ЮБИЛЕЙНА НАУЧНА КОНФЕРЕНЦИЯ ПО ЕКОЛОГИЯ (СБОРНИК С ДОКЛАДИ)
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A CASE OF "UNUSUAL" LATE BREEDING OF THE HOUSE MARTIN (*Delichon urbica* Linnaeus, 1758) (HIRUNDINIDAE – AVES) IN BULGARIA

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Abstract: A nest of the House Martin with two nestlings was observed between 15 and 28 August 2004 in the town of Simeonovgrad (SE Bulgaria). Such a late breeding of that species is uncommon for Bulgaria. Some individuals of the previous hatching helped to parents in the feeding of youngs, a phenomenon unknown so far in *D. urbica*.

Key words: House Martin, Late Breeding, Birds of Bulgaria, Global Warming

OBSERVATIONS

A completely built up nest of House Martin (*Delichon urbica*) (LINNAEUS, 1758) has been observed on 09.08.2004 in the town of Simeonovgrad (Haskovo Region, SE Bulgaria). The nest was built under a balcony with SE exposition on the second floor of a house. The nesting site was about 200 m away from the bank of the Maritsa River, where the nest-building material could be collected. The nest opening was orientated south.

During all the next week (09-15.08.2004) any birds have not been recorded to visit the nest. On 15.08.2004 a pair of adult House Martin visited the nest, and on 20.08.2004 between 08:00 and 09:35 h a group of adult and subadult birds of 6 to 12 individuals was feeding both juveniles in the nest. The frequency of nest-visits at some periods reached up to 1-2 sec, while the longest intervals lasted up to 2 min. The feeding was most intensive between 08:10 and 08:20 h.

On 20.08.2004 two adult individuals flew out the nest in 09:50 h. The feeding of nestlings was much seldom in the afternoon hours. On the next day (21.08.2004) it was again most intensive between 08:55-09:15 h, and on 22.08.2004 – between 08:25-09:30 h. On 23.08.2004 г. separate birds started to visit the nest without entering into it at 07:45 h. The same behavior has been observed on 25.08.2004 г. at 07:46 h by 08:01 h, but at 09:40 a raid of 15 birds or so was feeding the nestlings. That time two juveniles have been observed in the nest opening.

The maximum daytime temperatures during the period of observations varied between 27 and 38^0 C, while the minimum nighttime temperatures dropped up to 17^0 C. During the period of observations the whether was mainly sunny, hot and clear with two exceptions of 16.08.2004 and the 22.08.2004, when it was cloudy and rainy.

The young birds remained in the nest after 28.08.2004, when we observed them for the last time.

DISCUSSION

Similar record has been reported by Nikolay Karaivanov (pers. comm.), who during almost the same period (31.08.2004) has observed breeding *D. urbica* (a nest with two nestlings) in the Vakarel village (Nr Sofia).

According to CRAMP (1988) in the various parts of the Western Palearctic the nestlings of the House Martin abandon the nest till mid-October. For the North-East Europe the last recorded young in nest remains till September. However, as he stated, even in the North Africa, the egg-laying is "uncommonly after July" (p. 297). Obviously, he meant the southernmost warmer regions of the Western Paleactic.

DARAKCHIEV & HRISTOVA (1984) note that the feeding of youngs lasts till 15 July, while DARAKCHIEV & NANKINOV (1977) observed feeding in the Yundola locality (SW Bulgaria) on 02.08.1975. DARAKCHIEV (1983) without any concrete data writes both for *Hirundo rustica* Linnaeus, 1758 and *D. urbica*, that "some pairs rear their nestlings of the second hatching by the beginning of September" (p. 50). There is only one observation of such a late abandoning of the nest (27.08.1976 in Sofia, NANKINOV, 1982). Thus, the scanty available data so far for Bulgaria poorly mark the latest breeding of *D. urbica.*

The House Martin is a migratory species in the Boreal and the Temperate zone of the Western Palearctic (HARRISON, 1982). Its distribution often depends on the extreme temperatures, influencing the abundance of the small flying insects (CRAMP, 1988). The same factors define the hatching period, lasting between 12 and 23 days. The hatched juveniles stay in nest 15-23 days (DEMENTIEV & GLADKOV, 1954).

The observed higher number of the feeding birds (6, even 12 to 15) could only be explained with the participation of some individuals of the previous hatching, helping to parents. Such a case of help in the rearing of youngs is well known in many species, chiefly colonial, but it was not reported for the *D. urbica* (CRAMP, 1988).

CONCLUSION

The successful breeding of *D. urbica* in the very end of August in Bulgaria could still be accepted as an exception. On the other hand, due to the climatic changes towards relative warming (s. c. global warming), such cases of "unusual" late nesting may occur more often in the future. Obviously, some individuals of the previous hatching (6 to 15) helped to parents in the feeding of youngs, a phenomenon unknown so far in *D. urbica*.

REFERENCES

CRAMP, S. (ed.) (1988): Handbook of the Birds of Europe the Middle East and North Africa. The Birds of Western Palearctic, Vol. V. Tyrant Flycatchers to Thrushes. Oxford Univ. Press, 1-1079.

DARAKCHIEV, A. (1983): On the number of swallow inhabiting some settlements situated in the south part of Sredna Gora properly. - Univ. de Plovdiv "Paissi Hilendarski", Travaux scientifiques, vol. 2 (IV) – Biologie, 45-55 (In Bulgarian, Engl. summ.).

DARAKCHIEV, A., Z. HRISTOVA (1984): Swallow population in the villages of Kourtovo Konare, Novo Selo and Trivoditsi, Plovdiv District. – Univ. de Plovdiv "Paissi Hilendarski", Travaux scientifiques, vol. 22 (I) – Biologie, 189-211 (In Bulgarian, Engl. summ.).

DARAKCHIEV, A., D. NANKINOV (1977): Hirundinidae family swallows location in the Rhodopes. – Univ. de Plovdiv "Paissi Hilendarski", Travaux scientifiques, vol. 15 (IV) – Biologie, 61-78 (In Bulgarian, Engl. summ.).

DEMENTIEV, G. P., N. A. GLADKOV (EDS.) (1954): 298. Gorodskaya lastochka, ili voronok, *Delichon urbica* L. – In: The Birds of the Soviet Union, Sovetskaya Nauka State Publ. House, Vol. 6: pp. 714-729.

HARRISON, C. J. O. (1982): An Atlas of the Birds of the Western Palearctic. Princeton Univ. Press, Princeton, New Jersey, 332 p.

NANKINOV, D. (1982): Gradska lyastovitsa (*Delichon urbica* L.). – In: The Birds of the Sofia City. – Ornithologicheski informatsionen byuletin, 12: 185-187 (In Bulgarian).

СЛУЧАЙ НА „НЕОБИКНОВЕНО" КЪСНО РАЗМНОЖАВАНЕ НА ГРАДСКАТА ЛЯСТОВИЦА (*Delichon urbica* Linnaeus, 1758) (HIRUNDINIDAE – AVES) В БЪЛГАРИЯ

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(Резюме)

Гнездо на градска лястовица с две новоизлюпени бе наблюдавано между 15 и 28 август 2004 в гр. Симеоновград (ЮИ България). Подобно късно размножаване при този вид е рядко срещано за територията на България. Индивиди от предходното люпило (6-15) участват в изхранването на малките, подпомагайки на своите родители – явление, добре познато за други видове, но неизвестно досега за *D. urbica*.