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A checklist of the birds of Goa, India  
Pronoy Baidya & Mandar Bhagat







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# CONTENTS

1

A checklist of the birds of Goa, India  
Pronoy Baidya & Mandar Bhagat



FRONT COVER: Flame-throated Bulbul *Pycnonotus melanicterus gularis*

PHOTOGRAPHER: Pronoy Baidya

BACK COVER: Collared Kingfisher *Todiramphus chloris vidali*

PHOTOGRAPHER: Omkar Dharwadkar

# A checklist of the birds of Goa, India

Pronoy Baidya & Mandar Bhagat

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Manuscript received on 15 November 2017.

We dedicate this paper to Heinz Lainer, for his commitment to Goa's Ornithology.

## Abstract

An updated checklist of the birds of Goa, India, is presented below based upon a collation of supporting information from museum specimens, photographs, audio recordings of calls, and sight records with sufficient field notes. Goa has 473 species of birds of which 11 are endemic to the Western Ghats, 19 fall under various categories of the IUCN Red List of Threatened Species, and 48 are listed in Schedule I Part (III) of The Indian Wild Life (Protection) Act, 1972. 451 species have been accepted into the checklist based on specimens in various museums or on photographs, while 22 have been accepted based on sight record. A secondary list of unconfirmed records is also discussed in detail.

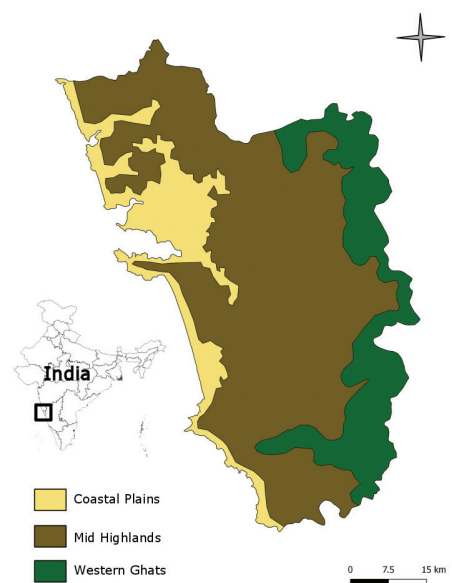
## Introduction

Goa, India's smallest state, sandwiched between the Arabian Sea in the west and the Western Ghats in the east, is home to about 35% of India's avifauna. This diversity is appreciably high considering that Goa has just three major landscapes (Fig. 1) and an area of only 3,702 sq. km. The three landscapes of the state can be classified as coastal plain (coast), mid highlands (Malabar plains), and the Western Ghats (Rodgers *et al.* 2000). The coastal plain is a narrow stretch of low-lying area extending approximately three to five kilometres inland along Goa's 110 km long coastline, except in the deltaic region of the state's two major rivers, Mandovi, and Zuari, where it extends up to 17 km inland. This zone is interspersed with sandbars, tidal mudflats [1], creeks, riverine islands, estuarine mangroves, rocky headlands, and Goa's world famous sandy beaches. This zone also contains a mosaic of saltpans, marshlands, paddy fields, plantations of coconut palms, and well-wooded villages. An interesting type of land-use in this zone comprises *Khazan* lands, which are saline floodplains, used extensively for agriculture and pisciculture. *Khazan* lands are an important human-managed biodiversity area in the coastal planes. The mid highlands are a transition zone between the coastal planes and the Western Ghats; the lateritic plateau [2] is one of their dominant features. These plateaus are naturally covered with grass and thorn scrub, which, in many places, has been replaced by cashew *Anacardium occidentale* trees. The slopes and bases of these plateaus are covered with moist-deciduous, and semi-evergreen vegetation, which harbour an interesting matrix of biodiversity. Another important feature in this zone are the many historical human-made tanks [3], which were constructed to store monsoon waters for irrigating the winter paddy crop along reclaimed riverbeds in what is known as the *Vaingan* agriculture system. These tanks are vital wintering grounds for all types of migratory waterfowls in the state and the status of these tanks depends heavily on local water management regimes. The Western Ghats, in Goa, extend along the entire eastern edge of the state, in north–south aligned arc

that is about 125 km long. The southern portion of these ghats, within Goa, juts out towards the Arabian Sea, at Cabo de Rama, and then curves inland. The central- and southern regions of the Goa ghats have rounded peaks, and in the southern regions, they are covered with grass [4], with densely forested slopes [5] like those in Uttar Kannada District (Karnataka). The northern portion of the Goa ghats comprise formations of the Deccan Trap type [6], like those in southern Maharashtra (Watve 2013), which are characterised by a horizontal top and vertical slopes—often referred to as tabletops. This diverse amalgamation of different habitat types provides an excellent landscape for several resident and migratory species of birds, resulting in Goa's rich diversity of avifauna.

## History of ornithology in Goa

The geo-political entity of Goa was formed in early AD 1510, and by 1843 the borders had stabilised into most of the present-day state's boundaries (Rao 1963). The earliest documented evidence of birds from Goa is from Boddaert's (1783: 43, 50) identification



Adapted from Rodgers *et al.* (2000)

Fig. 1. Biogeographic zones of Goa.



key to Daubenton's (1772–1776: pl. 696, 1776–1780: pl. 807) coloured plates for Buffon's (1787a,b) work. Therein he mentions the type locality of the White-naped Woodpecker *Chrysocolaptes festivus*, and the Red-wattled Lapwing *Vanellus indicus* as Goa. The same source is further cited by Gmelin (1788: 434, 1788–1789: 706). In early 1850, a male Golden-fronted Leafbird *Chloropsis aurifrons* was collected by Baron Huegel and described as the race *frontalis* by August von Pelzeln (housed in Natural History Museum, Vienna). The type locality of this specimen is mentioned as "Khelgate near Goa" (Ali & Ripley

1987) which is now in the village of Krishnapur, Karnataka. A few specimens from Goa, collected before 1961, exist in museums abroad. The Royal Ontario Museum (*hereinafter*, ROM) holds a single specimen of the (Square-tailed) Black Bulbul *Hypsipetes leucocephalus ganeesa* collected by Samuel B. Fairbank in



Pronoy Baidya

1. Inter-tidal mudflats at Agacaim. Photo: Pronoy Baidya



Mayur Gawas

2. Lateritic Plateau at Pale.



Pronoy Baidya

3. Irrigation Tank at Navelim-Bicholim IBA.



Pronoy Baidya

4. High Elevation Grassland at Cotigao Wildlife Sanctuary.



Pronoy Baidya

5. Slopes of Goa's Western Ghats at Netravali Wildlife Sanctuary.



Mayur Gawas

6. High Elevation Table Top at Mhadei Wildlife Sanctuary.



1875 (VertNet 2016); the National Museum of Natural History, Smithsonian Institution (*hereinafter*, NMNH) has specimens of Jungle Babbler *Turdoides striata*, Quaker Tit Babbler *Alcippe poioicephala*, and Crimson-backed Sunbird *Leptocoma minima*, collected by H. Medd in 1887 (VertNet 2016); while, skins of 37 species are housed in the collections of the Yale Peabody Museum of Natural History (*hereinafter*, YPM) collected by Toni Mattos for S. Dillon Ripley in 1951 (Yale Peabody Museum of Natural History 2017; K. Zyskowski, *in litt.*, e-mail dated 17 January 2017). In 1875, while sailing past Goa, on his trip to the Laccadive Islands (= Lakshadweep Islands), Hume (1876) contributed a few observations from a brief stopover at St. George's Island off Mormugao. Few other natural history records on birds exist from regions bordering Goa (Pelzeln 1856; Faribank 1876; Vidal 1880; Butler 1881; Davidson 1898a,b). This shows how little is the historical information on the birds of Goa, when compared to the rest of India during the same period.

After 1961, the Zoological Survey of India (*hereinafter*, ZSI) conducted several collection trips between 1968 and 1978 (Saha & Dasgupta 1992), while the Bombay Natural History Society (*hereinafter* BNHS) 'made a brief field survey' in Goa between November and December 1972 (Grubh & Ali 1976; see also, Abdulali 1980). Rane (1982, 1984) conducted brief surveys of flora and fauna during three visits to four locations in the state, and recorded 162 species of birds.

From 1980 onwards, the bulk of work on Goa's birds has been carried out by Heinz Lainer, who has meticulously surveyed every nook and corner of the state, publishing several papers (Lainer 1990; 1991; 1999a,b; 2000), and two books (Lainer 2004; Lainer & Alvares 2013).

Goa also has been a very popular tourism destination for international birders for many years which is evident from the 90-odd unpublished trip reports by visiting birders between 1993 and 2000, and a slew of published reports like Harris (1996), Holt (1997), Beevers (2000), Holt & Heil (2003), and Holt (2007, 2008). During this time, interest in birding, amongst the local Goan community increased, resulting in a few additions to the avifauna of the state (Rangnekar & Lad 2009; DeSouza & DeSouza 2010; Lad & Rangnekar 2011; Baidya *et al.* 2014). The Zoology Department of Goa University also, in this period, published several works on the birds of Goa (Walia & Shanbhag 1999; Shanbhag *et al.* 2001; Borges & Shanbhag 2007; Desai & Shanbhag 2007; Desai & Shanbhag 2012).

The first comprehensive checklist of the birds of Goa (Lainer 1999a, b) listed 382 species. This was followed by Lainer (2004), which listed 420 species, Rangnekar (2004), which listed 423 species, Mahabal & Patil (2008) which listed 452 species, and Lainer & Alvares (2013), which listed 443.

Since 2013 we have been trying to collate a definitive checklist of the birds of Goa, presented below, which critically evaluates all species records from the past and provides documentation to support species' inclusion, or removal from the checklist.

We would like to emphasise that a checklist is an evolving document which, if it is to remain relevant, necessitates its periodical updation. We plan to do this by uploading an updated checklist of the birds of Goa on the Goa Bird Conservation Network's (*hereinafter*, GBCN) website (<http://www.birdsofgoa.org>), which will track all changes to the checklist in future and will be accessible just like the India Checklist (Praveen *et al.* 2017), which is hosted on the website of *Indian BIRDS* (<http://www.indianbirds.in/india/>).

## Methodology

For the evaluation, and acceptance, of species records from the state, we followed the criteria in Praveen *et al.* (2013). If a species fulfilled at least one of the four criteria, it was accepted for the Goa checklist. Of the four criteria, a specimen deposited in a museum, and examined by competent taxonomists, is the most preferred proof of a species' occurrence in Goa; following this is a photograph, or call recording, that establishes, beyond doubt, the identity of a species, and is available in the public domain, either as a published record, accessible on a website, or available to us for scrutiny; the third are unpreserved specimens that have been examined by knowledgeable field workers; and the last are sight records that are assessed according to the varying degrees of their observers' supporting documentation.

## Specimens

Grubh & Ali (1975), and Saha & Dasgupta (1992) documented birds from Goa primarily by collecting specimens, which were deposited in the collections of the BNHS, and the ZSI, respectively. These two collections account for about 149 species documented, in the form of specimens, from Goa. In addition to this is Toni Matto's collection of 37 species (55 specimens) in YPM, while NMNH, and ROM have single specimens each, of three, and one species respectively.

## Photographs

Bird photography picked up quite late in Goa (*post* 2010) when compared to the rest of the country; nevertheless, visiting Indian and foreign birders made up for this, which is evident from the 806 photographs, representing 226 species, on Oriental Bird Images ([www.orientalbirdimages.org](http://www.orientalbirdimages.org); *hereinafter*, OBI). However, Goa's birders have been steadily contributing to various online repositories: OBI, the online Birds of Goa media archive on Goa Bird Conservation Network's website ([www.birdsofgoa.org](http://www.birdsofgoa.org); *hereinafter*, GBCN-WS), and eBird (eBird 2016), where images are archived on the Macaulay Library's website ([www.macaulaylibrary.org](http://www.macaulaylibrary.org)). A few more repositories were consulted, include *India Nature Watch* ([www.indianaturewatch.net](http://www.indianaturewatch.net)), social media groups like *Birds of Goa* (<https://www.facebook.com/groups/birdsofgoa/>), *Goa Bird Conservation Network* (<https://www.facebook.com/groups/goabirders/>), *Indian Birds* (<https://www.facebook.com/groups/indianbirds/>), and *Ask ID's of Indian Birds* (<https://www.facebook.com/groups/AskidsofIndianBirds/>)—all on Facebook, *Goa Birders* (<https://groups.google.com/forum/#!forum/goabirders>) on Google Groups, personal collections on Flickr ([www.flickr.com](http://www.flickr.com)), and a few personal birding blogs—where we could verify the veracity of the photographs with the blogger. In some cases, we received photographs from various observers, for verification. We were able to compile a list of 448 species for which 'definite' photographs existed.

## Audio recordings

Vocal recording is an important tool to document skulking birds, especially warblers, and difficult to detect nocturnal birds like owls, nightjars, and frogmouths. In such cases, audio recordings are used to validate species records. Fortunately, the audio recording of calls, in Goa, has been popular and calls of 231 species have been recorded and uploaded on Xeno Canto (<http://www.xeno-canto.org>), and GBCN-WS.

## Sight records with field notes

While preparing this checklist, we realised that it is difficult to evaluate sight records, whether published, or otherwise, unless supplemented with detailed field notes that help validate a record beyond reasonable doubt. This is especially relevant for birds with variable plumage that are difficult to identify in the field due to a lack of detailed literature on their identification. This is also true for out of range, single, historical sightings where, without proper supporting documentation it is tough to validate them. Records themselves are scattered over a range of different sources—from published journal articles to trip reports of visiting birders making it an uphill task to scrutinise all records. We used the Bibliography of South Asian Ornithology (Pittie 2017), the online bibliography, extensively, to scour the published literature on Goa's birds. Though it has been a common practice to accept any record published in a journal, we, like Praveen *et al.* (2016b) take a cautious approach towards this by evaluating sight records from all published sources, for veracity. Published sight records, which lacked details, have not been included.

Contemporary field listings of the birds from Goa exist on eBird ([www.ebird.org](http://www.ebird.org)), a dynamic database. It has filters for the two-distinct bio-geo regions of Goa (plains and Western Ghats), and a team of five reviewers who monitor and maintain the quality of the records. However, eBird is not a foolproof database, and contains its own share of doubtful records that might have escaped the notice of the review team or slipped through the filters, and are yet to be reviewed by a reviewer (see <http://help.ebird.org/customer/portal/articles/1055676-understanding-the-ebird-review-and-data-quality-process> to understand the process of maintaining eBird data quality). As of September 2017, there are 11,014 complete checklists (see <http://help.ebird.org/customer/portal/articles/1006361-are-you-reporting-all-species-for-more-details-about-complete-checklists>) from 1,922 unique locations that have been visited by birdwatchers (Fig. 2) and about 300,000 observations submitted to the eBird database from Goa.

## Establishing threat and conservation status of Goa's birds based on Red Data Book of IUCN and Wild Life (Protection) Act, 1972

The International Union for Conservation of Nature (*hereinafter*, IUCN) produces The IUCN Red List of Threatened Species classifies fauna and flora into nine groups within which species are placed depending upon their rate of decline, population size, area of geographic distribution, and degree of population and distribution fragmentation. In the present paper we have used the Version 2017-3 for the evaluation of Red List species.

The Indian Wild Life (Protection) Act, 1972 was enacted to protect the flora and fauna of the country and established schedules of protected species under five different categories (Schedule I to IV, and VI), and one, that specifically permits hunting (Schedule V). Here we have identified the legal protected status of species as notified in Schedule I part III.

## Rarity evaluation

The rarity of species is a region specific concept; what is rare in a certain region might be common in another. In this paper, we consider a species to be rare if there are less than ten independently confirmed records from within the political boundaries of Goa, *post* 2000.

In this checklist we have followed the taxonomic order and species limits defined by Dickinson & Remsen (2013), and Dickinson & Christidis (2014). English names follow Praveen *et al.* (2016a).

Rasmussen & Anderton (2012) have elevated many regionally occurring subspecies to full species, which have not been accepted by all world authorities and hence, wherever applicable, we name the regionally occurring subspecies, with the alternate name in brackets, while readily identifiable subspecies are listed separately. All species that have been recorded from Goa till 31 December 2017 are considered. Species which are considered provisional, or unconfirmed, introduced, or escapees are not included in this checklist.

Results

## Results

The current checklist, of the birds of Goa, records 473 species of which 448 have been photographed, 232 have audio recordings of call/song, 160 have been examined in hand and deposited in museums across the world, 443 (Fig. 3) have been reported on eBird, and 121 (including recognisable sub-species) have been classified as rare records for Goa (Table 1).

Evaluation notes for certain species have been discussed below in two sections:

1. Species with photographs posted on social media, or personal blogs, or in private collections that were made available to us for scrutiny,
2. Species that have not gained automatic entry into the checklist based on the criteria set above.

A second list (Appendix A) includes species that have no indubitable records from Goa. Records from Desai & Shanbhag (2007) have not been discussed as the veracity of their records, like the Himalayan residents: Streaked Spiderhunter *Arachnothera magna*, and White-hooded Babbler *Gampsorhynchus rufulus*, and the highly dubious records of the Vulnerable White-

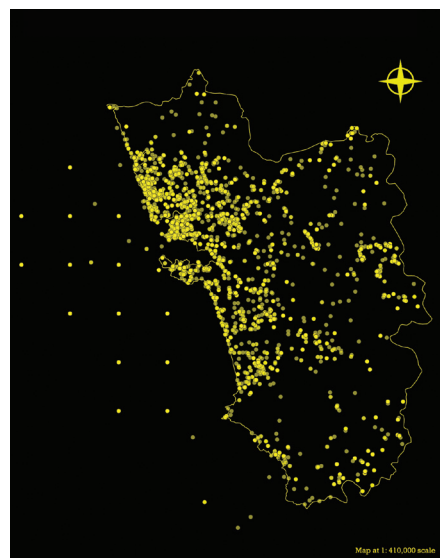


Fig. 2. Location of every checklist submitted from Goa on eBird as of September 2017

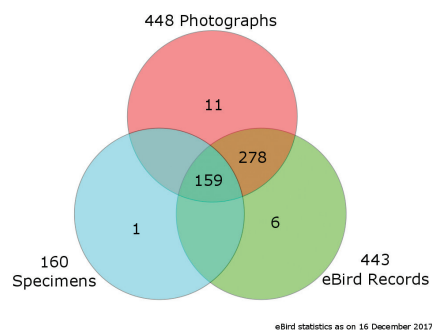


Fig. 3. Overview of species documentation from Goa



naped Tit *Machlolophus nuchalis*, and Yellow-throated Bulbul *Pycnonotus xantholaemus*, away from their known ranges, seem improbable, and hence, all the species they treat as additions to the checklist of the birds of Goa remain unacceptable, and we recommend future workers to treat the above mentioned publication with caution.

### Species accepted on the basis of media that are not available in OBI, eBird, or BoG

#### Tufted Duck *Aythya fuligula*

Pareesh Gosavi (P. Gosavi, *in litt.*, e-mail dated 21 March 2017) photographed a single bird [7] at Carambolim-Dhado Important Bird Area (*henceforth*, IBA) on 21 January 2010.



Pareesh Gosavi

7. Tufted Duck.

#### Yellow-legged Green Pigeon *Treron phoenicopterus*

Single individual photographed in Netravali Wildlife Sanctuary by Justino Rebello in November 2017 and posted on social media (Rebello 2017), and an older photograph from 01 May 2016 by Pravin V. Kinnerkar at Cotigao Wildlife Sanctuary and posted on social media (Kinnerkar 2016).

#### Common Swift *Apus apus*

Conrad Pinto and Eveny Luis rescued and photographed a single bird [8] at Aldona on 07 August 2014. Photographs posted on social media (Pinto 2015).



Conrad Pinto

8. Common Swift.

#### Brown Crake *Zapornia akool*

Justus Joshua photographed a single bird on 04 February 2016 from the backwaters of Selaulim reservoir, and shared the picture with us for confirmation.

#### Red-footed Booby *Sula sula*

Photographs published in Gandhe (2014).

#### Brown Booby *Sula leucogaster*

Photographs published in Gandhe (2014).

#### Great Cormorant *Phalacrocorax carbo*

This species has been reported from the state often, but without sufficient documentation. Though there have been many historical sightings of this species, including observations of attempted nesting (Lainer & Alvares 2013), none of the recent sightings held up to scrutiny, and turned out to be misidentified Indian Cormorant *P. fuscicollis*. However, a few photographs do exist, like the one by Graham Ekins from Carambolim-Dhado IBA, taken on 26 October 2007 and posted on Flickr (Ekins 2007). Future reports of this species need to be evaluated carefully, with sufficient notes and photographs, to supplement observations.

#### Great Thick-knee *Esacus recurvirostris*

Seen and photographed by a group of visiting birders, including Paul Holt, Mark Newsome, and Lloyd Fernandes, at Santa Cruz wetland on 21 February 2004. Image accessed and verified from the blog of Mason *et al.* (2017).

#### Common Ringed Plover *Charadrius hiaticula*

Ante dated records of single birds, or pairs, were mostly recorded by visiting birders. A photograph by James Walford from 19 December 1996, was made available through Mark Newsome (Newsome M., *in litt.*, e-mail dated 03 March 2017). Present status of this species is not known since no recent reports from the state exist.

#### Yellow-legged Buttonquail *Turnix tanki*

Scattered records from across the state mostly by visiting birders. Lauri Mäenpää (2014) photographed one at Backwoods Camp on 14 February 2004. Recent records from Morjim Beach (Dharwadkar 2017).

#### Lesser Black-backed (Baltic) Gull *Larus fuscus fuscus*

See Williams & Gottschling (2018) on p. 32 in this issue.

#### Egyptian Vulture *Neophron percnopterus*

A group of birders photographed a single individual [9] at Goa University on 30 September 2015 (Pal 2015). A recent sighting of a juvenile individual, from Ponda, is by Kedar Marathe on 17 November 2017 and photographs shared with us (K. Marathe, *in litt.*, e-mail dated 17 December 2017).



9. Egyptian Vulture.

Kedar Marathe

### Tawny Eagle *Aquila rapax*

Several sight records with varying degrees of documentation on eBird and social media. Most of the recent records comprise the misidentified *fulvescens* morph of the Greater Spotted Eagle *Clanga clanga*. Good documentation of this species is present in Paul Doherty's video guide, made available to us by Mark Newsome (Mark Newsome, *in litt.*, e-mail dated 03 March 2017). This species is a rarity for the state and all future records must be supplemented with good notes and media documentation to carefully eliminate confusion with the Greater Spotted Eagle.

### Pied Harrier *Circus melanoleucos*

A regular visitor to the state in the past (Lainer & Alvares 2013; Qupeleio DeSouza, *verbally*, 23 March 2017). However, it seems that sightings have gone down in the state in the last decade. Tim Sexton (2010) videographed an adult male at Baga in 2005.

### Yellow-breasted Bunting *Schoeniclus aureoles*

Not been listed in Lainer & Alvares (2013), but has been observed, in the past, by visiting birders (Mark Newsome *verbally* 01 March 2017). Hans Henrik Bay photographed it on Divar Island on 13 February 2015 and uploaded on social media (Bay 2015).

### Dark-sided Flycatcher *Muscicapa sibirica*

An under-recorded migrant, mostly comprising historical records by visiting birders. Roy Harvey (2004: 4/4 pics) photographed it at Backwoods Camp on 02 January 2004, as did Jukka Hatva (2005), on 01 February 2005.

### Isabelline Wheatear *Oenanthe isabellina*

A rare visitor, photographed by Mark Newsome at Divar Island on 26 August 2002 (M. Newsome, *in litt.*, e-mail dated 03 March 2017).

### Orange-headed Thrush *Geokichla citrina citrina*

Photographed [10] by Omkar Dharwadkar at Cotigao Wildlife Sanctuary on 18 February 2017. (O. Dharwadkar, *in litt.*, e-mail dated 18 December 2017).



Omkar Dharwadkar

10. Orange-headed Thrush.

### Species accepted on the basis of field notes

#### Marbled Teal *Marmaronetta angustirostris*

Heniz Lainer, Blaise Humbert-Droz, and Nick Manville reported

sighting two individuals at Batim Lake, amongst a big flock of other ducks, on 13 April 2016 (Lainer 2016). Ronit Dutta (2016) also reported spotting two birds there on 15 April 2016. Though superficially like a female Garganey *Spatula querquedula*, this species is quite distinct, and as Lainer notes, 'sticks out like a sore thumb', hence an error in its identification is unlikely. An untraceable record is listed by Newsome (2005). We accept this species into the Goa list based on the above sightings, which were supported with sufficient field notes.

### Great Crested Grebe *Podiceps cristatus*

Heinz Lainer and Gordon Frost saw a single bird, in eclipse plumage, in 2008 (Lainer & Alvares 2013). This could well have been a stray bird. This species is so distinctive that it cannot be mistaken for any other (Mark Newsome, *pers., comm.*, 03 March 2017; J. DeSouza, *in litt.*, e-mail dated 23 March 2017). Based on this assessment, we accept this species into the Goa list.

### Lesser Florican *Sypheotides indicus*

Hannu Jannes and Qupeleio DeSouza spotted a single female at Divar Island on 06 December 2007, when it was flushed by some locals. The bird flew in a half circle, giving good views to them, before settling into the grasses. There have been two recent sighting claims from neighbouring states: one from Karwar, Karnataka, on December 2016 (Revankar 2017), and the other from Vasai, Maharashtra, on social media (Prabhulkar 2017). The photographs of the Vasai individual were not good enough to identify the species conclusively, while the Karwar record was identified conclusively. At Hubballi, Karnataka, a female was rescued on 17 November 2017 (Jamakhandi 2017), and one was photographed at Hesarghatta, Karnataka (Raghavendra 2012). There are several historical records of this species from neighbouring Karnataka (Raghavendra 2012), and Maharashtra (Prasad 2004, 2006). This endangered, endemic bustard (Otididae) of the Indian Subcontinent was once very common, and widely distributed across the country. However, in recent years their population has declined rapidly (Sankaran *et al.*, 1992; Sankaran 1995; BirdLife International 2001b). Based on this sighting of a well-seen bird by experienced observers, we include this species into the checklist.

### Long-toed Stint *Calidris subminuta*

Paul Willoughby observed two adults and one juvenile at Siolim on 22 November 2008 (Newsome 2008), two individuals observed by Mark Newsome and Paul Holt at Santa Cruz in November 2000, identified based on long yellow legs, well defined supercilium and absence of shoulder projection and an overall erect posture differentiating it from Temminck's Stint *C. temminckii* (Newsome M., *in litt.*, e-mail dated 03 March 2017). Unspecified number of individuals observed by Paul Holt and Killian Mullaney in 1997. We accept this species to the checklist based on the two well documented sightings from 2008 and 2000 by experienced observers.

### Buff-breasted Sandpiper *Calidris subruficollis*

Rick Heil, and five other birders spotted a single individual on 18 November 2000 and made detailed field notes (Holt & Heil 2003).



### Jack Snipe *Lymnocyrtes minimus*

On 15 March 2013, a single individual was observed in the paddy fields of Navelim wetland adjoining the forest patch of Kudnem village by Heinz Lainer, Pronoy Baidya, and Harshada Gauns. It was easily identified due to its small size and bill in comparison to the three Common Snipe *Gallinago gallinago* which were seen earlier. The unique supercilium, which is a thick buffy stripe with a thinner brown stripe inside the thicker stripe, was also observed clearly. Three other records are listed in Lainer & Alvares (2013). There are many sightings of this species from southern India, and it is probably overlooked in Goa. We accept this species into the checklist based on all the sight records presented above.

### Little Gull *Hydrocoloeus minutus*

A single individual was observed by Paul Holt in Morjim in 22 November 2014, followed by the sighting by Qupeleio DeSouza & Jennifer DeSouza at the same location on 28 November 2014 (J. DeSouza, *in litt.*, e-mail dated 23 March 2017). The gull was identified based on its small size in comparison to Black-headed Gulls *Chroicocephalus ridibundus*, and Brown-headed Gulls *Chroicocephalus brunnicephalus*, which were around it. Its black beak, blackish colouration to the rear of the crown, and reddish legs helped in its field identification, and in separating it from Black-legged Kittiwake *Rissa tridactyla* (Qupeleio DeSouza, *verbally*, 23 March 2017).

### Franklin's Gull *Leucophaeus pipixcan*

A single individual in winter plumage was seen thrice, at different times of the day, on 12 November 2012 from the mouth of the Chapora River at Morjim, Pernem (Holt *et al.* 2014). Based on this record, Praveen *et al.* (2014) have included this species in the India Checklist.

### White-winged Tern *Chlidonias leucopterus*

First recorded by Paul Willoughby in March 1993, followed by 19 documented sightings (Lainer & Alvares 2013). Mark Newsome reports three from Divar Island on 26 August 2002, of which one was an adult in breeding plumage, making it easy to identify the species (Newsome M., *in litt.*, e-mail dated 03 March 2017), while Anand Prasad reports nine from Chapora Estuary between September and October 2003 (Prasad 2005). This species could well be a scarce passage migrant to the state and has been accepted to the list based on multiple observations from experienced birders.

### Black-bellied Tern *Sterna acuticauda*

Mark Newsome, David Stanton, and Lloyd Fernandes recorded a single bird from Divar Island on August 2002. They also took a distant record shot of this bird, but not of the best quality. From the photograph, the black cap, greyish belly, and longish orange-yellow beak, are clearly visible. Breeding plumage Whiskered-terns *Chlidonias hybrida* and River Terns *Sterna aurantia* were easily eliminated as the observers are familiar with these species (Mark Newsome, *verbally*, 14 November 2017). There are also historical sight records from Goa (Lainer & Alvares 2013).

### Black Baza *Aviceda leuphotes*

PB spotted a single bird was seen in the lower abandoned fields

at the crest of the Chorla-Surla table top in Mhadei Wildlife Sanctuary on 20 January 2015. It was very shy and kept darting into foliage, but was easily identified by its small size, prominent black head with the crest, white upper belly, and rufous-barred lower belly. Lainer & Alvares (2013) list five sightings from the Western Ghats region of the state between 1987 and 1999. This is a unique species cannot be confused with any other bird in the field. Based on this we accept this species into the checklist.

### Indian Vulture *Gyps indicus*

There are multiple historical records of this species from the state (Lainer & Alvares 2013). There are also breeding records from 2003 and 2004, when four active nests were observed at Chorla Ghat (Parag Rangnekar, *verbally*, 12 April 2017). There are no recent records and probably the species has gone locally extinct. Based on well-documented breeding records, and multiple historical records of this species, we accept this into the checklist.

### Eastern Imperial Eagle *Aquila heliaca*

Three sight records exist. Hannu Jannes observed a juvenile at Santa Cruz on 29 November 2000 (Newsome M., *in litt.*, e-mail dated 03 March 2017). Heinz Lainer and Gordon Frost observed a single adult at Saligao on 11 November 2005 (Lainer & Alvares 2013). Qupeleio DeSouza spotted a single adult at Morjim on 16 January 2012, and identified by its large size, distinct golden-brown crown and nape, and white shoulder patches (J. DeSouza, *in litt.*, e-mail dated 23 March 2017). This species is accepted here based on these three records.

### Long-legged Buzzard *Buteo rufinus*

It is not easy to separate the Long-legged Buzzard from the Common Buzzard *B. buteo*, and this has been a source of confusion for conclusive identification of this species in the past (Lainer & Alvares 2013). Anand Prasad observed two birds, an adult, and an immature, on 16 February 1999, and 09 March 1999 between Candolim, and Nerul bridge (Prasad 1999) which he later retracted (Prasad A., *in litt.*, e-mail dated 18 November 2017). Mark Newsome recorded two birds from Baga on 24 November 2000 and Saligao on 20 November 2008, with field documentation and sketches that eliminated Common Buzzard; based on the well-defined black carpal patch, a long hand, and very pointed wing tips (Newsome M., *in litt.*, e-mail dated 18 November 2017). Despite the confusion mentioned above, we accept this species into the checklist based on Mark Newsome's field notes.

### Laggar Falcon *Falco jugger*

Multiple records between 1993 and 2003 (Lainer & Alvares 2013). Mark Newsome records three different birds in 1993, 1998, and 2001 from Baga, Choroa, and Carambolim-Dhado IBA. Newsome noted that the birds were the size of a Peregrine Falcon *F. peregrinus*, with mild-brown upperparts, and blotchy brown streaked underparts. He differentiated it from the Peregrine based on his experience with the latter in Europe (Mark Newsome, *in litt.*, e-mail dated 14 November 2017). There are about 13 more sight records from visiting birders between 1993 to 2000, but their veracity could not be checked. There are various records of this species, from peninsular India, on eBird, with the southernmost record being from Tirunelveli, Tamil Nadu. However, there

have been no recent sightings from the state, possibly indicating that this species is a scarce and largely unrecorded stray in the state, or has retracted its range in recent years. We accept this species into the list based on various sightings from the state by experienced observers.

#### **Ashy/Swinhoe's Minivet *Pericrocotus divaricatus/cantonensis***

Three records exist: those of Carl D'Silva on 07 January 1995 from Colem (Harris 1996), Paul Holt in November 1997 from Fort Aguada, and Mark Dennis in 1999 from Backwoods Camp (Lainer & Alvares 2013). However, it is unclear as to how the similar looking Swinhoe's Minivet *P. cantonensis*, which has also been reported from peninsular India, was excluded during field identification. Due to this confusion about the specific identity of the two birds, we accept this species record with a 'slash', a technique commonly employed in eBird for reporting species that can be difficult to identify in the field until the records of either, or both, are established firmly.

#### **Bimaculated Lark *Melanocorypha bimaculate***

Loven Pereira spotted a single bird in a flock of Greater Short-toed Larks *Calandrella brachydactyla* on Divar Island in January 2015. It was subsequently seen again on 25 January 2015 by a group of four birders (PB, Mandar Bhagat, Ronit Dutta, and Harshada Gauns) at the same location. This species was identified and differentiated, from the Greater Short-toed Lark, by the following features: over-all large size, heavy longish bill, and a dark and broad breast band that is almost complete when compared to the short and incomplete breast band in the Greater short-toed Lark.

#### **Northern House Martin *Delichon urbicum***

A widespread, yet scarce, winter visitor to peninsular India, with several reports from the Western Ghats on eBird. A recent record is from nearby Kaiga, on 17 December 2016. There are several historical sightings of this species from Goa (Lainer & Alvares 2013). However, it has not been reported in recent years by resident birders. It is highly possible that this species has become scarce in recent years in Goa. All historical sightings, several by experienced European birdwatchers, provide sufficient credibility to records from the state and hence it is accepted into the checklist.

#### **Chestnut-bellied Nuthatch (Indian Nuthatch) *Sitta castanea***

There have been multiple records of this species from 1984 to 2000 (Lainer & Alvares 2013), mostly from Bhagwan Mahavir Wildlife Sanctuary. But its population seems to have suddenly retracted, with almost no confirmed sightings in the past ten years. However, records exist from neighbouring Dandeli, and Castlerock, in Karnataka. Based on multiple sightings up till 2002, we accept this species into the checklist.

#### **Common Starling *Sturnus vulgaris***

One bird observed within a flock of Chestnut-tailed Starlings *Sturnia malabarica* and Jungle Mynas *Acridotheres fuscus* on 28 November 2000 by Mark Newsome (Newsome M., *in litt.*, e-mail dated 03 March 2017). This is a distinct species, and

cannot be confused with any other species. This is a very rare and sporadic winter straggler to peninsular India (Rasmussen & Anderton 2012).

#### **Pied Wheatear *Oenanthe pleschanka***

Newsome (2017) recorded a bird in Fort Aguada on 28 October 2001.

#### **Eyebrowed Thrush *Turdus obscurus***

A solitary female was observed foraging in the understory by Qupeleio DeSouza on 28 November 2007. Its identification was based on the prominent supercilium, brown crown and nape, dark brown ear-coverts, and dull orange breast. This is a distinct species and cannot be confused by any other species.

#### **Discussion**

Of the 473 species accepted in the Goa list, 451 (95%) are validated either by museum specimens, or photographs (Karnataka 98%, Kerala 96%). A mere 34% of all species reported from Goa have specimen based evidence, while until 1978, just 44% of the birds in the Goa checklist had been listed for Goa, whether as specimens, or sight records (Saha & Dasgupta 1992), which indicates the growth of ornithology in Goa post 1980, thanks to the state being a favourite birding destination for well known visiting birders, the efforts of Heinz Lainer, and in recent years, that of local birders. About 94% of Goa's birds are listed on eBird, while 95% of the birds have been photographed at least once, within the state. This documentation, however, is more biased towards the coastal regions of the state and some well-known birding hotspots established over the years, while most of the middle highlands, and Western Ghats regions (Fig. 2), remain unexplored—a lacuna which should be filled in the coming years by more birders visiting these less-birded areas and through collaborative bird monitoring programmes with the Goa Forest Department.

#### **Threatened species**

Goa has 19 species which fall under the various categories of the IUCN Red List of Threatened Species (Table 2), of which three are Critically Endangered (CR), five are Endangered (EN), and 11 are Vulnerable (VU). An additional 26 species are listed as Near Threatened (NT). 48 species fall under the Schedule I Part III of The Wild Life (Protection) Act, 1972. Only two species that are under Schedule I (Part III) are listed as CR: White-rumped Vulture *G. bengalensis* and Indian Vulture. Steppe Eagle *A. nipalensis*, Lesser Florican, and Egyptian Vulture are under Schedule I (Part III) and listed as EN, while Indian Spotted Eagle *C. hastata*, Greater Spotted Eagle, and Eastern Imperial Eagle *A. heliaca* are listed in Schedule I (Part III), identified as VU. There are an additional six species which are in Schedule I (Part III) listed as NT: Himalayan Vulture *G. himalayensis*, Pallid Harrier *C. macrourus*, Grey-headed Fish Eagle *Ichthyophaga ichthyaetus*, Great Hornbill *Buceros bicornis*, Malabar Pied Hornbill *Anthraceroceros coronatus*, and Red-necked Falcon *F. chicquera*.

#### **Endemism**

Eleven species reported from Goa, are endemic to the Western Ghats (Table 2), while neighbouring Karnataka has 17, which



can be attributed to the few southern Western Ghats endemics found in Karnataka. Apart from the 11, six endemic races of the Western Ghats, found in Goa, are sometimes treated as full species (Rasmussen & Anderton 2012; del Hoyo *et al.* 2016). It should be noted that the local race of the Collared Kingfisher

*Todiramphus chloris vidali* has a narrow distribution in coastal western India, from south-western Maharashtra (Ratnagiri), southwards through Goa (Woodall 2017), with no records from Karnataka (Praveen 2016b), and hence, would qualify as a full endemic if this subspecies complex is split in the future.

Table 1. Checklist of birds of Goa

ZSI: Saha & Dasgupta (1992); BNHS: Grubb & Ali (1975); Oth. : Yale Peabody Museum, National Museum of Natural History, and Royal Ontario Museum; OBI: Oriental Bird Images; BoG: Goa Bird Conservation Network Website; eRM: eBird Rich Media; XC: Xeno Canto; eBD: eBird

Sl. No.	Species	Museum Specimens				Media			eBD	Rarity
		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
I. Anseriformes										
1. Anatidae (Ducks, geese, swans)										
1	Lesser Whistling Duck <i>Dendrocygna javanica</i>					X	X	X	X	
2	Bar-headed Goose <i>Anser indicus</i>					X	X		X	X
3	Common Shelduck <i>Tadorna tadorna</i>				X		X		X	X
4	Ruddy Shelduck <i>Tadorna ferruginea</i>					X	X	X	X	
5	Marbled Teal <i>Marmaronetta angustirostris</i>								X	X
6	Common Pochard <i>Aythya ferina</i>						X		X	
7	Ferruginous Duck <i>Aythya nyroca</i>					X	X		X	X
8	Tufted Duck <i>Aythya fuligula</i> §									X
9	Garganey <i>Spatula querquedula</i>					X	X	X	X	
10	Northern Shoveler <i>Spatula clypeata</i>						X	X	X	
11	Falcated Duck <i>Mareca falcata</i>						X		X	X
12	Gadwall <i>Mareca strepera</i>					X	X		X	X
13	Eurasian Wigeon <i>Mareca penelope</i>					X			X	
14	Indian Spot-billed Duck <i>Anas poecilorhyncha</i>					X	X		X	
15	Northern Pintail <i>Anas acuta</i>					X	X	X	X	
16	Common Teal <i>Anas crecca</i>					X	X		X	
17	Comb Duck <i>Sarkidiornis melanotos</i>					X	X		X	
18	Cotton Teal <i>Nettapus coromandelianus</i>					X	X	X	X	
II. Galliformes										
2. Phasianidae (partridges, pheasants, grouse)										
19	Indian Peafowl <i>Pavo cristatus</i>					X	X	X	X	
20	Rain Quail <i>Coturnix coromandelica</i>						X	X	X	
21	Jungle Bush Quail <i>Perdica asiatica</i>				X	X	X		X	
22	Grey Junglefowl <i>Gallus sonneratii</i>	X			X	X	X	X	X	
23	Red Spurfowl <i>Galloperdix spadicea</i>					X	X	X	X	
III. Phoenicopteriformes										
3. Phoenicopteridae (flamingos)										
24	Greater Flamingo <i>Phoenicopterus roseus</i>					X	X		X	X
4. Podicipedidae (grebes)										
25	Little Grebe <i>Tachybaptus ruficollis</i>					X	X	X	X	
26	Great Crested Grebe <i>Podiceps cristatus</i>									X
IV. Columbiformes										
5. Columbidae (pigeons)										
27	Rock Pigeon <i>Columba livia</i>	X				X	X	X	X	
28	Nilgiri Wood Pigeon <i>Columba elphinstonii</i>	X	X		X	X	X		X	
29	Oriental Turtle Dove <i>Streptopelia orientalis</i>					X	X		X	
30	Eurasian Collared Dove <i>Streptopelia decaocto</i>	X				X	X		X	
31	Red Collared Dove <i>Streptopelia tranquebarica</i>					X	X		X	

§- Photographs available for species on social media and bird tour blogs, personal collections and other published works, see text for more detailed notes.

Sl. No.	Species	Museum Specimens				Media			eBD	Rarity
		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
32	(Western) Spotted Dove <i>Streptopelia surattensis</i>	X				X	X	X	X	
33	Laughing Dove <i>Streptopelia senegalensis</i>						X			X
34	Orange-breasted Green Pigeon <i>Treron bicinctus</i>	X			X	X	X	X	X	
35	Pompadour Green Pigeon (Grey-fronted Green Pigeon) <i>Treron pompadora affinis</i>	X	X		X	X	X	X	X	
36	Yellow-legged Green Pigeon <i>Treron phoenicopterus</i> §									X
37	Emerald Dove <i>Chalcophaps indica</i>	X				X	X	X	X	
38	Green Imperial Pigeon <i>Ducula aenea</i>				X	X	X	X	X	
39	Mountain Imperial Pigeon (Nilgiri Imperial Pigeon) <i>Ducula badia cuprea</i>	X			X	X	X	X	X	
V. Phaethontiformes										
6. Phaethontidae (tropicbirds)										
40	Red-billed Tropicbird <i>Phaethon aethereus</i>				X	X	X		X	X
VI. Caprimulgiformes										
7. Podargidae (frogmouths)										
41	Sri Lanka Frogmouth <i>Batrachostomus moniliger</i>				X	X	X	X	X	
8. Caprimulgidae (nightjars)										
42	Grey Nightjar (Jungle Nightjar) <i>Caprimulgus indicus indicus</i>	X	X		X	X	X	X	X	
43	Jerdon's Nightjar <i>Caprimulgus atripennis</i>		X		X	X	X	X	X	
44	Indian Nightjar <i>Caprimulgus asiaticus</i>					X			X	X
45	Savanna Nightjar <i>Caprimulgus affinis</i>	X				X	X	X	X	
9. Apodidae (swifts)										
46	Crested Treeswift <i>Hemiprocne coronata</i>	X				X	X	X	X	
47	White-rumped Spinetail <i>Zoonavena sylvatica</i>		X			X	X		X	
48	Brown-backed Needletail <i>Hirundapus giganteus</i>					X	X		X	
49	Indian Swiftlet <i>Aerodramus unicolor</i>						X		X	
50	Asian Palm Swift <i>Cypsiurus balasensis</i>					X	X		X	
51	Alpine Swift <i>Tachymarpis melba</i>					X	X		X	
52	Pacific Swift (Blyth's Swift) <i>Apus leuconyx</i>					X	X		X	X
53	Indian House Swift <i>Apus affinis</i>					X	X	X	X	
54	Common Swift <i>Apus apus</i> §								X	X
VII. Cuculiformes										
10. Cuculidae (cuckoos)										
55	Greater Coucal <i>Centropus sinensis</i>	X	X		X	X	X	X	X	
56	Sirkeer Malkoha <i>Taccocua leschenaultii</i>					X	X		X	X
57	Blue-faced Malkoha <i>Phaenicophaeus viridirostris</i>	X			X	X	X		X	
58	Pied Cuckoo <i>Clamator jacobinus</i>			X	X	X	X	X	X	
59	Asian Koel <i>Eudynamis scolopacea</i>	X	X	X	X	X	X	X	X	
60	Banded Bay Cuckoo <i>Cacomantis sonneratii</i>				X	X	X	X	X	
61	Grey-bellied Cuckoo <i>Cacomantis passerinus</i>				X	X	X	X	X	
62	(Fork-tailed) Drongo Cuckoo <i>Surniculus lugubris dicruroides</i>				X	X	X	X	X	
63	Large Hawk Cuckoo <i>Hierococcyx sparverioideus</i>				X	X			X	X
64	Common Hawk Cuckoo <i>Hierococcyx varius</i>	X			X	X	X	X	X	
65	Indian Cuckoo <i>Cuculus micropterus</i>					X			X	X
66	Common Cuckoo <i>Cuculus canorus</i>				X	X	X		X	
67	Lesser Cuckoo <i>Cuculus poliocephalus</i>	X				X	X		X	X
VIII. Gruiformes										
11. Rallidae (rails and coots)										
68	Slaty-legged Crane <i>Rallina eurizonoides</i>				X	X		X	X	
69	Western Water Rail <i>Rallus aquaticus</i>				X	X	X		X	X
70	Slaty-breasted Rail <i>Lewinia striata</i>				X	X	X		X	

§- Photographs available for species on social media and bird tour blogs, personal collections and other published works, see text for more detailed notes.



Sl. No.	Species	Museum Specimens				Media			eBD	Rarity
		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
71	Spotted Crane <i>Porzana porzana</i>						X		X	X
72	Ruddy-breasted Crake <i>Zapornia fusca</i>					X	X		X	
73	Brown Crake <i>Zapornia akool</i> §									X
74	Baillon's Crake <i>Zapornia pusilla</i>				X	X	X		X	
75	White-breasted Waterhen <i>Amaurornis phoenicurus</i>	X		X	X	X	X	X	X	
76	Watercock <i>Gallicrex cinerea</i>				X	X	X	X	X	
77	Purple Swampphen <i>Porphyrio porphyrio</i>				X	X	X	X	X	
78	Common Moorhen <i>Gallinula chloropus</i>					X	X		X	
79	Common Coot <i>Fulica atra</i>					X	X		X	
	IX. Otidiformes									
	12. Otididae									
82	Lesser Frigatebird <i>Sypheotides indicus</i>									X
	X. Procellariiformes									
	13. Oceanitidae (Austral storm-petrels)									
81	Wilson's Storm-petrel <i>Oceanites oceanicus</i>				X	X	X		X	
	14. Hydrobatidae (Northern storm-petrels)									
82	Swinhoe's Storm-petrel <i>Hydrobates monorhis</i>				X	X	X		X	X
	15. Procellariidae (petrels & shearwaters)									
83	Flesh-footed Shearwater <i>Ardenna carneipes</i>						X		X	X
84	Tropical Shearwater (Persian Shearwater) <i>Puffinus bailloni persicus</i>				X	X	X		X	X
	XI. Pelecaniformes									
	16. Ciconiidae (storks)									
85	Lesser Adjutant <i>Leptoptilos javanicus</i>				X	X	X		X	
86	Painted Stork <i>Mycteria leucocephala</i>				X	X	X		X	
87	Asian Openbill <i>Anastomus oscitans</i>					X	X		X	
88	Black Stork <i>Ciconia nigra</i>					X			X	X
89	Woolly-necked Stork <i>Ciconia episcopus</i>				X	X	X		X	
90	European White Stork <i>Ciconia ciconia</i>					X	X		X	
	17. Pelecanidae (pelicans)									
91	Spot-billed Pelican <i>Pelecanus philippensis</i>					X	X		X	X
	18. Ardeidae (herons)									
92	Yellow Bittern <i>Ixobrychus sinensis</i>					X	X		X	
93	Cinnamon Bittern <i>Ixobrychus cinnamomeus</i>				X	X	X		X	
94	Black Bittern <i>Ixobrychus flavicollis</i>					X			X	X
95	Malayan Night Heron <i>Gorsachius melanolophus</i>				X	X	X		X	
96	Black-crowned Night Heron <i>Nycticorax nycticorax</i>				X	X	X		X	
97	Striated Heron <i>Butorides striata</i>				X	X	X	X	X	
98	Indian Pond Heron <i>Ardeola grayii</i>	X			X	X	X	X	X	
99	(Eastern) Cattle Egret <i>Bubulcus ibis coromandus</i>					X	X	X	X	
100	Grey Heron <i>Ardea cinerea</i>					X	X		X	
101	Purple Heron <i>Ardea purpurea</i>				X	X	X	X	X	
102	(Eastern) Great Egret <i>Ardea alba modesta</i>				X	X	X	X	X	
103	Intermediate Egret <i>Ardea intermedia</i>				X	X	X	X	X	
104	Little Egret <i>Egretta garzetta</i>				X	X	X	X	X	
105	Western Reef Egret <i>Egretta gularis</i>				X	X	X		X	
	19. Threskiornithidae (ibises)									
106	Black-headed Ibis <i>Threskiornis melanocephalus</i>				X	X	X		X	
107	Eurasian Spoonbill <i>Platalea leucorodia</i>					X	X		X	
108	Indian Black Ibis <i>Pseudibis papillosa</i>					X	X		X	X
109	Glossy Ibis <i>Plegadis falcinellus</i>					X	X	X	X	

§- Photographs available for species on social media and bird tour blogs, personal collections and other published works, see text for more detailed notes.

Sl. No.	Species	Museum Specimens				Media			eBD	Rarity
		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
20. Fregatidae (frigatebirds)										
110	Lesser Frigatebird <i>Fregata ariel</i>				X	X	X		X	X
21. Sulidae (gannets and boobies)										
111	Red-footed Booby <i>Sula sula</i> §									X
112	Brown Booby <i>Sula leucogaster</i> §									X
113	Masked Booby <i>Sula dactylatra</i>				X	X	X		X	
22. Phalacrocoracidae (cormorants)										
114	Little Cormorant <i>Microcarbo niger</i>				X	X	X		X	
115	Great Cormorant <i>Phalacrocorax carbo</i> §								X	X
116	Indian Cormorant <i>Phalacrocorax fuscicollis</i>				X	X			X	
23. Anhingidae (darters)										
117	Oriental Darter <i>Anhinga melanogaster</i>				X	X	X		X	
XII. Charadriiformes										
24. Burhinidae (thick-knees)										
118	Eurasian Thick-knee (Indian Thick-knee) <i>Burhinus oedicnemus indicus</i>				X	X	X		X	
119	Great Thick-knee <i>Esacus recurvirostris</i> §								X	X
25. Haematopodidae (oystercatchers & ibisbill)										
120	Eurasian Oystercatcher <i>Haematopus ostralegus</i>					X	X	X	X	
26. Recurvirostridae (stilts and avocets)										
121	Pied Avocet <i>Recurvirostra avosetta</i>					X			X	X
122	Black-winged Stilt <i>Himantopus himantopus</i>					X	X	X	X	
27. Charadriidae (plovers & lapwings)										
123	Grey Plover <i>Pluvialis squatarola</i>				X	X	X		X	
124	Pacific Golden Plover <i>Pluvialis fulva</i>				X	X	X	X	X	
125	Common Ringed Plover <i>Charadrius hiaticula</i> §								X	X
126	Little Ringed Plover <i>Charadrius dubius</i>					X	X		X	
127	Kentish Plover <i>Charadrius alexandrinus</i>	X			X	X	X	X	X	
128	Lesser Sand Plover <i>Charadrius mongolus</i>				X	X	X	X	X	
129	Greater Sand Plover <i>Charadrius leschenaultii</i>				X	X	X		X	
130	Caspian Plover <i>Charadrius asiaticus</i>				X	X			X	X
131	Yellow-wattled Lapwing <i>Vanellus malabaricus</i>	X			X	X	X	X	X	
132	Grey-headed Lapwing <i>Vanellus cinereus</i>				X	X	X		X	X
133	Red-wattled Lapwing <i>Vanellus indicus</i>	X				X	X	X	X	
134	White-tailed Lapwing <i>Vanellus leucurus</i>				X	X	X		X	X
28. Rostratulidae (painted-snipe)										
135	Greater Painted-snipe <i>Rostratula benghalensis</i>			X	X	X	X		X	
29. Jacanidae (jacanas)										
136	Pheasant-tailed Jacana <i>Hydrophasianus chirurgus</i>					X	X	X	X	
137	Bronze-winged Jacana <i>Metopidius indicus</i>				X	X	X	X	X	
30. Scolopacidae (sandpipers)										
138	Whimbrel <i>Numenius phaeopus</i>				X	X	X		X	
139	Eurasian Curlew <i>Numenius arquata</i>				X	X	X	X	X	
140	Bar-tailed Godwit <i>Limosa lapponica</i>				X	X	X		X	
141	Black-tailed Godwit <i>Limosa limosa</i>					X	X		X	
142	Ruddy Turnstone <i>Arenaria interpres</i>				X	X	X		X	
143	Great Knot <i>Calidris tenuirostris</i>				X	X	X		X	
144	Ruff <i>Calidris pugnax</i>					X	X		X	
145	Broad-billed Sandpiper <i>Calidris falcinellus</i>					X	X		X	
146	Curlew Sandpiper <i>Calidris ferruginea</i>				X	X	X		X	
147	Temminck's Stint <i>Calidris temminckii</i>				X	X	X	X	X	
148	Long-toed Stint <i>Calidris subminuta</i>									X

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		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
149	Sanderling <i>Calidris alba</i>				X	X	X		X	
150	Dunlin <i>Calidris alpina</i>				X	X	X		X	
151	Little Stint <i>Calidris minuta</i>				X	X	X	X	X	
152	Buff-breasted Sandpiper <i>Calidris subruficollis</i>									X
153	Asian Dowitcher <i>Limnodromus semipalmatus</i>						X		X	X
154	Pintail Snipe <i>Gallinago stenura</i>	X				X	X	X	X	
155	Common Snipe <i>Gallinago gallinago</i>					X	X	X	X	
156	Jack Snipe <i>Lymnocyptes minimus</i>								X	X
157	Terek Sandpiper <i>Xenus cinereus</i>					X	X		X	
158	Common Sandpiper <i>Actitis hypoleucos</i>	X			X	X	X		X	
159	Green Sandpiper <i>Tringa ochropus</i>	X				X	X	X	X	
160	Spotted Redshank <i>Tringa erythropus</i>				X	X	X		X	
161	Common Greenshank <i>Tringa nebularia</i>					X	X	X	X	
162	Common Redshank <i>Tringa totanus</i>				X	X	X	X	X	
163	Wood Sandpiper <i>Tringa glareola</i>			X		X	X	X	X	
164	Marsh Sandpiper <i>Tringa stagnatilis</i>				X	X	X		X	
165	Red-necked Phalarope <i>Phalaropus lobatus</i>									X
31. Turnicidae (buttonquails)										
166	Yellow-legged Buttonquail <i>Turnix tanki</i> §								X	X
167	Barred Buttonquail <i>Turnix suscitator</i>					X	X		X	
32. Dromadidae (crab-plover)										
168	Crab-plover <i>Dromas ardeola</i>				X		X		X	X
33. Glareolidae (couriers and pratincoles)										
169	Oriental Pratincole <i>Glareola maldivarum</i>				X	X	X		X	X
170	Little Pratincole <i>Glareola lactea</i>				X	X	X		X	
34. Stercorariidae (skuas or jaegers)										
171	Arctic Skua <i>Stercorarius parasiticus</i>				X	X	X		X	
172	Pomarine Skua <i>Stercorarius pomarinus</i>					X	X		X	X
35. Laridae (gulls and terns)										
173	Brown Noddy <i>Anous stolidus</i>						X		X	X
174	Indian Skimmer <i>Rynchops albigollis</i>						X		X	X
175	Black-legged Kittiwake <i>Rissa tridactyla</i>				X	X	X		X	X
176	Slender-billed Gull <i>Chroicocephalus genei</i>				X	X	X		X	
177	Brown-headed Gull <i>Chroicocephalus brunnicephalus</i>	X			X	X	X	X	X	
178	Black-headed Gull <i>Chroicocephalus ridibundus</i>	X			X	X	X	X	X	
183	Little Gull <i>Hydrocoloeus minutus</i>									X
184	Franklin's Gull <i>Leucophaeus pipixcan</i>									X
185	Sooty Gull <i>Ichthyophaga hemprichii</i>					X	X		X	X
182	Pallas's Gull <i>Ichthyophaga ichthyophaga</i>	X			X	X	X		X	
183	Mew Gull <i>Larus canus</i>					X				X
184	Lesser Black-backed Gull <i>Larus fuscus</i>				X	X	X	X	X	
184a	Baltic Gull <i>Larus fuscus fuscus</i> §									X
184b	Heuglin's Gull <i>Larus fuscus heuglini</i>					S			S	
184c	Steppe Gull <i>Larus fuscus barabensis</i>					S				X
185	Sooty Tern <i>Onychoprion fuscatus</i>						X		X	X
186	Bridled Tern <i>Onychoprion anaethetus</i>				X	X	X	X	X	
187	Little Tern <i>Sternula albifrons</i>				X	X	X		X	
188	Gull-billed Tern <i>Gelochelidon nilotica</i>				X	X	X	X	X	
189	Caspian Tern <i>Hydroprogne caspia</i>					X	X	X	X	
190	Whiskered Tern <i>Chlidonias hybrida</i>					X	X		X	
191	White-winged Tern <i>Chlidonias leucopterus</i>									X

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		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
192	River Tern <i>Sterna aurantia</i>					X	X		X	
193	Roseate Tern <i>Sterna dougallii</i>				X	X	X	X	X	X
194	Common Tern <i>Sterna hirundo</i>				X	X	X	X	X	
195	White-cheeked Tern <i>Sterna repressa</i>				X	X	X		X	X
196	Black-bellied Tern <i>Sterna acuticauda</i>								X	X
197	Lesser Crested Tern <i>Thalasseus bengalensis</i>				X	X	X	X	X	
198	Sandwich Tern <i>Thalasseus sandvicensis</i>				X	X	X		X	
199	Greater Crested Tern <i>Thalasseus bergii</i>				X	X	X	X	X	
XIII. Accipitriformes										
36. Pandionidae (osprey)										
200	Osprey <i>Pandion haliaetus</i>				X	X	X		X	
37. Accipitridae (kites, hawks and eagles)										
201	Black-winged Kite <i>Elanus caeruleus</i>	X				X	X		X	
202	Oriental Honey Buzzard <i>Pernis ptilorhynchus</i>		X		X	X	X	X	X	
203	Black Baza <i>Aviceda leuphotes</i>								X	X
204	Egyptian Vulture <i>Neophron percnopterus</i> §								X	X
205	Crested Serpent Eagle <i>Spilornis cheela</i>		X		X	X	X	X	X	
206	Short-toed Snake Eagle <i>Circus gallicus</i>					X	X		X	
207	Himalayan Vulture <i>Gyps himalayensis</i>				X	X	X		X	X
208	White-rumped Vulture <i>Gyps bengalensis</i>					X			X	X
209	Indian Vulture <i>Gyps indicus</i>								X	X
210	Mountain Hawk Eagle (Legge's Hawk Eagle) <i>Nisaetus nipalensis kelaarti</i>					X	X		X	X
211	Changeable Hawk Eagle (Crested Hawk Eagle) <i>Nisaetus cirrhatus cirrhatus</i>				X	X	X	X	X	
212	Rufous-bellied Eagle <i>Lophotriorchis kienerii</i>					X	X		X	
213	Black Eagle <i>Ictinaetus malaiensis</i>				X	X	X		X	
214	Indian Spotted Eagle <i>Clanga hastata</i>					X	X		X	
215	Greater Spotted Eagle <i>Clanga clanga</i>				X	X	X	X	X	
216	Tawny Eagle <i>Aquila rapax</i> §									X
217	Steppe Eagle <i>Aquila nipalensis</i>				X	X			X	X
218	Eastern Imperial Eagle <i>Aquila heliaca</i>									X
219	Bonelli's Eagle <i>Aquila fasciata</i>						X		X	
220	Booted Eagle <i>Hieraetus pennatus</i>				X	X	X		X	
221	Western Marsh Harrier <i>Circus aeruginosus</i>				X	X	X	X	X	
222	Pallid Harrier <i>Circus macrourus</i>				X	X	X		X	
223	Pied Harrier <i>Circus melanoleucos</i> §									X
224	Montagu's Harrier <i>Circus pygargus</i>					X	X		X	
225	Crested Goshawk <i>Accipiter trivirgatus</i>	X			X	X	X		X	
226	Shikra <i>Accipiter badius</i>	X	X	X	X	X	X	X	X	
227	Besra <i>Accipiter virgatus</i>				X	X	X		X	
228	Eurasian Sparrowhawk <i>Accipiter nisus</i>					X	X		X	
229	White-bellied Sea Eagle <i>Haliaeetus leucogaster</i>				X	X	X	X	X	
230	Grey-headed Fish Eagle <i>Ichthyophaga ichthyaetus</i>				X	X	X		X	X
231	Brahminy Kite <i>Haliastur indus</i>				X	X	X	X	X	
232	Black Kite <i>Milvus migrans</i>				X	X	X	X	X	
232a	Black-eared Kite <i>Milvus migrans lineatus</i>					S	S		S	
233	White-eyed Buzzard <i>Butastur teesa</i>	X	X		X	X	X		X	
234	Common (Steppe) Buzzard <i>Buteo buteo vulpinus</i>				X	X	X		X	
235	Long-legged Buzzard <i>Buteo rufinus</i>									X
XIV. Strigiformes										
38. Tytonidae (barn owls)										

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		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
236	Bay Owl (Sri Lanka Bay Owl) <i>Phodilus badius ripleyi</i>					X			X	X
237	Common Barn Owl <i>Tyto alba</i>					X	X		X	
	39. Strigidae (owls)									
238	Brown Hawk Owl <i>Ninox scutulata</i>				X	X	X	X	X	
239	Jungle Owlet <i>Glaucidium radiatum</i>	X			X	X	X	X	X	
240	Spotted Owlet <i>Athene brama</i>			X		X	X	X	X	
241	Oriental Scops Owl <i>Otus sunia</i>				X	X		X	X	
242	Collared Scops Owl (Indian Scops Owl) <i>Otus bakkamoena bakkamoena</i>	X		X	X	X	X	X	X	
243	Short-eared Owl <i>Asio flammeus</i>				X	X	X		X	
244	Brown Wood Owl <i>Strix leptogrammica</i>				X	X	X	X	X	
245	Indian Eagle Owl <i>Bubo bengalensis</i>					X			X	X
246	Spot-bellied Eagle Owl <i>Bubo nipalensis</i>				X	X	X	X	X	
247	Brown Fish Owl <i>Ketupa zeylonensis</i>					X	X		X	
	XV. Trogoniformes									
	40. Trogonidae (trogons)									
248	Malabar Trogon <i>Harpactes fasciatus</i>	X	X		X	X	X	X	X	
	XVI. Bucerotiformes									
	41. Bucerotidae (hornbills)									
249	Great Hornbill <i>Buceros bicornis</i>				X	X	X	X	X	
250	Malabar Pied Hornbill <i>Anthraceroceros coronatus</i>		X		X	X	X	X	X	
251	Malabar Grey Hornbill <i>Ocyrceros griseus</i>	X	X		X	X	X	X	X	
252	Indian Grey Hornbill <i>Ocyrceros birostris</i>					X	X	X	X	
	42. Upupidae (hoopoes)									
253	Common Hoopoe <i>Upupa epops</i>	X	X		X	X	X		X	
	XVII. Piciformes									
	43. Picidae (woodpeckers)									
254	Eurasian Wryneck <i>Jynx torquilla</i>				X	X	X		X	
255	Speckled Piculet <i>Picumnus innominatus</i>				X	X	X		X	
256	Heart-spotted Woodpecker <i>Hemicircus canente</i>	X	X		X	X	X	X	X	
257	Common Golden-backed Woodpecker <i>Dinopium javanense</i>					X	X		X	
258	Lesser Golden-backed Woodpecker <i>Dinopium benghalense</i>	X	X	X	X	X	X	X	X	
259	Rufous Woodpecker <i>Micropternus brachyurus</i>	X	X		X	X	X	X	X	
260	Lesser Yellow-naped Woodpecker <i>Picus chlorolophus</i>					X	X		X	
261	White-bellied Woodpecker <i>Dryocopus javensis</i>				X	X	X	X	X	
262	Greater Golden-backed Woodpecker <i>Chrysocolaptes lucidus</i>	X	X			X	X	X	X	
263	White-naped Woodpecker <i>Chrysocolaptes festivus</i>				X	X	X	X	X	
264	Brown-capped Pygmy Woodpecker <i>Dendrocopos moluccensis</i>	X	X		X	X	X	X	X	
265	Yellow-fronted Pied Woodpecker <i>Dendrocopos mahrattensis</i>	X				X	X		X	
	44. Ramphastidae (toucans and barbets)									
266	Brown-headed Barbet <i>Psilopogon zeylanicus</i>	X	X			X	X	X	X	
267	White-cheeked Barbet <i>Psilopogon viridis</i>	X	X		X	X	X	X	X	
268	Malabar Barbet <i>Psilopogon malabaricus</i>	X	X		X	X	X	X	X	
269	Coppersmith Barbet <i>Psilopogon haemacephalus</i>	X		X	X	X	X	X	X	
	XVIII. Coraciiformes									
	45. Meropidae (bee-eaters)									
270	Blue-bearded Bee-eater <i>Nyctornis athertoni</i>	X			X	X	X	X	X	
271	Green Bee-eater <i>Merops orientalis</i>	X		X	X	X	X	X	X	
272	Chestnut-headed Bee-eater <i>Merops leschenaulti</i>	X	X		X	X	X		X	
273	Blue-tailed Bee-eater <i>Merops philippinus</i>	X			X	X	X	X	X	
274	Blue-cheeked Bee-eater <i>Merops persicus</i>									X
279	European Bee-eater <i>Merops apiaster</i>							X		X

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		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
280	Indian Roller <i>Coracias benghalensis</i>	X	X		X	X	X		X	
277	European Roller <i>Coracias garrulus</i>		X		X	X	X		X	
46. Alcedinidae (kingfisher)										
278	Oriental Dwarf Kingfisher <i>Ceyx erithaca</i>				X	X	X	X	X	
279	Blue-eared Kingfisher <i>Alcedo meninting</i>		X		X	X	X	X	X	
280	Common Kingfisher <i>Alcedo atthis</i>	X	X	X	X	X	X	X	X	
281	Pied Kingfisher <i>Ceryle rudis</i>				X	X	X	X	X	
282	Stork-billed Kingfisher <i>Pelargopsis capensis</i>	X		X	X	X	X	X	X	
283	White-throated Kingfisher <i>Halcyon smyrnensis</i>	X		X	X	X	X	X	X	
284	Black-capped Kingfisher <i>Halcyon pileata</i>			X	X	X	X	X	X	
285	Collared Kingfisher <i>Todiramphus chloris vidali</i>				X	X	X	X	X	
XIX. Falconiformes										
47. Falconidae (falcons and caracaras)										
286	Lesser Kestrel <i>Falco naumanni</i>						X		X	X
287	Common Kestrel <i>Falco tinnunculus</i>	X	X		X	X	X	X	X	
288	Red-necked Falcon <i>Falco chicquera</i>					X			X	X
289	Amur Falcon <i>Falco amurensis</i>				X	X	X		X	
290	Eurasian Hobby <i>Falco subbuteo</i>					X	X		X	
291	Laggar Falcon <i>Falco jugger</i>									X
292	Peregrine Falcon <i>Falco peregrinus</i>				X	X	X		X	
292a	Peregrine Falcon <i>Falco peregrinus calidus</i>					S	S		S	
292b	Shaheen Falcon <i>Falco peregrinus peregrinator</i>								S	
XX. Psittaciformes										
48. Psittaculidae (Old World parrots)										
293	Plum-headed Parakeet <i>Psittacula cyanocephala</i>	X	X		X	X	X	X	X	
294	Malabar Parakeet <i>Psittacula columboides</i>	X			X	X	X	X	X	
295	Alexandrine Parakeet <i>Psittacula eupatria</i>					X	X	X	X	
296	Rose-ringed Parakeet <i>Psittacula krameri</i>					X	X	X	X	
297	Vernal Hanging Parrot <i>Loriculus vernalis</i>	X			X	X	X	X	X	
XXI. Passeriformes										
49. Pittidae (pittas)										
298	Indian Pitta <i>Pitta brachyura</i>				X	X	X	X	X	
50. Campephagidae (minivets and cuckooshrikes)										
299	Small Minivet <i>Pericrocotus cinnamomeus</i>	X	X	X	X	X	X	X	X	
300	Scarlet Minivet (Orange Minivet) <i>Pericrocotus flammeus</i>	X	X		X	X	X	X	X	
301	Ashy/Swinhoe's Minivet <i>Pericrocotus divaricatus/cantonensis</i>									X
302	Rosy Minivet <i>Pericrocotus roseus</i>		X							X
303	Large (Indian) Cuckooshrike <i>Coracina javensis macei</i>	X				X	X	X	X	
304	Black-winged Cuckooshrike <i>Lalage melaschistos</i>						X		X	X
305	Black-headed Cuckooshrike <i>Lalage melanoptera</i>	X	X	X	X	X	X	X	X	
51. Oriolidae (orioles, figbirds and allies)										
306	Black-hooded Oriole <i>Oriolus xanthornus</i>	X			X	X	X	X	X	
307	Indian Golden Oriole <i>Oriolus kundoo</i>	X	X			X	X	X	X	
308	Black-naped Oriole <i>Oriolus chinensis</i>				X	X	X		X	
52. Artamidae (woodswallows, Australian magpies and allies)										
309	Ashy Woodswallow <i>Artamus fuscus</i>	X			X	X	X		X	
53. Vangidae (vangas and helmet-shrikes)										
310	Bar-winged Flycatcher-shrike <i>Hemipus picatus</i>		X		X	X		X	X	
311	Large Woodshrike (Malabar Woodshrike) <i>Tephrodornis virgatus sylvicola</i>	X			X	X	X		X	
312	Common Woodshrike <i>Tephrodornis pondicerianus</i>	X		X	X	X	X	X	X	

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		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
	54. Aegithinidae (loras)									
313	Common Iora <i>Aegithina tiphia</i>	X	X	X	X	X	X	X	X	
	55. Dicruridae (drongos)									
314	Black Drongo <i>Dicrurus macrocerus</i>	X	X			X	X	X	X	
315	Ashy Drongo <i>Dicrurus leucophaeus</i>		X		X	X	X	X	X	
316	White-bellied Drongo <i>Dicrurus caerulescens</i>	X	X		X	X	X	X	X	
317	Bronzed Drongo <i>Dicrurus aeneus</i>	X	X		X	X	X	X	X	
318	Hair-crested Drongo <i>Dicrurus hottentottus</i>		X		X	X	X	X	X	
319	Greater Racket-tailed Drongo <i>Dicrurus paradiseus</i>	X	X		X	X	X	X	X	
	56. Rhipiduridae (fantails)									
320	White-throated Fantail (Spot-breasted Fantail) <i>Rhipidura albicollis albogularis</i>	X		X		X	X	X	X	
	57. Laniidae (shrikes)									
321	Brown Shrike <i>Lanius cristatus cristatus</i>	X	X		X	X	X	X	X	
321a	Philippine Shrike <i>Lanius cristatus lucionensis</i>				S		S		S	X
322	Isabelline Shrike <i>Lanius isabellinus</i>					X	X		X	
323	Bay-backed Shrike <i>Lanius vittatus</i>				X	X	X	X	X	
324	Long-tailed Shrike <i>Lanius schach</i>	X	X		X	X	X	X	X	
	58. Corvidae (crows and jays)									
325	Rufous Treepie <i>Dendrocitta vagabunda</i>	X				X	X	X	X	
326	White-bellied Treepie <i>Dendrocitta leucogastra</i>					X		X	X	X
327	House Crow <i>Corvus splendens</i>					X	X	X	X	
328	Large-billed Crow (Indian Jungle Crow) <i>Corvus macrorhynchos culminatus</i>	X				X	X	X	X	
	59. Monarchidae (monarchs and paradise-flycatchers)									
329	Black-naped Monarch <i>Hypothymis azurea</i>	X	X		X	X	X	X	X	
330	Indian Paradise-flycatcher <i>Terpsiphone paradisi</i>	X	X		X	X	X	X	X	
	60. Dicaeidae (flowerpeckers)									
331	Thick-billed Flowerpecker <i>Dicaeum agile</i>				X	X	X	X	X	
332	Pale-billed Flowerpecker <i>Dicaeum erythrorhynchos</i>				X	X	X	X	X	
333	Plain Flowerpecker (Nilgiri Flowerpecker) <i>Dicaeum concolor concolor</i>	X	X	X	X	X	X	X	X	
	61. Nectariniidae (sunbirds)									
334	Little Spiderhunter <i>Arachnothera longirostra</i>	X			X	X	X	X	X	
335	Purple-rumped Sunbird <i>Leptocoma zeylonica</i>	X	X	X	X	X	X	X	X	
336	Crimson-backed Sunbird <i>Leptocoma minima</i>		X	X	X	X	X	X	X	
337	Purple Sunbird <i>Cinnyris asiaticus</i>	X	X		X	X	X	X	X	
338	Loten's Sunbird <i>Cinnyris lotenius</i>		X	X	X	X	X	X	X	
339	Vigors's Sunbird <i>Aethopyga vigorsii</i>				X	X	X	X	X	
	62. Irenidae (fairy-bluebirds and leafbirds)									
340	Asian Fairy-bluebird <i>Irena puella</i>	X	X		X	X	X	X	X	
341	Golden-fronted Leafbird <i>Chloropsis aurifrons</i>	X	X		X	X	X	X	X	
342	Jerdon's Leafbird <i>Chloropsis jerdoni</i>	X	X	X	X	X	X	X	X	
	63. Ploceidae (weavers)									
343	Streaked Weaver <i>Ploceus manyar</i>					X	X	X	X	
344	Baya Weaver <i>Ploceus philippinus</i>		X		X	X	X	X	X	
	64. Estrildidae (waxbills)									
345	Red Munia <i>Amandava amandava</i>					X	X	X	X	
346	Indian Silverbill <i>Euodice malabarica</i>					X			X	X
347	White-rumped Munia <i>Lonchura striata</i>	X	X	X	X	X	X		X	
348	Scaly-breasted Munia <i>Lonchura punctulata</i>	X			X	X	X	X	X	

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Sl. No.	Species	Museum Specimens			Media				eBD	Rarity
		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
349	Black-throated Munia <i>Lonchura kelaarti</i>				X	X	X	X	X	
350	Black-headed Munia (Tricoloured Munia) <i>Lonchura malacca malacca</i>					X	X		X	
	65. Passeridae (sparrows, snowfinches and allies)									
351	House Sparrow <i>Passer domesticus</i>	X				X	X	X	X	
352	Yellow-throated Sparrow <i>Gymnoris xanthocollis</i>	X			X	X	X	X	X	
	66. Motacillidae (wagtails and pipits)									
353	Forest Wagtail <i>Dendronanthus indicus</i>	X	X		X	X	X	X	X	
354	Tree Pipit <i>Anthus trivialis</i>	X	X		X	X	X	X	X	
355	Olive-backed Pipit <i>Anthus hodgsoni</i>		X			X	X		X	X
356	Red-throated Pipit <i>Anthus cervinus</i>							X		X
357	Richard's Pipit <i>Anthus richardi</i>			X		X	X	X	X	
358	Paddyfield Pipit <i>Anthus rufulus</i>			X	X	X	X	X	X	
359	Blyth's Pipit <i>Anthus godlewskii</i>						X		X	
360	Tawny Pipit <i>Anthus campestris</i>				X	X	X		X	
361	Long-billed Pipit <i>Anthus similis</i>						X		X	X
362	Western Yellow Wagtail <i>Motacilla flava</i>					X	X		X	
362a	Syke's Yellow Wagtail <i>Motacilla flava beema</i>						S		S	
362b	Grey-headed Yellow Wagtail <i>Motacilla flava thunbergi</i>						S		S	
363	Grey Wagtail <i>Motacilla cinerea</i>	X				X	X	X	X	
364	Citrine Wagtail <i>Motacilla citreola</i>					X	X	X	X	
365	White-browed Wagtail <i>Motacilla maderaspatensis</i>			X	X	X	X	X	X	
366	White Wagtail <i>Motacilla alba</i>				X	X	X	X	X	
	64. Fringillidae (finches, euphonias and Hawaiian honeycreepers)									
367	Common Rosefinch <i>Erythrura erythrina</i>					X	X	X	X	
	68. Emberizidae (Old World buntings)									
368	Red-headed Bunting <i>Granativora bruniceps</i>				X	X	X		X	
369	Black-headed Bunting <i>Granativora melanocephala</i>		X			X	X		X	
370	Grey-necked Bunting <i>Emberiza buchanani</i>				X	X	X		X	
371	Yellow-breasted Bunting <i>Schoenidus aureolus</i> §									X
	69. Stenostiridae (fairy-flycatcher and crested flycatchers)									
372	Grey-headed Canary-flycatcher <i>Culicicapa ceylonensis</i>					X	X		X	
	70. Paridae (tits, chickadees)									
373	Cinereous Tit <i>Parus cinereus</i>					X			X	X
374	Black-lored Tit <i>Machlolophus xanthogenys</i>				X	X	X	X	X	
	71. Alaudidae (larks)									
375	Rufous-tailed Lark <i>Ammomanes phoenicura</i>					X	X		X	
376	Ashy-crowned Sparrow Lark <i>Eremopterix griseus</i>					X	X		X	X
377	Bimaculated Lark <i>Melanocorypha bimaculata</i>								X	X
378	Greater Short-toed Lark <i>Calandrella brachydactyla</i>					X	X	X	X	
379	Oriental Skylark <i>Alauda gulgula</i>				X	X	X	X	X	
380	Malabar Lark <i>Galerida malabarica</i>	X		X	X	X	X	X	X	
	72. Cisticolidae (cisticolas)									
381	Zitting Cisticola <i>Cisticola juncidis</i>				X	X	X	X	X	
382	Grey-breasted Prinia <i>Prinia hodgsonii</i>				X	X	X	X	X	
383	Jungle Prinia <i>Prinia sylvatica</i>						X		X	X
384	Ashy Prinia <i>Prinia socialis</i>				X	X	X	X	X	
385	Plain Prinia <i>Prinia inornata</i>					X	X	X	X	
386	Common Tailorbird <i>Orthotomus sutorius</i>				X	X	X	X	X	
	73. Locustellidae (bush warblers)									
387	Rusty-rumped Warbler <i>Locustella certhiola</i>					X	X		X	X

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		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
388	Grasshopper Warbler <i>Locustella naevia</i>					X	X		X	
389	Bristled Grassbird <i>Chaetornis striata</i>						X		X	X
	74. Acrocephalidae (brush, reed and swamp warblers)									
390	Thick-billed Warbler <i>Arundinax aedon</i>	X			X	X			X	
391	Booted Warbler <i>Iduna caligata</i>					X	X	X	X	
392	Sykes's Warbler <i>Iduna rama</i>					X	X		X	X
393	Blyth's Reed Warbler <i>Acrocephalus dumetorum</i>	X	X		X	X	X	X	X	
394	Paddyfield Warbler <i>Acrocephalus agricola</i>				X	X	X	X	X	
395	Clamorous Reed Warbler <i>Acrocephalus stentoreus</i>				X	X	X	X	X	
	75. Hirundinidae (swallows)									
396	Northern House Martin <i>Delichon urbicum</i>									X
397	Streak-throated Swallow <i>Petrochelidon fluvicola</i>				X	X	X	X	X	
398	Red-rumped Swallow <i>Cecropis daurica</i>				X	X	X	X	X	
399	Wire-tailed Swallow <i>Hirundo smithii</i>	X			X	X	X		X	
400	Barn Swallow <i>Hirundo rustica</i>					X	X	X	X	
401	Eurasian Crag Martin <i>Ptyonoprogne rupestris</i>						X		X	
402	Dusky Crag Martin <i>Ptyonoprogne concolor</i>					X	X	X	X	
403	Plain Martin (Grey-throated) <i>Riparia paludicola chinensis</i>					X			X	X
404	Sand/Pale Martin <i>Riparia ripari diluta</i>					X			X	X
	76. Pycnonotidae (bulbuls)									
405	(Square-tailed) Black Bulbul <i>Hypsipetes leucocephalus ganeesa</i>			X	X	X	X	X	X	
406	Black-crested Bulbul (Flame-throated Bulbul) <i>Pycnonotus melanicterus gularis</i>	X	X		X	X	X	X	X	
407	Red-whiskered Bulbul <i>Pycnonotus jocosus</i>	X	X	X	X	X	X	X	X	
408	Red-vented Bulbul <i>Pycnonotus cafer</i>	X			X	X	X	X	X	
409	White-browed Bulbul <i>Pycnonotus luteolus</i>	X	X	X	X	X	X	X	X	
410	Grey-headed Bulbul <i>Brachypodius priocephalus</i>		X	X	X	X	X	X	X	
411	Yellow-browed Bulbul <i>Acritillas indica</i>	X	X		X	X	X	X	X	
	77. Phylloscopidae (Old World leaf warblers)									
412	Yellow-browed Warbler <i>Abrornis inornatus</i>					X	X		X	X
413	Common (Siberian) Chiffchaff <i>Phylloscopus collybita tristis</i>					X	X		X	X
414	Sulphur-bellied Warbler <i>Phylloscopus griseolus</i>		X				X		X	
415	Tickell's Leaf Warbler <i>Phylloscopus affinis</i>					X			X	
416	Green Leaf Warbler <i>Seicercus nitidus</i>					X	X	X	X	
417	Greenish Leaf Warbler <i>Seicercus trochiloides</i>	X	X		X	X	X	X	X	
418	Large-billed Leaf Warbler <i>Seicercus magnirostris</i>						X	X	X	
419	Western Crowned Leaf Warbler <i>Seicercus occipitalis</i>		X		X	X	X		X	
	78. Sylviidae (Sylvia warblers, parrotbills and allies)									
420	Eastern Orphean Warbler <i>Curruca crassirostris</i>					X	X		X	X
421	Lesser Whitethroat <i>Curruca curruca</i>					X	X	X	X	
421a	(Siberian) Lesser Whitethroat <i>Curruca curruca blythi</i>					S	S		S	
421b	Hume's Whitethroat <i>Curruca curruca althaea</i>						S		S	X
422	Yellow-eyed Babbler <i>Chrysomma sinense</i>				X	X	X		X	
	79. Zosteropidae (white-eyes and yuhinas)									
423	Oriental White-eye <i>Zosterops palpebrosus</i>					X	X	X	X	
	80. Timaliidae (scimitar babblers and allies)									
424	Indian Scimitar Babbler <i>Pomatorhinus horsfieldii</i>					X	X	X	X	
425	Tawny-bellied Babbler <i>Dumetia hyperythra albogularis</i>			X	X	X	X	X	X	
426	Dark-fronted Babbler <i>Rhopocichla atriceps</i>	X	X		X	X	X	X	X	
427	Puff-throated Babbler <i>Pellorneum ruficeps</i>	X	X			X	X	X	X	

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		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
	81. Pellorneidae (smaller babblers)									
428	Quaker Tit Babbler <i>Alcippe poiocephala</i>	X	X	X	X	X	X	X	X	
	82. Leiothrichidae (babblers, laughingthrushes and allies)									
429	Rufous Babbler <i>Argya subrufa</i>		X		X	X	X	X	X	
430	Jungle (Black-winged) Babbler <i>Turdoides striata somervillei</i>	X	X	X	X	X	X	X	X	
431	Yellow-billed Babbler <i>Turdoides affinis</i>						X		X	X
432	Wynaad Laughingthrush <i>Garrulax delesserti</i>				X	X	X	X	X	
	83. Sittidae (nuthatches, spotted creepers and wallcreeper)									
433	Chestnut-bellied Nuthatch (Indian Nuthatch) <i>Sitta castanea castanea</i>									X
434	Velvet-fronted Nuthatch <i>Sitta frontalis</i>		X		X	X	X	X	X	
	84. Sturnidae (starlings)									
435	Common Starling <i>Sturnus vulgaris</i>									X
436	Rosy Starling <i>Pastor roseus</i>				X	X	X		X	
437	Purple-backed Starling <i>Agropsar sturninus</i>					X				X
438	Brahminy Starling <i>Sturnia pagodarum</i>	X				X	X		X	
439	Chestnut-tailed Starling <i>Sturnia malabarica</i>				X	X	X		X	
439a	Malabar Starling <i>Sturnia malabarica blythii</i>	S			S	S	S		S	
440	Common Myna <i>Acridotheres tristis</i>					X	X	X	X	
441	Bank Myna <i>Acridotheres ginginianus</i>					X	X	X	X	X
442	Jungle Myna <i>Acridotheres fuscus</i>	X			X	X	X	X	X	
443	(Southern) Hill Myna <i>Gracula religiosa indica</i>				X	X	X		X	
	85. Muscicapidae (chats ad flycatchers)									
444	Indian Robin <i>Saxicoloides fulicatus</i>	X		X	X	X	X	X	X	
445	Oriental Magpie Robin <i>Copsychus saularis</i>	X		X	X	X	X	X	X	
446	White-rumped Shama <i>Kittacincla malabarica</i>	X	X		X	X	X	X	X	
447	Spotted Flycatcher <i>Muscicapa striata</i>				X		X	X	X	X
448	Dark-sided Flycatcher <i>Muscicapa sibirica</i> §									X
449	Asian Brown Flycatcher <i>Muscicapa dauurica</i>	X				X	X	X	X	
450	Brown-breasted Flycatcher <i>Muscicapa muttui</i>		X		X	X	X		X	
451	Rusty-tailed Flycatcher <i>Muscicapa ruficauda</i>					X	X		X	
452	White-bellied Blue Flycatcher <i>Cyornis pallidipes</i>	X	X		X	X	X	X	X	
453	Tickell's Blue Flycatcher <i>Cyornis tickelliae</i>	X	X	X	X	X	X	X	X	
454	Blue-throated Flycatcher <i>Cyornis rubeculoides</i>	X	X			X	X		X	
455	Verditer Flycatcher <i>Eumyias thalassinus</i>		X		X	X	X		X	
456	Indian Blue Robin <i>Larivora brunnea</i>				X	X	X	X	X	
457	Bluethroat <i>Luscinia svecica</i>					X	X		X	
458	Malabar Whistling Thrush <i>Myophonus horsfieldii</i>				X	X	X	X	X	
459	Red-breasted Flycatcher <i>Ficedula parva</i>	X	X		X	X	X	X	X	
460	Taiga Flycatcher <i>Ficedula albicilla</i>					X	X	X	X	
461	Ultramarine Flycatcher <i>Ficedula supercilialis</i>		X				X		X	X
462	Black Redstart <i>Phoenicurus ochruros</i>				X		X		X	X
463	Blue-capped Rock Thrush <i>Monticola cindlorhyncha</i>		X		X	X	X		X	
464	Blue Rock Thrush <i>Monticola solitarius</i>	X				X	X		X	
465	Siberian Stonechat <i>Saxicola maurus</i>	X				X	X	X	X	
466	Pied Bushchat <i>Saxicola caprata</i>	X			X	X	X	X	X	
467	Isabelline Wheatear <i>Oenanthe isabellina</i> §									X
468	Desert Wheatear <i>Oenanthe deserti</i>					X			X	X
469	Pied Wheatear <i>Oenanthe pleschanka</i>									X
	86. Turdidae (thrushes)									
470	Orange-headed Thrush <i>Geokichla citrina</i>	X	X	X	X	X	X	X	X	
470a	Orange-headed Thrush <i>Geokichla citrina citrina</i> §									X

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		ZSI	BNHS	Oth.	OBI	BoG	eRM	XC		
470b	White-throated Ground Thrush <i>Geokichla citrina cyanota</i>	S	S	S	S	S	S	S	S	
471	Indian Blackbird <i>Turdus simillimus</i>	X			X	X	X	X	X	
472	Tickell's Thrush <i>Turdus unicolor</i>	X				X			X	X
473	Eyebrowed Thrush <i>Turdus obscurus</i>									X

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**Table 2.** List of endemic, IUCN Red List, and Schedule I species from Goa

Species	Endemics	IUCN	WPA Sch. I Part (III)
Marbled Teal <i>Marmaronetta angustirostris</i>		VU	
Common Pochard <i>Aythya ferina</i>		VU	
Ferruginous Duck <i>Aythya nyroca</i>		NT	
Falcated Duck <i>Mareca falcata</i>		NT	
Indian Peafowl <i>Pavo cristatus</i>			X
Nilgiri Wood Pigeon <i>Columba elphinstonii</i>	WG	VU	
Mountain Imperial Pigeon (Nilgiri Imperial Pigeon) <i>Ducula badia cuprea</i>	E		
Sri Lanka Frogmouth <i>Batrachostomus moniliger</i>			X
Indian Swiftlet <i>Aerodramus unicolor</i>			X
Lesser Florican <i>Sypheotides indicus</i>		EN	X
Swinhoe's Storm-petrel <i>Hydrobates monorhis</i>		NT	
Flesh-footed Shearwater <i>Ardenna carneipes</i>		NT	
Lesser Adjutant <i>Leptoptilos javanicus</i>		VU	
Painted Stork <i>Mycteria leucocephala</i>		NT	
Woolly-necked Stork <i>Ciconia episcopus</i>		VU	
Spot-billed Pelican <i>Pelecanus philippensis</i>		NT	
Black-headed Ibis <i>Threskiornis melanocephalus</i>		NT	
Eurasian Spoonbill <i>Platalea leucorodia</i>			X
Oriental Darter <i>Anhinga melanogaster</i>		NT	
Great Thick-knee <i>Esacus recurvirostris</i>		NT	
Eurasian Oystercatcher <i>Haematopus ostralegus</i>		NT	
Eurasian Curlew <i>Numenius arquata</i>		NT	
Bar-tailed Godwit <i>Limosa lapponica</i>		NT	
Black-tailed Godwit <i>Limosa limosa</i>		NT	
Great Knot <i>Calidris tenuirostris</i>		EN	
Curlew Sandpiper <i>Calidris ferruginea</i>		NT	
Buff-breasted Sandpiper <i>Calidris subruficollis</i>		NT	
Asian Dowitcher <i>Limnodromus semipalmatus</i>		NT	
Indian Skimmer <i>Rynchops albicollis</i>		VU	
Black-legged Kittiwake <i>Rissa tridactyla</i>		VU	
River Tern <i>Sterna aurantia</i>		NT	

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Species	Endemics	IUCN	WPA Sch. I Part (III)
Black-bellied Tern <i>Sterna acuticauda</i>		EN	
Osprey <i>Pandion haliaetus</i>			X
Black-winged Kite <i>Elanus caeruleus</i>			X
Oriental Honey Buzzard <i>Pernis ptilorhynchus</i>			X
Black Baza <i>Aviceda leuphotes</i>			X
Egyptian Vulture <i>Neophron percnopterus</i>		EN	X
Crested Serpent Eagle <i>Spilornis cheela</i>			X
Short-toed Snake Eagle <i>Circaetus gallicus</i>			X
Himalayan Vulture <i>Gyps himalayensis</i>		NT	X
White-rumped Vulture <i>Gyps bengalensis</i>		CR	X
Indian Vulture <i>Gyps indicus</i>		CR	X
Mountain Hawk Eagle (Legge's Hawk Eagle) <i>Nisaetus nipalensis kelaarti</i>			X
Changeable Hawk Eagle (Crested Hawk Eagle) <i>Nisaetus cirrhatus cirrhatus</i>			X
Rufous-bellied Eagle <i>Lophotriorchis kienerii</i>			X
Black Eagle <i>Ictinaetus malaiensis</i>			X
Indian Spotted Eagle <i>Clanga hastata</i>		VU	X
Greater Spotted Eagle <i>Clanga clanga</i>		VU	X
Tawny Eagle <i>Aquila rapax</i>			X
Steppe Eagle <i>Aquila nipalensis</i>		EN	X
Eastern Imperial Eagle <i>Aquila heliaca</i>		VU	X
Bonelli's Eagle <i>Aquila fasciata</i>			X
Booted Eagle <i>Hieraetus pennatus</i>			X
Western Marsh Harrier <i>Circus aeruginosus</i>			X
Pallid Harrier <i>Circus macrourus</i>		NT	X
Pied Harrier <i>Circus melanoleucos</i>			X
Montagu's Harrier <i>Circus pygargus</i>			X
Crested Goshawk <i>Accipiter trivirgatus</i>			X
Shikra <i>Accipiter badius</i>			X
Besra <i>Accipiter virgatus</i>			X
Eurasian Sparrowhawk <i>Accipiter nisus</i>			X
White-bellied Sea Eagle <i>Haliaeetus leucogaster</i>			X
Grey-headed Fish Eagle <i>Ichthyophaga ichthyaetus</i>		NT	X



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Species	Endemics	IUCN	WPA Sch. I Part (III)
Brahminy Kite <i>Haliastur indus</i>			X
Black Kite <i>Milvus migrans</i>			X
White-eyed Buzzard <i>Butastur teesa</i>			X
Common (Steppe) Buzzard <i>Buteo buteo vulpinus</i>			X
Long-legged Buzzard <i>Buteo rufinus</i>			X
Great Hornbill <i>Buceros bicornis</i>		NT	X
Malabar Pied Hornbill <i>Anthraceroceros coronatus</i>		NT	X
Malabar Grey Hornbill <i>Ocyrceros griseus</i>	WG		X
Indian Grey Hornbill <i>Ocyrceros birostris</i>			X
Malabar Barbet <i>Psilopogon malabaricus</i>	WG		
Red-necked Falcon <i>Falco chicquera</i>		NT	X
Laggar Falcon <i>Falco jugger</i>		NT	
Peregrine Falcon <i>Falco peregrinus</i>			X
Malabar Parakeet <i>Psittacula columboides</i>	WG		
Alexandrine Parakeet <i>Psittacula eupatria</i>		NT	
Large Woodshrike (Malabar Woodshrike) <i>Tephrodornis virgatus sylvicola</i>	E		
White-bellied Treepie <i>Dendrocitta leucogastra</i>	WG		
Plain Flowerpecker (Nilgiri Flowerpecker) <i>Dicaeum concolor concolor</i>	E		
Crimson-backed Sunbird <i>Leptocoma minima</i>	WG		
Vigors's Sunbird <i>Aethopyga vigorsii</i>	WG		
Yellow-breasted Bunting <i>Schoeniclus aureolus</i>		CR	
Bristled Grassbird <i>Chaetornis striata</i>		VU	
Black-crested Bulbul (Flame-throated Bulbul) <i>Pycnonotus melanicterus gularis</i>	E		
Grey-headed Bulbul <i>Brachypodius priocephalus</i>	WG	NT	
Rufous Babbler <i>Argya subrufa</i>	WG		
Jungle (Black-winged) Babbler <i>Turdoides striata somervillei</i>	E		
Wynaad Laughingthrush <i>Garrulax delesserti</i>	WG		
Malabar Starling <i>Sturnia malabarica blythii</i>	E		
(Southern) Hill Myna <i>Gracula religiosa indica</i>			X
White-bellied Blue Flycatcher <i>Cyornis pallidipes</i>	WG		

WG=Species whose limited to the Western Ghats.

E=Subspecies endemics treated as full species in Rasmussen and Anderton (2012) or del Hoyo *et al.* (2016).

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## Appendix A: Species for which there are no indubitable records

### Fulvous Whistling Duck *Dendrocygna bicolor*

Listed as unconfirmed in Lainer & Alvares (2013), but included in Mahabal & Patil (2008). Photographs in Stanton (2016) are inconclusive and seem more like a leucistic Lesser Whistling Duck. Most records of this species on eBird are from the eastern coast for southern India, and the nearest record is from Nagpur (Apte 2009).

### Mallard *Anas platyrhynchos*

There have been multiple sightings of this species between 1987 and 1999 (Lainer & Alvares 2013) where Lainer lists this species as scarce and irregular winter visitor. The few records *post* 2000 on eBird could not be verified with certainty and hence had to be left unconfirmed. A few other records that were accompanied with photographs were later proved to be domestic/ hybrid Mallards. Many recent sightings of this species from neighbouring states also have been of domestic variety. Sightings of wild birds from southern India, in general, seem to have reduced, with only four sightings between 1994 and 2016, with most being from 2016 as on eBird. Owing to this confusion, and our inability to verify the older records, we keep this species out of the Goa checklist till further documentation is obtained.

### Lesser Flamingo *Phoeniconaias minor*

There are sight records of this species by Lloyd Fernandes (18 January 2002) from Carambolim-Dhado IBA, and by Pares Porob, who reported four, and 21 individuals from Carambolim-Dhado IBA, and Neura wetlands on 07, and 08 December 2013 respectively. These sightings, however, could not be corroborated by field notes and hence we keep this species out of the Goa list till more definitive evidence is obtained in the future. The nearest record of this species is from Kumbhargaoon Bird Sanctuary in Maharashtra (Sachdev 2016).

### Jouanin's Petrel *Bulweria fallax*

Heinz Lainer reports 342 birds, within a span of 90 mins, during his sea watch on 23 September 1991. Praveen *et al.* (2013) note the confusion in field identification of Jouanin's Petrel and Wedge-tailed Shearwater *Ardenna pacifica*, and suggest treating all sight records with caution, if they are not well documented. The nearest definitive records are from Karnataka (Praveen 2016b). This species was included, without discussion, in Baidya *et al.* (2017). We keep this species out of the Goa checklist until further documentation is obtained.

### Great Frigatebird *Fregata minor*

Lainer listed sighting a 'female' at Anjuna while David Stanton reported one juvenile individual while para-gliding over Anjuna-Baga on 21 August 2008 (Lainer & Alvares 2013). All these sightings are however not substantiated with any notes on how the identification was arrived at, especially explaining how the Christmas Island Frigatebird *F. andrewsi*, or Lesser Frigatebird *F. ariel* were eliminated. The nearest recent definitive records of this species are from Kerala (Kerala Birder 2015; Bharathan 2017), while historical records from Maharashtra are listed by Prasad

(2004, 2006). This species is included, without discussion, in Baidya et al. (2017). We keep this species out of the Goa checklist until further documentation is obtained.

### Common Quail *Coturnix coturnix*

Three previous sight records, first by Grub & Ali (1976) at Valpoi, followed by two records by Heinz Lainer from 1986, and 1996 (Lainer & Alvares 2013). Paul Willoughby found, and examined, a dead specimen at Carambolim-Dhado IBA on 26 November 1998. The fact that the nearby poultry farm, maintained by the Indian Council for Agricultural Research, rears domesticated Japanese Quail *Coturnix japonica*, makes it difficult to validate this record. This species might probably be a scarce, and overlooked, winter visitor to the state, however we keep it out of the Goa checklist till further indubitable evidence is obtained.

### Blue-breasted Quail *Synois chinensis*

Lainer & Alvares (2013) list a single report of an immature male from Saligao on September 2005 with no other notes. This species has been included in the Karnataka checklist based on specimens collected from Mysuru (Praveen et al. 2016b), Prasad (2004, 2006) lists it from Pune (Maharashtra), besides including various other historical records from that state. However no recent reports of this species have come from peninsular India, as seen on eBird, hence making it difficult to accept this record from Goa. Hence, we keep this species out of the checklist until more definitive evidence is obtained.

### Rock Bush Quail *Perdicula argoondah*

Reported as unconfirmed in Lainer & Alvares (2013), but included in Mahabal & Patil (2008). No actual records could be traced, and it could well have been an identification error with the similar looking Jungle Bush Quail. The nearest records from Karnataka, on eBird, are from Dharwad (Byatroy 2017a), and Hubballi (Gunjal 2017).

### Painted Spurfowl *Galloperdix lunulata*

Listed in Mahabal & Patil (2008) who attribute it to Pande et al. (2003). No actual records could be traced. It is interesting that Pande et al. (2003) list this species as rarely seen in the Western Ghats and never on the coast, with no sightings from Goa mentioned. However, Mahabal & Patil (2008) include this species in their Goa checklist. Nearest records on eBird, for this species, are from Hampi, Karnataka (Muzamil 2017).

### Great Eared Nightjar *Lyncornis macrotis*

First reported from Valpoi in November–December 1972, based on calls heard by Grub & Ali (1976), later questioned by Abdulali (1980). Lainer (1999b) reported hearing the call of this species in Valpoi-Pali in February 1985. Two other aural records mentioned in Lainer & Alvares (2013). The identification of a recording uploaded on xeno-canto by Eveny Luis, which was tentatively attributed to this species, could not be conclusively confirmed vis-à-vis the breeding call of the Sri Lanka Frogmouth *Batrachostomus moniliger*. The status of occurrence of this species along the Western Ghats has been discussed in Praveen & Baidya (in press), where in all Goa records have been classified as doubtful. Hence, we keep this species out of the Goa checklist.

### Lesser Coucal *Centropus bengalensis*

Single sight record from Bhagwan Mahavir Wildlife Sanctuary on 25 December 1995 with no details provided (Lainer 1999b). No other known sightings of this species from the state in recent times. While there are historical records of this species from as northward as Castle Rock, and Anshi, in Karnataka (Davidson 1898), the northern-most record of this species on eBird is from Kudremukh (Subramanya 2006). We keep this species out of the Goa checklist until more definitive evidence is obtained in the future.

### Chestnut-winged Cuckoo *Clamator coromandus*

Listed as a rare visitor/vagrant by Newsome (2005) from old trip reports which we could not trace. Another unconfirmed sighting by Rajiv D'Silva, and a group of 20 hikers, from Saligao Springs in 2004. This species is expected to occur as a scarce passage migrant or stray in the state, however we keep this out of the checklist till future definitive records. The nearest record of this species is from Agumbe, Karnataka (Prakash 2017).

### Little Crake *Zapornia parva*

Anand Prasad's record of two birds from Arpora-Baga (Prasad 1999) is listed as unconfirmed in Lainer & Alvares (2013). No known sight records or recent observations from Karnataka, though there is a specimen collected in Karwar at the BNHS (Praveen et al. 2016b). There are historical sight records from Pune, Maharashtra, and specimens in BNHS collections (Prasad 2003). This species has been possibly overlooked, and might occur as a rare passage migrant. We keep this species out of the Goa checklist until more definitive evidence is obtained.

### Sarus Crane *Antigone Antigone*

Listed as unconfirmed in Lainer & Alvares (2013), however included in the Goa checklist by Mahabal & Patil (2008). No actual records could be traced, though it may occur as a rare vagrant. The nearest record on eBird is from Devsar, Gujarat (Patel 2012), while older records exist from Telineelapuram, Srikakulam District, Andhra Pradesh (Rao 2007).

### Common Crane *Grus grus*

Paul Willoughby saw a single juvenile at close range between 02 and 09 November 1994 at Chorao. There have been no sightings since. This could have possibly been a stray individual. Recent, and perhaps the southern-most records closest to Goa, on eBird, were from Ekrak Lake in Solapur, Maharashtra (Rahane 2015a), and Hachcholi, in Karnataka (Praveen et al. 2016b). Most of the other sightings are from northern India. Based on the present knowledge of its sightings and distribution, we keep this species out of the checklist.

### Greater Adjutant *Leptoptilos dubius*

Newsome (2005) listed it, based on older trip reports that cannot be traced. This may have been a mis-identification for a Lesser Adjutant *L. javanicus*.

### Black-necked Stork *Ephippiorhynchus asiaticus*

One bird was reported from Cotigao Wildlife Sanctuary on

17 January 2001, with no further information or notes, by an unknown individual (Maheshwaran 2004). Praveen *et al.* (2016b) did not accept any of the records from Karnataka and kept this species out of the state list. In absence of any details from Goa, this species is kept out of the state list. The nearest report to Goa, on eBird, is from the Sawanga Reservoir region of Amravati District in Maharashtra, where a single sub-adult bird was seen for about nine months (Wadatkar 2014, 2015).

### **Eurasian Bittern *Botaurus stellaris***

Listed in Newsome (2005) based on older trip reports which cannot be traced. Could be expected as a rare winter visitor to the state. Excluded from the list till a definitive future sighting. The closest report to Goa is from Melghat, Maharashtra, where one bird was observed on 29 October 2001, and another from Pune in the same year (Prasad 2004, 2006). Other recent records have been from Kole Wetlands, Kerala—once in 1997, twice in 2007, and 2008 (Sashikumar *et al.* 2011). Various historical records from Maharashtra exist (Prasad 2004, 2006), and one from Mysuru, Karnataka (Phythian–Adams 1937).

### **Little Bittern *Ixobrychus minutus***

Borges & Shanbhag (2004) record an amazing ten sightings, in three years, from Chorao Island, of this otherwise rare vagrant to southern India (Grimmett *et al.* 2011). Eight birds, from those sightings, were females, and two, males. The description of the birds in their notes matches those in standard regional field guides, however the fact that they flushed *three* [our italics] females on August 2000, *three* females on January 2001, and *two* males on February 2001 makes us sceptical of these records, as the species is known to be solitary (Grimmett *et al.* 2011). Chorao Island, on the other hand, has a good population of the Yellow Bittern *I. sinensis*. This ambiguity in the field notes of Borges & Shanbhag (2004) leads us to keep this species out of the Goa checklist, despite the possibility that it might occur as a rare vagrant to the state. The nearest vagrant reports, to Goa, are from Virajpet, Karnataka (Monnappa 2014), and Thiruvananthapuram, Kerala (Sashikumar *et al.* 2011). An old record, from 1977, is listed from Bangalore, but its details cannot be traced (George 1994).

### **Goliath Heron *Ardea goliath***

Listed in Newsome (2005) based on claims in old trip reports by visiting birders. Likely a case of misidentification. No records from the western coast exist, and its only known wintering area is in the Sundarbans (BirdLife International 2017).

### **Red Knot *Calidris canutus***

Borges & Shanbhag (2004) reported four sightings in two years, of this Near Threatened species. Mahabal & Patil (2008) reported one from Morjim Beach without any details. The notes in Borges & Shanbhag (2004) are not sufficient to conclude the identity of the species. We keep this species out of the checklist until more definitive evidence is obtained. The nearest records to Goa, on eBird, are from Thrissur, Kerala (Sreenivasan 2015), and the Marine National Park, Gujarat (Floyd 2010).

### **Red-necked Stint *Calidris ruficollis***

Frost & Lainer (2002) reported a single bird in a flock of 1,000

waders at Divar Island, with a detailed description of how they identified it in its non-breeding plumage, which matches up with descriptions in present day regional field guides. However their identification, and elimination, of the Little Stint *C. minuta*, and the Broad-billed Sandpiper *C. falcinellus* was based purely on size difference, without accounting for size differences observed between males and females, thus making it difficult to understand how, in this light, identification logically concluded. There were a total of nine sight records between 1999 and 2001, while a single individual, in breeding plumage, was observed in April 2006 (Lainer & Alvares 2013). Its identification in breeding plumage is comparatively easy and straightforward. However, there is no photographic record of this species from India on either OBI or INW. There are also no records on eBird from the western coast of India. Considering it is almost indistinguishable from the Little Stint in its non-breeding plumage, there is a good chance that this species has been overlooked in the Indian Subcontinent. The uncertainty from the lack of clinching field identification, especially when the bird is in non-breeding plumage, coupled with the lack of supporting media evidence, makes evaluation of this record difficult. In spite of experienced observers having observed an individual in breeding plumage based on the current information available to us, we decide to keep this species out of the checklist until further evidence is obtained. We would like to point out here that the title in Frost & Lainer (2002) erroneously gives the state as 'West Bengal' instead of 'Goa'.

### **Eurasian Woodcock *Scolopax rusticola***

Gordon Frost flushed a single bird from a *Pendanus* clump in Tirwal village, (Cotigao Wildlife Sanctuary) on 06 March 2007 (Lainer & Alvares 2013)—only record of this species from Goa, where it is, probably, under documented because of its solitary and nocturnal habits (Grimmett *et al.* 2011). There are seven records of this species, from the Western Ghats, on eBird, the latest being from Agumbe on 10 February 2017. However, considering Frost's record has no other information, it is hard to exclude the possibility of it being a Wood Snipe *Gallinago nemoricola*, which has similar habitat preferences to that of the Eurasian Woodcock. Based on this, we keep this species out of the Goa checklist till we get a confirmed record in the future.

### **Great Snipe *Gallinago media***

Listed in Newsome (2005) based on claims in old trip reports by visiting birders which could not be traced. Vagrant to the Indian Subcontinent with a few old specimens from Karnataka and Tamil Nadu (Abdulali 1970).

### **Small Buttonquail *Turnix sylvaticus***

Lainer & Alvares (2013) reported a single sighting from Arpora-Parra, and also mentioned repeated sightings outside Backwoods Camp, which seem doubtful (Jennifer DeSouza, *verbally*, 24 March 2017). Multiple records exist, from western Maharashtra (Prasad 2004, 2006), however it is historically rarer in southern Konkan (Vidal 1880). Can be expected as a scarce, overlooked, resident in Goa.

### **Collared Pratincole *Glareola pratincola***

Four records between 1998 and 2009 (Lainer & Alvares 2013).



The field identification of this species is a daunting task (Driessens & Svensson 2005). Old records of this species could well be confused with the commoner Oriental Pratincole. We keep this species out of the checklist until more definitive evidence is obtained in the future. Nearest records to Goa are from Ratnagiri, Maharashtra (Vidal 1880), and more recently from Kannur, Kerala (Rajeevan & Thomas 2013).

### **Caspian Gull *Larus cachinnans***

Listed in Newsome (2005) based on older trip reports which could not be traced. Praveen *et al.* (2014) explained the taxonomic ambiguity surrounding this species, and the possibility of an intergrade between *L. cachinnans* and *L. fuscus barabensis*. They did not include it in the India Checklist based on information available then. It was later recorded in Gujarat (Ganpule 2015) and, subsequently, included in the India Checklist (Praveen *et al.* 2016a). In light of this information, it is possible that this species could occur along the coasts of Goa, however we keep it out of the Goa checklist until a definitive record from the state is obtained.

### **Saunders's Tern *Sternula saundersi***

Listed in Newsome (2005) based on multiple claims in old trip reports by visiting birders. Field identification of Saunders's Tern, and Little Tern *S. albifrons* in non-breeding plumage, is extremely difficult (Olsen & Larssen 1995) as there many variations in the plumages of both the species. We do not include this species in the Goa checklist for want of properly verifiable documentation.

### **Black Tern *Chlidonias niger***

This is one of the most contentious birds from India. Praveen *et al.* (2014) presented detailed notes on it. There are three sight records from Goa (Lainer & Alvares 2013), but none are substantiated with sufficient details. The challenges of a field identification from sight records is further compounded because of the confusing features between non-breeding Black Tern, and juvenile and first-winter transition plumages of both, Whiskered, and White-winged Tern since all the three may show dark-patches on the sides of the upper breast / lower neck: a feature identified as characteristic, of non-breeding Black Terns, in most regional field guides. Recent photographic evidence from Nal Sarovar Bird Sanctuary (Bhatt *et al.* 2014), and from Karwar (Jamalabad 2016), however, has established the presence of this species in India. We keep the Goa records of this species out of the checklist until definitive evidence is obtained in the future.

### **Red-headed Vulture *Sarcogyps calvus***

Listed in Newsome (2005) based on older trip reports from visiting birders at Backwoods Camp, but these could not be traced. On 13 March 2015, Vivek Naik uploaded an image of this species on GBCN's social media page, as being photographed in May 2014 in Mhadei Wildlife Sanctuary. The exact location of this photograph could not be verified as the user was unsure about it. He later retracted his sighting, clarifying that it could have been a photograph from elsewhere. There is an old record from Dandeli Kulgi Camp, Karnataka, dated 23 November 1984 (Subramanya 1984). It is highly possible that the older records

from Backwoods were not off their mark, but due to the lack of sufficient corroboration we decide to keep this species out of the Goa checklist till we obtain further documentation.

### **Northern Goshawk *Accipiter gentilis***

Listed in Newsome (2005) based on an old trip report by visiting birders, which could not be traced. On 24 February 2014, a single individual was observed at close range by Pronoy Baidya and Harshada Gauns at Pilerne Plateau and was clearly distinct due to its very big, and bulky, size—close to that of an Osprey *Pandion haliaetus*—white supercilium, and grey belly barring. While observing, the bird was disturbed and flew to a distant tree. A record shot was taken but in extremely poor light conditions and from a distance, which compounded identification difficulties, and was treated as unconfirmed. Due to lack of strong evidence, we keep this species out of the Goa checklist till further evidence is obtained. Its nearest record to Goa is from Pune, Maharashtra (Pandit 2008), and Jhalana, Rajasthan (Gupta 2016), while old historical records are from Gujarat (Ali & Ripley 1987).

### **Pallas's Fish Eagle *Haliaeetus leucoryphus***

Shanbhag *et al.* (2001) list it from Carambolim-Dhado IBA. No actual records traced. Probable confusion with the similar-looking juvenile White-bellied Sea Eagle *Haliaeetus leucogaster*. Nearest records to Goa, on eBird, are from Chilika, Odisha (Praveen 2012; Nagarajan 2014). Nearest historical record is from Vihar Lake, Mumbai (Banerjee 1984), and historical breeding records are from Gujarat (BirdLife International 2001a).

### **Himalayan Buzzard *Buteo refectus***

No actual records could be traced, and most of the claims are from old trip reports, and could have been of the Common (Steppe) Buzzard *B. b. vulpinus*. The claim of this species from Backwoods Camp on 11 January 2017 was also that of a misidentified Common (Steppe) Buzzard (J. DeSouza., *in litt.*, e-mail dated 23 March 2017).

### **Mottled Wood Owl *Strix ocellate***

Lainer & Alvares (2013) treat this species as unconfirmed. It is included in the Goa checklist by Mahabal & Patil (2008), without any supporting evidence. The nearest records to Goa, on eBird, are from the Aaravalis, Maharashtra (Dhakulkar 2016), and Kodsalli, Karnataka (Naik 2017).

### **Dusky Eagle Owl *Bubo coromandus***

Lainer & Alvares (2013) treat this species as unconfirmed. It is included in the Goa checklist by Mahabal & Patil (2008), without any supporting evidence. The nearest record to Goa, on eBird, is from Chandrapur, Maharashtra (Joshi 2017). Prasad (2004, 2006) lists three historical records from western Maharashtra.

### **Himalayan Golden-backed Woodpecker *Dinopium shorii***

Reported several times from Backwoods Camp. Most of the recent claims of this species have been a misidentification of the Common Golden-backed Woodpecker *D. javanense* (J. DeSouza *in litt.*, e-mail dated 23 March 2017).



### Dollarbird *Eurystomus orientalis*

There is a single report of two/three individuals from Cotigao Wildlife Sanctuary on 14 March 2001 (Lainer & Alvares 2013). This species is a well-documented resident of the southern Western Ghats, and sightings get scarcer north of Palakkad, Kerala, as seen on eBird. There are two documented reports from southern Karnataka (Praveen *et al.* 2016b). There is one sighting documenting straying of this species, when an individual was photographed in Guindy National Park, ~500 km away from its known range (Amirtharaj 2016). Considering the above, it may not be impossible that the report from Cotigao would be of similar stray individuals, however considering that this species is a resident of the southern Western Ghats, and there is no known information on local migratory moments that can explain straying of individuals, we keep this species out of the checklist until definitive evidence is obtained in the future.

### Oriental Hobby *Falco severus*

Listed in Newsome (2005) based on older trip reports that could not be traced. Nearest records are from southern Kerala (Sashikumar *et al.* 2011).

### Saker Falcon *Falco cherrug*

A single juvenile was reported in November 2004 from the fallow fields in Divar-Navelim (Lainer & Alvares 2013). However no notes are provided to distinguish it from the more frequently observed Laggar Falcon. The southern-most record of this species is from Gujarat (Mori & Shah 2017), while Anand Prasad lists a historical sighting of a possible individual from off the Sindhudurga coast, Maharashtra, in 1990 and one from the south-eastern Arabian Sea in 1980 (Prasad 2004, 2006). Considering that there are no known confirmed records of this species from peninsular India, we keep this species out of the checklist.

### Long-tailed Minivet *Pericrocotus ethologus*

Listed in Desai & Shanbhag (2012) from the Goa University campus. We think there is potential to confuse it with the Scarlet (Orange) Minivet *Pericrocotus flammeus*, and so do not include it

### White-browed Fantail *Rhipidura aureola*

Listed in Mahabal & Patil (2008) but no confirmed records of this, otherwise expected species, have been traced till date. All recent claims of this species have turned out to be the White-throated (Spot-breasted) Fantail *Rhipidura albicollis albogularis*.

### Great Grey Shrike (Southern Grey Shrike) *Lanius excubitor lahtora*

Listed in Newsome (2005). We could trace two records, one from 08 February 2001 at Saligao Springs by Ian Mick, who records a single individual having 'less white in the wing than expected - confined to white fringes on median coverts and tertials', and another on 17 March 2004 by Tristan Bantock at Baga. There have been no other confirmed sightings of this, otherwise expected and widespread resident of the Indian Subcontinent, making us conclude that this species is probably locally very scarce and rare. We keep this species out of the list until further evidence is obtained from future sightings.

### Green Munia *Amandava Formosa*

Lainer (2004) treats it as unconfirmed, and totally discards it later (Lainer & Alvares 2013). All records of these might be possibly of cage escapees.

### Pechora Pipit *Anthus gustavi*

Listed in Newsome (2005) based on older trip reports which could not be traced. A probable misidentification of the Tree Pipit *A. trivialis* as the species has not been reported from South Asia (Rasmussen & Anderton 2012; Praveen *et al.* 2017)

### Singing Bushlark *Mirafra cantillans*

Two records listed in Lainer & Alvares (2013): one from Zuarinagar in September 1999, and the other, of seven or eight individuals, from an unknown location—both with no further notes. Its closest confirmed record to Goa are specimens collected in Belgaum by Walter Koelz (Koelz 1942; Praveen 2016). We keep this species out of the checklist until definitive evidence is obtained in the future.

### Indian Bushlark *Mirafra erythroptera*

Another expected species, which is a resident of the Indian Subcontinent, having no confirmed records from Goa. There is one record in Desai and Shanbhag (2012) with no supporting notes or documentation. The nearest record to Goa, on eBird, is from Dandeli, Karnataka (Sankar 2016). There are several other records, spread throughout the country, as reported on eBird.

### Sand Lark *Alaudala raytal*

Two individuals were observed by Qupeleio DeSouza on 27 November 2015 at Morjim Beach. They flew in from an offshore direction and fed briefly in the dune vegetation at the edge of the beach before heading inland. The pair was also photographed; however, the images could not be retrieved. We keep this species out of the checklist till we get more evidence. The nearest record to Goa, on eBird, is from Daman and Diu (Jayapal 2015); historical records exist from Bhavnagar, Gujarat (Vaurie & Dharmakumarsinhji 1954).

### Crested Lark *Galerida cristata*

Shanbhag *et al.* (2001) list it from the Carambolim-Dhado IBA. Likely nomenclature confusion with Malabar Lark *G. malabarica*. The nearest record to Goa, on eBird, is from Dombivili, Maharashtra (Kasambe 2015).

### Sykes's Lark *Galerida deva*

Listed in Newsome (2005), but we could not trace any reliable records of this species. In winter of 2016, two very rufous individuals of the Malabar Lark *G. malabarica* were mistaken to be this bird, on Verna Plateau. The nearest records to Goa, on eBird, are from Dharwad, Karnataka (Byatroy 2016), and Radhanagari, Maharashtra (Lees 2004).

### Golden-headed Cisticola *Cisticola exilis*

Mahabal & Patil (2008) list it, based upon Pande *et al.* (2003). No actual records could be traced. The nearest records to Goa,

on eBird, are from the Bababudan Hills, Karnataka (Viswanathan 2016).

### Lanceolated Warbler *Locustella lanceolata*

There are two records of this species by Paul Holt: on 11 November 2004 at Santa Cruz, and in November 2016 at Divar Islands (Newsome M., *in litt.*, e-mail dated 03 March 2017). Both are based on calls heard by him, a birder who is experienced and familiar with this species. However, in the absence of any sight records we keep this species out of the Goa checklist until a definite record is obtained in future. The nearest, to Goa, and only record on eBird is from South 24 Parganas, West Bengal (Bhatia 2010). Historical records are from New Delhi (specimen in Michigan State University Museum) and Kachchh, Gujarat (specimen in BNHS collection) (Donahue 1968).

### Broad-tailed Grassbird *Schoenicola platyurus*

We could trace a single record of this species from Tamdi Surla, seen by visiting birders to Backwoods Camp in December 1999; this sighting was treated as unconfirmed (J. DeSouza., *in litt.*, e-mail dated 23 March 2017). The species occurs along the Western Ghats and adjoining areas from Belgaum, Pune up till Nashik and hence, could occur in Goa (Rahane 2016; BirdLife International 2017).

### Sedge Warbler *Acrocephalus schoenobaenus*

One bird was reported by Lasse Olsson from Marinha Dourada Saltpans in January 2012. It was a possible contender for the second record from India after the one from Ladakh (Delany *et al.* 2014). However, the observer did not pay much attention to the bird as he was not aware of its rarity status within the region, being familiar with the species in Europe. Further discussions with colleagues revealed the possibility of confusion with species like the 'Eastern' Moustached Warbler *A. melanopogon mimicus*, and Rusty-rumped Warbler *Locustella certhiola* (Praveen J., *in litt.*, e-mail dated 16 November 2017).

### Hume's Leaf Warbler *Abrornis humei*

Multiple sight records over the years but none with substantial documentation for conclusive verification. We keep this species out of the list until further evidence is obtained. The nearest records to Goa, on eBird, is from Pune, Maharashtra (Sharma 2016).

### Tytler's Leaf Warbler *Phylloscopus tytleri*

Multiple sight records over the years but none with substantial documentation for conclusive verification. A specimen collected by Grubb & Ali (1975), and initially identified as this species, was later found to be a misidentified Greenish Warbler *P. trochiloides*. We decide to keep this species out of the list until further evidence is obtained. The nearest records to Goa, is from Panhala, in Kolhapur, Maharashtra (Praveen 2007) while on eBird, is from Mahabaleshwar, Maharashtra (Pawar 2017).

### Asian House Martin *Delichon dasypus*

Listed in Grimmett *et al.* (2011), but we were unable to trace any records from old trip reports by visiting birders. No other records of this species from peninsular India (Ali & Ripley 1987; Grimmett *et al.* 2011; eBird).

### Pacific (Hill) Swallow *Hirundo tahitica domicola*

The report of a single individual from Candolim on 25 March 1997, in a flock of Red-rumped Swallows *H. daurica* is noted in Lainer & Alvares (2013). This species is listed as a resident of hill zones in the southern Western Ghats and Sri Lanka, wandering to foothills (Grimmett *et al.* 2011). The northern-most record of this species from India is from Kudremukh, Karnataka (Manjunatha 2010), which is at an elevation of 830 m asl. The lowest elevational record of this species, from eBird, is from Malampuzha, Kerala (Radhakrishnan 2016), which is 120 m asl, well within the known range for this species. The Goa record, however, is extraordinary, being c. 300 km from the northern-most record—well away from the known range of this resident species. Lainer agrees, stressing its altitude-restricted range, but, instead of treating the record with caution, includes it in the list of confirmed species (Lainer & Alvares 2013). We keep it out of the present list, as we feel that not only is the Goa sighting is well away from its known range, but also it seems to be out of its habitat.

### White-eared Bulbul *Pycnonotus leucotis*

Listed in Grimmett *et al.* (2011), but we were unable to trace the records from any sources. The nearest record to Goa, on eBird, is from Kankavali, Maharashtra (Hirway 2015).

### Large Grey Babbler *Argya malcolmi*

Listed in Newsome (2005), but we could not trace any reliable records of this species. The nearest records to Goa, on eBird, are from Vengurla, Maharashtra (Ashwini 2016), and Yarmal, Karnataka (Byatroy 2017b).

### Common Babbler *Argya caudata*

Listed in Newsome (2005), but we could not trace any reliable records of this species. The nearest record to Goa, on eBird, is from Dharwad, Karnataka (Byatroy 2017c).

### Kerala Laughingthrush *Trochalopteron fairbanki*/ Black-chinned Laughingthrush *T. cachinnans*

All claims relate to Banasura Laughingthrush *Chilappan jerdoni* [*Trochalopteron cachinnans jerdoni*] (Robin *et al.* 2016), which has been traditionally considered conspecific with *fairbanki* (Ali & Ripley 1987), or *cachinnans* (Rasmussen & Anderton 2012). Listed as 'Grey-breasted Laughingthrush' in Rane (1983, 1984), and in Mahabal & Patil (2008) without any supporting evidence, while treated as unconfirmed in Lainer & Alvares (2013). Listed in Grimmett *et al.* (2011) under *cachinnans*, which might refer to the same record. This is an improbable record, as this species is endemic to the highlands of Kodagu, and the Wayanad Hills (Praveen & Nameer 2012).

### Indian Spotted Creeper *Salpornis spilonota*

There are three sightings from Goa, two mentioned in Lad & Rangnekar (2011): from the Mhadei Wildlife Sanctuary on 25 April 2004, and from Bondla wildlife sanctuary on 15 November 2007. Pronoy Baidya recorded one bird at Sathre, in Mhadei Wildlife Sanctuary on 17 January 2015. An old record from Telewadi (Karnataka), on the Goa-Karnataka border, exists (Uttangi 1993), which has not been discussed in Praveen

*et al.* (2016). Kannan & Santharam (2012) have discussed its status in Goa. eBird India's reviewers too concur with Kannan & Santharam (2012). In the absence of more corroborative evidence regarding the status of this scarce and inconspicuous species, we keep it out of the Goa checklist till we obtain a confirmed record in future.

#### **Nilgiri Flycatcher *Eumyias albicaudatus***

Mahabal & Patil (2008) list it without any supporting evidence. It seems to be an improbable record as this species is endemic, and restricted to the highlands of the southern Western Ghats with the northern-most location being the Bababudan Hills, Karnataka (Praveen 2003; BirdLife International 2017).

#### **Siberian Rubythroat *Calliope calliope***

Listed in Grimmett *et al.* (2011), but we were unable to trace any records from any sources. Nearest record to Goa is a specimen from Londa, Karnataka (Koelz 1942).

#### **Kashmir Flycatcher *Ficedula subrubra***

A male was reported from Bondla Wildlife Sanctuary by van der Wielen on 27 November 1997. However, this could not be followed up and there have been no subsequent sightings of this species, which could occur as a scarce passage migrant to Goa. The nearest records to Goa are from Pune, Maharashtra (Rahane 2015b), and Bengaluru (Bhat 2014).

#### **Black-and-orange Flycatcher *Ficedula nigrorufa***

Listed in Newsome (2005) based on old trip reports of visiting

birders. Not known to occur north of Kudremukh, and the Bababudan Hills (Praveen & Kuriakose 2006). Seems to be a case of misidentification, though we are unsure what this distinct flycatcher could be confused with.

#### **Red-tailed Wheatear *Oenanthe chrysopygia***

A sight record by Paul Willoughby at Merck Meat factory on 16 February 1997 with no notes. Mentioned in Lainer (2004), however retracted in Lainer & Alvares (2013).

#### **Scaly Thrush (Nilgiri Thrush) *Zoothera dauma neilgherriensis***

Listed in Newsome (2005) based on old trip reports of visiting birders, but we could not trace any reliable records. The nearest record to Goa, on eBird, is from Agumbe, Karnataka (Agrawal 2016).

#### **Siberian Thrush *Geokichla sibirica***

Listed in Newsome (2005) based on old trip reports of visiting birders, but we could not trace any reliable records. A national rarity, with the nearest record to Goa being from Porbandar, Gujarat (Vargiya *et al.* 2016).

#### **Pied Thrush *Geokichla wardii***

Listed in Newsome (2005) based on old trip reports of visiting birders, but we could not trace any reliable records. The nearest record to Goa is from the Bababudan Hills, Karnataka (Joseph 2003).





## Notes





