

A summary of over forty new bird records from Tianjin Municipality, including two new records for China

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Tianjin Municipality is located to the west of Bohai Bay and hosts many important stopover sites for migratory birds on the East Asian–Australasian Flyway. In recent years, as ornithological studies and birdwatching activities have expanded, a number of new species for Tianjin have come to light. This paper summarises and synthesises these new records and is based on field surveys, a systematic literature search and unpublished bird reports. Compared to the baseline data in *Chorography of Tianjin: Birds*, we identified 41 new species, including two new records for China. The majority of these records involve migrants, underscoring the important role of Tianjin as a migratory stopover. We recommend enhanced management and protection of key sites in Tianjin during the migration seasons.

INTRODUCTION

Tianjin, located between the latitudes of 38.567–40.250°N and the longitudes of 116.717–118.067°E, is one of China's five largest cities and forms an independent municipality under the central government's direct administration. Tianjin is immediately adjacent to Beijing Municipality and Hebei province, and has a total area of 11,917 km². It is situated in the north-east of the North China Plain and in the lower reaches of the Haihe River Basin. To the north it rests against the Yanshan mountain range, and to the east it fringes Bohai Bay. Much of the terrain is flat plain, with a highly developed water system comprising numerous lakes and rivers, and the only mountainous area lies in the extreme north. The highest peak in Tianjin is Jiushanding, with an elevation of 1,079 m (Wang 2006). Tianjin's unique geography and diverse environment support a rich diversity of birds as the area serves as an important stopover for migratory birds in the East Asian–Australasian Flyway (Zhang *et al.* 2002). Four sites in Tianjin are listed as Important Bird Areas (IBAs): Qilihai Nature Reserve, Tuanbowa Nature Reserve, Beidagang Wetland Nature Reserve (WNR) and the Coastal Mudflat of Tianjin (Chan 2009). Currently there are an additional 10 nature reserves with different levels of protection covering a total area of 1,667.4 km² (Tianjin Forestry Bureau 2015) or some 13.99% of Tianjin Municipality.

Tianjin is an important Chinese port. It was the first northern city to open to cultural and commercial trade with foreign countries. It was also one of the earliest of the northern cities where modern ornithological research was carried out. Commencing in the middle of the 19th century, several historic western naturalists, including Robert Swinhoe, Armand David, John David Diques La Touche, Nathaniel Gist Gee and Max Hugo Weigold, visited China to collect bird specimens. Their pioneering visits resulted in the publication of multiple accounts of the avifauna of Tianjin (Swinhoe 1870, Weigold 1922a,b, Gee *et al.* 1927, La Touche 1934). When French naturalist Émile Licent visited China, he based himself in Tianjin and carried out in-depth studies on the birds of northern China. He established the former Beijiang Museum as a result of his exploration (Fang 2003). Licent collected 2,859 bird specimens during his time in Tianjin, and subsequently invited a Belgian naturalist, Georges Seys, to conduct taxonomic studies on these specimens. They identified 193 bird species based on the specimens collected in Tianjin (Wang 2006). Their work was the earliest, most comprehensive and meticulous survey of birds in Tianjin. In the 1930s, Tsen-hwang Shaw published *The Birds of Hopei Province*, based on his in-depth research and review of the condition of birds in the Hebei area, which then included Tianjin (Shaw 1936). Since the 1950s, researchers including Chang-Dong Gu, Bai-Wen Li, Lan-Quan Lin, Tiao-Zhi Qiu, Zheng-Wang Zhang, Shu-Ping Zhang and Ji-Liang Xu have carried out a series of studies

on birds in Tianjin and discovered a number of new species for the region (Gu & Ma 1963, Gu & Cui 1965, Li 1991, Zhang *et al.* 2002, 2003, Xu *et al.* 2002). Feng-Qin Wang's (2006) *Chorography of Tianjin: Birds* is currently the most comprehensive monograph on the birds of Tianjin. In it she recorded 389 species.

During the past decade, additional species have been recorded. This is doubtless largely due to the increasing popularity of birdwatching, expanding scientific research and a shift in bird distributions due to reasons such as climate change. The current contribution draws on Wang's *Chorography of Tianjin: Birds* and reviews the new records of birds in Tianjin in the last ten years. We provide dates of discovery, localities and brief identification details of unpublished new records. Nomenclature and taxonomy follow the eBird/Clements Checklist of Birds of the World (Clements *et al.* 2016).

RESULTS

New records in the published literature

Since 2006, 31 new distribution records for Tianjin have been published in the literature (Table 1), while Canada Goose *Branta canadensis* (Plate 1) and Franklin's Gull *Leucophaeus pipixcan* were also the first records for China (Mo *et al.* 2017, Holt 2005).

New records hitherto unpublished Western Water Rail *Rallus aquaticus*

One Western Water Rail was photographed at Beidagang WNR (38.791°N 117.417°E, elevation 1 m) by Tian-Hao Zhao and colleagues on 2 April 2016 (Plate 2). Although secretive and poorly known, the closely related *R. indicus* breeds in north-eastern China, winters from Beijing south down through eastern China and is locally common in Tianjin. Despite being documented by La Touche (1934), Western Water Rail is still rarely reported in eastern China, although there are records from Beijing, Shanxi, Jiangsu, Shanghai, Fujian and Hong Kong (Beijing Bird Watching Society 2014). In recent years, it has proved to be regular in winter only at Yancheng National Nature Reserve, Jiangsu (Paul Holt pers. obs.).

Western Sandpiper *Calidris mauri*

One Western Sandpiper was seen near the Rainbow Bridge (39.111°N 117.723°E, elevation 2 m) in Hangu District by Paul Holt on 1 May 2008. In China, there is one report from Qinghai (Per Alström *in litt.*), one unconfirmed report from Hebei and occasional sightings in Taiwan (Zheng 2011).

Asian Koel *Eudynamis scolopaceus*

An Asian Koel was seen near Huliuyu village in Jixian County (40.082°N 117.375°E, 171 m) at 07h49 on 17 June 2012, while two near Guoxiangyu village (40.122°N 117.511°E, 90 m) were seen from

Table 1. New bird records for Tianjin in the published literature. CBR stands for China Bird Report (published by the China Ornithological Society, see References).

English name	Scientific name	References
Canada Goose	<i>Branta canadensis</i>	Mo <i>et al.</i> 2017
Greater Flamingo	<i>Phoenicopterus roseus</i>	Zhu <i>et al.</i> 2017
Glossy Ibis	<i>Plegadis falcinellus</i>	Wang <i>et al.</i> 2017
Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	Mo <i>et al.</i> 2015
Ruff	<i>Calidris pugnax</i>	Wang & Chen 2007
Spoon-billed Sandpiper	<i>Calidris pygmaea</i>	Zheng 2011
Little Stint	<i>Calidris minuta</i>	Wang & Chen 2007
Pectoral Sandpiper	<i>Calidris melanotos</i>	Wang & Chen 2007
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>	CBR 2008
Red-necked Phalarope	<i>Phalaropus lobatus</i>	CBR 2004
Black-legged Kittiwake	<i>Rissa tridactyla</i>	CBR 2006
Slender-billed Gull	<i>Chroicocephalus genei</i>	CBR 2007
Franklin's Gull	<i>Leucophaeus pipixcan</i>	Holt 2005
Pallas's Gull	<i>Ichthyaetus ichthyaeus</i>	CBR 2004
Lesser Black-backed Gull	<i>Larus fuscus</i>	CBR 2005
Chinese Crested Tern	<i>Thalasseus bernsteini</i>	Holt 2010
White-throated Needletail	<i>Hirundapus caudacutus</i>	CBR 2005
Pied Kingfisher	<i>Ceryle rudis</i>	CBR 2004
Greater Short-toed Lark	<i>Calandrella brachydactyla</i>	CBR 2004
Common House-Martin	<i>Delichon urbicum</i>	CBR 2005
Grey-headed Canary-Flycatcher	<i>Culicicapa ceylonensis</i>	CBR 2008
Brown Dipper	<i>Cinclus pallasi</i>	Zheng 2005
Japanese Bush Warbler	<i>Horornis diphone</i>	Zheng 2005
Baikal Bush Warbler	<i>Locustella davidi</i>	CBR 2008
White-capped Redstart	<i>Phoenicurus leucocephalus</i>	CBR 2007
Brown-headed Thrush	<i>Turdus chrysolus</i>	CBR 2008
Crested Myna	<i>Acridotheres cristatellus</i>	CBR 2006
Rosy Pipit	<i>Anthus roseatus</i>	CBR 2004
American Pipit	<i>Anthus rubescens</i>	CBR 2004
Pine Bunting	<i>Emberiza leucocephalos</i>	CBR 2005
Chinese Beautiful Rosefinch	<i>Carpodacus davidianus</i>	Zheng 2005

05h40 to 07h17 on 19 June by Dong-Lai Li and colleagues. Asian Koel appears to be spreading north in China and further records are to be expected. It is increasingly regular in adjacent Beijing (Zheng 2011) and might already be a rare breeder in Tianjin.

Himalayan Swiftlet *Aerodramus brevirostris*

One Himalayan Swiftlet was seen at Beidagang WNR (38.789°N 117.451°E, 1 m) by Paul Holt, Han-Chen Huang, Qingyu Wang and Min Zhao on 1 October 2016 (Plate 3). In China, Himalayan Swiftlet ranges from Hubei, Sichuan and Guizhou to Yunnan (Zheng 2011) and there are recent records of vagrants from at least Beijing, coastal Hebei, Jiangsu, Shanghai, Zhejiang and Hong Kong (Hong Kong Bird Watching Society 2016).

Asian House-Martin *Delichon dasyopus*

Two Asian House-Martins were observed flying south over the Tianjin Harbor Economic Area (38.951°N 117.704°E, 0 m) on 2 September 2008 (Paul Holt and colleagues). It breeds in Beijing and during migration has been noted at and near Beidaihe, Qinhuangdao, Hebei (China Ornithological Society 2005, 2006).

Varied Tit *Sittiparus varius*

One Varied Tit, subspecies *varius*, was photographed at Yangliuqing Forest Park (39.165°N 116.997°E, 7 m) by Qiang Li on 12 October 2012 (Plate 4). Markedly irruptive, autumn 2012 was a remarkable period for Varied Tits in East Asia, with birds reported from Liaoning and Beijing south to Shanghai and Taiwan.

Willow Tit *Poecile montanus*

Four Willow Tits were recorded near Liuzhuangzi village, Jixian County (40.175°N 117.502°E, 250 m) by Pin-Jia Que and Peng-Cheng Wang at 08h58 on 17 December 2013, and seven more near Xiaotao village (39.673°N 117.274°E, 8 m) at 16h45 on the same day. The Willow Tit is very similar to the Marsh Tit *P. palustris*, but differs slightly on its head and throat in this part of China: the former's crown and nape are brown, while the latter's crown is glossier black.

Brown-eared Bulbul *Hypsipetes amaurotis*

Xiao-Hong Gao photographed two Brown-eared Bulbuls (Plate 5) in the Phoenix urban residential district (39.088°N 117.187°E, 8 m)



WANG JIANHUA

Plate 1. Canada Goose *Branta canadensis*, Yongdingxinhe River, Ninghe district, China, 21 December 2014.



TIAN-HAO ZHAO

Plate 2. Western Water Rail *Rallus aquaticus*, Beidagang Wetland Nature Reserve, Tianjin, 2 April 2016.



HAN-CHEN HUANG

Plate 3. Himalayan Swiftlet *Aerodramus brevirostris*, Beidagang WNR, Tianjin, 1 October 2016.



QIANG LI

Plate 4. Varied Tit *Sittiparus varius*, Yangliuqing Forest Park, Tianjin, 12 October 2012.



XIAO-HONG GAO

Plate 5. Brown-eared Bulbul *Hypsipetes amaurotis*, Phoenix residential district, Tianjin, 17 January 2015.



ZHONG-FANG ZHAO

Plate 6. Orange-headed Thrush *Geokichla citrina*, Nankai University, Tianjin, 24 May 2012.



XUN-QIANG MO

Plate 7. Red-breasted Flycatcher *Ficedula parva*, Tianjin Normal University, Tianjin, 16 December 2016.

on 17–18 January 2015, and the two birds wintered at the site. The subspecies concerned is *hensoni*. In recent years, there have been records from Hebei, Beijing, Jiangsu, Shanghai, Zhejiang and other provinces (Zheng 2011).

Orange-headed Thrush *Geokichla citrina*

Zhong-Fang Zhao and Xun-Qiang Mo located one Orange-headed Thrush on the campus of Nankai University (39.102°N 117.170°E, 20 m) on 24 May 2012 (Plate 6). The bird remained there for 12 days. It is not uncommon in Anhui, Zhejiang, Henan and nearby (Zheng 2011). There are breeding records from Shandong, one recent record from Beijing and several others from coastal Hebei.

Red-breasted Flycatcher *Ficedula parva*

One Red-breasted Flycatcher was photographed on the campus of Tianjin Normal University (39.058°N 117.125°E, 11 m) on 16 December 2016 by Xun-Qiang Mo (Plate 7). The Red-breasted Flycatcher is very similar to the Taiga Flycatcher *F. albicilla*, but differences include a pale base to the lower mandible, a buff wash across the breast and a brown hue to the central upper tail-coverts. With increased observer awareness, the species has been reported at numerous sites between Liaoning and Hong Kong in recent years (Li *et al.* 2008, Zheng 2011).

Records of extinct or potentially escaped species, and uncertain records

Crested Ibis *Nipponia nippon*

According to accounts by Armand David, several Crested Ibis were recorded at Dagu (now Tanggu) in early June 1867 and it was considered a common species in that region (Boutan 1993). Crested Ibis was once widely scattered around East Asia, and was recorded in north-east, northern, eastern and southern China, as well as Gansu and Shaanxi provinces (Cheng 1976). However, in 1981 only seven Crested Ibis survived, all in Yang County, Shaanxi (Cheng *et al.* 1997). From then on, the population has increased to 1,100–1,200 individuals, thanks to three decades of conservation efforts (Wang *et al.* 2014). Besides the population in Yang County, Crested Ibis have been re-introduced to Xinyang in Henan and Deqing in Zhejiang. Considering that the northern population had become extinct in the wild, we have not included it in the Tianjin bird list.

Stock Dove *Columba oenas*

One Stock Dove was seen in the Tianjin Harbor Economic Area by Paul Holt on 10 October 2008. The Stock Dove is widely distributed from Europe and North Africa to Middle Asia. In



ZHENG HAN

Plate 8. Bay Woodpecker *Blythipicus pyrrhotis*, Hebin Park, Tanggu, Tianjin, 1 September 2010.

China, it occurs in north-west Xinjiang (Zheng 2011, del Hoyo *et al.* 2016). It has also been recorded a couple of times at Beidaihe (Carey *et al.* 2006), but no consensus has been reached on whether these birds are escapes or deliberate releases (Williams 2005, Carey *et al.* 2006, Brazil 2009).

Bay Woodpecker *Blythipicus pyrrhotis*

One Bay Woodpecker was reported in Hebin Park, Tanggu, by Zheng Han on 1 September 2010 (Plate 8), and was observed at least twice in the following week. The Bay Woodpecker typically ranges from the Himalayan region to continental South-East Asia and is commonly seen in southern China (Zheng 2011, del Hoyo *et al.* 2016). Considering that Tianjin is far away from its typical distribution and the bird is not known to be migratory, we cannot rule out the possibility that this sighting involved an escaped individual.

'Golden-spectacled Warbler' *Seicercus* sp.

A 'Golden-spectacled Warbler' species was captured by Lai-Shun Liu and Hui-Sheng Zhao in Qingbowa wetland, Xiqing District, on 8 May 2002 and then identified by them as *S. burkii*, a new record for Tianjin. Recently the *S. burkii* complex has been divided into five different species (Alström & Olsson 1999, 2000, Martens *et al.* 1999), but it is impossible to identify the Tianjin bird based on the description provided by Liu & Zhao (2002). Alström's Warbler *S. soror* is a local breeder as close as Beijing, while Bianchi's Warbler *S. valentini* has occurred there and in coastal Hebei. Further research is needed.

The latter three species are confirmed to have been recorded in Tianjin but are not added to its bird list because of their potential escaped status or unidentifiability.

Species considered for removal from the Chorography of Tianjin: Birds

Spot-billed Pelican *Pelecanus philippensis*

A historic record of Spot-billed Pelican from Tianjin dates from 25 September 1934. Spot-billed Pelicans range mainly across South and South-East Asia (formerly north to the Philippines). In China, the species has been reported as accidental in Beijing, south-east Xinjiang, south Yunnan and along the coastal areas of southern and south-eastern China (Brazil 2009, del Hoyo *et al.* 2016). Considering that Tianjin is far away from its general distribution and there have been no other records in this area, we treat it as suspect. In addition, MacKinnon & Phillipps (2000) and others have pointed out that Spot-billed Pelican has been confused with Dalmatian Pelican *P. crispus*, which was once considered to be a subspecies of the former.

Brown Bush Warbler *Locustella luteoventris*

The species is listed for Tianjin by *A checklist on the classification and distribution of the birds of China* (Zheng 2005). The Brown Bush Warbler mainly ranges from north-east India and mainland South-East Asia to southern China, inhabiting low bushes and scrub in open forests at an elevation of 1,500 to 3,300 m (Kennerley & Pearson 2010, del Hoyo *et al.* 2016). The literature suggests that it also occurs in Beijing, Tianjin and Hebei (Zheng 2011), but these records are believed to refer to misidentifications of other related species, possibly Baikal Bush Warbler *L. davidi* or Chinese Bush Warbler *L. tacsanowskia*. We have excluded Brown Bush Warbler from the list of the birds of Tianjin.

Chestnut-bellied Rock Thrush *Monticola rufiventris*

The species is listed for Tianjin in the *Tianjin Bird Name List* (Qiu 1984). Chestnut-bellied Rock Thrush is distributed in the Himalaya, northern South-East Asia and southern China (Zheng 2011, del Hoyo *et al.* 2016). In view of Tianjin's remoteness from its general distribution, and the lack of a detailed date, location, name of observer and citation in the record, its validity is highly questionable.

DISCUSSION

We here summarise roughly 40 new bird records for Tianjin on the basis of field surveys, the published literature and birdwatching records. As compared to the documentation in the *Chorography of Tianjin: Birds*, we found new wild bird records spanning nine orders, 24 families and 41 species in Tianjin in recent years. By 31 December 2016, a total number of 427 species of birds were recorded in Tianjin, excluding those species that need more evidence or verification.

The majority of the newly recorded bird species were Passeriformes (14 families and 19 species) and Charadriiformes (three families and 14 species), accounting for 46.3% and 34.1%, respectively. In addition, two Apodiformes species and one species from each of the following orders was recorded: Phoenicopteriformes, Ciconiiformes, Gruiformes, Anseriformes, Cuculiformes and Coraciiformes. The majority of new records were migratory birds (16 species), followed by vagrants (13 species), resident birds (five species), wintering birds (five species) and summer residents (two species). Of these, two bird species, Spoon-billed Sandpiper *Calidris pygmaea* and Chinese Crested Tern *Thalasseus bernsteini*, are categorised as Critically Endangered by the International Union for Conservation of Nature (IUCN 2016); and two species, Canada Goose (Mo *et al.* 2017) and Franklin's Gull (Holt 2005), were recorded for the first time in China.

Tianjin is a crucial stopover for migratory birds in the East Asian–Australasian Flyway, and the integrity of its habitats, particularly wetlands, is critically important and valuable for bird conservation. However, in recent years, poaching of wild birds has increased and continues to threaten the wellbeing of migratory birds that pass through the Beijing–Tianjin–Tanggu triangle. For example, 10,000 metres of illegal mist-nets were cleared and more than 2,000 live birds rescued by local authorities and volunteers in Hangu, Tianjin, in October 2016 (Li & Gao 2016). More than 40,000 wild birds, including some threatened species, such as Yellow-breasted Bunting *Emberiza aureola*, were found in a refrigerated storage house in October 2014 (Lei 2014). There is an urgent need for the relevant wildlife departments and stakeholders to enhance work to conserve migratory birds and key conservation sites during migration seasons.

Thirty-eight of the 41 new bird species records were accompanied by documentation. Of these 38 species, 31 were found by local birdwatchers. This indicates that birdwatchers contribute significantly to the understanding of birds' distribution and status.



JIAN-MIN WANG

Plate 9. Greater Flamingo *Phoenicopterus roseus*, Beidagang WNR, Tianjin, 1 December 2014.

Since the beginning of the 21st century, birdwatching has boomed as a leisure activity throughout China. The numbers of birders and birdwatching organisations have grown rapidly (Ma *et al.* 2013). Birdnet (www.birdnet.cn), the largest Chinese internet community of bird photographers, had more than 200,000 registered members by 2017 (<https://www.birdnet.cn/thread-2375563-1-1.html>). The emergence of these increasingly skilled birdwatchers and photographers helps compensate for the lack of manpower, survey effort and coverage by professional bird researchers. No doubt many more new birds for Tianjin will continue to be discovered.

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