

DIATOMS AND GROUND BEETLES (COLEOPTERA: CARABIDAE) IN INTERMITTENT AND PERMANENT RIVERS IN MONCHIQUE MOUNTAINS (SOUTHERN PORTUGAL)

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The importance of intermittent watercourses is widely recognized, as they represent a great part of the river network worldwide. This is also the case of Portugal, where it is estimated that more than 80% of the territory is drained by intermittent rivers. Given their importance, a study with benthic diatoms and ground beetles (Coleopteran: Carabidae) was carried out to understand their value as bioindicators in intermittent and permanent rivers. To do so, benthic diatoms were sampled in Spring and ground beetles in Spring and Summer 2006 and 2007 in reference sites in Monchique, a mountainous area located in the Algarve region, Southern Portugal, mostly classified as part of EU ecological network Natura 2000 (Directives 79/409/EEC and 92/43/EEC). Preliminary results showed that benthic diatom communities differ between the two river types, with intermittent watercourses characterized by higher taxa richness (S), Shannon index of diversity (H') and Pielou's evenness index (J'). Indicator value analysis revealed that *Amphora pediculus*, *Cocconeis lineata*, *Eolimna minima*, *Gomphonema pumilum*, *Melosira varians* C. Agardh, *Navicula gregaria* and *Sellaphora seminulum* are indicators of the intermittent watercourses in this area. Concerning ground beetles the difference between the two river types was not significant. However, some species were present in a more consistent way in permanent streams (*Perileptus areolatus* and *Trechus obtusus*), and others were more frequent in intermittent streams (*Agonum muelleri* and *Anisodactylus hispanicus*). In the intermittent streams, along the dry summer phase, the species frequently present, with hydrophilic characteristics, were *Paranchus albipes*, *Stenolophus skrimshiranus*, *Bembidion decorum* and *Bembidion coeruleum*.