

intensive bird conservation. Fifteen winter feeding-stations were established on 800 hectares (c. 2000 A.), a ratio almost twice as great as the one recommended.

The most outstanding feature of the system is perhaps the large-scale method of providing water for the birds. After finding the method of deepening the already existing "sloughs" to be a failure, numerous shallow wells were driven, each with a trough, into which water was pumped by a light, movable pump. As early as 1900, this system was in use by the city of Mannheim, and was started by Heidelberg in 1909, installed chiefly for the sake of the Pheasants. The preserve in the Hardt range was provided with one such bath per 30 hectares, at the beginning of the war; eventually it is planned to have from 25 to 36 per hectare. Altogether some twenty paragraphs are devoted to the detailed description of the water-supply system.

The abolition of "vermin" (without a definition), of stray cats, and the poisoning of mice are practiced. Careful planting of trees and shrubs for shelter and food is treated, together with the names of the most important food-bearing shrubs.

For the practical mind, the cost of adequately equipping and maintaining an area of 1000 hectares as a bird sanctuary is carefully itemized. Establishment costs total 13,000 marks (about \$3,250), and maintenance 1300 marks annually.

One gathers from the article that Germans are alive to the value of birds in forest conservation and are bringing the full force of German efficiency to bear upon adequately preserving and protecting these allies.—A. SIDNEY HYDE.

The Ornithological Journals.

Bird-Lore. XXXII, No. 5. September-October, 1930.

The Dickcissel's Secret. By Dr. Frank N. Wilson.—Account of nesting in southern Michigan with excellent photographs.

Mourning Dove Behaviour. By W. H. Bergtold.—Actions of a tame bird.

Chumming with a Blue Jay. By Walter Hopkins.—Another tame bird. 'Casey'—A Herring Gull.—Still another! By J. N. Reddin.

The Blue-Wings. By William A. Paff.—Nesting at Easton, Pa.

The Glare of the Headlight. By E. D. Nauman.—A number of birds nesting from nine to twenty-five feet from the railroad rails.

In the Audubon Department Dr. A. A. Allen has another of his admirable bird biographies treating this time of the Pied-billed Grebe with excellent illustrations from his camera.

The colored plate represents the Ring-necked Pheasant.

Bird-Lore. XXXII, No. 6. November-December, 1930.

Birdcraft Sanctuary after Sixteen Years. By Mabel Osgood Wright.

The Outdoor Inn. By Laura Fenner, with photographs of birds on the feeding shelf—Nuthatch, Titmouse and Downy Woodpecker.

Hunting Goldfinches and Redpolls with a Camera. By Lowell A. Mullen.—Admirable photographs of these two species.

The colored plate represents the Belted and Texas Kingfishers with notes on their migration and plumage by Drs. Oberholser and Chapman, respectively.

Dr. A. A. Allen has a fully illustrated article on the life of the Screech Owl in the Audubon Department and the bulky report of the Audubon Society occupies 100 pages replete with matter relative to bird protection and study from all parts of the country.

The Condor. XXXII, No. 6. November–December, 1930.

Aeronautics of Bird Flight. By Sterling Bunnell.—An interesting discussion of the subject by an aviator, showing the correspondence of the curves of a bird's wing with those devised by man for similar flight. One's attention is also called to the actions of fish in an aquarium which the author likens to slow motion pictures of birds in flight as the principles are the same. From the testimony of aviators birds seldom fly at a greater elevation than 3000 ft., while as to speed airplane-birds passed showed a speed of 72 miles per hour for Canvasbacks, 55 for Mallards, and 45 for Swan.

The Wood Ibis in Yellowstone Park National. By Joseph Dixon.—With an excellent photograph.

The Territorial Concept in the Horned Owl. By Loye Miller.—Shows that individual birds establish a territory beyond which they rarely stray. The voice of the male is found to be deeper than that of the female with more regular cadence.

The pellet Analysis Method of Raptor Food Habits Study. By Paul L. Errington.—The pellet method proves to be excellent in the case of Owls, Marsh Hawk and Peregrine but not for Buteos which eject pellets irregularly with unsatisfactory results. Moreover this method does not entail the killing of valuable and interesting birds which is necessary for stomach analysis.

Incidentally the results of the Marsh Hawk study in the vicinity of Madison, Wis., show the absolutely wrong stand of those who are advocating the extermination of this bird. Eighty-two pieces of food actually recovered from birds frightened into dropping their quarry showed 39 ground squirrels, 12 meadow mice, 11 young cottontails, 8 frogs, a chipmunk and 8 small birds and remains of three small mammals not determined. The study of pellets gave approximately the same evidence.

Critical Notes on Some Yellow-throats of the Pacific Southwest. By A. J. van Rossem.—*Geothlypis trichas occidentalis* and *G. t. scirpicola* are recognized and a new form from North-central Mexico reaching Cochise Co., Arizona is described as *G. t. chryseola* (p. 298).

The Wilson Bulletin. XLII, No. 3. September, 1930.

Nesting of the Sandhill Crane in Florida. By Ernest G. Holt.—Illustrated by numerous photographs of scenery and eggs of the bird and a plate of the incubating Crane from a painting by George M. Sutton.

The Decline of the Jacksnipe in Southern Wisconsin. By Aldo Leopold.

Fluctuation of Bird Life with Change in Water Level. By E. L. Moseley.

The Economic Importance of Birds as Insect Predators. By C. N. Ainslie.

Birds of the Yellowstone National Park, with Some Recent Additions. By Emerson Kemsies.—A very briefly annotated list.

The Oölogist. XLVII, No. 9-11. September, October, and November, 1930.

Numerous notes on eggs and nesting of North American birds. In the September issue there is an excellent plea for the birds of prey by E. A. Stoner also an amusing discussion on Pintail Ducks of Alaska by "R. M. B." This article ridicules a paper in the Condor for "subspecific refinement" and "hair splitting." As a matter of fact the author showed that there was little or no ground for recognizing two forms of Pintail Duck in North America, which is apparently exactly "R. M. B.'s" opinion. "R. M. B." states that he gave the paper a "careful reading" but he nevertheless completely missed the point. As everyone is agreed however no harm has been done, but critics should be sure of their ground.

The Murrelet. XI, No. 3. September, 1930.

Nesting Observations at Moses Lake in May. By E. A. Kitchin.—Western Washington.

The Bobwhite in the Palouse Region, Washington. By J. Paul Miller.

Nesting Habits of the Steller Jay in Western Washington. By D. E. Brown.

The Wren-Tit. II, Nos. 2 and 3. April and July, 1930.

Time Limit in Crouch Concealment of the Young Killdeer. By Gayle Pickwell.—Remained in the "frozen posture" for 77 minutes. (April.)

Length and width of the home of the Snowy Plover is discussed by the same author in the July issue. Only the upper beach bench is used for nesting purposes so that its habitat is miles in length but only a few feet in width.

Bird Banding. I, No. 4. October, 1930.

A Study of the Chickadee and White-breasted Nuthatch by Means of Marked Individuals. By Wilbur K. Butts.

Notes on Protocalliphora During the Summer of 1930—Blood sucking larvae from birds' nests.

Hours of the Day when Harris's and White-throated Sparrows were Trapped During Migration. By O. A. Stevens.

The Technique of Studying Nesting Song Sparrows. By Margaret M. Nice.

Further Banding Notes from Tern Island, Mass. By Charles B. Floyd.

The Ibis. (XII) VI, No. 4. October, 1930.

The Occurrence of Sushkin's Bean-Goose (*Anser neglectus*) in the Netherlands. By F. H. van den Brink.—With a colored plate of the head.

Observations in the Swiss Alps. By R. F. Meiklejohn.

On the Birds Collected During the Fifth Expedition to French Indo-China. By J. Delacour.—An annotated list of 349 species with two colored plates. Most of the novelties have been previously described but *Oreocincla griseiceps* (p. 581) from Chapa is proposed in the present paper.

The Birds of Northern Nigeria. By H. P. W. Hutson and D. A. Bannerman.—This installment contains an introduction by Major Hutson dealing with the physical features of the country with lists of the trees and the several types of vegetation, and the first part of a well annotated list of the birds, the systematic part by Mr. Bannerman and the field notes by Major Hutson.

A Spring Tour in Eastern Spain and the Pityusae Islands. By C. B. Ticehurst and H. Whistler.—A very fully annotated list.

Some Additions and Corrections to the 'Systema Avium Aethiopicarum.' By W. L. Sclater.

British Birds. XXIV, No. 5. October 1, 1930.

A North Sea Bird Log. By Capt. D. K. Wolfe Murray.—Records of birds observed while with the fishing fleets, during 1928 and 1929.

Some Further Notes on the Birds of Bardsey Island. By W. Wilson.

British Birds. XXIV, No. 6. November 1, 1930.

Our Present Knowledge of the Breeding Biology of Birds. By F. C. R. Jourdain.—Lists species of British birds upon which there is no information as to incubation or fledgling periods.

The Spring Migration at the Cambridge Sewage Farm. By David L. Lack.—Twenty-one species of Waders and Terns seen during the spring and twenty-two in the autumn.

British Birds. XXIV, No. 7. December 1, 1930.

Breeding of the Black-necked Grebe in Ireland. By C. V. Stoney and G. R. Humphreys.—A large colony of some 75 nests discovered.

Field-notes on the Subalpine Warbler. By John Armitage.

The Oölogists' Record. X. No. 3. September 1, 1930.

Notes on Cuckoos in 1930. By Edgar P. Chance.

Some Nests and Eggs of the Black Tern. By G. A. L. Bisseling.—In Holland; with excellent photographs of nests.

Nesting of the Little Tern. By L. R. W. Loyd.—On the coast of Norfolk; illustrated by beautiful photographs of the nesting birds.

The editor has an interesting critique on Mr. Tracy Storer's "Critique of Oölogical Data" which appeared in the July 'Auk'.

The Emu. XXX, No. 2. October, 1930.

The Genus *Platycercus*. By H. G. Barnard and G. H. Barker.—With a colored plate of *P. adscitus*.

Notes on the Eastern Whipbird. By Pearl Hanks.—*Psophodes olivaceus*.

Photographing the Lyrebird. By Michael Sharland.—A most interesting account of this remarkable bird with beautiful photographs of its display and other actions.

A Bird Day from England to Australia.—S. S. "Miamo." By J. S. C. Elkington.—Observations on the voyage in diary form.

Some Habits of the North Island Tomtit. By Amy K. Wilkinson. A valuable account of this little New Zealand bird (*Myiomoira toitoi*).

Bird Notes from North-Eastern N. S. W. By C. Sullivan.

Observations on Birds of the Antarctic. By H. Stuart Dove.

Turquoise Parrots in Captivity. By S. Harvey.

Birds of the St. Arnaud District, Victoria. By H. N. Beck.

A Subcutaneous Avian Parasite. By K. A. Hindwood.—A fly (*Passeromyia longicornis*).

Birds Collected by Capt. Sturt in 1830 on the Banks of the River Murray.

Notes on the Gascoyne Cuckoo Shrike and Others. By H. G. Barnard.

There are numerous notes on nesting etc. interpolated among the leading articles and many excellent photographs.

The South Australian Ornithologist. X, Part 8. October, 1930.

The Flight of Birds. By F. E. Parsons.—A general resumé of the subject.

A Trip to the Diamantina. By A. M. Morgan.—An annotated list of 92 species.

Many local notes.

L'Oiseau. XI, Nos. 8-10. August to October, 1930. [In French.]

Two articles run through all three numbers viz:

A Revision of the Rhamphastidae. By Guy de Germiny.—No new species or radical alteration in arrangement.

Notes on the Ornithology of Bas-Marchoise, France.—By R. Abadie.

There are also the following:

Notes on Some Rare or New Birds Obtained on the Fifth Expedition to Indo-China.—By J. Delacour. (October.)

Description of a New Bird from Tonkin.—By J. Delacour and P. Jabouille.—*Xiphirhynchus superciliaris rothschildi* (p. 613). (October.)

In the Avicultural Section the account of the Pheasants by Ghigi and Delacour runs through August and September with the Struthious birds by Delacour in October.

There are many plates including a colored drawing of Edward's Pheasant

and a photograph of a flock of Pink-headed Ducks recently secured from India by A. Ezra.

Journal für Ornithologie. LXXVIII, Heft 4. October, 1930. [In German.]

The Birds of the Dauro-Manchurian Transition Country. By B. Stegmann (to be continued).

Remarks on the Systematic arrangement of *Emberiza schoeniclus*. By F. Steinbacher.—Twenty-four subspecies are recognized of which *E. s. turonensis* (p.480) France; *E. s. stresemanni* (p. 481) Hungary; and Portugal are described as new.

There are several articles on local bird occurrences in Europe and a description of *Astur badius chorassanicus* (p. 514) by W. G. Heptner and W. L. Stachanow, from Transcaspia.

Ornithologische Monatsberichte. 38, No. 5. September, 1930. [In German.]

Several local articles on wintering birds, the breeding of *Spinus spinus* and *Carduelis citrinella* in winter, etc.

The following are described as new: by Ernest Mayr, *Loboparadisea sericea aurora* (147) Dawong, New Guinea; by E. Stresemann, *Cyanoderma melanothorax albigula* (p. 148) and *Turdus javanicus biesenbachi* (p. 149) both from Java, and *Troglodytes t. suprapallidus* (p. 158) North Kansu. Stresemann also proposes *Megazosterops* (p. 159) for *Cleptornis palauensis* Reich.

Ornithologische Monatsberichte. 38, No. 6. November, 1930. [In German.]

Beside local articles on birds of Europe, E. Mayr discusses *Gerygone arfakiana* and *G. rufescens* Salvadori both of which prove to belong to *Sericornis*. In the further discussion of this genus *S. magnirostris stresemanni* (p. 177) and *S. m. cantans* (p. 177) are proposed as new. In a review of *Lophorina superba*, *L. s. niedda* (p. 179) and *L. s. connectens* (p. 180) are proposed as new by the same author.

Stresemann describes *Collocalia francica natunae* (p. 181) from Great Natuna; while *Erythropygia leucoptera permutata* (p. 187) is described by Grote from Benguella.

Beitrage zur Fortpflanzungsbiologie der Vögel. VI, No. 6. November, 1930. [In German.]

The shell thickness of Birds' Eggs and the Rey'sche Quotient. By M. Schonwetter.

On the Interest of Curlews in the Rearing of their Young. By E. Rosenberg.

On the Biology of *Falco cherrug*. By H. Grote.

On Mimicry in Cuckoos' Eggs. By Von Richard Schlegel.

Observations on the Bird Life of the Balearic Islands. By F. C. R. Jourdain.

Der Ornithologische Beobachter. XXVII, Heft 7-12 and XXVIII, Heft 1. April to October, 1930. [In German.]

Bird Life of the Camargue. By M. Gasser. (April.)

Sixth Report of the Swiss Bird Study Station at Sempach. By A. Schferli (October).

Also numerous papers and notes on Swiss birds and on bird protection.

Der Vogelzüg. I, No. 4. October, 1930. [In German.]

Theories on the History of Bird Migration.

On Bird Banding at Leningrad. By G. Doppelmair.

Numerous notes on migration and banding.

Ardea. XIX, Af. 1-2. August, 1930. [In Dutch.]

The Ornithological Reservations of the Netherlands in 1930. By G. J. Van Oordt.—With interesting photographs of nesting Spoonbills, etc. (In English.)

On *Haliastur indus intermedius*. By L. C. deRuiter.

On the Maleo (*Megacephalon maleo*). By L. C. deRuiter.

Bird Banding in 1929. By G. A. Brouwer.—A voluminous report covering many species, with several photographic illustrations.

Invasion of Little Auks and Puffins in December, 1929. By F. Haver-schmidt.

Orgaan der Club van Nederlandsche Vogelkundigen. III, No. 1. July, 1930. [In Dutch.]

Sushkin's Goose in the Netherlands. By F. H. van den Brink.

Baron Snouckaert van Schauburg has a review of the species and races of the genus *Columba* which is continued in the next issue.

Kocsag. III, Nos. 1-2. 1930. [In Hungarian with some abstracts in German.]

The Bird Organism. By J. Gilei.

Hirundo rustica in Italy. By E. Arrigoni degla Oddi.

Bulgarian Gallinaceous Birds and Pigeons. By H. von Boetticher.

A Day at the Bird Observation Station at Velenceer-See.

Notes from Norway. By H. Broch.

Banding of *Parus major*. By J. Pawlas.

Avicultural Magazines. *The Avicultural Magazine* (VIII, Nos. 5-11, May-November, 1930) contains colored plate frontispieces as follows (in chronological sequence); Purple-throated Cotinga (*Cotinga cayana*), Violaceous Plantain-eater (*Musophaga violacea*), Siamese Fire-back Pheasant (*Diardigallus diardi*), Lewis' Silver Pheasant (*Gennaues lewisi*), Edwards' Pheasant (*Hierophasis edwardsi*), Spot-headed Weaver Bird (*Sycobrotus stictofrons*) and Bullock's Oriole (*Icterus bullocki*).

Leading articles are: Notes on the Birds of Dominica. By Sydney Porter (May and June).

- In Search of Rare Birds in China. By Alex Hampe (June).
Pheasants. By A. Ghigi and J. Delacour (July to September).
Birds of a Sicilian Garden. By Sydney Porter (September).
The Case of the Kagu. By F. Finn (September).—With an excellent photograph of a pair of these interesting birds and a reference to a paper on their breeding etc. (*La Nature*, No. 2777, Jan. 15, 1928). This species, the sole representative of its family, seems to be facing extermination through the ravages of stray dogs on the island of New Caledonia where alone it is to be found. The suggestion is made that it might be introduced into some "dogless" island and its future existence assured.
Curassows. By D. Seth-Smith; and many articles on breeding and rearing of birds.
Aviculture (II, No. 5-11, May-November, 1930) presents frontispiece color plates of the Gray-winged Trumpeter (*Psophia crepitans*), Yellow Conure (*Conurus guarouba*), Derbyian Parakeet (*Palaeornis derbyana*) and three West Indian Amazons (*A. gueldingi*, *versicolor* and *imperialis*), also three plates reproduced from 'Whistler's Handbook of Indian Birds.' There is a list by L. S. Crandall of wild birds that have bred in captivity in the United States, and numerous short articles and notes on cage birds, aviaries and aviculture, well illustrated with half tones.

Ornithological Articles in Other Journals.

- Lewis, Harrison F.** Some notes on Birds of the Gaspé Peninsula in November. (*Canadian Field Naturalist*, September, 1930.)
Potter, Lawrence E. Bird-Life Changes in Twenty-five Years in Southwestern Saskatchewan. (*Canadian Field Naturalist*, September, 1930.)
Thompson, Stuart L. A Day with the Tufted Titmouse at Toronto. (*Canadian Field Naturalist*, October, 1930.)
Baillie, James L., Jr. Red-headed Woodpecker in Winter at Toronto. (*Canadian Field Naturalist*, October, 1930.)
Mousley, Henry. Home Life of the American Goldfinch. (*Canadian Field Naturalist*, November, 1930.)
Squires, Susan K. The Black-billed Cuckoo and Tent Caterpillars. (*Canadian Field Naturalist*, November, 1930.)
Ritchie, James. St. Kilda and the Significance of Some of its Animal Inhabitants. (*Scottish Naturalist*, May-June, 1930).—Gannets, Fulmars, etc.
Stenhouse, J. H. Birds of Franklin's Overland Expeditions. (*Scottish Naturalist*, May-June, 1930.)
Rintoul, L. J. and Baxter, E. V. Bird Notes from Staye. (*Scottish Naturalist*, May-June, 1930.)
Stenhouse, J. H. Birds Collected by Captain Sturt in 1830 on the Banks of the River Murray. (*Scottish Naturalist*, July-August, 1930.)