

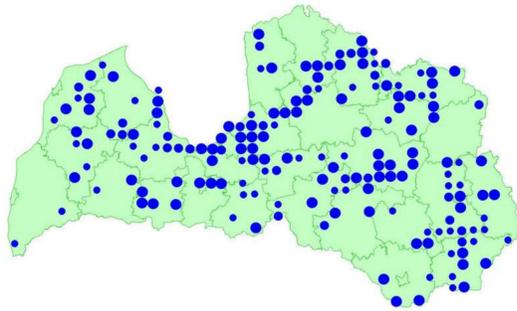
Conservation and population status of European Roller in Latvia

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Coracias garrulus. Photo © Māris Maskalāns



Historical decrease



Breeding distribution of Rollers in Latvia: 1927-1970 (ringing data), with additional data from 1980-1984 and 1985-1989 (breeding bird atlases).

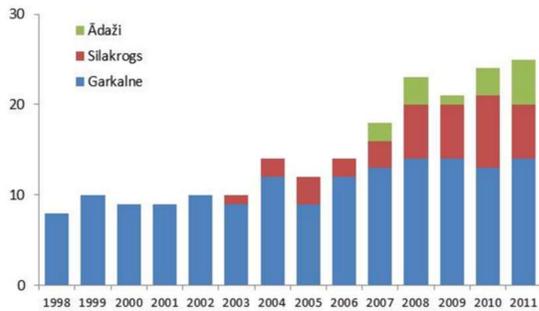


Breeding range in 2011. The Roller population has collapsed from perhaps several thousand pairs in the middle of 20th century to 25 known pairs in 2011.

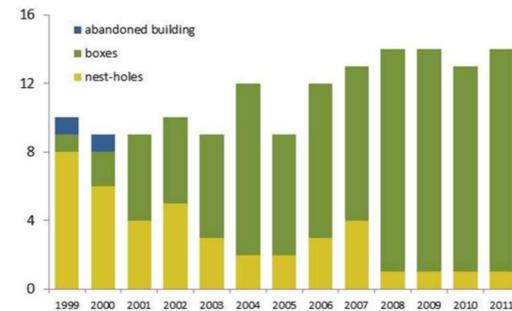


Currently, one breeding area is known in the central part of Latvia. The largest part of this population occupies Garkalne forest area (ca. 2000 ha of dry Scots Pine forest) where Rollers have been studied and provided with nest-boxes since 1999.

Recent trends



Number of known Roller nests in the study area. The core population at Garkalne forest was stable or slightly growing during the last decade. Garkalne and Ādaži are at least partly within Natura 2000 sites.



Number of known occupied Roller nests per nest type in Garkalne forest, the core and best studied breeding site. There has been a gradual shift from natural Black Woodpecker holes to nest-boxes.



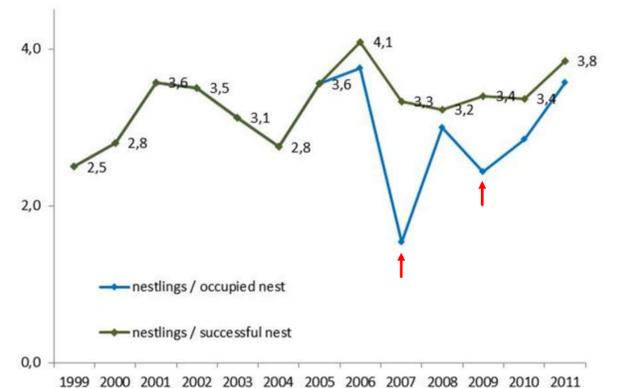
Photos © Māris Maskalāns

Most pairs (23 out of 25 in 2011) were breeding in nest-boxes. Provision of boxes may have prevented local, and perhaps even national, extinction of Rollers, but has made them vulnerable and dependant.

Main threats



Heavy predation at Roller nests (clutches and adults) occurred in 2007 and 2009, most likely caused by Pine Martens. This led to reduced breeding productivity and increased adult mortality, undermining the positive effects of nest site provision and legal protection against forest logging.



Yearly mean Roller brood sizes at the age of ringing, in Garkalne forest. Red arrows mark the two seasons with significant nest predation.

Protecting nests



Reduced nest-box entrance holes (60 mm) were tested in 2010 and 2011 but proved not to be safe against [possible] Pine Marten predation.



Treatment of nest tree (or pole) base with red chili pepper powder appears to be a better, albeit rather temporary, predator repellent during the breeding season.



The best permanent protection against predators in 2010 and 2011 appeared to be a one meter high sheet of PVH plastic band attached just below nest. No Roller nests with such bands were predated.