

Unlikely occurrence of the Andalusian Hemipode *Turnix sylvatica* in Catalonia (NE Spain) one century ago

Òscar Gordo, Xavier Ferrer & Abilio Reig-Ferrer

Historically, the nominate subspecies of the Andalusian Hemipode was distributed only in southern Iberia, North Africa and Sicily. However, some authors have mentioned uncertain records in Catalonia (NE Spain) during last century. In the Museum of Zoology of Barcelona there is a specimen trapped in Catalonia between 1891 and 1910. Four hypotheses for the origin of this individual are put forward and discussed: 1) it was an individual in dispersal from southern breeding areas; 2) a century ago the species bred in Catalonia; 3) the bird was introduced (for a collection, or with a view to hunting); 4) the label gives an erroneous collecting locality. On the basis of the information available we conclude that third and fourth hypotheses are the most probable.

Key words: Andalusian Hemipode, *Turnix sylvatica*, old record, bird collection, Catalonia, north-east Spain.

Òscar Gordo* & Xavier Ferrer, *Departament de Biologia Animal (Vertebrats), Universitat de Barcelona, Av. Diagonal, 645, 08028 Barcelona.*

Abilio Reig-Ferrer. *Departament de Psicologia de la Salut, Universitat d'Alacant, Apt. de correus 99, 03080 Alacant.*

* Corresponding author: ogordo@mncn.csic.es

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Nowadays, the Andalusian Hemipode *Turnix sylvatica* is probably the scarcest European bird species (Violani & Massa 1993, Urdiales 1994, del Hoyo *et al.* 1996, Garrido 2003). During the 19th and early 20th centuries this species was distributed across southern Iberia (particularly in Andalusia and Alentejo), North Africa and Sicily (Reyes-Prósper 1886, Arévalo-Baca 1887, Whitaker 1905, Martorelli 1906, Tait 1924, Heim de Balsac & Mayaud 1962, Violani & Massa 1993), and was even locally common according to some authors (Saunders 1871, Arévalo-Baca 1887, Whitaker 1905, Violani & Massa 1993). Its distribution has traditionally been associated with bush/scrub areas with presence of the dwarf palm *Chamaerops humilis* (Cramp & Simmons 1980); this may explain for its restricted distribution in the Western Palearctic.

In the 19th century, Vayreda (1883) cited this species as a probable visitor to the province of Girona (NE Spain). Ferrer & Reig (2003) rejected this information because it was merely assumed from Companyo (1863); both Companyo and Vayreda were untrustworthy with respect to rare species (Ferrer *et al.* 2001). Thus, the first inventory of the Catalan avifauna (Fuset 1913) did not include this species, and nor did later similar books (Muntaner *et al.* 1983, Ferrer *et al.* 1986, Estrada *et al.* 2004). During last century, this species was only reported from two sites in Catalonia (l'Ampolla, Boer & Orden 1964; Roses, Wallace & Sage 1969), but both observations have generally been rejected (Muntaner *et al.* 1983, Clavell, 2002).

In the bird collection of the Museum of Zoology of Barcelona, there is a mounted juvenile specimen of the Andalusian Hemipode (ref.

number 82-1267; Plate 1) collected by Emili Tarré in Catalonia (NE Spain). Tarré (1858-1918) was one of the most active bird collectors in Catalonia during the latter part of the 19th century and the beginning of the 20th. He collected more than 500 individuals of 204 species, mainly from Catalonia. His bird collection was qualified by Sagarra (1918) as one of the most important of the Catalanian avifauna at the beginning of the 20th century. When Tarré died, his particular collection was bequeathed to this museum, together with some documentation about the specimens (Anon. 1918, Sagarra 1918).

Unfortunately, the precise locality of capture is lacking for almost all individuals in Tarré's collection. In the case of the Andalusian Hemipode specimen, only the season and year were available according to Sagarra (1918), but this information was also lost subsequently. Information about the biography of Tarré can help us to suggest an approximate area and period of collection for this specimen. In the case of site, the main collecting area of Tarré was the region within a radius of about 50 km of the city of Barcelona. In the case of the year, Tarré gathered his collection between 1891 and 1918. Since Tarré was almost blind by about 1907 (Ferrer & Reig 2005), the year of collection was most likely to have been between 1891 and 1910.

This Andalusian Hemipode specimen could be the first real evidence of the presence of this species in Catalonia. We can suggest two hypotheses for a Catalan origin of this specimen. It could have been an individual in dispersal from southern Iberian breeding sites. This fact would disagree with most authors (Yarrell 1884, Arévalo-Baca 1887, Irby 1895, Whitaker 1905, Heim de Balsac & Mayaud 1962, Llandrés & Urdiales 1990, Violani & Massa 1993), who have characterized the European and North African populations of this species as being strongly sedentary. However, this affirmation has probably been the result merely of the paucity of field observations (Cramp & Simmons 1980, Garrido 1999, 2003). Some individuals recorded in the region of Aveiro and Coimbra (central Portugal) during autumn (Champman & Buck 1893, Tait 1924, Themido 1933), just after the breeding season, could refer to dispersive movements of juveniles from southern breeding areas (Bernis 1966). Recently, some observations in crop fields

and different forms of scrub habitat from the one cited above (Garrido 2003, Thévenot *et al.* 2003) could tie in with certain dispersive or nomadic movements in this species, related to local fluctuations in food resources, as occurs in other subspecies from Africa and Asia (del Hoyo *et al.* 1996). However, the distance of about 1,000 km between Catalonia and the nearest known breeding areas is a problem for this hypothesis, as it is much greater than those involved in the cited dispersive movements.

A second hypothesis would be that this species still bred in Catalonia about a century ago. The breeding hypothesis would be supported by the age of the individual and the presence of the species in Arles (S France) in the first century (Kinzelbach 1995); this very old record could be evidence of a broader distribution of this species in past. The strong human transformation of natural environments in the Mediterranean Basin over many centuries could well have reduced the range and numbers of the Andalusian Hemipode already by the 19th century, when the first avian inventories for Spain and Portugal were put together. The existence of a single specimen from Catalonia in bird collections could be evidence of a population close to extinction at that time (Sagarra 1918). However, two facts do not support the breeding hypothesis. First, if this species bred in Catalonia at that time, it is most surprising that Fuset (1913), who used the Tarré collection, did not include this species in his catalogue. Second, the species' preferred breeding habitat was not available. This species breeds preferably on sandy soils with dense bush and grass cover, and with the presence of dwarf palm (Urban *et al.* 1986, Garrido 2003, Thévenot *et al.* 2003). Such habitats are very unusual in Catalonia (only at southern areas as the plana de Sant Jordi and Cap de Salou; J. Vigo pers. comm.), so it is highly improbable that this species bred in Catalonia, at least as late as the 19th century.

We can also suggest alternative hypotheses for a non-Catalan origin of the specimen. On the one hand, the specimen could have escaped from a private collection, or there might have been an introduction of individuals of this species for the purposes of hunting; both were common practices, especially for gamebirds and wildfowl, in the 19th century (Lilford 1865, Vayreda 1883, Arévalo-Baca 1887). Despite its



Plate 1. Juvenile specimen of Andalusian Hemipode from the *Museu de Ciències Naturals de Barcelona* (former Museum of Zoology of Barcelona). Photo: O. Gordo.
Exemplar juvenil de Guatlila Andalus del Museu de Ciències Naturals de Barcelona.

true taxonomic relationships, the Andalusian Hemipode has typically been treated as a gamebird, and hunted like one (Machado-Núñez 1854, Champman 1884, Yarrell 1884, Champman & Buck 1893, Whitaker 1905, Violani & Massa 1993, Urdiales 1994). Indeed, there are records of the introduction to southern France of some individuals from Algeria, and these apparently bred in wild conditions (Jaubert 1856 a,b). This is not really surprising, as there are records of individuals kept successfully in captivity (Chapman 1884, Whitaker 1905, Mountfort 1958). Furthermore, the species was common at that time in the Moroccan region of Tangier (Thévenot *et al.* 2003), which was a Spanish colony at the time and from where some hemipodes could have been imported.

Another possibility is that the Catalan origin attested to by the labelling (Sagarra 1918)

could be a mistake, which need not imply irresponsibility on the part of Tarré. He might have received the specimen from another hunter or collector who assured him of a Catalan origin. Indeed, this could have been strictly true, if it had been collected as a result of the aforementioned practices; alternatively, it could have been wrong, and then Tarré was deceived, as were many other museums and private collections at that time. In any case, Tarré did not waste the opportunity of obtaining a specimen of such a rare species and incorporated it to his collection. Since he was not particularly accurate with the labelling of individuals (Sagarra 1918), some erroneous information about the origin of the specimen could well have crept in. This tendency could have been known to ornithologists contemporary with Tarré (e.g. Sagarra or Fuset) and they consequently did not give the expected re-

levance to the specimen, which thus remained virtually unknown until the present.

After an exhaustive review of all available information we can conclude that both hypotheses about a natural Catalan origin of the studied specimen are difficult to support and appear very improbable. Alternative hypotheses for a non-Catalan origin are, in our opinion, much more probable and would be in agreement with no references to this specimen in literature from the beginning of the 20th century. A comparative genetic analysis with the available museum specimens from a reliable collection locality would help to determine the precise origin of the specimen from the Museum of Zoology of Barcelona.

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Resum

Presència improbable de la Guatlla Andalusina *Turnix sylvatica* a Catalunya al segle passat

La Guatlla Andalusina es distribuïa antigament pel sud de la península Ibèrica, el nord d'Àfrica i Sicília. Hi ha algunes citacions durant el segle passat de l'espècie a Catalunya, tot i que actualment no estan acceptades. Al Museu de Zoologia de Barcelona hi ha un espècimen capturat a Catalunya entre 1891-1910. Es proposen i discuteixen quatre hipòtesis per l'origen d'aquest individu: 1) era un individu en dispersió des d'àrees de cria del sud; 2) l'espècie nidificava a Catalunya fa un segle; 3) va ser un individu importat (per a una col·lecció o amb finalitats cinegètiques); 4) hi ha un error en la seva etiqueta. D'acord amb la informació disponible, concloem que les dues darreres són les hipòtesis més probables.

Resumen

Presencia improbable de Torillo Andaluz *Turnix sylvatica* en Cataluña en el siglo pasado

El Torillo Andaluz se distribuía antaño por el sur de la Península Ibérica, el norte de África y Sicilia.

Existen algunas citas durante el siglo pasado para esta especie en Cataluña, aunque actualmente están rechazadas. En el Museo de Zoología de Barcelona existe un espécimen capturado en Cataluña entre 1891-1910. Proponemos y discutimos cuatro hipótesis para el origen del individuo: 1) era un individuo en dispersión desde áreas de cría meridionales; 2) la especie nidificaba en Cataluña hace un siglo; 3) era un individuo importado (para una colección o con fines cinegéticos); 4) existe un error en su etiqueta. En base a la información disponible, concluimos que las dos últimas hipótesis son las más probables.

References

- Anon.** 1918. La col·lecció ornitològica llegada per D. Emili Tarré i Tarré al Museu de Ciències Naturals de Barcelona. *Anuari de la Junta de Ciències Naturals de Barcelona* 3: 294-296.
- Arévalo-Baca, J.** 1887. *Aves de España*. Madrid: Aguado.
- Bernis, F.** 1966. *Aves migradoras ibéricas*. Fasc. 3º. Madrid: Sociedad Española de Ornitología.
- Boer, P. & Orden, C.R.** 1964. Breeding notes from the Ebro-delta, Spain. *Ardea* 52: 119-120.
- Chapman, A.** 1884. Rough notes on Spanish ornithology. *Ibis* 5 (2): 66-99.
- Chapman, A. & Buck, W.J.** 1893. *Wild Spain. Records of sport with rifle, rod, and gun, natural history and exploration*. London: Gurney and Jackson.
- Clavell, J.** 2002. *Catàleg dels ocells dels Països Catalans*. Bellaterra: Lynx Edicions.
- Companyo, L.** 1863. *Historie Naturelle du Département des Pyrénées-Orientales*. Perpignan: J. B. Alzine.
- Cramp, S. & Simmons, K.E.L. (eds.)** 1980. *The Birds of the Western Palearctic*. Vol II. Oxford: Oxford University Press.
- del Hoyo, J., Elliott, A. & Sargatal, J. (eds.)** 1996. *Handbook of the Birds of the World*. Vol. 3. Barcelona: Lynx Edicions.
- Estrada, J., Pedrocchi, V., Brotons, L. & Herrando, S. (eds.)** 2004. *Atlas dels ocells nidificants de Catalunya 1999-2002*. Barcelona: ICO - Lynx Edicions.
- Ferrer, X. & Reig, A.** 2003. Carta de Mariano Masferrer i Rierola a Estanislau Vayreda i Vila el juny 1882. *L'Abellerol* 20: 7-8.
- Ferrer, X. & Reig, A.** 2005. Josep Maria de Sagarra i de Castellarnau (1894-1961) i l'ornitologia mediàtica catalana. *L'Abellerol* 26: 8-10.
- Ferrer, X., Muntaner, J. & Martínez-Vilalta, A.** 1986. *Història Natural del Paísos Catalans*. Volum 12: *Ocells*. Barcelona: Fundació Enciclopèdia Catalana.
- Ferrer, X., Reig, A. & Maluquer, J.** 2001. Record de l'ornitòleg Estanislau Vayreda i Vila en el centenari de la seva mort. *L'Abellerol* 14: 8-9.
- Ferrer, X., Reig, A., Gordo, O. & Casals, J.** 2002. Josep Fuset i Tubià (1871-1952), autor del primer catàleg d'ocells de Catalunya. *L'Abellerol* 17: 4-7.

- Fuset, J.** 1913. Aves de Cataluña. *Memorias de la Real Sociedad Española de Historia Natural* 6 (7): 455-609.
- Garrido, H.** 1999. El ocaso del torillo andaluz. *Quercus* 165: 40-43.
- Garrido, H.** 2003. Metodología usada en la búsqueda de las últimas poblaciones de *Turnix sylvatica* en el Mediterráneo Occidental. In Garrido, H. (ed) *Anuario Ornitológico de Doñana*. nº 1 (Septiembre 1999 - Agosto 2001). Pp. 176-184. Almonte: Área de Cultura - Ayuntamiento de Almonte.
- Heim de Balsac, H. & Mayaud, N.** 1962. *Oiseaux du nord-ouest de l'Afrique*. Paris: Lechevalier.
- Irby, L.H.** 1895. *The ornithology of the Straits of Gibraltar*. 2nd Ed. London: Porter.
- Jaubert, J.B.** 1856a. Dixième lettre sur l'Ornithologie de la France méridionale. *Revue et Magasin de Zoologie*, Mars: 97-105.
- Jaubert, J.B.** 1856b. A monsieur le rédacteur en chef de la Revue de Zoologie. *Revue et Magasin de Zoologie*, Septembre: 407-417.
- Kinzelbach, R.** 1995. Laufhühnchen *Turnix sylvatica* in antiken Gallien. *Vogelwelt* 116: 159-160.
- Lilford, L.** 1865. Notes on the ornithology of Spain. *Ibis* 7: 166-177.
- Llandrés, C. & Urdiales, C.** 1990. *Las aves de Doñana*. Barcelona: Lynx Edicions.
- Machado-Núñez, A.** 1854. *Catálogo de las aves observadas en algunas provincias de Andalucía*. Sevilla: Juan Moyano.
- Malherbe, A.** 1843. *Faune ornithologique de la Sicile*. Metz: Lamart.
- Martorelli, G.** 1906. *Gli uccelli d'Italia*. Milano: Cogliati.
- Mountfort, G.** 1958. *Portrait of a wilderness: the story of the Coto de Doñana expeditions*. London: Hutchinson.
- Muntaner, J., Ferrer, X. & Martínez-Vilalta, A. (eds.)** 1983. *Atlas dels ocells nidificants de Catalunya i Andorra*. Barcelona: Ketres.
- Reyer-Prósper, V.** 1886. *Catálogo de las aves de España, Portugal e Islas Baleares*. Madrid: Fortanet.
- Sagarrà, I.** 1918. Secció ornitològica. *Anuari de la Junta de Ciències Naturals de Barcelona* 3: 183-184.
- Saunders, H.** 1871. A list of the birds of southern Spain. *Ibis* 13: 205-225.
- Saunders, H.** 1884. *A History of the British Birds by the late William Yarrell*. Vol. III. 4th Ed. London.
- Tait, W.C.** 1924. *The Birds of Portugal*. London: Whiterby.
- Themido, A.A.** 1933. Aves de Portugal (Catálogo da coleção do Museu Zoológico de Coimbra). *Memórias e Estudos do Museu Zoológico da Universidade de Coimbra, Serie I zoologia sistemática* 65: 5-281.
- Thévenot, M., Vernon, R. & Bergier, P.** 2003. *The Birds of Morocco. An annotated Checklist*. Tring: British Ornithologists' Union.
- Urdiales, C.** 1994. Andalusian Hemipode. In Tucker, G.M. & Heath, M.F. (eds.): *Birds in Europe: their conservation status*. Pp. 224-225. Cambridge: BirdLife International.
- Vayreda, E.** 1883. *Fauna ornitológica de la provincia de Gerona*. Gerona: Paciano Torres.
- Violani, C.G. & Massa, B.** 1993. Extinction of the Andalusian Hemipode *Turnix s. sylvatica* (Desf.) in the Mediterranean region. *Bull. B.O.C.* 113: 225-229.
- Wallace, D.I.M. & Sage, L.** 1969. Las aves de la Costa Brava, Cataluña. *Ardeola* 13: 151-170.
- Whitaker, J.I.S.** 1905. *The Birds of Tunisia*. London: Porter.