



Discovery and redescription of type material of *Nausithoe simplex* (Kirkpatrick, 1890), comb. nov. (Cnidaria: Scyphozoa: Coronatae: Nausithoidae) from the North Atlantic

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Abstract

With discovery and examination of type specimens in the Natural History Museum, London, UK, we reassign *Stephanoscyphistoma simplex* (Kirkpatrick, 1890) to the genus *Nausithoe* Kölliker, 1853, as *Nausithoe simplex*, comb. nov., and designate a lectotype for the species. Use of morphometric measurements is considered important in coronate systematics, but key features also include the unique whorl of internal cusps and the shape of these cusps. All previous records of *N. simplex* must be re-evaluated, taking into consideration the morphology of these internal cusps.

Key words: *Stephanoscyphus*, *Nausithoe*, polyp, systematics, taxonomy, *Stephanoscyphistoma*

Introduction

The order Coronatae Vanhöffen, 1892 is considered the basal group of the class Scyphozoa Goette, 1887 based on both older (Thiel 1966; Uchida 1969; Werner 1973) and more recent studies (Marques & Collins 2004; Collins *et al.* 2006; Bayha *et al.* 2010). About 60 species are currently known in the group (Morandini & Jarms *in prep.*). Several authors (Werner 1973; Jarms 1990; Silveira & Morandini 1997) have stated that life cycle studies are essential in resolving systematics of the order, especially in metagenetic species. As a consequence, the study of metagenesis and its variations are decisive for establishing evolutionary traits among coronates (Jarms 2010).

Coronate polyps are characteristic animals having a striking feature, namely a peridermal tube surrounding their soft tissues (Werner 1970) that distinguishes them from other scyphozoan polyps (subclass Discomedusae Haeckel, 1880) (Chapman 1966). They are nevertheless often overlooked or mistaken for polychaete tubes in the sorting of benthos samples. While present in collections from many expeditions, they are seldom identified as coronate polyps even though they are amongst the most abundant taxa in certain habitats (Galil & Zibrowius 1998).

Current knowledge of the periderm tube in coronates has been reviewed in a series of papers (see mainly Jarms 1990, 1991, 1997), and summarized in a more recent one (Morandini & Jarms 2005). Based on available data it is sometimes impossible to assign specimens to family or genus (Morandini & Jarms 2005). To deal with the situation, Jarms (1990, 1991) followed provisions of the International Code of Zoological Nomenclature and introduced the collective group name *Stephanoscyphistoma* for these taxa. According to the code, collective groups are treated as genus-group names, albeit with special provisions (see “collective group”, ICZN 1999: 105). Included in *Stephanoscyphistoma* Jarms, 1990 are polyps of poorly described species, or those that cannot be assigned with confidence to a medusa genus.

Morandini & Jarms (2005) retained four species of coronates in this group: *Stephanoscyphistoma allmani* (Kirkpatrick, 1890), *S. bianconis* (Thiel, 1936), *S. corniformis* (Komai, 1936), and *S. simplex* (Kirkpatrick, 1890). Due to superficial descriptions and absence of type material, it has not been possible to assign them to any known medusa genus, thereby creating instability in taxonomy of the group.