

MAN-INDUCED DISTURBANCE OF THE COASTAL SANDY BEACH SYSTEM - THE CONFLICT AREA BETWEEN TOURISM AND BIODIVERSITY?

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The overall functioning and character of sandy beaches is shaped by a small number of key species that exert a major impact on community metabolic processes. The impact of these species, however, can be disproportionate to their abundance or biomass. One of such species is the sandhopper, *Talitrus saltator*, a semiterrestrial amphipod crustacean, which has spread from the Mediterranean and has colonised European coasts of the Atlantic to the southern Baltic, and has become a common inhabitant of exposed sandy beaches. Recently, however, this species disappeared from a number of places previously occupied, as demonstrated in a research made in Poland. Environmental change, food limitation, and tourism are among the possible factors that have a negative impact on sandhopper occurrence. Since the 1950s, as people were gaining access to more free time, coastal areas have become increasingly desirable as holiday destinations, and beach tourism has grown at an enormous rate becoming a mass phenomenon.

Building on the above framework, this work has specifically sought to address the following questions:

a) Quality of life - relation to the access to coastal environment

- How the coastal zone may influence positively or negatively on the quality of life?
- How will the human community react to removing the detritus from the beach vs. not doing it?
- What are the cultural differences on the European scale concerning beach perception/expectation?
- What are the social differences in peoples perception of 'natural' beaches?

b) The impact of beach macrofauna

- Is macrofauna population density and structure affected by different uses of beaches?
- How will the macrofaunal community respond to a significant increase in the number of people frequenting the beach?
- How will the macrofaunal community react to removing the detritus from the beach vs. not doing it?
- **Are we losing something in turning pristine coastlines into leisure industry centres? If so, what is the value of the loss?**

Next to their ecological importance as bio-filters, sandy beaches in Europe tend to be of great economic value through tourism. However, modern tourists are largely peaceful, but tourism itself creates much damage to the environment. Nowadays a common feature of the influence of the European seas is the diffusion of plastic debris on the coasts, either abandoned by beach users or deposited by the sea during storms. Sandhoppers today occur, however, on isolated localities only along the Polish coast, avoiding the most visited tourist places. So, is the sandhopper a victim of increasing tourism and activities linked to it?

