



## *Hypnea platyclada*, a new species of red alga (Rhodophyta, Cystocloniaceae) from Brazil

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### Abstract

*Hypnea platyclada* sp. nov. is described in detail from plants collected in northeastern Brazil and compared with closely related species such as *Hypnea volubilis*. The new species is characterized by a cylindrical estolon and stipe, flattened upper portions, flattened fusiform branches, evident axial filament with aspect of midrib, tetrasprangia and spermatangia forming sori on one side of the branchlets, cortical cells of unequal size and lenticular thickening restricted to the extremities of the cells of the axial filament.

### Resumo

*Hypnea platyclada* sp. nov. é descrita detalhadamente a partir de plantas coletadas no nordeste do Brasil e comparada com espécies proximalmente relacionadas tais como *Hypnea volubilis*. A nova espécie é caracterizada por apresentar estolão e estipe cilíndricos e porções superiores achatadas, ramos achatados fusiformes; filamento axial evidente, com aspecto de nervura; tetrasporângios e espermatângios formando soros apenas em um lado dos râmulos; células corticais de tamanho desigual; e espessamentos lenticulares restritos às extremidades das células do filamento axial.

### Introduction

The genus *Hypnea* Lamouroux (1813: 131) was described based on five species with cylindrical frond and subulate “fructification”. Agardh (1852) conducted the first systematic arrangement of the genus, describing and classifying twenty species in three sections based on the habit of the thallus. Currently there are 67 *Hypnea* species widely distributed in tropical and subtropical seas (Guiry & Guiry 2012), characterized by cylindrical to compressed thallus, with small lateral branches, globular cistocarps and zonate tetrasporangia in the lateral branches (Mshigeni 1978, Womersley 1994, Geraldino *et al.* 2009).

According to Masuda *et al.* (1997), the shape of the main axis in cross section may be an important taxonomic characteristic for the *Hypnea* species. These authors report that the type of axes is strongly correlated with the branching pattern: cylindrical to subcylindrical fronds are branched in an alternate-spiral manner, whereas compressed to flattened fronds are branched in an alternate-distichal manner. This feature has been used consistently by several authors such as Okamura (1909), Setchell (1924), Tanaka (1941), Schneider & Searles (1976, 1991), Mshigeni (1978), Wynne (1995) and Geraldino *et al.* (2009, 2010).