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BARN OWL *TYTO ALBA* NESTING IN A TREE-HOLE OF THE LARGE-LEAVED LINDEN *TILIA PLATYPHYLLOS***Summary**

In 2020 i documented a brood of the Barn Owl *Tyto alba* in a tree-hole. It was in the village of Złaków Kościelny (Łowicz county, Łódź voivodeship), birds nested in the large-leaved linden *Tilia platyphyllos* at a height of 4 m. The breeding was successful – this pair raised 5 young. In 2021, birds returned to nesting in a box on the church tower.

Keywords: Barn Owl *Tyto alba*, nest in a tree hole, Central Poland.

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Sławomir Chmielewski

PLASTIC STRING CAUSING THE DEATH OF THE COMMON SWIFT *APUS APUS*

On 6 July 2021, a case of the death of a young Common Swift *Apus apus* was documented in Mogielnica (51°41.644'N, 20°43.321'E). It was an immature individual, probably pushed out by other siblings (Photo.). A plastic string was wrapped around the bird's tarsus. A question addressed to the users of the M-ŚTO mailing list (m-s-to@googlegroups.com, 236 members) on the Common Swift entanglement in nesting material resulted in few reports on such cases. Entanglement – mainly of legs, in a similar way as described above – in nesting material filling the nest box previously used by sparrows *Passer sp.* was reported from Tomaszów Mazowiecki in 2009-2020 – nests were placed in the crevices of the walls and ceiling openings (Ł. Matyjasiak, J. Tabor), in Sadykierz – 3 cases in 2019 and 2020, nests in the crevices of the roof, (Sz. Kielan), in Końskie: 8 July 2017 – two birds simultaneously entangled and dead at the nest in the crevice of the wall (Z. Fijewski), and in Lubostroń: 1 *ad.* in 2019 and 1 *juv.* in 2020 entangled in nesting material at the nest box (A. Olszewski). Nest boxes for common swifts are placed on buildings after their energy renovation (i.e., insulation of external walls etc.). They are to compensate for nesting sites lost during building renovations. The cases described above indicate that utilization of nest boxes, mounted as compensation for nesting sites lost during building renovations, filled with nesting material after former hosts, may pose a threat to

young and adult common swifts. The magnitude of this problem has not been sufficiently recognized. To minimize similar cases it has been proposed to clean the boxes from nesting material every year, like in the Kabaty Housing Estate in Warsaw (Siuchno 2016), or reduce competition with sparrows and implement the solution from Switzerland and temporary cover the inlet opening. Then the box is being opened after the arrival of common swifts (Genton 2009).

In towns and cities, the Common Swift inhabits the crevices in the walls under roof tiles and eaves, while it originally nested in rock crevices (Glutz & Bauer 1994, Bocheński *et al.* 2013). Due to the building energy renovation, it is common practice to mount nest boxes for this species as compensation for breeding sites lost during renovation (Własz & Musielak 2014, Schaub *et al.* 2016). The Common Swift arrives in Poland at the end of April (Tomiałojć & Stawarczyk 2003). After about 5 weeks, it starts laying eggs (<http://www.commonswift.org/Kalendarzjerzykow.html>, access 29.07.2021). Nest boxes are often inhabited by House Sparrows *Passer domesticus* and Common Starlings *Sturnus vulgaris*, which breeding season precedes that of the Common Swift (Genton 2009). For example, out of 477 boxes surveyed in Greifswald, Germany, 24.3% were occupied by common swifts and 21.4% by house sparrows (Schaub *et al.* 2016). Therefore, part of the boxes is already occupied upon arrival of Common Swifts. For this reason, there is competition between species for nesting sites. The winners are usually common swifts but may also be sparrows. The fight for nesting sites is sometimes very aggressive, as described in the Starling (Chmielewski 1996). A detailed study carried out in Switzerland showed that the winner was mostly the House Sparrow (Genton 2009). The Common Swift builds a nest from materials captured in the air; grass, straw, moss, hair, threads, feathers moistened with saliva (Gotzman & Jabłoński 1972, Hudec 1983). As a base layer, it also uses the material left by the previous host. When occupying the box after sparrows, it will find nesting material collected by them. The House Sparrow uses a wide range of materials to build nests, including feathers, grass inflorescences, stems, plant roots, threads, pieces of paper, wool, as well as plastic strings (Indykiewicz 1991, Radhamany *et al.* 2016).

The presence of plastic in nests was studied in more detail in seabirds. Entanglement of birds in the plastic string, fishing nets, and fishing equipment was found in 25% of 312 bird species studied (Gall & Thompson 2015). Although this phenomenon has been studied in seabirds (Provencher *et al.* 2017), it is rarely described in terrestrial species and water bird species inhabiting inland areas (Jagiello 2019). In Poland, such cases of entanglement in a plastic string used to build a nest have been documented in the Great Grey Shrike *Lanius excubitor*, White Stork *Ciconia ciconia*, Black Stork *Ciconia nigra*, Eed Kite *Milvus milvus*, Common Raven *Corvus corax*, Common Chaffinch *Fringilla coelebs*, and in the Common Linnet *Linaria cannabina* (Ptaszyk 1994, Kasprzykowski & Goławski 1997, Kwieciński *et al.* 2006, Antczak *et al.* 2010). Glutz & Bauer (1994) mentioned hanging on the material from the nest as the cause of the death in

one out of 70 common swifts, for which the cause of their death was known. Genton (2009) recorded “several” such cases in two colonies of 51 boxes which he controlled. Tigges (2001) described the lethal case of a young swift entangled in a plastic string in Berlin.



Photo. Plastic string caused the death of the Common Swift *Apus apus*, 6 July 2021 (Photo S. Chmielewski)

Fot. Plastikowy sznurek przyczyną śmierci jerzyka *Apus apus*, 6 VII 2021 (fot. S. Chmielewski)

All these cases described above indicate that increasing plastic pollution and the lethal effects of entanglement should be monitored. The magnitude of this phenomenon among land birds still seems to be poorly recognized. The methods reducing the mortality of common swifts inhabiting nest boxes are recommended.

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References

- Antczak, M., Hromada, M., Czechowski, P., Tabor, J., Zabłocki, P., Grzybek, J., & Tryjanowski, P. 2010. A new material for old solutions—the case of plastic string used in Great Grey Shrike nests. *Acta ethologica*, 13, 2: 87-91.
- Bocheński M., Ciebiera O., Dolata P. T., Jerzak L., Zbyryt A. 2013. Ochrona ptaków w mieście. Wyd. RDOŚ w Gorzowie Wielkopolskim.
- Chmielewski S. 1996. Konkurencja o miejsca gniazdowania pomiędzy szpakiem *Sturnus vulgaris* a jerzykiem *Apus apus*. *Przegląd Przyrodniczy* 7,2: 83-84.
- Gall S. C., Thompson R. C. 2015. The impact of debris on marine life. *Mar. Pollut. Bull.* 92: 170-179.
- Genton B. 2009. Relations interspécifiques du Martinet noir *Apus apus* avec le Moineau domestique *Passer domesticus*: Exemple d'aménagements novateurs en faveur du Martinet noir. *Nos Oiseaux* 56,2: 67-86.
- Glutz v. Blotzheim U. N., Bauer K. 1994. *Handbuch der Vögel Mitteleuropas*. Band 9. AULA-Verlag GmbH.
- Gotzman J., Jabłoński B. 1972. Gniazda naszych ptaków. PZWS, Warszawa.
- Hudec K. (eds.). 1983. *Fauna ČSSE. Ptáci – Aves III/1*. Academia, Praha.
- Indykiewicz, P. 1991. Nests and nest-sites of the house sparrow *Passer domesticus* (Linnaeus, 1758) in urban, suburban and rural environments. *Acta Zoologica Cracoviensia* 34,2: 475-495.
- Kasprzykowski Z., Goławski A. 1997. Plastikowe sznurki zagrażają także oknówkom (*Delichon urbica*). *Orlik* 22: 11.
- Kwieciński Z., Kwieciński H., Botko P., Wysocki A., Jerzak L., Tryjanowski P. 2006. Plastic strings as the cause of leg bone degeneration in the White Stork (*Ciconia ciconia*). W: P. Tryjanowski, T. H. Sparks, L. Jerzak (ed.). *White Stork study in Poland: biology, ecology and conservation*. Bogucki Wydawnictwo Naukowe, Poznań. p.431-436.
- Provencher J. F., Bond A. L., Avery-Gomm S., Borrelle S. B., Bravo Rebolledo E. L., Hammer S., Kuhn S., Lavers J. L., Mallory M. L., Trevail A., van Franeker J. A. 2017. Quantifying ingested debris in marine megafauna: a review and recommendations for standardization. *Anal. Methods* 9: 1454-1469.
- Ptaszyk J. 1994. Binfäden aus Polypropylen als Ursache des Todes junger Weißstörche (*Ciconia ciconia*) und anderer Tiere. *Pr. Zakł. Biol. Ekol. Ptaków UAM* 3: 177-181.
- Radhamany D., Das K. S. A., Azeez P. A., Wen L., Sreekala L. K. 2016. Usage of nest materials by house sparrow (*Passer domesticus*) along an urban to rural gradient in Coimbatore, India. *Tropical life sciences research* 27,2: 127.
- Schaub T., Meffert P. J., Kerth G. 2016. Nest-boxes for Common Swifts *Apus apus* as compensatory measures in the context of building renovation: efficacy and predictors of occupancy. *Bird conservation international* 26, 2: 164-176.

- Siuchno M. 2016. Czynniki decydujące o zasiedleniu sztucznych miejsc lęgowych przez jerzyki *Apus apus* na terenie SMB Osiedle Kabaty w Warszawie. Praca magisterska, SGGW, Warszawa.
- Tigges U. 2001. Mauersegler verfängt sich in Kunstfaser. Berl. ornithol. Ber. 11: 183.
- Tomiałojć L., Stawarczyk T. 2003. Awifauna Polski. Rozmieszczenie, liczebność i zmiany. PTPP „pro Natura”. Wrocław.
- Walasz K., Misielak M. 2014. Ochrona ptaków i nietoperzy zasiedlających budynki w miastach. MTO, Kraków.

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PLASTIKOWY SZNUREK PRZYCZYNĄ ŚMIERCI JERZYKA *APUS APUS***Streszczenie**

W dniu 6 VII 2021 w Mogielnicy (51°41.644'N, 20°43.321'E) stwierdzono przypadek śmierci młodego jerzyka *Apus apus*. Był to ptak nie w pełni dojrzały, prawdopodobnie wypchnięty przez pozostałe rodzeństwo (fot.). Plastikowy sznurek zawinął się wokół skoku ptaka. Opisane zdarzenie i inne podobne wskazują, że zasiedlanie budek lęgowych, jako rekompensata utraconych miejsc lęgowych po termomodernizacji budynków przez jerzyka, wypełnionych materiałem gniazdowym po poprzednich właścicielach, może stanowić zagrożenie dla młodych jak i dorosłych ptaków. Skala tego zjawiska nie jest obecnie dostatecznie rozpoznana i powinna podlegać monitorowaniu. W celu ograniczenia tego zjawiska proponuje się coroczne czyszczenie budek z materiału gniazdowego lub ograniczenie ich dostępności poprzez zasłonięcie otworu wlotowego do czasu przylotu jerzyków.

Słowa kluczowe: zaplątanie przyczyną śmierci, plastikowy sznurek, metody ograniczenia, Polska.

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