the main features. As characteristic of these highest animals, Professor Prince stated that two condyles, or projections behind the skull, the possession of hair at some period of life, the existence of the left aortic arch (not the right as in birds) and a perfectly separate lung and body circulation of the blood, were named. The diaphragm, practically absent in birds, forms the floor of the chest and aids in respiration. The brain shows an enormous enlargement of the cerebral lobes proportionate to the increased intelligence exhibited by mammals. All, or nearly all, suckle the young, and the organs of sense (sight, smell, hearing, &c.) are highly developed. Some, like bats, have the hand expanded like a wing, covered with an expansion of thin skin, others, like the sloth, have huge hook-claws, as the animal spends its life hanging, back downwards, from the branches of forest trees, while hoofs, padded feet (like the camel's) and other modifications, point to the varied life of the group amongst which man stands as the highest and most specialised.

The thanks of the Club are due to the President, Professor Prince, for this valuable series of lectures, and we feel confident that should a similar course be given next year, the room will be filled to overflowing on every occasion. No teacher, student, school-boy or school-girl should miss such an opportunity of acquiring much valuable knowledge in so pleasant a manner.

IN THE BERMUDAS.

Written for THE OTTAWA NATURALIST.

Although the Bermudas or Sommers Islands are so far from Canada that the Field-Naturalists' Club is debarred from an excursion thereto, they possess as far as the birds are concerned a certain amount of interest to the more northern parts of the adjacent continent, as a stopping or resting place in the spring and autumn migratory flights. During the summer months the regular amount of bird life is limited, but in the autumn and spring almost every variety of bird met with in Canada has been noticed here. Dr. Hart Merriam made this

a special object of enquiry during his stay here. The most conspicuous regular bird is the Cardinal Grossbeak, and there is a bluebird of about the same size, of the most cærulean blue; the two flitting in and out of the monotonous evergreen juniper which clothes the hillsides add a brilliancy to the foliage, the brighter by contrast. A law of the Islands prohibits the killing of birds, and as a consequence bird life is very abundant. In the vicinity of the towns and settlements the English sparrow has managed to drive off to a great extent the native birds, but in the country their number makes up for the town's loss.

The fauna of the Bermudas as far as mammals and butterflies are concerned, is excessively limited. Two or three species of rats, a rare occurrence of bats, and a very limited number of butterflies constitute all there is. The fauna, excepting the rats, has been pronounced exotic, and inblown by storms.

To the botanist the Islands are a veritable garden of Eden. Most of our hot-house flowers waste their fragrance on the desert air, and the flowering shrubs clothe the hillsides with a beauty which the North cannot conceive. Everywhere may be seen the Oleander in every shade of colour, from white to crimson, while Cacti, Aloes, Bamboo, Night-blooming Cereus, the Passion flower and Honeysuckle find a foothold in the crumbling coral rocks or on the old stone walls which here take the place of Canadian fence rails. Very few of the numerous plants tound here are indigenous, but so kindly do importations take to the soil and climate and escape from cultivation, that it is a hard matter to say what is a wild plant. Fain would I dwell on the beauty of the palms and palmettos, on the foliage of the Tamarind or the grand flowers of the Loquat, but space will not allow of this. Adding greatly to the semi-tropical appearance of the islands is the Banana, generally growing in every garden, and its successive bunches of fruit keep on ripening all through the year.

The climate may be styled that of a perpetual spring, the temperature never exceeding 90, and never nearing the freezing point. The air is heavily charged with moisture, and vegetation

is mainly sustained by the dew, which may be seen at sunrise dropping off the leaves. The porosity of the coral rocks retains like a half dry sponge moisture enough for growth. There is everywhere here a remarkable plant known as the Life plant (Bryophyllum calycinum), a leaf of which pinned up against a wall throws out rootlets and young plants from each indentation of the margin, these are nourished apparently by the air alone, for which reason the plant is sometimes called the Air Plant.

I have compiled a work entitled "In the Bermudas" dealing with all the fauna and flora of the islands, and containing a large amount of interesting history which will give details of use to naturalists. I only wish the O. F. N. C. could get an outing here, but I fear many of them after a day among the flowers here would feel loath to return to a northern clime.

H. B. SMALL.

Hamilton, Bermuda, April 12th, 1898.

THE CRETACEOUS OF ATHABASCA RIVER.

By J. B. TYRRELL, M.A., B.Sc., F.G.S., F.G.S.A.

Published with permission of the Director of the Geological Survey of Canada.

In the spring of 1893 the writer descended the Athabasca river from Athabasca Landing to Athabasca Lake, on his way to unknown portions of the Barren Lands west of Hudson Bay. The descent of this river was only a preliminary part of the work of the season, to be accomplished with as little delay as possible, so that no stoppages were made except such as were necessary for preparing the meals, pitching camp, examining rapids or making portages.

Besides, Mr. McConnell, of the Geological Survey, had carefully examined the river a few years before, and had given an excellent account of the character and thickness of the rocks which compose its banks.

The rocks first met with below Athabasca Landing are all



Small, H. Beaumont. 1898. "In the Bermudas." *The Ottawa naturalist* 12(2), 35–37.

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