



Two new *Cumella* (Crustacea: Cumacea: Nannastacidae) from the North Pacific, with a key to the North Pacific *Cumella*

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Abstract

Two new species of *Cumella* (Cumacea: Nannastacidae), *C. oculata* and *C. alaskensis* are described from shallow Alaskan rocky shores. The new species *C. oculata* can be distinguished from other North Pacific *Cumella* by the combination of a large eye lobe, no spines dorsally on the carapace, and carapace without large tubercles. The new species *C. alaskensis* can be distinguished from the other North Pacific *Cumella* by the 5 spines distributed unequally on the dorsal crest.

Key words: North Pacific; Cumacea; Nannastacidae

Introduction

The description of two new species of *Cumella* from boreal-arctic waters is somewhat unusual, in that *Cumella* is a genus that is commonly found in tropical areas. There are few species recorded from temperate to cold waters. This genus is generally small, on the order of a few millimeters, with little variation in the appendages. Thus, it is possible that some species that have very large recorded ranges, such as *C. carinata* (Hansen 1887) may in fact represent cryptic species assemblages.

As part of Natural Geography in Shore Areas (NaGISA) in the East Pacific, specimens were collected from Alaskan waters in Kodiak, Kachemak Bay, and Prince William Sound. NaGISA is focused on sampling the rocky intertidal, macroalgal and seagrass environments, not environments that tend to be rich in Cumacea. Cumaceans tend to be found in fine grained sediments, and are rarely collected in higher energy environments such as the rocky intertidal. Thus, it is surprising that two new species of *Cumella* were collected as part of the NaGISA samples from the East Pacific.

There are currently only 14 species of *Cumella* described from the North Pacific and Arctic, including 7 species from the coasts of Japan, 2 from the Kuriles and Sakhalin, and 5 species from the Alaskan coast. Of the Alaskan species, 3 are reported from the southeast coast, and the other is reported from Point Barrow, on the Beaufort Sea in the Arctic Ocean.

Methods

Samples were collected as part of NaGISA, using the standard protocols for intertidal and subtidal samples (Rigby et al. 2007 pp. 13–21). Briefly, the cumaceans were collected by scraping the surface within a 25 cm X 25 cm quadrat.

Specimens were mounted in a mixture of 90% glycerin/ 10% ethanol and drawn using a camera lucida on a Leica dissecting microscope and Leica compound microscope. Body length is measured from the tip of the