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## The Occurrence of *Bulbella abscondita* (Bryozoa, Ctenostomata) in Brackish Waters of Northern Italy

*key words:* ctenostomatous bryozoans, brackish waters, Northern Italy

### Abstract

The victorellid bryozoans, *Tanganella muelleri* and *Bulbella abscondita*, have been found in the delta of the River Po, Northern Italy. Our finds seem to be the first recorded of *B. abscondita* in waters in Italy.

### 1. Introduction

*Bulbella abscondita* BRAEM is a ctenostomatous bryozoan. Contrary to the assumption of several earlier authors (e. g. BRAEM, 1911; SOULE, 1957; SACCHI & CARRADA, 1962; CARRADA & SACCHI, 1964), the Victorellidae contain more than one species. Even though BRATTSTRÖM (1954) had—erroneously—doubts, BRAEM (1951) was correct in distinguishing three different species among those forms which were previously believed to be variations or modifications of only one species: the redescribed true *Victorella pavid* KENT and *Tanganella muelleri* (KRAEPELIN), and described *Bulbella abscondita* as a new species. BRAEM was able to distinguish the different species only after long-term studies of living animals. The characteristics for distinguishing the different victorellid species defined by BRAEM (1951) have since been confirmed by observations of living specimens collected anew from other habitats (JEBRAM, 1969, 1976) and by studies of colonies cultured in the laboratory (JEBRAM, unpublished results).

Species of the Victorellidae are common in many brackish water habitats throughout the world. Recently (RELINI *et al.*, in press), a victorellid species has been reported among other benthic organisms from the delta of the River Po, Northern Italy, under the name "*Victorella pavid*": the preserved specimens were examined by one of us (E. PISANO).

### 2. Material and Collecting Site

The specimens discussed here were collected by E. PISANO at the edge of the middle part of the "Sacca del Canarin" in the delta of the River Po, Northern Italy. The colonies were found on *Phragmites communis* and *Balanus improvisus* in July and August of 1977. During the year, the salinity varied from almost 0 to almost 10‰ Cl, and the water temperature varied from 5 to about 24 °C in the collecting area. The preserved specimens were re-examined by D. JEBRAM.

### 3. Identified Bryozoans

At first glance, three bryozoan species seem to be abundant in this area: the cheilostome, *Conopeum seurati* (CANU), the stolonate ctenostome, *Bowerbankia gracilis* LEIDY, and the victorellid, *Tanganella muelleri* (KRAEPELIN, *sensu* BRAEM, 1951). We found no evidence to determine beyond doubt, whether the true *Victorella pavida* KENT (*sensu* BRAEM, 1951) lives in the delta of the River Po. This question cannot be answered by examining only preserved specimens; one requires alive animals for this purpose.

The identification of *Conopeum seurati* and *Bowerbankia gracilis* presents no problem at present.

The characteristics used for identifying the victorellids are described by BRAEM (1951): (1) the cardiac sphincter is situated near the central stomach in *Tanganella*, while they are separated by a considerable distance in *Victorella*; (2) the intertentacular organ is simply a porus in *Tanganella*, but in *Victorella* it is a trumpet-shaped tube; (3) the developing embryos are brooded internally in epidermis pockets along the median line on the anal side of the *Tanganella* polypide's neck, while there is no brooding of embryos by *Victorella*.

Looking more close at the samples from the Po Delta, we found an additional victorellid, *Bulbella abscondita* BRAEM, at various places in the "Sacca del Canarin". This species forms shorter peristomial tubes than the two other victorellids mentioned above. The zooids of *Bulbella* are considerably more stout, and older individuals have comparatively stronger brownish coloured cystid walls. *Bulbella* sometimes forms typical flasklike zooids (see especially Fig. 79, but also Fig. 80 to 82 and Fig. 90 by BRAEM, 1951), which are not known in other victorellids. The cardiac sphincter of *Bulbella* is only slightly developed and situated some distance above the central stomach. Sexually mature zooids of *B. abscondita* have a tiny intertentacular tube and brood their embryos externally in the anal neck region.

At first, only free, non-encrusting branches were found. More intensive investigations revealed that the encrusting growth form of *Bulbella abscondita* also occurred in our material from the Po Delta. The encrusting zooids grew crowded between zooids of *Bowerbankia* or *Tanganella* or among other sedentary organisms.

### 4. Discussion

The victorellid *Bulbella abscondita*, usually lives hidden among various encrusting animals and algae (BRAEM, 1951; JEBRAM, 1969). These earlier observations lead to the assumption, that *B. abscondita* would often be overlooked. Thus, this bryozoan may, perhaps, be much more abundant in the Po Delta and perhaps also in the surrounding area, than is known to us at present. It is worth considering, that *B. abscondita* is capable to penetrate in brackish waters through lower salinities into almost fresh waters (KOTHÉ, 1961, 1962; JEBRAM, 1973).

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