DISCUSSION ON "RARE SPECIES IN BENTHIC SAMPLES"

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When analyzing the total macrofauna from sediment samples, the amount of time devoted to individuals of rare species is disproportionately high because these often present problems of identification. Ecologists being concerned with quantitative comparisons might like to disregard this fraction from analysis to save time.

(2) For rare species to be of interest in ecological considerations we need to find out whether there are ecological processes or environmental factors which primarily affect the rare species, and remain unnoticed once we confine our anlaysis to the common species.

(3) There is a conceptual difficulty to define "rare species". What is rare from the human point of view may not be rare for a specialized predator or parasite. Large sized individuals always tend be rarer than small sized individuals. One may find an index by multiplying abundance with logarithm of size. There may be species which are permanently and everywhere rare. Others exploit patchy and rare resources and thus show up rarely in samples but may be numerous nevertheless.

(4) Certain trophic groups (predators, parasites, commensals) are disproportionalety represendet in the fraction of rare species. Some species may be always rarebut still have a marked impact on the environment like those who make spaceous burrows. Species which are always rare may be most liable to extinciton. Excluding all these rare species from analysis will result in a biased perception of benthic ecology.

(5) Quantitative ecology has dominated the work of benthologists in the past decades. This resulted in a neglect of rare species. We conclude that qualitative approaches to benthic ecology ought to be strengthened, otherwise a rich source of information remains hidden in the "tail" of species lists.