

small number; and the minute pedicellariæ of the peristome are much fewer. The ovaries, which in *Cidaris papillata* have the walls loaded with large expanded calcareous plates, contain only a few small branched spicules; and the calcareous bodies in the wall of the intestine are small and distant. The perforations in the ovarian plates in the female are somewhat larger than in *Cidaris papillata*; and the ripe ova in the ovary appear to be considerably larger.

“The eggs, after escaping from the ovary, are passed along on the surface of the test towards the mouth; and the smaller slightly spatulate primary spines which are articulated to about the first three rows of tubercles round the peristome, are bent inwards over

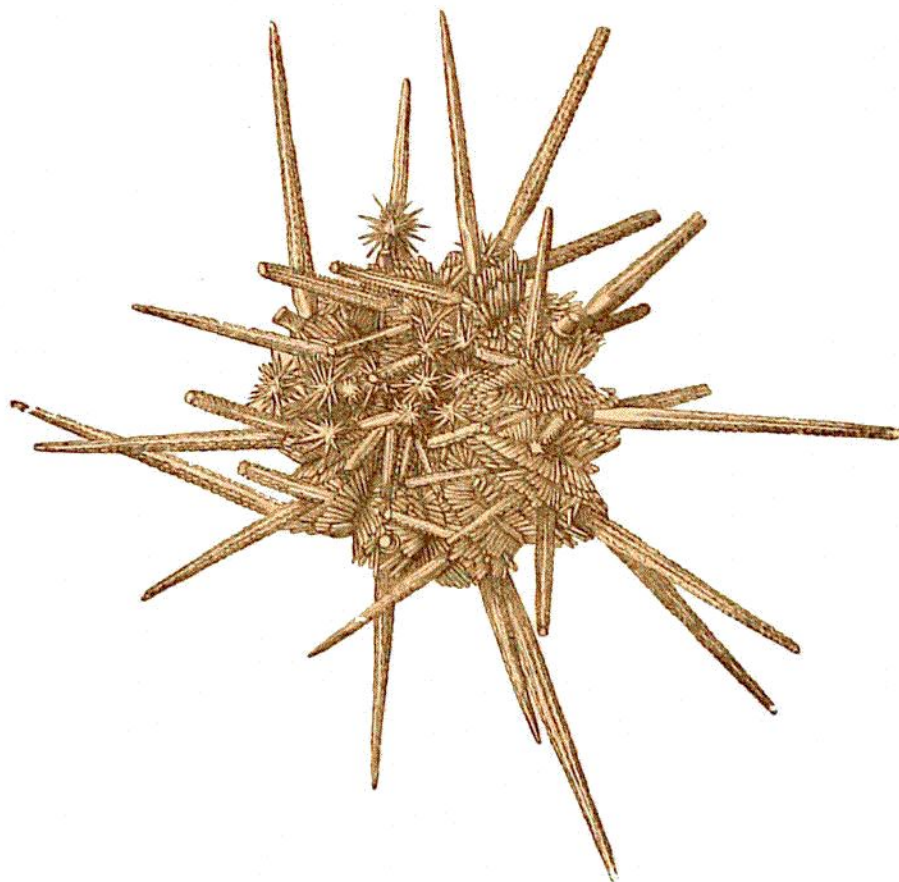


FIG. 142.—*Goniocidaris canaliculata* (*Cidaris nutrix*, Wyv. Thoms.). Balfour Bay, Kerguelen Island. Natural size.

the mouth, so as to form a kind of open tent, 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*