

Copepod fauna (Calanoida and Cyclopoida) in small ponds of the Pollino National Park (South Italy), with notes on seasonality and biometry of species

Genuario BELMONTE*, Giuseppe ALFONSO and Salvatore MOSCATELLO

Laboratory of Zoogeography and Fauna, Di.S.Te.B.A., University of Lecce, I-73100 Lecce, Italy

*e-mail corresponding author: genuario.belmonte@unile.it

ABSTRACT

The plankton copepod fauna of the Pollino National Park (South Italy) were studied for the first time. Plankton samples were collected from 5 ponds, and 2 of these ponds were sampled monthly for one year to study species' seasonality. The length of adult specimens was measured to investigate body size variability. The variation of egg number in female egg sacs was evaluated for 2 species. Copepods were present in the plankton of the 5 ponds with a total of 10 species (2 Calanoida, 8 Cyclopoida), belonging to different genera. The 2 ponds which were studied in detail gave 7 and 8 species, respectively (only 1 calanoid per pond). Three species were exclusive to a single pond; only 1 species (the cyclopoid Eucyclops serrulatus) was found in all the 5 ponds. One calanoid (Arctodiaptomus kerkyrensis) and one cyclopoid (Tropocyclops prasinus) were perennial, with adults present in all the samples collected from the pond they inhabited. The second calanoid (Mixodiaptomus lilljeborgi) was found also under the snow-ice cover of the pond during winter, but was absent from summer-autumn samples. The adults of the remaining Cyclopoida species, in contrast, were generally absent from winter samples. All of the species showed adult females larger than males. Winter-spring adults were generally larger than the summer-autumn ones. The clutch size was directly correlated with the female body size. In a comparison between the 2 Calanoida, the one that inhabits the most stable pond (i.e. the pond with the smallest water-volume variation) showed many generations per year, and the smallest variation in clutch size and body size among generations. In the case of E. serrulatus, which populated both of the ponds, the body size of the population of the unstable pond showed a wider variability than that of the stable pond.

Key words: Copepoda, Pollino National Park, body size, seasonality, freshwater ponds
