

DETERMINATION OF THE INTERMOULT STAGES IN *Aristeus antennatus* (Risso,  
1816) BY SETAL DEVELOPMENT

by

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ABSTRACT. The stages and substages in the intermoult cycle of *Aristeus antennatus* (Decapoda: Penaeidae), according to modified criteria of Drach and Tchernigovtzeff (1967) are determined. The duration of the stages is estimated.

RESUME. Nous avons déterminé et défini les stades et substades du cycle d'intermue chez *Aristeus antennatus* (Decapoda: Penaeidae), d'accord avec la méthodologie suivie par Drach et Tchernigovtzeff (1967). On a déterminé la durée de chaque stade d'intermue.

INTRODUCTION. The method he described is based upon the integumental changes and has been adapted by Drach et Tchernigovtzeff (1967). The experience of the author was applied in *Nephrops norvegicus* (L.), Sardá (1983). In the present paper, this method is applied to *Aristeus antennatus* in order to define the moult stages, the morphological aspects of each one and their relative duration in the moult cycle.

MATERIAL AND METHOD. Individuals of carapace length between 18-67 mm. were collected (NE of Spain) by trawls of commercial ships from 400 fathoms. The setal development on the pleopods were followed in the laboratory immediately after the capture. The pleopods were removed and observed under optical microscope (100x). Only mature females (Lc 27 mm) were used to determine intermoult period. The number of individuals at every stage were counted and the % of everyone calculated. We assumed that the number of animals at every intermoult stage was directly proportional to its duration.

RESULTS. Are shown in fig. 1 and 2, and TABLE I. Fig.1.- Development of integumentary setae of pleopods in relation to the stages of moult cycle. Fig.2, Fre-

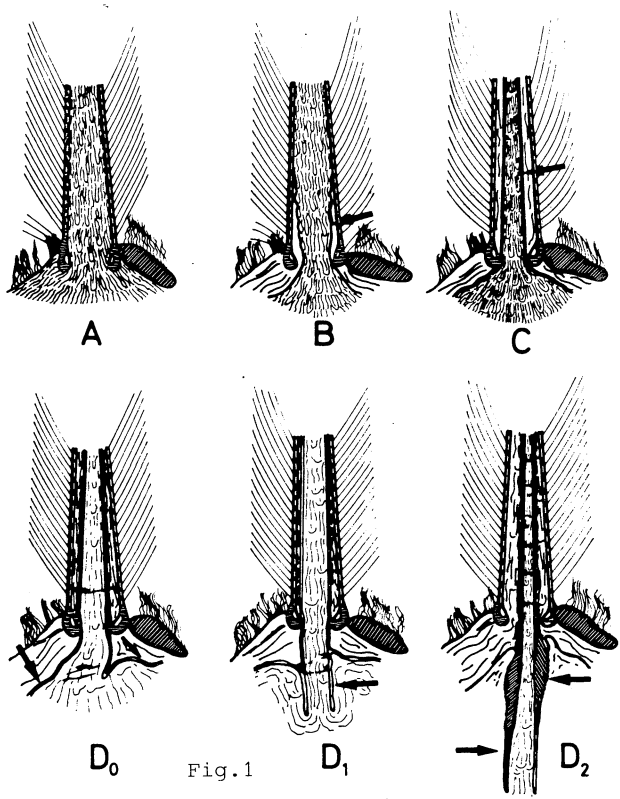


Fig. 1

TABLE I. Duration of the stages of the moulting cycle referred to 46 days intermoulting cycle.

	A	B	C	D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>
n° individuos	67	126	294	133	174	18
% (days)	8'1	15'3	35'8	16'2	21'2	2'2
Absolute days	3'7	7'0	16'5	7'4	9'7	1'0

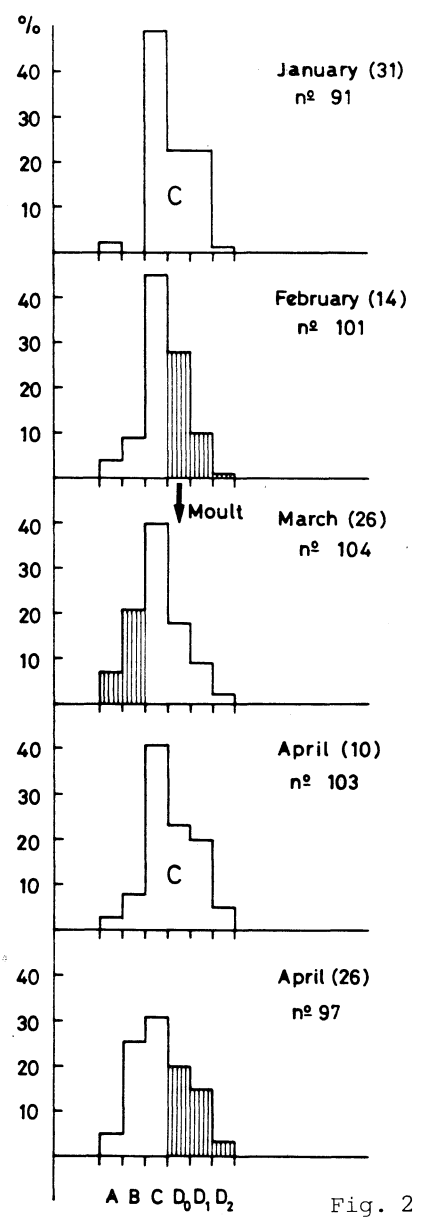


Fig. 2

quency of individuals at every intermoult stages every fortnight days. The intermoult period is about 46 days. The moults happen in Feb-Mah, Ap-May and Jun-Jul. All data were obtained during the first six months of 1984.

#### REFERENCES

- DRACH, P et TCHERNIGOVTZEFF, C. 1967.- Sur la méthode de la détermination des stades d'intermue et son application générale aux Crustacés. Vie et Milieu Sér. A, 18: 595-610.
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