

The fossils of the Castle Hayne formation have, as yet, received little attention apart from the slight investigations made by several persons to show the commingling of Cretaceous and Eocene forms in the basal beds at Wilmington and Castle Hayne. It is now generally believed that the Cretaceous fossils have been derived from the underlying Peedee beds, though, in some cases, they show no evidence of having been water-worn. The *Mollusca* constitute a considerable portion of the Castle Hayne, though of much less importance relatively than in the succeeding formations of the Miocene. The *Bryozoa* are represented by quantities of specimens and numerous species in almost every stratum of the formation, while the *Echinodermata* are abundant. Perfectly preserved tests of *Echinoids* are common in the limestones at both Wilmington and Castle Hayne, while loose spines are found associated with the Bryozoan remains. The great quantity of specimens of the *Brachiopod*, *Terebratula wilmingttonensis*, is another interesting feature of the fauna of this formation. This species is peculiar in that the different specimens show such a wide range of variation.

The following fossils have been obtained from the city rock quarry at Wilmington. Dr. T. Wayland Vaughan has determined the corals, recognizing the following forms:

ANTHOZOA:

- Flabellum* sp.
- Madracis* sp.
- Endopachys maclurei* (Lea).
- Balanophyllia* sp.

Dr. M. W. Twitchell has determined the Echinoids. He recognizes—

ECHINOIDEA:

- Cassidulus (Pygorhynchus) lyelli* Conrad.
- Cassidulus (Rhynchopygus)* n. sp.
- Echinolampas appendiculatus* Emmons.
- Hemipatagus* sp.
- Scutella lyelli* Conrad.
- Clypeaster* (?) sp. (may be young *Scutella*).

Miss Julia A. Gardner has determined the following bryozoans, brachiopods, and mollusks:

BRYOZOA:

- Lunulites distans* Lonsdale.

BRACHIOPODA:

- Rhynchonella salpinx* Dall.
- Terebratulina lachryma* Morton.
- Terebratula wilmingttonensis* Lyell and Sowerby.

GASTROPODA:

- Bulla* (?) sp.
- Calyptraea* (?) *trochiformis* Lamarck.
- Cassis* (?) sp.
- Cerithiopsis* sp.
- Conus gyratus* Conrad.
- Conus* sp.