

Eight new records of bird species from North-Eastern Iran

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During ornithological expedition to four provinces in the northeast and north of Iran in June 2009, a total of 117 bird species belonging to 14 orders and 40 families were recorded. Based on these records, eight bird species were found outside their presumed breeding range according to the available distribution maps covering Iran, suggesting that updating of the distribution maps should be provided.

Key words: birds, Iran, record, avifauna, distribution

INTRODUCTION

Iran is an interesting country for ornithologists since it has a great diversity of habitats. Iran's bird fauna includes the avifauna of the western Palearctic that reaches its eastern border on the Alborz and Zagros mountains, and also extends into northeastern Iran to the Khorasan province, whereas the South of Iran is affected by an Oriental fauna extending from India and the Himalayas. Several pairs of related species of Caucasian and Himalayan originate from narrow intergradation zones in the eastern Alborz (Paludan, 1940; Haffer, 1977; Aliabadian et al., 2005).

Most of Iran lies within the southern edge of the Palearctic realm. Although arid and semi-arid areas are widespread in the country, a total of 514 species of birds have been recorded (Mansoori, 2008).

The national parks system of Iran currently covers 1,751,429 hectares. The total area of regions protected as wildlife refuge is 3,600,066 hectares. The total area of regions supported as protected areas is 6,507,476 hectares.

For two centuries, Iran has been a station for ornithologist studies. However, there are some discrepancies on species distributions between literature reviews and new available references such as field guides. A large number of reports on bird observations from northern Iran have been published (e.g. Dement'ev, 1948; Énard and Etchécopar, 1970). Most of these reports are based on observations of birds and other animals in this region during various expeditions. Scott et al. (1975) used available information to produce a field guide for the birds of Iran that includes preliminary maps of the breeding distribution of all Iranian birds. Our effort in this study was to compare our own observations with available information from the literature in the hope of updating our current knowledge on the distribution of various bird species in the northeast of Iran.

MATERIAL AND METHODS

During an ornithology journey from east (Mashhad) through the north of Iran (Sisangan) in June 2009, birds were observed and classified to species using line transects methodology. Four provinces of Iran including Khorasan Razavi, Khorasan Shomali, Golestan and Mazandaran, were visited and checklists of the observed birds were prepared. Nine stations including Sisangan forest, Noor, Vaz protected area, Miankale wildlife refuge, Gorgan city, Golestan National Park, Karde dam, Mashhad city and Bazangan wetland besides route of the expedition were investigated (Fig. 1). The observation took place using 3 binoculars (Swarovski EL 8.5 x 42, Leica 8 x40, SaIran7 x35) and one telescope (Leica 20-60 x 77). Photographs were taken by Canon 450D and Nikon D80 (Fig. 2-4). The most used lens for birds were Nikon 300mm f4 and Canon EF 75-300mm. Samplings were done using mist nets (mesh16 mm) for 4 days in Noor and Karde. The birds were identified immediately in the field using ornithological handbooks (Jonsson, 1992; Mullarney et al., 2004; Mansoori, 2008; Porter et al., 2005). Distribution maps were prepared based on available literatures and expedition team observations using GIS ver. 9.3 software (Fig. 5-9).

STUDY AREA

1- Sisangan forest park (36°36'N, 51°48'E)

Sisangan forest (602 ha) is located 27 kilometers from the road of Noshahr to Noor and is restricted by the Caspian Sea in the north, Alborz mountains in the south, Tuskatah village in the west and Salhedin kola in the east. It is the main reservoir of the valuable tree of *Buxus hyrcana* in the north of Iran. Other plant species in this region includes *Gleditschia caspica*, *Alnus glutinosa*, *Celtis australis* and *Crataegus* sp.

2- Noor (36°34'N, 52°2'E)

In this area, Hyrcanian forests extend all the way down to the shore of the Caspian Sea.

3- Vaz protected area (36°26'N, 52°7'E)

Vaz protected area is located in the Mazandaran province. It is a 9646 ha region with an altitudinal range of 800-3420 m. It is a mountainous region with Hyrcanian forests, pasturages and a great number of rivers. The main plant species of the area include *Berberis vulgaris*, *Rosa canina*, *Crataegus* sp., *Echinops*, *Sambucus nigra* and *Rheum ribes*.

4- Miankale wildlife refuge (36°53'N, 53°49'E)

Miankale wetland is one out of 22 wetlands recorded in the Ramsar Convention on Wetland and is also one of the nine 'resources of biosphere' in Iran. This area is also one of the 105 important bird areas (IBA) in Iran (Behrozyrad, 2008). Most of the peninsula is covered with herbs and grasses, and the western half also supports scrub of scattered *Punica*, *Crataegus*, *Rhamnus* and *Rubus* and shoreline of the bay is fringed with a broad belt of *Juncus* and a large stands of *Tamarix* (Birdlife, 2009).

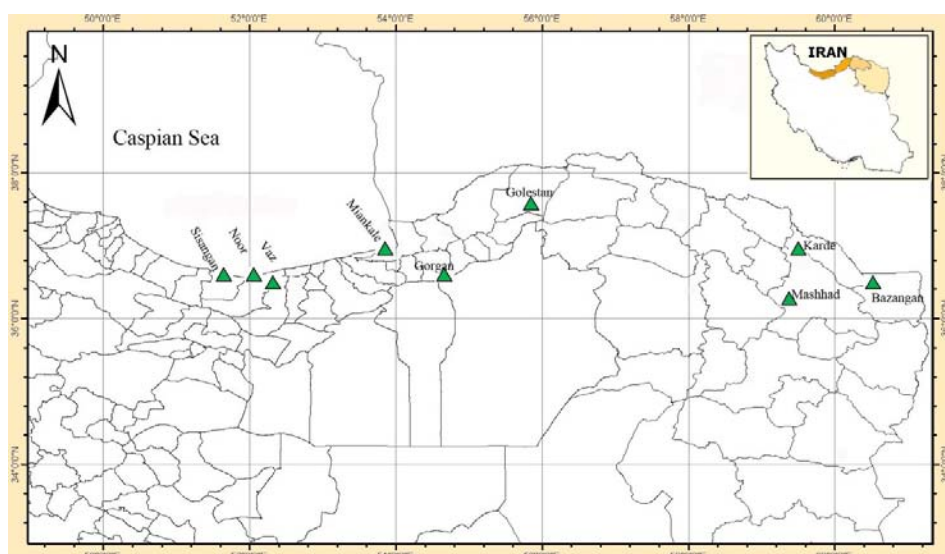


FIGURE 1. Location of the nine stations visited during the expedition in northeastern Iran.



FIGURE 2. (Left) Whiskered Tern (*Chlidonias hybrida*) recorded in Bazangan wetland. (Right) Red-backed Shrike (*Lanius collurio*) recorded in Gorgan.



FIGURE 3. (Left) Lesser Gray Shrike (*Lanius minor*) recorded in the west of Mashhad city. (Right) Lesser Kestrel *Falco naumanni* male and female observed in Gorgan city.



FIGURE 4. (Left) Common Linnet *Carduelis cannabina* observed in Mashhad city. (Right) Red-headed Bunting *Emberiza bruniceps* observed in Alme (Golestan National Park).

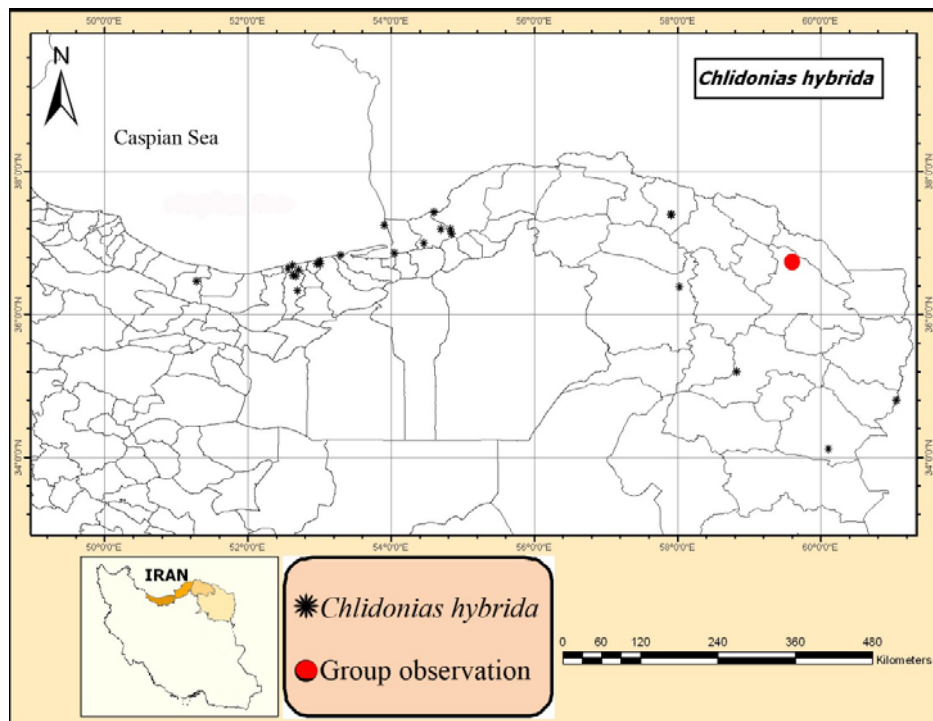


FIGURE 5. Map of recorded sites of the species *Chlidonias hybrida* in the expedition range.

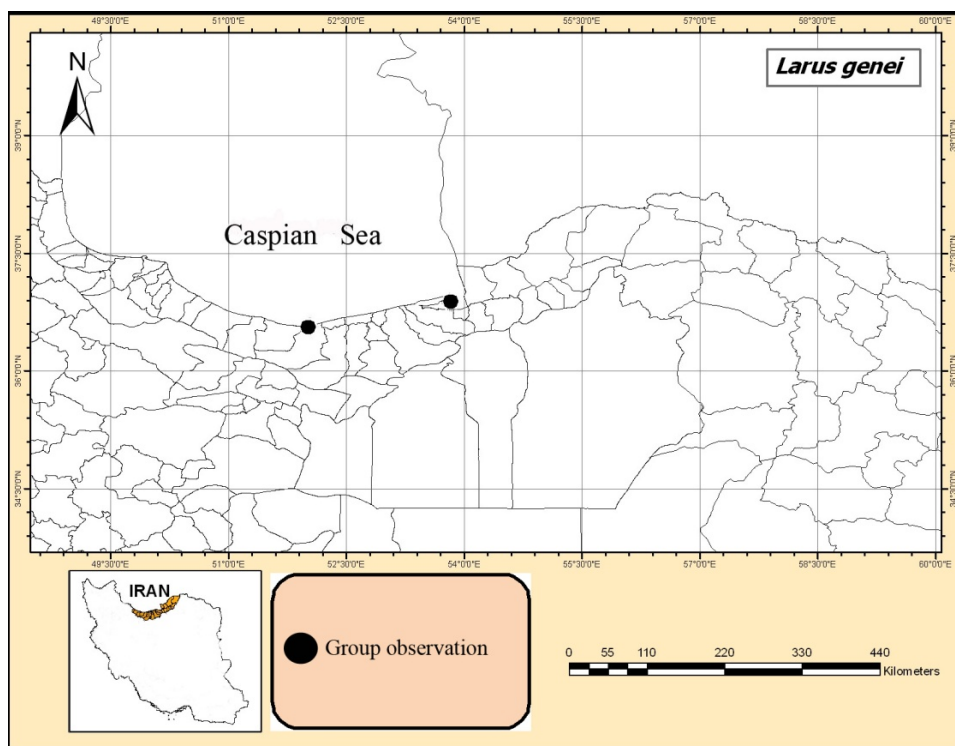


FIGURE 6. Map of recorded sites of the species *Larus genei* in the expedition range.

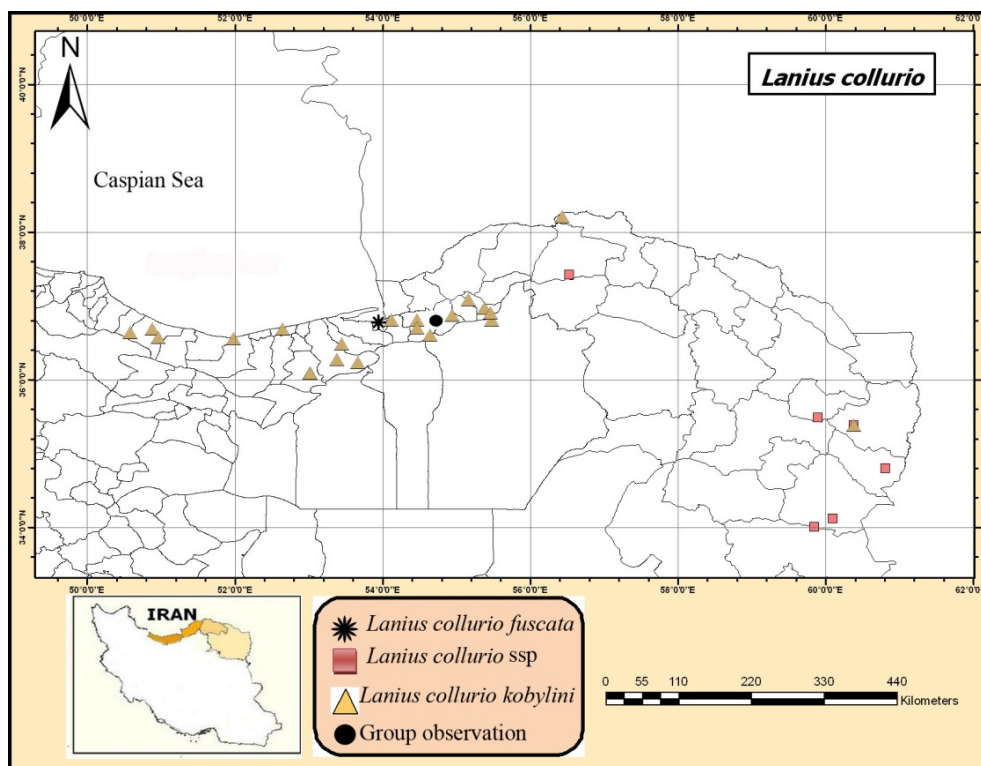


FIGURE 7. Map of recorded sites of two subspecies of *Lanius collurio* in the expedition range.

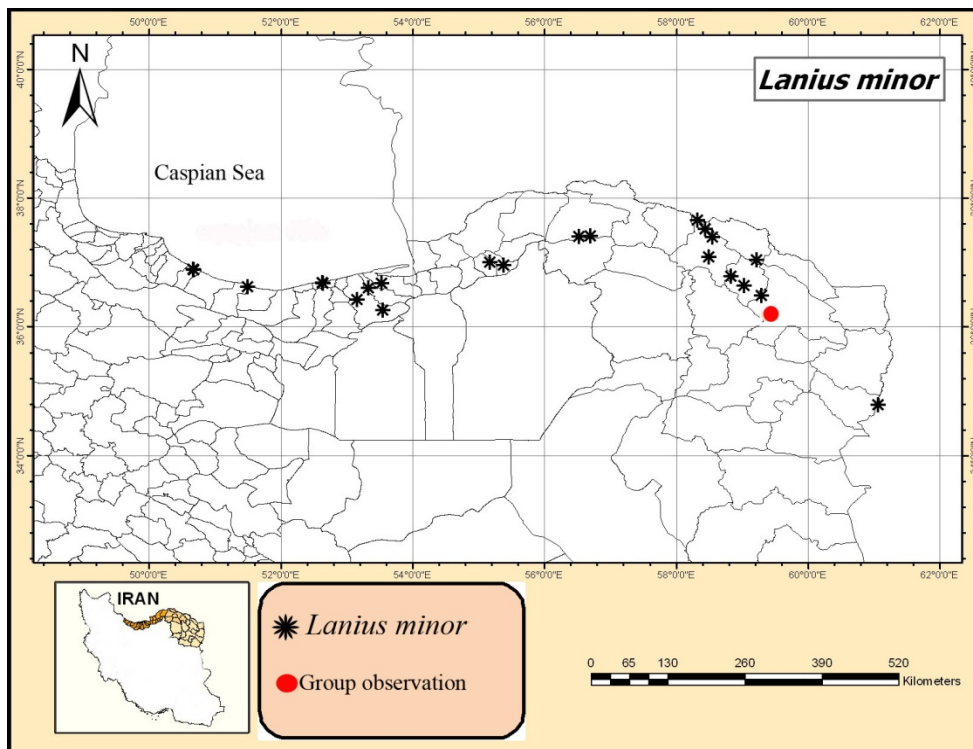


FIGURE 8. Map of recorded sites of the species *Lanius minor* in the expedition range.

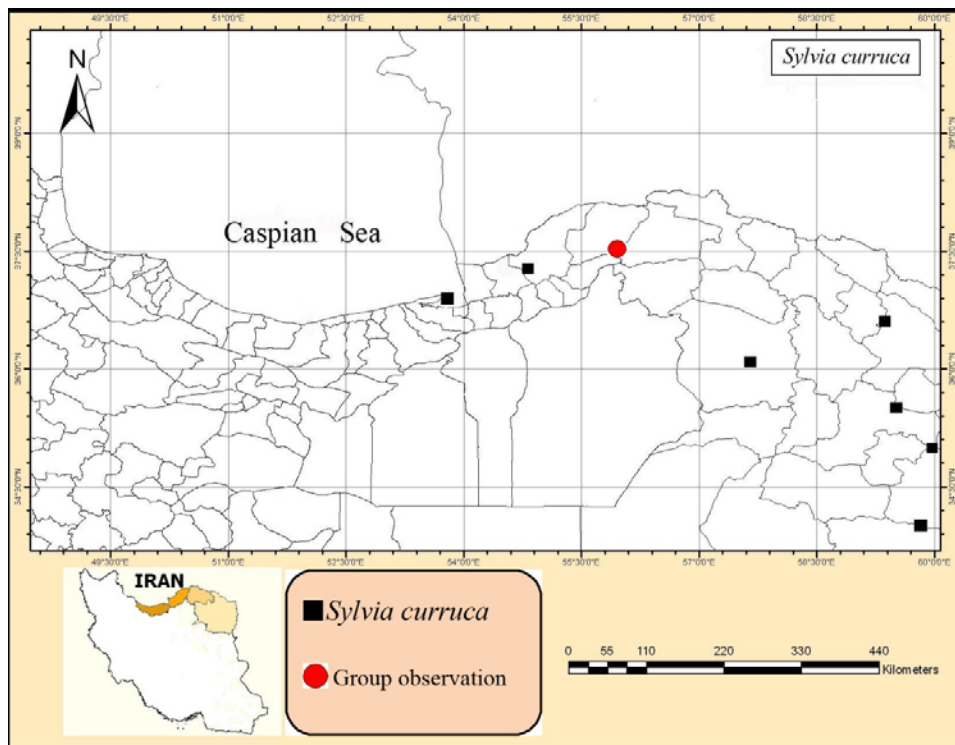


FIGURE 9. Map of recorded sites of the species *Sylvia curruca* in the expedition range.

5- Gorgan (36°50'N, 54°25'E)

Gorgan is the center of the Golestan province and is surrounded by farmlands, Hyrcanian forest and arboricultural Coniferous areas.

6- Golestan national park (37°23'N, 55°47'E)

Golestan biosphere reserve is the first national park to be established in Iran defined as a transition zone between the Hyrcanian and the Irano-Touranian floristic region (Majnoonian et al., 1999). It is located in Golestan, North Khorasan and Semnan provinces and constitutes the eastern end of the Hyrcanian forests with an area of 87402 ha (Darvishsefat, 2007). The principal habitats of Golestan National Park consist of lowland deciduous forest, lowland secondary scrub, open *Juniperus* woodland and scrub, upland meadows and cliffs and crags meadows, semi-arid steppe characterized by *Artemisia*, *Astragalus* and *Acantholimon* (Birdlife, 2009). Among the 514 bird species which were recorded in Iran, 150 species belonging to 14 orders and 42 families has been observed in this park (Majnoonian et al., 1999).

7- Karde dam (36°39'N, 59°40'E)

This area is located 40 kilometers north of Mashhad. Predominant plants species of this lake are *Typha latifolia*, *Echinops* and *Tamarix*.

8- Mashhad (36°19'N, 59°40'E)

This city is the center of the Khorasan Ravazi province and our observation in the region was restricted to the west of the city.

9- Bazangan wetland (36°18'N, 60°28'E)

Bazangan is the only natural lake in the Khorasan Razavi province. It is a 70-80 ha region located about 120 kilometers east of Mashhad and 94 Kilometers South East of Sarakhs. The altitude is about 870 m and the lake depth about 12 m (Behrozyrad, 2008). Predominant plant species of this wetland are *Typha latifolia* and *Tamarix*.

RESULTS

During two weeks of fieldwork in the north and northeast of Iran, a total number of 117 bird species belonging to 14 orders and 40 families were recorded and listed below. The ornithological expedition covered a large range of habitats (Table 1). During the observation period 72 species of passerines and 45 species of non-passerines was observed (Table 2). Eight species were recorded first time by the expedition team including *Chlidonias hybrida*, *Larus genei*, *Lanius collurio*, *Lanius minor*, *Lanius isabellinus*, *Gelochelidon nilotica*, *Ardea cinerea*, *Sylvia curruca* and distributional ranges of some species such as *Petronia petronia* and *Apus affinis* proposed to be revised. Common species in semi-arid steppes and dry plains habitats included Larks (Alaudidae family) and Wheatears (*Oenanthe* spp). Deciduous forests such as those at Noor, Vaz and Sisangan are preferred habitats for Tits (Paridae family), Blackbird *Turdus merula* Linnaeus, 1758, Eurasian Jay *Garrulus glandarius* (Linnaeus, 1758) and Eurasian Nuthatch *Sitta [europea] europeae* Linnaeus, 1758.

DISCUSSION

Golestan and Mazandaran provinces are considered as the most suitable region for winter passing birds due to its temperate climate in cold seasons. Khorasan was reported as an appropriate region for breeding birds considering its extended pasturage and hay meadows (Fig. 10).

Whiskered Tern *Chlidonias hybrida* (Pallas, 1811) (Fig. 2) probably breeds more widely in Turkey. This species is a winter visitor to Iraq, Israel, East Arabia and rarely Turkey (Porter et al., 2005). In Iran this species has been recorded in Golestan province as a breeding bird (Schüz, 1959; Scott, 1975). Some authors recorded this bird as a migrant from Khorasan province (Érard, 1970; Zarudny, 1896, Zarudny, 1898). *Chlidonias hybrida* was reported from Mazandaran as a migrant by Feeny (1968) and Passburg (1959) and as a breeding bird (Scott et al., 1975). Observation of Whiskered Tern during

the breeding season in Bazangan wetland suggests that its distribution range is larger than previously believed in eastern parts of Iran (See Fig.5 for a distribution map of the species in four provinces of the expedition).

Scott et al. (1975) reported breeding of Slender-billed Gull *Larus genei* Brème, 1839 in Golestan province, but classified it as a passing winter in Mazandaran province. Mansoori (2008) exclude north and west of Iran from the distribution map of *Larus genei* and Porter et al. (2005) spotted just three restricted regions (in Mazandaran, the west Azarbayjan and Sistan Baluchistan province) as its breeding areas. The presence of Slender-billed Gull has not been reported from Noor or Miankale and observations of this species in these areas extend its range to the north of Iran.

According to Zubakin (1988) and Ryabitsev (2001) Slender-billed Gull breeds from the Iberian Peninsula to Central Asia, between 20°N and 50°N. It breeds as far east as western Pakistan, Tajikistan and western Siberia and may hybridize with Black-headed Gull *Larus [chroicocephalus] ridibundus* Linnaeus, 1766 in Russia (Fefelov, 2004). In Iran, these two birds overlap in their distribution range near Urumia Lake (Porter et al., 2005; Scott and Hamadani, 2006), but hybridization has not been reported. According to the World Conservation Monitoring Centre, *Larus genei* is a common species in the Persian Gulf but has recently been declined, probably due to oil pollution (see Fig. 6 for a distribution map of the species in four provinces of the expedition).

TABLE 1- Characterization of habitat and plant coverage in the expedition region

Habitat	Sisangan	Noor	Vaz	Miankale	Gorgan	Golestan NP	Karde	Mashhad	Bazangan
Mountain									*
Wetland				*					*
Lake							*		
Coastline		*							
Hyrcanian forest	*	*	*			*			
Shrubs				*		*			
Semi-arid steppe						*			
Garden							*		
Urban area		*			*			*	
farmland					*		*		
Highland			*						
Open Juniperus woodland						*			
Pasturage			*						

Pallid Harrier	<i>Circus macrourus</i>	R					*				
Shikra	<i>Accipiter badius</i>	R					*			*	
Northern Goshawk	<i>Accipiter gentilis</i>	P/S		*							Ullman, 2008
Imperial eagle	<i>Aquila beliiaca</i>	S						*			Zarudny, 1885
Lesser Kestrel	<i>Falco naumanni</i>	S			*		*				Ullman, 2004; BirdLife-IBAs,1973
Eurasian Kestrel	<i>Falco tinnunculus</i>	R		*				*		*	Heinrich,1927; Zarudny, 1898
Eurasian Hobby	<i>Falco subbuteo</i>	S		*					*		Erard, 1967
Saker Falcon	<i>Falco cherrug</i>	R					*				
Chukar	<i>Alectoris chukar</i>	R						*			Erard, 1967; Koelz, 1940
Black Francolin	<i>Francolinus francolinus</i>	R					*				BirdLife-IBAs, 1977
See-see Partridge	<i>Ammoperdix griseogularis</i>	R								*	Erard, 1967
Ring-necked Pheasant	<i>Phasianus colchicus</i>	R		*	*	*					Shestoperov, 1917; BirdLife-IBAs,1973
Eurasian Coot	<i>Fulica atra</i>	R								*	Walter, 1887
Little Ringed Plover	<i>Charadrius dubius</i>	S		*					*		Erard, 1967
Common Sandpiper	<i>Actitis hypoleucos</i>	S							*		Zarudny, 1898
Common Redshank	<i>Tringa totanus</i>	S				*					BirdLife-IBAs, 1977
Slender-billed Gull	<i>Larus genei</i>	R		*		*					
Gull-billed Tern	<i>Gelochelidon nilotica</i>	S		*					*		Zarudny, 1896: Khorasan
Black Tern	<i>Chlidonias niger</i>	P/S		*							
Whiskered Tern	<i>Chlidonias hybrida</i>	S								*	Erard,1967
Rock Pigeon	<i>Columba livia</i>	R					*	*		*	Paludan, 1935; Zarudny, 1896
Common Wood-Pigeon	<i>Columba palumbus</i>	R		*				*			Schüz, 1956
Eurasian Collared Dove	<i>Streptopelia decaocto</i>	R							*	*	Erard, 1967
Laughing Dove	<i>Streptopelia senegalensis</i>	R					*		*	*	Erard,1967; Zarudny,1898: Mashhad
Rose-ringed Parakeet	<i>Psittacula krameri</i>	R								*	
Common Cuckoo	<i>Cuculus canorus</i>	S			*	*		*			Heinrich, 1927; Shestoperov,1917
Little Owl	<i>Athene noctua</i>	R		*						*	Zarudny, 1898: Mashhad
Tawny Owl	<i>Strix aluco</i>	R		*							Woosnam, 1907
Common Swift	<i>Apus apus</i>	S		*			*			*	Erard, 1967; Zarudny, 1898
Little Swift	<i>Apus affinis</i>	S								*	Zarudny, 1896
Blue-cheeked Bee-cater	<i>Merops persicus</i>	S				*					Erard, 1967
European Bee-cater	<i>Merops apiaster</i>	S				*	*		*	*	

European Roller	<i>Coracias garrulus</i>	S		*		*	*	*	*	*	*	Heinrich1927; Schüz, 1956; Paludan, 1935, Erard, 1967
Eurasian Hoopoe	<i>Upupa epops</i>	S			*	*	*	*	*		*	David, 2001; Shestoporov, 1917; Zarudny, 1901
Great Spotted Woodpecker	<i>Dendrocopos major</i>	R	*	*			*					Erard, 1967; Bilkevich, 1912
Calandra Lark	<i>Melanocorypha calandra</i>	R						*				Paludan, 1935; Koelz, 1940
Bimaculated Lark	<i>Melanocorypha bimaculata</i>	R										Zarudny, 1885
Greater Short-toed Lark	<i>Calandrella brachydactyla</i>	S						*				Erard, 1967; Radde, 1886
Crested Lark	<i>Galerida cristata</i>	R						*		*	*	Paludan, 1935
Eurasian Skylark	<i>Alauda arvensis</i>	R						*				Erard, 1967
Wood Lark	<i>Lullula arborea</i>	R						*				Koelz, 1940
Bank Swallow	<i>Riparia riparia</i>	S		*								Ullman & Ullman, 2008
Eurasian Crag-Martin	<i>Ptyonoprogne rupestris</i>	S						*				
Barn Swallow	<i>Hirundo rustica</i>	S		*			*		*		*	David X., OSME-site, 2001, Misonne, 1972
Western Yellow Wagtail	<i>Motacilla flava</i>	S							*			Zarudny, 1896&1898; Litvinov, 1898
Citrine Wagtail	<i>Motacilla citreola</i>	S							*			Zarudny, 1898
Gray Wagtail	<i>Motacilla cinerea</i>	R								*		Zarudny, 1896
White Wagtail	<i>Motacilla alba</i>	R		*	*		*			*	*	Woosnam, 1907; Schüz, 1956; Erard, 1967; Zarudny, 1898
Tawny Pipit	<i>Anthus campestris</i>	S						*				Erard, 1967
Tree Pipit	<i>Anthus trivialis</i>	S						*				Zarudny, 1885
Red-backed Shrike	<i>Lanius collurio</i>	S			*		*					Witthügel, 1909; Zarudny, 1912&1885; Paludan, 1935
Rufous-tailed Shrike	<i>Lanius isabellinus</i>	S						*				Zarudny, 1912; Nikolskiy, 1885
Southern Gray Shrike	<i>Lanius meridionalis</i>	S								*		Zarudny, 1896 & 1898
Lesser Gray Shrike	<i>Lanius minor</i>	P/S								*		Zarudny, 1892
Winter Wren	<i>Troglodytes troglodytes</i>	R		*	*		*					Heinrich, 1927; Koelz, 1940; Zarudny, 1912
Dunnock	<i>Prunella modularis</i>	S			*							Woosnam, 1907
European Robin	<i>Erithacus rubecula</i>	S			*		*					Erard, 1967; Koelz, 1940
Common Nightingale	<i>Luscinia megarhynchos</i>	S		*			*			*		Erard, 1967; Zarudny, 1912; Zarudny, 1896&1901
Common Redstart	<i>Phoenicurus phoenicurus</i>	S						*				Nikolskiy, 1885
Finsch's Wheatear	<i>Oenanthe finschii</i>	R						*			*	Erard, 1967: Mashhad
Pied Wheatear	<i>Oenanthe pleschanka</i>	S						*		*		Zarudny, 1898; Misonne, 1972
Red-tailed Wheatear	<i>Oenanthe xanthopygma</i>	S						*				

Isabelline Wheatear	<i>Oenanthe isabellina</i>	S					*		*	*	Erard, 1967; Zarudny, 1896
Stonechat	<i>Saxicola torquatus</i>	S						*			
Rufous-tailed Rock-Thrush	<i>Monticola saxatilis</i>	S					*				
Eurasian Blackbird	<i>Turdus merula</i>	R		*					*		Woosnam, 1907; Heinrich, 1927; Noor
Song Thrush	<i>Turdus philomelos</i>	R		*							Heinrich, 1927
Clamorous Reed-Warbler	<i>Acrocephalus stentoreus</i>	R							*	*	Zarudny, 1898
Eastern Olivaceous Warbler	<i>Hippolais pallida</i>	S				*			*		
Common Chiffchaff	<i>Phylloscopus collybita</i>	S			*			*			Schüz, 1956; Woosnam, 1907; Koelz, 1940
Green Warbler	<i>Phylloscopus nitidus</i>	P/S			*						Heinrich, 1927
Blackcap	<i>Sylvia atricapilla</i>	S			*			*			Heinrich, 1927; Noor
Eastern Orphean Warbler	<i>Sylvia crassirostris</i>	S							*		Erard, 1967; Zarudny, 1896
Greater Whitethroat	<i>Sylvia communis</i>	S			*			*			Woosnam, 1907; Schüz, 1956
Lesser Whitethroat	<i>Sylvia curruca</i>	S			*			*			Shestoperov, 1917; Golestan
Spotted Flycatcher	<i>Muscicapa striata</i>	S						*			Zarudny, 1912; Koelz, 1940
Long-tailed Tit	<i>Aegithalos caudatus</i>	R		*							Woosnam, 1907
Coal Tit	<i>Parus ater</i>	R			*						
Great Tit	<i>Parus major</i>	R	*	*			*			*	Woosnam, 1907; Zarudny, 1912; Erard, 1967
Eurasian Blue Tit	<i>Cyanistes caeruleus</i>	R		*				*			Woosnam, 1907; Mazandaran
Eurasian Nuthatch	<i>Sitta europaea</i>	R	*	*				*			Woosnam, 1907; Koelz, 1940
Rock Nuthatch	<i>Sitta neumayer</i>	R						*			Schüz, 1956
Persian Nuthatch	<i>Sitta tephronota</i>	R								*	Zarudny, 1898; Glazunov, 1893,
Eurasian Treecreeper	<i>Certhia familiaris</i>	R	*								Nezami, 2006
Rock Bunting	<i>Emberiza cia</i>	R						*			Koelz, 1940; Paludan, 1935
Red-headed Bunting	<i>Emberiza bruniceps</i>	S							*	*	Zarudny, 1901
Corn Bunting	<i>Emberiza calandra</i>	R				*					Heinrich, 1927
Chaffinch	<i>Fringilla coelebs</i>	R	*	*	*		*		*	*	Zarudny, 1885; Zarudny, 1912; Koelz, 1940: Golestan
Common Rosefinch	<i>Carpodacus erythrinus</i>	S			*						Ullman & Ullman, 2008
European Greenfinch	<i>Carduelis chloris</i>	R			*						Woosnam, 1907
Eurasian Siskin	<i>Carduelis spinus</i>	R			*						Heinrich, 1927
European Goldfinch	<i>Carduelis carduelis</i>	R						*			Nikolskiy, 1885

Eurasian Linnet	<i>Carduelis cannabina</i>	R						*	*		Zarudny, 1898
Fire-fronted Serin	<i>Serinus pusillus</i>	R						*			Koelz, 1940
Hawfinch	<i>Coccothraustes coccothraustes</i>	R						*			Koelz, 1940
Desert Finch	<i>Rhodospiza obsolata</i>	R								*	Prazan, 1977
House Sparrow	<i>Passer domesticus</i>	R	*	*			*	*	*	*	Woosnam, 1907; Schüz, 1956; Zarudny, 1896
Spanish Sparrow	<i>Passer hispaniolensis</i>	R								*	Nikolskiy, 1885
Eurasian Tree Sparrow	<i>Passer montanus</i>	R		*			*		*	*	Zarudny, 1912; Prazan, 1977 1977: Khorasan, Mazandaran
Common Myna	<i>Acridotheres tristis</i>	R								*	
Rosy Starling	<i>Sturnus roseus</i>	S								*	Nikolskiy, 1885
European Starling	<i>Sturnus vulgaris</i>	R	*	*			*		*	*	Heinrich, 1927; Erard, 1967; Zarudny, 1898
Eurasian Golden Oriole	<i>Oriolus oriolus</i>	S		*					*		Paludan, 1935: Noor
Eurasian Jay	<i>Garrulus garrulus</i>	R		*							Heinrich, 1927
Eurasian Magpie	<i>Pica pica</i>	R		*							Woosnam, 1907
Carrion Crow	<i>Corvus corone</i>	R	*	*			*	*	*	*	Erard, 1967; Zarudny, 1890: Mazandaran, Khorasan
Common Raven	<i>Corvus corax</i>	R			*			*			

Red-backed Shrike *Lanius [cristatus] collurio* Linnaeus, 1758 (Fig. 2) is a summer visitor of northwest Iran in the Azarbaijan, Gilan, and west Mazandaran provinces according to Porter et al. (2005). Both juvenile and adult Red-backed Shrike were observed in Gorgan (in an arboricultural coniferous area). Hence, the distribution map of this bird should be extended to the east (See Fig. 7 for a distribution map of the species in four provinces of the expedition).

The Lesser Gray Shrike *Lanius minor* Gmelin, 1788 (Fig. 3) is a summer visitor in the Middle East and passage through Turkey, Cyprus, Iran, Near East and more scarcely on the Arabian peninsula. In Iran, it occurs in the northwest, northeast and the south (Porter et al., 2005). Presence of Lesser Gray Shrike in Mashhad is rare and our observation of the species in Mashhad suggests that it may be a passage-summer visitor (See Fig. 8 for distribution map of the species in four provinces of the expedition).

Rufous-tailed Shrike *Lanius [cristatus] isabellinus* Ehrenberg, 1833 was supposed to be a summer visitor to NE Iran by Porter et al. (2005). Mansoori (2008) described its breeding range as just in northern Khorasan province, through the east, southeast, and south of Iran and as winter migrant in the southwest of Iran and west of the Mazandaran province. Feeny (1968) reported it from Mazandaran province. Zarudny (1900), Nikolskiy (1886) and Aliabadian (2005) reported it from Golestan province and Zarudny (1996, 1898) from Khorasan province. Observation of *Lanius isabellinus* in Golestan National Park expands its distribution to the north.

The Lesser Whitethroat *Sylvia curruca* (Linnaeus, 1758) is a summer visitor and passage migrant throughout the Middle East. In Iran, it ranges through northwest, west and southeast (Porter et al., 2005). Mansoori (2008) defined its range as a breeding bird through the north of Iran in Gilan, Mazandaran and Azarbaijan provinces, as well as in the west and the southeast of Iran in the Sistan and Balouchestan provinces. It has been recorded as a migrant and winter visitor to Khorasan

(Zarudny, 1898, Koelz, 1950, Misonne, 1954). This species was recorded in Golestan National Park, thus extending its range eastward Iran (See Fig. 9 for distribution map of the species in four provinces of the expedition).

Red-headed Bunting *Emberiza bruniceps* (Fig. 4) is a breeding summer visitor in northeast Iran and a vagrant in a Turkey, Arabia and Palestine (Porter et al., 2005; Yosef, 2001) and overlaps with *Emberiza melanocephala* in Golestan province. These two close species may make hybrid in their range. The Gull-billed Tern *Gelochelidon [sterna] nilotica* (Gmelin, 1789) has previously been reported as a resident species in the east of Mazandaran, Golestan province and coastal areas in the south of Iran and as a breeding bird in Urumia Lake (Scott et al., 1975; Mansoori, 2008). Feeny (1968) reported the Gull-billed Tern as a migrant at the Caspian coast in the Mazandaran province. Porter et al. (2005) and Scott et al. (1975) recorded this bird as a migrant and a breeding bird, respectively in Golestan Province. The only noted observation of Gull-billed Tern in Khorasan belongs to Zarudny (1896), as a migrant. In spite of the fact that breeding of this bird in Karde dam has not been reported before, according to our investigation, *Gelochelidon nilotica* is likely to breed both in Noor and Karde regions, since pairs of birds appeared resident to these areas.

The Grey Heron *Ardea [cinerea] cinerea* Linnaeus, 1758 has been reported to be a winter visitor to the Golestan and Mazandaran provinces, a breeding bird in Mazandaran by Heinrich (1928), Passburg (1959), Schüz (1957) and Scott et al. (1975) and even a summer visitor from this province by Norton (1958). Zarudny (1896, 1898, 1900) and Mansoori (2008) recorded the Grey Heron as a winter visitor in Khorasan province and as a breeding bird in Golestan province. Scott et al. (1975) recorded it as a resident species in Mazandaran and Golestan provinces and as a winter visitor in Khorasan province. Since, Grey Heron was observed in June in Karde Dam, it is likely to be considered as a breeding bird in this region, although no previous reports of its breeding in Khorasan province have been published.

Various strains of the Pied Wagtail *Motacilla [alba] alba* Linnaeus, 1758 have been reported by different authors. The *alba* strain was observed in Noor and other sites along the Caspian shore and the *personata* strain in the east (e.g. Mashhad).

Lesser Kestrel *Falco naumanni* (Fig. 3) is evaluated by Bird Life International - the official Red List Authority for birds for IUCN- as vulnerable species. The western Palearctic populations have undergone serious declines. For example, the species has disappeared from the Ural region of Russia and from northern Kazakhstan, as well as from the western and central parts of the Balkan Peninsula (Biber, 1994; Cramp and Simmons, 1980). In the Middle East, the breeding range includes Afghanistan, Iran, Iraq, Israel, Jordan and Syria (Evans, 1994). About thirty pairs of this species were observed in a colony at the top of the hill near Gorgan. It is expected that they will lose their habitat in future because of renovation project and industrial usage of the soil of the hills. Therefore, this traditional colony of lesser kestrel may force the abandon of the region because of habitat loss through urbanization and reduction of availability of food.

The Little Swift *Apus [affinis] affinis* Gray, 1830 occurs in Syria during the breeding season and is a partial migrant with few remaining birds in the northern part of its range in winter. Its passage includes Yemen, vagrant Iraq, UAE, Oman, Bahrain, and Cyprus. In Iran, its range includes southern parts and a spotted region in the northeast (Porter et al., 2005). Observation of Little Swift in the Bazangan wetland extends its distribution to eastern Iran.

The status of the species *Petronia petronia* is questionable in Iran. It was reported as summer visitor to northwest of Iran, completely excluded from Golestan and Mazandaran province and is winter recorded from east and southwest of Iran (Porter et al., 2005). In contrast to Porter et al.'s study (2005), Mansoori's (2008) illustrated its distributional map of the species through the southern margin of Iran from southeast to southwest as a breeding bird. Due to the observation of some

juveniles *Petroia petronia* in summer –not by expedition team- Golestan province should be considered as the breeding range of this species.

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