

## SHORT ARTICLES / INVESTIGACIÓN

## Checklist and distribution of Galliform Birds (Order: Galliformes) in Iraq

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**Abstract:** A total of four genera and four species belong to one family, Phasianidae, Order Galliformes; about 72 specimens deposited in the bird's collection in the Iraq "Natural History Research Center and Museum INHM" were reviewed. In the current study, morphometrics of four species of taxidermy Galliform birds: Chukor *Alectoris graeca* (Meisner, 1804), Seese *Ammoperdix griseogularis* (Brandt, 1843), Quail *Coturnix coturnix* (Linnaeus, 1758), and Black Partridge *Francolinus francolinus* (Linnaeus, 1766) were documented. In addition, the distribution ranges throughout Iraq and the Global Conservation Status of each mentioned species were reviewed and comprehensively discussed. The current study concluded that the collection of four species belongs to the Phasianidae Family of Galliformes Order, which deserved in INHM still abundance in the Iraqi environment; that Chukors *Alectoris* sp. more abundance in mountains and hills areas west and north of Iraq; While, Black partridge *Francolinus francolinus* is more abundance in wetlands and Marshes south of Iraq. Global Conservation status listed them as Least Concern (LC).

**Key words:** Black partridge, Chukar, Galliform birds, Phasianidae, Quail.

### Introduction

Galliform birds are essential in the ecosystem and are reared by humans, hunted as game birds or for their meat and eggs. They are also called Gallinaceous birds<sup>1</sup>.

The Order Galliformes is divided into five families: Phasianidae, Odontophoridae, Numididae, Cracidae and Meqapodiidae, inhabiting every continent except Antarctica and adapting to any environment except innermost deserts and perpetual ice<sup>2</sup>. The Family Phasianidae includes Chicken, partridges, pheasant, peafowl, quail and turkeys<sup>3</sup>. It is an old-world family with a wide distribution, including Europe, Asia (except the far north), Africa except the deserts, and eastern Australia<sup>2</sup>.

Previously, Snowcock *Tetraogallus caspius* (S.G. Gmelin, 1784) was abundant in the mountains of Kurdistan, north of Iraq, then decreased slightly in high mountains<sup>4</sup>, but there is no specimen in the INHM.

This study aimed to provide a database of the Iraqi Galliform bird Collection in the Iraqi Natural History Research Center and Museum (INHM) and a comprehensive overview of the environmental reality of the Galliform bird's status and distribution in Iraq.

### Materials and methods

#### Specimen collection

A total of 72 specimens of Galliform birds of four genera: *Alectoris*, *Ammoperdix*, *Coturnix*, and *Francolinus*, that belong to the Phasianidae Family which collected from different ecozones of Iraq as Salah-Aldeen, Shaqlawa Road (north of Iraq); Abo-Ghraib (west of Iraq); Baghdad, Rashidya Road, Al-Attaryia, Al-Fahama, Yousifiya Road and Hilla (middle of Iraq); Amara, Nasiriya Road, and Al-Chibayish

Marsh (south of Iraq) deposited in the bird collection in (INHM) are reviewed. All dried birds were tagged with museum collection labels with the accession number, common name, scientific name, and the collecting location; and preserved (taxidermy) as study skin specimens. The morphological measurements in millimeters (mm) were measured for one specimen to represent each studied species.

### Results and discussion

A total of four genera and four species that belong to the Phasianidae Family were recorded in the collection of Order Galliformes in the Iraq Natural History Research Center and Museum INHM, table 1. Figures 1- 4

Measurements  $\pm$  of collection of four species *Alectoris graeca*, *Ammoperdix griseogularis*, *Coturnix coturnix*, and *Francolinus francolinus*, of Galliform birds by millimeters in Table 2.

#### Chukor *Alectoris graeca* (Meisner, 1804)

Synonyms according to Global Biodiversity Information Facility GBIF<sup>5</sup>.

= *Alectoris graeca* subsp. *saxatilis* (Meyer, 1805)

= *Perdix graeca* (Meisner, 1804)

#### Species status in Iraq

Five species of the current study were collected from near Salah-Aldeen (north of Iraq).

*Alectoris graeca* is a resident bird in Iraq<sup>4,6</sup>. Some researchers<sup>7,8</sup> recorded *Alectoris chukar* asoica, and they named Asoi chukar in Hawramman Mountain. Also, it has been recorded in Gaara Depression, Iraqi Western Desert by (9). And in Saffin Mountain by (10). The scientific research team

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Family name	Genus name	Species name	Common name	Number of birds
Phasianidae	<i>Alectoris</i>	<i>graeca</i>	Chukar	5
Phasianidae	<i>Ammoperdix</i>	<i>griseogularis</i>	Seese	45
Phasianidae	<i>Coturnix</i>	<i>coturnix</i>	Quail	1
Phasianidae	<i>Francolinus</i>	<i>franco-linus</i>	Black partridge	21

**Table 1.** Collection of Galliformes Order in the Iraq Natural History Research Center and Museum INHM.

Measurements	<i>Alectoris graeca</i>	<i>Ammoperdix griseogularis</i>	<i>Coturnix coturnix</i>	<i>Francolinus franco-linus</i>
	♂	♀	♂	♂
<b>T.L.</b>	350	235	220	375
<b>W.</b>	163	133	70	162
<b>T.</b>	100	68	40	119
<b>B.</b>	20	16	15	24
<b>T.s</b>	47	33	20	47

**Table 2.** FMeasurements ± of collection of four species belong to four genera of Phasianidae by millimeters.

T. L=total length, W= width, T=tail, B= beak, T. s=tarsus.

(11) revealed that the Chukars were found in the mountains of Iraqi Kurdistan, where caught and sold for the pet trade throughout Iraq.

Global Conservation status listed the Chukar as Least Concern (LC) by IUCN<sup>12,13</sup>.

#### Seese *Ammoperdix griseogularis* (Brandt, 1843)

##### Species status in Iraq

45 *Ammoperdix griseogularis* were collected from Azizia Road, Al -Khalis, and Al Yasifiya Road (middle of Iraq). It is a resident bird in Iraq, bred formerly<sup>4,6</sup>. It is recorded in Hawraman Mountain by (7,8) in Safin Mountain by (10), in Gaara Depression, the Iraqi Western Desert by (9).

Global Conservation status listed *Ammoperdix griseogularis* as Least Concern (LC), and Europe's Conservation status is listed as Vulnerable (VU) by IUCN<sup>12,13</sup>.

#### Quail *Coturnix coturnix* (Linnaeus, 1758)

Synonyms according to Global Biodiversity Information Facility GBIF<sup>5</sup>.

- = *Coturnix communis* (Bonaterre)
- = *Coturnix vulgaris* (Fleming)
- = *Scolopax ghardalimensis* (Fischer & Stephan, 1974)
- = *Tetrao coturnix* (Linnaeus, 1758)
- = *Tetrao spec* (Linnaeus, 1758)

##### Species status in Iraq

One *Coturnix coturnix* was collected from Al Faloja Road (west of Iraq). It is a passage migrant, breeding summer visitor<sup>4,6,14</sup>.

It is recorded in Gaara Depression, Iraqi Western Desert by (9); And in Al-Dalmaj Wetlands, south of Iraq by (15). Recently, (16) recorded it with the biodiversity in Al-Salman Depression, Al-Muthana Province, Southern Desert, Iraq.

Global Conservation status listed *Ammoperdix griseogularis* as Least Concern (LC) and Europe Conservation status listed it as Vulnerable (VU) by IUCN<sup>12,13</sup>.

#### Black Partridge *Francolinus franco-linus* (Linnaeus, 1766)

Synonyms according to Global Biodiversity Information Facility GBIF<sup>5</sup>.

- = *Tetrao franco-linus* (Linnaeus, 1766)

##### Species status in Iraq

21 specimens of *Francolinus franco-linus* were collected from Shaqlawa Road (north of Iraq); Abo-Ghraib (west of Iraq); Baghdad, Rashidya Road, Al-Attaryia, Al- Fahama, Yousifiya Road and Hilla (middle of Iraq); Amara, Nasiriya Road, and Al- Chibayish Marsh (south of Iraq).

It is a resident bird in Iraq, bred formerly<sup>4,6</sup>. It has been recorded in Bahr Al-Najaf Depression, Al-Najaf Al-Ashraf governorate (south of Iraq) by (17); and in Al-Dalmaj Marsh, Al-Diwaniya Province, south of Iraq by both (15,18). More



Figure 1. Ventral view of Chukar *Alectoris graeca*.



Figure 2. Dorsal view of Seesee *Ammoperdix griseogularis*.



Figure 3. Dorsal view of Quail *Coturnix coturnix*.



Figure 4. Ventral view of Black partridge *Francolinus francolinus*.

than, Black Partridge was recorded in Huwaiza marsh, south of Iraq by (19).

The conservation status of *Francolinus francolinus* was listed as Least Concern (LC) globally and in Europe by IUCN<sup>12,13</sup>.

## Conclusions

The current study concluded that the collection of four species belonging to the Phasianidae Family of Galliformes Order, which deserved in INHM still abundance in the Iraqi environment, that Chukers *Alectoris sp.* more abundance in mountains and hills areas west and north of Iraq; While, whereas Black partridge *Francolinus francolinus* is more abundance in wetlands and Marshes south of Iraq. Global Conservation status listed them as Least Concern (LC).

## Author Contributions

This study is an individual effort of the author. He relied on the collection of bird specimens from the Natural History Museum and its documented records to publish and provide essential data about the Galliformes Order in Iraq.

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## Institutional Review Board Statement

The title of the current article was registered in the research plan of "The Iraq Natural History Research Center and Museum INHM" (E-mail: [info@nhm.uobhdad.edu.iq](mailto:info@nhm.uobhdad.edu.iq)) for 2022. The Scientific Affairs Department of Baghdad University approved the research proposal.

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## Conflicts of Interest

The author declares no conflict of interest related to the work in a manuscript.

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