

## Nematode diversity and first observations of marine taxa from phytotelmata of *Nepenthes* spp. in Mt Hamiguitan Range Wildlife Sanctuary

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Nematodes from phytotelmata of *Nepenthes hamiguitanensis* and *N. peltata* in Mt. Hamiguitan, Philippines included three new species of the genera: *Molgolaimus* Ditlevsen 1921, *Dominicactinolaimus* Jairajpuri and Ahmad 1992, *Tripylella* (Bütschli, 1873) Brzeski & Winiszewska-Ślipińska, 1993; two known: *Tylocephalus auriculatus* (Bütschli, 1873) Anderson, 1966, *Pelodera strongyloides* (Schneider, 1860) Schneider 1866; and three uncertain species of the genera: *Paractinolaimus* Meyl 1957, *Plectus* Bastian 1865, and *Anaplectus* De Coninck & Schuurmans Stekhoven 1933. Measurements and illustrations are provided. *Molgolaimus* sp. nov. is characterized by the absence of pre-cloacal supplements, shape of the spicule with lamina widened distally, conical tail with swollen tip and without digitate prolongation, and sexual dimorphism in the shape of the cardia (elongated in male and more round in females). Moreover, a comprehensive key for the genus *Molgolaimus* is presented. *Dominicactinolaimus* sp. nov. is characterized by short body length, long tail ( $c = 6.6-7.6$ ) and 6-7 pre-cloacal supplements. The generic position of *Dominicactinolaimus* is reaffirmed and the synonymy with *Trachypleurosum* or *Trachactinolaimus* is rejected.

*Tripylella* sp. nov. is morphologically close to *T. iucunda* but differs in the female reproductive system having reduced posterior branch. The morphology and morphometry of

*Tylocephalus auriculatus* and *Pelodera strongyloides* specimens agree with the original descriptions of Anderson, 1966 and Schneider, 1866 respectively. Phylogenetic analysis of small subunit rDNA for *T. auriculatus* and D2-D3 expansion segment of LSU rDNA for *P. strongyloides* supported sister relationship with respective species sequences available in GenBank. Furthermore, *Molgolaimus* and *Actinonema* were observed from the samples which support the initial discovery of marine nematodes in the *Nepenthes phytotelmata* in 2008.

However, detailed taxonomical identification of *Actinonema* is not provided due to loss of sample during the process. In addition, the presence of freshwater nematode throws a new light on a better understanding of the complex scheme of *Nepenthes* carnivory and enzyme production of pitcher plants.