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## Redescription of *Tharyx killariensis* (Southern) from Ireland and description of two new species of *Tharyx* from the Kattegat, Sweden (Polychaeta, Cirratulidae)

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### Abstract

Two new species of the cirratulid genus *Tharyx* are reported from shallow waters in the Kattegat inshore Sweden. In addition, the lectotype of *Tharyx killariensis* (Southern, 1914) is redescribed resulting in a revised concept of the noto- and neuropodial acicular spines of posterior parapodia for that species. These spines were originally reported as bidentate crotchetts with sharply pointed teeth; in reality the spines have blunt, knob-shaped tips, typical of several other species of *Tharyx*. Both of the new species are atypical for the genus *Tharyx*. *T. maryae* n. sp. has an expanded posterior end more typical of the genus *Aphelochaeta*, but otherwise shares characters of *Tharyx*. *T. robustus* n. sp. has a body shape that is consistently broad and dorsoventrally flattened throughout, rather than elongate and narrow as in other species of the genus. Both of the new species, however, have short, blunt-tipped spines in far posterior parapodia. With the addition of the two new species, the genus *Tharyx* now includes 11 species that are compared and contrasted. Morphology that defines and characterizes species of *Tharyx* is reviewed.

**Key words:** new species, Ireland, Sweden, Annelida, Cirratulidae

### Introduction

Among the five bitentaculate genera of the Cirratulidae, the genus *Tharyx* is relatively small in numbers of species, but some species are among the dominant taxa in benthic infaunal assemblages (Hilbig & Blake 2000; Blake 2015).

This study was initiated following the discovery of an unusual cirratulid collected as part of intertidal monitoring on the Swedish coast. After examination, it was determined that these specimens had a body shape that was generally typical of some species of *Aphelochaeta*, yet had setal and other characteristics typical of the genus *Tharyx*. Subsequently, additional specimens from the same locality yielded a second species of *Tharyx*, this one having an expanded posterior end and neuropodial spines in the posteriormost setigers.

To date, the only species of *Tharyx* known from European waters is *T. killariensis* (Southern, 1914), originally described as a *Chaetozone* from Killary Harbor, Ireland, but subsequently moved to the genus *Caulieriella* by Hartman (1959) and then to *Tharyx* by Blake (1991). The species has been reported from several localities in northern Europe, but there has been no published redescription of *T. killariensis* since the original account; most faunal guides and keys simply use Southern's original definition and illustrations of the species. Therefore, before describing and naming the two new species, we considered it important to reexamine Southern's original materials.

This paper presents a redescription of *Tharyx killariensis* based on one syntype specimen provided by the Irish Museum of Natural History and here designated as the lectotype. As will be noted, other specimens in the syntype series were fragments. This description confirms much of what Southern (1914) reported for the species except for the nature of the hooks or spines, which differ from his original illustrations. This investigation confirms that the new material from Sweden represents two species of *Tharyx* new to science. We also take the opportunity to compare the three European species of *Tharyx* with eight species reported elsewhere.