

**A review of the genus *Nemacystus*  
(Spermatochneaceae, Chordariales, Phaeophyceae),  
including phylogenetic and biogeographical hypotheses**

by

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With 16 figures and 2 tables

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**Abstract:** Phylogenetic relationships among the species of *Nemacystus* were inferred from morphological characters examined in herbarium specimens. *Nemacystus* is a very homogeneous genus. Species differ from each other in subtle morphological aspects of the dimensions and shape of assimilatory filaments, plurilocular sporangia, colour, ramification, and general habit. *Nemacystus erythraeus* var. *indicus* is described as a new variety and *Nemacystus flexuosus* var. *giraudii* is proposed as a new combination for Mediterranean *Nemacystus*. A key to identify taxa of *Nemacystus* is provided. A comparison of genealogy and biogeographical distribution reveals two groups of species, one with a north-westerly and the other with a south-eastern geographical occurrence. This probably reflects a strong historical imprint of the Tethys Sea and negates a supposed monophyly of the Atlantic taxa.

**Key words:** Atlantic Ocean, biogeography, marine algae, *Nemacystus*, Phaeophyceae.

