

Range Extension and Notes on the Feeding of the Nudibranch *Okenia cupella*

BY

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THE DORID NUDIBRANCH *Okenia cupella* (Vogel & Schultz, 1970) was first described from specimens collected in the York River, Virginia (VOGEL & SCHULTZ, 1970). Other specimens were later found in the Chesapeake Bay (MARCUS, 1972) and Wachapreague Channel, Virginia (VOGEL, 1977). Distribution outside the Chesapeake Bay area has not previously been reported. Two specimens were found in Delaware Bay (approximately 200 km N of the mouth of Chesapeake Bay) by Daniel Deckard and myself in July 1978. These and additional specimens were found associated with and feeding on the ctenostome bryozoan *Anguinella palmata* van Beneden, 1845, which is common on subtidal portions of pilings on the Henlopen Tidal Flats, Cape Henlopen State Park, Lewes, Delaware. The nudibranchs were found in this area until the end of November, and only on *A. palmata*. The total length of adult specimens preserved in 70% ethanol, measured from mouth to the most posterior tip, ranged from 1.2 to 2.4 mm, with a mean of 1.66 mm. They appeared most common during the months of September and October when 8 to 10 individuals at a time could be found on a large zoarium.

In a preliminary laboratory prey-preference test, in 6 separate trials, 2 individuals of *Okenia cupella* consistently identified and chose *Anguinella palmata* over 3 other species common in the area: *Bugula stolonifera* Ryland, 1960, *Schizoporella unicornis* (Johnston, 1847), and *Alcyonidium polyomm* (Hassall, 1841). In this test, the

nudibranchs were placed in the center of a large glass evaporating dish (20 cm inner diameter) with zoaria of each of the 4 bryozoan species distributed at equal distances from each other along the periphery of the bowl. The dish was then placed in the dark for 45 minutes. At the end of this time the nudibranchs' positions were noted with respect to that of the prey.

To feed on the arborescent *Anguinella palmata*, an individual of *Okenia cupella* first crawls out onto a bryozoan's terminal branch, where the feeding zooids are located. The nudibranch aligns itself lengthwise along the branch, with its head near, but not on, the tip. It grasps the branch with propodium and oral lobes and begins to feed. It eats through the zooid's lateral wall, the polypide, and the opposite wall as well, consuming the terminal 1.0 to 1.5 mm of the zooid in about one hour at 22° C. The nudibranch then spends a period of time in mating, in egg laying, or in inaction before moving to another branch to repeat the feeding process.

Literature Cited

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