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## OBSERVATIONS OF JACKDAWS CORVUS MONEDULA ROBBING NESTS

Jackdaw in Poland mainly inhabits cities and human settlements, it is less common in other habitats (Luniak 2005, Dubiec 2007). In many cities in Western Europe it recorded a drastic decline, mainly pointing to the modernization construction, but also a worsening food conditions nestling because of the abundance deficient feeding grounds (Luniak 2005). Jackdaw as opportunist tract, use of commonly available foods, both plant and animal (Glutz & Bauer 1993). The share of individual components varies seasonally (e.g Lockie 1956, Folk 1967, Holyoak 1968, Biondo 1998). The early chick period is dominated by invertebrates being fed to the young, but with time the share of plant food increases in favor of cereals (Folk 1967, Kamiński 1985, Cramp & Perrins 1994). Food waste can constitute 22.8% of food delivered by Jackdaws nestling (Cramp & Perrins 1994), sometimes even more than 40% (Biondo 1998).

In Poland the collection of garbage has been taken over by the municipal authorities since 2013. This has resulted in more of the population using closed containers to store rubbish. This will reduce to a greater extent than hitherto access to the remains of food in both towns and villages. At the same time it adopted the program to close the outdoor municipal waste landfills, only in the province. Mazowieckie planned the closure of 42 of its 68 existing facilities, while in Podlaskie 41 municipal landfills have been closed.

Lublin province is to close almost 100 landfills, in Lower Silesia – 30 are to be closed, in West Pomeranian – 11 closures have occurred. These closures are in compliance with European Union legislation. In addition, a new National Waste Management Plan is to reduce the number and locations of all Polish waste facilities. This situation will probably reduce the availability of food, mainly for Laridae and Corvidae. Betleja & Meissner (2005) believe that landfills are more important as a food base for Jackdaws than Rooks. Restrictions on access to this type of food may thus increase the share of eggs and nestling, which Jackdaws will feed their young. In the case of vulnerable victims, such as collared dove or small Passeriformes, even weaker Corvidae species can be very effective predators. Therefore the importance of Jackdaws as a predator of this group may increase. Research on the composition of nestlings in fed to various species was carried out in many countries, among others in the UK (Lockie 1955, 1956,

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Holyoak 1968, Richford 1978), Spain (Soler et al. 1993), Czechoslovakia (Folk 1967), Switzerland (Strebel 1991, Biondo 1998, Kneubühl 1998) and Poland (Kamiński 1985). The eggs or nestlings of many species were identified (Glutz & Bauer 1993, Cramp & Perrins 1994). Among the predated species were eggs of Skylark *Alauda arvensis* (Praus & Weidinger 2010), Woodpigeon *Columba palumbus* (Tomiałojć 2005), Guillemot *Uria aalge*, Puffin *Fratercula arctica*, Manx Shearwater *Puffinus puffinus*, Grey Heron *Ardea cinerea*, Razorbill *Alca torda*, eggs and nestling of feral Pigeon *Columba livia*, Collared Dove *Streptopelia decaocto* (Cramp & Perrins 1994), Tree Sparrow Passer montanus (D. Bukaciński), House Sparrow, Swift *Apus pus* (Dolata et al. 2005), House Martin *Delichon urbicum* (Glutz & Bauer 1993) and Starlings (Luniak 1977).

In 2013 and 2015 observations were carried out in c. Mogielnica (51°41'38,2" 20°43'18,6") in the Mazowiecka Lowland. In 2012, two thermo-two nesting boxes were erected for Swifts on the left side of the attic vents (photo. 1). These holes are plugged from the attic to create additional breeding sites for birds. In 2013, Jackdaws nested in the openings of the building. The first clutch was recorded in 2015. 12 May 2013 at approx. 9:30 an attempt to steal the Starling nest with nestling by a pair of Jackdaws was observed (photo. 2). A pair of attackers made several attempts through the inlet hole wher the nestlings had hatched. The size of the inlet was  $6.5 \times 3.8$  cm. which made it impossible to get into its interior. Another attempt to steal the clutch in the same location was reported on 25 May 2013. Jackdaws repeatedly tried to get into a breeding box. All attempts failed. On the 24 May 2015 in the same building, the jackdaws attempted to rob the Starling nestlings out of the nest located in the attic vent. Although the size of the opening allowed Jackdaws to get inside, the clutch was not destroyed. The jackdaw peered into the slot several times in the following days. This event was recorded 29 May 2015 at noon and 3 June 2015 in the morning. An attempt to rob a couple nesting in the building 18m away from the breeding Starlings was also observed. This was also unsuccessful. Jackdaws attacked a Starling with food, looked into the nesting hole, but only the screeching voice of the starlings was recorded. Starlings fed their young until departure from the slot. On the 29 May 2015 Jackdaws attempted to get into a House Sparrow nest containing young, and on subsequent days, there was no feeding by the parents. This suggests that the chicks had been predated. On the 3 June 2015 a Jackdaw visited this nest again, but the site appeared to be empty. Jackdaws visited nests repeatedly both within years and between years, although there is no certainty that the nests were robbed in 2013 as in 2015.

It is currently difficult to clearly identify how changes in the waste collection system will affect the condition of the national population of Jackdaws and the species inhabiting urban areas. The observations in Mogielnica indicate that the searching of buildings with nests by Jackdaws will probably increase. A similar phenomenon wherby Kestrels *Falco tinnunculus* hunt prey in buildings (Swift, Bats *Chiroptera* has been described (Mikula et al. 2013).

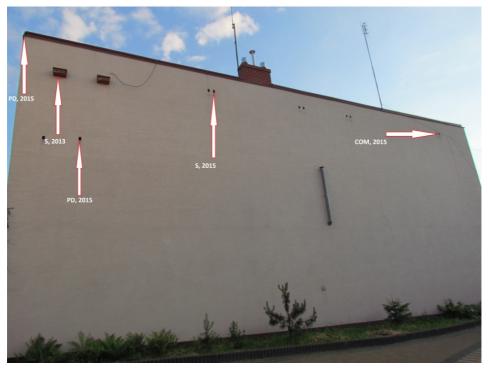


Photo. 1. Study place: S, 2013 – the Starling nest in 2013 y.; COM, 2015 – the Jackdaw nest in 2015 y.; S, 2015 – the Starling nest in 2015 y.; PD, 2015 – the House Sparrow nest in 2015 y



Photo. 2. The Starling nest with nestling robbers by a pair of Jackdaws

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