

Brief overview of zooplankton communities at Station Zero on 26 Jan '09.

Zooplankton samples were successively collected in day hours with two MN (55 and 200 μm) in 5 discrete depth layers (500-300 m, 300-200 m, 200-100 m, 100-50 m, 50-0 m) and with WP2 (200 μm) in the integrated 0-100 m water column.

The preliminary analysis of the samples showed that the upper 50 m layer was largely dominated by species of the genus *Oithona* (*O. frigida* and *O. similis*). These tiny cyclopoids presented conspicuous oil drops and seemed to be actively reproducing since juveniles were very abundant, males were numerous and many females carried the spermatophores. The calanoid copepods were numerically scarce and represented by juveniles (CIII, CIV, CV) of *Calanus simillimus* and *Ctenocalanus citer*. These two calanoids become relatively more important in terms of abundance in the 50-100 m stratum. In deeper waters, the community was more diversified and represented by additional copepod species and other zooplanktonic groups. In the 100-200 m layer, *Clausocalanus laticeps* and *Scolecithricella* occurred while in the deepest layer (300-500 m) further species of omnivorous and carnivorous copepods appeared (*Euchaeta*, *Pleuromamma*, *Heterorhabdus*, Aetideidae) together with large calanoids such as *Rhincalanus gigas* (both juveniles and a few females) and *Calanoides acutus* (juveniles). Other groups were here represented by large chaetognaths, ostracods, small jellyfishes (medusae), the polychaete *Tomopteris*, amphipods and euphausiid larvae.

The particle backscatter in the upper 500 m water column was recorded by a Simrad echosound, and we focused mainly on the 38 and 200 kHz frequencies, which better represent the occurrence of nektonic animals and zooplankton, respectively. Backscatter layers at ~50 and 380 m depths appeared as more frequent, but also sporadic clouds of intense reflection indicate the presence of some animal aggregations. We found some early stages of krill in several layers of the water column and one fish larvae was collected in the 300-500 m stratum. Since we did not collect any salp during the net tows, these groups that form swarms/schools are the more likely candidates to contribute to the backscatter recorded so far.