

Magdalena Lawręc – IO PAN- Centre for Polar Studies (KNOW), mlawrec@iopan.gda.pl

Estuarine Coastal Sciences Association – a report on participation in the conference

06-09 September 2015, London, UK

On the 6th– 9th of September in London was held the 55th Estuarine Coastal Sciences Association. Conference took place at the ExCel in London, located on the banks of the world famous Thames Estuary and situated within one the world's largest regeneration projects in London's Eastside. ECSA is the forefront of excellence in estuarine and coastal science and management and has the international following. ECSA is 45 years old, and has been evolving since its inception as the Estuarine and Brackish- Water Sciences Association in 1971. ECSA is run by a council of leading estuarine scientists.

On Sunday, 6th September we started with Plenary Session 1 (e.g. M. Elliot, E. Wolanski, V. de Jong). During conference were a lot of interesting sessions (oral presentations and poster sessions), for example: Physical, chemical processes in estuaries and coasts: Geochemical, sedimentary, hydrodynamic and geomorphological change, Biology and ecology of coastal estuarine systems: Evolution, adaptation and shifting baselines or Interactions between biological, geochemical and physical processes: Fluxes and functions. I have presented poster: „Carotenoids or chlorophylls- which are better biomass indicators?“. Poster „Chloropigment proxies in recent sediments- comparison of the Gulf of Gdansk (Poland) and Drammen/Oslofjord (Norway)“ was presented at this conference as well (which I am a co-author). On Tuesday I took part in workshop for student and early career researcher about publishing and reviewing in international journal.

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Magdalena Lawręc

CAROTENOIDS OR CHLOROPHYLLS - WHICH ARE BETTER BIOMASS INDICATORS?
 Magdalena Lawręć¹, Grzyna Kowalewska¹, Małgorzata Szymczak-Zyla²
¹- Institute of Oceanology Polish Academy of Sciences, Centre for Polar Studies KJOW (Leading National Research Centre), Sopot, Poland
²- Institute of Oceanology Polish Academy of Sciences, Marine Pollution Laboratory, Sopot, Poland
<http://www.iopan.gda.pl/MarPolLab/>

Abstract

Carotenoids are a large group of compounds common to all photosynthetic organisms. They are important for their photosynthetic, antioxidant and signaling functions, and higher plant carotenoids, like xanthophylls and chlorophylls, are also important for their ability to absorb light energy and transfer it to chlorophyll a. They occur also in sediments, especially in the upper part of the water column. Their presence in sediments is determined by the intensity of primary production and the rate of sedimentation. In this study, we investigated the possibility of using carotenoids as biomass indicators in the water column and in sediments. Sediment collection was carried out in the Baltic Sea in the vicinity of the Gdansk and Gdynia ports. The results of the analysis of carotenoids in sediments and in the water column are presented. The results show that carotenoids are more stable in sediments than in the water column. The results also show that carotenoids are more stable in sediments than in the water column. The results also show that carotenoids are more stable in sediments than in the water column.

Sediment collection

HPLC Analysis

Analyzed pigments

Chromatogram

Results

Conclusions

Some carotenoids in sediments are more stable than chlorophylls. They are the better, more specific indicators of primary production and autotrophication in an area than chlorophylls.

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