

## Birds of Gaza Strip and their threats

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(order)	18 :	234	360
	(%39.7)	93 – Passeriformes	:
– Anseriformes	(%24.8)	58 – Charadriiformes	
(%6)	14 - Ciconiiformes	(%7.3)	17
38	endemic		
		55	195 resident
			35

### ABSTRACT

The study provides information on the current status of Gaza Strip birds including their distribution, habitats, breeding season and threats. At present (2005) within the small area of Gaza Strip which not exceeds than 360 square kilometre, 234 bird species have been recorded, belonging to 18 orders from which: Passeriformes – 93 species (about 39.7% of the total); Charadriiformes – 58 species (24.8%); Anseriformes – 17 species (7.3%) and Ciconiiformes –14 species (6%). Of the recorded species one previously endemic, 38 resident and 195 migratory. The recorded breeding species are 55 of which 35 had been proved.

**Key words:** Birds, distribution, habitats, breeding, threats, Gaza Strip

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## **INTRODUCTION:**

The former extent of the occurrence and distribution of the Gaza Strip (GS) avifauna is poorly known because there have been few extensive field surveys or investigations (Al-Safadi 2002). A particular early study on the birds of Arabia, including Palestine, was that of Meinertzhagen (1954). More recent information has been provided by Al-Safadi (1997, 1999, 2001, 2002, 2003, 2004, 2006).

The present study provides new information on the birds of GS. It is a summary of field observations made over a period of three years (June 2003- 2005) on GS birds. During this period , 72 bird species were recorded from the various regions of GS, which constitutes new additional records to GS birds, and bring the total number of bird species known from the GS to 234 (Al-Safadi 2002). The recorded species belonging to 18 orders and 53 families, 39 resident and 195 migrant bird species.

## **STUDY AREA, GAZA STRIP:**

The GS is the south portion of the coastal area of the historical Palestine. It is a narrow finger of land bounded by the southernmost eastern Mediterranean Sea, some 40 km long and 9 km wide. The GS consists of sand dunes in the west and loess plains in the east. Three wadis dissect it: Beit Hanoun in the north, Gaza in the middle and Silka in the south at Deir Al-Balah city (Fig. 1). Until 1965, GS represents a typical natural habitats which harbours different groups of wild animals, including the birds. The coastal zone with its sand dunes and natural vegetation, the eastern strand with its plains, hills, wadis, forests, groves and wasteland; all create an excellent habitats for wild animals. Unfortunately , nowadays, the biodiversity of GS is being drastically reduced by destroying their habitats either the natural or cultivated .

## **SYSTEMATIC LIST OF BIRD SPECIES:**

Abbreviations: R= resident , M= migrant , B= breeding , H=habitats, A= abundant, CS = conservation status, T= threat, NI= needed information, NW= note worthy and WG= Wadi Gaza.

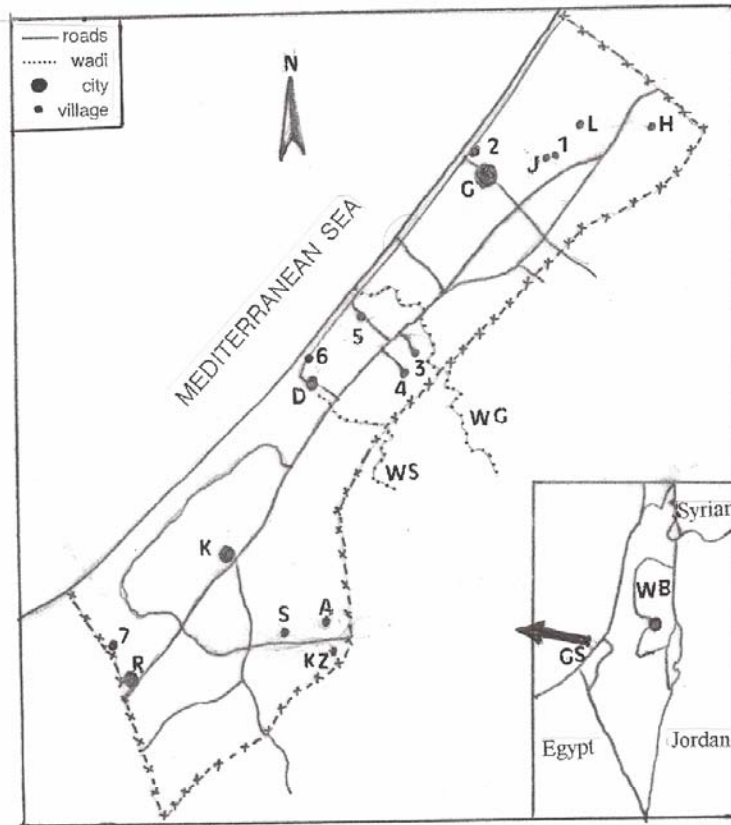


Fig.1. Geographic location of Palestine with reference to Gaza Strip.  
 GS=Gaza Strip, WB=West Bank, G=Gaza city, D=Deir Al-Balah, K=Khan Younis, R=Rafah, J=Jabalia, L=Beit Lahia, H=Beit Hanoun, S=Beni Suhaila, A=Absan, KZ=Khuza, WG=Wadi Gaza, WS=Wadi Silka, RC=Refuge Camp, 1=Jabalia RC, 2=Shatei RC, 3=Bureij RC, 4= Maghazy RC, 5=Nusseirat RC, 6=Deir Al-Balah RC, 7=Rafah RC.

**White Pelican (Rosy Pelican):** *Pelecanus onocrotalus*. M: A passage migrant, some wintering visitor during their journey to the south. B: No. H: Sea coast, inland large freshwater and, previously, estuary of Wadi Gaza. A: Scarce, single specimen had seen dead on the shore on December 1996. CS: Threatened. T: Destroying estuary of WG and deterioration the sea coast. NI: Protection the sea coast and rehabilitation the estuary of WG. NW: None .

**Ruddy Shelduck:** *Tadorna ferruginea*. M: A winter visitor and passage migrant. B: No. H: Sandy lake – shores, wadi banks and fields. A: Scarce, few individuals, up to ten, can be seen on November in Beit lahia sewage lagoons and formerly estuary of WG. CS: Threatened. T: Destroying and degradation the freshwaters, wetlands and estuary of WG. NI: Urgent protection of the natural habitats, wetlands, and control hunting, NW: Economic value,

**Common Shelduck:** *Tadorna tadorna*. More or less resemble Ruddy Shelduck.

**Marbled Teal:** *Marmaronetta angustirostris*. M: A common passage migrant and winter visitor. B: No. H: Freshwaters, lakes, ponds, estuaries and sewage lagoons . A: Scarce, encountered in Beit lahia sewage lagoons on mid–October to mid-December. CS, T, NI and NW see Ruddy Shelduck.

**Ferruginous Duck:** *Aythya nyroca*. M: A partial migrant and winter visitor to GS. B: No. H: Freshwaters and sewage lagoons. A: Scarce, few individuals seen in the estuary of WG, until November 2000, but common seen in Beit lahia sewage lagoons mainly on October – November. CS, T, NI and NW see Ruddy Shelduck.

**Tufted Duck:** *Aythya fuligula*. Nearly similar to Ferruginous Duck.

**Red- breasted Merganser:** *Mergus serrator*. M: A passage migrant and winter visitor mainly on November–December. B: NO. H: Freshwaters and sewage lagoons, never seen on Gaza Sea coast. A: Very rare, seen as singles and pairs at Beit lahia sewage lagoons, mainly on November. CS, T, NI and NW see Ruddy Shelduck.

**White-headed Duck:** *Oxyura leucocephala*. Similar to Red – breasted Merganser .

**Osprey:** *Pandion haliaetus*. M: A rare passage migrant and autumn visitor, B: No. H: Found in freshwater areas such as lakes, ponds, sewage lagoons and along sea coast . A: Rare, seen as singles mainly at Beit lahia sewage lagoons on mid-September to mid- October. CS, T, NI and NW see Saker Falcon.

**Saker Falcon:** *Falco cherrug*. M: A passage migrant and autumn- winter visitor , dispersed over most the eastern agricultural ;areas of GS. B: No. H: Found in wadis, foothills, cultivated and semi- cultivated regions of GS. A: Very rare, usually seen solitary on September–November. CS: Endangered in GS. T: Trapping by different ways, cutting trees, shrubs and destroying the natural habitats , including the wetlands. NI: Control trapping, stop cutting tress and need more surveys. NW: None.

**Peregrine Falcon:** *Falco peregrinus*. M: Irregularly passage migrant in summer–autumn , mainly September–October . Other information looks like Saker Falcon.

**Barbary Falcon:** *Falco pelegrinoides*. M. A passage migrant in summer-autumn, almost solely seen in August – September at GS. Other information nearly similar to Saker Falcon.

**Spotted Crake:** *Porzana porzana*. M: A partial autumn passage migrant and less in spring. B: No. H: Inland wetlands mainly on the margins of wadis, lakes, ponds, sewage lagoons and others. Usually seen searching in and along dense vegetation and sometimes seen in irrigated fields. A: Very rare , seen solitary or in pairs mainly on mid- September to mid – October in (WG formerly) and Beit lahia sawage lagoons . CS: Endangered. T: Hunting and destroying the natural wetlands. NI: Control hunting and stop destroying the wetlands. NW: Hunted for meat.

**Little Crake:** *Porzana parva*. More or less similar to Spotted Crake.

**Little Bustard:** *Otis tetrax*. M: In the past it recorded as a partial winter passage migrant in the eastern regions of GS and uncommon in the inland. B: No. H: lives on grassy plains, fields, cereal crops and wasteland. Usually seen walking through grass and weeds with head upright but is very shy, and sometimes seen in cultivated areas where rain had fallen recently, A: Very rare. CS: Now may extinct. T: Hunting and destruction their natural habitats. NI: Rehabilitation the destroyed natural habitats, control hunting and need more field surveys. NW: Economic value, hunted for meat.

**Houbara Bustard:** *Chlamydotis undulata*. R-M: Formerly, fairly seen in the eastern- sothern parts of GS. B: Unknown. H: lives in semi-deserts, open or with scattered shrubs, grass and weeds. In the past fairly seen on the marginal crops such as wheat, barley , sorghum and sesame . A, CS, T, NI and NW see Little Bustard.

**Oystercatcher:** *Haematopus ostralegus*. M: A vagrant migrant, summer-autumn visitor to GS. B: No. H: Margins of wadis, rivers, lakes moors, sewage lagoons and sea coast. A: Rare, single records had been occurred at Beit lahia sewage lagoons and sea coast. CS: Endangered. T: Destruction

the natural habitats and deterioration the sea coast. NI: Urgent protection of the natural habitats and further field surveys to determine their current status. NW: None.

**Cream-coloured Courser:** *Cursorius cursor*. M: Partial migrant, autumn visitor to GS B: No. H: Frequently seen near water bodies, irrigated areas, wadis, swamps, sewage lagoons and agricultural areas with short grass and weeds. A: Scarce. CS: Endangered. T: Destroying the natural habitats. NI: Stop further destruction of the natural habitats and more field surveys. NW: None.

**Collared Pratincole:** *Glareola pratincola*. M: A passage migrant, autumn visitor. B: No. H: Mud flats, wadis, grassy plains and open places near freshwaters and lagoons. A: Rare, seen in August to early September in Beit lahia sewage lagoons. CS, T, NI and NW see Cream – coloured Courser.

**Black-winged Pratincole:** *Glareola nordmanni*. Nearly the same as Collared Pratincole .

**Eurasian Golden Plover:** *Pluvialis apricaria*. M: A passage migrant in winter. B: No. H: Occurs in wadis, valleys, plains, sewage lagoons and agricultural lands with low grasses and vegetation. A: Scarce, frequently seen on November- December at Beit lahia sewage lagoons. CS, T, NI and NW see Cream – coloured Courser.

**Grey Plover:** *Pluvialis squatarola*. M: Vagrant migrant and autumn visitor. B: No. H: Wadi estuaries, mud flats and sewage lagoons. A: Rare seen at Beit lahia sewage lagoons, mainly on August – September. CS, T, NI and NW see Cream – coloured Courser.

**White-tailed Plover:** *Chettusia leucura*. M: A rare passage migrant to GS in autumn and spring. B: No. H: Occurs on freshwaters, wadis, estuaries, sewage lagoons and damp fields with grassy vegetation. A: Rare, almost seen on August – September at Beit lahia sewage lagoons. CS, T, NI and NW see Cream – coloured Courser.

**Lapwing:** *Vanellus vanellus*. M: Fairly common passage migrant and winter visitor to GS. B: No . H: Formerly found on the margins of WG and Beit lahia sewage lagoons. A: Scarce, fairly seen on November – December at Beit Lahia sewage lagoons. CS, T, NI and NW see Cream – coloured Courser .

**Sanderling:** *Calidris alba*. M: A passage migrant and winter visitor to GS, and encountered on margins of freshwaters, wadis, open grassy lands, sewage lagoons and moors. Other information similar to Lapwing.

**Temminck's Stint:** *Calidris temminckii*. M: A passage migrant and autumn visitor to GS. B: No. H: Seen in well irrigated inland water margins, wadis, estuaries, inlets and sewage lagoons. A: Scarce, few individuals encountered on September – October at Beit Lahia sewage lagoons and previously WG banks. CS, T, NI and NW see Cream – coloured Courser .

**Dunlin:** *Calidris alpina*. M: A passage migrant and autumn winter visitor . B: No. H: See Temminck Stint. A: Scarce, seen on late September – November at Beit Lahia sewage lagoons. CS, T, NI and NW see Cream – coloured Courser.

**Jack Snipe:** *Lymnocyptes minimus*. M: Uncommon passage migrant and winter visitor to GS. B: No. H: Found hides in water margins, damp meadows, bogs and sewage lagoons. Usually, hides in and between the margin grass and weeds . A: Scarce, seen mainly on December – January at Beit Lahia sewage lagoons in few numbers up to 8. CS, T, NI and NW see Cream –coloured Courser .

**Black-tailed Godwit:** *Limosa limosa*. M: Fairly rare passage migrant and autumn visitor to GS. B: No . H: Encountered on freshwater margins, lakes ponds, wadis estuaries and sewage lagoons, A: Rare , usually seen alone on the marshes of Beit Lahia sewage lagoons on September and sometimes on December – January . CS, T, N I and NW see Cream – coloured Courser.

**Bar-tailed Godwit:** *Limosa lapponica*. More or less similar to Black –tailed Godwit, but extremely rare.

**Whimbrel:** *Numenius phaeopus*. M: A rare passage migrant and winter visitor . B: No. H: Seen on marshes, meadows, damp, moors, wadis, estuaries nad sewage lagoons. A: Very rare, encountered alone on Beit Lahia sewage lagoons on October – December. CS, T, N I and NW see Cream – coloured Courser .

**Spotted Redshank:** *Tringa erythropus*. M: Uncommon autumn passage migrant and rare winter visitor . B: No. H: Found mainly at open freshwater margins such as wadis, estuaries, ponds and sewage lagoons. A: Rare, dispersed individuals seen on the margins of Beit Lahia sewage lagoons on September. CS, T, NI and NW see Cream – coloured Courser .

**Wood Sandpiper:** *Tringa glareola*. M: A scarce passage migrant and autumn visitor. B: No. H: Occurs on freshwater marshy areas such as wadis, estuaries, ponds and also on sewage lagoon margins. A: Scarce, seen mainly on September in few numbers at Beit Lahia sewage lagoons, and sometimes seen on December – January. CS, T, NI and NW see Cream – coloured Courser.

**Terek Sandpiper:** *Xenus cinereus*. M: A rare passage migrant and autumn visitor to GS. B: No. H: Beit Lahia sewage lagoons and formerly WG. A: Rare, seen mainly on September as scattered individuals. CS, T, NI and NW see Cream – coloured Courser.

**Turnstone:** *Arenaria interpres*. Nearly looks like Terek Sandpiper.

**Pomarine Skua:** *Stercorarius pomarinus*. M: A rare passage migrant and autumn visitor to GS sea. B: No. H: Occurs mainly at coast of GS and rarely on the estuary of WG. A: Rare, seen at sea shore in few numbers, up to 12 mainly on mid- September to mid- November. CS: Not threatened. T: None. NI: More regular field surveys. NW: None.

**Lesser Black-headed Gull:** *Larus fuscus*. M: A common passage migrant over most GS sea coast, mainly on September – October and fewers seen on spring and winter. B: No. H: Occurs at GS sea coast and sometimes on Beit Lahia sewage lagoons. A: Common on the sea, up to 50 individuals and rarely in the inlands. CS: Not threatened. T: None. NI: More extensive field surveys. NW: None.

**Armenian Gull:** *Larus armenicus*. M: A common winter visitor to GS sea shore and Beit Lahia sewage lagoons and also seen on rubbish tips at Beit Lahia sewage lagoons. B: No. H: Sea shores, freshwaters, sewage Lagoon, and also seen on rubbish tips at Beit Lahia. A: Uncommon, flocks up to 50 can be seen on sea shore and on Beit Lahia sewage lagoons on November – December. CS, T, NI and NW see Lesser Black- headed Gull.

**Common Tern:** *Sterna hirundo*. M: A common passage migrant and autumn visitor. B: No. H: Often seen flying along seashore and WG and Beit Lahia sewage lagoons. A: Common. CS, T, NI and NW see Lesser Black – headed Gull.

**White-winged Black Tern:** *Chlidonias leucopterus*. M: A common passage migrant and summer–autumn visitor. B: No. H: Inland freshwaters, sewage lagoons and some sea shore of GS. A: Fairly scarce, usually seen on Beit Lahia sewage lagoons on May and September. CS, T, NI and NW see Lesser Black –headed Gull.

**Woodpigeon:** *Columba palumbus*. M: A rare passage migrant and a rare regular breeding summer visitor. B: June–July. H: Found in woods and farmlands. A: Rare, single pairs seen bred in GS. CS: Threatened. T: Destroying their nests, hunting and cutting trees. NI: Control hunting, stop destroying the natural habitats. NW: Hunted for meat.

**Wryneck:** *Jynx torquilla*. M: A rare passage migrant and very rare winter visitor. B: No. H: Lives in light woodland and in open country with



scattered trees, bushes and hedges. A: Rare, seen as singles on March- April and September in the agricultural areas throughout GS. CS: Threatened. T: Destruction the natural habitats. NI: More extensive surveys and stop further degradation of the natural habitats and the agricultural areas. NW: None.

**Crag Martin:** *Hirundo rupestris*. M: A scarce to uncommon autumn passage migrant and winter visitor. B: No. H: Lives in open cultivated country, mountains and on sea cliffs. A: Scarce, seen flying on November – December. CS: Unknown. T: Unknown. NI: More information. NW: None.

**House Martin:** *Delichon urbica*. M: A scarce to uncommon on summer – autumn passage migrant and very rare winter visitor. B: No. H: Lives in open country and near human habitation. A: Scarce, seen flying on September. CS, T, NI and NW see Crag Martin.

**Tree Pipit:** *Anthus trivialis*. M: A rare autumn passage migrant. B: No. H: Lives in light woods and clearings and among scattered trees and bushes. A: Rare, seen mainly on September–October. CS: Threatened. T: Destruction the natural habitats and degradation the agricultural areas. NI: Urgent action to stop degradation of the natural habitats and agricultural areas. NW: None.

**Cyprus Pied Wheatear:** *Oenanthe cypriaca* . M: A very rare autumn and spring passage migrant. B: No. H: Found in wastelands, bare fields, wadis, sand dunes with sparse shrubs and weeds. A: Rare, seen on mid-March to early April and on September. CS, T, NI and NW see Tree Pipit.

**Redwing:** *Turdus iliacus*. M: A rare passage migrant. B: No. H: Found in fields, open country and light woods. A: Very rare, seen on December – January in few numbers. CS, T, NI and NW see Tree Pipit.

**Mistle Thrush:** *Turdus viscivorus*. M: A scarce winter passage migrant to GS. B: No. H: Lives in woods, farm-lands, moors and open country, A: Rare, seen on November to December. CS, T, NI and NW see Tree Pipit .

**Cittis Warbler:** *Cettia cetti*. M: A scarce autumn- winter passage migrant to GS. B: No. H: Hides away and lives among dense thickets, reed-beds and bushes, in and beside streams, wadis, swamps and sewage lagoons. Often seen flicks tail. A: Rare, encountered on October - November. CS, T, NI and NW see Tree Pipit.

**Fan-tailed Warbler:** *Cisticola juncidis*. R: A probably resident and passage migrant. B: Probably March- July (not confirmed) A: Scarce . H, CS, T, NI and NW see Cittis Warbler .

**Savi's Warbler:** *Locustella luscinioides*. M: A rare autumn passage migrant. B: N. H: See Citty Warbler. Often seen singing on tip of a reed or top of a bush. A: Rare. CS, T, NI and NW see Citty Warbler.

**Moustached Warbler:** *Acrocephalus melanopogon*. M: A scarce autumn passage migrant and a rare winter visitor. B: No. H: See Citty Warbler. Often seen bob its tail up and down. A, CS, T, NI and NW see Citty Warbler.

**Clamorous Reed Warbler:** *Acrocephalus stentoreus*. R: Probably resident and passage migrant. B: May March- July (not confirmed). H: Found among reeds, croplands, fields cultivated with different vegetables and with scattered bushes and trees. A: Scarce. CS, T, NI and NW see Tree Pipit.

**Great Reed Warbler:** *Acrocephalus arundinaceus*. M: A scarce passage migrant and autumn visitor. B: No. H: Found among tall reeds beside wadis, rivers, lakes and ponds. A: Scarce, seen on September–October. CS, T, NI and NW see Tree Pipit.

**Icterine Warbler:** *Hippolais icterina*. M: Scarce passage migrant and autumn visitor to GS. B: No. H: Lives in woods and among bushes, hedges, fields with low and tall vegetation. A: Scarce, may be seen on September–October. CS, T, NI and NW see Tree Pipit.

**Spectacled Warbler:** *Sylvia conspicillata*. R-M: Probably resident and partial migrant B: May March – June (need confirmation) H: Often near lagoons, semi-desert with low scrub and bushes. A: Rare, seen on March–June. CS, T, NI and NW see Tree Pipit.

**Cyprus Warbler:** *Sylvia melanothorax*. M: A scarce autumn- winter passage migrant. B: No. H: Well vegetated areas, dense scrub country, wadis and acacia and casuarina trees. A: Scarce, found on November and March. CS, T, NI, and NW see Tree Pipit.

**Lesser Whitethroat:** *Sylvia curruca*. M: A scarce autumn and spring passage migrant. B: No. H: Lives in woods, trees and bushes. A: Rare, seen on September and March – April. CS, T, NI and NW see Tree Pipit.

**Whitethroat:** *Sylvia communis*. M: A scarce autumn passage migrant and summer visitor B: March–June. H: Lives in open country with bushes, hedges and dense vegetation. A: Scarce, seen in breeding season, March – May and in August – September – CS, T, NI and NW see Tree Pipit.

**Garden Warbler:** *Sylvia borin*. M: A scarce spring, autumn passage migrant B: No. H: Found in woods, trees, bushes and groves, A: Rare, seen September and May. CS, T, NI and NW see Tree Pipit.

**Penduline Tit:** *Remiz pendulinus*. M: A very rare autumn passage migrant. B: No. H: Lives in fields, wadis, lakes, ponds and sewage lagoons. A: Very rare, may be seen in November and March. CS, T, NI and NW see Tree Pipit.

**Southern Grey Shrike:** *Lanius meridionalis*. M: Fairly scarce autumn passage migrant. B: No. H: Found at edges of woods, among scattered trees and bushes and in hedges, also found in open country and bushy wasteland. A: Rare to scarce, seen mainly as singles or pairs on second half of August. CS, T, NI and NW see Tree Pipit .

**Brambling:** *Fringilla montifringilla*. M: A rare autumn passage migrant and summer visitor. B: No. H: Lives in woods, agricultural fields, wastelands with few shrubs and often in open cultivations. A: Very rare, seen in second half July and early August. CS, T, NI and NW see Tree Pipit

**Linnet:** *Carduelis cannabina*. M: A common passage migrant and winter visitor to GS. B: No. H: Lives in open country, wastelands, cultivations and marshes. A: Common, fairly seen on November. CS, T, NI and NW see Tree Pipit.

**Crossbill:** *Loxia curvirostra*. M: A Scarce passage migrant and winter visitor to GS. B: No. H: Occurs mainly in pine trees, woods, forests. A: Scarce, seen mainly on November. CS, T, NI and NW see Tree Pipit.

**Trumpeter Finch:** *Bucanetes githagineus*. M: A Scarce passage migrant and summer visitor to GS. B: No. H: Lives in desert and semi-desert areas, wastelands, bare wadis and plains. A: Very rare, seen on July – August as singles. CS, T, NI and NW see Tree Pipit.

**Hawfinch:** *Coccothraustes coccothraustes*. M: A rare autumn passage migrant and winter visitor to GS. B: No. H: Occurs in wooded country, in mixed groves, cultivated fields with various scattered trees. A: Rare, seen on mid- November to mid- December. CS, T, NI and NW see Tree Pipit.

**Rock Bunting:** *Emberiza cia*. M: A rare passage migrant and winter visitor. B: No. H: Lives in mountains, slopes and terraced hillsides with scattered trees and bushes. Often flicks open its tail when feeding on ground, showing white edges of tail . A: Very rare, often seen on November- December. CS, T, NI and NW see Tree Pipit.

**Ortolan Bunting:** *Emberiza hortulana* M: A rare autumn passage migrant B: No. H: Lives among scattered trees and bushes in fields, wadis and cultivated lands. A: Rare, seen between mid- August to mid-September, CS, T, NI and NW see Tree Pipit .

**Cretzschmar's Bunting:** *Emberiza caesia*. M: A rare autumn passage migrant . B: No. H: Found in dry and rocky places with scattered bushes A: Rare, seen mainly in September. CS, T, NI and NW see Tree Pipit .

**Reed Bunting:** *Emberiza schoeniclus*. M: A rare winter passage migrant to GS. B: No. H: Lives mainly in reed beds, swamps and among bushes. A: Rare, seen on November – December. CS, T, NI and NW see Tree Pipit.

**Corn Bunting:** *Miliaria calandra*. R: Probably resident and summer visitor. B: March – June (need confirmation). H: Lives in open fields and on rough ground with dispersed trees A: Rare–scarce, seen in summer months. CS, T, NI and NW see Tree Pipit .

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