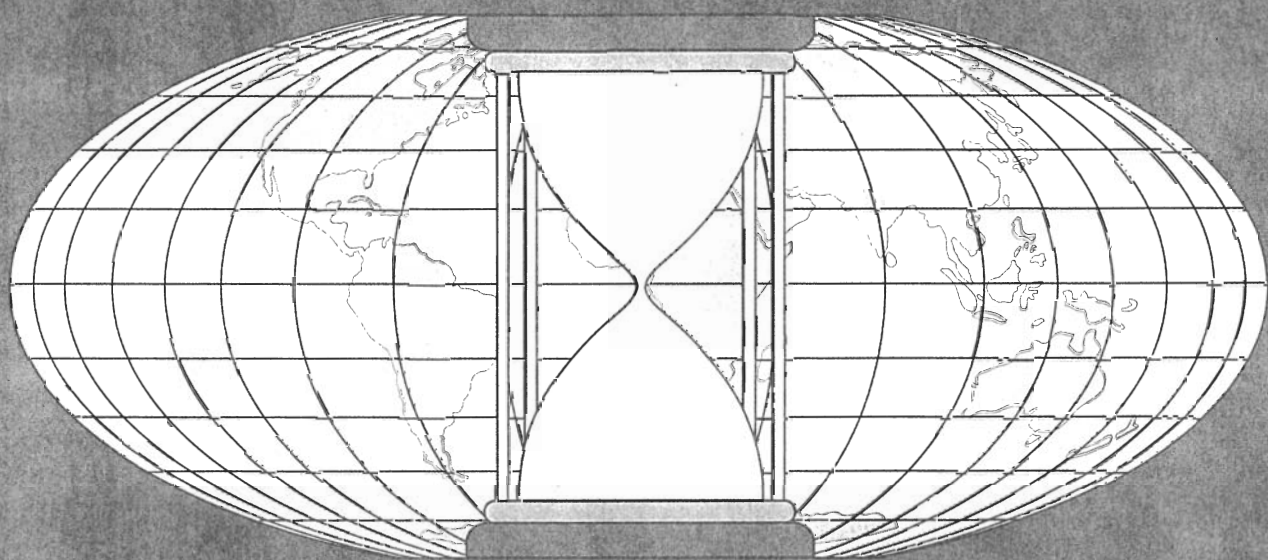


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Almo Farina, Jeff Kennedy & Veronica Bossù

Alitalia

■ Sergeev M G (1), Dubatolov V V (2), Pokivajlov A A (3)

(1) Department of General Biology, Novosibirsk State University, Novosibirsk, Russia; (2) Institute for Systematics and Ecology of Animals, Novosibirsk State University, Novosibirsk, Russia; (3) Borisoglebsk Teacher Institute, Russia

LONG-TERM DYNAMICS OF INSECT ASSEMBLAGES IN SEMI-ARID AND ARID ECOSYSTEMS OF EURASIA.

The long-term dynamics of insect (mainly Orthopteran and butterfly) communities has been studied in the forest-steppes from 1981 to 1997 and in the deserts from 1983 to 1992. A set of constant plots was selected. This set includes the main types of ecosystems. Abundance of each taxa has been estimated using appropriate techniques. Our data show that the general level of taxonomic diversity is more or less stable. However, in anthropogenic desert landscapes it has decreased significantly from the 1930s to the 1980s. In some cases, a few insects can spread as a result of anthropogenic alterations. Insect abundance fluctuates significantly and is evidently connected with climatic fluctuations. The maximum of grasshopper abundance on the forest-steppe, meadow and lawn plots were observed in the dry and hot summers of 1984, 1988, and 1995. It seemed to be especially important that the springs and summers of the previous years were hotter and drier. During other years, abundance of studied communities fluctuates in different manners. Very often the fluctuations of communities on two similar plots may be characterized as opposite. In the local agricultural biotopes, the dynamic patterns seem to be mainly determined by insect migration from more stable habitats. As a result, maxima and minima in anthropogenic biotopes are a year behind in comparison with their levels in natural and seminatural biotopes.