

A White Stork (*Ciconia ciconia* (Linnaeus, 1758)) nest – an unique case of multiple nesting commensalism of five species from Dragoman (W Bulgaria)

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Abstract. A rare case of contemporaneous nesting of five species of birds in a single nest is described.

Key words: Nesting commensalism, White Stork, Urban birds.

Introduction

In Southern Europe it is common phenomenon to observe nesting sparrows (g. *Passer*) among the sticks and twigs of the White Stork (*Ciconia ciconia* (Linnaeus, 1758)) nest. In most regions the House Sparrow (Linnaeus, 1758) is the most common commensal nesting species in the stork nests. Such examples of nesting commensalism were registered in many parts of Bulgaria too.

We accept commensalism as case of two interacting populations/species, where one of them has a positive effect, and the other is not susceptible to a noticeable action of the first (Shishkin, 1982).

Results

Dragoman “collective” nest

While sparrows’ nesting in the White Stork nests is well known, the nesting of the Eurasian Collared Dove in these nests is extremely rare. As an example of rare case of nesting of Collared Dove in the nest of the White Stork, Boev (1963) mention an observation of Harrison (1933) in the town of Petrich (SW Bulgaria).

On 19.05.2019 between 09:15 and 11:30 h we observed an old occupied nest of White Stork (42°55'54.87"N; 22°55'51.23"E) with two juveniles in it in the town of Dragoman (W Bulgaria). Surprisingly we observed tree species of sparrow – Eurasian Tree Sparrow (*Passer montanus* (Linnaeus, 1758), Fig. 1), House Sparrow (*P. domesticus* (Linnaeus, 1758) Fig. 2) and Spanish Sparrow (*P. hispaniolensis* (Temminck, 1820 Fig. 3)) nesting in the cavities among the sticks and twigs of the stork nest in its lower part. The nest was built on an artificial substrate, a ferro-concrete electric pole along the street, ca. 7 m high.

The Spanish Sparrows were the most numerous (?4-6 nests), followed by the Tree Sparrows (?3-4 nests), and the House Sparrows (?2-3 nests). In addition in the central part of the nest bottom by the tip of the concrete pole, a pair of Eurasian Collared Dove (*Streptopelia decaocto* Frivaldszky, 1838) was occupying their single nest (Fig. 4). The species is a common urbanist throughout all the country, but as Harrison (1982) notes, it

occurs in “... drier open areas ... and elsewhere has spread through cultivated country in association with grain cultivation and human habitation” (p. 159). After Dr. Petar Yankov (Bulgarian Society for the Protection of Birds) all mentioned sparrows and the Collared Dove were registered separately in the nests of White Storks, but never so far they had been observed to nest together in a single nest of storks.

Conclusion

The observed case of multiple nesting commensalism of five species of birds in the town of Dragoman is a rare example of the multiple interspecies interaction. A total of 5 species of 3 orders (Ciconiiformes, Columbiformes and Passeriformes) and 3 avian families (Ciconiidae, Columbidae and Passeridae) are presented in the nest.

Such a nest is an indication of both abundant food resources in its vicinities, as well as lacking of enough suitable nesting places. It also reveals the diversity of the species nesting substrates/habitats and forced us to be more careful in treating even the abandoned nests of storks.



Fig. 1. Eurasian Tree Sparrows nesting in a nest of White Stork, Dragoman, 19.05.2019.
Photo: Z. Boev.



Fig. 2. House sparrows nesting in a nest of White Stork, Dragoman, 19.05.2019. Photo: Z. Boev.



Fig. 3. Spanish sparrows nesting in a nest of White Stork, Dragoman, 19.05.2019. Photo: Z. Boev.



Fig. 4. Eurasian Collared Dove nesting in a nest of White Stork, Dragoman, 19.05.2019.
Photo: Z. Boev.

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