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Coturnix coturnix (Linnaeus, 1758) - the common known bird? Part II. Common quail taxonomy

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Abstract. Despite the controversy over Common quail (*Coturnix coturnix* Linneaus, 1758) subspecies diversity, the following subspecies stand out in the scientific literature: *C. c. coturnix* (Linneaus, 1758), *C. c. africana* (Temminck & Schlegel, 1848), *C. c. erlangeri* (Zedlitz, 1912), *C. c. inopinata* (Hartert, 1917), and *C. c. conturbans* (Hartert, 1917). This systematics is based on the area of distribution and insignificant external differences, which is criticized for the migratory behavior of the species and the opportunities for interspecies contact in the common areas.

Key-words: Common quail, taxonomy, intraspecific variability.

Introduction

The name "quail" actually refers to several dozen species, divided into 13 genera and grouped into an order of *Galliformes* of the class *Aves*. They are found in almost all terrestrial parts of the globe, except in the northernmost and southernmost areas. Two genera: *Odontophorus* (wood quails) and *Coturnix* (common quails) are with the greatest species diversity. These two numerous genera are spatially separated by the Pacific Ocean and the Atlantic Ocean (Lukanov 2020). Over the last almost three centuries, there has been a serious dynamic in the taxonomic status and nomenclature of the genus *Coturnix*, and in particular the intraspecific diversity of the most widespread representative - the common quail.

Common quail taxonomy- a historical background

Common quail has undergone a number of transformations of the Latin name, associated with changes in the system over the past 250 years. The widest variation in taxonomy of the species was reported in XVIII and XIX centuries. During 19th century were the greatest transformations in the species name, described in detail by Ogilvie-Grant (1892). In the middle of the 19th century, Japanese quail appeared in the scientific literature, designated as a subspecies of the common quail or as a separate species, respectively *Coturnix vulgaris japonica* (Temminck & Schlegel, 1849) and *Coturnix muta* (Dobrowski, 1868). At the end of the 19th century, Ogilvie-Grant (1896) divided common quail and Japanese quail, giving them the names that are still preserved today in the taxonomy of the genus *Coturnix*: *Coturnix coturnix* and *Coturnix japonica*. This division is not final, as the taxonomic cases regarding the subspecies systematics of the common quail continue in the XX century. In the last three decades, the prevailing view is that due to some external and behavioral differences, these two quails should be species-separated, respectively designated as *Coturnix coturnix* and *Coturnix japonica* (Del Hoyo *et al.* 1994).

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Conditional designation of domestic quails has also been proposed in the scientific literature in order to distinguish them from wild Japanese quails (Lukanov 2019). According to some European scientists, the taxonomic separation of common quail and Japanese quail needs to undergo a more in-depth scientific debate (EC 2009), and until then to use the binomial nomenclature (Puigcerver *et al.* 2001).

Actual intraspecific variability and systematics in common quail

Excluding the case of the Japanese quail, several subspecies are known, the most common of which is the Eurasian subspecies (*C. c. coturnix*) (EC 2009). It is found in almost all Europe (excluding the northernmost areas), West and Central Asia, as well as North and Central Africa. The other subspecies with a wide habitat is the African quail (*C. c. africana*), which is found in almost the entire African continent south of the Sahara. It is close to the Eurasian, but with a darker body, rusty breasts and a pronounced throat pattern (Ogilvie-Grant 1892, Beme *et al.* 1987, Puigcerver *et al.* 2001, Madge & McGowan 2002a). Abyssinian quail (*C. c. erlangeri*) is another subspecies of the common quail found in East Africa. It is darker than the African subspecies (Cramp & Simmons 1980, Beme *et al.* 1987), with more rusty staining on the head, throat and chest area in males than in other subspecies (Madge and McGowan 2002a). According to some scientists, the two African subspecies are difficult to distinguish from the Eurasian, and should therefore be considered as a part of the *C. c. coturnix* (EC 2009).

The other two isolated subspecies are *C. c. inopinata* and *C. c. conturbans*, which inhabit the islands of Cape Verde and the Azores, respectively (Beme *et al.* 1987, Alderton 1992, McGowan *et al.* 2019). *C. c. inopinata* is similar in color to the main subspecies, but with noticeably smaller body size (Hartert 1921, Cramp & Simmons 1980, Beme *et al.* 1987). *C. c. conturbans* is darker than the Eurasian, close to the African subspecies, but with a lighter upper body (Puigcerver *et al.* 2001, Madge & McGowan 2002a), usually combined with *C. c. confisa* (Madge & McGowan 2002b).

According to some sources, there are two other endemic species: *C. c. confisa*, inhabiting two of the archipelagos of Macaronesia - Madeira and the Canary Islands (Beme *et al.* 1987, Oliveira & Menezes 2004, EC 2009) and *C. c. orientalis*, found in India and Pakistan (EC 2009). Hartert (1921) reported *C. c. confisa* as identical with *C. c. conturbans*, but larger. These quails inhabit different archipelagos of Macaronesia and logically should be considered as a subspecies, spatially distinguished from other representatives of the common quail. With regard to the so-called gray quail (*C. c. orientalis*), inhabiting India and Pakistan, it can be assumed that this is the Eurasian subspecies *C. c. coturnix* (Madge & McGowan 2002b). Other proposed subspecies can be found in the available literature, such as: *C. c. corsicana*, *C. c. ragionierii,* and *C. c parisii*, which are also comparable to the Eurasian subspecies (Madge & McGowan 2002b).

Conclusion

It can be summarized that with regard to the subspecies diversity of the common quail, there is still a discrepancy in the terminology used. A purposeful scientific debate is needed in connection with the subspecies taxonomy of the *Coturnix coturnix*. In this regard it would be more appropriate to use the binomial nomenclature as a starting point than the trinomial for that species. The main part proposed subspecies of common quail is based on some subjective exterior differences, as well as on the distribution area in a species with pronounced migratory activity and common intraspecific habitats. In this regard, it is logical only after the bolder introduction of modern genetic methods for the study of subspecies diversity and their clear differentiation to introduce subspecies systematization in the common quail.

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