

Rose ringed parakeets and Greater Noctules



The identification of effects of invasive species is difficult because

they have so many impacts on native biota.

Negative impacts are most often reflected in individual fitness rather than in population dynamics of native species and are less expected in low-biodiversity habitats, such as urban environments.

The long-term effects of invasive rose-ringed parakeets on the largest known population of a threatened bat species, the Greater Noctule, located

in an urban park. Both species share preferences for the same tree cavities

for breeding. While the number of parakeet nests increased by a factor of 20 in 14 years, the number of trees occupied by Noctules declined by 81%. Parakeets occupied most cavities previously used by Noctules, and spatial analyses showed that Noctules tried to avoid cavities close to parakeets. Parakeets were highly aggressive towards Noctules (see pictures), trying to occupy their cavities, often resulting in Noctule death. This led to a dramatic population decline, but also an unusual aggregation of the occupied trees, probably disrupting the complex social behaviour of this bat

species.

The results indicate a strong impact through site displacement and killing of competitors, and highlight the need for long-term research to identify unexpected impacts that would otherwise be overlooked.

Photos Dailos Hernández-Brito



Source

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