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ASSESSMENT OF EUROPEAN TURTLE-DOVE (*Streptopelia turtur*) ON THE FLORIDA BIRDLIST

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Abstract.—The provenance of the sole Florida record (and the first North American record) of the European Turtle-Dove (*Streptopelia turtur*) has been uncertain. The dove, found in the Florida Keys in April 1990, was originally considered to be a natural, possibly ship-assisted, vagrant from Europe or Africa; the species was thought to be very rare in captivity. But uncertainty about the possibility that the dove escaped from captivity persisted, although doubts lessened after other *S. turtur* records were documented off Newfoundland and in Massachusetts. Here, we briefly review the occurrence of *S. turtur* in North America, provide additional information on the species in captivity, and suggest that the evidence of occurrence in Florida does not convincingly favor any hypothesis on this bird's origin - natural vagrancy, ship-assisted vagrancy, or escape from captivity. Accordingly, we recommend that the European Turtle-Dove be removed from the Official List of Florida Birds.

Views on the significance of the sole Florida record of the European Turtle-Dove (*Streptopelia turtur*) have been fraught with uncertainty and advocacy. The bird, which furnished the first record for North America, was found by Pat Wells at Lower Matecumbe Key, Monroe County, on 9 April 1990 (Hoffman et al. 1990). During its stay through 11 April 1990, the dove was observed by five others (W. Hoffman, R. Sawicki, P. W. Smith, S. Smith, and M. Wheeler). The published account (Hoffman et al. 1990), which included one grayscale photograph of the dove, is ambiguous on whether the observers saw all the characters

that they described as important in distinguishing *S. turtur* from similar species (DeBenedictis 1994). However, the identification of the dove was confirmed by color photographs published later (e.g., see DeBenedictis 1994). The dove was observed perched in trees and as close as 10 m (ca. 30 ft) as it foraged with Mourning Doves (*Zenaida macroura*) and Common Ground-Doves (*Columbina passerina*) on a mowed lawn with patches of bare soil.

S. turtur is native to the Old World from Europe and central Russia, south to northwest China, Asia Minor, the Middle East, and northern Africa. The species is largely a summer resident in the European and Asian portions of its breeding range. It is a strong flier and a long-distance migrant, wintering south of the Sahara. It is comprised of four subspecies, of which the nominate race has the most northerly distribution, from Europe and western Siberia south to Mediterranean North Africa and the Canary Islands (Dickinson 2003). The only resident population is found in northern Africa.

Three hypotheses on the origin of the European Turtle-Dove in Florida were considered by Hoffman et al. (1990): escape or release from captivity, natural vagrancy unassisted by any human agency, and ship-assisted vagrancy. Birds that escape or are released from captivity are not included on formal regional birdlists until or unless populations of such birds are deemed to be established as a self-sustaining element of the avifauna. Most such introductions, whether intentional or accidental, do not succeed in establishing permanent populations (Cassey et al. 2004, Pranty 2004). In the case of the European Turtle-Dove at Lower Matecumbe Key, Hoffman et al. (1990) argued that because the species is uncommon to rare in captivity in North America (judging from available import records and avicultural sources), and because of its well-developed migratory behavior in northern populations, it is unsuitable and unlikely as a cage bird.

Hoffman et al.'s (1990) remaining two hypotheses involve direct (unassisted) or indirect (ship-transported) vagrancy. Vagrants are individuals that disperse far beyond their breeding and wintering ranges. Traditional views are that vagrants may be storm-drifted or lost (and when over the ocean, such individuals may seek refuge on passing ships), they may have followed inappropriate courses during migration or post-breeding dispersal, or they may suffer from a genetic abnormality that affected their navigational abilities (e.g., Alström and Colston 1991, but see Phillips 2000). Little is known about the biology of vagrancy in individual birds, but we suspect that multiple underlying causes will prove to be important. However, vagrancy is not uncommon and is especially notable among highly vagile birds. The European Turtle-Dove regularly reaches Iceland (Kolbeinsson 2012)

and has occurred on some of the eastern Atlantic islands off northern Africa (they are resident on the Canary Islands, where they breed). Since the 1960s, increasing numbers have found their way to Iceland, but numbers seem to have peaked in the 1980s (Kolbeinsson 2012). Some observers argue that this pattern of vagrancy, coupled with a strongly developed ability to fly long distances during migration, suggest a capacity to cross the Atlantic Ocean, perhaps via Greenland to Newfoundland, or across the mid-Atlantic to the Lesser Antilles. However, no evidence of vagrancy is known in European Turtle-Doves to Greenland (WICE 2011) or to the Lesser Antillean islands (e.g., none reported from Barbados [Buckley et al. 2009], where European or African vagrants sometimes occur). Two recent records of this species in North America, one from St. Pierre (St. Pierre et Miquelon, a French department), off the southern coast of Newfoundland in mid-May 2001, and another from Nantucket Island, Massachusetts, in July 2001, have occurred following the Florida record. The Massachusetts record was accepted by the American Birding Association Checklist Committee as representing a natural, possibly ship-assisted, vagrant, but the committee did not specifically evaluate the Florida or St. Pierre records (Pranty et al. 2007). However, the origin of all three turtle-doves in North America is unknown, so an important element of subjectivity prevails around any decision concerning their true status on this continent as vagrants or as escapes from captivity. The Florida bird was ca. 135 km from the major shipping port of Miami, but metropolitan Miami also is known to harbor a thriving cage-bird industry—and the region is a well-documented destination for vagrants from nearby islands. The Massachusetts dove was found killed by a vehicle on an island off the coast (Pranty et al. 2007). The St. Pierre dove was captured alive and photographed, but no local records committee assessed the record, and details surrounding its appearance on the island were uncertain (Maybank 2001).

The matter of ship-assisted vagrancy arguably is best documented in the House Crow (*Corvus splendens*), a human commensal native to India and Sri Lanka. The species is a notorious hitch-hiker on vessels plying trade-routes, and already has colonized port cities in many other parts of the world (mostly) in tropical and subtropical latitudes (Cheke 2008, Ryall 1994, 2010), and has great further potential to do so (Nyári et al. 2006). Ship-assistance to passerine birds migrating over the ocean may be very widespread, and can range from temporary resting stop-overs on boats to long-distances. In the latter case, birds may or may not receive food by the ship's passengers or crew (Pranty 2007). The British Ornithologists' Union Records Committee allows for ship-assisted birds that are migratory to be accepted on the British list so long as they receive no food, water, or other direct human support

while aboard the vessel (Meek et al. 2005, Evans 2010). This provision is impossible to assess without a written account of the ship-assisted event.

Hoffman et al. (1990) considered the possibility of natural vagrancy involving a trans-Atlantic crossing either directly to Florida or to a landfall south of Florida followed by movement northward. The dove occurred in the Keys during the spring period of migration out of Africa, when turtle-doves cross the Sahara Desert and the Mediterranean Sea. The authors pointed to other examples of migrant vagrancy from Europe or west Africa to maritime Canada and New England and to Barbados, but few such cases involve land birds. They also speculated on a fall scenario with wintering in South America or the West Indies, but, in the absence of any direct information on long-distance, trans-oceanic vagrancy in European Turtle-Doves (apart from crossings between Europe and Iceland), the issue of natural vagrancy, although also plausible, was dropped.

Lastly, Hoffman et al. (1990) examined the possibility of ship-assisted vagrancy to the New World. They considered the published record from 1977-1987 in the periodical of the Royal Naval Birdwatching Society, which reported European Turtle-Doves seen at sea from ships in the eastern Atlantic and western Indian oceans, and in the Mediterranean and Red seas during both spring and fall migration. Apparently many of these observations were of doves crossing these water bodies and by-passing ships as they migrated to or from their African winter quarters along their normal routes . But, without providing quantitative details, the authors also remarked that European Turtle-Dove were among the "most consistently reported [birds] landing aboard ships." The authors also mentioned one case of a bird that came aboard a ship off Scotland and rode the ship southward for 4,800 km before it left the ship off the Azores, where it is known as a vagrant (Gibbs et al. 2001). Hoffman et al. (1990) completed their assessment by suggesting ship-assisted vagrancy was "the most credible explanation for [the] European Turtle-Dove's appearance [in the Florida Keys]," while acknowledging that escape from captivity and natural, unassisted vagrancy also were plausible origin scenarios.

The vagrancy record of European Turtle-Doves is confined to individuals that occur outside their wintering range southward in Africa as far as southern Africa (five reports; Sinclair et al. 2011), Iceland (more than 200 reports; Kolbeinsson 2012), northern Norway, Finland, the Faeroe Islands between Scotland and Iceland, the Azores, and Cape Verde Islands (Gibbs et al. 2001). The species has colonized the Canary Islands and Madeira off northwest Africa, perhaps through vagrancy. This vagrancy history out of Africa and northern, mainland Europe involves European Turtle-Doves crossing the eastern Atlantic

Ocean to near-shore islands or island groups off northwest Africa and the northeast Atlantic Ocean that are not greatly distant from their European breeding grounds. As noted, although good numbers have appeared on Iceland in recent years (Kolbeinsson 2012), none has been known to have continued on to Greenland (WICE 2011). Veit (2006) attributed the lack of reports of European Turtle-Doves from Greenland to insufficient coverage. While this explanation may be correct, we do not believe that a northeastern stepping-stone route from Great Britain and through Iceland and Greenland can yet be supported to explain the appearance of European Turtle-Doves in Canada or New England.

The status of the European Turtle-Dove on the Florida list stems from acceptance by Robertson and Woolfenden (1992) of Hoffman et al.'s (1990) assessment of the bird discovered in the Florida Keys. Robertson and Woolfenden's annotated checklist became the default baseline state list used by the Florida Ornithological Society Records Committee (FOSRC) (Anderson and Baker 1992), a decision that automatically by-passed the FOSRC's original decision in 1990 to not review the record because of "questionable origin." The dove exhibited no sign of feather damage or claw abrasion, which often are regarded as evidence of recent or prolonged captivity. Hoffman et al. (1990) concluded that if it had escaped, the captive period must have been brief or that it had been free long enough to have completed molt. This conclusion probably assumed that time in captivity was spent in a small, confined cage rather than in a large flight enclosure, but this matter was not discussed. Although the possibility of captive escape or release was regarded as plausible, the authors did not favor this conclusion.

Robertson and Woolfenden (1992:81) believed the Keys dove was a natural, possibly ship-assisted, vagrant to Florida. They supported their conclusion by pointing to evidence of ship-assisted dispersal in European Turtle-Doves, including an individual that was last seen south of Newfoundland on a ship (Chapman 1962). Stevenson and Anderson (1994) also accepted the occurrence of the species on the Keys as a ship-assisted vagrancy, and repeated the example mentioned by Chapman (1962). Even if the dove arrived in Florida waters aboard a ship, long-distance dispersal of unrestrained birds sheltering on a traveling ship is open to varying and controversial viewpoints on whether such dispersal is an example of "natural vagrancy" (e.g., see a discussion of ship-assisted vagrants on BirdForum [2009]). The issue of direct human assistance to small birds on vessels traveling oceanic waters for long durations being fed by crew or passengers is a related matter and cannot be resolved without a published account of the crossing event. Such accounts are virtually unknown, thus human-supported and unsupported scenarios are equally likely default viewpoints.

The American Birding Association (ABA) accepted the evidence of Hoffman et al. (1990) and placed the European Turtle-Dove on the North American birdlist, but on a conditional basis in a newly erected category of "Origin Uncertain" pending additional occurrences of less uncertain origin (DeBenedictis 1994). ABA soon eliminated the "Origin Uncertain" category (Dunn 1997, Pranty 2007) and removed the European Turtle-Dove (and the three other species placed in the category) from the ABA Checklist. The European Turtle-Dove was replaced on the ABA checklist in 2007 on the strength of the subsequent record from Massachusetts (Pranty et al. 2007). The American Ornithologists' Union also accepted the Florida record and placed the European Turtle-Dove on its North American birdlist (AOU 1998).

The European Turtle-Dove found in the Florida Keys in 1990 has provoked controversy about its origin and therefore its proper status on official birdlists. Although initially accepted on the Florida birdlist, where it has remained, it was assigned a special status in the ABA checklist area and subsequently removed (Dunn 1997, Pranty 2007). It was accepted by the AOU (1998) with the cautionary statement that "Some consider the origin of this individual uncertain . . . ." The view that the Keys bird was an escape from captivity in Florida may be the most parsimonious explanation of its provenance. Yet, at the time, Hoffman et al. (1990) found little evidence that turtle-doves were being held in captivity in the United States or were being imported through the Port of Miami. Veit (2006), in the case of the Massachusetts bird, asserted the species was difficult to keep in captivity because of its highly migratory behavior and the "migratory restlessness" associated with it. However, large flight cages or an outdoor aviary may mitigate this issue. Thus, absence of apparent cage abrasion of feathers on the Keys dove may indicate only that the bird had not been kept in a small confinement cage. One website we visited (<http://birds.peachyga.com/european-turtle-dove.html>) described the species as "hardy and easy to keep" in medium to large flight cages. Another website (http://www.cydoniamall.com /pets/678/bird/Dove%20-%20European%20Turtle.html) claims that the species is "a favorite among beginners and expert [d]ove fanciers" and that they "breed easily in captivity" in large cages.

A matter that may be related to the issue of captivity is the tameness of the doves that were found in eastern North America. None of the three North American records of European Turtle-Doves displayed notable wariness. The Florida bird allowed human approach to within 10 m (Hoffman et al. 1990), the St. Pierre bird was photographed in-hand (circumstances not stated [Maybank 2001, Pranty et al. 2007]), and the Massachusetts dove was run over by a slow-moving vehicle (Veit 2006). European Turtle-Doves are "[h]eavily hunted on passage

through the Mediterranean" and are "[r]ather shy and hard to observe closely, keeps well hidden in tree canopy, but may be seen at distance on telephone wires and foraging on ground" (Svensson 2009:218). Although apparent tameness of the North American doves records may be due to fatigue from a long flight, the extreme tameness exhibited by the St. Pierre and Massachusetts doves, and the lack of wariness of the Florida bird, also raise the possibility of captive origin of one or more of the records.

Of greatest concern in this case, and in other similar cases in which natural vagrancy versus a non-vagrant origin involving humans is at issue, is the tendency to base choices on hypothesis plausibility and advocacy. Science is not an advocacy enterprise, so we must base choices on patterns that develop from a history of occurrences in a region. Currently, only three European Turtle-Doves have been found in North America, hardly a strong record for supporting inferences about the likelihood of vagrancy to the United States. We recommend that the European Turtle-Dove be removed from the Official Bird List of Florida. This approach would conform to the original decision of the FOSRC and to the ultimate position taken by the American Birding Association on the Florida bird, and is conservative in relation to the evidence at hand. Although it is possible that one, two, or all three North American records of European Turtle-Doves refer to assisted or unassisted natural vagrants from the Old World, there is no compelling evidence to support this conclusion. We see no strong reason to select a preferred explanation of origin in Florida among the three hypotheses considered.

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