

MOLLUSCA.

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Mollusca of Nova Scotia. Jones. Proc. Inst. Nat. Sci., N. S. Vol. VI., Part 3 (1887).

On the Marine Mollusca of Eastern Canada. Whiteaves. Can. Nat. Vol. IV. (new series). Art 6.

ECHINODERMATA.

The Echinodermata of New Brunswick. W. F. Ganong. Bull. N. B. Nat. Hist. Soc. No. 7, pp. 12-68.

Stimpson's Synopsis of the Marine Invertebrata of Grand Manan. (Smithsonian contributions. Vol. VI. (1854).

SPONGES.

Nova Scotian Fresh Water Sponges (a synopsis). MacKay. Proc. Inst. Nat. Sci., N. S. Vol. VI., Part 3, pp. 233-240 (1885).

Fresh Water Sponges of Canada and Newfoundland. Transaction Royal Society of Canada, 1889.

Some Marine Sponges. Honeyman. Proc. Inst. Nat. Sci., N. S., 1888, and series of articles in *Presbyterian Witness*, 1889.

CRYPTOGAMIC BOTANY.

Diatomaceæ of Nova Scotia. Preliminary observations with a list of recent and fossil—MacKay. Canada Record of Science. Vol. I., No. 4, pp. 236-244 (1885).

Marine Alga of N. B. and N. S. Hay and MacKay. Trans. Roy. Soc., Can. Sect. IV., 1887, pp. 167-174.

Lichens of Nova Scotia. MacKay (classified catalogue). Proc. Inst. Nat. Sci., N. S. Vol. V., Part 3, pp. 299-307 (1880).

Fungi, Mosses and Ferns of Nova Scotia. Many papers in Proc. Inst. Nat. Sci., N. S. and elsewhere, by Somers, Ball and MacKay, Burgess and Macoun.

PHENOGAMIC BOTANY.

Preliminary Catalogue of Plants of N. B. Fowler. Bull. N. B. Nat. Hist. Soc., No. 4, 1885, pp. 8-84, with later additions by Hay, Brittain and Vroom.

Catalogue of Nova Scotian Plants. Lindsay. Proc. Inst. Nat. Sci., N. S. Vol. IV., Part 2, pp. 184-223. (1875); also, in same proceedings at different date, papers by Lawson, How, Hardy, Somers, etc.

Revision of Canadian Ranunculacea. Lawson. Trans. Roy. Soc., Can. Sec. 4, 1884, pp. 15-90; also several other monographs by the same in the Trans. Roy. Soc., Can. and elsewhere.

Catalogue of Canadian Plants. Macoun. Geol. and Nat. His. Sur. of Can. Parts I., II., III. and IV., (exogens and endogens), published up to date.

GEOLOGY, ETC.

Acadian Geology. Dawson. With numerous subsequent geological and palaeontological publications. In New Brunswick numerous papers, etc., by Matthew, Bailey and others; in Nova Scotia, Honeyman and others. Published in Provincial, Canadian and foreign journals, reports, etc.

(Concluded next number.)

FERNDALE SCHOOL.

No. XXIII. Birds of the Atlantic Provinces and their Feet.

T. Well, what was to be our lesson to-day?

S. You promised to tell us how many kinds of birds were to be found in Nova Scotia, New Brunswick and Prince Edward Island; so that when we see a bird we may know to what kind it belongs.

ANOTHER S. And so that we may know how many of them we know and how many we don't know.

T. Well, I will try to. I will give you the fifteen orders of birds I referred to the other day—not the big, Latin names, only easy English names; but we will follow the plan of the American Ornithologists' Union strictly.

S. What is the American Ornithologists' Union?

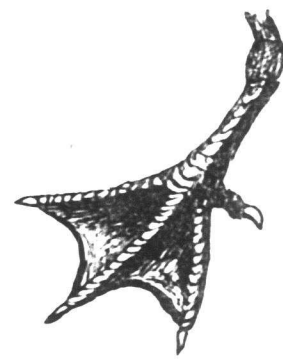
T. It is a society formed of people who know most, study most and write most about our birds; and when these people agree to change the old way of classifying birds, we have good reason to think their way is the best.

S. Does *order* mean a *family* of birds?

T. Not altogether. An *order* includes several families.

Now the first *five* orders of our birds are swimmers. And as the feet are used in swimming, I shall call your attention to the principal different kinds of birds' feet, at the same time.

In the 1st, 2nd, 3rd and 5th orders the *palmate* foot of these two kinds are very common. There is a membrane stretched from toe to toe which is called a *web*, and then the foot looks like the *palm* of the hand. Hence the word.



PALMATE FOOT

It will be noticed that in palmate feet the webs are attached to the toes up to the nails. In the second, not figured here, the web is deeply cleft. In a third kind, not figured here, the web is cleft up to the angle of the toes, leaving flaps or *lobes* of the web attached to the sides of the toes, forming what is called a *lobate* foot. These webs aid the birds in swimming.

Here, then, I write a table of the *orders* on the blackboard, giving the number of species which have at one time or other been found in the Atlantic provinces.

ORDER I.—DIVING SWIMMERS (fourteen species).

It includes three grebes, two loons, three puffins, one guillemot, two murre, two auks and one dovekie.