

Korta rapporter – *Short communications*

Successful nesting of Red-backed Shrike *Lanius collurio* near a military airport

Lyckad häckning av törnskata nära en militär flygplats

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On 29 May 2014, near the 31st Air Base in Krzesiny in the city of Poznań, Poland (52°20'27.7"N, 16°56'18.0"E) we observed a foraging male Red-backed Shrike *Lanius collurio*. We first noticed the bird perching for prey, sitting on the fencing of this military airport. We started a search for nests and the first one was found on 30 May. Further search revealed the presence of more individuals: two females and two males showing territorial behaviour. This is probably the first observation of Red-backed Shrike near a military airport, where the daily level of noise, due to the presence of F-16 Fighting Falcons, often exceeds 100 dB (Figure 1). Shrikes do not often nest close to urban areas (Titeux et al. 2007). Red-backed Shrikes usually nest in open habitats of rural landscapes (mostly meadows and pastures), with shrubs of hawthorn (*Cra-*

taegus), blackthorn (*Prunus spinosa*), almond willow (*Salix triandra*), and dog-rose (*Rosa canina*) (Tryjanowski et al. 2000, Svensson et al. 2009). Vegetation of this type is found near the military airport in Poznań Krzesiny (Figure 2).

During the breeding season in 2014, a total of three pairs of the species were found within the highest noise zone, where F-16 Fighting Falcons take off and land (Dobkiewicz 2008, Akustix 2011). The first nest (N1) was found in a dog-rose shrub, ca. 21 m from an inhabited detached house and 950 m from the runway. The second pair (N2) also nested in a dog-rose shrub, near a field road, ca. 87 m from inhabited houses and ca. 1030 m from the runway. The third nest (N3) was in a



Figure 1. Fighter aircraft F-16 Fighting Falcon take off with noise levels above 100 dB.
Ljudnivån är över 100 dB när F-16 Falcon startar.



Figure 2. Male Red-backed Shrike *Lanius collurio* on a meadow near the runway of the military airport Poznań Krzesiny.
Hane av törnskata på en äng nära banan på flygplatsen.



Figure 3. Nests distribution of Red-backed Shrike at the military airfield near Poznań-Krzesin.
Törnskatēbonas placering vid flygplatsen.

hawthorn shrub, 110 m from an inhabited house and 750 m from the runway (Figure 3). The nests were located ca. 200 m apart: 215 m between N1 and N2, 202 m between N2 and N3, and 238 m between N1 and N3 (Figure 3). All the pairs bred successfully, but as early as in early August the adult and young birds left this area. This is not a typical behaviour of post-breeding dispersal in case of individuals breeding in rural landscape (Kuźniak & Tryjanowski 2003) and may suggest that the birds were affected by the noise. However, this needs further observation and objective confirmation. So far, a negative effect of noise on nesting birds has been described in relation to roads with heavy traffic (Halfwerk et al. 2011, Więcek et al. 2014). Noise caused by aircraft in a military airport does not fluctuate like that caused by road traffic. It is short-lasting and the effect on birds may therefore be different (Dobkiewicz 2008).

We suppose that the reasons why the Red-backed Shrikes nested within the airport were the presence of favourable breeding and foraging sites and the only sporadic human penetration of the vegetation behind the fence (Morelli 2013). Moreover, in some cases Red-backed Shrike selects areas close to urbanized places with good opportunities for nesting and foraging. Further research is needed in the study area, e.g. to determine if Red-backed Shrikes will return there in successive years.

References

- Akustix, L.B. 2011. *Monitoring okresowy hałasu lotniczego wokół lotniska wojskowego Poznań - Krzesiny - punkt P1*. Poznań.
- Dobkiewicz, G. 2008. *Strefa ograniczonego użytkowania*. Wielkopolski Urząd Wojewódzi w Poznaniu.

- Halfwerk, W., Holleman, L.J.M., Lessells, C.M. & Slabbe-koorn, H. 2011. Negative impact of traffic noise on avian reproductive success. *Journal of Applied Ecology* 48: 210–219.
- Kuźniak, S. & Tryjanowski, P. 2003. *Gąsiorek*. Wydawnictwo Klubu Przyrodników. Świebodzin.
- Morelli, F. 2013. Are the nesting probabilities of the red-backed shrike related to proximity to roads? *Nature Conservation* 5: 1–11.
- Svensson, L., Mullarney, K., Zetterstrom, D. & Grant, P. 2009. *Collins Bird Guide*. London: Harper Collins Publisher Ltd.
- Titeux, N., Dufrene M., Radoux J., Hirzel, A.H., & De-fourmy, P. 2007. Fitness-related parameters improve presence-only distribution modelling for conservation practice: The case of the red-backed shrike. *Biological Conservation* 138: 207–223.
- Tryjanowski, P. Kuźniak, S. & Diehl, B. 2000. Does breeding performance of Red-backed Shrike *Lanius collurio* depend on nest site selection? *Ornis Fennica* 77: 137–141.
- Więcek, J., Kucharczyk, M., Polak, M. & Kucharczyk, K. 2014. Influence of road traffic on woodland birds – an experiment with using of nestboxes. *Sylwan* 158 (8): 630–640.

Sammanfattning

Tre par törnskata häckade framgångsrikt nära barnorna vid den militära flygplatsen i Poznan i Polen. Det fanns lämplig biotop vid flygplatsen. Men starkt ljud, till exempel vid hårt trafikerade vägar, har i en del studier förmodats påverka fågellivet negativt. I detta fall häckade törnskatorna så nära som 750 meter från startbarnorna där ljudnivån översteg 100 dB när planen av typ F-16 startade. Det finns dock en skillnad mellan den aktuella störningen och trafikbuller. Flygplan stör endast korta stunder medan trafik stör under lång tid, och fåglarnas reaktioner kan vara olika i förhållande till vilken typ av störning det är.

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