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First record of *Hippolyte prideauxiana* Leach, 1817 (Crustacea, Decapoda, Caridea) in the Adriatic Sea

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During the last ten years, several decapod species were recorded in the Adriatic Sea for the first time. Such a rapid increase in the number of recorded species of decapod crustaceans is the result of the increased number of carcinologists engaged in SCUBA diving. In 2002, during the routine Natural History Museum of Rijeka SCUBA fieldwork, the caridean shrimp, Hippolyte prideauxiana *Leach, 1817, was collected at Kostrena near the city of Rijeka in the northern Adriatic. This record, the first for the Adriatic Sea, widens the previously known geographic distribution of this species.*

Key words: Decapoda, *Hippolyte prideauxiana,* Adriatic Sea, first finding

INTRODUCTION

In recent years, the number of decapod species recorded in the Adriatic Sea has continually increased despite the fact that the Adriatic Sea is one of the most thoroughly explored regions in the Mediterranean (HELLER, 1863; PESTA, 1918; ŠTEVČIĆ, 1990, 1995, 2002; KIRINČIĆ, 2003). The main reason for the recent finding of previously unrecorded species in this area is the use by carcinologists of SCUBA diving equipment to collect decapods. This technology allows investigation of previously unexplored microhabitats of the infra-littoral zone. Such habitats include marine caves and holes as well as pebbly and rocky interstitia. This method, together with various SCUBA accessories, is also useful for collecting miniature decapods of the *Anapagurus*, *Hippolyte*, and *Salmoneus* genera that are rarely caught with traditional surface-operated gears. Earlier research was mostly based on material collected with trawl gears and grabs on circa-littoral and lower infra-littoral soft grounds.

METHODS AND RESULTS

The 2002 field research was conducted by the Natural History Museum of Rijeka in the northern Adriatic (Fig.1). The shrimps were collected by SCUBA diving across the transect at a depth of 9 m where the bottom is composed of sparse rocks and pebbles with the biocenosis of "infra-littoral algae of shaded areas" (PERES & PICARD, 1964). The dominant macroalgae there are the green alga, *Halimeda tuna*, and the brown algae of low thalli, *Dictyota dichotoma* and *D. linearis*, while the red algae, *Laurencia obtusa* and *Peyssonnelia squamaria*, are somewhat rarer. At 20 m, the rocky bottom turns into a

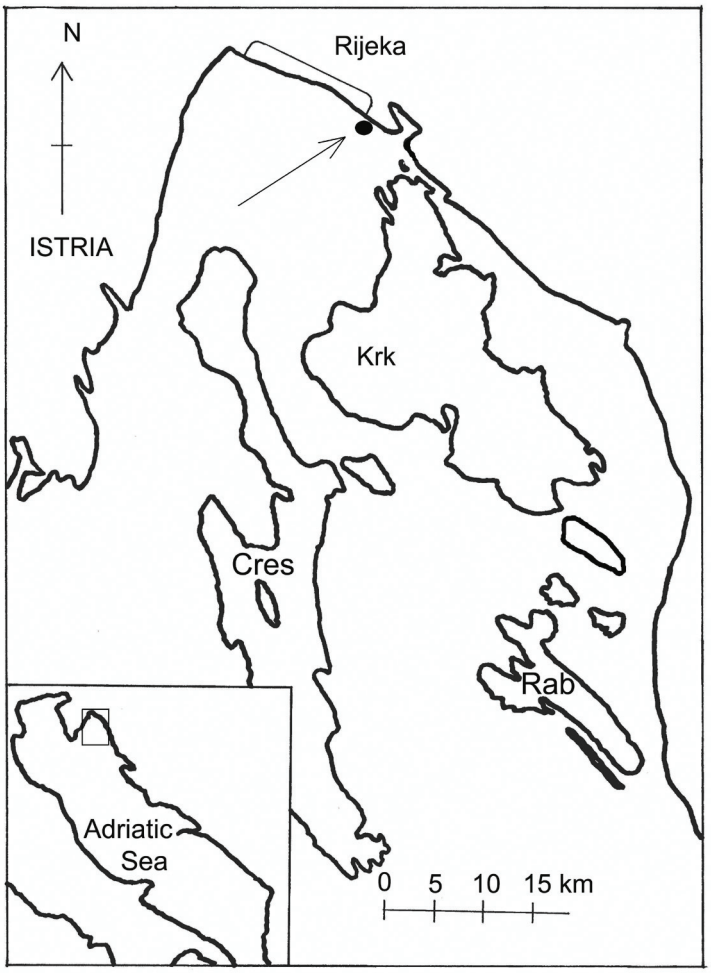

Fig. 1. Map of the investigated locality with the location of the newly-found specimens marked by an arrow

muddy, sandy, and detritic bottom with the biocenosis of "coastal detritic bottoms" and its surface is covered by algae of the *Polysiphonia* genus.

The research resulted in the collection of a newly discovered decapod species (Fig.2), *Hippolyte prideauxiana* Leach, 1817, near Stara Voda (45°17.586'N; 14°30.356'E) in the Žurkovo (Kostrena) municipality in February 2002. Identification was based on the key and description in a monograph on the *Hippolyte* genus (D'UDEKEM D'ACOZ, 1996). The characteristic color pattern and commensalism with the crinoid *Antedon mediterranea* left no doubt about its identity. The species is sometimes found in commensalism with the crinoid *A. bifida* (NOUVEL, 1953; LEONARD & JEAL, 1984; D'UDEKEM D'ACOZ, 1996). The specimens were gathered together with *A. mediterranea* to which they were clinging. Three specimens were collected, but only one was preserved. The preserved specimen is the largest ever recorded for this species (total length 24 mm) and is kept in the crustacea collection of the Natural History Museum in Rijeka, under the registration number C1324.

DISCUSSION

The present record, the first for the Adriatic Sea, considerably widens the known geographic distribution of the species. *Hippolyte pride-*

Fig. 2. Hippolyte prideauxiana *Leach,1817 (total length 24 mm), discovered in Stara Voda, Kostrena (northern Adriatic)*

auxiana is a species with an Atlantic-Mediterranean distribution (D'UDEKEM D'ACOZ, 1999). Since it had already been recorded in the Aegean and Ionian Seas (D'UDEKEM D'ACOZ, 1996), it was only a matter of time until it would be found in the Adriatic as well. However, as previous investigations in this area did not record it, it is presumed to be an uncommon species here.

Future systematic biological expeditions in other Adriatic under-explored habitats such as estuaries, marine caves, submarine springs, and bathyal grounds could most likely result in the discovery of other previously unrecorded species in these areas.

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Prvi nalaz kozice *Hippolyte prideauxiana* Leach, 1817 za Jadransko more (Crustacea, Decapoda, Caridea)

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SAŽETAK

Zadnjih desetak godina u Jadranu je zabilježeno nekoliko novih vrsta desetonožnih rakova. Rast broja nalaza dekapoda u kratkom vremenskom roku možemo zahvaliti većoj aktivnosti znanstvenika karcinologa istraživanju podmorja metodom autonomnog ronjenja. Terenskim radom Prirodoslovnog muzeja Rijeka 2002. godine pronađen je primjerak kozice *Hippolyte prideauxiana* Leach, 1817, na lokaciji Stare vode u Kostreni pored Rijeke. Ovaj nalaz, prvi za Jadransko more, proširio je dosad poznatu geografsku rasprostranjenost spomenute vrste.

Ključne riječi: Decapoda, *Hippolyte prideauxiana*, Jadransko more, prvi nalaz