

Since 1896 Mr. Baker has been publishing illustrated articles on the Indian game birds in the 'Journal' of the Bombay National History Society, and in 1908 those dealing with the ducks and their allies were published as a separate volume by the Society, with additions and corrections. The first volume of the present series is a new edition of this earlier work with further additional matter. The second volume covers in a similar way the Snipe, Bustards and Sandgrouse, while two other volumes, to appear shortly, will treat of the Pheasants and Partridges.

The text is full and replete with information on the distribution and life histories of the various species, making a valuable handbook for the sportsman as well as an authoritative work of reference for the ornithologist.

Mr. Baker is to be congratulated on bringing his nomenclature up to date, something that is too often neglected in semi-popular works of this kind. He seems also to have followed the original spelling of the names in most cases, although we notice that *Aix* appears in the emended form *Aez*.

Among the rarer species treated is the Pink-headed Duck (*Rhodonessa caryophyllacea*), one of the most remarkable ducks from the standpoint of coloration. It may not be generally known to American ornithologists that a full plumaged male of this species is preserved in the collection of the Philadelphia Academy, being part of the famous Rivoli collection. We can heartily recommend this work as an authority on the Indian Game birds and while we await the appearance of the subsequent volumes with interest, we congratulate both author and publishers on a fine piece of work admirably brought out.—W. S.

**Mathews' 'The Birds of Australia.'**<sup>1</sup>—The two latest parts of Mr. Mathews' work conclude the treatment of the Sylviidae, although, through an apparent error, these birds as well as the Babblers are included in the family Orthonyctidae in the "contents" of Vol. IX which accompanies part 9.

The treatment follows that of recent issues, subspecies being discussed at length in the text but placed in the synonymy of the species. The difficult Grass Warblers and Brown Tits are considered in much detail, and as a result the author places all of the latter as subspecies of *Acanthiza pusilla* including *A. ewingi* and *A. diemenensis*.

We notice one new subgenus *Subacanthiza* (p. 449) for *Acanthiza lineata* and the following new subspecies: *Cisticola exilis diminuta* (p. 373) Cape York; *C. e. exaggerata* (p. 373), S. Victoria; *Acanthiza pusilla lingeraudi* (p. 430) Lingeraudi; *A. p. dundasii* (p. 431), Lake Dundas, W. Australia; *A. p. northi* (p. 431), Wilson's Inlet, S. W. Australia; *A. p. cobborensis*

<sup>1</sup> The Birds of Australia. By Gregory M. Mathews. Vol. IX.—Part 8 (May 22, 1922) pp. 361–416. Part 9. (Aug. 3, 1922) pp. 417–518. H. T. and G. Witherbp, London.

(p. 432), Cobbara, N. S. Wales; *Pyrrholaemus brunneus milligani* (p. 489), Wongan Hills; *P. b. kalgoorlii* (p. 489) Kalgoorli; and *P. b. centra* (p. 489), Central Australia.—W. S.

**Lucanus on 'The Mystery of Bird Migration.'**<sup>1</sup>—Friedrich von Lucanus, President of the German Ornithological Society has prepared a volume bearing the above title and treating of the various aspects of the migration of birds. Some idea of the scope of the work may be gained from the headings of the various chapters: Historical Review; Bird-banding; The Migration of Certain Species from the Results of Bird-banding; The Origin and Cause of Migration; The Direction of Migration and the Migration Route Problem; Orientation of the Migrating Bird; Relationship between Weather and Bird Migration; The Height of the Flight; The Velocity of the Flight; The Return in Spring; Peculiar Habits of the Migrating Bird. There follows an account of the Bird Observation Station at Rossiten and a brief chapter of Conclusions. In the latter, the author states that the autumnal flight of European migrants takes a westerly or southwesterly direction, and that for certain species a definite migration route may be designated. A migration route, he points out, is not a narrow highway but a broad, though well defined, area which is however not so wide as the breeding area.

In Europe there seem to be three principal routes (a) the west coast, and (b) the Italian-Spanish route, both of which cross the Mediterranean at Gibraltar; and (c) the Adriatic-Tunisian route which crosses by way of Sicily. He further states that birds of the same species and from the same breeding-zone may follow different directions on migration and seek different winter quarters, while between the direction of the flight and the geographic position of the breeding grounds there is no necessary connection. Birds from the same breeding spot flying in the same direction do not always attain the same destination but winter at some point within the migration path. The migratory impulse is also variably developed in different individuals.

Birds, moreover, do not reach their winter quarters by the shortest route but often make considerable detours. Our author also states that the autumnal migratory instinct awakens much earlier in birds of the year than in the adults, which results in a separation during migration.

In the spring the migrant has always the impulse to return to its home i. e. birth place.

The work is a valuable contribution to the subject of migration and contains much important data especially in the summary of recoveries of banded birds reported in various publications.

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<sup>1</sup> Die Ratfel des Vögelzuges. Ihre Losung auf experimentellen Wege durch Aeronautik, Aviatik and Vögelberingung. Von Friedrich von Lucanus. Langenfalza, Hermann Beyer and Sohne (Beyer and Mann) 1922. pp. 1-226, four text figures and a plate.