

How are the eggs protected during exceptionally inclement weather?

This list covers but a short time in the bird's life, but it shows how much can be learned and studied in but one phase of its existence; other moments in the lives of any species are equally interesting.

One of our greatest desiderata is an accurate investigation of distribution of bird life in the Dominion. The uninitiated rarely realize how many of the published ranges of our birds are based upon geographic probabilities, a *priori* reasoning or are copied and recopied, from previous writers. Examples are many. A great proportion of our southern Canadian lists give the Northern Hairy woodpecker as the common form and the Eastern Water thrush as ranging to the plains. The fact is, that the first is but a very rare winter visitor to the area, and Grinnell's Water thrush is the common form in the Lake Erie peninsula. Many more such cases could be cited. The only basis acceptable for such determinations are specimens examined by trained experts. Even when the forms are collected, comparison with series of specimens of allied forms is necessary to certainly established its identity. In these we are woefully lacking and still have to depend upon the courtesy and interest of our friends across the line in the separation and substantiation of many difficult forms.

To establish the Canadian ranges of our birds, their migration routes and general status, we need skilled observers at all possible points, to note and collect local data and specimens. Ideally there should be an observer and collection in every county in the Dominion; each keeping track of his own area and comparing and checking it with results from adjoining stations. Provincial Museums should gather up these local details within their sphere of influence and the whole should be amalgamated and correlated by the Dominion authorities, represented by the zoological branch of the Geological Survey at Ottawa. In this way we would have co-operation and series of local collections illustrating intensive work throughout the Dominion.

All such work, however, to be of service must be based upon exact personal knowledge and substantiated in every way possible. We look back to-day upon apparent mistakes made by our predecessors, even those of marked and recognized ability, and wish for data by which to check their statements. The next generation will demand the same of us and with more reason for impatience, if it is absent. Ornithology has advanced and the necessity for substantiating everything is more generally recognized now than in the past.

(To be continued)