

ZOOLOGICAL REPORT—1905-6.

As a result of the year's work the leaders of the Zoological Branch have the following subjects of interest to lay before the members of the Club.

Two meetings were held during the early part of the season, the first at the residence of Mr. Halkett, the second at that of Prof. Prince. At the first meeting, held on 9th May, 1905, besides the chairman there were present Prof. Prince and Messrs. Lemieux, Campbell and Baldwin. Mr. Campbell, of the Collegiate Institute, exhibited specimens of a salamander in various stages of development. Mr. Halkett followed, shewing prepared specimens of the cranium of Menobranchus or the mud-puppy (*Nocturus maculosus*), and illustrated the comparative structure of the cranium of certain fishes by shewing specimens of that of the angler (*Lophius piscatorius*), the pollock (*Pollachius virens*), the catfish (*Ameiurus nebulosus*) and the yellow perch (*Perca flavescens*). Mr. Baldwin spoke of having seen a black snake (*Zamenis constrictor*) killed with a stone, some ten years ago, from the wounded place of which little young snakes made their exit—thus drawing attention to the apparent viviparous nature of that serpent. Mr. Lemieux shewed photographs of certain mammals, such as the black bear (*Ursus americanus*) and the red deer (*Cariacus virginianus*). Prof. Prince concluded the meeting by reading a paper on the function of the swim-bladder of fishes, of which the following is the substance.

None of the various views generally held, the professor pointed out, regarding the function of the swim-bladder of fishes appears to be perfectly satisfactory. According to these views the swim-bladder is supposed to aid in flotation, giving buoyancy to the fish possessing it, or it acts as a barometer informing the fish as to the pressure of the surrounding water, while it is also regarded as a resounding organ, in connection with the production of sounds, or again respiratory functions have been attributed to it. In some fishes it has connection with the ears by specially modified bones (the Weberian apparatus), and may aid in audition. Professor Prince stated that the following difficulties in accepting these views existed, viz. :—The most buoyant fishes, such as