

THE GENUS *Phyllorhiza* (RHIZOSTOMEAE: MASTIGIIDAE) IN  
COASTAL WATERS OF THE ANDAMAN SEA AND THE GULF OF THAILAND

Isara Arsiranant<sup>1</sup>, Jie Xiao<sup>2</sup>, Punyisa Sriboonyuang<sup>3</sup>, Nutthika Jamsawang<sup>3</sup>,  
Werachart Pengchumrus<sup>4</sup>, Natnaphat Thongbai<sup>5</sup>, Charatsee Aungtonya<sup>6\*</sup>, Usawadee Detsri<sup>6</sup>,  
Pichai Kootsomboon<sup>7</sup> and Xuelei Zhang<sup>2</sup>

<sup>1</sup> Marine and coastal resources research center, Eastern Upper Gulf of Thailand,  
Song Khlong Subdistrict, Bang Pakong District, Chachoengsao 24130, Thailand

<sup>2</sup> The First Institute of Oceanography, Ministry of Natural Resources, Qingdao 266061, China

<sup>3</sup> Department of Marine Science, Faculty of Science, Chulalongkorn University,  
Bangkok 10330, Thailand

<sup>4</sup> Marine and coastal resources research center, Lower Andaman Sea,  
Mai Fat Subdistrict, Sikao District, Trang 92150, Thailand

<sup>5</sup> Marine and coastal resources research center, Western Upper Gulf of Thailand,  
Bang Ya Phraek Subdistrict, Mueang District, Samut Sakhon 74000, Thailand

<sup>6</sup> Phuket Marine Biological Center, Wichit Subdistrict, Muang District, Phuket 83000, Thailand

<sup>7</sup> Marine and Coastal Resources Research and Development Center, Central Gulf of Thailand,  
Mueang Chumphon District, Chumphon 86000, Thailand

\*Corresponding author: charatsee@gmail.com

---

**ABSTRACT:** Jellyfish belonging to the genus *Phyllorhiza* were gathered during both the northeast monsoon and southwest monsoon periods from the coast of Phang-nga, Phuket, Krabi, Trang, and Satun Provinces, southwestern Thailand, Andaman Sea, during 2009–2018. Additional specimens were collected from Chachoengsao, Phetchaburi, and Chumphon Provinces, the Gulf of Thailand, in 2015 and 2019. Morphological study and DNA analysis revealed that all specimens belong to one species *P. punctata*. This is the first detailed description of the species for this area even if *P. punctata* was previously recorded. The 16S and 18S sequences were deposited in NCBI genebank as KT982716 and KT982748, respectively. Comparative sequence analysis of the 16S rRNA and 18S rRNA gene fragments between our specimens from Thai waters and those in GenBank revealed that our samples matched those available sequences of *P. punctata* from Western Mexico, USA (Gulf of Mexico), Australia, and Eastern Mediterranean, based upon maximum likelihood. However, our clade is separate from *P. pacifica* which is found in the same geographic regions. The morphological analysis of *P. pacifica* requires further study.

**Keywords:** *Phyllorhiza*, Andaman Sea, Gulf of Thailand, morphological characters, molecular study

---