semiannually, in January and September, by the Secretary, George J. Divoky, U.S. Fish and Wildlife Service, 1412 Airport Way, Fairbanks, AK 99701.—M. D. F. U.

## NORTH AMERICAN NEST RECORD CARD PROGRAM

The North American Nest Record Card Program of the Cornell Laboratory of Ornithology is promoting two special projects for 1974, in addition to the regular collection of nesting data.

We are now setting up, with the support of the World Wildlife Fund, a national register of birds-of prey to monitor their breeding success in the wild. We intend to make this register an independent section of the existing Nest Record Card Program. The information would be collected on our regular nest record cards. We need the exact nest contents on given dates, but details of locality will not be revealed. The information will be kept secret and maintained in a master file from which data will be released only with permission of both the original investigator and the Laboratory of Ornithology. Normally, we expect to publish data on a stateby-state basis. We plan to collect records going back many years so that the breeding success can be calculated over a long period of time and both annual variations and long-term alterations seen. These data will pinpoint species and areas of concern that will enable action to be taken.

If someone has collected a large amount of nesting information on birds-of-prey and finds that it is inconvenient for him to transfer these data onto our nest record cards, if you will loan us your records, we will do the transferring and return your material as soon as possible.

The second special research area deals with colonial nesting. We are interested in setting up and integrating into our regular program a center of information on wading birds and other colonies and roosts.

In view of the above, we are making a special appeal at this time for nesting records of raptors and colonial nesting birds. However, we wish to emphasize that we continue to collect nesting data on all species of birds of North America. This includes data from previous years, and we invite researchers with large amounts of original data to explore with us ways of putting these data into a form that will be of permanent value to science.

## PUBLICATIONS RECEIVED

Among the publications recently received by the editorial office, the following are noted as having particular interest for avian biologists.

Food Supply and the Annual Cycle of the Annual Hummingbird.—F. Gary Stiles. 1973. University of California Publications in Zoology, Volume 97. University of California Press, Los Angeles. 109 p.

In this monograph, the ecology of the Anna Hummingbird is described with respect to the role of food supply in determining the spatial and temporal occurrence of territorial behavior, breeding, and movements. Studies were made in different habitats, including man-altered ones. Illustrations include figures, tables, and four plates.

Migration and Survival of the Birds of Asia.—H. Elliott McClure. 1974. United States Army Medical Component, South-East Asia Treaty Organization Medical Project, Bangkok, Thailand. 476 p. The seasonal distribution, probable migratory pathways, and survival of birds in Asia are illustrated and discussed. The discussions and the flyway and distribution maps are based principally on results of an intensive banding program carried out in Asia by the Migratory Animal Pathological Survey of the U.S. Army. While many of the conclusions on movements and distribution are necessarily preliminary, they provide a valuable base for future ecological studies of Asian species.

The View from Hawk Mountain.—Michael Harwood. 1973. Charles Scribner's Sons, New York. 191 p. \$6.95. This is a personal account of the well-known bird sanctuary at Hawk Mountain in the Kittatinny Ridge of the Pennsylvanian Appalachians including its development, the author's experiences there, and the hawks. Views of the hawk migrations and descriptions of some of the birds and their life-styles are given.

Seventy Years of Bird Watching.—H. G. Alexander. 1974. T. & A. D. Payser Limited, Berkhamsted, England. 264 p. £3.80. This is the autobiography of a birdwatcher who has been to Europe, India, and North America. Tables of migration arrivals, maps of singing male censuses, and illustrations of several species are included. The end result is a picture of birdwatching, the changes in it, and the changes in bird populations over a 70-year period.

Systematics and Evolution of the Gruiformes (Class Aves) 3. Phylogeny of the Suborder Grues.—Joel Cracraft. 1973. Bulletin of the American Museum of Natural History, Volume 151: Article 1, New York. 127 p. \$4.75. Using a detailed comparative analysis of fossil and Recent species of the suborder Grues, the author proposes a phylogeny for those families studied and comments on their evolution and various schemes of classification. One new fossil family and four species are described.

The Birds of California.—Arnold Small. 1974. Winchester Press, New York. 310 p. \$12.50. Included is a checklist of the 518 species of birds known to occur in California, followed by an annotated list giving seasonal status, habitat, and range of each bird. Over 300 black-and-white photographs illustrate these birds. The author then describes 25 habitats in detail and discusses the correlation of certain birds with them.

Song of the North Wind.—Paul A. Johnsgard. 1974. Doubleday and Company, Inc. 245 Park Avenue, New York, N.Y. 10017. 150 p. \$5.95. The detailed life cycle of the Snow Goose is related in a highly readable style aimed at appealing to a broad spectrum of readers. It is illustrated with 27 photographs and 17 line drawings.

Canadian Wildlife Service Report Series Nos. 24, 25, 27, 28. Information Canada, Ottawa.

No. 24. Feeding ecology of Pintail, Gadwall, American Widgeon and Lesser Scaup ducklings.-Lawson G. Sugden. 1973. 43 p. \$1.50.

No. 25. Home range and breeding biology of

the Shoveler.—H. J. Poston. 1974. 49 p. \$1.50. No. 27. Bird Damage to fruit crops in the Niagara Peninsula.—R. G. Brown. 1974. 57 p. \$1.50.

No. 28. Migration of Lesser Snow and Blue Geese Part I.—H. Blokpoel. 1974. 30 p. \$1.50.

The Double Elephant Folio: The Story of Audubon's Birds of America.—Waldemar H. Fries. 1974. American Library Association, Chicago. 568 p. \$45.00. This is the detailed account of Audubon's attempt to produce his drawings in Birds of America. One colorplate of Audubon's American Magpie is included.

Glimpses of Bird Life.—Alexander Dawes Du Bois. 1973. T. S. Denison & Co., Inc. Minneapolis. 100 p. \$5.95. Nine species of North American birds are portrayed in various close-up poses, totaling 36 photographs. A general description of each bird, and the author's experiences in photographing them are included.

Birds of Australia.—Michael Morcombe. Charles Scribner's Sons, New York. 80 p. This is principally a collection of excellent action color photographs of a wide variety of Australian birds. A brief text describes many features of each bird's natural history; distribution maps are included.

Birds of the World: A Check List.—James F. Clements. 1974. The Two Continents Publishing Group, Ltd., New York. 520 p. \$15.00. This list of 9,000 known species of birds in the world includes for each species the scientific and "best known" common name and world range. Rare and endangered species are indicated.

Check-List of Japanese Birds.—Ornithological Society of Japan. 1974. 5th Edition. Internat. Div. Gakken Co. Ltd., 4-40-5, Kami-ikedai, Ohta-ku, Tokyo 145, Japan. 364 p. and 120 p. \$29.00. There are two volumes in this set, the larger one in English, the smaller one in Japanese. For each species and subspecies the world range and the status, habitat, and locality records in Japan are given. In all, 490 species are listed.

Bird Guide of Thailand.—Boonsong Lekagul and Edward W. Cronin, Jr. 1974. 2nd Edition. Assoc. for the Conservation of Wildlife, 4 Old Custom House Lane, Bangrak, Bangkok. 323 p. This new edition is a well-illustrated guide to more than 800 species giving a brief and lucid text for each species that includes seasonal abundance, habitat, and distinguishing field marks. English names have been revised to agree with other Asian field guides.

Guide to the Waterfowl of Rhodesia.-Reay H. N. Smithers and M. J. S. MacKenzie. 1973. National Museums and Monuments of Rhodesia, P.O. Box 8540 Causeway, Rhodesia. 34 p. \$.75. This short booklet contains an illustration of each of the 17 species of waterfowl of Rhodesia and includes with each a brief description of field marks, alternative

names, a distribution map, habitat, breeding season, and habits. Small maps show the distribution patterns.

Ornithology at The University of Michigan Biological Station and The Birds of the Region .-Olin S. Pettingill, Jr. 1974. Kalamazoo Nature Center Special Publ. No. 1, Kalamazoo, Mich. 118 p. \$4.00. This is principally an annotated list of the 251 avian species in the region of the University of Michigan Biological Station, a forested tract located between two lakes in northern lower Michigan. A detailed and highly readable history of ornithology at the station is included.

Francis Lee Jaques/Artist of the Wilderness World.—Florence Page Jaques. 1974. Doubleday and Co., Inc., New York. 370 p. \$25.00. This is the biography of one of America's best known wildlife artists, written in a descriptive and informal style by his wife who was also his partner in the production of several books on wildlife. There are 64 color plates by Francis Jaques and numerous sketches of wildlife scenes, with the majority depicting aspects of bird life.

Avian Biology.—Donald S. Farner and James R. King, eds. 1974. Vol. IV. Academic Press, New York. 504 p. \$37.00. In keeping with the previous volumes of this multi-volume treatise, the editors present an assessment of selected topics that can serve both for reference purposes and for instruction of advanced courses. Volume IV presents a broad spectrum of topics.

In the first chapter, T. Bennett presents a detailed account of the peripheral and autonomic nervous systems, with an extensive review of more recent studies. The structure and proposed functions of the avian pineal organ are presented by M. Menaker and A. Oksche. W. J. Bock has organized a review of the avian skeletomuscular system in the light of its association with descriptive and functional morphology, physiological and ecological adaptations, and comparative morphology and systematics.

Two chapters are concerned with aspects of bioenergetics in birds: W. A. Calder and J. R. King present an extensive account of thermal and caloric relations in wild species of birds; and M. Berger and the late J. S. Hart review the physiology and energetics of flight.

The topics covered in this treatise are intended to be of use to those in specific fields of avian biology as well as to those interested in the application of these specific topics to more general concepts in biology.

Birds of the World.—Paul Barruel, English translation by P. Barelay-Smith. 1973 revised ed. Oxford Univ. Press, New York. 222 p. \$25.00. Professional and nonprofessional ornithologists with an interest in fine bird photography will find this a satisfying addition to their library. This book is profusely illustrated with excellent photographs, chiefly of European birds. Readers may find the title deceiving; the author makes no attempt to cover the global diversity of bird life by family or regional accounts. Rather, the book introduces life history aspects of avian biology with emphasis on behavioral and ecological interpretation. Topics covered include daily activities, reproductive behavior, migration, social behavior, and population biology. Specific references are not cited in the text although a short bibliography is included.—Robert Rybczynski

Evolution of the Rails of the South Atlantic Islands (Aves: Rallidae).—Storrs L. Olson. 1973. Smithsonian Contributions to Zoology. No. 152. Smithsonian Institution Press, Washington, D.C. 53 p. In this monograph the origin and evolution of South Atlantic rails are discussed, especially those on the Ascension Islands, St. Helena, and the Tristan da Cunha Group. The systematics of the family are considered, including revisions and the description of a new species. Finally, the origins and advantages of flightlessness in rails is considered.

Pacific Coast Avifauna Publication.—Pacific Coast Avifauna has recently published a new monograph: "Ecology of Pomarine, Parasitic, and Long-tail Jaegers in Northern Alaska" by William J. Maher. 1974. Pacific Coast Avifauna No. 37. 148 p., 37 tables, 27 figures. It is available for \$3.75 from James G. Miller, Assistant Treasurer of C.O.S., Department of Zoology, University of California, Los Angeles, California 90024.

Annual Review of Ecology and Systematics.—Richard F. Johnston, Peter W. Frank, and Charles D. Michner, eds. 1973. Vol. 4. Annual Reviews, Inc. Palo Alto, Calif. 424 p. \$12.00 U.S.A., \$12.50 Foreign. This fourth volume is comprised of 16 review articles covering a broad spectrum of topics in ecology and systematics that have no common theme. As is customary with such reviews, each article attempts to present a consolidation and review of the more significant ideas and information found in recent literature and to elaborate on these with specific examples, frequently from the author's area of interest.

The volume includes ecological reviews of the desert and arctic tundra ecosystems, ecosystem stability, community structure, ecology of aggression, foraging ecology, reproductive strategies, canopy structure, and thermodynamics in ecology. Many of these articles include enlightening discussions on energy use. Also included are reviews of theories on marginal populations, ecological inferences from morphology, genetic variation, enzyme polymorphism, molecular genetics in numerical taxonomy, and folk systematics. Reviews drawing examples from avian studies include those of M. L. Cody on character convergence, J. A. King on the ecology of aggression, H. A. Hespenheide on ecological inferences from morphology, V. F. Gallucci on thermodynamics in ecology, and L. C. Bliss et al. on the arctic tundra.

Der Zug Europäischer Singvogel.-Gerhardt Zink, ed. 1973. Vogelwarte Radolfzell ab Max-Planck-Institute für Verholtensphysiologie, D7761 Schloss Moeggingen, Germany. DM48. Subtitled "Ein Atlas der Wiederfunde beringter Vögel," this is the first of three parts (the others scheduled for publication at two year intervals) forming an Atlas of European passerine migration. The first part is a looseleaf collection of 87 maps, accompanied by a brief, explanatory text, that covers 30 European species (24 Sylviidae and 6 Turdidae including Nightingales, Chats, and a Wheatear). Each species is treated separately. The maps show migration routes and winter ranges derived from an apparently large volume of banding results. Although the text is in German, it is the maps that are most instructive, and ornithologists who do not read German should not be greatly hindered.

Sea-birds of Bonaventure Island—1973.—Canadian Wildlife Service. Catalogue No. CW66-4173, Information Canada, Ottawa. 19 p. \$0.50. This is a brief account, accompanied by color plates, of the seabirds that regularly nest on Bonaventure Island. The island, situated in the Gulf of St. Lawrence, became a Canadian park in 1972 and serves as a sanctuary for the nesting birds. Breeding areas on the island are shown for each species in a collection of maps. The pamphlet will probably be most useful to visitors of the Gulf of St. Lawrence and Bonaventure Island.

Birding from a Tractor Seat.—Charles T. Flugum. 1973. Published privately by the author, Box 30038, St. Paul, Minnesota 55175. 435 p. \$8.95. This is a collection of short essays written from 1952 to 1964 for a monthly newspaper in a rural Minnesota community. The author, an avid birdwatcher and keen observer, relates in a highly readable style his experiences with birds he has encountered while farming in the midwest prairies. The majority of essays focus on individual species with natural history descriptions, personal observations, and interpretations of bird behavior and ecology; in addition, there are accounts of birdwatching expeditions, discussions of migration, and the annual calendar of avian cycles.

Owls.—Tony Angell. 1974. University of Washington Press, Seattle. 80 p. \$12.95. The author combines 63 of his illustrations with narrations from personal experience to describe each of the 18 species of owls in North America. An introduction describes the general physical and behavioral characteristics of owls. A bibliography is included.

A Symposium on the House Sparrow (Passer domesticus) and European Tree Sparrow in North America.—S. Charles Kendeigh. 1973. Chairman. Ornithologistal Monographs No. 14, The American Ornithologists' Union. 121 p. \$3.50. This symposium, presented at the 1969 meeting of The American Ornithologists' Union, summarizes present research on the introduced House Sparrow and European Tree Sparrow in North America. Nine papers and four abstracts pertaining to the House Sparrow cover such topics as: introduction and spread of the species, character dimorphism, pterylosis, population genetics, reproductive biology, movement patterns, and bioenergetics. In addition, J. C. Barlow's paper reports on the status of the European Tree Sparrow. There is an introduction by S. C. Kendeigh.

Functional Anatomy and Adaptive Evolution of the Feeding Apparatus in the Hawaiian Honey-creeper Genus Loxops (Drepanididae).—Lawrence P. Richards and Walter J. Bock. 1973. Ornithologiscal Monographs No. 15, The American Ornithologistical Union. 173 p. \$6.00. Richards and Bock combined efforts to describe their studies of the feeding mechanisms, bill size and structure, jaw musculature, tongue apparatus, and cranium of the five species of Hawaiian Honeycreepers in the genus Loxops. Their description of this genus is used as a classical example of adaptive radiation; they discuss the origin and evolution of Loxops, based on the feeding mechanisms of the different species. Numerous drawings and tables illustrate their work.

Bird Migration, Ecological and Physical Factors.—B. E. Bykhouskii, Editor. 1973. Halsted Press, New York. 298 p. \$31.50. This English translation from Russian by E. D. Gordon is a compilation of research pertaining to bird migrations, conducted at the Courland Spit of the Baltic Sea. The five articles include maps, tables, graphs, and an extensive bibliography, with 120 pages devoted to the atlas of bird migrations along the main flyway of the Baltic region and with a breakdown of the data by individual species. This is followed by articles about the bioenergetic aspects of migration, the development of the migratory state in some passerines, and the biology of swallows during migration.

Handbook of the Birds of India and Pakistan, Vols. 8 and 9.—Salim Ali and S. Dillon Ripley. 1973. Oxford University Press, New York. This handbook includes species accounts that include descriptions of the physical characteristics, habitats, songs, habits, and breeding biology. Color plates and distribution maps are included in each volume.

Volume 8 Warblers to Redstarts.—277 p. \$16.50. Synopses are given for 210 forms that encompass the entire subfamily Sylviinae, the Warblers and part of the subfamily Turdinae, the Thrushes and Chats. Volume 9 Robins to Wagtails.—360 p. \$17.25. This volume continues with the subfamily Turdinae, then describes Indian birds of the families Troglodytidae, Cinclidae, Prunellidae, Paridae, Sittidae, Certhiidae, and Motacillidae. Altogether, 210 forms are described.

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WANTED: Pacific Avifauna #27. "Distributional List of the Birds of California" by Grinnell and Miller. Pacific Avifauna #31. "Life Histories of Central American Birds," Vol. I by Alexander F. Skutch. These are needed by libraries and research institutions. Your help is requested to fill this need. Contact Dr. James G. Miller, Asst. Treasurer, Cooper Ornithological Society, Dept. of Biology, University of California, Los Angeles, CA 90024, and make an offer.

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