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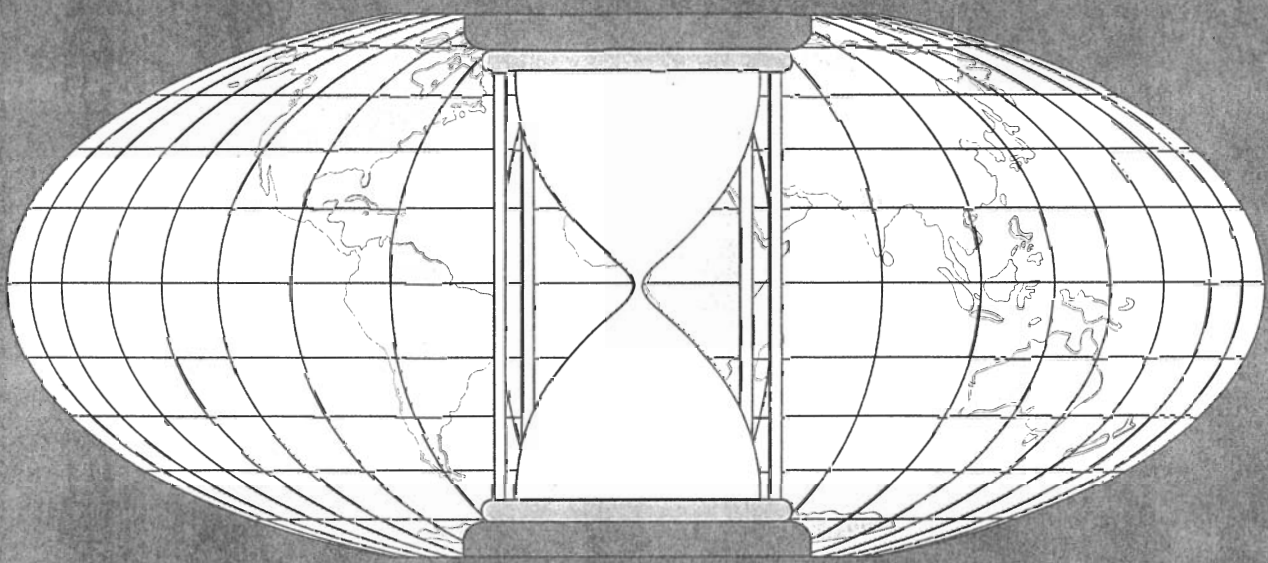

New tasks for ecologists
after Rio 1992

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PROCEEDINGS

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SPATIAL PATTERNS OF GRASSHOPPER POPULATIONS AND COMMUNITIES IN GRASSLAND LANDSCAPES.

An analysis of the spatial organization of populations and communities is critically important for the evaluation of evolutionary trends and and for conserving biological diversity. Another important thing is associated with long-term forecasting. We studied the spatial distribution patterns of grasshopper populations and communities in grass landscape of temperate Eurasia and North America from 1976 to1997. We evaluate grasshopper diversity, distribution and abundance along long profiles consisting of local transects (from flood plains to plains or montane slopes). Appropriate techniques of counting and collecting have been used. On the plains, we describe four types of population distribution for each species: marginal, transitional, basic, and marginal. This approach allows us to evaluate optimal and least optimal positions at larger scales: regional (i.e., inside natural region) and local (i.e., in-basin). Evaluation of distribution patterns in anthropogenic landscapes are prospective at these levels. Comparison of population distributions of all species is useful to understand grasshopper coexistence. Patterns of community distribution are very complicated. Each geographic (and biogeographic) region includes its own set of communities, including those forming in anthropogenic landscapes. As a result, succession systems can be very different in neighboring regions.