
**A FIRST OBSERVATION OF THE NUDIBRANCH
FELIMARE ORSINII IN THE MEDITERRANEAN OFF ISRAEL
(MOLLUSCA, GASTROPODA, CHROMODORIDIDAE)**

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Abstract: The blue Chromodorid nudibranch *Felimare orsinii* is here recorded for the first time from a locality in the Eastern Mediterranean off Israel. It was photographed by a remote controlled submersible at a depth of 97-100 meter.

Key words: Mollusca, Gastropoda, Nudibranchia, Chromodorididae, *Felimare orsinii*, distribution, Eastern Mediterranean, Israel.

During the last decennia the study of Nudibranchs has received an unexpected boost through the wide interest in scuba diving and the development of affordable waterproof cameras. Photographs of numerous species never before recorded from the Mediterranean coast of Israel suddenly appeared on websites or were submitted for identification. In this way quite a number of species was added to the list of molluscs found along the Mediterranean coast of Israel (see for example Pasternak *et al.*, 2011; Mienis *et al.*, 2014; Halevy *et al.*, 2015; Rothman & Galil, 2015; Rothman *et al.*, submitted).

Usually these new nudibranchs were seen, photographed and occasionally collected at depths varying between 0-25 m. However what about Nudibranchs which are living in deeper water not accessible to scuba-divers? Quite recently remote controlled submersibles are being employed in order to reveal what is living in the deeps off the Mediterranean coast of Israel and of Elat in the northern part of the Gulf of Aqaba.

Scientists and their students led by Prof. Micha Ilan are carrying out surveys off the coast of Israel with a remotely operated underwater vehicle: a ROV: Eca-Robotics H800, equipped with SubC-Imaging ICAM 1080p HD camera and Wide-angle B/W camera, which is jointly owned by Mediterranean Explorer and Eco-Ocean and operated by a crew consisting of Oded Ezra (ROV supervisor) and Itay Katzman.

On 23 March 2016 they were surveying and photographing the bottom fauna of the Levant Sea at a depth of approximately 100 m off Herzliyya. Among the photographs was one of a blue Chromodorid sea slug. Although the photograph was rather blurred it supplied enough details in order to identify the slug as belonging to *Felimare orsinii*, a species never before recorded from the Mediterranean Sea off Israel.

Family Chromodorididae

Genus *Felimare* Marcus & Marcus, 1967

Felimare orsinii (Vérany, 1846)

Observation: Location: 32°10.43 N., 34°37.59 E., i.e. off Herzliyya, at a depth of 97-100 m, based on a photograph taken by a remote controlled unmanned submersible on 23 March 2016.

The animal may be described as follows: The body is blue with a yellow band at the margin. The rhinophores and the gills are of a darker blue colour than the body. A white line runs along the centre of the dorsum from the rhinophores to the gill pocket which it encircles and finishes shortly behind the gills again as a white line. Just before the rhinophores a short white crossbar is connected to the central dorsal line. The outer rim of the foot is bordered by a white line.

Additional remarks

The white crossbar in front of the rhinophores is not a character which can be used for the identification of *Felimare orsinii*, because it is often lacking. See for example the numerous photographs shown on the website of Biologiamarina.org under the name "doride-di-orsini".

This Chromodorid slug may reach a maximum size of about 20 mm and is usually found in dark places where it feeds on a variety of sponges. Specimens seen from the side show that the surface of the slugs is not smooth but shows protruding mantle deformations. They are caused by the fact that these slugs are defending themselves against predators by storing secondary metabolites in those mantle dermal formations. They receive these chemical compounds from their food especially sponges belonging to the genus *Cacospongia* (Ortea *et al.*, 1996).

Felimare orsinii is usually considered a Western Mediterranean species (Ortea *et al.*, 1996), however recently it has been recorded from various regions along the coast of Turkey (Öztürk *et al.*, 2014). This first sighting of *Felimare orsinii* off Herzliyya confirms the presence of this beautiful blue species in the Eastern Mediterranean.

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