

the improvement of roadsides and railroad right-of-ways. "There exists" says the author "in most parts of the United States either a superstition, a conviction, or a legal requirement that roadsides be shorn of their vegetation at least once a year." The result is a dusty, shadeless, uninviting road, which could be remedied by the proper planting and care of trees and hedges, which would be pleasing to the eye and would furnish shelter and nest sites for birds.

Mr. McAtee has prepared a timely and useful pamphlet. A new edition, is we understand, already called for which is encouraging although we fear it will require several of them to overcome the ridiculous notions about clearing the fence rows which are inherent in the minds of the majority of our farmers.

Apropos of popular nomenclature the Biological Survey seems to be establishing another code of names different alike from the A. O. U. 'Check-List' and the idiosyncracies of the Smithsonian Reports. We find "eastern bluebird" used consistently all through this paper though "robin," "hermit thrush," "mockingbird" and "meadowlark" appear without the geographic modifier. If the improvement is desirable in one case, why not in all? "Yellow-shafted flicker" is another vernacular not in the A. O. U. 'Check-List.' These are but minor matters but the constant tendency toward individuality in nomenclature and the ignoring of the once authoritative 'Check-List' are alarming and seem to serve no purpose but to effect ultimate chaos.—W. S.

Wetmore on Body Temperature of Birds.¹—Few recent ornithological papers contain as much "meat" as is crowded into the fifty odd pages of Dr. Wetmore's treatise on the body temperature of birds. His studies have covered a number of years and with painstaking perseverance he has personally collected no less than 1558 dependable temperature records from recently killed birds representing 327 species and 50 families while compiled data swell the list of species to 406. His records were taken with special self-registering clinical thermometers, carried constantly in the field, ready for instant use, and inserted through the throat or rectum into the body cavity immediately after the bird was shot, later readings being found to be useless.

Dr. Wetmore corroborates the statements that the temperature of a bird increases a few degrees as the day advances and that the temperature of the female is usually slightly higher than that of the male. In the Phalaropes however, he finds that the reverse is true, doubtless correlated with the well-known reversal in the duties of incubation and rearing of the young in these birds. The same reversal of temperatures, however, prevails in the Avocet, and Dr. Wetmore has evidence pointing to the probably assumption of most of the duties of incubation by the males

¹ A Study of the Body Temperature of Birds. Smithsonian Misc. Collns. Vol. 72, No. 22. By Alexander Wetmore. pp. 1-52. December 30, 1921.

in this species, while he has proven this to be the case in the Willet and suspects it in the majority of the shore birds. He finds that the body temperature of birds is apparently quite independent of external temperature, records of the same species in seasons of marked heat or marked cold showing no difference. Systematically, temperatures seem in a general way, to vary from low, in groups regarded as low in the scale, to high, in those which are most specialized, but there are many discrepancies due probably to insufficient data.

Most interesting of all Dr. Wetmore's discussions are those concerning "Method of Temperature Control in Birds" and "Significance of Temperature Control." We can only touch upon a few of the points considered. Birds, as is well-known, possess no "sweat glands," while the feather covering tends to conserve the heat of the body. Their high metabolism—the tremendous development of heat due to the muscular action in flight, demands in the absence of glands, some other method of relief, and this our author considers is found in the air sacks peculiar to birds, which act as the agency of temperature control, a fact first independently discovered by Dr. Wetmore but later elaborated by others.

The difference between "warm-blooded" and "cold-blooded" animals is explained to lie, not in the actual degree of temperature, but in the ability to maintain a more or less uniform body temperature independent of the external conditions. "Cold-blooded" animals, such as reptiles, vary their temperature in direct relation of that of their surroundings and very low temperatures induce torpidity, while "warm-blooded" forms, either by glands in the skin, or the feather coating and air sack system, keep their temperature nearly constant. The origin of the "warm-blooded" condition Dr. Wetmore attributes to the struggle against enforced hibernation.

It is to be hoped that Dr. Wetmore will be enabled to carry on his researches, in this field, as he proposes, until sufficient data are accumulated to demonstrate conclusively many points that are now merely suggested. The possibilities of further study are of the utmost importance and are likely to throw light on taxonomic as well as physiological problems.—W. S.

Bangs on Birds of the American Museum's Asiatic Expedition, of 1916-1917.—The birds collected by Messrs. Andrews and Heller in Burma, Yunnan and Fokien in 1916-1917, when making explorations on behalf of the American Museum of Natural History, have been entrusted to Mr. Outram Bangs for identification and an annotated list of them is presented in the present paper¹. The new forms described are *Pericrocotus yvettae* (p. 583), Malipa, Burma; *Turdus auritus conquistus* (p. 591), Snow Mts., Yunnan; and *Megalurus palustris andrewsi* (p. 592), Meng-ting, Burma.

¹Birds of the American Museum of Natural History's Asiatic Zoological Expedition of 1916-1917. By Outram Bangs. Bull. Amer. Mus. Nat. Hist., XLIV, Art XX, pp. 575-612. New York, December 30, 1921. 8vo.