Scrippsiella spp. resting cysts from the German Bight (North Sea): A tool for more complete check-lists of dinoflagellates

Stefan Nehring

Institut für Meereskunde an der Universität Kiel, Düsternbrooker Weg 20, 24105 Kiel, Germany

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Abstract

Studies on dormant resting cysts of the dinoflagellates *Scrippsiella lachrymosa* Lewis 1991 and *S. trifida* Lewis 1991 from Recent North Sea sediments suggest that their motile forms, which have not yet been officially recorded in this area till now, are common members of the North Sea plankton community. Cyst surveys offer avenues to overcome problems in spatial and temporal distributions and in taxonomy, and will help the compilation of a phytoplankton inventary in an area.

Conclusion

There is an increasing need to study cysts in phytoplankton ecology recognizing the fact that they play an important role in the life cycle of dinoflagellates. Studies on cysts reveal a benthic view of dinoflagellate ecology and represents integrated records of the population. Direct comparision of motile stages with those of their cysts showed that differences between them in several species (*Alexandrium* spp. (BOLCH et al. 1991), orthoperidinoid forms (LEWIS 1991)) are more obvious at cyst level. The present study shows that cyst surveys provide 1) a relatively inexpensive and easy way to get information about the occurrence of "non-indigenous" cyst forming species and 2) that they are an indispensable component to complete phytoplankton check-lists and evaluate dispersal processes.

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