

SUGGESTIONS FOR A BIBLIOGRAPHY ON AVIAN LONGEVITY AND ON THE WEIGHT OF BIRDS.

BY PHOEBE KNAPPEN.

In an article published in the July number of 'The Auk,' Mr. C. Emerson Brown writing on the longevity of birds in captivity [Vol. 45, 1928, pp. 345-348] though apprised of the valuable data to be gathered from the published reports on bird-banding does not refer to the rather voluminous literature already published on the subject of longevity. In illustration of the type and quantity of the recorded data a selected and annotated bibliography is given herewith. Only papers mentioning the ages of five or more species are included.

BOLAU, HEINRICH. Die Lebensdauer der Thiere in Zoologischen Garten zu Hamburg. *Vögel. Zoologische Garten*, 20, pp. 326-331, 362-367. 1879. [Ages of 290 species of birds.]

BONHOTE, J. L. Notes on the Age of Birds in Confinement. *Avicultural Magazine*, Ser. 3, 1 (9), pp. 259-267, July, 1910; 1 (10), pp. 299-310, August, 1910. [Records of many species of birds.]

BUTLER, A. G. Duration of Life in Captivity. *Avicultural Magazine*, Ser. 3, 1 (6), pp. 181-191, April, 1910; 2 (6), pp. 179-182, April, 1911; 4 (12), pp. 367-370, October, 1913; 1915, pp. 43; 1916, pp. 97; 1917, pp. 288; 1918, pp. 169. [The first three articles are of considerable value, giving lists of ages reached by many species and individuals in Dr. Butler's aviaries.]

DAUDIN. *Traite Elementaire et Complet d'Ornithologie*. [A compiled list in which 27 species are mentioned.]

FERGUSON, H. S. Report on the Trivandrum Museum and Public Gardens for 1900-1901, pp. 17-18. Trivandrum, Travancore, India, 1902. [Age of nine species of captive birds.]

FLOWER, S. S. Egypt, Public Works Dept., Zool. Gardens, Special Report No. 2, 1908. [Notes on age of some birds seen in European Zoological Gardens.]

FLOWER, S. S. Egypt, Public Works Dept., Zool. Gardens, Special Report 4, pp. 22-37, 1909.

FLOWER, S. S. Egypt, Public Works Dept., Zool. Gardens, Special Report No. 5, pp. 129-279, 1910. [List of the Birds in the Giza Gardens, giving the period in the gardens or age at death of 420 species of birds.]

FLOWER, S. S. Egypt, public Works Dept., Zoological Service Publ. 34, Cairo, 1921. Report on the Zoological Service for the Year 1920, p. 15. [Longevity of 12 species of birds.]

FLOWER, S. S. List of Birds of Prey, 1898-1923, with notes on their longevity. Egypt, Min. Publ. Works, Zoological Service, Publ. 37, 46 pp., Cairo, 1923.

FLOWER, S. C. Contribution to our Knowledge of the Duration of Life in Vertebrate Animals. IV. Birds. Proc. Zool. Soc. London, 1925. pp. 1365-1422. [Individuals of 909 species (77 families) having lived over six years are included.]

FOX, HERBERT. Disease in Captive Wild Mammals and Birds. Table 18, pp. 397-401. Philadelphia, 1923. [Ages of 61 individuals of 56 species of birds in the Philadelphia Zoological Gardens, at death.]

GILL, THEODORE. The Longevity of Birds and Other Vertebrates, Osprey, 3 (10), pp. 157-160, June 1899. [Discussion of J. H. Gurney's article and of other literature.]

GRABHAM, OXLEY. Owls and their Longevity. The Naturalist, p. 129, 1897. [Longevity of 5 species of Owls in captivity.]

GURNEY, J. H. On the Comparative Ages to which Birds Live. Ibis, Ser. 7, 5, pp. 19-42, January 1899. [Ages of 76 species (over 100 individuals), review of previous work.]

GURNEY, J. H. On the Comparative Ages to which Birds Live. Osprey 3 (10), pp. 145-155, June 1899. [Reprinting of the article in 'The Ibis' with slight revision.]

GUNTHER, A. C. L. G. Notes on Some Birds in Confinement especially with reference to their Age. Avicultural Magazine, Ser. 3, 2 (1), pp. 34-50, November 1910. [Age of a few species in his aviaries.]

LANKESTER, RAY C. Comparative Longevity in Man and the Lower Animals. [Considers 16 forms of animals, 11 being taken on the authority of Leopold Grindon.]

LILFORD, LORD. Raptorial Birds in the Lilford Aviaries. Norfolk and Norwich Naturalists' Society Trans., 4 (4), pp. 564-578, 1889; 5 (2), pp. 128-143, 1891. [Notes on longevity of many species.]

MITCHELL, P. C. On Longevity and Relative Viability in Mammals and Birds, with a Note on the Theory of Longevity. Proc. Zool. Soc. London, 1911, pp. 425-548. [Ages of 12,977 individuals of about 1600 species are recorded.]

NICHOLS, J. T. The Age of Banded Birds. Northeastern Bird-Banding Assoc., Bul. 3 (3), pp. 49-52, July 1927. [Tentative list of ages of 38 banded birds.]

OUSTALET, M. E. Notes sur la Longevite des Oiseaux. Ornith. 10, pp. 65, 1899. [Ages attained by 6 species of birds in the Jardins des Plantes, Paris.]

OUSTALET, M. E. La longevite chez les animaux Vertebres. La Nature, 38 (1), pp. 378-379, 1900. [Discussion of some of the literature of longevity, noting well-known data on ages of birds, overlooked by J. H. Gurney, in 'The Ibis,' 1899.]

RIDLEY, H. N. The Menagerie at the Botanic Gardens. Singapore, Jour. Straits Branch Roy. Asiatic Soc., 46, pp. 169-183, December 1906. [Notes on age of about five species of birds.]

SANYAL, R. B. *Handbook of the Management of Animals in Captivity in Lower Bengal.* Bengal Secretarial Press, Calcutta, March 1892. [Ages attained by captive birds.]

SCHMIDT, MAX. *Die Lebensdauer der Thiere in Gefangenschaft.—Vogel.* *Der Zoologische Garten*, 19, pp. 41–49, 1878. [Ages attained by nearly 180 species of birds in the Frankfort-am-Main Zoological Garden.]

SCHMIDT, MAX. *On the Duration of Life of the Animals in the Zoological Garden at Frankfort-on-the-Main.* *Proc. Zool. Soc. London*, 1880, pp. 299–319. [784 individuals of 154 species of birds are listed with ages.]

THOMPSON, WILLIAM. *Birds of Ireland.* *Natural History of Ireland*, Volumes I–III, 1849–1851. [Many notes on longevity.]

The Ornithology of Francis Willughby. [Edited by John Ray.] Chapter IV. *Of the Age of Birds.* pp. 14–15, London, 1678. [Mentions age of about 7 species of birds.]

In the same issue of 'The Auk' Mr. Everett C. Meyers, writing on the body weights of birds [Vol. 45, July 1928 pp. 334–338], and reviewing previous references to the subject has overlooked a number of articles in which weights are given, which are here listed. Only those articles are included in which a number of records of weight of one species or one each of a number of species are recorded. The files of 'Forest and Stream' and the numerous books on game birds also contain many records.

FULLERTON, J. D. *First Report of the Bird Construction Committee.* *Aeronautical Society*, London, 61 pp., 1911. [Table 3—The Physical Characteristics of birds, giving weights of 459 birds.]

GLADSTONE, HUGH S. *Record Bags and Shooting Records together with some Account of the Evolution of the Sporting-gun, Marksmanship and the Speed and Weight of Birds.* H. F. & G. Witherby, London. Chapter 6, pp. 196–209, 1922. [Sums up the data on weights of about 50 species of birds.]

GRINNELL, JOSEPH. *Notes on the Elegant Tern as a Bird of California.* *Condor* 21, pp. 230–234, November 1919. [Weights of Elegant, Common and Royal Terns.]

GRINNELL, JOSEPH. *The Californian Race of the Brewer Blackbird.* *Condor* 22, pp. 152–153, July 1920. [Weights of 9 individuals.]

GRINNELL, JOSEPH. *Concerning the status of the supposed two races of the Long-billed Curlew.* *Condor* 23, pp. 21–27, January 1921. [Weights of 15 birds.]

GRINNELL, JOSEPH. *Notes on Some Birds Observed in the Vicinity of Colusa, California.* *Condor* 25, pp. 172–176, September 1923. [Extreme and average weights of 11 males and 8 females of *Pica p. nuttalli*, of 2 *Passerculus sandwichensis savanna*, 2 *Melospiza lincolni gracilis*, 1 *Telmatodytes palustris plesius*, 1 *Telmatodytes palustris paludicola*.]

GRINNELL, JOSEPH. Observations upon the Bird-Life of Death Valley. Calif. Acad. Sci. Proc. Ser. 4, 13 (5), pp. 43-109, 1 fig., November 1923. [Weights of many species and individuals.]

GRINNELL, JOSEPH. A New Race of the White-breasted Nuthatch from Lower California. Univ. Calif. Publ. Zool. 21 (15), pp. 405-410, 1 fig., 1926. [Average and extreme weights for *Sitta carolinensis aculeata* and the new subspecies *S. m. alexandrae*.]

GROSS, A. O. Progress Report of the New England Ruffed Grouse Investigation Committee. Brunswick, Maine. P. 4, June 25, 1926. [Weights and measurements, maxima, minima and average.]

GROSS, A. O. The Heath Hen. Mem. Bost. Soc. Nat. Hist. 6 (4), pp. 564-566, May 1928. [Weights of 7 males determined by Gross and observations of C. E. Hoyle on the average, maximum and minimum weights of male and female Heath Hen.]

The Grouse in Health and in Disease, being the Final Report of the Committee of Inquiry on Grouse Disease. Smith Elder and Co., London. Vol. I, Chap. VI. The Weight of Grouse. Vol. II, Appendices D and F. 1911.

HUNTINGTON, DWIGHT W. The Weight of Quail. The Game Breeder 29 (5), pp. 167. August 1926. [Quotes figures of J. Grinnell on weight of males and females of Mountain and Valley Quail.] Also quotes W. A. Bruette on average weights of northern and southern Quail.

LEFFINGWELL, DANA J. The Ringed-Neck Pheasant—Its History and Habits. Charles R. Connor Museum Occasional Papers, 1, p. 22. Pullman, Washington, April 1928. [Weights of Pheasants from 2 to 36 days old ranged from 18.2 to 27.8 grams, summer, 1925, Ithaca, N. Y.]

MAWSON, SIR DOUGLAS. Monthly Proceedings. (Antartic Birds). South Australian Ornithologist, 7 (1), p. 8. January 1, 1923. [The weights of 6 sea birds with reference to wing spread compared with 2 land birds.]

MORGAN, A. M. Weights of *Hypoleucus varius hypoleucus*. South Australian Ornithologist, 2 (7), p. 182, July 1916. [Weights of 2 males and 2 females of the Pied Cormorant.]

MORGAN, A. M. Weights of *Hypoleucus varius hypoleucus* and of *Microcarbo melanoleucus*. South Australian Ornithologist, 2 (3), pp. 76-77, July 1, 1917. [Weights of nine males and three females of the former and of 4 males and one female of the latter.]

MORGAN, A. M. The Weights of Some Australian Birds. South Australian Ornithologist, 4 (4), pp. 91-93, October 1919. [Weights of 38 species.]

MORGAN, A. M. Some Weights and Temperatures of Birds. South Australian Ornithologist, 5 (2), p. 48, April 1920. [Weights of 14 Australian species.]

MORGAN, A. M. Some Weights, Measurements and Temperatures of Birds. South Australian Ornithologist, 6 (8), pp. 174-175, October 1922. [Weights of 23 Australian species.]

PLUMB, CHARLES S. Increase in growth of young Robins. *Science*, 4 (82), p. 159, August 29, 1884. [13 weighings of 2 young Robins from July 28 to August 9, at Geneva, N. Y.]

THOMPSON, WILLIAM. *Birds of Ireland. Natural History of Ireland. Volumes I-III, 1849-1851.* [Notes on weights of many of the larger species treated.]

WHITTLE, C. L. Some Additional Bird Weights. *Northeastern Bird-Banding Association, Bulletin 3 (3)*, pp. 70-71, July 1927. [Average weights of 16 species of North American Birds.]

WHITTLE, C. L. A Plea for more Bird Weighers. *Northeastern Bird-Banding Association, Bulletin 3 (3)*, p. 75, July 1927. [Weights of Song Sparrows.]

Washington, D. C.