

It is so seldom found preserved, that in thirty years' collecting, during which time I collected at one locality more than 6,000 specimens, I found only two specimens having this cone-shaped body preserved." In his "Revision of the Blastoidea," (1903, p. 14), Hambach also calls attention to a structure "on the posterior side above the anal opening, on very well preserved specimens, a small proboscis about one-fourth of an inch in length, constructed of small hexagonal pieces, as shown in Figs. 6 and 7. To my knowledge it is the first time that such a body has been observed on a Blastoid. I found this appendix on *Pentremiles conoideus*, and have now four specimens of it showing this, so far unknown, organ." When, however, Hambach finds the ambulacral area more or less roofed over with small cover-plates, he believes them to be "fragments of broken-up pinnulae," or "small ovulum-like bodies," . . . "due to the oolitic character of the rock in which they are imbedded." In the latter case a true structure, rarely found, is apt to be cleaned away, because of a belief that it does not belong to the specimen. It is well here to emphasize the need of most careful scrutiny before any attempt to modify an exposed surface.

Of Blastoidocrinus it seems that the nearly perfect Valcour Island specimen is the only one ever found still retaining its large "apical plate," its prominent series of "wing plates," (which form above the cover plates and completely hide the latter from view), and its brachioles; yet *B. carchariaedens* is one of the common fossils of the Chazy limestone. Additional examples might be given, but the above are sufficient to show that species may be abundant and the mass of collected material very great indeed, and yet valuable evidence be lacking as to morphology, function and relationship.

From certain resemblances between Blastoidocrinus and some genera of the Edrioasteroidea, and from an examination of the only mechanism apparently used by the latter for the function of food-capture, I am forced to conclude that certain genera now grouped by Bather in this order possessed brachioles, and that purposive search for these structures in additional material, and it may be very fragmental, will sooner or later reveal them. My belief is based on the following facts.

The Edrioasteroidea are closely allied to the Cystidea, and by many made an order of that class, as in the last edition of Zittel's Text-book of Paleontology (Eastman). Bather follows Billings in recognizing the marked characteristics of this group, but places it no higher than a class of the subphylum Pelmatozoa, making it equal in rank to Cystidea, Blastoidea and Crinoidea. All these classes were feeders on minute or microscopic plant and animal forms of the plankton, or on equally small but per-