

**World Conference on Marine Biodiversity**, 11-15 November 2008, Valencia, Spain.

Tuesday, November 12

*Session 2.2 Biodiversity & Ecosystem Shifts: Viewed from the Bottom Up*  
*Chairs : John R. Dolan; Wiebe Kooistra.*

17:45 – 18:00

**REGIME SHIFTS AND SPECIES LISTS: CHANGES IN THE BLACK SEA  
REFLECTED IN SPECIES RECORD OF THE MICROZOOPLANKTON**

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The Black Sea has undergone major changes from the 1960's to the present. Tintinnid ciliates of the microzooplankton have been studied in the Black Sea for over 130 years. Using historical records, a time line was constructed for each species and apparent changes in species inventories documented. The number of species recorded increased steadily from the 1870's to the mid-1960's. From the 1960's to the 1990's, with the installation of the Iron Gates dam of the Danube River and eutrophication, the frequency of new species records declined but with no apparent species losses. The 1990's to the present saw the rise and fall of the comb jelly and the collapse and recovery of the anchovy fishery, a period with increases in the number of new species and apparent losses of resident species. It appears that abrupt changes in planktonic ecosystems may be detectable with a very crude metric of community composition - lists of species.

