

changes in the proportion of wild boar from year to year which are probably caused by the main influence of harsh climate and feeding conditions in the autumn and winter on the wild boar population.

The ten years monitoring of the feeding ecology of the wolf in Upper Lusatia showed that wolves are able to live on wild ungulates very well even in the present cultivated landscapes of Germany.

Climatic and terrain determinants of common vole outbreaks in Germany

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Outbreaks of common vole (*Microtus arvalis*) populations can cause great damage to agriculture and forestry. In such scenarios the overall population abundance of voles often increases simultaneously over large areas, although at the smaller scale great differences in abundances can occur. Historic time series (1974-1997) of an abundance-index (reopened-burrows) were obtained for over 70 sites in Saxony-Anhalt and Thuringia in eastern Germany. "Classification and regression tree"-analysis was used to establish correlations between the abundance-index and potentially predictive parameters. Those were a) the mean monthly values of key weather parameters (precipitation, temperature, snowfall and a sunshine-index) and b) terrain parameters such as elevation and soil type. The analysis was able to identify potential predictors as well as their thresholds from the set of variables.

Results show, that sites below 100m above sea level generally had a low outbreak risk. For sites above 100m the percentage of Chernozem soil seemed to be important, with high percentages having higher abundances compared to low percentages. Weather parameters varied between annual and perennial crops, but were able to overall explain over 70% of the variation in the abundances. Weather conditions were identified that clearly reduced the outbreak risk, whereas scenarios of high abundances were more difficult to characterize. In the future the terrain and climatic drivers will be combined in a more holistic modeling approach. This will aid farmers, as a decision making tool, in taking preventive measures for combating common vole outbreaks.

Primates under altered living conditions. Status and conservation potential of the European captive populations

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The meta-population management of captive wild animals through breeding programs, as started in the 1980s, has been regarded as a major advancement in the recent history of zoo biology. Through such programs, zoos are expected to contribute to the conservation of species by providing reserve populations. In this paper, we briefly describe the status of the European primate populations, evaluate their conservation potential and elaborate possible reasons for problems that are often encountered. The development of most populations has been unsatisfactory in terms of birth rates, infant survival and population growth. We postulate that the management concepts and tools used have been inappropriate and need improvement. We outline a more life history and phenotype-oriented approach for management. We propose to link *in situ* and *ex situ* approaches, since a large proportion of wild primate populations also lives under fragmented conditions somewhat similar to the captive conditions.

Comparative notes to the reproduction biology of tropical deer (*Cervidae*) at the Tierpark Berlin

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The Tierpark Berlin kept in his history a collection of over 40 species and subspecies of deer (*Cervidae*). A total of 36 forms could reproduced successfully in the Tierpark Berlin from 1955-2009. The current collection consists of 17 taxa. The report will give a comparative overview of the reproduction biology (sexual maturity, calving season, litter-size, sex-ratio, neonatal mortality, life span) of selected tropical species like Malayan Sambar (*Cervus unicolor equinus*), Rusa Deer (*Cervus timorensis*), Burmese Brow-antlered Deer (*Cervus eldi thamin*), Hog Deer (*Axis porcinus porcinus*) and Vietnamese Sika Deer (*Cervus nippon pseudaxis*).