

Abstract

ASLO Aquatic Sciences Meeting, January 25–30, 2009. Nice, France

***SIMILAR PATTERNS OF COMMUNITY ORGANIZATION
CHARACTERIZE GROUPS OF DIFFERENT TROPHIC LEVELS IN
THE PLANKTON OF THE NW MEDITERRANEAN SEA***

Dolan, J. R., Microbial Ecology Group, Lab Oceanogr Villefranche, Univ Paris6/CNRS, Villefranche-sur-Mer, France, dolan@obs-vlfr.fr

Ritchie, M. E., Dept Biology, Syracuse University, Syracuse, NY, USA, meritchi@syr.edu

Raybaud, V., Lab Oceanogr Villefranche, Univ Paris 6/CNRS, Villefranche-sur-Mer, France, raybaud@obs-vlfr.fr

Tunin-Ley, A., Microbial Ecology Group, Lab Oceanogr Villefranche, Univ Paris 6/CNRS, Villefranche-sur-Mer, France,

We compared Ceratium of the phytoplankton, tintinnids of the microzooplankton, and large omnivorous and carnivorous copepods by sampling over a 4 week period. In all three groups, diversity as H' or species richness, was much less variable than concentrations. Species accumulation curves approached plateau values but only a small number of species were consistently present (core species) and these accounted for most individuals. For Ceratium, the core species numbered 10, for tintinnids 11 species, and for large copepods, 4 core species during the day and 16 at night. Ceratium, tintinnids and large copepods showed some similar patterns of community structure in terms of species abundance distributions. Ceratium species were distributed in a log-normal pattern. Tintinnid species showed a log-series distribution but core species alone were log-normal. Large copepod communities were highly dominated; night samples showed much higher abundances and greater species richness than day samples. However, species abundance distributions were similar between day and night and were mostly log-normal. A super-saturation of species characterized groups of distinct trophic levels. Financial support provided by the ANR Biodiversité/Pôle Mer PACA project AQUAPARADOX.

<http://www.obs-vlfr.fr/LOV/aquaparadox/>