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Research article

The Oriental turtle dove (*Streptopelia orientalis* Latham, 1790) (Aves: Columbidae), a new species for the avifauna of Serbia

Geza Farkaš[1], Arpad Šarok[2], Draženko Z. Rajković[3]

(1) Save Ljubojeva 1, 21000 Novi Sad, Serbia, farkas.geza@gmail.com
(2) Ivana Gorana Kovačića 10, 21235 Temerin, Serbia, arpadsarok2@gmail.com
(3) Center for Biodiversity Research, Maksima Gorkog 40/3, 21000 Novi Sad, Serbia,
drazenko.rajkovic@cib.rs; https://orcid.org/0000-0002-2626-0076

Abstract: On 13 January 2019, an individual Oriental turtle dove (*Streptopelia orientalis* Latham, 1790) was recorded. The species is shortly observed during tree-perching in an intensive agricultural landscape near Temerin Town, Vojvodina Province, Northern Serbia. The observed dove was a putative juvenile bird belonging to the subspecies *meena*. This finding represents the first observation of the Oriental turtle dove and the sixth native species from the order of Columbiformes recorded in Serbia.

Keywords: Columbiformes, first record, Northern Serbia, vagrancy, Vojvodina Province

Introduction

Pigeons and doves (Columbidae Leach, 1820) are a monogamous, large, species-rich, and well-recognisable bird family. They are widely distributed across all continents except Antarctica (Gibbs et al., 2001). Worldwide, the family contains 348 valid species divided into 49 genera (Winkler et al., 2020). The highest species richness is related to the South-East Asian and Australasian biogeographic realm, particularly on the islands (Gibbs et al., 2001; Winkler et al., 2020). Compared to other continents, the diversity of pigeons and doves in Europe is pretty low. In the European continent only ten species within two genera live: pigeons (*Columba* Linnaeus, 1758) and doves (*Streptopelia* Bonaparte, 1855). *Streptopelia* is an exclusively Old-World genus that comprises four medium-sized species native to Europe (Winkler et al., 2020). The rarest and relatively poorly studied species among them is the Oriental turtle dove (*Streptopelia orientalis* Latham, 1790).

The Oriental turtle dove, also known as the rufous turtle dove (Cramp, 1985), is the largest representative of the *Streptopelia* genus in Europe. Its breeding area stretches from southern Ural Mountains to Sakhalin and Kuril Islands, south through southern Kazakhstan, Afghanistan to southern India in the west, and from Japan and Taiwan south to northern French Indochina and Hainan Island in the east (Gibbs et al., 2001; Baptista et al., 2020). The species is polytypic, and literature recognised at least six subspecies: *S. orientalis orientalis* (Latham, 1790) breeds in Central Siberia east to Sakhalin, the Kuril Islands and Japan south through China to northern French Indochina; *S. orientalis meena* (Sykes, 1832) breeds from south-west Siberia to the Altai Mountains, Kazakhstan, Afghanistan, northern Pakistan, and India west to Nepal with marginal extension into Western Palaearctic (Ural Mts); *S. orientalis erythrocephala* (Bonaparte, 1855) is found in Indian Peninsula from Bihar, Jharkhand and Orissa south to Karnataka State; *S. orientalis agricola* (Tickell, 1833) inhabits north-east India, Bangladesh and Myanmar to Tenasserim Hills in Malaysia; *S. orientalis stimpsoni* (Stejneger, 1887) is found in the Ryukyu Islands in Japan, and *S. orientalis orii* (Yamashina, 1932) inhabits Taiwan Archipelago (Gibbs et al., 2001; Baptista et al., 2020). Northern populations, in particular, subspecies *meena* and *orientalis* are primarily migratory, moving from their Siberian, Mongolian and Chinese summer

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Fig. 1. Oriental turtle dove (*Streptopelia orientalis* Latham, 1790) perching on a tree branch near Temerin Town, Vojvodina Province, Northern Serbia, 13 January 2019 (photo: Geza Farkaš).

grounds to India and South-East Asia, where they co-occur and mingle with the southern resident subspecies (Gibbs et al., 2001; Wilson & Korovin, 2003). The Oriental turtle dove is principally found singly, in pairs or small groups, gathering in larger flocks on passage or at copious feeding patches. The species is predominantly granivorous, foraging on the ground in clearings. Primarily feeds on grains, cereals, bamboo and weed seeds but also takes green shoots of various plants (Gibbs et al., 2001; Yoshikawa & Isagi, 2012; Baptista et al., 2020). It occupies a wide variety of habitats but prefers mosaic landscapes with fields for feeding and forest patches for breeding in the warmer Palaearctic and colder tropics, up to roughly 4000 m a.s.l. (Nepal). This species usually avoids densely forested areas unless close to open countryside or in desert zones. It is widespread and typically ubiquitous throughout a vast geographic area that covers most of Asia, although quantitative data is lacking (BirdLife International, 2016; Baptista et al., 2020). Because of the absence of evidence for any declines or significant threats, the entire world population trend was evaluated as stable. The species is categorised as Least Concern (BirdLife International, 2016).

Herein, we described the discovery of the putative first winter (juvenile) Oriental turtle dove for Serbia. In addition, we briefly discussed the status and observations of the species in the Balkans and adjacent countries.

Results and discussion

During a car driving on 13 January 2019, a little after 12 PM, one individual of Oriental turtle dove accidentally observed approximately 1 km from the northern edge of Temerin Town (UTM 34T DR13, 77 m a.s.l), Vojvodina Province, Northern Serbia. The exact coordinates of observation were 45°26'44.4"N 19°54'14.0"E. The specimen was observed from a car while perching on a lateral tree branch near the state road Temerin–Bečej. After less than one minute of observation, the observed individual flew far away, and it was impossible to follow it further. During this brief

encounter, the first author obtained several diagnostic photographs with Canon EOS 80D and the following settings: f/5.6, focal length 400 mm, ISO-800, and exposure time 1/1250 s (Fig. 1). The registered specimen did not produce any call. The weather was calm and cloudy, with a temperature of around 5°C. The surrounding landscape was rather typical for this part of the country – apparently endless agricultural fields interspaced with patchily distributed tree lines, groves, and farms.

The first impression during the short observation was that the observed dove was darker, something larger and bulkier than the European turtle dove (*Streptopelia turtur* Linnaeus, 1758) – a typical species of most parts of Serbia. However, the time of year did not fit the observation period, considering that the European turtle dove is a typical long-distance migrant that winters in sub-Saharan Africa from October to April (Cramp, 1985; Gibbs et al., 2001; Marx et al., 2016). Moreover, after carefully examining the photographs on a computer, we also detected the following discrepancies: the nape and hindneck were pink-brownish, not bluish-grey, contrasting with a grey crown, but not with the mantle. Also, the underparts were darker and duller than on the European turtle dove and the colouration of the breast extending further to the belly. Other incompatible morphological characteristics with European turtle dove appearance were extensive, almost rounded, blackish-brown centres on upperwing coverts, distinctly bluish-grey uppertail/lowerback coverts and noticeably pale bill tip. With the European turtle dove being ruled out, it was clear that depicted morphological features and colouration belong to the Oriental turtle dove (Cramp, 1985; Hirschfeld, 1986; Gibbs et al., 2001; Brazil, 2009; van Duivendijk, 2011). Considering the origin of the bird, the only somewhat confusing detail represents the slightly longer tip of the maxilla, the premaxillary nail. However, looking at the different photographs of this species on the Internet, we noticed that the somewhat longer bill tip is not unusual for this species. Although speculative in our case, it cannot be excluded that overgrowth of the premaxillary nail was caused by a nutrition deficiency, genetic mutations, collision traumas, diseases, or other known and well-described anomalies in wild birds (Pomeroy, 1962; Ledger, 1970; Purificação, 2019). Flying away due to human presence along with fine plumage conditions without clipped or damaged feathers represents reliable indicators of the wild origin of the bird. Furthermore, we did not notice a leg ring or other markings typical for captive-bred birds. The rather white undertail coverts hint at the subspecies *meena* (Hirschfeld, 1986; Gibbs et al., 2001; Wilson & Korovin, 2003; Svensson et al., 2009). We were unable to determine the sex of the observed individual because sexual dichromatism is not sufficiently developed in this species (Gibbs et al., 2001). Additionally, the analysis of the photographs showed that the individual was near the end of its moulting cycle. A small amount of unmoulted wing coverts shows conspicuously pale rufous edges of tips. Hence, this character entirely corresponds to the first winter bird, i.e., hatched during the previous calendar year (van Duivendijk, 2016; Baptista et al., 2020).

Prior to the above-described observation, the Oriental turtle dove had never previously been recorded in Serbia (Šćiban et al., 2015). Consequently, we can consider it a new member of Serbia's avifauna. Except for the tiny non-native resident population in the southern Czech Republic established in 2015 or 2016 (Zeman J., pers. comm.) and the low-density breeding population in the far east of the European part of the Russian Federation (Wilson & Korovin 2003; Voltzit & Kalyakin, 2020), no documented breeding population of Oriental turtle dove exists in Europe. Therefore, in the rest of the continent, the species is considered a scarce but regularly observed vagrant (Cramp, 1985; Gibbs et al., 2001; Baptista et al., 2020). Indeed, during the last 11 years, there were 103 official records of this species outside the breeding area (Krišovský & Krišovský, 2021). On the other hand, between 1842 and 1986, there was only 31 confirmed observations (Hirschfeld, 1986). To date, the British Isles, the Netherlands, and the Scandinavian Peninsula are the regions with the most historical observations. Both migratory subspecies *S. orientalis meena* and *S. orientalis orientalis* have been identified and around two-thirds of the records referred to the non-breeding period from late September until the end of January (Hirschfeld, 1986; Krišovský & Krišovský, 2021). In contrast, across south-eastern and central Europe, apart from Greece, the Oriental turtle dove remains a quite scarce autumn-winter vagrant. In southeast Europe, the first appearance of this dove species was in mid-August of 1965 on the Maritsa (Evros) River on the border between Greece and Turkey (Loterijman, 1968). Altogether, there are less than 30 primarily unpublished records in Greece (Kontopoulos A., pers. comm.), four in Hungary (www.rarebirds.hu), three in Cyprus (Stylianou J., pers. comm.), two or three in

Turkey (Kulaçoğlu K. & Abbasoğlu Ç., pers. comm.), two in Romania (www.rombird.ro), Austria (www.tarsiger.com) and Malta (Fenech, 2017), and one record in Slovakia (Krišovský & Krišovský, 2021). There are no observations from Albania (Topi & Nikolov, 2016), Bosnia and Herzegovina (Topić G., pers. comm.), North Macedonia (Velevski & Vasić, 2017), Croatia (Barišić et al., 2016), Bulgaria (Ivanov et al., 2019) or Slovenia (Denac M., pers. comm.). Thus, we reasonably believe there are no more than 40 proven records in the Balkans and adjacent countries. The most significant number of observations refers to the last twenty years, mainly during the autumn-winter period as in the case of our observation. Along with the gradual increase in the number of birders and the slight range expansion of the *meena* subspecies in Russian breeding grounds (Voltzit & Kalyakin, 2020), it is not impossible to expect an increase in the number of observations in Southeast Europe in the forthcoming years.

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