# Birds of the Chindwin River and adjacent areas of the Chin and Naga Hills in western Myanmar

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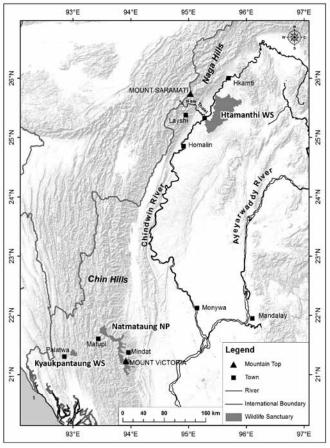
We carried out bird surveys along the Chindwin River, in the Chin and Naga Hills, and Htamanthi and Kyauk Pan Taung Wildlife Sanctuaries in western Myanmar during 2012 and 2013. The survey area covered parts of the central, north, west and south-west ornithological regions of Myanmar as defined by Robson (2013). During these surveys we recorded 424 species of which one, nine and 31 were new records for central, south-west and west Myanmar, respectively. We also recorded 16 Near Threatened, five Vulnerable and one Endangered species, suggesting that these areas are important for conservation in Myanmar. We recommend that an additional protected area be established in the Chin and Naga Hills of western Myanmar to further safeguard biodiversity.

## **INTRODUCTION**

Located in a zoological nexus between India and Bangladesh to the west, China to the north, Thailand to the east and Malaysia to the south, Myanmar (formerly known as Burma) supports one of the most diverse avifaunas in mainland South-East Asia (Smythies 1986, Khin Ma Ma Thwin et al. 2011). At least 1,056 avian species have been recorded in Myanmar, including four which are endemic (Republic of the Union of Myanmar 2011). Despite high levels of species richness, Myanmar has a relatively meagre history of ornithological exploration and research, particularly in recent years, and consequently the avifauna in many parts of the country remains poorly documented (Khin Ma Ma Thwin et al. 2011). In particular, there is a notable paucity of information on birds of the Chindwin River basin and the adjacent Chin and Naga Hills in north-west Myanmar. Most accounts of the regional avifauna were published prior to the Second World War by British colonial officials, foresters and military personnel; these include Baker (1931), Harrington (1904), Hopwood (1908a, 1908b, 1912, 1914a,b), Hopwood & MacKenzie (1917), Mears & Oates (1907), Ogilvie-Grant (1905a,b), Wood & Finn (1902) and Wickham (1918, 1929). Additionally, Colonel G. Rippon assembled an extensive collection from Mt Victoria in 1904 (Robson et al. 1998), further collecting was carried out on Mt Victoria during the summer of 1937 by Stresemann (Stresemann & Heinrich 1940), and an extensive collection was assembled in 1934-1935 from the upper Chindwin River by the Vernay-Hopwood Expedition (Morris 1936, Mayr 1938). In the post-war years, Ripley (1961) described birds collected by Milton & Estes (1963) in the Chin and Naga Hills, including Mt Saramati. However, with the exception of Robson et al. (1998) and Thet Zaw Naing (2003), more recent information appears lacking and, to our knowledge, published bird surveys are unavailable for this region. Presumably this is due in part to long-standing security concerns, which have precluded fieldwork in many parts of Myanmar (Bezuijen et al. 2010). Fortunately, the security situation has improved in recent years, making scientific research possible in some areas. Here we report observations of birds made during three expeditions to the Chindwin River, Chin and Naga Hills, and Htamanthi and Kyauk Pan Taung Wildlife Sanctuaries in western Myanmar in 2012–2013 (Figure 1).

## **STUDY AREA**

The Chindwin River is the largest tributary of the Ayeyarwady (Irrawaddy) River. Starting at the confluence of the Tanai, Topyay, Tawun and Taron rivers in the Hukaung Valley, Kachin State (Gresswell & Huxley 1965), the Chindwin leaves the valley through



**Figure 1**. Map of west-central Myanmar showing major urban centres, rivers, mountain ranges and wildlife sanctuaries mentioned in text. NP = National Park; WS = Wildlife Sanctuary.

a narrow gorge and flows southward along the base of the Chin and Naga Hills before debouching into the Ayeyarwady about 15 km upstream from Pakokku (Chhibber 1933). The length of the Chindwin River from its headwaters to the Ayeyarwady confluence is approximately 1,200 km (Gresswell & Huxley 1965). Hereafter we follow local convention and refer to the river downstream from Homalin as the lower Chindwin, and upstream from Homalin as the upper Chindwin. Both are characterised by wide meanders with extensive sandbanks exposed during low-water periods. The river is navigable to Khamti by shallow-draft boats for most of the year and serves as the primary transportation and trade artery for much of western Myanmar. Tributaries of the Chindwin River include the Uyu, Mu and Myithar rivers and Nam Thalet Chaung (Chhibber 1933, Gresswell & Huxley 1965).

Numerous villages and some larger towns are found along the lower Chindwin River, while the upper river remains sparsely settled and densely forested. Extensive agricultural lands, used mainly for wet season rice cultivation, surround most riverside communities. Natural vegetation along the lower river is characterised by thorn forest and scrub typical of the central dry zone, with a gradual transition to deciduous and evergreen forests following a gradient of increasing rainfall along the upper river (Brown 1911, Stamp & Lord 1923, Morris 1936). Dense stands of khaing grass (Saccharum sp.) and various bamboos are common along the banks of the river; the bamboos are often managed for commercial production. Seasonal agricultural and fishing settlements are scattered along the river channel, and crops are cultivated on many sandbanks exposed by falling water levels during the dry season (late October to early June). Industrial-scale gold dredging was formerly widespread along the Chindwin River, but became unprofitable as yields declined. Mining operations have since moved to large open pits on terrace lands adjacent to the river. Artisanal gold mining continues both in the river and on adjacent terrace lands. The environmental effects of gold mining along the Chindwin River remain poorly studied, although mercury contamination is widely assumed (Hill 2014). Construction of a hydropower dam planned for the Chindwin River (Biodiversity and Nature Conservation Association 2006) has apparently been cancelled.

The 2,151 km² Htamanthi Wildlife Sanctuary (25.332°N 95.294°E) was established in 1974 and lies between the Chindwin and Uyu rivers (Rabinowitz *et al.* 1995); it is currently the third-largest protected area in Myanmar, with an altitudinal range of 105 to 2,465 m (Istituto Oikos & BANCA 2011). Although poorly known floristically, the vegetation of the sanctuary is described as tropical evergreen and mixed deciduous forest with smaller areas of bamboo and scrub (Brown 1911, Rabinowitz *et al.* 1995, Istituto Oikos & BANCA 2011); the area is drained by four *chaung* (creek) systems (Nam Pelin Chaung, Nam Pagan Chaung, Nam Ei Sue Chaung and Nam Khway Din Chaung) that discharge into the upper Chindwin River.

The Chin and Naga Hills are part of a contiguous chain of mountains linking the Himalayas in the north with the Rakhine (formerly known as Arakan) Hills to the south. The central ridge of the Naga Hills forms the political boundary between Myanmar and India. The Chin and Naga Hills are characterised by extremely rugged topography consisting of steep ridges separated by narrow valleys and deep gorges (Saul 2005). Mt Victoria (3,095 m) and Mt Saramati (3,826 m) are the highest peaks in the Chin and Naga Hills respectively, although most ridges are somewhat lower—from 1,500 to 1,800 m. Nam Thalet Chaung, originating in the Sema region of India, pierces the central spine of the Naga Hills and flows into Myanmar, crossing a broad floodplain before debouching into the Chindwin River about 2 km upstream from Htamanthi. For much of its course, the Nam Thalet Chaung is swift-flowing, characterised by deep pools separated by numerous rapids and waterfalls (Saul 2005). In contrast to most tributaries of the Chindwin River, Nam Thalet Chaung is free of gold mining activity and consequently the water is clear with little turbidity (Platt et al. 2013a). Thick beds of filamentous algae and submerged macrophytes are found in the river, and dense semi-evergreen forest occurs in many places along the riverbank. Human population density along Nam Thalet appears relatively low (Platt et al. 2013a).

The vegetation of the Chin and Naga Hills in Myanmar is poorly described and modern floristic studies are lacking. Plant communities are largely determined by a combination of slope, aspect and altitude (Choudhury 2001). Low altitude habitats are characterised by a mixture of tropical evergreen and semi-evergreen forests, while montane sub-tropical forest, including pine *Pinus* sp. forest, is present above 1,000 m (de Terra 1944, Saul 2005). Temperate woody species such as *Quercus*, *Carpinus*, *Ilex* and *Rhododendron* and a

diverse epiphytic flora of orchids, ferns and mosses are found at the highest elevations (Choudhury 2001, Saul 2005, Platt *et al.* 2012b, 2013a). Extensive bamboo *Melocanna baccifera* brakes characterise the low altitudes of the southern Chin Hills. Bamboo brakes are thought to develop in response to disturbances such as shifting cultivation, fire, or both (Platt *et al.* 2010). The mast fruiting of *M. baccifera* that began in 2007 was followed by widespread culm die-back during 2008–2009 (Platt *et al.* 2010). Bamboo brakes have since regenerated and at the time of our visit, culms measured 5–8 m high in most areas (Platt *et al.* 2013b).

The Chin and Naga Hills are home to the Chin and Naga ethnic groups, a classification including a number of closely-related Indo-Mongoloid tribes (Diran 1999). These peoples inhabit permanent villages and practice swidden agriculture on the surrounding slopes using a system of taungya cultivation (von Furer-Haimendorf 1933, Diran 1999, Saul 2005); hillsides are cleared and burned in the dry season, upland rice Oryza sp. is planted at the onset of the wet season, and fields are cultivated for 1 to 3 years (sometimes longer) before being abandoned. Fallow periods are often lengthy (over 20 years), consequently much of the Chin and Naga Hills consists of a mosaic of secondary vegetation in various stages of growth, with relatively intact forest growing on terrain too steep to cultivate. Rice is also cultivated in permanent terraced fields and flooded with water from mountain springs.

Kyauk Pan Taung Wildlife Sanctuary (21.334°N 93.041°E) is located in Paletwa Township, southern Chin state, and covers 133 km² along the Mee River (Istituto Oikos & BANCA 2011). Kyauk Pan Taung is an isolated massif ranging in altitude from 25 m at the base to 1,310 m at the summit (Thom 1906, Istituto Oikos & BANCA 2011) and is surrounded by active and fallow taungya fields in various stages of regrowth, extending upwards to 200–250 m, followed by regenerating bamboo M. baccifera which intergrades into evergreen forest at 600–650 m. Forest on the upper slopes shows little evidence of human disturbance, and the summit is characterised by open savannah-like vegetation with abundant graminoids and scattered, low-stature trees (Platt et al. 2013b).

Western Myanmar experiences a tropical monsoon climate with a wet season extending from early June into late October or early November, followed by a dry season from late October until early June (de Terra 1944). Mean annual rainfall ranges from 750–1,250 mm along the lower Chindwin River (Stamp & Lord 1923) to over 2,500 mm at higher altitudes in the Chin and Naga Hills (Saul 2005). The region surrounding Kyauk Pan Taung is one of the wettest in Myanmar, with mean annual rainfall ranging from 3,000 to 3,300 mm (Thom 1906). High diurnal temperatures (up to 43°C) are typical of the dry season, with low nocturnal temperatures (down to 4°C) occurring during winter (January and February). Temperatures at higher altitudes rarely exceed 25°C even in the hottest months and commonly drop below freezing during December and January (Saul 2005).

## **ITINERARY AND METHODS**

We carried out fieldwork in western Myanmar from 3 February to 20 March 2012, 29 October to 26 November 2012 and 12 February to 17 March 2013, as part of a larger investigation into the conservation status of Critically Endangered endemic turtles *Batagur trivittata* and *Heosemys depressa* found in the region (Platt *et al.* 2012b, 2013a,b). Between 3–24 February 2012 we travelled 750 km up the Chindwin River from Monywa to Khamti aboard a shallow-draft riverboat (about 6 m wide × 36.5 m long × 1.8 m deep), making frequent stops at riverside villages and temporary encampments to interview inhabitants about the local occurrence of turtles. We then travelled on foot and by small boat into Htamanthi Wildlife Sanctuary and carried out surveys of Nam Pelin, Nam

Pagan, Nam Ei Sue and Nam Khway Din from 25 February to 1 March and from 3 to 6 March. On 2 March we travelled by small boat from the mouth of Nam Thalet Chaung, upstream for 15.4 km and returned to Htamanthi town; further upstream travel was deemed unsafe at the time owing to the reported presence of armed dacoits. On 7 March we left Htamanthi and travelled by road to Layshi. From there we proceeded on foot through the Naga Hills, eventually rejoining the road at Mile 25 Camp and returned by vehicle to Htamanthi town on 17 March. On 18–20 March, we travelled downstream to Homalin before departing for Yangon on 21 March.

In the southern Chin Hills, between 2–5 November 2012, we travelled by road from Mindat to Matupi, passing through the higher altitudes of Natma Taung National Park. After reaching Matupi we continued on foot, walking to Sami, whence we travelled by boat to Paletwa before returning to Sami on 14 November. From 15–17 November we travelled by boat from Sami to Mee Gyaung Ba Wa and climbed the summit of Kyauk Pan Taung. Unfortunately, unremitting heavy rainfall during this period forced us to curtail fieldwork while on the mountain. We departed Sami on 18 November and returned on foot to Matupi, arriving on 23 November, following a slightly different route from the Chin Hills. We left Matupi on 24 November and travelled by road to Mindat, returning to Yangon on 26 November.

On 12 February 2013 we travelled by air to Homalin, where we spent two days before proceeding up the Chindwin River to Htamanthi town on 14 February. We then continued by small boat on 16 February up Nam Thalet Chaung from its confluence with the Chindwin River to the first set of rapids (32.8 km) before returning to Htamanthi town on 20 February. After a short rest we went by road to Mul Dun Phai, crossed Nam Thalet Chaung and continued on foot through the Naga Hills from 24 February–8 March. While in the Naga Hills we made a brief foray between 1–5 March to highaltitude habitats above Lette village. From 8–15 March we travelled up the Chindwin River to Limpha village, returning downstream to Homalin and flying to Yangon on 17 March.

When travelling on the Chindwin River, at least one person (but usually several) stood watch on the bow of the boat to record observations. At stops to interview inhabitants of riverside villages about the occurrence of endangered turtles, we also searched for birds in the surrounding (usually agricultural) landscape. Bird surveys in the Naga Hills, Chin Hills and Kyauk Pan Taung were carried out throughout the day by several observers, generally as we moved between villages. We also surveyed in the early morning hours prior to beginning the day's march and late in the evening after reaching our destination. In Homalin we searched an extensive mosaic of natural wetlands and ricefields adjacent to the town.

We used a small, hand-held recorder with an attached speaker to broadcast vocalisations (downloaded from www.xeno-canto. org) of some species of interest and on occasion played back calls recorded in the field to coax individuals into view. Images were obtained of most species recorded during the survey and proved useful in resolving several problematic identifications. Local hunters were also a valuable source of information regarding the avifauna, particularly in the Chin and Naga Hills, where the harvest of wild birds is a culturally important activity among indigenous groups (Platt et al. 2012a). Our survey areas covered the central, south-west and west ornithological regions of Myanmar (King et al. 1975, Robson 2013). Place names are in accordance with local usage, and in general are phonetic transcriptions of local names. It should be noted that because an official government gazetteer does not yet exist, confusion continues to surround the correct spelling of anglicised Burmese names. Geographic coordinates (India-Bangladesh Datum) and altitude were determined with a Garmin® GPS 76 (Appendix 1).

#### **RESULTS**

In total we recorded 423 avian species during our surveys: 193 species along the Chindwin River, 188 in Htamanthi Wildlife Sanctuary, 88 along Nam Thalet Chaung, 271 in the Naga Hills, 180 in the Chin Hills, 138 in Kyauk Pan Taung Wildlife Sanctuary and the surrounding area, and 76 in wetlands near Homalin (Appendix 2). Of the species we recorded, one was a new record for central Myanmar, 31 new records for west Myanmar and nine new records for south-west Myanmar. During the surveys, we recorded one Endangered, five Vulnerable and 16 Near Threatened species (Appendix 2). Records of particular interest are discussed below; these include globally threatened and Near Threatened species, altitudinal records, and new records for the central, west and south-west ornithological regions of Myanmar. Conservation status is based on the IUCN Red List of Threatened Species (BirdLife International 2016).

## White-cheeked Partridge Arborophila atrogularis NT

On 19 February 2013 an image of a freshly-killed bird was obtained at an encampment of itinerant bamboo cutters along Nam Thalet Chaung (154 m). The bird was reportedly snared in nearby second-growth forest and bamboo.

## Blyth's Tragopan Tragopan blythii VU

Images of a male killed on Mt Saramati (specific locality data unavailable) 'about six months ago' (circa September 2012) were provided by one of our Naga guides on 2 March 2013. The Naga hunt pheasants for meat and feathers, the latter being used to bedeck traditional head-gear. Pheasants are taken with snares, catapults (slingshots) and locally-manufactured guns known as *toomeys*.

## Temminck's Tragopan Tragopan temminckii

On 2 March 2013 the fresh remains of a hunter-killed male were found in evergreen forest with a dense understory at 2,440 m on Mt Saramati. See preceding species for comment on hunting.

#### **Grey-sided Comb Duck Sarkidiornis melanotos**

Two birds observed in the Chindwin River near Hehlaw village on 13 February 2012 constitute the first record for this species in west Myanmar. A rare to scarce resident (subject to local movements) in north, central and south Myanmar, and a former resident of south-west and east Myanmar, where its status is currently unknown (Robson 2013).

## White-winged Duck Asarcornis scutulata EN

Two pairs observed in Htamanthi Wildlife Sanctuary. First pair observed at Nga Yant Inn, an open, heavily vegetated wetland along Nam Pelin Chaung, on 26 February 2012. The second pair encountered along Nam Pagan Chaung near Nam Pagan Basecamp on 29 February 2012; the vegetation along this creek consists of primary evergreen forest. Under-recording is likely owing to the secretive nature of this bird (Tordoff *et al.* 2007) and Htamanthi Wildlife Sanctuary could host a significant population of Whitewinged Duck.

## Ferruginous Duck Aythya nyroca NT

Three birds observed in the Chindwin River near Limpha village on 21 February 2012. Uncommon to rare winter visitor to western Myanmar (Robson 2013).

#### Painted Stork Mycteria leucocephala NT

Single bird observed near Paletwa on 10 November 2012. Current status has not been investigated in Myanmar, but considered rare (del Hoyo & Collar 2014).

## Spot-billed Pelican Pelecanus philippensis NT

Six birds observed along the Chindwin River, four near Thin Baw Kyun (15 February 2012) and two near Sin Nine village (17 February 2012).

## Black-headed Ibis Threskiornis melanocephalus NT

Thirteen individuals observed along the Chindwin River and in adjacent agricultural lands—one bird on Chindwin River at Monywa (6 February 2012), two birds on Chindwin River at Yuwa village (12 February 2012) and 10 birds in fallow rice-fields near Hehlaw (14 February 2012). Considered an uncommon but widespread winter visitor to Myanmar (del Hoyo & Collar 2014).

#### Purple Heron Ardea purpurea

Two birds observed at an extensive wetland on the outskirts of Homalin (14 March 2013) are the first records from west Myanmar. The dried wings of another Purple Heron were found at a nearby fishing camp. Robson (2013) describes the Purple Heron as a former resident (current status unknown) in south Myanmar and a scarce to locally common winter visitor elsewhere in Myanmar, except in the west.

## Oriental Darter Anhinga melanogaster NT

Eight birds recorded along Chindwin River, two near Limpha village (21 February 2012) and six between Limpha and Khamthi (23 February 2012). No evidence of breeding was noted during our survey. Formerly widespread in Myanmar; current status unknown, but possibly declining (del Hoyo & Collar 2014).

## Lesser Fish Eagle Icthyophaga humilis NT

Single bird observed in dense forest along Nam Pagan Chaung in Htamanthi Wildlife Sanctuary (1 March 2012). Scarce to locally common in Myanmar (Robson 2013).

## Grey-headed Fish Eagle Icthyophaga ichthyaetus NT

Single bird observed on the boundary of Htamanthi Wildlife Sanctuary near Limpha (23 February 2012). Rare to scarce resident in Myanmar (Robson 2013).

## Cinereous Vulture Aegypius monachus NT

Single bird passing over Matupi (1,201 m) on 23 November 2012 was probably a migrant in transit. Our observation was unexpected as the Cinereous Vulture is generally considered a lowland species (Robson 2013). Few recent records from Myanmar or elsewhere in South-East Asia (del Hoyo & Collar 2014).

## Black Eagle Ictinaetus malaiensis

Nine individuals recorded. A Black Eagle observed near Paletwa (11 November 2012) was the first record from south-west Myanmar. Uncommon to fairly common resident, except in south-west, central and eastern Myanmar (Robson 2013).

## Rufous-bellied Eagle Lophotriorchis kienerii

Single bird observed near Layshi (8 March 2012) was the first record from west Myanmar. Scarce to uncommon resident in north and south Myanmar (Robson 2013).

#### Watercock Gallicrex cinerea

Present in heavily vegetated wetlands near Homalin where we observed four birds on 13 February 2013. First report from west Myanmar. Uncommon to fairly common resident in central Myanmar, uncommon to locally common breeding visitor in north and east Myanmar, and recorded, but status uncertain, in south-west and south Myanmar (Robson 2013).

## Purple (Grey-headed) Swamphen Porphyrio porphyrio poliocephalus

Common in wetlands near Homalin; 67 birds observed on 19–20 March 2012. First report from west Myanmar. Considered scarce to locally common resident (subject to local movements) in other regions of Myanmar (Robson 2013).

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

Single birds recorded on sandbars in the Chindwin River at Minsin (19 February 2012) and Khamthi (23 February 2012).

#### River Lapwing Vanellus duvaucelii NT

We observed 50 birds in all: 23 birds were recorded along the Chindwin River—five near Masein village (11 February 2012), one at Yuwa (12 February 2012), one near Htamanthi (18 February 2012), two at Minsin (19 February 2012), five between Minsin and Kauk Thaung (East) (20 February 2012), two near Limpha (21 February 2012) and seven between Limpha and Khamthi (23 February 2012). Eight birds were recorded on Nam Thalet Chaung (2 March 2012). Nineteen birds were observed in the area surrounding Kyauk Pan Taung Wildlife Sanctuary, including four along Kaladan River near Paletwa (13 November 2012), nine on Mee River near Sami (14 November 2012) and six near Pai village (21 November 2012). Considered a scarce to locally common resident in Myanmar (Robson 2013).

## Pheasant-tailed Jacana Hydrophasianus chirurgus

Two birds observed in wetlands near Homalin (19 March 2012) constitute the first record from west Myanmar. Considered an uncommon to locally common resident (subject to some movements) in other regions of Myanmar (Robson 2013).

## Indian Skimmer Rynchops albicollis VU

A single bird was observed on the Chindwin River near Masein village (10 February 2012). Three birds were recorded in the Ayeyarwady River near Bagan in 1995 (Robson *et al.* 1998) and a flock of about 30 was seen near the mouth of the Mayu river, Rakhine state, in January 2008 (http://orientalbirdimages.org/search.php?Bird\_ID=940&Bird\_Image\_ID=33500&p=95) but otherwise recent records are lacking from Myanmar.

#### **Little Tern Sternula albifrons**

Seven birds recorded along the Chindwin River—three near Kani town (6 February 2012) and four between Hehlaw and Paung Pyin villages (14 February 2012); the latter was a new record for west Myanmar. Considered a coastal resident in Myanmar, but reported from inland regions along larger rivers elsewhere in South-East Asia (Robson 2013).

## Caspian Tern Hydroprogne caspia

Single bird observed on Chindwin River near Minkin town (8 February 2012) was a first record for central Myanmar. Previously reported from coastal regions of south Myanmar where it is considered a rare to scarce winter visitor (Robson 2013).

## River Tern Sterna aurantia NT

We observed 110 birds at various locations along the Chindwin River. Although a number of birds were in breeding plumage, we found no evidence of breeding. However, we consider it likely that nesting occurs during the dry season on some larger sandbanks, particularly those in mid-channel that are rarely visited by humans or livestock.

## Brown-headed Gull Larus brunnicephalus

A single bird recorded along the Chindwin River near Htamanthi (5 March 2012) was the first record for west Myanmar. Described as an uncommon to locally common winter visitor in south, south-west, central, north and east Myanmar (Robson 2013).

## Red Turtle Dove Streptopelia tranquebarica

Uncommon but observed at various locations along the Chindwin River; most records from agricultural lands near villages. The observation of a single bird at 2,298 m on the Mindat to Matupi road (4 November 2012) was a new altitudinal record, exceeding the 1,200 m given in Robson (2013).

#### Eastern Spotted Dove Streptopelia chinensis

Abundant in lowland agricultural landscapes throughout the region and *taungya* fields in Chin and Naga Hills. Two birds observed at 2,432 m along the Mindat to Matupi road (4 November 2012) exceed the previous elevation record of 2,040 m (Robson 2013).

## Grey-headed Parakeet Psittacula finschii NT

Twenty-two birds recorded—16 at Masein village (10 February 2012) and six near Mindat town (25 November 2012). Considered an uncommon to locally common resident in Myanmar (Robson 2013).

#### Blossom-headed Parakeet Psittacula roseata NT

Five birds—three near Kani town (7 February 2012) and two along Nam Thalet Chaung (2 March 2012). Considered an uncommon to locally common resident in Myanmar, except in the north (Robson 2013).

#### Collared Owlet Glaucidium brodiei

Vocalisations recorded on seven occasions and two birds observed near Paletwa; collectively these constitute the first records from south-west Myanmar. Considered a fairly common to common resident elsewhere in Myanmar (Robson 2013).

## Himalayan Swiftlet Aerodramus brevirostris

Group of 52 birds observed above Sami (13 November 2012) represents the first record for south-west Myanmar. Reported from north, central and south Myanmar and considered an uncommon resident in west and east Myanmar (Robson 2013).

## Silver-rumped Needletail Rhaphidura leucopygialis

A group of 26 birds observed above the summit of Kyauk Pan Taung (25 November 2012) was the first record from south-west Myanmar. Previously reported only from southern Tanintharyi, where it is described as an uncommon to common resident (Robson 2013).

## Dark-rumped Swift Apus acuticauda

A group of 24 birds observed in the Naga Hills between Peinne Kone and Teekon villages (16 March 2012) was the first record from west Myanmar. We identified these swifts on the basis of their large body size, very dark colouration, and dark rump (i.e. the white rump band characteristic of *A. pacificus* was lacking). Robson (2013) describes the Dark-rumped Swift as scarce in north Myanmar, but cautions that its status is unknown and it could be resident.

## **Great Hornbill Buceros bicornis NT**

We observed 23 Great Hornbills, including 11 in Htamanthi Wildlife Sanctuary (seven birds along Nam Pelin Chaung on 26 February 2012, two along Nam Pagan stream on 1 March and two near Hmaw Yom Myaing on 3 March 2012), two at Limpha village (23 February 2013) and two near Teekon village in the Naga Hills (16 March 2012). Great Hornbills (and other hornbills) are highly valued by the Chin and Naga for their meat and feathers; the latter are used to bedeck traditional head-gear. Although a more quantitative assessment is currently unavailable, widespread hunting is probably causing population declines among most hornbill species

in the Naga and Chin Hills (for status in Nagaland, north-east India, see Choudhury 2001).

## Rufous-necked Hornbill Aceros nipalensis VU

Three birds observed, one near Tekon village in the Naga Hills (16 March 2012) and two near Twi Shi in the Chin Hills (23 November 2012). A dried casque was also found in the skull collection of a Naga hunter, and another was on display in a restaurant in Mindat. Like other hornbills, Rufous-necked Hornbills are hunted by indigenous people for meat and plumage. Indigenous hunters interviewed near Natma Taung National Park claimed that Rufous-necked Hornbills were present at higher altitudes from November to February and departed in mid- to late March, suggesting a local altitudinal migration (Platt *et al.* 2011).

## Great Slaty Woodpecker Mulleripicus pulverulentus VU

A group of four birds observed in undisturbed tropical evergreen forest along Nam Ei Sue Chaung in Htamanthi Wildlife Sanctuary (6 March 2012). This species requires relatively undisturbed oldgrowth forest with many large-diameter trees for foraging and nesting (Lammertink *et al.* 2009). Htamanthi Wildlife Sanctuary is probably an important habitat for this declining species.

#### **Collared Treepie Dendrocitta frontalis**

A single bird in secondary forest on the edge of Teekon in the Naga Hills (16 March 2012) was the first record for west Myanmar. Considered a resident in north Myanmar (Robson 2013).

## Hooded Treepie Crypsirina cucullata NT

Single bird observed in dry scrub forest near Monywa (6 February 2012).

## **Rosy Pipit Anthus roseatus**

Three birds observed on sandbars in the Chindwin River between Minsin and Kauk Thaung (20 February 2012) were the first record from west Myanmar. Considered an uncommon winter visitor in south-west, north, central, east and south Myanmar (Robson 2013).

## **Red-throated Pipit Anthus cervinus**

Two birds observed on a sandbar in the Chindwin River at Paung Pyin (14 February 2012) were the first record from west Myanmar. Elsewhere in Myanmar the Red-throated Pipit is described as an uncommon to locally common visitor (Robson 2013).

## Beautiful Nuthatch Sitta formosa VU

A pair in mature tropical evergreen forest between Jecok and Teekon in the Naga Hills on 16 March 2012 were the first record from west Myanmar; scarce to uncommon resident in north, south, south-west and east Myanmar (Robson 2013).

#### Spot-winged Starling Saroglossa spiloptera

A total of 44 Spot-winged Starlings were observed along the upper Chindwin River, a flock of 31 feeding on nectar in flowering *Bombax* at Limpha (22 February 2012) and 13 at Hmaw Yom Myaing (4 March 2012). The first records from west Myanmar. Considered a rare to uncommon winter visitor in north, central, east and south Myanmar (Robson 2013).

## Hodgson's Redstart Phoenicurus hodgsoni

Three recorded in Naga Hills: two between Setpyar and Chalyar (12 March 2012) and another between Jecok and Teekon (16 March 2012). First records from west Myanmar. Considered an uncommon winter visitor to north Myanmar (Robson 2013).

## Black Redstart Phoenicurus ochruros

Single bird observed near Kyat Chaung (11 November 2012). First

record for south-west Myanmar. Considered a scarce to uncommon winter visitor in west, north, central and east Myanmar (Robson 2013).

## Hill Blue Flycatcher Cyornis banyumas

Three birds observed in the Naga Hills, two near Setpyar (11 March 2012) and another at Jecok (15 March 2012), are the first records for west Myanmar. Uncommon to common resident in north, south and east Myanmar; also recorded in central Myanmar, although its status in this region remains unclear (Robson 2013).

#### White-crowned Forktail Enicurus leschenaulti

A single bird observed near Kayet (20 November 2012) was the first record for south-west Myanmar. Described as a fairly common resident throughout much of Myanmar, except in the south-west (Robson 2013).

## Small Niltava Niltava macgrigoriae

Single male observed near Setpyar village (11 March 2012) was the first record from west Myanmar. Uncommon to fairly common resident in north, east and south-east Myanmar (Robson 2013).

#### **Green-backed Tit Parus monticolus**

Twenty-three Green-backed Tits were recorded at various locations in the southern Chin Hills. Two observed near Lower Pai (20 November 2012) were the first record for south-west Myanmar. Common resident in west and north Myanmar (Robson 2013).

## Sand Lark Alaudala raytal

A total of 119 Sand Larks were observed at various locations along the Chindwin River—42 and 77 in central and west Myanmar respectively. The latter were the first records from west Myanmar (Robson 2013).

## Bianchi's Warbler Phylloscopus valentini

A bird observed near Teekon in the Naga Hills (16 March 2012) was the first record from west Myanmar. Uncommon to fairly common winter visitor in central, south and east Myanmar (Robson 2013).

## Grey-cheeked Warbler Phylloscopus poliogenys

A bird observed near Setpyar (13 March 2012) and two birds near Twi Shi (23 November 2012) were the first records from west Myanmar. Fairly common resident in north Myanmar (Robson 2013).

## Rufous-headed Parrotbill Psittiparus bakeri

A total of 21 birds recorded in the Naga Hills, 14 between Namiyupi and Layshi (10 March 2012), five near Jecok (15 March 2012) and two near Teekon (17 March 2012). Most observations made in second-growth forest resulting from the abandonment of *taungya* fields. First reports from west Myanmar; considered a scarce to uncommon resident in north, east and south-east Myanmar (Robson 2013).

#### Japanese White-eye Zosterops japonicus

A total of 15 observed in Naga Hills, two at Hmaw Yom Myaing (4 March 2012), eight between Namiyupi and Layshi (10 March 2012), two near Chalyar (12 March 2012), two at Setpyar (13 March 2012) and one at Teekon (16 March 2012). First records for west Myanmar. Common winter visitor in northern Tanintharyi and central, south and east Myanmar (Robson 2013).

#### Black-chinned Yuhina Yuhina nigrimenta

A total of 58 birds recorded in the Naga Hills, five between Namiyupi and Layshi (9 March 2012) and 53 between Setpyar and Chalyar (12 March 2012). Locally common resident in north Myanmar, but not previously reported from west Myanmar (Robson 2013).

#### Grey-cheeked Fulvetta Alcippe morrisonia

Twenty-two birds recorded, four along Nam Pagan Chaung in Htamanthi Wildlife Sanctuary (29 February 2012), 16 near Setpyar village (11 March 2012) and two near Chalyar village (12 March 2012); the latter two localities are in the Naga Hills. First records for west Myanmar. Common resident in north, east, central (east) and south (east) Myanmar (Robson 2013).

#### Rufous-throated Fulvetta Schoeniparus rufogularis

Two birds observed between Wam Bae Ywa Ma and Yaw Haw in the Naga Hills (26 February 2013). First record from west Myanmar. Scarce to locally common resident in north Myanmar (Robson 2008).

#### Red-billed Scimitar Babbler Pomatorhinus ochraceiceps

Ten birds recorded in the Naga Hills, four at Setpyar (13 March 2012), one between Jecok and Teekon (16 March 2012) and five near Teekon (17 March 2012). First records for west Myanmar. Considered an uncommon resident in north, south (east) and Tanintharyi regions of Myanmar (Robson 2013).

#### Golden Babbler Cyanoderma chrysaeum

Two birds observed at Kyauk Pan Taung (17 November 2012) were the first record from south-west Myanmar. Common resident throughout Myanmar except in central and south-west (Robson 2013).

## Striated Babbler Argya earlei

Three birds observed along a trail between Wan Bae Ywa Ma and Yaw Haw in the Naga Hills (27 February 2013) were the first record for west Myanmar. Common resident in north, central, south and south-west Myanmar (Robson 2013).

#### Black-throated Laughingthrush Garrulax chinensis

Single bird observed at 2,740 m in Rhododendron thicket on the trail to summit of Mt Saramati. First record from west Myanmar. Fairly common to common resident in central, east, south Myanmar and Tanintharyi (Robson 2013).

## Striated Laughingthrush Grammatoptila striata

Sixteen birds were observed; 12 between Namiyupi and Layshi (9 March 2012) and two along the trail to the summit of Mt Saramati (3 March 2013) were first records for west Myanmar. Uncommon to locally common resident in north Myanmar (Robson 2008).

## White-browed Laughingthrush Garrulax sannio

Two birds observed near Namiyupi (10 March 2012) were the first record from west Myanmar. Locally common to common resident in north, central and east Myanmar (Robson 2013).

#### Dark-necked Tailorbird Orthotomus atrogularis

Twenty-seven birds recorded in the Chin Hills, including 17 at Kyauk Pan Taung (15–17 November 2012). Six between Kayet and Lower Pai (20 November 2012) were the first records for south-west Myanmar. Common resident elsewhere in Myanmar (Robson 2013).

## **DISCUSSION**

Our surveys indicate that western Myanmar hosts a diverse avifauna, which is not surprising given the sparse human population and wide habitat diversity in the region (see also Choudhury 2001). The considerable number of new records for west Myanmar suggests that the region remains under-surveyed. Additional surveys of this biologically diverse region seem warranted and would no doubt yield new and potentially important distribution records. The number of

Near Threatened, Vulnerable and Endangered species we recorded indicates that the region is significant for avifaunal conservation in Myanmar. Of particular importance is the upper Chindwin River, which by regional standards is in better condition than many rivers in South-East Asia (Dudgeon 1992, 2000) and consequently holds important wintering and perhaps breeding habitat for species associated with larger rivers (e.g. shorebirds, lapwings, terns, pelicans and herons).

We consider commercial and subsistence hunting and habitat destruction to be the primary threats to avifauna and other wildlife in western Myanmar (Platt et al. 2011, 2012b, 2013a,b). Birds are considered a delicacy by the indigenous Chin and Naga people and are widely hunted for both domestic consumption and sale in local markets (Sayer 1983, Thet Zaw Naing 2003, Platt et al. 2012a). Birds' skins and plumage and hornbill casques are also used for bedecking traditional head-gear (Platt et al. 2012a). Indigenous people employ a variety of hunting strategies to harvest birds, including birdlime, slingshots (catapults), nets, snares, traps and muzzle-loading flintlock muskets charged with artisanal gunpowder (Platt et al. 2011, 2012a). Hunting appears less widespread among ethnic groups dwelling in lowland regions of western Myanmar, but nevertheless occurs, with larger species such as Red Junglefowl Gallus gallus, pheasants and hornbills seemingly the preferred quarry (Platt et al. 2012b, 2013a).

Myanmar contains some of the largest tracts of intact forest remaining in South-East Asia, although increasing deforestation due to agricultural conversion, fuel-wood harvesting, charcoal production, commercial logging and plantation development gives cause for concern (Leimgruber et al. 2005). Exploitation of commercially valuable timber (especially teak) in lowland forests along the upper Chindwin River dates back to the British colonial period and continues today (Bryant 1997, Brunner et al. 1998). Nonetheless, forests in this region are largely intact and annual deforestation rates remain relatively low (Leimgruber et al. 2005). In contrast, parts of the Chin and Naga Hills are considered deforestation hotspots, with annual deforestation rates ranging from 0.2-0.5% (Leimgruber et al. 2005). Most upland forest loss is attributable to shifting cultivation associated with rice production, which ultimately results in a mosaic of cultivated fields interspersed with fallow land in various stages of forest regrowth (Platt et al. 2013a,b). Because fallow periods are lengthy, secondary forests are the dominant land cover in much of the Chin and Naga Hills. While often tainted with a reputation for being degraded and therefore less valuable than undisturbed primary forests (Heinimann et al. 2007), secondary forests are an underrated component of tropical landscapes and can play an important role in local biodiversity conservation (Parry et al. 2007, Chazdon et al. 2009, Platt et al. 2010). We therefore urge that future conservation initiatives in the highlands of western Myanmar recognise the value of secondary forests and seek to incorporate such habitats into the protected area

The Chin and Naga Hills ecoregion is currently underrepresented in the national protected area system of Myanmar (Instituto Oikos & BANCA 2011). We reiterate here an earlier recommendation (Platt et al. 2013a) that serious consideration be given to designating Mt Saramati and the surrounding uplands a 'state protected area' linked by a riverine corridor along Nam Thalet Chaung to the lowland forests in and around Htamanthi Wildlife Sanctuary. A state-level protected area would be managed by local government and stakeholders (with technical assistance from NGOs) who would reap the economic benefits of tourism. Although state-level protected areas represent a novel approach to conservation in Myanmar, such a designation appears warranted in the highlands of western Myanmar where local ethnic groups enjoy an exceptional degree of political autonomy. Given the relatively extensive and undisturbed subtropical and temperate high-altitude forests, abundant wildlife and scenic grandeur, as tourism expands in Myanmar, Mt Saramati certainly has the potential to become a premier attraction for those interested in adventure travel, birdwatching and other outdoor pursuits, while at the same time contributing to biodiversity conservation.

## **ACKNOWLEDGEMENTS**

We thank U Win Tun (Minister of Environmental Conservation and Forestry), U Saw Lwin (Director General of Planning and Statistics Department, Ministry of Environmental Conservation and Forestry), U Tin Tun (Deputy Director General, Planning and Statistics Department, Ministry of Environmental Conservation and Forestry), U Aye Myint Maung (Director General, Forest Department), U Nyi Nyi Kyaw (Deputy Director General, Forest Department) and U Win Naing Thaw (Director, Nature and Wildlife Conservation Division) for granting us permission to conduct fieldwork in Myanmar. This project was made possible by the generous support of Andy Sabin and the Sabin Family Foundation. We also thank Colin Poole, U Than Myint, Rick Hudson, U Saw Htun, U Maung Win, U Zaw Naing Tun and U Moe Myint Aung for supporting this project, Madeline Thompson (WCS) for locating a number of obscure references, and U Kyaw Zay Ya for preparing our maps. Comments by Lewis Medlock improved an earlier draft of this manuscript.

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Appendix 1. Geographic coordinates and altitude (m) of localities mentioned in the text. Place names in agreement with local usage; listed alphabetically.

Location	Coordinates	Altitude (m)
Chalyar	25.521°N 94.907°E	817
Hmaw Yom Myaing	25.201°N 95.166°E	143
Hehlaw village	24.174°N 94.688°E	78
Homalin	24.862°N 94.910°E	125
Htamanthi	25.332°N 95.294°E	137
Jecok village	25.549°N 95.028°E	996
Kani town	22.443°N 95.857°E	77
Khamthi	25.996°N 95.701°E	144
Kayet	21.386°N 93.171°E	656
Kyat Chaung	21.320°N 93.189°E	381
Kyauk Pan Taung (summit)	21.334°N 93.041°E	1,055
Kauk Thaung (East)	25.727°N 95.451°E	130
Layshi	25.445°N 94.960°E	1,310
Lette	25.645°N 95.021°E	1,470
Limpha village	25.805°N 95.528°E	133
Masein	23.370°N 94.343°E	88
Matupi	21.604°N 93.463°E	1,202
Mee Gyaung Ba Wa	21.350°N 93.071°E	35
Mile 25 Camp	25.447°N 95.078°E	650
Mindat	21.370°N 93.973°E	1,456

Location	Coordinates	Altitude (m)
Minkin	22.873°N 94.498°E	115
Minsin	25.529°N 95.377°E	136
Mul Dun Phai	25.420°N 95.197°E	161
Monywa	22.122°N 95.124°E	78
Nam Pagan Camp	25.329°N 95.482°E	136
Namiyupi Ywama	25.401°N 94.886°E	1,234
Nga Yant Inn Camp	25.122°N 95.531°E	190
Pai (Lower)	21.422°N 93.251°E	360
Paletwa	21.303°N 92.860°E	23
Paung Pyin	24.270°N 94.817°E	105
Peinne Kone	25.483°N 94.970°E	960
Sami	21.292°N 93.100°E	52
Setpyar village	25.634°N 94.946°E	1,124
Sin Nine village	25.261°N 95.170°E	131
Teekon village	25.494°N 95.027°E	1,325
Twi Shi	21.501°N 93.380°E	1,546
Wam Bae Ywa Ma	25.553°N 95.132°E	518
Yaw Haw	25.571°N 95.086°E	792
Yuwa village	23.891°N 94.541°E	106

## Appendix 2.

Checklist of birds recorded during surveys of western Myanmar in 2012–2013.

Key: VU = Vulnerable; NT = Near Threatened; EN = Endangered.

Status in Myanmar: R = Resident; WV = winter visitor; BV = breeding visitor; NBV = non-breeding visitor; REC = recorded but breeding status uncertain; NW = new record for west Myanmar; NSW = new record for south-west Myanmar; NC = new record for central Myanmar.

Location: CR = Chindwin River; HW = Htamanthi Wildlife Sanctuary; NH = Naga Hills; NC = Nam Thalet Chaung; HO = wetlands near Homalin; CH = Chin Hills; KW = Kyauk Pan Taung Wildlife Sanctuary.

				L	ocati	ion							Lo	cati	on		
Species	Status	CR	HW	NH	NC	НО	CH	KW	Species	Status	CR	HW	NH	NC	НО	CH	KW
Chinese Francolin Francolinus pintadeanus	R	X							Spot-billed Pelican <i>Pelecanus philippensis</i> NT	WV	Х						
Hill Partridge Arborophila torqueola	R						X		Black-headed Ibis <i>Threskiornis melanocephalus</i> NT	WV	X						
White-cheeked Partridge Arborophila atrogularis NT	R				Х				Black-crowned Night Heron Nycticorax nycticorax	R	Х						
Rain Quail <i>Coturnix coromandelica</i>	R	X							Green-backed Heron Butorides striata	R	Х	X	Х	X			
Blyth's Tragopan <i>Tragopan blythii</i> VU	R			Х					Indian Pond Heron <i>Ardeola grayii</i>	R	х	X	х	X			
Temminck's Tragopan <i>Tragopan temminckii</i>	R			Х					Pond Heron <i>Ardeola</i> sp.	R					х		Х
Red Junglefowl <i>Gallus gallus</i>	R	Х	Х	X	Х		Х	х	Cattle Egret <i>Bubulcus ibis</i>	R	Х	X	X	X	х		Х
Kalij Pheasant <i>Lophura leucomelanos</i>	R		Х	Х				х	Grey Heron <i>Ardea cinerea</i>	WV	х						
Grey Peacock Pheasant Polyplectron bicalcaratum	R		Х	Х			Х	х	Purple Heron <i>Ardea purpurea</i>	NW					х		
Lesser Whistling Duck <i>Dendrocygna javanica</i>	R	X	Х	Х	Х	Х			Great Egret <i>Ardea alba</i>	R	х	X	х	Х	х		
Bar-headed Goose Anser indicus	WV	X							Intermediate Egret <i>Ardea intermedia</i>	R/WV	х	X					Х
Grey-sided Comb Duck Sarkidiornis melanotos	NW	Х							Little Egret <i>Egretta garzetta</i>	R	Х	Х	Х	Х	х		х
Common Shelduck <i>Tadorna tadorna</i>	WV	Х							Little Cormorant <i>Microcarbo niger</i>	R	х	X			х		
Ruddy Shelduck <i>Tadorna ferruginea</i>	WV	Х		Х	Х	Х		х	Great Cormorant <i>Phalacrocorax carbo</i>	WV	х	X	х	Х			Х
White-winged Duck Asarcornis scutulata EN	R		Х						Oriental Darter <i>Anhinga melanogaster</i> NT	R	х	X					
Cotton Pygmy Goose Nettapus coromandelianus	R		Х						Collared Falconet Microhierax caerulescens	R	Х	Х	Х	Х	х		х
Gadwall Mareca strepera	WV	X		Х	Х				Common Kestrel <i>Falco tinnunculus</i>	WV	х	X	х	Х			Х
Mallard Anas platyrhynchos	WV	X							Eurasian Hobby <i>Falco subbuteo</i>	WV	х		х	Х		Х	
Indian Spot-billed Duck Anas poecilorhyncha	R	Х		Х	Х	Х			Oriental Hobby <i>Falco severus</i>	R			х			Х	
Ferruginous Duck <i>Aythya nyroca</i> NT	WV	Х							Peregrine Falcon <i>Falco peregrinus</i>	WV	Х	Х	Х	Х			х
Little Grebe Tachybaptus ruficollis	R		Х						Osprey <i>Pandion haliaetus</i>	WV	Х	Х	Х				
Painted Stork <i>Mycteria leucocephala</i> NT	NBV							х	Oriental Honey Buzzard <i>Pernis ptilorhynchus</i>	R	х	X	х			Х	Х
Asian Openbill Anastomus oscitans	WV	Х							Black-winged Kite <i>Elanus caeruleus</i>	R	Х				х		
Black Stork <i>Ciconia nigra</i>	WV	Х	х						Black Kite <i>Milvus migrans</i>	WV	Х						
Asian Woollyneck <i>Ciconia episcopus</i> VU	R	Х							Lesser Fish Eagle <i>lchthyophaga humilis</i> NT	R		X					

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Species	Status	CR	HW	NH	NC	НО	CH	KW	Spe
Grey-headed Fish Eagle <i>lchthyophaga ichthyaetus</i> NT	R		Х						Easte
Cinereous Vulture Aegypius monachus NT	WV						X		Grey-
Crested Serpent Eagle <i>Spilornis cheela</i>	R	X	Х	Х	X	X	X	X	Ashy
Western Marsh Harrier Circus aeruginosus	WV					X			Thick
Pied Harrier Circus melanoleucos	WV	X	Х	Х	X	X			Yello
Crested Goshawk Accipiter trivirgatus	R	X	Х	Х	X				Pin-t
Shikra <i>Accipiter badius</i>	R	X					X	X	Wed
Besra Accipiter virgatus	R	X	Х					X	Gree
Eurasian Sparrowhawk <i>Accipiter nisus</i>	WV						X	X	Mou
Grey-faced Buzzard <i>Butastur indicus</i>	V						X		Grey-
Himalayan Buzzard <i>Buteo refectus</i>	WV	X		Х	X		X	X	Bloss
Black Eagle <i>Ictinaetus malaiensis</i>	R / NSW						X	Х	Red-
Rufous-bellied Eagle <i>Lophotriorchis kienerii</i>	NW			Х					Paral
Mountain Hawk Eagle <i>Nisaetus nipalensis</i>	R						X		Large
Changeable Hawk Eagle <i>Nisaetus cirrhatus</i>	R			X					India
White-breasted Waterhen Amaurornis phoenicurus	R			X	X			X	Band
Black-tailed Crake <i>Zapornia bicolor</i>	R			X					Plain
Watercock <i>Gallicrex cinerea</i>	NW					X			Dron
Purple (Grey-headed) Swamphen Porphyrio p. poliocephalus	R/NW		х			х			West
Common Moorhen <i>Gallinula chloropus</i>	WV		Х	х	X				Gree
Buttonquail <i>Turnix</i> sp.	R	X							Grea
ndian Thick-knee <i>Burhinus indicus</i>	R	X							Lesse
Great Thick-knee <i>Esacus recurvirostris</i> NT	R	X							Com
Pacific Golden Plover <i>Pluvialis fulva</i>	WV	х							Mou
River Lapwing <i>Vanellus duvaucelii</i> NT	R	х			X				Colla
Grey-headed Lapwing Vanellus cinereus	WV	X	х	Х	X	X		X	Orier
Red-wattled Lapwing <i>Vanellus indicus</i>	R			х	X			x	Brow
Little Ringed Plover <i>Charadrius dubius</i>	WV	X	х	Х	X				Brow
Kentish Plover <i>Charadrius alexandrinus</i>	WV	Х	х	Х	Х				Colla
Lesser Sand Plover <i>Charadrius mongolus</i>	WV	х							Asiar
Pheasant-tailed Jacana <i>Hydrophasianus chirurgus</i>	NW		х			Х			Spot
Bronze-winged Jacana <i>Metopidius indicus</i>	R		х			Х			Grea
Snipe <i>Gallinago</i> sp.	R/WV					Х			Grey
Common Sandpiper <i>Actitis hypoleucos</i>	WV	Х	х	Х	Х			Х	Larg
Green Sandpiper <i>Tringa ochropus</i>	WV	Х	х	Х	Х	х		Х	India
Spotted Redshank <i>Tringa erythropus</i>	WV	Х							Hima
Common Greenshank <i>Tringa nebularia</i>	WV	Х	х	Х	х				Silve
Wood Sandpiper <i>Tringa glareola</i>	WV					х			Brow
Temminck's Stint <i>Calidris temminckii</i>	WV	Х							Asiar
Little Pratincole <i>Glareola lactea</i>	R	х	х						Pacif
Indian Skimmer <i>Rynchops albicollis</i> VU	R	х							Dark-
Little Tern Sternula albifrons	R/NW	х							Hous
Caspian Tern <i>Hydroprogne caspia</i>	NC	х							Crest
River Tern <i>Sterna aurantia</i> NT	R	Х							Red-
Brown-headed Gull <i>Larus brunnicephalus</i>	NW	Х							India
Rock Dove <i>Columba livia</i>	R	Х		Х	Х	Х	Х		0rier
Oriental Turtle Dove <i>Streptopelia orientalis</i>	R		Х	Х	Х		Х	Х	Whit
Red Turtle Dove <i>Streptopelia tranquebarica</i>	R	х	х	Х		Х	Х		Blue-

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Species	Status	CR	HW	NH	NC		CH	KW
Eastern Spotted Dove Spilopelia chinensis	R	х	х	Х	Х	Х	Х	Х
Grey-capped Emerald Dove <i>Chalcophaps indica</i>	R		х	Х			Х	
Ashy-headed Green Pigeon <i>Treron phayrei</i>	R		х	Х				х
Thick-billed Green Pigeon Treron curvirostra	R	х	х	Х				
Yellow-footed Green Pigeon Treron phoenicopterus	R							Х
Pin-tailed Green Pigeon <i>Treron apicauda</i>	R		х	х				
Wedge-tailed Green Pigeon Treron sphenurus	R						Х	
Green Imperial Pigeon <i>Ducula aenea</i>	R	Х	х	Х	Х		Х	Х
Mountain Imperial Pigeon <i>Ducula badia</i>	R			Х			Х	
Grey-headed Parakeet <i>Psittacula finschii</i> NT	R	Х					Х	
Blossom-headed Parakeet <i>Psittacula roseata</i> NT	R	Х	х	Х	Х			
Red-breasted Parakeet Psittacula alexandri	R	Х						Х
Parakeet <i>Psittacula</i> sp.	R			Х	Х			
Large Hawk Cuckoo Hierococcyx sparverioides	R			х				Х
Indian Cuckoo Cuculus micropterus	R	х	Х	Х				
Banded Bay Cuckoo Cacomantis sonneratii	R			Х				
Plaintive Cuckoo Cacomantis merulinus	R	Х	х	Х		Х		
Drongo Cuckoo Surniculus lugubris	R		X	Х			Х	х
Western Koel Eudynamys scolopaceus	R	Х						
Green-billed Malkoha <i>Phaenicophaeus tristis</i>	R	^	Х	Х			Х	х
Greater Coucal Centropus sinensis	R	х	X	^		х	X	X
Lesser Coucal Centropus bengalensis	R	X	^	Х		^	^	X
Common Barn Owl Tyto alba	R	X		^				^
Mountain Scops Owl Otus spilocephalus	R	X	Х	Х			х	х
	R	^	X	X			X	X
Collared Scops Owl Otus lettia Oriental Scops Owl Otus sunia	R		Α	X				Χ
	R						X	
Brown Fish Owl Ketupa zeylonensis								Х
Brown Wood Owl Strix leptogrammica	R / NCW/						X	
Collared Owlet Glaucidium brodiei	R/NSW		Х	Х			X	Х
Asian Barred Owlet Glaucidium cuculoides	R	Х	Х	X			X	Х
Spotted Owlet Athene brama	R	Х						
Great Eared Nightjar Lyncornis macrotis	R		Х					
Grey Nightjar Caprimulgus jotaka	R			Х				
Large-tailed Nightjar Caprimulgus macrurus	R		Х					
Indian Nightjar Caprimulgus asiaticus	R			Х				
Himalayan Swiftlet Aerodramus brevirostris	R / NSW		Х	Х				Х
Silver-rumped Needletail Rhaphidura leucopygialis	NSW							Х
Brown-backed Needletail Hirundapus giganteus	R		Х	Х			X	
Asian Palm Swift Cypsiurus balasiensis	R	X	Х	X	X	X		X
Pacific Swift Apus pacificus	R							X
Dark-rumped Swift Apus acuticauda	NW			Х				
House Swift Apus nipalensis	R / REC	Х	Х	X				X
Crested Treeswift Hemiprocne coronata	R	X	X					
Red-headed Trogon Harpactes erythrocephalus	R			Х			X	X
Indian Roller Coracias benghalensis	R	Х				Х	X	X
Oriental Dollarbird Eurystomus orientalis	R	X	Х	X	X		X	
White-breasted Kingfisher Halcyon smyrnensis	R	Х	X	X	X	Х		X
Blue-eared Kingfisher Alcedo meninting	R	Х	Х					

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Species	Status	CR	HW	NH	NC	НО	СН	KW
Common Kingfisher Alcedo atthis	R	Х	Х	Х	χ	Х		х
Pied Kingfisher <i>Ceryle rudis</i>	R	Х	х	Х	X			
Blue-bearded Bee-eater Nyctyornis athertoni	R	X	Х	Х			Х	Х
Asian Green Bee-eater Merops orientalis	R	X		х	X	Х	Х	Х
Blue-tailed Bee-eater Merops philippinus	BV			Х		Х		
Chestnut-headed Bee-eater Merops leschenaulti	R	Х	Х	х	χ		Х	х
Common Hoopoe <i>Upupa epops</i>	R		х	х	χ	Х		
Oriental Pied Hornbill Anthracoceros albirostris	R	Х	х	х	X			х
Great Hornbill <i>Buceros bicornis</i> NT	R		х	х			Х	х
Rufous-necked Hornbill <i>Aceros nipalensis</i> VU	R			х			Х	
Wreathed Hornbill <i>Rhyticeros undulatus</i>	R	Х						
Great Barbet <i>Psilopogon virens</i>	R			Х			Х	Х
Lineated Barbet Psilopogon lineatus	R	Х	х	х	Х	Х	Х	х
Golden-throated Barbet Psilopogon franklinii	R			х			Х	
Blue-throated Barbet Psilopogon asiaticus	R	Х	х	х	Х		Х	х
Blue-eared Barbet Psilopogon cyanotis	R		Х	Х				х
Coppersmith Barbet <i>Psilopogon haemacephalus</i>	R	Х	х	х		Х		
Eurasian Wryneck <i>Jynx torquilla</i>	WV			Х				
Speckled Piculet Picumnus innominatus	R			Х			Х	
White-browed Piculet Sasia ochracea	R		х	Х				Х
Grey-capped Woodpecker Picoides canicapillus	R			Х				
Fulvous-breasted Woodpecker <i>Dendrocopos macei</i>	R			Х				
Stripe-breasted Woodpecker <i>Dendrocopos atratus</i>	R						Х	
Rufous Woodpecker <i>Micropternus brachyurus</i>	R		х				^	
Greater Yellownape Chrysophlegma flavinucha	R		x	Х				
Lesser Yellownape <i>Picus chlorolophus</i>	R		х	X				
Black-naped Woodpecker <i>Picus guerini</i>	R		^	^			Х	Х
Greater Flameback Chrysocolaptes guttacristatus	R	х	Х				X	X
Pale-headed Woodpecker <i>Gecinulus grantia</i>	R	^	^	v			^	^
Bay Woodpecker Blythipicus pyrrhotis	R		v	X			v	v
Great Slaty Woodpecker	R		X	Х			Α	Х
Mulleripicus pulverulentus VU Long-tailed Broadbill <i>Psarisomus dalhousiae</i>	R		Х	Х			Х	
Silver-breasted Broadbill Serilophus lunatus	R		Α				Α	
White-browed Shrike-babbler Pteruthius aeralatus	R			X				
Green Shrike-babbler Pteruthius xanthochlorus	R			Х				
							X	
Black-eared Shrike-babbler Pteruthius melanotis	R			X			X	
White-bellied Erpornis Erpornis zantholeuca	R		Х	X			X	
Large Cuckooshrike Coracina javensis	R	Х		X			Х	Х
Indochinese Cuckooshrike Lalage polioptera	R		Х					
Black-winged Cuckooshrike Lalage melaschistos	R	Х	Х	X			Х	
Grey-chinned Minivet Pericrocotus solaris	R		Х	X			Х	
Long-tailed Minivet Pericrocotus ethologus	R		Х	X			Х	
Short-billed Minivet Pericrocotus brevirostris	R						Х	
Scarlet Minivet Pericrocotus flammeus	R	X	Х	X	X		Х	X
Black-naped Oriole <i>Oriolus chinensis</i>	R	X						
Black-hooded Oriole Oriolus xanthornus	R	X	Х	X	X			X
Maroon Oriole <i>Oriolus traillii</i>	R		Х	X			Х	
Ashy Woodswallow Artamus fuscus	R	X	Х	Х	X			

				Location						
Species	Status	CR	HW	NH	NC	НО	CH	KW		
Large Woodshrike Tephrodornis virgatus	R		х	Х						
Bar-winged Flycatcher-shrike Hemipus picatus	R		Х	Х	X		X	X		
Common lora Aegithina tiphia	R	Х	х			Х	X	х		
Yellow-bellied Fairy-fantail Chelidorhynx hypoxanthus	R			х			X			
White-throated Fantail Rhipidura albicollis	R	X	х	X			X	х		
Black Drongo Dicrurus macrocercus	R	X	х	X	Х	Х		х		
Ashy Drongo <i>Dicrurus leucophaeus</i>	R	X	х	X	Х		X	х		
Bronzed Drongo Dicrurus aeneus	R	Х	Х	X			X	X		
Lesser Racquet-tailed Drongo <i>Dicrurus remifer</i>	R		Х	X			X	Х		
Greater Racquet-tailed Drongo <i>Dicrurus paradiseus</i>	R		х	х	X		X	Х		
Hair-crested Drongo Dicrurus hottentottus	R	X	х	х	X			Х		
Black-naped Monarch Hypothymis azurea	R	Х	х	Х	Х		X	х		
House Crow Corvus splendens	R	Х	х							
Large-billed Crow Corvus macrorhynchos	R	Х	х	Х	Х		Х	х		
Common Green Magpie Cissa chinensis	R			х			X	Х		
Yellow-billed Blue Magpie <i>Urocissa flavirostris</i>	R						Х			
Red-billed Blue Magpie <i>Urocissa erythrorhyncha</i>	R			х			Х			
Rufous Treepie <i>Dendrocitta vagabunda</i>	R	Х	х				Х			
Grey Treepie <i>Dendrocitta formosae</i>	R			х			Х	х		
Collared Treepie <i>Dendrocitta frontalis</i>	NW			х						
Hooded Treepie <i>Crypsirina cucullata</i> NT	R	Х								
Brown Shrike Lanius cristatus	WV	Х		х		Х		х		
Burmese Shrike <i>Lanius collurioides</i>	R	Х								
Long-tailed Shrike <i>Lanius schach</i>	R	Х	х	х		Х		х		
Grey-backed Shrike Lanius tephronotus	WV	Х	х	х	Х	Х	Х			
Purple Sunbird Cinnyris asiaticus	R	Х	х			Х				
Olive-backed Sunbird Cinnyris jugularis	R	Х								
Crimson Sunbird Aethopyga siparaja	R	Х	х	Х						
Gould's Sunbird <i>Aethopyga gouldiae</i>	R						Х			
Green-tailed Sunbird Aethopyga nipalensis	R						Х			
Black-throated Sunbird Aethopyga saturata	R		Х	х						
Fire-tailed Sunbird Aethopyga ignicauda	R			Х			Х			
Ruby-cheeked Sunbird <i>Chalcoparia singalensis</i>	R		х				Х			
Streaked Spiderhunter Arachnothera magna	R	х	х	Х	Х		Х	Х		
Little Spiderhunter Arachnothera longirostra	R		Х	х			Х	х		
Yellow-vented Flowerpecker <i>Dicaeum chrysorrheum</i>	R		х				Х	Х		
Plain Flowerpecker <i>Dicaeum minullum</i>	R	х	Х	Х				Х		
Fire-breasted Flowerpecker Dicaeum ignipectus	R		-	Х			х	-		
Scarlet-backed Flowerpecker Dicaeum cruentatum	R	Х	х							
Blue-winged Leafbird Chloropsis moluccensis	R		X	Х			Х			
Golden-fronted Leafbird Chloropsis aurifrons	R	Х	X	X	х		X	Х		
Orange-bellied Leafbird <i>Chloropsis hardwickii</i>	R		X	X	^		X	^		
Asian Fairy Bluebird Irena puella	R	Х	X	X			^	Х		
Streaked Weaver Ploceus manyar	R	^	^	٨		Х		^		
Baya Weaver Ploceus philippinus	R					X				
White-rumped Munia <i>Lonchura striata</i>	R	Х	Х	Х		٨	х	Х		
Scaly-breasted Munia Lonchura punctulata	R				v	v	^			
Chestnut Munia <i>Lonchura atricapilla</i>	R R	Х	Х	Х	Х	X		Х		
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Species	Status		HW	NH	NC	НО	CH	KW
House Sparrow <i>Passer domesticus</i>	R	Х						
Plain-backed Sparrow Passer flaveolus	R	Х						
Eurasian Tree Sparrow <i>Passer montanus</i>	R	Х	Х	X	X	X	X	
Rosy Pipit <i>Anthus roseatus</i>	NW	X						
Red-throated Pipit Anthus cervinus	NW	X						
Olive-backed Pipit <i>Anthus hodgsoni</i>	WV	Х	Х	X			X	X
Blyth's Pipit <i>Anthus godlewskii</i>	WV	Х				Х		
Richard's Pipit <i>Anthus richardi</i>	WV	Х				X		
Paddyfield Pipit <i>Anthus rufulus</i>	R					Х		
White Wagtail <i>Motacilla alba</i>	WV	X	Х	Х	X	X	X	X
Grey Wagtail <i>Motacilla cinerea</i>	WV	X		X		X	X	X
Eastern Yellow Wagtail Motacilla tschutschensis	WV	Х				X	X	
Citrine Wagtail <i>Motacilla citreola</i>	WV	Х	Х	X	X	X		
Yellow-breasted Greenfinch <i>Chloris spinoides</i>	R						Х	
Common Rosefinch Carpodacus erythrinus	WV			X				
Little Bunting <i>Emberiza pusilla</i>	WV	Х	X	X			X	
Chestnut Bunting <i>Emberiza rutila</i>	WV			X				
Velvet-fronted Nuthatch Sitta frontalis	R			X			X	
Beautiful Nuthatch <i>Sitta formosa</i> VU	NW			X				
Chestnut-bellied Nuthatch Sitta cinnamoventris	R			X			X	
White-tailed Nuthatch <i>Sitta himalayensis</i>	R						X	
Brown Dipper <i>Cinclus pallasii</i>	R				X			
Spot-winged Starling Saroglossa spiloptera	WV / NW		х	X				
Great Myna <i>Acridotheres grandis</i>	R	х	х	Х	Х	Х		
Jungle Myna <i>Acridotheres fuscus</i>	R	х						
Collared Myna <i>Acridotheres albocinctus</i>	R	х	х	Х	Х	Х		
Common Myna <i>Acridotheres tristis</i>	R	х	х	Х	Х	Х		Х
Burmese Myna <i>Acridotheres burmannicus</i>	R	х				Х		
Black-collared Starling <i>Gracupica nigricollis</i>	R	х						
Asian Pied Starling <i>Gracupica contra</i>	R	х	х	Х	Х	Х		
Chestnut-tailed Starling <i>Sturnia malabarica</i>	R	х	х	Х	Х	Х		
Common Hill Myna <i>Gracula religiosa</i>	R	х	х	Х	Х			Х
Long-tailed Thrush <i>Zoothera dixoni</i>	R			Х				
Chestnut Thrush <i>Turdus rubrocanus</i>	WV						Х	
Siberian Rubythroat <i>Calliope calliope</i>	WV						Х	Х
Plumbeous Water Redstart <i>Phoenicurus fuliginosus</i>	R		Х	Х	Х			
White-capped Water Redstart	R		Х	Х			х	
Phoenicurus leucocephalus Hodgson's Redstart Phoenicurus hodgsoni	NW	v						
Daurian Redstart <i>Phoenicurus nougsoni</i>	WV	X		Х				
Blue-fronted Redstart <i>Phoenicurus auroreus</i>	WV	X					v	
	WV/						Х	
Black Redstart Phoenicurus ochruros	NSW					Х		Х
Blue Rock Thrush Monticola solitarius	WV	Х	Х	X	Х			
Chestnut-bellied Rock Thrush Monticola rufiventris	R			X			Х	
Grey Bushchat Saxicola ferreus	R	Х		X			X	
Common (Eastern) Stonechat Saxicola torquatus maurus	WV	X	X	X	X	X		
White-tailed Stonechat <i>Saxicola leucurus</i>	R	х				х		
Pied Bushchat <i>Saxicola caprata</i>	R	Х	х	х	Х	Х		х

Species         Real May 18 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)					I o	cation			
Himalayan Bluetall Tarsiger rutilatus	Species	Status	CR	HW			_	CH.	KW
Slaty-backed Forktail Enicurus ismmaculatus	Jerdon's Bushchat <i>Saxicola jerdoni</i>	R	Х						
Slaty-backed Forktail Enicurus secknenaulti	Himalayan Bluetail Tarsiger rufilatus	WV			х				
White-crowned Forktail Enicurus Inscurus Inscu	Black-backed Forktail <i>Enicurus immaculatus</i>	R		х	х			Х	
Spotted Forktail Enicurus maculatus  R Blue Whistling Thrush Myophonus caeruleus  R S S S S S S S S S S S S S S S S S S	Slaty-backed Forktail Enicurus schistaceus	R		х	х				
Blue Whisting Thrush Myophonus aearuleus  Richell's Blue Flycatcher Cyornis banyumas  NW  XX  XX  SHIIB Blue Flycatcher Cyornis banyumas  NW  NX  NX  NEGEL'S Blue Flycatcher Cyornis tickelliae  R  RUFous-bellied Niltava Niltava sundara  R  Rufous-bellied Niltava Niltava macgrigoriae  NW  SIaty-backed Flycatcher Ficedula erithacus  R  Red-throated Flycatcher Ficedula erithacus  R  Red-throated Flycatcher Ficedula abicilla  WV  X  X  X  X  X  R  Red-throated Flycatcher Ficedula striphiata  R  R  Rof-throated Flycatcher Ficedula striphiata  R  R  Rof-throated Flycatcher Ficedula striphiata  R  Na  Na  Na  Na  Na  Na  Na  Na  Na	White-crowned Forktail <i>Enicurus leschenaulti</i>	NSW							Х
Hill Blue Flycatcher (yornis bianyumas	Spotted Forktail <i>Enicurus maculatus</i>	R						Х	
Tickell's Blue Flycatcher Cyornis tickelliae  Blue-throated Blue Flycatcher Cyornis rubeculoides  R	Blue Whistling Thrush Myophonus caeruleus	R		х	х			Х	х
Blue-throated Blue Flycatcher (yornis rubeculoides R x x x x x x x x x x x x x x x x x x	Hill Blue Flycatcher Cyornis banyumas	NW			х				
Verditer Flycatcher Eumyias thalassinus  Rufous-bellied Nittava Nittava sundara  Rufous-bellied Nittava Nittava sundara  Rufous-bellied Nittava Miltava sundara  Red-Bryatcher Ficedula erithacus  Sanall Nittava Nittava macgrigoriae  NWW	Tickell's Blue Flycatcher Cyornis tickelliae	R			х				
Rufous-bellied Niltava Niltava sundara R	Blue-throated Blue Flycatcher Cyornis rubeculoides	R	Х	Х	х			Х	Х
Large Niltava Niltava grandis  Small Niltava Miktava macgrigoriae  NW  SIaty-backed Flycatcher Ficedula erithacus  Red-throated Flycatcher Ficedula westermanni  Red-throated Flycatcher Ficedula albicilla  WV  X  X  X  X  X  X  X  X  X  X  X  X  X	Verditer Flycatcher Eumyias thalassinus	R			х				
Small Niltava Niltava macgrigoriae  NW  Slaty-backed Flycatcher Ficedula erithacus  Red-throated Flycatcher Ficedula westermanni  Red-throated Flycatcher Ficedula albicilla  WV x x x x x x x x x x x x x x x x x x x	Rufous-bellied Niltava Niltava sundara	R						Х	
Slaty-backed Flycatcher Ficedula erithacus Red-throated Flycatcher Ficedula westermanni Red-throated Flycatcher Ficedula albicilla WV x x x x x x x x x x x x x x x x x x x	Large Niltava <i>Niltava grandis</i>	R			х				
Little Pied Flycatcher Ficedula westermanni  Red-throated Flycatcher Ficedula albicilla  Red-throated Flycatcher Ficedula albicilla  Rufous-gorgeted Flycatcher Ficedula strophiata  Rufous-gorgeted Flycatcher Ficedula strophiata  Rufous-gorgeted Flycatcher Muscicapa sibirica  Rufous-gorgeted Flycatcher Rufous Rufou	Small Niltava <i>Niltava macgrigoriae</i>	NW			х				
Red-throated Flycatcher Ficedula albicilla  Rufous-gorgeted Flycatcher Ficedula strophiata Rufous-gorgeted Flycatcher Ficedula strophiata Rifous-gorgeted Flycatcher Rifous saularis Rifous-gorgeted Flycatcher Rifous	Slaty-backed Flycatcher Ficedula erithacus	R			х				
Rufous-gorgeted Flycatcher Ficedula strophiata R	Little Pied Flycatcher Ficedula westermanni	R		х	х			х	
Dark-sided Flycatcher Muscicapa sibirica  Oriental Magpie Robin Copsychus saularis  White-rumped Shama Kittacincla malabarica Green-backed Tit Parus monticolus  R / NSW  Yellow-cheeked Tit Machlolophus spilonotus  R / NSW  Yellow-cheeked Tit Machlolophus spilonotus  R / NSW  Sultan Tit Melanochlora sultanea  R / NSW  Yellow-cheeked Tit Machlolophus spilonotus  R / NSW  Sultan Tit Melanochlora sultanea  R / NSW  NV / NSW  Sultan Tit Melanochlora sultanea  R / NSW  NW / NSW  Sultan Tit Melanochlora sultanea  R / NSW  NW / NSW  NSW  Sultan Tit Melanochlora sultanea  R / NSW  NW / NSW  NSW  NSW  NSW  NSW  NSW  NSW  NSW	Red-throated Flycatcher Ficedula albicilla	WV	Х	х	х	X :	K	х	Х
Dark-sided Flycatcher Muscicapa sibirica  Oriental Magpie Robin Copsychus saularis  R X X X X X X X X X X X X X X X X X X	Rufous-gorgeted Flycatcher <i>Ficedula strophiata</i>	R			х			Х	
Oriental Magpie Robin Copsychus saularis R x x x x x x x x x x x x x x x x x x		R						х	
White-rumped Shama Kittacincla malabarica Green-backed Tit Parus monticolus R / NSW X X Yellow-cheeked Tit Machlolophus spilonotus R X X Sultan Tit Melanochlora sultanea R X X X Grey-headed Canary Flycatcher Cullicicapa ceylonensis Oriental Skylark Alauda gulgula R X X Sand Lark Alauda gulgula R X X X Sand Lark Alaudala raytal NW X Sand Lark Alaudala raytal NW X Striated Bulbul Pycnonotus striatus R X X X X X X X X X X X X X X X X X X X		R	Х	х	х	X :	K		Х
Yellow-cheeked Tit Machlolophus spilonotus  R  Sultan Tit Melanochlora sultanea  R  X  X  Sultan Tit Melanochlora sultanea  R  X  X  STriebaded Canary Flycatcher Culicicapa ceylonensis  Oriental Skylark Alauda gulgula  R  X  Sand Lark Alaudala raytal  NW  X  Sand Lark Alaudala raytal  NW  X  Striated Bulbul Pycnonotus striatus  R  X  Striated Bulbul Pycnonotus flaviventris  R  X  X  Striated Bulbul Pycnonotus flaviventris  R  X  X  Streak-eared Bulbul Pycnonotus blanfordi  R  X  Streak-eared Bulbul Pycnonotus blanfordi  R  Red-whiskered Bulbul Pycnonotus cafer  R  X  X  X  Red-vented Bulbul Pycnonotus cafer  R  X  X  X  X  White-throated Bulbul Alophoixus flaveolus  R  Ashy Bulbul Hemixos flavala  R  Mountain Bulbul Ixos mcclellandii  R  X  X  X  X  X  X  X  X  Asian House Martin Delichon nipalense  R  X  X  X  X  X  X  X  X  Asian Plain Martin Riparia chinensis  R  X  X  X  X  X  X  X  X  X  X  X  X		R	Х	х	х			х	Х
Sultan Tit Melanochlora sultanea Grey-headed Canary Flycatcher Grey-headed Canary Flycatcher Grey-headed Skylark Alauda gulgula R x x x x x x x x x x x x x x x x x x x		R / NSW						х	Х
Grey-headed Canary Flycatcher Culicicapa ceylonensis Oriental Skylark Alauda gulgula R x x x x x x x x x x x x x x x x x x x	Yellow-cheeked Tit Machlolophus spilonotus	R			х				
Culicicapa ceylonensis	Sultan Tit Melanochlora sultanea	R		х	х				
Oriental Skylark Alauda gulgula  Greater Short-toed Lark Calandrella brachydactyla  Sand Lark Alaudala raytal  Crested Finchbill Spizixos canifrons  R  X  Striated Bulbul Pycnonotus striatus  R  Striated Bulbul Pycnonotus flaviventris  R  X  X  Striated Bulbul Pycnonotus flaviventris  R  X  X  Streak-eared Bulbul Pycnonotus flaviventris  R  X  Streak-eared Bulbul Pycnonotus blanfordi  R  Red-whiskered Bulbul Pycnonotus jocosus  R  R  X  X  X  X  X  Red-vented Bulbul Pycnonotus cafer  R  X  X  X  X  X  White-throated Bulbul Alophoixus flaveolus  R  X  X  X  White-throated Bulbul Alophoixus flaveolus  R  X  X  X  X  Mountain Bulbul Ixos mcclellandii  R  X  X  X  X  Asian House Martin Delichon dasypus  WV  X  Asian Plain Martin Riparia chinensis  R  X  X  X  Red-rumped Swallow Hirundo javanica  R  R  X  X  X  X  X  X  X  X  X  X  X		R	Х	х	х			Х	х
Sand Lark Alaudala raytal  Crested Finchbill Spizixos canifrons  R  X  Striated Bulbul Pycnonotus striatus  R  Black-crested Bulbul Pycnonotus flaviventris  R  X  X  X  Streak-eared Bulbul Pycnonotus flavescens  R  Streak-eared Bulbul Pycnonotus blanfordi  R  Red-whiskered Bulbul Pycnonotus jocosus  R  X  X  X  X  X  X  X  X  X  X  X  X		R	х			2	K		
Crested Finchbill Spizixos canifrons R R X X Striated Bulbul Pycnonotus striatus R R X X X Black-crested Bulbul Pycnonotus flaviventris R X X X X Streak-eared Bulbul Pycnonotus flavescens R Streak-eared Bulbul Pycnonotus blanfordi R Red-whiskered Bulbul Pycnonotus jocosus R R X X X X X X X X X X X X X X X X X	Greater Short-toed Lark <i>Calandrella brachydactyla</i>	WV	х						
Striated Bulbul Pycnonotus striatus  R	Sand Lark <i>Alaudala raytal</i>	NW	х						
Black-crested Bulbul Pycnonotus flaviventris R X X X X X X X X X X X X X X X X X X X	Crested Finchbill <i>Spizixos canifrons</i>	R			х			Х	
Flavescent Bulbul Pycnonotus flavescens  Streak-eared Bulbul Pycnonotus blanfordi  R Red-whiskered Bulbul Pycnonotus jocosus  R R R R R R R R R R R R R R R R R R	Striated Bulbul <i>Pycnonotus striatus</i>	R			х			Х	
Streak-eared Bulbul Pycnonotus blanfordi R Red-whiskered Bulbul Pycnonotus jocosus R R X X X X X X X X X X X X X X X X X	Black-crested Bulbul Pycnonotus flaviventris	R	х	х	х	Х		χ	х
Red-whiskered Bulbul Pycnonotus jocosus R X X X X X X X X X X X X X X X X X X X	Flavescent Bulbul Pycnonotus flavescens	R			х			Х	
Red-vented Bulbul Pycnonotus cafer R x x x x x x x x x x x x x x x x x x x	Streak-eared Bulbul Pycnonotus blanfordi	R	Х						
Olive Bulbul Iole viridescens R X X X White-throated Bulbul Alophoixus flaveolus R X X Ashy Bulbul Hemixos flavala R X X X Mountain Bulbul Ixos mcclellandii R X X X X Black Bulbul Hypsipetes leucocephalus R/WV X X X X Asian House Martin Delichon dasypus WV X X X Sand Martin Riparia riparia WV X Asian Plain Martin Riparia chinensis R X X X Red-rumped Swallow Cecropis daurica R X X X X X X X X X X X X X X X X X X	Red-whiskered Bulbul Pycnonotus jocosus	R	Х	х	х	X X	K	х	Х
White-throated Bulbul Alophoixus flaveolus R x x x x Ashy Bulbul Hemixos flavala R x x x x Mountain Bulbul Ixos mcclellandii R x x x x x Black Bulbul Hypsipetes leucocephalus R/WV x x x x Asian House Martin Delichon dasypus WV x x Nepal House Martin Delichon nipalense R x x x Sand Martin Riparia riparia WV x Asian Plain Martin Riparia chinensis R x x x x Barn Swallow Hirundo rustica WV x x x x Red-rumped Swallow Cecropis daurica	Red-vented Bulbul <i>Pycnonotus cafer</i>	R	Х	х	х	X 2	K	Х	х
Ashy Bulbul Hemixos flavala  R  X  X  Mountain Bulbul Ixos mcclellandii  R  R  X  X  X  Black Bulbul Hypsipetes leucocephalus  R / WV  X  X  Asian House Martin Delichon dasypus  WV  X  X  Nepal House Martin Delichon nipalense  R  X  X  Sand Martin Riparia riparia  WV  X  Asian Plain Martin Riparia chinensis  R  X  X  Barn Swallow Hirundo rustica  WV  X  X  Red-rumped Swallow Cecropis daurica  R  X  X	Olive Bulbul <i>lole viridescens</i>	R		х	х				х
Mountain Bulbul Ixos mcclellandii R x x x x x Black Bulbul Hypsipetes Ieucocephalus R / WV x x x x x Asian House Martin Delichon dasypus WV x x x x x Nepal House Martin Delichon nipalense R x x x X Sand Martin Riparia riparia WV x Asian Plain Martin Riparia chinensis R x x x x X Barn Swallow Hirundo rustica WV x x x x x X House Swallow Hirundo javanica R x x x x X Red-rumped Swallow Cecropis daurica WV x x x x x x	White-throated Bulbul Alophoixus flaveolus	R		х	х				х
Black Bulbul Hypsipetes leucocephalus R / WV X X X X Asian House Martin Delichon dasypus WV X X Nepal House Martin Delichon nipalense R X X X Sand Martin Riparia riparia WV X Asian Plain Martin Riparia chinensis R X X X X Barn Swallow Hirundo rustica WV X X X X X House Swallow Hirundo javanica R X Red-rumped Swallow Cecropis daurica WV X X X X	Ashy Bulbul <i>Hemixos flavala</i>	R		Х	х			х	
Asian House Martin Delichon dasypus  WV x x  Nepal House Martin Delichon nipalense R x x  Sand Martin Riparia riparia WV x  Asian Plain Martin Riparia chinensis R x x x x  Barn Swallow Hirundo rustica WV x x x x x  House Swallow Hirundo javanica R x  Red-rumped Swallow Cecropis daurica	Mountain Bulbul Ixos mcclellandii	R			х			Х	Х
Asian House Martin Delichon dasypus  WV x x  Nepal House Martin Delichon nipalense R x x  Sand Martin Riparia riparia WV x  Asian Plain Martin Riparia chinensis R x x x x  Barn Swallow Hirundo rustica WV x x x x x  House Swallow Hirundo javanica R x  Red-rumped Swallow Cecropis daurica	Black Bulbul Hypsipetes leucocephalus	R/WV		х	х			Х	Х
Nepal House Martin Delichon nipalense R x x Sand Martin Riparia riparia WV x Asian Plain Martin Riparia chinensis R x x x x Barn Swallow Hirundo rustica WV x x x x x House Swallow Hirundo javanica R x Red-rumped Swallow Cecropis daurica WV x x x x		WV			х			Х	
Sand Martin Riparia riparia  WV x  Asian Plain Martin Riparia chinensis  R x x x x x  Barn Swallow Hirundo rustica  WV x x x x x x  House Swallow Hirundo javanica  R x  Red-rumped Swallow Cecropis daurica  WV x x x x x									
Asian Plain Martin Riparia chinensis  R x x x x  Barn Swallow Hirundo rustica  WV x x x x x  House Swallow Hirundo javanica  Red-rumped Swallow Cecropis daurica  WV x x x x x			х						
Barn Swallow Hirundo rustica WV x x x x x x  House Swallow Hirundo javanica R x  Red-rumped Swallow Cecropis daurica WV x x x x				Х	Х	х			
House Swallow <i>Hirundo javanica</i> R x  Red-rumped Swallow <i>Cecropis daurica</i> WV x x x	·						X		х
Red-rumped Swallow <i>Cecropis daurica</i> WV x x x									
	·		х		X				х
	Striated Swallow Cecropis striolata	NW			Х				•

				Location									
Species	Status	CR	HW	NH	NC	НО	CH	KW					
Yellow-bellied Warbler Abroscopus superciliaris	R	X	х	х			X	X					
Rufous-faced Warbler Abroscopus albogularis	R		х	х									
Mountain Tailorbird <i>Phyllergates cucullatus</i>	R			х			X						
Brownish-flanked Bush Warbler Horornis fortipes	R			X			X						
Grey-bellied Tesia Tesia cyaniventer	R			х			X						
Slaty-bellied Tesia <i>Tesia olivea</i>	R			X			X						
Chestnut-headed Tesia Tesia castaneocoronata	R			х			X						
Black-throated Tit Aegithalos concinnus	R						X						
${\it Grey-crowned\ Warbler\ Phylloscopus\ tephrocephalus}$	R		х	х			X						
Grey-cheeked Warbler Phylloscopus poliogenys	NW			X			X						
${\it Chestnut-crowned\ Warbler\ Phylloscopus\ castanice ps}$	R			х									
Yellow-vented Warbler Phylloscopus cantator	WV			х			X						
Grey-hooded Warbler Phylloscopus xanthoschistos	R			X			X						
Blyth's Leaf Warbler <i>Phylloscopus reguloides</i>	R			х			X						
Greenish Warbler Phylloscopus trochiloides	WV	X	х	х	Х		X	X					
Two-barred Warbler Phylloscopus plumbeitarsus	WV			х				Х					
Buff-barred Warbler <i>Phylloscopus pulcher</i>	R			х									
Yellow-browed Warbler <i>Phylloscopus inornatus</i>	WV	Х	х	х	Х		X	X					
Tickell's Leaf Warbler <i>Phylloscopus affinis</i>	WV	Х	х					X					
Dusky Warbler Phylloscopus fuscatus	WV	Х	х	х	Х	Х	X	Х					
Grey-headed Parrotbill <i>Psittiparus gularis</i>	R						X						
Rufous-headed Parrotbill Psittiparus bakeri	NW			х									
White-browed Fulvetta Fulvetta vinipectus	R			х			X						
Chestnut-flanked White-eye Zosterops erythropleurus	wv						Х						
Oriental White-eye Zosterops palpebrosus	R	X	х	х			X						
Japanese White-eye Zosterops japonicus	NW			х									
Black-chinned Yuhina Yuhina nigrimenta	NW			х									
Stripe-throated Yuhina Yuhina gularis	R			х									
Whiskered Yuhina Yuhina flavicollis	R			х			X						
Striated Yuhina Yuhina castaniceps	R			х			X						
Grey-cheeked Fulvetta Alcippe morrisonia	NW		х	х									
Nepal Fulvetta Alcippe nipalensis	R		х	х			X						
Brown-cheeked Fulvetta Alcippe poioicephala	R		х	х			X	X					
Rufous-throated Fulvetta <i>Schoeniparus rufogularis</i>	NW		х	х									
Rusty-capped Fulvetta Schoeniparus dubius	R			х									
Grey-throated Babbler Stachyris nigriceps	R		х	х			X	X					
Slender-billed Scimitar Babbler Pomatorhinus superciliaris	R						х						
Large Scimitar Babbler Erythrogenys hypoleucos	R						X						
Spot-breasted Scimitar Babbler Erythrogenys mcclellandi	R			Х									
White-browed Scimitar Babbler Pomatorhinus schisticeps	R		х	X			х						
Streak-breasted Scimitar Babbler Pomatorhinus ruficollis	R						х						
Red-billed Scimitar Babbler Pomatorhinus ochraceiceps	NW			X									
Coral-billed Scimitar Babbler Pomatorhinus ferruginosus	R		х	х			Х						

				Location							
Species	Status	CR	HW	NH	NC	НО	CH	KW			
Chin Hills Wren Babbler S <i>pelaeornis oatesi</i>	R						X				
Spotted Elachura Elachura formosa	R			X			X				
Scaly-breasted Cupwing <i>Pnoepyga albiventer</i>	R						X				
Pygmy Cupwing <i>Pnoepyga pusilla</i>	R			X							
Golden Babbler Cyanoderma chrysaeum	R / NSW		X	X			X	X			
Rufous-fronted Babbler Cyanoderma rufifrons	R		Х	X				Х			
Pin-striped Tit Babbler Mixornis gularis	R	X	Х	X	X		X	Х			
Chestnut-capped Babbler Timalia pileata	R			X				X			
Puff-throated Babbler Pellorneum ruficeps	R	X	Х	X	X		X	Х			
Spot-throated Babbler Pellorneum albiventre	R			X			X				
White-hooded Babbler Gampsorhynchus rufulus	R			X							
Rufous-winged Fulvetta Schoeniparus castaneceps	R			X			X				
Striated Babbler <i>Argya earlei</i>	R/NW	X		X							
Himalayan Cutia <i>Cutia nipalensis</i>	R						X				
Black-throated Laughingthrush Garrulax chinensis	NW			X							
Yellow-throated Laughingthrush Garrulax galbanus	R			X							
White-crested Laughingthrush Garrulax leucolophus	R			X			X	X			
Lesser Necklaced Laughingthrush Garrulax monileger	R		X	X			Х	X			
Greater Necklaced Laughingthrush Garrulax pectoralis	R		X	X			Х	X			
Striated Laughingthrush Grammatoptila striata	NW			X							
White-browed Laughingthrush Garrulax sannio	NW			X							
Brown-capped Laughingthrush Trochalopteron austeni	R						Х				
Assam Laughingthrush Trochalopteron chrysopterum	R						Х				
Grey Sibia <i>Heterophasia gracilis</i>	R			X			X				
Rufous-backed Sibia <i>Leioptila annectens</i>	R						X				
Bar-throated Minla <i>Chrysominla strigula</i>	R						X				
Red-tailed Minla Minla ignotincta	R			X			X				
Blue-winged Siva Siva cyanouroptera	R			X			X				
Silver-eared Mesia <i>Leiothrix argentauris</i>	R			X			X				
Rusty-fronted Barwing Actinodura egertoni	R			X			X				
Blyth's Reed Warbler Acrocephalus dumetorum	WV							X			
Thick-billed Warbler Arundinax aedon	WV	X									
Brown Bush Warbler Locustella luteoventris	R			X							
Russet Bush Warbler Locustella mandelli	R			X							
Striated Grassbird Megalurus palustris	R	X	Х	X	X	X					
Zitting Cisticola <i>Cisticola juncidis</i>	R	X	Х			X					
Dark-necked Tailorbird <i>Orthotomus atrogularis</i>	R / NSW	X	X	X				Х			
Common Tailorbird Orthotomus sutorius	R	X	X	X	X	X	X	X			
Rufescent Prinia Prinia rufescens	R	X		X				Х			
Grey-breasted Prinia <i>Prinia hodgsonii</i>	R	X		X				Х			
Yellow-bellied Prinia <i>Prinia flaviventris</i>	R	Х						Х			
Plain Prinia <i>Prinia inornata</i>	R	X				Х		X			
Black-throated Prinia Prinia atrogularis	R						х				