Research article

First record of the northern bald ibis *Geronticus eremita* (Linnaeus, 1758) in Bulgaria

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Abstract: The paper reports on the first record of *Geronticus eremita* in Bulgaria (13–16 January 2019; town of Karlovo), a specimen released from the captive population in Rosegg Tierpark, Austria and caught alive in the town of Karlovo (CS Bulgaria). Regardless of the attempts to be rescued a few days later, it died.

Keywords: avian rarities, Balkan avifauna, birds of Bulgaria, bird reintroduction, endangered birds

Introduction

At present, the northern bald ibis, *Geronticus eremita* (Linnaeus, 1758), is an Endangered species, with estimated only 200–249 birds still surviving (BirdLife International, 2018). After other data, the population in Morocco in 2016 numbered ca. 601 birds (Aourir et al., 2017). In addition, a semi-wild population of 200 ibises is sustained in south-eastern Turkey (Schwägerl, 2018).

The northern bald ibis is one of the four avian species disappeared from the European bird fauna in the historic period (Finlayson, 2011). Along with the great auk (*Pinguinus impennis*), a globally extinct species since 1852 (del Hoyo & Collar, 2014), the black francolin (*Francolinus francolinus* (Linnaeus, 1766)), which survived on some Aegean Islands until the middle of 19th century (Harrison, 1982), the slender-billed curlew (*Numenius tenuirostris* Vieillot, 1817), disappeared in Europe in the middle of 20th century

(del Hoyo & Collar, 2014) and the native nominate race *Ph. c. colchicus* Linnaeus, 1758 of the common pheasant, disappeared ca. 1990s (Boev et al., 2007), the northern bald ibis was widely spread in the region of the Alps and southern peninsulas of Europe (Boev, 1992, 1998).

According to Tyrberg (1998), the fossil record of *G. eremita* is dated to the Late Pliocene / Early Pleistocene from the Iberian Peninsula (Early Pleistocene) and Italy (Middle Pleistocene). In addition, the species was found in the Holocene deposits of southern France (Mourer-Chauviré, 2006).

Past distribution of the bald ibis on the Balkan Peninsula

Although no evidences for the past distribution of *G. eremita* are known from the present territory of Bulgaria, the fossil record confirms the former (Late

Pleistocene) occurrence of the bald ibises (genus *Geronticus*) in the country ca. 1.85 Mya (Boev, 1998, 2000).

Desfayes (1987) presents evidences for the former occurrence of *G. eremita* in the region of the Lake Stymphalus in the north-eastern Peloponnese in southern Greece, while Perco & Tout (2001) assume the species occurred in the Upper Adriatic Region until the 19th century.

Specimens of the northern bald ibis in the Vertebrate Animals Department of the National Museum of Natural History, BAS

At present, two dry full-body mounted preserves are kept in the collections of the Vertebrate Animals Department of the National Museum of Natural History, BAS. Both have been obtained after 1907 (but no data on specimens of *G. eremita* were included in the collections catalogue of Gretzer (1907)). Probably they were collected from one of the Syrian colonies and were kept at the private zoo of the Tsar Ferdinand I in Sofia: (1) NMNHS 2147 ad. male, died 16 July 1911; (2) NMNHS 2148 ad. female, died 30 August 1911 (Fig. 1) (Boev, 2003).

The 2019 record of the northern bald ibis in Bulgaria

The first live individual of *G. eremita* in Bulgaria has been observed for a period of four days between 13 and 16 January 2019, in the vicinities of the town of Karlovo (CS Bulgaria). The bird was recorded and captured on 16 January 2019 on the territory of the 61th Stryama Mechanized Brigade (a mechanised infantry brigade) in Karlovo. It was very exhausted and apparently suffered from the cold necrosis owing to the frosting of the toes of both legs. The bird was transferred alive to the Wildlife Rehabilitation and Breeding Centre – Green Balkans in the town of Stara Zagora (Figs 2, 3), where it died. The bird was ringed with a ring of the Rosegg Tierpark (Rosegg, Carinthia State, S Austria). The inscription of the ring is as follows: TR Rosegg AUT 0043.427452357 (Fig. 4). The Rosegg Tierpark is currently working on a LIFE+ project of the reintroduction of the bald ibis (2013–2019). As a result, “More than 120 northern bald ibises are to be migrating between the northern

Fig. 1. *Geronticus eremita*, NMNHS 2148 ad, female. Photo: Georgi Tsonev.

Fig. 2. *Geronticus eremita*, specimen from the 61th Stryama Mechanized Brigade in Karlovo, Bulgaria. Photo: Gradimir Gradev.

Fig. 3. *Geronticus eremita*, specimen from Karlovo in the Wildlife Rehabilitation and Breeding Centre in Stara Zagora, Bulgaria. Photo: Hristina Klisurova.

Fig. 4. *Geronticus eremita*, specimen from Karlovo, left leg with ring of the Rosseg Tierpark, Austria. Photo: Gradimir Gradev.

foothills of the Alps and the wintering area in Tuscany” (Anonym., 2019). Obviously, one of these birds has departed from his way and has been registered in Bulgaria.

Discussion

In the 2nd decade of the 21st century the northern bald ibis was still breeding in south-western Morocco, where the species was the subject of wide conservation measures (Fig. 5). There, in 2016 at least 111 breeding pairs were registered from two colonies (Aourir et al., 2017). Until the mid-1980s it bred in Algeria (del Hoyo & Collar, 2014). The breeding population in the south-eastern Turkey got extinct by 1989. In addition, a relict breeding colony was discovered in Syria in 2002 but by 2013 it has almost died out completely. The eastern population migrates via the Arabian Peninsula to Central Ethiopia, where it winters (del Hoyo

Fig. 5. A jewellery badge with an image of the northern bald ibis, promoting species conservation in Morocco. 2012; Photo: Z. Boev.

& Collar, 2014). A semi-wild population and several captive populations are maintained in Austria and Spain. Birds from these populations were released in some parts of the former species’ range in Europe (del Hoyo & Collar, 2014).

The Austrian-German-Italian reintroduction project founded three breeding populations in Burghausen (Bavaria) and Überlingen (Baden-Württemberg) in Germany and in Kuchl (Salzburg) in Austria. As the reintroduced Central-European captive populations originate from the last survived native colonies in the Middle East (SE Turkey, NW Syria), it is plausible to explain the observation in Karlovo, being a place on the former migratory way of the former population that has been gradually reduced and retreating towards the south-east (from the Alps to Asia Minor).

Conclusion

Although being an escape specimen, the bald ibis from Karlovo originates from Central Europe and has been recorded in Bulgaria, ca. 1100–1400 km south-east of the point of its releasing. Here we provide valuable information on the migratory phenology of one of the rarest birds of the World.

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