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The impact of climate factors on the hibernation state of grey squirrels (*Glis glis*)

S u m m a r y

The observation was carried out on 11 individuals of grey squirrels (*Glis glis*). The animals were divided into two groups. Grey squirrels from the first group were kept in the cage outside. The second group was placed inside the building with constant access to light and the temperature (about 20° C) and the relative moisture (about 50%). There has been a thermohygrometer set on each cage in order to measure the temperature and moisture of the environment. During the analysis of temperature and moisture of the air in the both investigated groups of grey squirrels it was found that the animals kept in cages inside the building were characterized by a full life activity in the whole investigated period of time. The animals kept outside presented different behaviour. In the middle of October (from 17th to 21st October) their first sleeping was recorded. In this time the daily amplitude of temperatures ranged from 12.5 to 5.8° C (minimal temperature was 0.9° C) along with the most daily difference of relative moisture 27.5 to 9.4%. The length of the luminous day ranged from 632 to 615 min. The following attempts of sleep were observed in November (between 3rd to 8th November and from 13th to 14th November). A considerable decline of temperature was found (the daily amplitude was 5.6-3.0° C in the 3rd - 8th November; 1.9-3.3° C from 13th to 14th of November) and the moisture was on the level of 90%. The total state of hibernation of grey squirrels was noticed in December (from 15th December) along with the temperature below 0° C. The minimal temperature of the air was (-2.6° C). Along with the decline of temperature, the increase of the relative moisture of air was recorded; it ranged between 99.9 to 71.1%. The length of the luminous day was 458 min, in the average.