

PLANKTONIC LARVAE AS INDICATORS OF ADDITIONAL SPECIES IN THE CALLIANASSOID (CRUSTACEA: DECAPODA: THALASSINIDEA) FAUNA OF THE CANARY ISLANDS.

J. A. Lindley * , F. Hernández** & E. Tejera**

* Sir Alister Hardy Foundation for Ocean Science. The Laboratory. Citadel Hill. Plymouth (United Kingdom).

** Departamento de Biología Marina. Museo de Ciencias Naturales de Tenerife (OAM). Apartado correos 853; 38003 Santa Cruz de Tenerife (Canarias)

RESUMEN

El presente trabajo es continuación del estudio de larvas de Callianassoidea, presentes en las colecciones de Decápodos del Museo de Ciencias Naturales de Tenerife, que proceden de arrastres de profundidad llevados a cabo durante los proyectos de investigación que sobre fauna pelágica el Museo llevó a cabo en las Islas Canarias en la década de los noventa (1990-1996). Los Crustáceos Callianassoidea son conocidos como “*gambas duendes*” y de adultos viven vinculados a fondos arenoso-fangosos. Los estados larvarios de muchas de las especies del área no se han descrito por lo que, a partir de estas colecciones, se espera realizar nuevas descripciones de larvas y ampliar la relación de especies presentes en la zona de muestreo.

Palabras clave: Plancton, Islas Canarias, Decápodos, Callianassoidea, larvas.

ABSTRACT

In this work we continue a study of the Callianassoid larvae from the Tenerife Natural Sciences Museum Crustacea Decapoda collections. These collections result from sampling in deep Atlantic waters during the cruises around Canary Islands (1990-1996). The species of Callianassoidea are Crustacea named as “*ghost-shrimps*” and when adults they burrow into soft (sandy and muddy) bottom. The larval stages of many species in these areas are undescribed and it is to be expected that new descriptions can be made from this collection, in some cases indicating the presence of adults of species not yet recorded from the sampling area.

Key words: Plankton, Canary Islands, Decapoda, Callianassoid, larvae.

1. INTRODUCTION

Decapods from plankton samples taken in 1990-1996 off the Canary Islands (TFM-CBM/Canarias Project) by the Natural Sciences Museum of Tenerife were examined. Some results very interesting of this collection in relation to new descriptions of species for the area have been previously presented by HERNÁNDEZ & TIEFENBACHER [3], LINDLEY & HERNÁNDEZ [4], [5] and [6]

GONZÁLEZ PÉREZ [2] catalogued the Decapod Crustacea of the Canary Islands and UDEKEM D'ACÓZ [9] summarised records of Decapoda in the North Atlantic from 25°N northwards.

The only species of Callianassoidea recorded from the Canary Islands by these authors is *Callianassa tyrrhena* (Petagna, 1792). However four types of zoea attributed to the Callianassoidea have been found in the collection of the Tenerife Natural Sciences Museum including the type described by LINDLEY & HERNANDEZ [4].

None of these conform to the descriptions of larvae of *Callianassa tyrrhena*.

2. MATERIAL AND METHODS

Decapods were captured in hauls plankton taken during 1990 to 1996 off the Canary Islands in the TFMCBM/Canarias Project, supported by the MAO. The hauls were vertical (A=200-0m, M=400-0m, B=500-0m, K=800-0m, C=1000-0m), all diurnal (D) and nocturnal (N) with identical sampling method (WP-2 triple net, 200 μ) in the stations near the coast (see table I).

Table I.- Position of the sampling stations in the Canary Islands.

ISLAND	STATION	COORDINATES
Tenerife	TFMCBM000001	28° 01' 06'' N & 16° 45' 18'' W
El Hierro	TFMCBM000002	27° 38' 54'' N & 18° 02' 54'' W
La Gomera	TFMCBM000003	27° 58' 00'' N & 17° 13' 00'' W
La Palma	TFMCBM000004	28° 40' 47'' N & 18° 01' 01'' W
Gran Canaria	TFMCBM000005	27° 44' 14'' N & 15° 50' 03'' W
Fuerteventura	TFMCBM000006	28° 00' 24'' N & 14° 21' 45'' W
Lanzarote	TFMCBM000007	28° 49' 02'' N & 13° 56' 01'' W

3. CONCLUSIONS

3.1.- ZOEALARVAE FROM THE CANARY ISLANDS ATTRIBUTED TO THE CALLIANASSOIDEA.

Necallianassa truncata (Giard & Bonnier, 1890) was identified in a sample with code number 5B 94D (500-0 open haul, diurnal, off SW Gran Canaria Island, September 1994). This species is known from the Atlantic Coast of Morocco and a zoea attributed to this species on the basis of the description in DOS SANTOS [1].

A zoea identical with Callianassidae SL 16 (DOS SANTOS [1]) was taken in a code sample 6A/90 (200-0 m open haul, diurnal, off SW of Tenerife Island, June 1990).

Two types of zoea attributed to the larval genus *Oodeopus* Bate, 1888 were found in the samples listed below. There was the type described by LINDLEY & HERNANDEZ [4].

The stage described in that paper and a later stage with pleopod buds and an almost parallel sided telson were present in the samples. The other type of *Oodeopus* was very similar type but with terminal spines on the telson of equal length except for a longer and more robust median spine in contrast with the irregular length of the terminal spines of the specimen described by LINDLEY & HERNANDEZ [4].

3.1.1.- SAMPLES IN WHICH *OODEOPUS* LARVAE WERE RECORDED:-

TFMCBM7A/90D = 200-0 open haul, diurnal, off SW Tenerife Island, July 1990.

TFMCBM7B/90D= 500-0 open haul, diurnal, off SW Tenerife Island, July 1990.

TFMCBM 8A/90D= 200-0 open haul, diurnal, off SW Tenerife Island, August 1990.

TFMCBM 8B/90D= 500-0 open haul, diurnal, off SW Tenerife Island, August 1990,

TFMCBM 17B/91N= 500-0 open haul, nocturnal, off SW El Hierro Island, September 1991.

TFMCBM 22K92D= 800-0 open haul, diurnal, off SW La Gomera Island, September 1992.

TFMCBM 7A/93D= 200-0 open haul, diurnal, off SW La Palma Island, September 1993.

TFMCBM 7C/93D=1000-0 open haul, diurnal, off SW La Palma Island, September 1993.

TFMCBM 9A/93D= 200-0 open haul, diurnal, off SW La Palma Island, September 1993.

TFMCBM 9C/93D= 1000-0 open haul, diurnal, off SW La Palma Island, September 1993.

TFMCBM 10C93D= 1000-0 open haul, diurnal, off SW La Palma Island, September 1993.

TFMCBM 7C 95D= 1000-0 open haul, diurnal, off SW Fuerteventura Island, September 1995.

TFMCBM 19M96D= 400-0 open haul, diurnal, off SW Lanzarote Island, September 1996.

3.2.-DISTRIBUTIONS OF CALLIANASSOIDEA IN RELATION TO POSSIBLE OCCURRENCE IN THE CANARY ISLANDS.

Apart from *Callianassa tyrrhena* and *Necallianassa truncata* it must be assumed that there must be **at least three other species occurring in the Canary Islands.**

These are most likely to be species already known from the eastern North Atlantic. UDEKEM D'ACÓZ [9] list *Callipagurops charcoti* de Saint Laurent, 1973 from the Azores and *Callianassa candida* (Olivier, 1792) from south-west Spain. SAINT LAURENT & LOEUFF [7] state that *Callichirus adamus* (Kensley, 1974) and *Callichirus balssi* (Monod, 1933) occur on the coasts of Mauritania. In recent taxonomic revisions some genera formerly included in the Callianassidae have been placed in other families within the Superfamily Callianassoidea (TUDGE *et al.* [8]). Two species that must be considered to be potential parents of the unidentified zoeas are *Gourretia denticulata* Lütze (1937) and *Paracalliax bollerei* de Saint Laurent, 1979 both of which are now placed in the Family Ctenochelidae Manning and Felder, 1991. The former is known from south-west Spain (UDEKEM D'ACÓZ, [9]) and the latter from Mauritania SAINT LAURENT & LOEUFF [7].

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