

**ENVIRONMENTAL CONDITIONS AFFECT OFFSPRING SEX-RATIO  
VARIATION AND ADULT SURVIVAL IN TAWNY OWLS**

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*Abstract.* We studied survival of adult Tawny Owls (*Strix aluco*), number of breeding pairs, breeding performance, and offspring sex ratio in relation to the number of snowy days in the preceding winter in Duna-Ipoly National Park, Hungary. A new male was more likely to be present after a winter with many snow days, although female survival was not affected by weather. Number of breeding pairs and number of fledglings declined with increasing number of snowy days. Offspring sex ratio varied according to whether snow cover was present during the egg-laying period, with broods being male biased during adverse conditions but female biased during mild conditions. Also, female nestlings were more likely to die before fledging than male nestlings. These data suggest that female Tawny Owls are able to adjust the sex ratio of their brood according to the expected differential success of nestlings under the prevailing weather conditions. This adjustment in relation to environmental conditions has important implications for the demography of Tawny Owl breeding populations.

*Key words:* adult survival, offspring sex ratio, reproductive success, sex allocation, *Strix aluco*, Tawny Owl, weather effects.