

Method of Recording Bird Music, with a Correction.—In my articles on the expressions of emotion in the Mourning Dove and the Passenger Pigeon ('The Auk,' October, 1911), in the musical notations I used sharps and flats in some cases to indicate a degree of sharpness or flatness less than a semitone. In the Mourning Dove record No. 1, the second note is only a trifle sharp; and the Passenger Pigeon records Nos. 4, 5, 7, and 8 each contain a downward run in which the intervals between successive notes are less than a semitone. I ought to have explained this in the original paper.

To measure the *tempo* of a bird song, the best instrument is a stop-watch. While the bird is singing, count the beats of its song, "Naught, one, two, three, . . ." Start the stop-watch with "Naught" and stop it with "ten." This gives a very accurate result. If the beats be rapid, count twenty instead of ten. In absence of a stop-watch, I think the best one can do is to count the beats for five seconds, or some other definite number of seconds, by an ordinary watch; but this is far less accurate.—WALLACE CRAIG, *Orono, Maine.*

RECENT LITERATURE.

Regulations for the Protection of Migratory Birds.¹—Under the provisions of the so-called McLean act the U. S. Department of Agriculture has been entrusted with the protection of our migratory birds. A committee was appointed by the Acting Secretary from the staff of the Biological Survey, consisting of Dr. T. S. Palmer, chairman, Dr. A. K. Fisher and Prof. W. W. Cooke, to draw up suitable regulations for the purpose and these together with a circular of explanation were issued late in June, to become effective October 1, 1913, after approval by the President.

The regulations are ten in number:

- I. defines migratory game and insectivorous birds.
- II. provides a closed season at night i. e.—from sunset to sunrise, on all migratory birds.
- III. provides a continuous closed season on migratory insectivorous birds, except an open season on Reedbirds in Delaware, Maryland, District of Columbia, Virginia and South Carolina, September 1–Oct. 31. Scientific collecting permits however are to be granted as at present.

¹ Proposed Regulations for the Protection of Migratory Birds. Circular 92, Bureau of Biological Survey, U. S. Dept. Agric. pp. 1–6. June 23, 1913.

Explanation of the Proposed Regulations for the Protection of Migratory Birds. Circular 93, Bureau of Biological Survey, U. S. Dept. Agric. pp. 1–5. June 23, 1913.

- IV. establishes a five year closed season on Band-tailed Pigeons, Little Brown, Sandhill and Whooping Cranes, Swans, Curlew, and all shore birds except the Black-breasted and Golden Plover, Wilson's Snipe, Woodcock, Greater and Lesser Yellow-legs. Also on Wood Duck in the northern and middle states west to Wisconsin, and on the Woodcock in Illinois and Missouri.
- V. prohibits shooting on the Mississippi and its branches from Minneapolis, Bismarck and Pittsburgh southward to New Orleans from January 1 to October 31.
- VI. divides the states into two zones; No. 1, those lying mainly north of latitude 40° and the Ohio, and No. 2 those lying mainly south of this line.
- VII. states that in reckoning closed seasons the first date mentioned is included and the last excluded.
- VIII. establishes closed seasons in Zone No. 1.
- Waterfowl*, December 16–September 1. Exceptions: Massachusetts January 1–September 15; Minnesota and North Dakota, December 16–September 7; South Dakota, December 16–September 10; Oregon and New York outside of Long Island, December 16–September 16; New Hampshire, Long Island, New Jersey and Washington, January 16–October 1.
- Rail*. December 1–September 1. Exceptions: Massachusetts and Rhode Island, December–August 1; New York including Long Island, December 1–September 16; California and Vermont, closed until September 1, 1918.
- Woodcock*. December 1–October 1. Exceptions: Maine and Vermont, December 1–September 15; Massachusetts, Connecticut and New Jersey, December 1–October 10; Rhode Island, Pennsylvania and on Long Island, December 1–October 15; Illinois and Missouri, closed until September 1, 1918.
- Shorebirds* (Black-breasted and Golden Plover, Wilson's Snipe and Yellow-legs) December 16–September 1. Exceptions: Maine, Massachusetts and on Long Island, December 16–August 1; Minnesota and North Dakota, December 16–September 7; South Dakota, December 16–September 10; Oregon, and New York other than Long Island, December 16–September 16; New Hampshire and Washington, December 16–October 1.
- IX. establishes closed seasons in Zone No. 2.
- Waterfowl*. January 16–October 1. Exceptions: Kansas, Oklahoma, New Mexico and Arizona, December 16–September 1; Maryland, Virginia, North Carolina and South Carolina, February 1–November 1.
- Rails*. December 1–September 1. Exceptions: Tennessee and Louisiana, December 1–October 1; Arizona, December 1–October 15.
- Woodcock*. January 1–November 1. Exceptions: Louisiana, January 1–November 15; Georgia, January 1–December 1.
- Shore birds*. (Black-breasted and Golden Plover, Wilson's Snipe

- and Yellowlegs) December 16–September 1. Exceptions: Alabama, December 16–November 1; Louisiana and Tennessee, December 16–October 1; Arizona, December 16–October 15, Utah, Snipe, December 16–October 1; plover and Yellowlegs, closed until September 1, 1918.
- X. provides for hearings regarding proposed changes in the regulations. Applications should be made to the secretary of Agriculture and applicants should be prepared to show necessity for changes and submit evidence other than that based on personal convenience.

These regulations seem to us eminently fair and the sportsmans' interests have been given as much consideration as was compatible with the saving of the birds from extinction. Naturally there will be objections especially from points near zone or state boundaries, where different laws prevail on either side, as in southern New Jersey where Reedbird shooting is prohibited while on the other side of the Delaware River in the state of Delaware it is permitted. It seems unfortunate that the shooting of this bird could not have been stopped entirely except on the rice plantations of the south. Critics of the regulations should bear in mind that the welfare of each species as a whole has been the guiding principle of the committee, and without more or less drastic action at the present time the shooting of various birds would cease entirely in a short time, not through legislation but through the extermination of the species. Let all parties work together for the enforcement of the regulations irrespective of personal opinion or inconvenience for five years and it will be interesting to see what results will be apparent.— W. S.

Townsend's 'Sand Dunes and Salt Marshes.'¹— Dr. Townsend is already well known as a writer on nature and the present volume will be read with much interest by all who love the 'great outdoors'. He combines with an attractive style the keen observation of a trained field naturalist and the scientific regard for absolute accuracy, and his writings are therefore peculiarly satisfying.

The present volume deals mainly with the dunes and marshes of Ipswich, Massachusetts, and is based upon observations made during summer vacations and other brief visits during some twenty years. The chapter headings are: Sand Dunes; Tracks and Trackings; Vegetation in the Dunes; Land Birds of the Dunes; Swallow Roosts and Swallow Migration; Water Birds seen from the Dunes; The Harbor Seal; Salt Marshes — Their Past and Future; Birds of the Salt Marshes; The Horseshoe Crab and other Denizens of Sand and Mud; — and lastly a chapter on Bird Genealogy reprinted from 'The Auk' for July, 1912.

¹ Sand Dunes | and | Salt Marshes. | By | Charles Wendell Townsend, M. D. | Author of "The Birds of Essex County," "Along the Labrador Coast," "A Labrador Spring" and "Captain Cartwright and His | Labrador Journal" | with numerous Illustrations from Photographs | Boston | Dana Estes & Company | Publishers. Svo. 1–311.