

Spotlight countings were used to estimate spring (prebreeding) and autumn (post-production) brown hare *Lepus europaeus* densities in 40 rural areas of Schleswig-Holstein, Germany, during 1995 – 2002. Estimates of fox *Vulpes vulpes* densities were based on breeding earth censuses and the game bag records in each sample area enclosing about 10 km². To validate the meaningfulness of game bag records, the intensity of hunting pressure was evaluated with a poll. The breeding pairs of buzzards *Buteo buteo* were also counted in most areas and varied from 0,04/km² to 0,9/km². Hare densities varied from 1,2 /km² to 85/km² in spring and from 5/km² to 127/km² in autumn. There was neither a hint of a climatic reason determining the actual hare densities nor the average reproduction level during the investigation period. The annual variations of reproductive success, unaffected by the average level, could be mostly attributed to precipitation during the last two decades of March and the first two decades of April. The influence of landscape on the constitution of hare populations is not significantly detectable with PEARSON-correlations but the abundance of foxes and buzzards correlates negatively ($p < 0,01$) with the density of hares. In contrast to the obvious negative influence of predator-density, shooting could be determined as a form of wise use of hares and as a compensatory mortality rate. A multi-factor analysis put out the abundance of foxes as the most influential factor for determining the densities of hares at present. The average reproduction rate during the period was positively influenced by the diversity of agriculture and negatively by the existence of breeding earths of the red fox.