Lead Author e-mail: *paulakacprzak90@gmail.com*

Title: *Horizontal and vertical variability of Pteropoda in the Subarctic waters (Barents Sea and Norwegian Sea)*

Kacprzak Paula[1], Panasiuk - Chodnicka Anna[1], Korneluk Magdalena[1], Wawrzynek Justyna[1]
[1]***University of Gdańsk, Institut of Oceanography, Al. M. Piłsudskiego 46, 81 - 378 Gdynia***

Every change of water parameters in the polar regions carries unpredictable consequences. Pteropoda play a key role in the short Arctic food chain. Limacina helicina, Limacina retroversa and Clione limacina are dominant Subarctic pteropods. Usually, these animals occur in a significant abundance in this region during the whole year. Tested animals were collected in August 2011 with plankton nets of two types - WP2 and Bongo. In the laboratory pteropods were separeated from the rest of the zooplankton and all speciments subsequently underwent bioanalysis with regard to species composition, abundance and developmental stages determination. There were two races of gymnosomatous pteropod Clione limacina: northern, cold water race (length of more 70 mm) and smaller, southern race (length of 12 mm). Very little is known about the life cycle of C. limacina, our knowledge in this issue is lacking. Polytrochous larvae and adults were differentiated by length (larvae stages were determinated on the basis of length – (1 -15 mm) and presence of ciliary bands on the trunk). Larger specimens were only separated into two categories - small and large adults. Thecosome pteropods were noted in a highest abundance in the Subarctic waters. These organisms are described as a protandric hermaphrodites. Limacina helicina probably has a one – year life cycle and Clione limacina has at least a 2 – year life cycle in Subarctic waters. The goal of this study is to fill a gap in knowledge by investigating population structure of these pteropods species.