

in which the young are developed directly from the egg without undergoing any metamorphosis, until they have attained a diameter of about 2.5 mm.; they are then entirely covered with plates, and are provided with spines exceeding in length the diameter of the test. Even before they have attained this size and development, the more mature or more active of a brood may be seen straying away beyond the limits of the "nursery," and creeping, with the aid of their first few pairs of tentacular feet, out upon the long spines of their mother. I have frequently watched them return again after a short ramble into the marsupium.

I am not aware that a free pseudembryo, or "pluteus," has been observed in any species of the restricted family Cidaridæ; but I feel very certain that *Cidaris papillata* in the northern hemisphere, except possibly in the extreme north, has no marsupial arrangement such as we find in the Kerguelen *Cidaris*. There have passed through my hands during the last few years hundreds of specimens of the normal northern form, of the Mediterranean varieties *C. hystrix* and *C. affinis* (*Stokesi*), and of the American *C. abyssicola*, from wide-spread localities and of all ages; and I have never found the young except singly, and never in any way specially associated with breeding individuals.

In Stanley Harbor we dredged many specimens of an irregular urchin, much resembling in general appearance *Brisopsis lyrifera*, the common "fiddle urchin" of the boreal province of the British Seas, and probably to be referred to *Hemiaster Philippii*, GRAY.

These urchins were not breeding when we were at the Falklands; but on the 9th of January, 1874, we dredged from the pinnace in shallow water, varying from 20 to 50 fathoms, with a muddy bottom, in Accessible Bay, Kerguelen Island, innumerable samples of apparently the same species.

The test of a full-sized example (Fig. 43) is about 45 mm. in