

Three new epizoic *Achnanthes* species (Bacillariophyta) living on marine turtles and manatees

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Marine mammals such as whales and dolphins have been known for a long time to host a very specific epizoic community on their skin. Several typically epizoic-endemic genera such as *Bennetella* and *Tursiocola* have been described. Less known however is the presence of a similar community on the carapaces of sea turtles and the skin of manatees. Recently, several studies describing new species found on turtles and manatees were published (Frankovich et al. 2015, Majewska et al. 2015).

The present study continues this research in investigating several unknown taxa belonging to the genus *Achnanthes* sensu stricto. Morphological observations based on detailed scanning electron microscopy and comparison with the type material of *Achnanthes groenlandica* var. *phinneyi* McIntire et Reimer and *A. pseudogroenlandica* Hendey resulted in the description of three new epizoic *Achnanthes* taxa. Two taxa, *Achnanthes* sp1 and *Achnanthes* sp2 were found on the carapace of nesting olive ridley sea turtles (*Lepidochelys olivacea*) in Ostional Beach on the Pacific coast of Costa Rica, whereas the third new taxon, *Achnanthes* sp3, was found on the skin of West Indian manatees (*Trichechus manatus*) in Florida.

The three taxa clearly belong to the same complex characterized by long, slender valves, absence of terminal orbiculi at the apices, large cribrate areolae and absence of typical costae on the internal virgae of both valves. They can, however, be separated based on the number of areolae per stria, the position of the pseudoraphe, differences in their length/width ratio and differences in colony formation.

This poster discusses the three species, their unique habitat, morphological features and their separation from other *Achnanthes* taxa.

References:

- Frankovich TA, Sullivan, M.J. & Stacy, N.I. (2015) Three new species of *Tursiocola* (Bacillariophyta) from the skin of the West Indian manatee (*Trichechus manatus*) Phytotaxa 204: 33–48.
- Majewska R., De Stefano M., Santoro M., Bolaños F., Chaves G. & Van de Vijver B. (2015) Two new gomphonemoid diatom genera (Bacillariophyta) living on marine turtles from Costa Rica. Phytotaxa 233 (3): 236–250.