they approached each other near the middle of the worm; then each pulled and jerked but could not loosen each other's hold. Neither had they strength enough in their jaws to sever the worm with their teeth. When about half an inch apart, after much backward jerking and pulling, the smaller one, (A. Jeffersonianum) suddenly rolled over three times in an effort, no doubt, to twist the worm in two. Not succeeding in this it made a second attempt, rolling over only twice this time, but still without success. These turns were always made to the right and very rapidly. (The alligator resorts to the same practice, but its movements are relatively slow). The second attempt having failed the smaller salamander loosened its hold and the larger one took possession of the worm, even the portion which the smaller one had already swallowed. At another time the smaller one was offered one end of a worm, which it took while the writer held the other end firmly. When it had swallowed nearly the entire worm it pulled and jerked, trying very hard to break or tear it in two. Failing to do this it rolled over and over as it had done on the previous occasion, though a greater number of times, and with such rapidity that the turns could not be counted. In this attempt it was successful.

Both captives have continued to grow, the larger one (A. punctatum) having increased from four inches in length, when collected, to five and one-eighth inches at the present time (Jan. 1917), and the other from about three inches to four inches.

## CONCERNING SOME ONTARIO CRAYFISHES.

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The crayfish or 'crab' as it is often wrongly called, is abundant in nearly all our waters, but there is comparatively little known concerning the species occurring in Canada and their distribution. As they are used regularly for teaching purposes in our higher schools and are easily captured and preserved, specimens and data as to distribution could readily be collected by anyone interested.

There are considerable difficulties in the matter of identification, owing to the specific differences being slight and often inconspicuous. Those desirous of studying this group of animals I would refer to the works of Faxon (A Revision of the Astacidae. Mem. Mus. Comp. Zool. Harv., vol. X, No. 4, 1885) and Ortmann (Proceed. Amer. Phil. Soc., vol. XLIV, p. 91, 1905)\* for keys for the determination of the species.

<sup>\*</sup>Also "The Fresh-water Malacostraca of Ontario" in Contr. Canad. Biol., Suppl. 47th Ann. Rep. Dep. Marine and Fisher., Fisheries Branch. 1915.