

Coturnix coturnix (Linnaeus, 1758) - the common known bird? Part I. Distribution and conservation status

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Abstract. Common quail (*Coturnix coturnix* Linnaeus, 1758) inhabits a vast area spread over three continents - Europe, Asia and Africa. Although it is the most thoroughly studied wild representative of the genus *Coturnix* there are some poorly clarified aspects, mainly concerning its current conservation status, subspecies diversity, and the possibilities for natural hybridization. The purpose of this article is to consolidate, systematize and analyze the available information regarding the state of the global population, taxonomy, and the hybridization of the common quail.

Key words: Common quail, distribution, population affecting factors

Introduction

Quails are birds that are widespread throughout the world. The so-called 'Common quails' are found in Europe, Asia, Africa, the Malay Archipelago and Oceania (Lukanov 2020). In general, members of the genus *Coturnix* are widespread, non-endangered birds, and are usually valuable game birds in many countries. They are fast-breeding birds, with great dynamics in population density, numbers and expansion, which are an important indicator of the state of an ecosystem. Historically, of all quails, the most severely affected by human activity is the genus *Coturnix*, with one (McGowan & Madge 2010), two (Hume 2017) or even more extinct species (Rondo *et al.* 2020).

Common quail is probably the most thoroughly studied wild representative of the genus *Coturnix*, and there are still some ambiguities about the issues of the state of the global population, taxonomy, and hybridization of the species. The aim of this study is to consolidate, systematize and analyze the available information concerning common quail (*Coturnix coturnix*) and focus on poorly clarified points.

Distribution

Wild common quails are distributed in Europe, Africa, West and Central Asia (Beme *et al.* 1987) and the Arabian Peninsula (EC 2009), as they can reach the territories of Central Siberia, Mongolia, China and northern India. They inhabit an area of about 88 000 000 km² (BirdLife International 2019) – from 65° north latitude to about 34° south latitude and from about - 28° west longitude (Azores) to about 105° east longitude (Central Mongolia). There have been several attempts to introduce quails in the United States (Due & Ruhr 1957, Lyon 1962), Tahiti, Australia, New Zealand, Seychelles and Mauritius (Long 1981).

Common quail is a migratory bird. This is the only highly migratory species of the *Phasianidae* family (Cramp & Simmons 1980, Kosicki *et al.* 2014). The main population

migrates from north to south, breeding in Europe and Asia and wintering in Africa, South and Southwest Asia. There are also populations that do not show clear migratory behavior. Given the global climate changes, it is possible in the future to observe changes in the distribution area, respectively the nesting territories and those for wintering.

Conservation status

Common quail is classified as a non-endangered species under the category Least Concern (BirdLife International 2019). It is assumed that the European population (including the European part of Russia and Turkey) numbers between 2.8 and 4.7 million pairs (WBRU 2016), and according to BirdLife International (2015) it accounts for about 40% of the total number or about 6.5-13.5 million adults. The global number of the species is between 15 and 35 million (BirdLife International 2019). Data on the number of the species are found mainly in relation to the European and part of the Asian part of the population, arriving in these breeding areas. Serious studies on the size of the African population are lacking. Such studies are hampered by several factors, the main of which are the vast range and secretive lifestyle of birds. Despite the large number and exceptional reproductive capabilities of the species, at the end of the XX century (1970-1990) there was a decrease in its population (Puigcerver *et al.* 2012, Németh *et al.* 2019). In the last two decades, the number of the species has remained relatively stable (Puigcerver *et al.* 2012).

Population affecting factors

A number of factors, mainly related to human activity, can be cited as the reason for the negative impact on the global population of the common quail. In the first place, this is the loss of habitat. It is related to the expansion of arable land and reduction of their natural habitat, especially in the marital areas (Europe, Northwest Africa and Asia). The uncontrolled use of pesticides in agriculture is associated with the reduction of plants which quails use for shelter in areas treated with herbicides, limiting the diversity of seeds. Insecticide treatment reduces the insects they feed on. Last but not least, the possibility of chronic or acute intoxication with various pesticides and rodenticides can be mentioned (Nankinov 2016, Lukanov 2020). Another limiting factor for the population is the development of tourism and the excessive construction of some areas that fall into the main migration routes or are a natural habitat for nesting quails (EC 2009). Global climate changes are a serious negative factor, very prominent in the last decade. Drought poses a serious risk in wintering areas in North-West and Central Africa, leading to a drastic reduction in wintering birds. It is related to the lack of sufficient food sources and the reduction of arable land sown with millet and sorghum, serving as shelters and food source for quail. Drought in nesting areas also has serious consequences for the population size, leading to the abandonment of nests and a reduction in the number of young birds (observed in areas of Spain and France). As a result of the drought and the intervention of the human factor, devastating fires are observed, which occur annually mainly in Southern Europe (Spain, Portugal, Bulgaria, Greece). They cover huge areas, including the habitats of nesting quails, destroying nests and young birds, as well as some adults (Lukanov 2020). Uncontrolled hunting of quails, especially during the flight or breeding season, the use of nets, sound devices and others, has a detrimental effect on the population (Boev 1957, Nankinov 2016). The presence of natural enemies (predators) feeding on quails does not pose a serious danger to the species, but combined with the destruction of their natural shelters, introduction of new predatory species, increasing the number of stray cats, etc., can have a serious negative effect on numbers of the quail in some regions (Lukanov 2020).

Conclusion

Coturnix coturnix is considered as non-endangered species. This status is not based on real studies of the size of global population or subspecies level, which can be a serious factor in their conservation.

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