PROCEEDINGS

OF THE

Boston Society of Natural History.

VOL. IV.

1851 TO 1854.

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1854.

CURATORS.

Samuel Cabot, Jr., M. D.	*Of Ornithology.*
Thomas T. Bouvé,	*Geology.*
Francis Alger,	*Mineralogy.*
Waldo I. Burnett, M. D.	*Entomology.*
Samuel Kneeland, Jr., M. D.	*Comparative Anatomy.*
William Stimpson,	*Conchology.*
Horatio R. Storer,	*Herpetology.*
Thomas M. Brewer, M. D.	*Oölogy.*
Silas Durkee, M. D.	*Ichthyology.*
Charles J. Sprague,	*Botany.*
William O. Ayres,	*Crustacea and Radiata.*

Mr. Bouvé exhibited the eggs of a Skate (*Raia ocellata*) containing the young fish with the yolk sac attached to it.

Dr. Gould presented a small collection of East India plants.

Dr. J. M. Warren presented a specimen of Horned Frog (*Phrynosoma cornuta*) from California, and a specimen of Holacanthus, from Newport, R. I.

Mr. Hermann J. Warner was elected a Resident member of the Society.

May 19, 1852.

The President in the Chair.

The Secretary read in behalf of Dr. Burnett, a paper on the *Anolius Carolinensis* or Chameleon of the Southern States. It contained notices of the habits of this animal, with an account of a microscopic examination of the skin and the structure on which its change of color depends.

Mr. H. R. Storer read a Medico-botanical paper on the Anonaceæ.

Mr. Stimpson presented a description of a new crustacean belonging to the genus *Axius*, of Leach, which genus had not been before noticed as occurring on our coast. For a perfect specimen he was indebted to Mr. S. Tufts, of Lynn, by whom it was taken in twenty fathoms, off Scituate. Fragments of the carapace, and the claws and legs, have frequently been found by Mr. Stimpson in deep water, but that of Mr. Tufts is the only perfect specimen yet discovered. It more nearly resembles the lobster (*Homarus Americanus*) than any of our known crustaceans, from which, however, it is at once distinguished by its compressed form and the non-articulation of the exterior caudal plates.

Axius serratus St. Carapax smooth, with few scattered hairs, much compressed, especially above posteriorly, where it is almost acute; transverse suture deep; rostrum small, rather elongated, with the medial carina sharp, and the lateral ones serrated, with about seven teeth on each; the carinæ are continued, simple, less prominent, and diverging, for a little distance on the carapax. Interior antennæ nearly as long as the carapax. Exterior ones with very long peduncles; basal joint compressed, concave, and slightly tortuous above, with a strong spine, its movable scale very slender. External maxillipedes very long and slender, with a small spine below near the end of the third joint. Feet much compressed, and hairy on their edges; anterior pair with minute spines along the lower edges of the second and third joints; hand with very long hairs, carinate above; thumb strongly dentate on its inner margin; finger with shallow grooves, serrate within in the left hand, but not in the larger right hand. The didactyle extremities of the second pair of feet are very compressed, short, broad, and ovate. The monodactyle extremities of the remaining pairs of feet are thickly clothed with short hairs. Abdomen one and two-thirds times the length of the carapax, rather broad, with the segments terminating bluntly below; caudal segment with a single minute spine on each side of the medial furrow; lateral caudal plates each with a small spine at its insertion with the abdomen, the interior ones sculptured with one, the exterior ones with two,

longitudinal ridges. It inhabits the laminarian and coralline zones in Massachusetts Bay. The serration of the rostrum may be mentioned among other characters which distinguish it from *A. stirhynchus*.

Mr. Stimpson also made some observations on the remarkable worm *Chætopterus pergamentaceus* Cuv. which he had found in North Carolina, it having been previously known to occur only in the Antilles.

June 2, 1852.

The President in the Chair.

Dr. Burnett said, that he had recently had an opportunity, while in the Southern States, of examining the structure on which the extreme brittleness of the tail of the Glass Snake, *Ophisaurus ventralis*, depends.

It is a well-known fact that a very slight blow causes this reptile to break in small pieces. This seems to be the result of a reflex action from the spinal cord; for after the tail is detached if the spinal marrow in this portion be irritated, it breaks into several pieces. On careful dissection, with the aid of the microscope, Dr. Burnett had found that the muscles rising from the vertebræ do not pass from one to another, but part of the fibres are inserted into the skin, while others running parallel with the length of the animal, terminate midway between one vertebra and the next, being dovetailed, as it were, between the fibres sent to meet them from that vertebra, and attached to them only by myolemma. When the division of the animal takes place, therefore, there is no rupture of muscular fibre, but a separation of one layer of muscles from the adjoining one. The detached portion is said to be reproduced in a year. Dr. Burnett had noticed the same phenomena in the Blue Tailed Lizard, *Scincus fasciatus*, of the Southern States, depending on the same cause. In all Lizards, during the breeding season, the tail is very liable