

BENTHIC FAUNA OF THE EVVOIA COAST AND EVVOIA GULF.

I. Barnacles (CRUSTACEA)

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Summary : The Zoology Laboratory of the University of Thessaloniki has undertaken an investigation relating to the benthic fauna of the Evvoia coast and Evvoia gulf since 1970. The present paper is concerned with the description of the following 4 species of Barnacles which have been found in this area : *Balanus eburneus*, *Chthamalus stellatus*, *Chthamalus depressus*, and *Balanus perforatus*. The first three of the above are new among the marine fauna of our country. The existence of *Balanus perforatus* has originally been noted by ATHANASSOPOULOS (1917) in the Saronic.

The present paper concerns with a report upon the Barnacles of the Evvoia coast and Evvoia gulf, resulting from research in connection with the benthic fauna that had initiated in 1970 and has been continued till this day by the Zoology Laboratory of the University of Thessaloniki.

Barnacles are among the commonest fouling organisms and probably are of a great economic importance. They settle on ships and boats, grow very quickly, disrupt the paint film and cause corrosion, and it is very difficult to remove them.

The fauna in Barnacles is not well known in our country. ATHANASSOPOULOS (1917) has come across *Balanus perforatus* in the Saronic. KOLOSVARY (1951) mentions that *Acasta spongites* and *Balanus amphitrite communis* are found in the Greek seas. As far as we know no research has been carried out connected with Barnacles in the Evvoia coast and Evvoia gulf.

Of the 82 stations only in the 23 were found specimen of Barnacles,

mainly of the supralittoral and mediolittoral zones. The Barnacles were found attached to the sides of piers, boats and bricks, and were difficult to detach by hand. Samples thus obtained were placed into collecting vials containing alcohol 80%.

We have been able to establish the existence of four species, three of which — *Chthamalus stellatus*, *Chthamalus depressus*, and *Balanus eburneus* — are new to the Greek marine fauna.

Station numbers appear on the attached map (Fig. 5).

Balanus eburneus GOULD (Fig. 1)

Balanus eburneus KOLOSVARY 1951, Ann. hist. nat. Mus. hung N. S. 1: 216 (Constantinople). KOLOSVARY 1951, Acta Biol., Bp. 2: 411 (Mediterranean, Bosphorus, Black sea). RIEDL 1963, Fauna und Flora der Adria: 258, Taf. 84 (Adriatic). SOUTH WARD and CRISP 1963, Catalogue of main marine fouling organisms vol. 1, Barnacles: 34, fig. 8a, b (Mediterranean, Black Sea).



Fig. 1. *Balanus eburneus* × 1.5

Shell steeply conical slightly elevated in the area of the carina, with a subtriangulate aperture and a regular base perimeter. Shell plates usually smooth and cream coloured. Basis calcareous and porous. Tergum blunt. Scuta with fine striations radiating out from the angle between the tergal edge and the midline. Maximum breadth 22 mm. Maximum height 15mm. Found on the beam of an abandoned boat (station number V. 69) in large numbers together with *Balanus perforatus*.

This is a new species among the marine fauna of our country. It is mentioned to occur in Constantinople by KOLOSVARY (1951) and in the Adriatic sea by RIEDL (1963).

Balanus perforatus BRUGUIERE (Fig. 2)

Balanus perforatus ATHANASSOPOULOS 1917, Bull. Stat. Hydro biol. Marine Grèce No. 1: 33 (Saronicos?). KOLOSARY 1951, Acta Biol. Bp. 2: 411 (Mediterranean). RIEDL 1963, Fauna und Flora der Adria: 258, Taf. 84 (Adriatic). SOUTHWARD and CRISP 1963, Catalogue of main marine fouling organisms vol. 1, Barnacles: 29, fig 13a, b. (Mediterranean).



Fig. 2. *Balanus perforatus* × 2

Strong and thick shell of a steeply conical form with a very small aperture and an almost regular base perimeter. Colour variable. The surface of the shell may be smooth when young, but becomes ribbed in adults. Basis calcareous and porous. Tergum beaked with a dark purple tip. Maximum breadth 25 mm. Maximum height 23 mm. The breadth of isolated individuals, in contrast with the colonial types (Fig. 2a), is greater than their height.

Samples of both colonial and isolated specimen were collected in large numbers attached to piers, boats and buoys, in the mediolittoral zone (Station numbers E. 32, 40, 48, F. 62, V. 69 and A. 70).

It is a well known and quite common species in our country, initially established by ATHANASSOPOULOS (1917) to occur in the Saronic. KOLOSARY (1951) also mentions its existence in Algeria, Naples, Izmir, Venice, Sicily and RIEDL (1963) in the Adriatic sea.

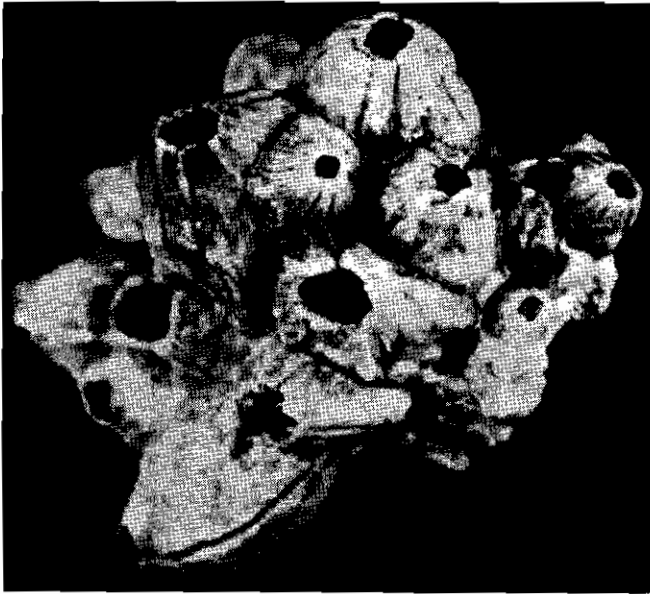


Fig. 2a. Balanus perforatus. Colonial type

***Chthamalus stellatus* (POLI) (Fig. 3)**

Chthamalus stellatus stellatus forma typica KOLOSVARY 1951, Acta Biol., Bp. 2 : 412 (Mediterranean),

Chthamalus stellatus SOUTHWARD and CRISP 1963, Catalogue of main marine fouling organisms vol. 1 Barnacles : 38, fig 22 a, b (Mediterranean).



Fig. 3. Chthamalus stellatus × 4

Shell small, low conical or tubular and a very irregular base pe-

rimeter. Shell aperture hexagonal or circular. Gray or dull white body plates clearly distinguished when young but fusing into each other in adults. Basis membranous. The joint between tergum and scutum is wavy but over its whole length usually stands at 90° to the midline. Maximum breadth of shell 8 mm. Maximum height 4 mm. The species is polymorphous. The samples were obtained from the supralittoral zone, in considerable numbers (Station numbers E. 2, 5, 13, 15, 19, 20, 22, 25, 28, 31, 33, 37, 45, 48, 52, V. 67, 69, F. 63, A. 73). This species, which is new among the Greek marine fauna, is mentioned by KOLOSARY (1951) to occur in the following areas: Sicily, Tripoli (Libya), Egypt, Suez and by GAMOULIN - BRIDA (1967) in the Adriatic sea.

***Chthamalus depressus* (POLI) (Fig. 4)**

Chthamalus stellatus stellatus forma *depressa* KOLOSARY 1951, Acta Biol. Bp. 2: 412 (Mediterranean).

Chthamalus depressus SOUTHWARD and CRISP 1963, Catalogue of main marine fouling organisms, vol 1, Barnacles: 37, fig 21 a, b, (Mediterranean).



Fig. 4. *Chthamalus depressus* $\times 2$

Shell very low, plates smooth and gray in colour never fusing together. Base perimeter less irregular than that of the shell of *Chthamalus stellatus*. Basis membranous. Shell aperture large and hexagon in shape. Joint between terga and scuta forming an angle of $50^\circ - 75^\circ$ with the midline. Maximum breadth 14 mm. Maximum height 4 mm.

This is new species in the Greek marine fauna. Specimen were found in the supralittoral zone (Station numbers E. 19 and E. 25). This species has also been noted to exist in places neighbouring to Greece (Naples, Sicily) (GAMOULIN - BRIDA, 1967) and Black Sea (SOUTHWARD and CRISP, 1963).

Η ΒΕΝΘΙΚΗ ΠΑΝΙΣ ΤΩΝ ΑΚΤΩΝ ΤΗΣ ΕΥΒΟΙΑΣ
ΚΑΙ ΤΟΥ ΕΥΒΟΪΚΟΥ ΚΟΛΠΟΥ

Υπό

ΜΑΡΙΟΥ ΚΑΤΤΟΥΛΑ, ΠΑΝ. ΟΙΚΟΝΟΜΙΔΗ και ΑΘΑΝΑΣΙΟΥ ΚΟΥΚΟΥΡΑ
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ΠΕΡΙΛΗΨΙΣ

Τὸ Ἐργαστήριο Ζωολογίας πραγματοποιεῖ ἀπὸ τοῦ ἔτους 1970 ἔρευναν ἐπὶ τῆς πανίδος τοῦ Βένθους τῶν ἀκτῶν τῆς Εὐβοίας καὶ τοῦ Εὐβοϊκοῦ κόλπου. Εἰς τὴν παροῦσαν ἐργασίαν περιγράφονται τὰ κατωτέρω τέσσαρα εἶδη Βαλανοειδῶν. *Balanus eburneus*, *Chthamalus stellatus*, *Chthamalus depressus* καὶ *Balanus perforatus*. Τὰ τρία πρῶτα εἶναι νέα διὰ τὴν πανίδα τῆς χώρας μας. Τὸ *Balanus perforatus* εἶχε σημειωθῆ κατὰ πρῶτον ὑπὸ τοῦ Ἀθανασοπούλου εἰς τὸν Σαρωνικόν.

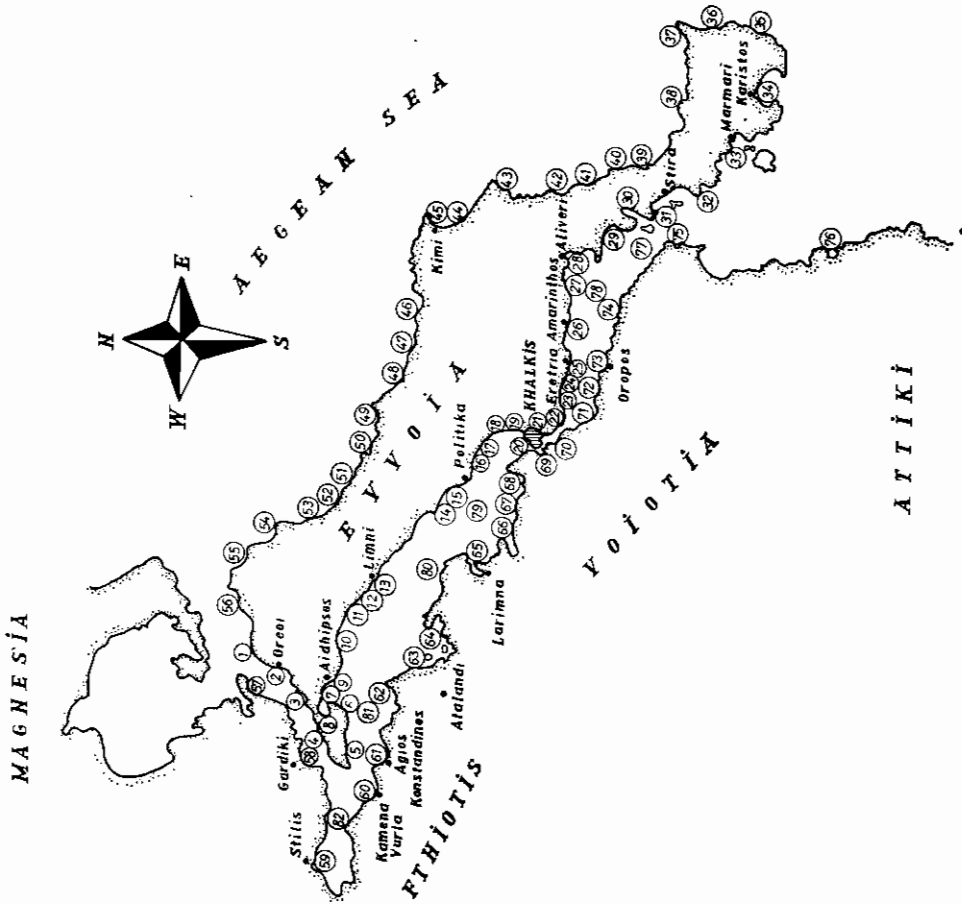


Fig. 5. Map showing the sampling stations of the Evvoia coast and Evvoia gulf

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