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CORYPHELLA PARVA N. SP., A NEW NUDIBRANCHIATE MOLLUSC FROM THE ØRESUND

With Plate XII

By MICHAEL G. HADFIELD
Department of Biology, Stanford University, Stanford, California, U. S. A.

While dredging in the Knähaken region of the Øresund in January of 1962 two specimens of an unknown nudibranch were obtained. After preliminary observations indicated the uniqueness of the specimens, further dredgings were made in the same area and six more specimens of the same species obtained.

These animals were taken with a detritus dredge on a bottom of fine sand at a depth of from 20 to 24 meters. The only other animals obtained in these hauls were small bottom stages of some common bivalves and some small actinians. Though it was not determined on what these animals were feeding it may be the actinians noted.

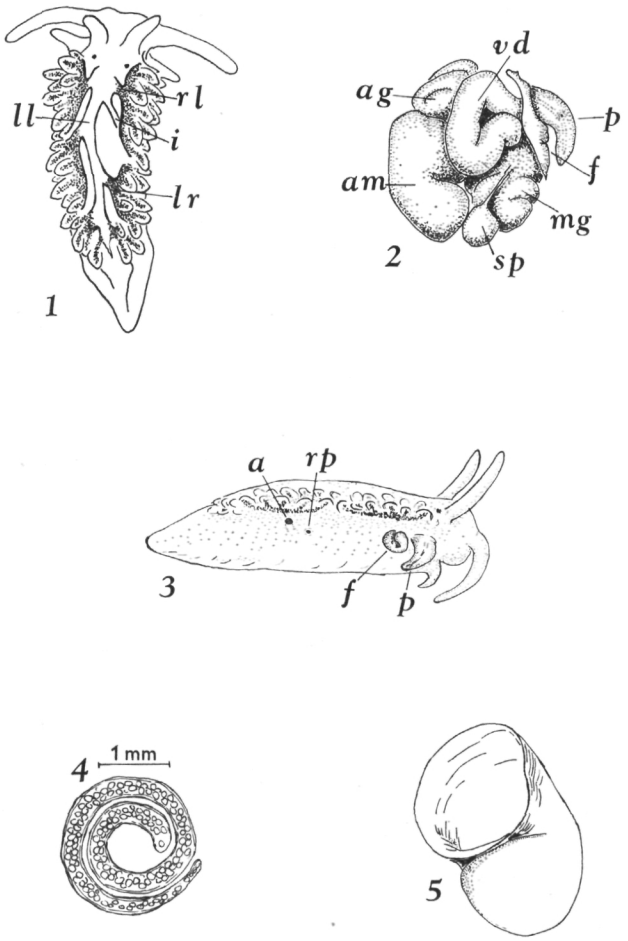
The first two of these animals which were collected laid eggs in the laboratory.

This species was determined to belong to the aeolidiform genus *Coryphella* (following ODHNER, 1939). The anus is lateral, outside and beneath the liver branches; the papillae are numerous; the nephroproct is abanal; the radula is triseriate. These animals are here described as *Coryphella parva* n.sp.

Type: In the Zoological Museum in Copenhagen.

Locality: Knähaken in the eastern central part of the Øresund (56°0′30″ N, 12°41′30″ E). Depth 20 to 24 meters, sandy bottom. January 30, 1962.

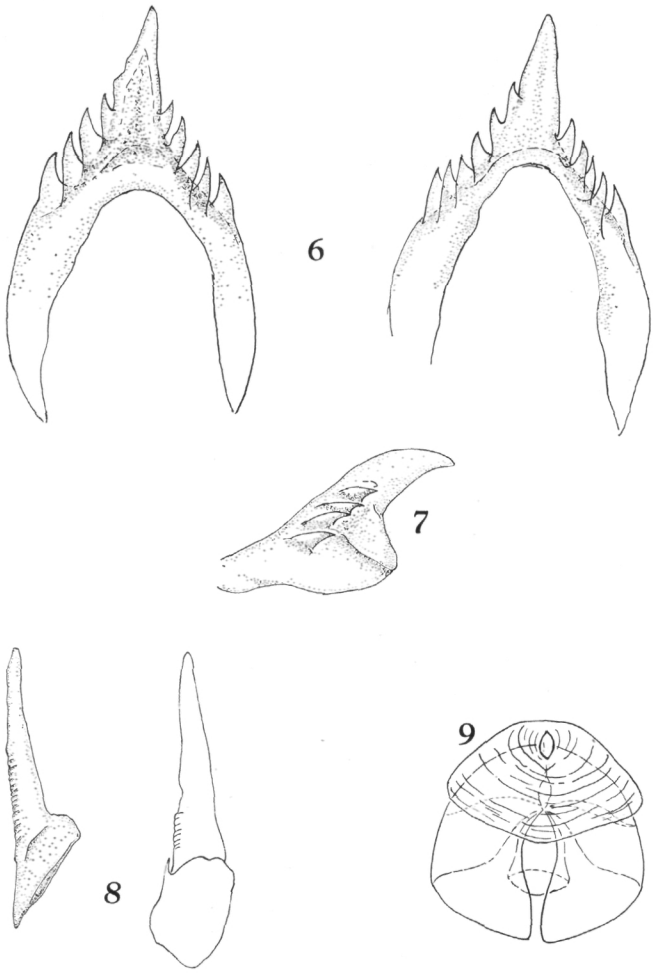
Description: (Plate XII, figs A and B). The total length of the living animal is 2.5 to 3.5 mm. The oral tentacles are elongate, being nearly one-third of the body length. In life they are held out at right angles to the long axis of the body or bent slightly backwards. The rhinophores, which are



Figs. 1–5. 1. *Coryphella parva* n. sp., scheme of liver organization. 2. Genital organs. 3. Diagram of right side of animal indicating placement of anus, renal pore, and male and female apertures. 4. Egg mass. 5. Larval shell.

Lettering of figures:
a. anus; ag. albumen gland; am. ampulla; f. female pore; i. intestine; ll. left liver trunk; lr. main right branch of left liver; mg. mucus gland; p. penis; rl. right liver; rp. renal pore; sp. spermatheca; vd. vas deferens.

held erect, are two-thirds to three-fourths of the length of the oral tentacles. Both the tentacles and rhinophores are smooth (in preserved specimens the tentacles and rhinophores are extremely shortened, and due to contraction, the rhinophores may appear somewhat rugulated). The cerata, 35 to 50 in number, are short and broad. The most lateral cerata are fused together at their bases to form a ridge on each dorsal lateral edge of the body. These ridges have a gently serrate appearance.



Figs. 6–9. 6. Median radular teeth (camera-lucida drawings). 7. Median radular tooth (camera-lucida drawing). 8. Lateral radular teeth (camera-lucida drawing). 9. Diagram of jaws and buccal disc.

The two lateral ridges meet posteriorly, about one-fourth of the length of the body from the tip of the tail, to form a rather high keel which extends out onto the tail. The free cerata are continuously placed and do not appear, externally, to be in clusters or bunches. However, the liver ramifications, which can be seen through the body wall, indicate the grouping of the cerata. The cerata are broad and wide at the bases. Thus in life they have the appearance of small conical leaflets.

The body is stout, the head broad, the sides high. The foot tapers to a

rounded tail posteriorly (in a well streched out specimen). The anterior angles of the foot are elongated and generally held out laterally when the animal is moving.

The ground color of the body is a pellucid pink fading to white toward the under sides. The mid-dorsal region is decidedly rosaceous. The foot is white, the lips are a deep rose color and the entire body and the cerata are splashed with refractile white spots. There are collections of these spots on the tips of the rhinophores and the oral tentacles. A denser streak of the white spots occurs down the tail ridge on some specimens. The liver diverticula are yellowish-brwon and give this color to the cores of the cerata and the region around their bases. The liver is divided into a right branch anterior to, and a left branch posterior to the intestine. The left liver trunk gives off two major left branches, the second large right branch, and numerous smaller branches to the most posterior cerata on both sides (see fig. 1).

The genital apertures (fig. 3) lie on the right side of the body, immediately behind the head. The female aperture with its rather inflated lips lies next to the male aperture posteriorly. The anus is located high on the right side of the body, a little more posterior than half the length of the body and beneath the second group of papillae (demarcated by the large right branch of the left liver trunk). The nephroproct (which is extremely minute) lies between the anus and the genital apertures but closer to the anus and slightly ventral to it.

Buccal apparatus: (fig. 6–9). The jaws are thin, flexible, yellow in color and connected completely around the mouth. The oral plate extends out through the mouth to form a labial disc which is finely wrinkled, but without spines or other ornamentation. The jaws have no sharp cutting edges and no denticles or serration. The radula presents a series of 13 to 15 teeth. It is triseriate. The middle tooth has a large central cusp with three to six denticles on either side. Some of the central teeth are irregular and have four denticles on one side and six on the other or three on one side and five on the other. The lateral teeth are elongate, flattened and pointed. They have a series of fine denticles on their medial edges toward the central portion of the tooth (see fig. 8).

Genital tract: (fig. 2). The genital tract is similar to that figured by ODHNER (1939) for *Coryphella pedata* Montagu, except that the ampulla is considerably larger in this species. All accessory glands and a spermatheca are present. The vas deferens forms a large thickened loop which lies on the dorsal surface of the genital mass. The penis is short, tapered and without spines or other armour. In life it curves posteriorly when extended. The female opening is surrounded by inflated labia.

This species differs from other forms of this northern genus in its small size, the configuration of its cerata, the total lack of denticulated cutting edges on the jaws, the configuration of the radular teeth, and its elongate smooth rhinophores and oral tentacles.

The egg mass is in the form of a coil measuring about 2.4 mm in diameter (fig. 4). The diameter of the ribbon is about 400 micra. The eggs are thickly and irregularly placed in the egg mass and their arrangement in a continuous thread could not be seen. The egg mass contains about 135 eggs each of which is contained in an individual capsule measuring about 100 micra in diameter. The egg mass is a pale rose color.

The eggs hatched in the laboratory. An egg mass which was deposited on February 3 began hatching on the morning of Feb. 15 (temp. ca. 11° C). The veligers were normal appearing nudibranch larvae with shells of the coiled type (fig. 5). They can be distinguished from other nudibranch veligers of the sound as the shell aperature is not attached to the coil, but instead extends out in a trumpet-like opening. The larvae possess the usual gut components, a pair of statocysts, large retractor muscle and operculum. These larvae proved to be particularly long lived, and though in no case did metamorphosis occur in the laboratory, some of the larvae were still alive and able to swim on March 9.

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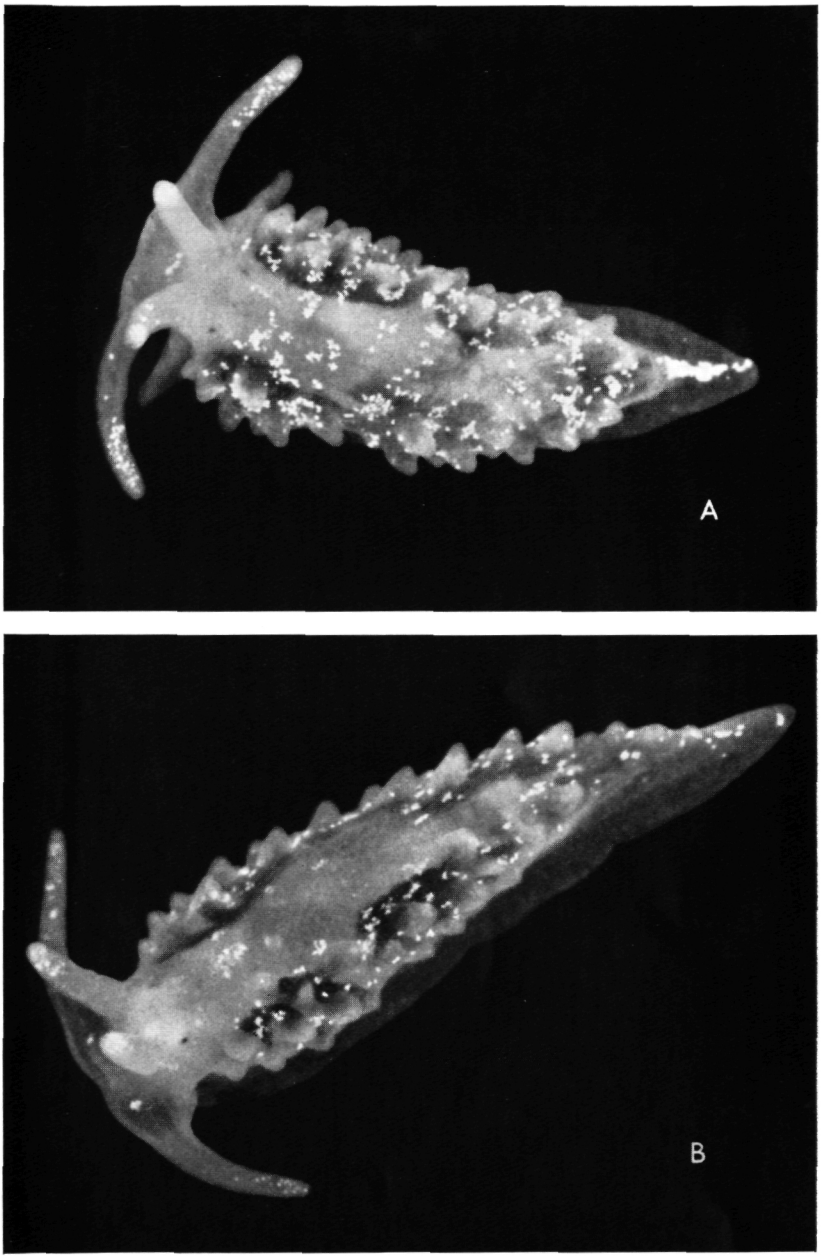

A. *Coryphella parva* n. sp. Photograph of living animal seen from the dorsal side.
B. *Coryphella parva* n. sp. Photograph of living animal seen from the dorso-lateral position. Configuration of lateral ridges notable here.