



## Redescription of *Cirriformia crassicollis* (Kinberg, 1866) and *Timarete hawaiiensis* (Hartman, 1956) new combination, (Polychaeta: Cirratulidae), endemic polychaetes to the Hawaiian Islands

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### Abstract

*Cirriformia crassicollis* (Kinberg 1866) and *Timarete hawaiiensis* (Hartman 1956), new combination are redescribed. *Cirriformia hawaiiensis* is here referred to the genus *Timarete* Kinberg 1866, because the branchial filaments on chaetigers 10–18 are shifted dorsally forming a dorsolateral bulge over the notopodia. *T. hawaiiensis* and *C. crassicollis* are presently known only from the Hawaiian Islands and are commonly associated with changing ecosystems such as harbors and dense populations of tube worms.

**Key words:** taxonomy, endemism, Oahu Island, Hawaiian shallow waters

### Introduction

Three species of the family Cirratulidae have been described from the Hawaiian Islands: *Cirriformia crassicollis* (formerly *Labranda crassicollis* Kinberg 1866), *Cirriformia semicineta* (formerly *Cirratulus semicinetus* Ehlers 1905) and *Cirriformia hawaiiensis* Hartman 1956 (formerly *Audouinia branchiata* Treadwell 1943). *Cirriformia semicineta* appears to have a circumtropical distribution (Hartman 1956) while *C. crassicollis* and *C. hawaiiensis* are endemic to the Hawaiian Islands. The latter two species are poorly known taxonomically as the original and subsequent description (Kinberg 1866; Hartman 1948, 1966; Bailey-Brock 1987) were based on highly variable morphological characters which change during ontogeny and accurate illustrations are lacking.

In this paper we redescribe these two species following a review of the type material from museum collections and newly collected specimens. We transfer *Cirriformia hawaiiensis* to the genus *Timarete* Kinberg 1866 and the highly variable ontogenetic characters (e.g. segmental origin of tentacular filaments, neuroacicular spines, and notoacicular spines) were measured to evaluate size-dependency.

### Material and methods

The type specimens were provided by the American Museum of Natural History, New York, USA (AMNH) and the Swedish Museum of Natural History, Stockholm, Sweden (SMNH); additional specimens were from the collections of the Wormlab, University of Hawai'i at Manoa, Hawaii, USA. These have been deposited at the United States National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA (USNM) and SMNH.

The characters analyzed were body length and width, total number of chaetigers, position of the tentacular filaments, first occurrence of acicular spines on notopodia and neuropodia, number of acicular spines on