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# How to collect plankton in caves. Groundwater copepods in Southern Poland

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Copepods are one of the most numerous groups of aquatic organisms. Many species are part of the psammon, a few live deep in the silt, and they are present in large numbers in interstitial waters and wells. Distribution of copepods, including stygobiontic species, and their subsequent settlements, were thus related to the disappearance of glaciers and the formation of postglacial water connections. In contrast to the intensive studies of surface water copepod fauna of Poland, Copepoda inhabiting groundwater and caves were poorly described. Only two stygobiontic species of Cyclopida have been known from Poland. During our research, we focused on stygobiontic copepods, which could inhabit saturated zone. The conventional hydrobiological methods for collecting samples were used, additionally a scuba-diver who operated the pump collected samples from surrounding areas. Samples from the cave pools were collected separately into plastic containers. Sampling methods were chosen to avoid damaging the groundwater habitats as much as possible. Underwater traps were built with modified PVC boxes (length 100 mm; inner diameter 65 mm); two traps per station were put into the bottom. Up to now, we identified 22 copepods species inhabiting Southern Poland. The most abundant species in the waters of the cave system were dominated by *Acanthocyclops kieferi* (Chappuis, 1925), which has not been previously recorded in research area (Southern Poland).