TWO NEW SPECIES OF HARPACTICOID COPEPODS FROM THE CALIFORNIAN CONTINENTAL SHELF

BY

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ABSTRACT

*Cervinia mediocauda* n. sp. and *Tetragoniceps pacificus* n. sp., are two new species of harpacticoids collected 15 kilometers off the central California coast, at 154 m depth. Both female and male of *C. mediocauda* are described, whereas of *T. pacificus* only the female was found. Differences in the mouthparts and in the length/width ratio of *C. mediocauda* make it unique within the genus. Sexual variation in the genus *Cervinia* is pronounced. A key to the species of *Cervinia* is included. *T. pacificus* is unique in the genus *Tetragoniceps* because of the setal formula of the pereiopods.

RÉSUMÉ

Deux espèces nouvelles de Copépodes harpacticoïdes, *Cervinia mediocauda* n. sp. et *Tetragoniceps pacificus* n. sp., ont été recueillies à 15 kilomètres de la côte de la Californie centrale, à 154 m de profondeur. Le mâle et la femelle de la première espèce sont décrits, alors que la femelle seule de la seconde à été trouvée. Les différences dans les pièces buccales et dans le rapport longueur/largeur de *C. mediocauda* en font un cas unique dans le genre. La variation sexuelle dans le genre *Cervinia* est prononcée. Une clef des espèces de ce genre est fournie. *Tetragoniceps pacificus* est unique dans le genre par la formule sétale des pattes natatoires.

INTRODUCTION

Specimens of the new species described herein were obtained during the project "The California Outer Continental Shelf Phase II Monitoring Program" (CAMP) (cf. Hyland et al., 1990), between November 1986 and May 1989. This was a large, multidisciplinary study designed to detect and evaluate the long term biological impacts of continental shelf oil drilling and production. The study was centered around a proposed platform named Julius (hereafter referred to as PJ), which was never put into service. Samples were collected in a radial pattern around PJ on a local scale of 0.4-2 km, and on a regional scale of 10-20 km.
(Hyland et al., 1990). A map showing sample sites, and an explanation of the general features of the study area can be found in Montagna (1991). Specimens were obtained from both the macrofaunal and meiofaunal components of this study. Besides taxonomic descriptions of the two new species, a discussion of sexual dimorphism in *Cervinia*, and a key to the species of the genus *Cervinia* are presented.

**METHODS**

Holo- and allotype were drawn in whole, then dissected. The appendages were permanently mounted in lactophenol ringed with BIOSEAL. Paratypes not dissected, were preserved in 70% ethanol with glycerol. All type material has been deposited in the United States National Museum (USNM). The figures were drawn with the aid of a drawing tube on a phase contrast microscope; appendages were invariably with the anterior face up. Descriptive terminology is predominately adopted from Huys et al. (1996) except for hyaline frills (Moore, 1976), and general body shape (Coull, 1977). The following abbreviations are used throughout the text, tables, and figures: R = rostrum, A₁ = antennule, A₂ = antenna, Md = mandible, Mxl = maxillule, Mx = maxilla, Mxp = maxilliped, P₁-P₆ = pereiopods 1-6, Exp = exopodite, End = endopodite, GF = genital field, CR = caudal rami, Hyl Frill = hyaline frill.

**TAXONOMIC ACCOUNTS**

**Family Cerviniidae G. O. Sars, 1903**

**Genus Cervinia Norman, 1878**

*Cervinia mediocauda* n. sp. (figs. 1-5)

*Cervinia* sp. A; Hyland et al., 1990.

Material examined. — 42 females, 2 males, among which were, the holotype an adult female (USNM 278210) (dissected), and the allotype an adult male (USNM 278211) (dissected), both from station Platform Julius (PJ). Site PJ is 15 km off Point Sal in the Santa Maria basin on the California continental shelf approximately at 34°55.79'N 120°49.91'W.

Two female paratypes were dissected and mounted on two slides (USNM 278212). All other paratypes examined whole (USNM 278213). All female material from site PJ. Male paratype (USNM 278214) from site R4. Site R4 located 25 km south of PJ, at coordinates 34°43.01'N 120°47.38'W.

Description of the female (based on a non-ovigerous female). — Body shape (fig. 1) fusiform (Coull, 1977), the typical *Cervinia* body shape. Length of body,