

Contribution to the knowledge of Acotylean Polyclads (Platyhelminthes, Polycladida) from Tunisian Coasts

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Abstract

Although the order Polycladida has been known from the Mediterranean basin since the XVIII century, many species have been described insufficiently and in some cases have been erroneously identified. A revision of the taxon Polycladida has been undertaken with the aim to contribute to the knowledge of Mediterranean polyclads. This first contribution deals with four species found on Tunisian coasts: *Echinoplana celerrima* Haswell, 1907; *Leptoplana tremellaris* (O. F. Müller, 1774) Oersted, 1843; *Theama mediterranea* Curini-Galletti, Campus & Delogu, 2008 and *Imogene mediterranea* (Galleni, 1976) Jennings & Newman 1996. Characters and diagnoses of the genus and species have been revised. Known and new internal and external morphological features have been added. Additionally, information about reproduction, distribution and habitat is provided.

Key words: Acotylea, Tunisia, Redescription, Biodiversity, *Echinoplana celerrima*, *Imogene mediterranea*, *Leptoplana tremellaris*, *Theama mediterranea*

Introduction

According to the original diagnosis of Lang (1884), Acotylea include polyclads without a ventral sucker (although an invagination or folding in the ventral layers forming a pocket can be apparent (e.g. *Leptoplana tremellaris* (O.F Müller, 1774) Oersted, 1843). Tentacles, when present, are of the nuchal type and the copulatory apparatus is situated posteriorly to the pharynx (Prudhoe, 1985). This suborder includes species known as predators of ascidians (Newman *et al*, 2000) and gastropods (Philips & Chiarapa, 1980). Species of the genus *Stylochus* are unquestionably major pests to commercial bivalve cultures (Newman & Cannon, 2003). Despite the economic importance of acotylean flatworms as pests, they have received very little taxonomic attention in the Mediterranean in recent years. Except for the monograph by Lang (1884), studies about Mediterranean polyclads are scarce. Since then, most contributions to the Mediterranean polyclads were made by Galleni (1972, 1974, 1976a, b, 1978a, 1978b) and Galleni *et al* (1979, 1980). Novell (2001, unpublished thesis), described 10 acotylean species from the Catalonian coasts. Most recently, Curini-Galletti *et al* (2008) described a new interstitial polyclad. As the systematics of Polycladida were revised simultaneously by Faubel (1983, 1984) and Prudhoe (1985), two non-concordant systematic schemes were produced. Faubel (1983), who emphasized the position and the outline of the interior lining of the prostatic vesicle as a primary criterion of identification, reorganized the Acotylea into 28 families (14 of them new) and 125 genera (42 new) that are grouped into three super-families: Ilyplanoidea Faubel, 1984, Stylochoidea Poche, 1926 emend. Nicoll 1936, and Leptoplanoidea Faubel, 1984. Prudhoe (1985), who in his systematic scheme used mainly external morphological criteria such as the presence or absence of different types of