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ON FINDING *DEXAMINE THEA* (AMPHIPODA, DEXAMINIDAE) IN THE UKRAINIAN TERRITORIAL WATERS (CRIMEA, BLACK SEA)

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On Finding *Dexamine thea* (Amphipoda, Dexaminidae) in Ukrainian Territorial Waters (Crimea, Black Sea). Grintsov V. A. — *Dexamine thea* Boeck, 1861 (Amphipoda, Dexaminidae), the rare species never registered in the territorial waters of Ukraine, was first found in Laspi Bay, 40 km of Sevastopol (Crimea, Black Sea). 200 amphipods were examined and described. The pictures showing specific morphological characters are given. Sex and size structure of the community and characteristics of the biotope are discussed.

Key words: amphipods, exotic species, epibiota.

О нахождении *Dexamine thea* (Amphipoda, Dexaminidae) в территориальных водах Украины (Крым, Черное море). Гринцов В. А. — Исследованы особи *Dexamine thea* Боекк, 1861 (Amphipoda, Dexaminidae), ранее не отмечавшиеся в территориальных водах Украины. Вид зарегистрирован в районе б. Ласпи (Крым, ЮБК, 40 км от Севастополя). Исследовано 200 особей. Приведены рисунки характерных морфологических признаков. Получены характеристики поселений — половой состав, размерная структура. Приведены данные о биотопе обитания *D. thea*.

Ключевые слова: амфиподы, вселенцы, обрастание.

Introduction

For the first time about 40 amphipods of *Dexamine thea* Boeck, 1861 were found in April 2004 at the depth 0.5–0 m in epibiota of the breakwater located in Laspi Bay, 40 km of Sevastopol (Crimea, Black Sea). In March 2005, the number of amphipods of this species registered at the same site and depth increased to more than 200. *Dexamine thea* was considered to be very rare in the Mediterranean Sea where these amphipods are sometimes found in the night-time plankton. Biotope of *D. thea* has not been precisely specified as yet; presumably, this species is a constituent part of algal biotopes (Bellan-Santini, 1982). Characteristics of the community and morphological characters of *D. thea* from the territorial waters of Ukraine are described for the first time in this paper.

Material and methods

On 22 March 2005, the pieces of the fouling community (5 samples) were scraped off from the 0.1 m² area of the concrete breakwater at the depth 0.5–0 m using a scraper and fixed with 4% formaldehyde. In the amphipod laboratory, *D. thea* were removed from the samples and placed into 75% alcohol. Morphological characters were examined and amphipods measured under a MBS 9 binocular (8*4 and 8*7) using a micrometer. Altogether, 54 individuals of *D. thea* were examined. Simultaneously, the numbers of non-colonial invertebrates and the wet weight for all found macroorganisms incorporated into the studied fouling community were determined.

Results and discussion

Morphology. Figure 1 shows that the recently found amphipods have every morphological character typical of this species as described in Bellan — Santini, 1982.

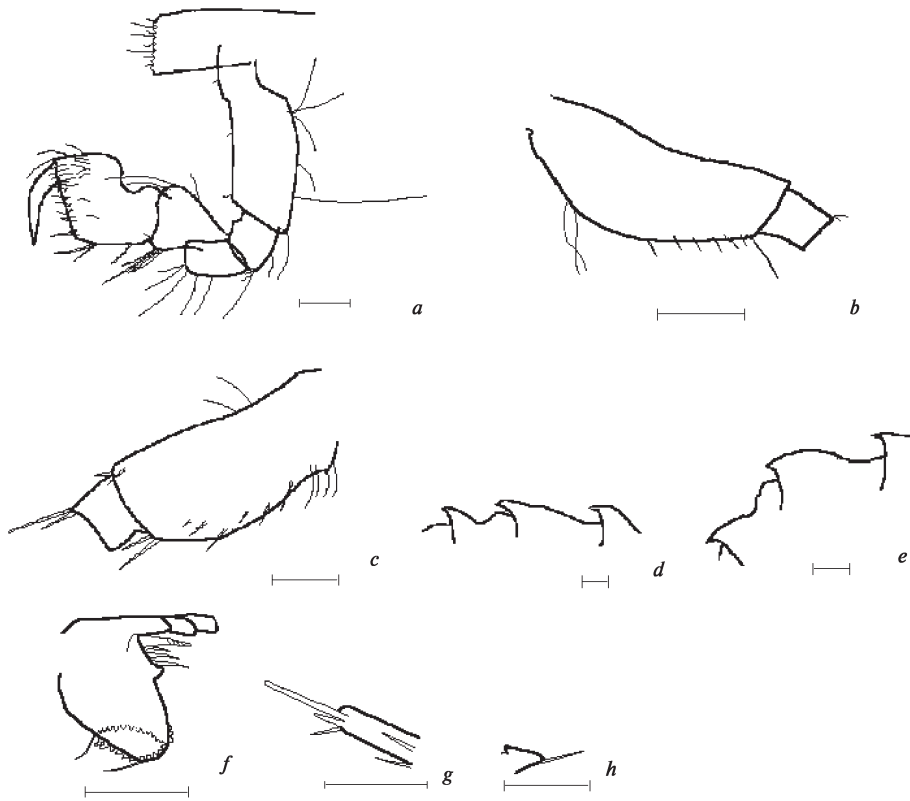


Fig. 1. Morphological features of male and female from the Laspi Bay (Crimea, Sevastopol): *a* — gnathopod I male; *b* — pereopod VII male, basis; *c* — pereopod 7 female, basis; *d* — pleon and urosome female; *e* — pleon and urosome male; *f* — mandible male; *g* — uropod II male, *h* — maxilla I, inner plate.

Рис. 1. Морфологические особенности самца и самки *D. thea* из бухты Ласпи (Крым, Севастополь): *a* — гнатопода I, самец; *b* — базиподит переоподы VII самца; *c* — базиподит переоподы VII самки; *d* — плеон и уросом самки; *e* — плеон и уросом самца; *f* — мандибула самца; *g* — уropод II самца; *h* — максилла I, внутренняя лопасть.

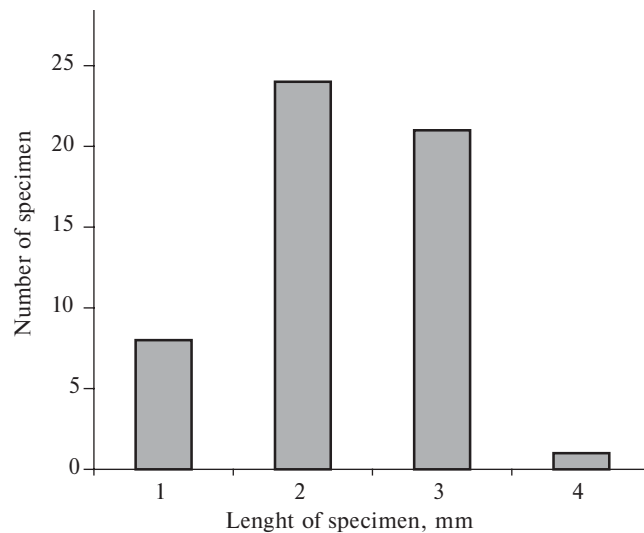


Fig. 2. Histogram of the size structure.

Рис. 2. Гистограмма размерной структуры.

The key features relate to the structure of 1st gnathopod of males — a deep sinus on the frontal part of propodus and the linear basipodite of 5th pereopod (fig. 1, *b*).

Characteristics of the community. The study has shown the prevalence of females in the sex structure of the examined communities of *D. thea*. Among the 200 found amphipods only 16 (8% of the total number) were males, the rest were females and juveniles. The portion of female amphipods with eggs is insignificant: among 48 females only 3 had eggs. The number of eggs is also small, averaging 9. In males maximum body length approximated 3.75 mm, in females — 4.25 mm. It is noteworthy that in the Black Sea male amphipods of *D. thea* are smaller than in the Mediterranean: according to Bellan-Santini (1982), the maximum body length was 5 mm. The size structure of the studied samples is given in figure 2. As the histogram shows, amphipods 2 to 4 mm long, *i. e.*, of medium size group, prevail in the community. The number of juvenile amphipods is as inconsiderable as 8, that is 15% of the total abundance.

Biotope. The fouling community in which *D. thea* were found is a complex supraspecies system (the fraction of macroorganisms alone is represented by 120 species). Most abundant are bivalved molluscs, *Mytilus galloprovincialis* Lamark, 1819 and *Mytilaster lineatus* (Gmelin, 1790), and macrophytes. The investigated community dwells in Laspi Bay, in the locality that the breakwater protects from the impact of sea waves.

Bellan-Santini D. Genus *Dexamine* Leach, 1814. The Amphipoda of the Mediterranean // *Memoires de l'institut oceanographique*. — Monaco, 1982. — Vol. 13, Part 1. — P. 220–225.