

The diel vertical migrations of herbage-dwelling spiders in clayey semi-desert of the northern Caspian Sea basin, West Kazakhstan (Araneae)

*Tatyana Piterkina*¹

Abstract: The diel periodicity of vertical migrations of the herbage-dwelling spiders in the natural biotopes of the clayey semi-desert in the northern Caspian Sea basin (West Kazakhstan) is investigated. Steppe biotopes (microdepressions) and desert ones (microelevations) are shown to have much in common: the abundance and the family composition of the spider population of both biotopes are similar, they differ a bit only in summer. The amplitude of diel fluctuations in the spider abundance is rather significant. In spring and autumn the peaks of abundance in both types of biotopes are at night, when the temperature of the air is minimal. In summer, in addition to night peaks of abundance there are daytime rises due to increase of activity of “southern” taxa – Thomisidae in desert associations, and Thomisidae+Salticidae in steppe ones. The diel rhythmic of vertical migrations of hortobiotic spiders is a complicated phenomenon which is determined by a number of factors. Partly it is conditioned by environmental factors, and partly – by the vertical migrations of their preys – phytophagous insects. So, the ecological niches of different spider taxa are separated in time according to their adaptations to climate conditions. It brings about a decrease of the competition between taxa.

Key words: desert, steppe, herbage-dwelling spiders, diel activity, temporal distribution