Life Membership Fund		
Reserve	$ 500.00	$ 625.00
Addition, 1961	125.00	
Addition, 1962		125.00
Reserve	$ 625.00	$ 750.00
Index Fund		
Reserve	$ 772.91	$ (88.51)
Received from sales of 1941-50 index	173.00	302.00
Expenditures, 1941-50 index	884.42	81.79
Expenditures, 1951-60 index	150.00	
Deficit	$ 88.51	
Reserve		$ 131.70

Mrs. James R. Downs
Treasurer

NANTUCKET ORNITHOLOGICAL RESEARCH STATION

August 31, 1962

Income	
Balance forward, August 31, 1961	$2567.71
Interest on Savings Account	64.06
Social Security Taxes withheld	9.00
Total	$2640.77

Expense	
Salaries	$ 300.00
Social Security Taxes	18.00
University of Massachusetts:	
Research fellowship for study of birds	1800.00
Balance forward, August 31, 1962	522.77
Total	$2640.77

Ed. note: the statements above do not include figures for the mist net account, which will appear in a later issue.

RECENT LITERATURE

BANDING

(See also Nos. 8, 22)

1. Problems Encountered in the Study of the Seasonal Migration of Birds. Yu. A. Isakov. 1955, translated 1960. *Works of the Bureau of Bird Banding,* Ministry of Agriculture, USSR, Issue VIII, pp. 9-18. Translated by M. Shmutter. Published for the National Science Foundation and the Department of the Interior by the Israel Program for Scientific Translations. Price: 50c (from the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.) "The organization of birdbanding is not sufficiently planned. The main birdbanding stations are very irregularly distributed over the territory of the Soviet Union. Most of them are situated in the European part of the USSR, while birdbanding is almost undeveloped in Siberia, Central Asia, and even in the Caucasus." Many species yield extremely low return percentages (0.2 or 0.3 per-

cent), partly because no species is banded in large numbers at many stations and partly because methods of capturing adults are not well known.

Loss of bands, or excessive wear of the numbers, are recognized as major handicaps. Firmer metal is suggested as one remedy. Geese and some other large birds have frequently removed even bands with locks; more elaborate lock devices should overcome this. In one experiment, starlings were banded with one aluminum band on each leg. After one or two years, out of 41 birds recaptured, 11 had only one band. This probably understates the percentage of loss, as some birds may have taken off both bands.—E. Alexander Bergstrom.

2. Operation Recovery Begun in California's Central Valley. Howard L. Cogswell. 1961. *Western Bird Bander,* **37:** 52-54. Efforts to stimulate west coast participation in Operation Recovery by Dr. Howard E. Wilson (14045 N. E. 6th St., Bellevue, Wash.) began to produce results in the 1962 fall migration. In the period from September 1 through 7, Cogswell and others established a netting station on the San Joaquin River about 2½ miles northeast of Vernalis. This yielded 100 individuals of 23 species in 261 net hours. Cogswell defines "net hour" as "about 30 feet of net operated for one hour during the daytime"; on the east coast the corresponding figure is closer to 40 feet, as the 12-meter net is the most widely used size. Thus the number of net-hours stated for this California station is a little high compared to most east coast stations. Nevertheless, I quite agree that their first-year results are encouraging. It should be kept in mind that the number of birds per net hour is not necessarily a measure of the effectiveness of the operation: (1) the highest totals will normally be attained in peak flights of sparrows, such as the figures quoted (490 Slate-colored Juncos at Tiana Beach, N. Y., in 966 net-hours, *Bird-Banding* **30:** 147-148) — certainly worthwhile, but with limited variety. A sampling at the time of greatest variety of species tends to produce fewer individuals; (2) a station can produce a higher figure for birds per 1000 net-hours if it operates only when maximum numbers of birds are coming through the area. Such a station lacks the continuity given by operating day in and day out over a period of weeks. The birds taken at migration peaks are not necessarily quite typical of the flight as a whole; for example at Nantucket, Mass. the days with little obvious migration in the fall tend to yield the more southerly species, such as the Yellow-breasted Chat (*Icteria virens*).—E. Alexander Bergstrom.

3. Shorebird Banding at Carmel, California. Richard Stallcup. 1962. *Western Bird Bander,* **37:** 63-64. One 12-meter mist net was used on the Carmel River (Monterey County, Calif.) in September, 1962. "The situation was excellent for netting. During most of the fall, the Carmel River is down to a small stream. I set the net across the water, with a background of mixed vegetation and dark water, as shorebirds usually fly over water whenever possible. The birds fly up and down the stream naturally while feeding and are easily 'driven' if loafing because there is nowhere else for them to go." A total of 66 birds were captured between 6 P. M. on Sept. 9 and 7.30 A. M. on the 10th, all by daylight.—E. Alexander Bergstrom.

4. Phoebe Banding in Pennsylvania. Dorothy Bordner. 1961. *EBBA News,* **24:** 154-160. While Dorothy Bordner is widely known for her large-scale banding of Evening Grosbeaks, this article is ample evidence that she is not a "one-season" bander. She banded 566 fledgling Eastern Phoebes (*Sayornis phoebe*), within about 15 miles of State College, Penna., from 1959 through 1961. These birds involved some 222 active nest locations, counting each year separately. In the most active banding year, 1961, 59 locations were under bridges, 57 in cabins, 8 on cliffs, and 10 scattered. The average number of nestlings per brood "ranged from 4.08 (1961) to 4.41 (1959)"; this included only broods banded, and a high proportion of second broods (clutch size usually about one bird less in second broods).

"The only mass mortality we have had in the three years occurred in 1961. Between July 6 and July 17, 41 nestlings from ten nests were lost in the Rothrock area, 35 from eight nests known to be dead. All of the nestlings were less than a week old. There were no signs of animal predation and only moderate numbers of mites. From July 5 to July 11, night temperatures fell into the 40's. This unseasonable temperature may have directly or indirectly (through the insect supply) contributed to the deaths."

Only 12 nests (about 4 percent) were parasitized by the Brown-headed Cowbird, though the latter species is common in the area. Protected nest locations, compared to most other species, help the Phoebe; 60 percent of the limited number of nests on natural cliffs were parasitized.—E. Alexander Bergstrom.

5. Phoebe Banding at Trout Run, Pennsylvania. Walter K. Bigger. 1961. *EBBA News*, **24**: 160-164. Details of the banding of fledgling Phoebes in the mountainous area to the north and east of Williamsport, Penna., 114 in 1960 and 416 in 1961. Almost all were under bridges. "The largest concentration of Phoebes is located in a heavily forested area with a small mountain stream at least seven miles by road from the nearest permanently occupied dwelling. There are nine small bridges in about 3/5ths of a mile. Eight contain Phoebe nests." Only one nest was found with young of the Brown-headed Cowbird, and the Phoebe was successful in raising a second brood of four young.—E. Alexander Bergstrom.

6. Banding Thrushes at Maxada Woodlands. Joseph A. Grom. 1962. *EBBA News*, **25**: 39-41. In recent years large numbers of thrushes have been netted at this station in Gibsonia, Penna., north of Pittsburgh. For example, the totals for September, 1960, were 163 Wood Thrushes, 32 Veeries, 34 Gray-cheeked Thrushes, 211 Swainson's Thrushes and 1 Hermit Thrush. Net lanes were cut in heavy cover, usually in or close to an abundance of wild fruits, and some close to a brook. The nets were unusually effective for thrushes, despite certain drawbacks in the dark woods: "the higher incidence of predation . . . [from cats and chipmunks], the missing of many birds moving through the upper foliage of the many tall trees, and the time-consuming . . . chore of leaf removal in the fall." Most of the thrushes were netted before 9 A. M. or after 6.30 P. M.—E. Alexander Bergstrom.

MIGRATION

(See also Nos. 1, 2, 22)

7. Investigation of Gastrolithes as a Method of Studying Seasonal Migrations. Yu. A. Isakov. 1955, translated 1960. Works of the Bureau of Bird Banding, Ministry of Agriculture, USSR, Issue VIII, pp. 19-23. Translated by M. Shmutter. Published for the National Science Foundation and the Department of the Interior by the Israel Program for Scientific Translations. Price: 50c (from the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.). "Gastrolithes found in the stomachs of birds are crushed, partly dissolved, and partly ejected with excrement, their composition changing after a certain period of time. Observations of the composition and quantity of birds' gastrolithes can aid in the study of the dynamics of movement, and in the process of the substitution of local individuals by birds of passage." "Thus, the presence of a variety of pebbles in the stomachs of ducks testifies to their comparitively recent arrival in the Volga delta, while the presence of only quartz grains, or the complete absence of pebbles, is characteristic of birds long resident in the locality."

"In a number of cases, the study of gastrolithes can serve as an indication of a bird's point of departure." Murres (*Uria lomvia* and *U. aalge*) from Novaya Zemlya carry pieces of schist, while those from the Murmansk Peninsula have granite and gneiss. In the Pechora Valley, pieces of coal in the stomachs of white ptarmigans have come from the foothills of the Urals.—E. Alexander Bergstrom.

8. Translocations of White-crowned and Golden-crowned Sparrows. Robert Roadcap. 1962. *Western Bird-Bander*, **37**: 55-57. White-crowned Sparrows (*Zonotrichia leucophrys*) and Golden-crowned Sparrows (*Z. atricapilla*) trapped at San Jose, Calif. between October, 1961 and March, 1962 were transported and released at distances of 9.6 to 164 miles. "Some of the release points are within the basin of the San Francisco Bay area and present very few topographical obstacles, while others lie across mountain ranges from the banding station. Seventeen out of 36 adult White-crowned, and 7 out of 30 first-year birds, returned; 16 out of 33 birds of *Z. l. pugetensis* returned, compared to 8 out of 32 for the more northerly subspecies, *Z. l. gambelii*. "The most significant return was made from 164 miles by a first-year bird of the race *pugetensis* in only 7½ days. This bird had to cross the interior coast ranges to make its return." One Golden-crowned Spar-

row returned, out of 16 transported. As Roadcap points out, a number of uncontrolled variables made the formation of definite conclusions risky.—E. Alexander Bergstrom.

POPULATION DYNAMICS

(See also Nos. 4, 22, 24)

9. Oldest Known Shorebird in North America. Leroy Wilcox. 1962. *EBBA News*, **25:** 45-46. A Piping Plover (*Charadrius melodus*), banded as a chick on July 7, 1947 at Shinnecock Bay, Long Island, N. Y. was retrapped as a breeding male at the same place on June 5, 1961, almost 14 years later. The record would not have been possible without rebanding, once in 1951 and again in 1957. Sixteen of Wilcox's Piping Plovers have been retaken at ages greater than that recorded for any other North American shorebird, an American Woodcock (*Philohela minor*) eight years old. This reflects his sustained banding work with the species more than its inherent longevity. Compare, for example, the records of the European Oystercatcher (*Haematopus ostralegus*) in Germany, now extending to about 32 years of age—well ahead of the Herring Gull (*Larus argentatus*) as the oldest known birds in the wild.—E. Alexander Bergstrom.

BEHAVIOR

(See also Nos. 22, 24)

10. Evolutionary Trends in the Behaviour and Morphology of the Anatidae. Paul A. Johnsgard. 1962. *Thirteenth Annual Report of the Wildfowl Trust 1960-61;* 130-148. F. Bailey & Son, Dursley, Glos. 208 pp. 17s6d. As a result of studies of the rich collection of waterfowl at Slimbridge, the author summarizes his conclusions as to "the most clearly evident" evolutionary trends in this family as follows:

"1. A trend from monomorphism to dimorphism in plumage, voice (including tracheal structure) and displays, in association with a trend from long pair bonds to temporary pair bonds.

2. A trend from generalized nesting and feeding adaptations to highly specialized ones, with associated specializations in diving adaptations and bill structure.

3. A trend from a single yearly body molt to two molts of the body plumage yearly, usually with an associated separation of nuptial and postnuptial ('eclipse') plumages in males.

4. A trend towards the development of elaborate, often metallic-coloured, male plumage patterns and wing specula, associated with displays that exhibit these patterns."

The material is organized in three elaborate tables. There are 40 sketches by the author of pre- and postcopulatory behavior and pair-forming displays. An impressive contribution.—M. M. Nice.

11. Some Observations on the Behaviour of the Incubating Redwattled Lapwing, Vanellus indicus indicus (Bodd.) R. M. Nair, P. V. George and Drev B. Dixit. 1961. *Journal of the Bombay Natural History Society,* **58** (1): 223-230. The pair nested in the middle of a bare field; the disruptive plumage of the birds made them difficult to see. The female was caught in a mist net and color applied to her neck. The pair relieved each other at about 40 minute intervals, the relieved bird at once taking shelter in the shade of trees at the edge of the field. The male incubated chiefly in the hottest part of the day, temperatures reaching 40° to 44° C. (102-111° F.) The reaction to a flying predator was for the bird to straighten out its head, neck, and tail and to freeze. A dog was lured away. If cattle approached, the incubating bird suddenly spread out its tail showing the black and white bands and the introuder left at once. If a person came near, the bird walked away unobtrusivly.—M. M. Nice.

12. Egg Shell Removal by the Black-headed Gull, Larus ridibundus L.; a Behaviour Component on Camouflage. N. Tinbergen, C. J. Broukhuysen, F. Feekes, J. C. W. Houghton, H. Kruuk and E. Szulc. 1962. *Behaviour*, **19** (1-2): 74-117. A long series of experiments was carried out on the function of egg shell removal and on the stimuli eliciting it. "When normal eggs are given an egg shell at 15 cm. distance their vulnerability is greatly increased; this 'betrayal effect' decreases rapidly with increased distance between egg and shell." The birds were found to remove a large variety of objects which might serve to make the brood more conspicuous. Egg shell removal was seen to occur between 1 and 225 minutes after the hatching of the chick. "The lack of promptness of the response as compared with non-colonial waders (Ringed Plover and Oystercatcher) is adaptive, since it tends to reduce predation by other Black-headed Gulls, which are shown to prey selectively on wet chicks." A very fine study.—M. M. Nice.

13. Transfer Ability Experiments of Races of Hens of Markedly Different Body Size. (Transpositionsversuche mit Haushuhnrassen stark verschiedener Körpergrösse.) Wilfried Stichmann. 1962. *Zeitschrift für Tierpsychologie*, **19** (3): 290-320. (With English summary.) Forty hens — Brahmas; Leghorns, dwarf Wyandottes; and "original dwarfs," i.e. Chabos — were tested as to visual transfer. This "consisted in recognizing the original learned patterns in spite of certain alterations of the visual stimuli." The birds succeeded in the more difficult tests in the order of size, thus supporting Bernard Rensch's hypothesis of learning ability in relation to brain size.—M. M. Nice.

14. Preliminary Contributions to the Knowledge of Threat Behavior in the Redshank. (Vorläufige Beiträge zur Kenntnis des Drohverhaltens beim Rotschenkel *Tringa totanus Linné.*) George Rüppell. 1962. *Zeitschrift für Tierpsychologie*, **19** (4): 465-471. (With English summary.) The male Redshank defends his territory from intruders of his own species chiefly from taking up of the territory to the laying of the eggs. The most frequent threat display is the showing of the light-colored undersides of the wings. If the intruder fails to leave, the owner gives more vigorous displays. These are all illustrated with sketches by the author.—M. M. Nice.

15. Imprinting by Force. Charles E. Rice. 1962. *Science*, **138** (3541): 680-681. Vantress broiler chicks, aged 8 to 28 hours, were imprinted separately on a blue rubber ball 7 inches in diameter which moved around a track at the same time emitting a "peeping" noise. Thirty-one chicks were allowed to follow "naturally" and of these 82 percent became imprinted on the ball. Twenty-seven chicks were provided with a flexible collar connected to the ball with a 12-inch string and they were pulled by the moving ball. All of these chicks "demonstrated great distress, . . . struggling violently to resist being pulled." Nevertheless, 60 percent of them later proved to be imprinted.—M. M. Nice.

16. Critical Periods in Behavioral Development. J. P. Scott. 1962. *Science*, **138** (3544): 949-958. A review article with 89 references to studies on mammals and birds. Dr. Scott divides behavioral development into three main periods — neonatal, transition, and socialization. Commenting upon imprinting despite unpleasant treatment during the process, the author concludes that "the speed of formation of a social bond is dependent upon the degree of emotional arousal, irrespective of the nature of that arousal."—M. M. Nice.

17. Behaviour of Pied Flycatchers During an Eclipse of the Sun. K. Elgmork. 1962. *British Birds*, **55** (9): 385-387. A pair of *Muscicapa hypoleuca* in Norway fed their brood of nearly full-grown young without interruption during a total eclipse of the sun.—M. M. Nice.

18. Some Notes on My Blue-headed Waxbills (Uraeginthus cyanocephalus). Derek Goodwin. 1962. *The Avicultural Magazine*, **68** (4): 117-128. A delightful account of the nesting of a pair of these charming birds in the author's bird room. Details are also given on feeding and food preferences, the "stem display," call notes, and song.—M. M. Nice.

CONSERVATION

19. Toxic Chemicals and Birds: the Ecological Background to Conservation Problems. N. W. Moore. 1962. *British Birds,* **55** (10): 428-435. Herbicides have greatly reduced the numbers of weeds and consequently the numbers of insects that prey upon them; hedges and ponds are being eliminated throughout Britain, while pesticides kill birds directly as well as reducing the reproductive rates of the survivors. The author calls for increased research into these and other causes of mortality.—M. M. Nice.

20. Residues of Seed-dressings in Pheasants' Eggs. J. S. Ash. 1962. *British Birds,* **55** (11): 478-480. Following very heavy losses in 1961 and 1962 of game and other wild birds as a result of seed-dressings used on a 3,000 acre estate in Lincolnshire, many nests were deserted by pheasants (*Phasianus colchicus*). Two such clutches were analyzed and found to contain mercury and benzene hexichloride, both constituents of commonly used seed-dressings.—M. M. Nice.

FOOD

21. The Buzzard's Versatility as a Predator. Jan Pinowski and Lech Ryszkowski. 1962. *British Birds,* **55** (11): 470-475. Data on the food of three pairs of *Buteo buteo* near a farm in Poland were obtained by analysis of pellets, by watching the birds as they hunted, and by collecting prey brought to the nests. The food consisted mainly of common voles (*Microtus arvensis*) and moles (*Talpa europea*). In winter the Buzzards "attempted to surprise small birds by appearing suddenly from behind stacks of straw."—M. M. Nice.

BOOKS AND MONOGRAPHS

22. The Life of Birds. Joel Carl Welty. 1962. W. B. Saunders Company, Philadelphia, London, 546 pp., ill., Price $9.00 (Reprinted 1963 by Alfred A. Knopf, Inc., New York, Price $12.95). Just another text-book on birds, one might think, added to the several published recently (Wallace 1955, Wing 1956, Van-Tyne and Berger 1959, Marshall 1960, 1961); but this is not the case. By presenting the facts of avian biology "simply and straightforwardly", Welty gives us one of the most understandable pictures of ornithology now available, scientifically sound, well illustrated, and comprehensive in its coverage. Though banders might criticize its lack of a specific chapter on banding, banding data are relied on heavily in the excellent chapters on territory, demography, geographic distribution, migration and orientation. Most evident and refreshing are the author's thorough knowledge of the world-wide literature on birds and his use of material from some 8,000 sources, which make this text-book unique. The writing is so facile and smooth that one forgets to regard the work as a text-book and absorbs the scientific facts it presents at ease. So excellent is this book that it is hard to realize this is the author's first major publication in ornithology. In the ample bibliography of some 800 selected references, the only citation of his own work is a paper on group behavior in fishes he published 28 years ago.

The book catches the attention immediately with its end sheets picturing the world's zoogeographic regions. Though arranged in the standard manner, each region is characterized by tense simple summaries of its essential ornithological features.

"Birds as Flying Machines" makes the reader familiar with their particular and peculiar adaptations. A discussion of their relationships and taxonomy is followed by a description of their external features, skin, feathers, scales, concealing and revealing colors. The author frequently refers the student to additional pertinent texts, stimulating him to dig deeper into the matter.

Next follow descriptions of the internal structures, bones, muscles, digestive, reproductive, nervous and sensory systems, and a thorough discussion of the physiological mechanisms. The several chapters on bird behavior instruct the student well in the essential facts and the most recent advances in this fascinating field.

Population biology and ecology logically follow the chapters on reproductive

behavior and the development of the young. Welty also stresses the importance of our knowledge of parasites and diseases of birds. He presents an over-all view of the pathogenic organisms affecting birds, and he refers to the distressing possibilities of birds carrying and transmitting virus diseases to man. In the Far East, for example, migratory birds, acting as reservoirs of encephalitis, are thought to have caused the deaths of some 2800 people in Japan and Korea during 1958.

The following four chapters on the geography of birds, their flight, migration and orientation form a cogent natural unit adding the final information needed to prepare the reader for the last chapters on the origin and the evolution of the birds. Wherever the latest studies place *Archaeopteryx* taxonomically, with the reptiles, on a separate offshoot, or with the birds (as Welty does), ornithology begins with it. Incomplete and fragmentary though the fossil record of birds is, the essential evidence of their rise and development is detailed and interpreted in the book.

Two more aspects deserve mention. First, the superb illustrations by the late Norman Tolson, which complement the excellent photographs and diagrams, selected with obvious care and fine judgement. Second, no such comprehensive a work by a single man can be rigorously complete nor up to date. I trust the author will welcome, as he states in his preface, the listing of the few incongruities I noted while quickly scanning the book. The taxonomic system chosen by the author is not up to date; Wetmore has published, after his 1951 paper, a couple of important taxonomic revisions. *Ichthyornis*, for example, does not belong to the Odontognatha. A close examination of the very hypothetical family tree reveals a number of discrepancies. For example, pigeons and doves are separated; the loons appear on top of the grebes, petrels, albatrosses, and shearwaters. The goatsuckers are far away from the owls. Button quail and bustards should come closer to each other, and both much closer to the sun bitterns, cranes, and rails. The skimmers are too far from the gulls and terns. On p. 20 it should be added that the Phororhacid birds are known to have lived from the Miocene to early Pleistocene, and that they were found also in Uruguay, particularly in Argentina, and lately, even Florida. On p. 208, the author overlooked the further investigations of the "Leier-song" of the blackcap. This song was not first noted around 1920, but had been known since the last century and did not originate in the Alps. It is not probable that this song is a dialect and "learned by tradition" but rather that it is the end-form of the formalized species-song. On p. 476, the author forgot that he referred on the previous page to several species; in the paper he refers to, the facts of star navigation in nocturnally migrating birds are indeed based upon the performances of birds of several species of the genus *Sylvia* and not on a single Lesser Whitethroat.

Insignificant are these few objections compared to the wealth of information the book offers. It is an amiable book on the perhaps most amiable topic in the field of the natural sciences, the kind of book that ornithologists and amateurs have both been waiting for. And it is a book that will fascinate young scholars and lead them properly into the field of ornithological research.—E. G. Franz Sauer.

23. Structural Adaptations of the Head and Neck in the Black Skimmer Rynchops nigra Linnaeus. Richard L. Zusi. 1962. Publ. Nuttall Ornith. Club, no. 3, pp. i-viii, 1-101, fig. 1-44. Nuttall Ornithological Club, c/o Museum of Comparative Zoology, Harvard University, Cambridge 38, Mass. Cloth $3.00 postpaid. The peculiar bill of the Black Skimmer and its relation to feeding have attracted attention for a great many years. Zusi compares the bird with the Gull-billed tern (*Gelochelidon nilotica*), Royal Tern (*Thalasseus maximus*), and Laughing Gull (*Larus atricilla*) in regard to feeding behavior and structural adaptations shown in the bill, skull, neck vertebrae, and muscles of the jaw and neck. The skimming and feeding behavior is well illustrated with line drawings taken from motion picture frames. The variation in bill length is caused by abrasion against the substrate. When the bill passes through the water the ridges of the rhamphotheca cause vibrations that probably give the bird information on the bill's position in the water. Streamlining of the bill facilitates movement through the water but makes it less efficient for grasping prey. Numerous adaptations of the skull and jaw musculature counteract this disadvantage. Analysis of functional changes indicates that the two terns are intermediate in degree of adaptation between the gull and the skimmer, but the skimmer possesses both gull-like and tern-like characteristics.

I can offer little in the way of criticism of this sound piece of work. In view of the differences of opinion about the systematic position of the skimmers, one could wish that some phylogenetic or evolutionary conclusions had been drawn. The last chapter is entitled conclusions, but this is little more than a summary of the descriptive work in the body of the paper. A curious omission is the failure to mention the unique structure of the eye (Wetmore, 1919, *Proc. Biol. Soc. Wash.*, **32**: 195), particularly since the author discusses the nocturnal feeding habits of the skimmer.—Pierce Brodkorb.

24. The Rough-winged Swallow Stelgidopteryz ruficollis (Vieillot). A Study Based on Its Breeding Biology in Michigan. William A. Lunk. 1962. *Publications of the Nuttall Ornithological Club*, No. 4. America Cosmos Press, Cambridge, Mass. 155pp. $4.00. A study for 4 seasons in which 97 nests of the Rough-winged Swallow were observed. Rough-wings do not excavate their own burrows, but adopt old burrows of Bank Swallows (*Riparia riparia*) and Belted Kingfishers (*Megaceryle alcyon*) or use crevices in rocks. Dr. Lunk installed 21 artificial nest tubes of which 19 were used by Rough-wings; these enabled him to draw out the nests and examine them with ease. The birds show a lively interest in fresh digging activities.

The number of eggs in 61 nests ranged from 5 to 9, the mean size being "6.25 ± .108 with a standard deviation of .843" (p. 44). This is a larger clutch than for any other swallow on which data exist. Incubation is by the female alone and lasts 16 days. Nestling life averaged some 19 days. Both parents fed the young, at first about equally, but during the last half of nest life females at three nests were less active than their mates. In 66 nests 403 eggs were laid; 293 (73 percent) hatched, and 246 young (61 percent of the total eggs) were fledged.

After reviewing the different theories as to the function of the "peculiar serration of the outer (ninth) primary" of this species, the author suggests that it may "form a mechanism for the production of some sort of sound," in the "spirited chases and aerial maneuvers, by groups of both sexes" that "play a part in the pairing" of Rough-wings. On several occasions Dr. Lunk noticed a "shrill, rather quicky repeated whir or whistle" as two pairs were "swooping about with unusual vigor close to an available burrow" (p. 137).

The book is a model of organization and clarity, with 14 tables, 19 figures and 3 plates, two of which show photographs of young from hatching throughout nest life. The thorough coverage of the literature is attested by a 12-page bibliography. An excellent feature in most of the references in the text is the inclusion of the *page* as well as of the year. This is an admirable study, treating in detail a swallow about which little was known, and at the same time comparing each aspect with the behavior of other swallows as well—M. M. Nice.

25. Alexander Wilson: Naturalist and Pioneer. Robert Cantwell, with decorative drawings by Robert Ball. J. B. Lippincott Company, Philadelphia and New York. 1961. 9¼ x 12¼, 319 pp., 8 color and 16 black and white plates. $15. This handsomely printed book brings to the general public the first detailed biography of one of our outstanding ornithologists, noteworthy not only for what he accomplished directly but for the firm foundation he built for the further advances of the next generation. He was born in Scotland in 1766, in the flourishing textile town of Paisley, where he made his living as a handloom weaver and as a peddler of textiles. Meanwhile he made a local reputation as a poet, in the vein of Robert Burns, but this part of his work is now of only minor interest. After an ill-defined brush with authority at a time of unrest during the early years of the French Revolution, he came to Philadelphia. There he made his living first as a schoolteacher and then as an editor of an encyclopedia. The impact of the vivid wildlife of a new continent fired his mild interest in natural history. In less than ten years of concentrated effort before his death in 1813, he traveled extensively to observe and collect new birds, and wrote the nine volumes of his *American Ornithology*. No single work ever equalled its influence on ornithology in North America. While it described over three dozen species of birds for the first time, it was equally noteworthy for its extensive life histories, largely from Wilson's own days in the field.

Perhaps no one author is fully qualified to appraise the work and historical importance of a figure as versatile as Wilson. Mr. Cantwell is more at home with the literary side of his subject than with the historical and ornithological background,

particularly in evaluating evidence. Many highly capable historians have written popular works without loading them down with footnotes, but they avoid much reliance on the sort of secondary source which the bibliography here refers to as "some local item of history, gossip, folklore . . . " in one case, and in another as including "speeches by local historians". Quite a bit of the discussion relates to incidents in Scotland or the United States that have no close connection with Wilson, but seem to have been introduced by Mr. Cantwell as rather vague analogies supporting his view of Wilson's life as melodramatic. Above all, Wilson is important to us as a scientist, and this part of the biography is the least satisfactory. Not only do we miss an informed evaluation of just what Wilson accomplished, but the flow of the narrative is hampered by use of antique names, frequent errors in giving present-day equivalents, and many lapses of fact and evaluation on the birds mentioned and Wilson's contemporaries. Perhaps a color-blind man can write a biography of Gauguin, but the result is not likely to remain the definitive biography. Nevertheless, we may enjoy Mr. Cantwell's narrative gifts, and welcome the availability of any popular life of such a pioneer. —E. Alexander Bergstrom.

NOTES AND NEWS

Dr. William H. Drury, Jr., Director of Research for the Massachusetts Audubon Society and a member of the Council of NEBBA, has been appointed a temporary member of President Kennedy's Science Advisory Committee, during their study of pesticides.

Research teams working under Dr. Drury applied conspicuous colors to Massachusetts Herring Gulls on a sizeable scale, 1945 birds in 1961 and 2,855 more in 1962. While the birds winter largely in Massachusetts, reports have been received south to Delaware Bay, and at least two birds were reported farther south.

The 1941-50 index to *Bird-Banding* is available from Mrs. J. R. Downs, South Londonderry, Vt., postpaid, at $3.00 paperbound or $4.50 hard covers to present NEBBA members or *Bird-Banding* subscribers, or $4.00 paperbound or $5.50 hard covers to others. She also has stocks of many back issues.

One foresighted bander in Minnesota ordered mist nets for spring use at a time when the thermometer registered 24 below zero. While we have the largest stocks of nets, on hand or on order, that NEBBA has ever accumulated, we still cannot guarantee immediate shipment at rush seasons. If you can anticipate your needs for nets, early orders will help you and us as well. For details of the five types of nets regularly stocked by NEBBA, write to Mr. E. A. Bergstrom, 37 Old Brook Road, West Hartford 17, Conn. We are also starting to receive moderate supplies of two new types with small mesh (about 1", stretched), type F (12 meters long) and type G (6 meters).