

Irruption of Bohemian Waxwings *Bombycilla garrulus* and Eurasian Bullfinches *Pyrrhula pyrrhula* in Iran in the winter of 2016/2017

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Irruption is an avian phenomenon where many individuals including juveniles may invade new ranges in harsh winters. The Bohemian Waxwing *Bombycilla garrulus* and Eurasian Bullfinch *Pyrrhula pyrrhula* irrupt further south beyond their normal range in cold winters (Elkins 2005, Newton 2006). In the Middle East, the Bohemian Waxwing is considered as a rare and irregular winter visitor to Iran, Turkey and vagrant to Cyprus and Israel and the Eurasian Bullfinch winters to northern Iran and Turkey (Porter & Aspinall 2010). The Bohemian Waxwing and Eurasian Bullfinch were also categorized as rare bird species by the Iran Bird Records Committee. There have been few records of these two species in the past century in Iran. Here I report an unusual increase in the number of records of Bohemian Waxwing and Eurasian Bullfinch during the winter of 2016/2017.

The Bohemian Waxwing has been recorded in many parts of Iran but mostly in the north. Previously it had been recorded from Mashhad on 15 November 1898 (Roselaar & Aliabadian 2009), Golestan national park in 1970 and Chabahar in 1971 (Scott 2008). In the 2000s, it was recorded in Bazangan, Meshgin-Shahr, Mashhad and Gorgan (Khaleghizadeh *et al* 2010). The Eurasian Bullfinch has been a rare bird visiting only northern Iran. It was recorded from Mashhad, Quchan, Goudan, Ramsar, Alamdeh, Khorram-Abad and Pish-

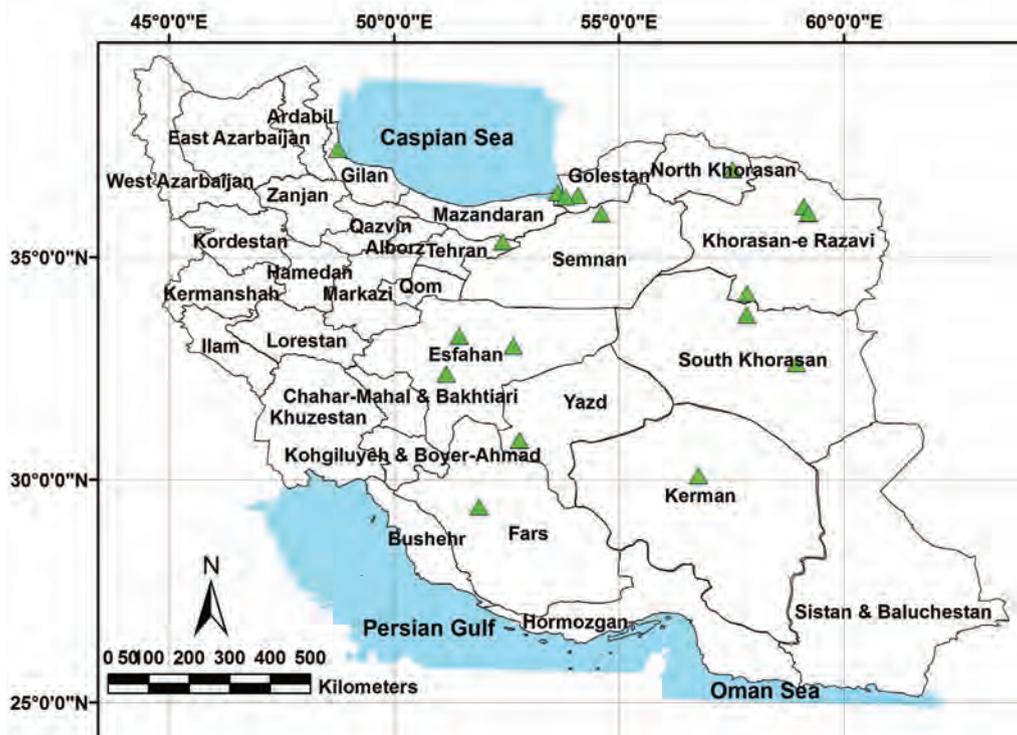


Figure 1. Map of Iran showing location of records of Bohemian Waxwing in Iran during the winter of 2016/2017.

Table 1. Records of Bohemian Waxwing in chronological order in Iran from November 2016–May 2017.

	Place	Province	Date	Observer(s)
One dead	Talesh	Gilan	23 November 2016	Fardin Naziri
Two	Ashuradeh, Miankaleh	Golestan	9 December 2016	Farid Roshanaei
One	Natanz	Esfahan	23 December 2016	Mohammad Ali Ebrahimi
80	Bajestan	Khorasan-e Razavi	December 2016	-
One	Abbas-Abad Wildlife Refuge, Naein	Esfahan	December 2016	Javad Najafi & Farnaz Heidari
4	Golmakan	Khorasan-e Razavi	December 2016	Mehran Mirsayyar
40	Zafar park, Birjand	South Khorasan	31 December 2016– 14 January 2017	Ehsan Dorostkar
50	Ferdows	South Khorasan	6 January 2017	Hamed Ostovari
40	Shast-Kalateh forest, Gorgan	Golestan	14 January 2017	Hamid-Reza Rezaei
c600	Jahan-Nama forest, Gorgan	Golestan	13 January 2017	Seyed Mohammad Aghili
9	Shiraz	Fars	13 January 2017	Amir Farahnasab, Abbas Nouroozi, Hamid Ahmadi, Alireza Emtiaz, Meysam Hazeghi, Saghar Khakdan, Farid Mahboobi & Mohammad-Kazem Haghghat
8	Ziarat, Gorgan	Golestan	20 January 2017	Behrad Galeshi
64	Shirvan	North Khorasan	29 January 2017	Babak Ghavidel-Namanlu
At least 300	Mashhad	Khorasan-e Razavi	December 2016– February 2017	Ehsan Ardakanian, Ali Khani, Ali Mahdavi, Morteza Razavi-Moghaddam, Morteza Keshavarz, Hamideh Daliri, Ali Sangchooli, Samaneh Mokhtari, Ehsan Talebi & Yashar Sadafzadeh
5	Abar-Kuh	Yazd	8 February 2017	Mohammad-Hossein Akrami Abarghooei
20	Kordkuy	Golestan	10 February 2017	Seyed Mohammad Aghili
At least 20	Esfahan city	Esfahan	21 February 2017	Mohammad Moeini, Iman Ebrahimi, Fatemeh Mousavi, Zahra Ebrahimi, Mahsa Hashemi, Mohammad-Ali Ebrahimi, Sina Poureshagh, Fatemeh Jangjou & Elham Nasr
40 and 12	Kerman	Kerman	24–31 March 2017	Yaser Teimouri, Seyed Reza Alavi, Mohsen Movahedi Parizi, Hamed Teimouri, Saeed Galedari & Mohammad-Ebrahim Sehhatisabet
At least 60	Zarrin-Dasht road, Firuzkuh	Tehran	17 April 2017	Ali Sangchooli & Samaneh Mokhtari
At least 20	Shahrud	Semnan	28 April 2017	Seyed Ali Mortazavi
10–12	Pardis city	Tehran	1 May 2017	Taraneh Amini, Bijan Doustdar & Parviz Bakhtiari
c300	Jahan-Nama	Golestan	11 May 2017	Seyed Mohammad Aghili
c300	Kordkuy	Golestan	11 May 2017	Seyed Mohammad Aghili
At least 50	Kordkuy	Golestan	24 May 2017	Seyed Mohammad Aghili
One	Gorgan	Golestan	26 May 2017	Hamid Galeshi, Behnam Galeshi & Behrad Galeshi

Table 2. Records of Eurasian Bullfinch in chronological order in Iran from 10 December 2016–9 February 2017.

	Place	Province	Date	Observer(s)
One female dead	Chalus	Mazandaran	10 December 2016	Ali Musavi
3 males	Shast-Kalateh forest, Gorgan	Golestan	25 December 2016	Hamid-Reza Rezaei
One male	Nahar-Khoran forest, Gorgan	Golestan	30 December 2016	Behrad Galeshi
One female	Jamshidieh park, Tehran	Tehran	During December 2016	Mohammad Tohidifar, Seyyed Babak Musavi, Jamshid Karimizadeh, Mohsen Mallah and many others
2	Tabriz	East Azarbaijan	6 & 13 January 2017	Sattar Shiri & Naser Malekzadeh
One male	Nahar-Khoran forest, Gorgan	Golestan	9 January 2017	Behrad Galeshi
4	Marzan-Abad, Chalus	Mazandaran	24 January 2017	Bashir Sharifnia
4–5	Ramsar–Javaher-Deh road, Ghou lake	Mazandaran	26 January 2017	per Abbas Osaei
2 males	Gorgan	Golestan	27 January 2017	Hamid Galeshi, Behnam Galeshi & Behrad Galeshi
At least 6	Talesh	Gilan	2 February 2017	Fardin Naziri
At least one male	Shaft	Gilan	8 February 2017	Mehرداد Rahmanpour
One male	Jamshidiyeh park, Tehran	Tehran	9 February 2017	Mohammad-Reza Komeilian & Hossein Mahmoudian

Kuh (both Mazandaran province), Dimalu, Chalus, Livan, Maragheh and Orumieh 1898–1940 (Khaeghizadeh *et al* 2010). In the 1970s, it was recorded in Kalibar and Arasbaran protected area (with five records in 1970) and Manjil and Lisar (Scott 2008), and recently, 2004–2010, from Boujagh national park, Parvar protected area, Rahim-Abad (Rudsar), and Golestanak (Central Alborz protected area) (Khaleghizadeh *et al*. 2010). It is probably a local breeder in the Iranian province of Azarbaijan. This view is supported by several records in Arasbaran protected area with four records there between April and July and one record in November, all in the 1970s (Scott 2007). However, future studies will reveal its breeding status in Iran.

The winter season of 2017 (late November 2016–March 2017) was a rare cold winter in Iran. This unusually cold winter caused an unusual influx of numbers of these two rare bird species visiting Iran. Fortunately, we could gather nearly all possible records of these two species with the help of the social media. Observations have formally been accepted by the Iran Bird Records Committee (www.iranbirdrecords.ir) and are summarised in



Plate 1. Bohemian Waxwings *Bombycilla garrulus* in Ferdows, South Khorasan province, Iran 11 January 2017. © H Ostovari

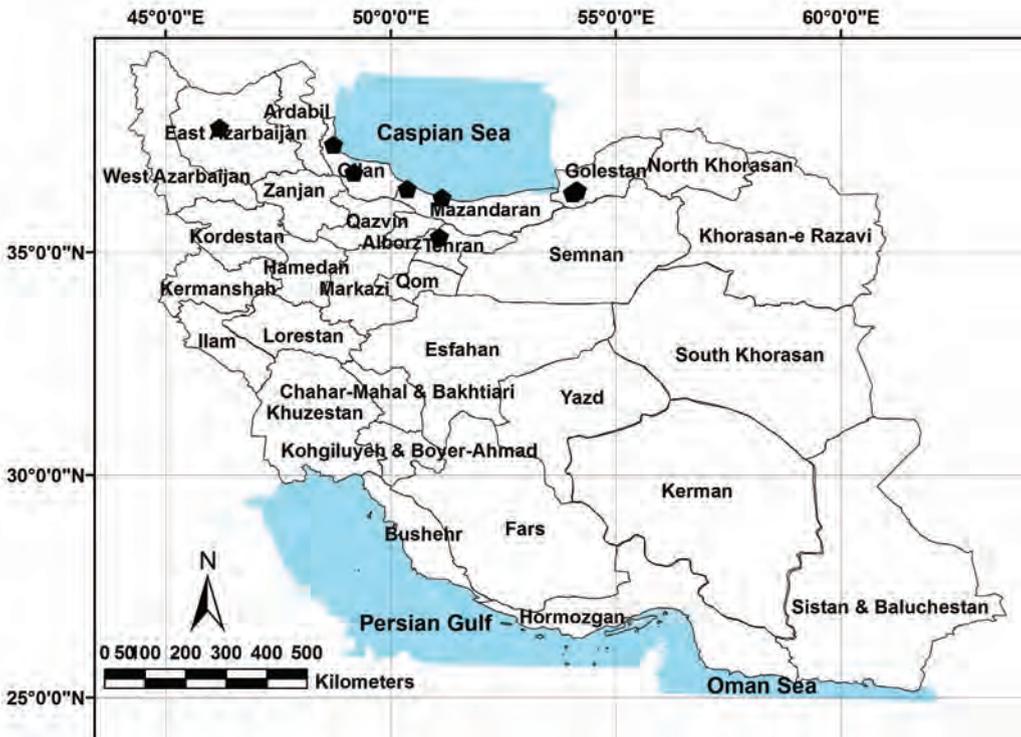


Figure 2. Map of Iran showing location of records of Eurasian Bullfinch in Iran during the winter of 2016/2017.



Plate 2. Eurasian Bullfinch *Pyrrhula pyrrhula* in Nahar-Khoran forest, Gorgan, Golestan province, Iran 9 January 2017. © B Galeshi

Table 3. Minimum temperatures September–June 2015–2017 (IRIMO 2017).

Station	Month	September		October		November		December		January		February		March		April		May		June	
		Year	Day	Temp	Day	Temp	Day	Temp	Day	Temp	Day	Temp	Day	Temp	Day	Temp	Day	Temp	Day	Temp	Day
Shemiran (Tehran)	2015/2016	21	12.3	18	7.6	22	0.4	13	-1.2	29	-5.5	11	-3.8	18	1.0	2	1.1	12	10.8	3	14.4
	2016/2017	30	12.0	24	8.0	25	-8.3	10	-2.4	30	-5.1	3	-6.2	6	1.6	5	1.9	6	9.4	3	15.1
	2017	30	13.2	19	6.5	27	-1.6	9	-1.8												
Gorgan	2015/2016	20	12.5	19	5.2	22	3.1	14	-2.2	30	-2.8	12	-2.3	19	-0.1	3	1.6	4	10.9	14	15.4
	2016/2017	30	13.9	27	5.6	24	-5.9	24	-1.6	6	-3.2	19	-4.0	11	0.9	5	0.7	23	12.2	2	14.8
	2017	30	12.5	18	6.2	27	1.2	5	-1.4												
Now-Shahr	2015/2016	22	16.4	19	9.8	22	4.6	11	2.4	29	0.2	13	1.2	19	4.2	2	5.8	1	14.0	14	15.4
	2016/2017	30	14.8	27	10.6	25	-2.0	19	0.6	24	1.8	18	-0.8	7	3.6	5	4.6	14	13.4	4	17.6
	2017	30	15.4	18	9.8	27	5.8	5	3.2												
Astara	2015/2016	19	16.0	18	8.6	21	5.0	19	0.8	28	-2.0	12	0.2	18	2.2	5	4.8	3	12.0	1	16.0
	2016/2017	27	15.4	27	6.0	25	-2.4	22	-1.6	30	-1.2	18	-3.4	9	3.4	4	2.8	1	12.4	3	16.0
	2017	29	13.8	6	8.4	25	2.0	8	1.6												
Esfahan	2015/2016	22	10.0	24	6.6	26	-3.4	23	-6.6	31	-6.4	12	-6.0	20	0.8	3	3.0	12	11.4	3	16.6
	2016/2017	30	11.4	26	6.6	25	-7.4	17	-4.0	25	-6.6	4	-8.2	8	0.6	6	3.8	2	10.0	4	16.6
	2017	23	10.6	24	6.0	26	-2.4	10	-4.8												

Tables 1–2. There were 25 records of Bohemian Waxwing and 12 records of Eurasian Bullfinch. Records of the Eurasian Bullfinch involved 1–6 individuals (Table 2), whereas only 9 of 25 records of the Bohemian Waxwing involved numbers below 10 individuals (Table 1). High numbers of Bohemian Waxwing were observed in Mashhad and Kordkuy, each with c300 individuals, whilst Jahan-Nama forest had c600 individuals.

Records show that the Bohemian Waxwings entered Iran and migrated from the northeast towards the centre and south of the country. While this species was previously recorded from Meshgin-Shahr, Mashhad, Gorgan, Golestan NP, Bazangan lake and Chabahar (Roselaar & Aliabadian 2009, Scott 2008, Khaleghizadeh *et al* 2010), there were many places newly visited by this species (Table 1). Surprisingly it visited the central provinces of Semnan, Esfahan and Yazd, and even further south in Kerman and Fars provinces (Figure 1). It seems that the Eurasian Bullfinch had a similar pattern but on a smaller scale from the northwest to northern Iran (Figure 2). However, there were more previous records of this species than the Bohemian Waxwing but records in winter in 2016/2017 were restricted to Tabriz, Ramsar, Chalus, Gorgan and Tehran areas (Table 2),

within the range of previous locations of this species in Iran (Roselaar & Aliabadian 2009, Scott 2008, Khaleghizadeh *et al* 2010).

The irruption of these species was likely caused by severe cold. Although all of the relevant data could not be obtained, the minimum temperatures of five stations (Table 3) are presented. In all five stations minimum temperatures in February 2017 were lower than the previous year. In Shemiran, Now-Shahr and Astara minimum temperature was lower in November and December 2016 than the previous and following years (Table 3), whereas in Gorgan and Esfahan, the minimum temperature was lower in November 2016 than the previous and following year (Table 3).

ACKNOWLEDGEMENTS

I must thank several Iranian birdwatchers who sent their records of Bohemian Waxwing and Eurasian Bullfinch to the Iran Bird Records Committee. The following shared their records: Seyed Mohammad Aghili, Farid Roshanaei, Mohammad Ali Ebrahimi, Mehran Mirsayyar, Ehsan Dorostkar, Iman Ebrahimi, Seyed Ali Mortazavi, Amir Farahnasab, Ali Mousavi, Sattar Shiri, Bashir Sharifnia, Mehrdad Rahmanpour, Hossein Mahmoudian and Dr Hamid-Reza Rezaie. I would especially thank Fardin Naziri, Hamed Ostovari, Behrad Galeshi, Ali Sangchooli, Parviz Bakhtiari and Mohammad Tohidifar for relaying records, in addition to sending their own records. Abbas Oasaei informed us about Ramsar's record of Eurasian Bullfinch.

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