

Predation on a landscape scale.

Wolf Teunissen, Erik Kleyheeg (Sovon)

Wader populations breeding in agricultural grasslands are declining throughout Europe. The situation in the Netherlands is no exception. Beside land use change, increased predation has been identified as one of the main pressures for meadowbird populations. Quantifying predation pressure and identifying regulating factors will enable conservationists to model the relative importance of predation for meadowbird population dynamics and inform predator management decisions. However, predation pressure is the outcome of complex ecological interactions, which are difficult to study due to the variety of species involved and their secretive behaviour. By combining 15 years of data on nest success with a new analysis of predator occurrence and landscape metrics, we aimed at identifying the mechanisms underlying predation pressure on wader nests in the Netherlands. Our preliminary results show that both the risk of nest predation and the composition of the predator community are largely explained by landscape type. Nest losses due to predation ranged from 17% in the southwest to >50% in the northeast of the country, with significant contributions by Red Fox, Beech Marten, Pole Cat and Stoat. Future research will focus on mechanisms underlying predator presence and behaviour, including interactions between predator species and the availability of alternative prey throughout the annual cycle.