

CHAPTER 10

Kranji Marshes – Restoration of Marshes and Wetlands

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Introduction

The damming of Kranji River in the 1970s to create a reservoir led to the loss of mangroves and prevented the natural discharge of sediment into the Johor Straits. Upstream, however, this development resulted in the formation of rare freshwater marsh habitats, which very soon attracted a variety of marsh birds such as herons, bitterns and rails. Over time, the build-up of sediment and vegetation overgrowth threatened to turn portions of the marshes into a shrub habitat. Exotic water plants also invaded the open water areas, further reducing suitable habitats for marsh birds.

Between 2008 to 2014, under the Active, Beautiful and Clean Waters (ABC Waters) programme of PUB, the Nature Society (Singapore) (NSS), implemented a habitat management plan to maintain a good balance between open water and vegetated areas for the marsh birds to use. The National Parks Board (NParks) and the Urban Redevelopment Authority (URA) started working closely with PUB and NSS in 2011 to enhance the marshes so that the public can enjoy its flora and fauna. The enhancement was completed at the end of 2015, and the 56-hectare Kranji Marshes was officially opened on 1 February 2016.

Objective of the habitat enhancement

The main objective of the habitat enhancement efforts carried out at Kranji Marshes was to create aquatic areas with different water levels, plant composition and density to encourage a diverse range of wetland-dependent birds and other wildlife to thrive in the marsh habitat. Improvement works done included:

- Removal of overgrown aquatic plants to maintain a balance of open water surface and aquatic vegetation to provide waterbirds like Rails and Crakes that prefer dense aquatic plants to hide and Lesser Whistling Duck (*Dendrocygna javanica*) that prefers open water bodies to swim with safe feeding grounds;
- Dredging of built-up sediments in ponds, which were used to create island havens that offered more feeding and resting grounds for marsh birds;

- Addition of a variety of aquatic plants consisting of emergents (plants that are rooted at the bottom of wetlands but their leaves and stems extend out of the water) which provided protective covers, and submergents (plants that are rooted at the bottom of wetlands with most of their structures below the water surface) which provided food for marsh birds, as well as habitats for invertebrates, which were in turn eaten by birds;
- Increasing the flora diversity by planting species of native plants that provided food, protective cover and nesting materials for a range of forest-dependent and grassland birds;
- Contouring the banks of ponds to create shallow-water feeding grounds for birds such as the Common Snipe (*Gallinago gallinago*) and Greater Painted-snipe (*Rostratula benghalensis*);
- Creation of an island with stony surfaces favoured by Red-wattled Lapwings (*Vanellus indicus*) as nesting grounds; and
- Installation of perches in open water areas for birds such as raptors and kingfishers.

State of the biodiversity of Kranji Marshes

Today, Kranji Marshes (Fig. 1) is a rare habitat that supports a variety of unique wildlife. Together with Sungei Buloh Wetland Reserve (SBWR) and Mandai Mangrove and Mudflat (MMM), it forms an important network of core wetland habitats in the Kranji area for the conservation of biodiversity, especially birds (Appendix 1). SBWR and MMM are known for shorebirds that use coastal wetlands. Kranji Marshes complements SBWR and MMM with freshwater wetland habitats. These core wetlands, with interlinking ecological corridors and nature parks, form the Sungei Buloh Nature Park Network (SBNPN) which was announced in 2020. The SBNPN strengthens the conservation of wetland biodiversity in western part of Singapore by conserving up to 400 hectares which is three times the original size of the legally gazetted SBWR.



Fig. 1. Kranji Marshes with its iconic Raptor Tower.

Significant marsh bird species that reside here include the Grey-headed Swamphen (*Porphyrio poliocephalus*), Lesser Whistling Duck (*Dendrocygna javanica*) (Fig. 2) and the Red-wattled Lapwing (*Vanellus indicus*) (Fig. 3). A Booted Warbler (*Iduna caligata*), a new bird record for Singapore, was seen at Kranji Marshes from December 2017 until March 2018.



Fig. 2. A flock of Lesser Whistling Duck (*Dendrocygna javanica*) is seen in Kranji Marshes.



Fig. 3. A deceit of Red-wattled Lapwing (*Vanellus indicus*) is sighted in Kranji Marshes.

Regular bird surveys conducted after the habitat enhancement efforts by NParks and NSS revealed that marsh birds were actively using and feeding in the newly enhanced marsh niches. However, if not regularly maintained, the niches quickly became overgrown with vegetation and the birds would no longer be observed there. Such prolific green growth not only reduced the open water surfaces or wet ground surfaces available for water birds to feed directly, but might also obstruct the birds' lines of sight for predators, making them feel unsafe to hang around in such areas to feed or rest. The challenge in maintaining Kranji Marshes as a home for resident marsh birds, as well as a pit stop for some migratory bird species, therefore, depended on careful planning and implementation of habitat maintenance regime. These involved identifying vegetation management zones, prescribing the right maintenance frequency to each zone, monitoring the re-growth of unwanted vegetation and reviewing the weeding method and maintenance approach regularly.

In addition, new flora and faunal species of conservation significance had also been recorded in Kranji Marshes. In 2019, the Common Reed (*Phragmites karka*), which is uncommon, was surprisingly sighted flourishing in Kranji Marshes. It had not been seen for more than 140 years, since it was last collected by Henry Ridley. It has since been collected and propagated in NParks' Native Plant Centre, and introduced to other suitable wetlands in Singapore.

A new species of Dolicopodidae, the long-legged fly *Gymnopternus ghufrani* sp. nov, was found in Kranji Marshes in 2020. It was named after SBWR staff Ghufran who helped extensively in the surveys with lead researchers.

In 2022, a camera trap captured the presence of a Leopard Cat (*Prionailurus bengalensis*) during a collaboration study involving the Nanyang Technological University and NParks. In the same year, a new dragonfly record, *Heliaschna simplicia* for Singapore was also sighted within the Core Conservation Area by our bird census NSS partner, underscoring two critical points: 1) the importance of expert citizen scientists partnerships and 2) the sensitive balance between nature recreation access and conservation.

Conclusions and lessons learnt

The total area of Kranji Marshes, one of the largest remaining freshwater marshes in Singapore, amounts to 56 hectares. Numerous ponds are found in Kranji Marshes and they require constant, careful maintenance due to the aggressive nature of the exotic freshwater weeds such as Water Hyacinth. This presents challenges in addition to resources required to achieve the desired conservation outcome. Regular maintenance can be affected in an unforeseen event, such as the COVID-19 outbreak, that resulted in disruption of resources in the landscape industry, staff and volunteers.

Fortunately, the figures compiled on 30 June 2023 (Appendix 1) tell a compelling story. The 281 bird species sighted in SBWR amounts to 67% of the total number of bird species recorded in Singapore, while 235 bird species can be found in Kranji Marshes, amounting to 56% of Singapore's total. SBNPN is home to 298 bird species, which is 71% of the national bird record. Earlier examples of sightings showed that the rich biodiversity of the area is not limited to birds, as unique wetland plants, mammals such as the Leopard Cat, and insects such as dragonflies and long-legged flies continue to be recorded and thriving.

The ecological rationale for a conservation strategy in creating SBNPN, which comprises the core complementary habitats of SBWR, Kranji Marshes and MMM that are complemented by buffers and eco-corridors, is evidently beneficial to resident and migratory wetland birds and other species. With global climate change and developments, the safe-guarding of these habitats and ensuring ecological connectivity are of national as well as regional and international significance.

Appendix 1: Birds recorded at Sungei Buloh Wetland Reserve, Kranji Marshes and Sungei Buloh Nature Park Network as of 30 June 2023 as compared to all birds recorded in Singapore.

Number	Common Name	Scientific Name	Migration Status	Global Conservation Status (2023)	National Conservation Status (2021)	SBWR	KM	SBNPN
1	Wandering Whistling Duck	<i>Dendrocygna arcuata</i>	R	LC	NA	1	1	1
2	Lesser Whistling Duck	<i>Dendrocygna javanica</i>	R	LC	EN	1	1	1
3	Cotton Pygmy Goose	<i>Nettapus coromandelianus</i>	R	LC	CR		1	1
4	Garganey	<i>Anas querquedula</i>	M	LC	VU	1		1
5	Northern Shoveler	<i>Anas chrypeata</i>	M	LC	NE	1		1
6	Gadwall	<i>Anas strepera</i>	M	LC	NE	1		1
7	Eurasian Wigeon	<i>Anas penelope</i>	M	LC	NE	1	1	1
8	Northern Pintail	<i>Anas acuta</i>	M	LC	NE	1		1
9	Tufted Duck	<i>Aythya fuligula</i>	M	LC	NE			
10	Red Junglefowl	<i>Gallus gallus</i>	R	LC	NT	1	1	1
11	King Quail	<i>Excalfactoria chinensis</i>	R	LC	LC	1	1	1
12	Malaysian Eared Nightjar	<i>Lyncornis temminckii</i>	R	LC	CR			
13	Grey Nightjar	<i>Caprimulgus jotaka</i>	M	LC	LC			
14	Large-tailed Nightjar	<i>Caprimulgus macrurus</i>	R	LC	LC	1	1	1
15	Savanna Nightjar	<i>Caprimulgus affinis</i>	R	LC	LC	1	1	1

Appendix 1 (Cont'd)

16	Grey-rumped Treeswift	<i>Hemiprocne longipennis</i>	R	LC	NT	1	1	1
17	Whiskered Treeswift	<i>Hemiprocne comata</i>	NBV	LC	LC			
18	Plume-toed Swiftlet	<i>Collocalia affinis</i>	R	NE	VU			
19	Black-nest Swiftlet	<i>Aerodramus maximus</i>	R	LC	NT	1	1	1
20	Germain's Swiftlet	<i>Aerodramus germani</i>	R	LC	LC	1	1	1
21	Silver-rumped Needletail	<i>Rhaphidura leucopygialis</i>	NBV	LC	LC			
22	White-throated Needletail	<i>Hirundapus caudacutus</i>	M	LC	LC			
23	Silver-backed Needletail	<i>Hirundapus cochinchinensis</i>	M	LC	LC			
24	Brown-backed Needletail	<i>Hirundapus giganteus</i>	M	LC	LC		1	1
25	Asian Palm Swift	<i>Cypsiurus balasiensis</i>	R	LC	NT	1	1	1
26	Common Swift	<i>Apus apus</i>	M	LC	NE			
27	Pacific Swift	<i>Apus pacificus</i>	M	LC	LC	1	1	1
28	House Swift	<i>Apus nipalensis</i>	R	LC	VU	1	1	1
29	Greater Coucal	<i>Centropus sinensis</i>	R	LC	NT	1	1	1
30	Lesser Coucal	<i>Centropus bengalensis</i>	R	LC	LC	1	1	1
31	Chestnut-bellied Malkoha	<i>Phaenicophaeus sumatranus</i>	R	NT	NT	1	1	1
32	Chestnut-winged Cuckoo	<i>Clamator coromandus</i>	M	LC	LC	1	1	1
33	Jacobin Cuckoo	<i>Clamator jacobinus</i>	M	LC	NE			
34	Asian Koel	<i>Eudynamys scolopaceus</i>	R	LC	LC	1	1	1

Appendix 1 (Cont'd)

35	Asian Emerald Cuckoo	<i>Chrysococcyx maculatus</i>	M	LC	NE			
36	Violet Cuckoo	<i>Chrysococcyx xanthorhynchus</i>	R/M	LC	n-T	1	1	1
37	Horsfield's Bronze Cuckoo	<i>Chrysococcyx basalis</i>	M	LC	LC		1	1
38	Little Bronze Cuckoo	<i>Chrysococcyx minutillus</i>	R	LC	LC	1	1	1
39	Banded Bay Cuckoo	<i>Cacomantis sonneratii</i>	R	LC	LC	1	1	1
40	Plaintive Cuckoo	<i>Cacomantis merulinus</i>	R	LC	LC	1	1	1
41	Rusty-breasted Cuckoo	<i>Cacomantis sepulcralis</i>	R	LC	NT	1	1	1
42	Square-tailed Drongo-Cuckoo	<i>Surniculus lugubris</i>	R/M	LC	VU	1	1	1
43	Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	M	LC	LC	1	1	1
44	Malaysian Hawk-Cuckoo	<i>Hierococcyx fugax</i>	NBV	LC	NT	1		1
45	Hodgson's Hawk-Cuckoo	<i>Hierococcyx nisicolor</i>	M	LC	NT	1	1	1
46	Indian Cuckoo	<i>Cuculus micropterus</i>	M	LC	LC	1	1	1
47	Himalayan Cuckoo	<i>Cuculus saturatus</i>	M	LC	LC			
48	Rock Dove	<i>Columba livia</i>	R	LC	NA	1	1	1
49	Oriental Turtle-dove	<i>Streptopelia orientalis</i>	M	LC	NE			
50	Red Collared Dove	<i>Streptopelia tranquebarica</i>	R	LC	NA	1	1	1
51	Spotted Dove	<i>Spilopelia chinensis</i>	R	LC	LC	1	1	1
52	Common Emerald Dove	<i>Chalcophaps indica</i>	R	LC	LC	1	1	1
53	Zebra Dove	<i>Geopelia striata</i>	R	LC	LC	1	1	1

Appendix 1 (Cont'd)

54	Cinnamon-headed Green Pigeon	<i>Treron fulvicollis</i>	R	VU	EN	1		1
55	Little Green Pigeon	<i>Treron olax</i>	NBV	LC	CR			
56	Pink-necked Green Pigeon	<i>Treron vernans</i>	R	LC	LC	1	1	1
57	Orange-breasted Green Pigeon	<i>Treron bicinctus</i>	NBV	LC	LC			
58	Thick-billed Green Pigeon	<i>Treron curvirostra</i>	R	LC	VU	1	1	1
59	Jambu Fruit Dove	<i>Ptilinopus jambu</i>	NBV	NT	VU	1	1	1
60	Green Imperial Pigeon	<i>Ducula aenea</i>	R	NT	EN			
61	Mountain Imperial Pigeon	<i>Ducula badia</i>	NBV	LC	LC			
62	Pied Imperial Pigeon	<i>Ducula bicolor</i>	R	LC	DD	1	1	1
63	Masked Finfoot	<i>Heliopais personata</i>	M	CR	EN	1	1	1
64	Slaty-breasted Rail	<i>Gallirallus striatus</i>	R	LC	LC	1	1	1
65	Common Moorhen	<i>Gallinula chloropus</i>	R	LC	EN	1	1	1
66	Grey-headed Swamphen	<i>Porphyrio poliocephalus</i>	R	LC	CR	1	1	1
67	Ruddy-breasted Crake	<i>Porzana fusca</i>	R/M	LC	NT	1	1	1
68	Band-bellied Crake	<i>Porzana paykullii</i>	M	NT	NT			
69	Baillon's Crake	<i>Porzana pusilla</i>	M	LC	VU	1	1	1
70	Slaty-legged Crake	<i>Rallina eurizonoides</i>	M	LC	LC			
71	Red-legged Crake	<i>Rallina fasciata</i>	R/M	LC	NT	1	1	1
72	White-browed Crake	<i>Porzana cinerea</i>	R	LC	VU	1	1	1

Appendix 1 (Cont'd)

73	Watercock	<i>Gallicrex cinerea</i>	M	LC	EN	1	1	1
74	White-breasted Waterhen	<i>Amaurornis pboenicurus</i>	R/M	LC	LC	1	1	1
75	Little Grebe	<i>Tachybaptus ruficollis</i>	R	LC	CR			
76	Barred Buttonquail	<i>Turnix suscitator</i>	R	LC	LC	1	1	1
77	Beach Stone-curlew	<i>Esacus magnirostris</i>	R	NT	CR			
78	Black-winged Stilt	<i>Himantopus himantopus</i>	M	LC	DD	1	1	1
79	Pied Stilt	<i>Himantopus leucocephalus</i>	MB	LC	DD			
80	Grey-headed Lapwing	<i>Vanellus cinereus</i>	M	LC	NE	1	1	1
81	Red-wattled Lapwing	<i>Vanellus indicus</i>	R	LC	NT	1	1	1
82	Masked Lapwing	<i>Vanellus miles</i>	R	LC	NA		1	1
83	Pacific Golden Plover	<i>Pluvialis fulva</i>	M	LC	VU	1	1	1
84	Grey Plover	<i>Pluvialis squatarola</i>	M	LC	NT	1		1
85	Common Ringed Plover	<i>Charadrius hiaticula</i>	M	LC	NE	1		1
86	Little Ringed Plover	<i>Charadrius dubius</i>	M	LC	EN	1	1	1
87	Kentish Plover	<i>Charadrius alexandrinus</i>	M	LC	EN	1		1
88	White-faced Plover	<i>Charadrius dealbatus</i>	M	DD	EN			
89	Javan Plover	<i>Charadrius javanicus</i>	R/NBV	LC	NE			
90	Malaysian Plover	<i>Charadrius peronii</i>	R	NT	CR			
91	Lesser Sand Plover	<i>Charadrius mongolus</i>	M	LC	NT	1	1	1

Appendix 1 (Cont'd)

92	Greater Sand Plover	<i>Charadrius leschenaultii</i>	M	LC	NT	1		1
93	Oriental Plover	<i>Charadrius veredus</i>	M	LC	LC			
94	Greater Painted-snipe	<i>Rostratula benghalensis</i>	R	LC	EN	1	1	1
95	Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	M	LC	VU	1	1	1
96	Eurasian Whimbrel	<i>Numenius phaeopus</i>	M	LC	NT	1	1	1
97	Little Curlew	<i>Numenius minutus</i>	M	LC	NE	1		1
98	Far Eastern Curlew	<i>Numenius madagascariensis</i>	M	EN	EN	1		1
99	Eurasian Curlew	<i>Numenius arquata</i>	M	NT	EN	1		1
100	Bar-tailed Godwit	<i>Limosa lapponica</i>	M	NT	VU	1		1
101	Black-tailed Godwit	<i>Limosa limosa</i>	M	NT	CR	1	1	1
102	Ruddy Turnstone	<i>Arenaria interpres</i>	M	LC	EN	1	1	1
103	Great Knot	<i>Calidris tenuirostris</i>	M	EN	EN	1		1
104	Red Knot	<i>Calidris canutus</i>	M	NT	NT	1		1
105	Ruff	<i>Calidris pugnax</i>	M	LC	LC	1		1
106	Broad-billed Sandpiper	<i>Calidris falcinellus</i>	M	LC	VU	1		1
107	Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	M	VU	NE			
108	Curlew Sandpiper	<i>Calidris ferruginea</i>	M	NT	EN	1	1	1
109	Long-toed Stint	<i>Calidris subminuta</i>	M	LC	EN	1	1	1
110	Spoon-billed Sandpiper	<i>Calidris pygmeus</i>	M	CR	CR			

Appendix 1 (Cont'd)

111	Red-necked Stint	<i>Calidris ruficollis</i>	M	NT	NT	1		1
112	Sanderling	<i>Calidris alba</i>	M	LC	EN	1		1
113	Little Stint	<i>Calidris minuta</i>	M	LC	DD			
114	Pectoral Sandpiper	<i>Calidris melanotos</i>	M	LC	NE			
115	Asian Dowitcher	<i>Limnodromus semipalmatus</i>	M	NT	VU	1		1
116	Pin-tailed Snipe	<i>Gallinago stenura</i>	M	LC	VU	1	1	1
117	Swinhoe's Snipe	<i>Gallinago megala</i>	M	LC	VU		1	1
118	Common Snipe	<i>Gallinago gallinago</i>	M	LC	VU	1	1	1
119	Terek Sandpiper	<i>Xenus cinereus</i>	M	LC	EN	1		1
120	Red-necked Phalarope	<i>Phalaropus lobatus</i>	M	LC	DD			
121	Common Sandpiper	<i>Actitis hypoleucos</i>	M	LC	VU	1	1	1
122	Green Sandpiper	<i>Tringa ochropus</i>	M	LC	LC	1	1	1
123	Grey-tailed Tattler	<i>Tringa brevipes</i>	M	NT	VU	1	1	1
124	Common Redshank	<i>Tringa totanus</i>	M	LC	VU	1	1	1
125	Marsh Sandpiper	<i>Tringa stagnatilis</i>	M	LC	EN	1	1	1
126	Wood Sandpiper	<i>Tringa glareola</i>	M	LC	EN	1	1	1
127	Spotted Redshank	<i>Tringa erythropus</i>	M	LC	NE	1		1
128	Common Greenshank	<i>Tringa nebularia</i>	M	LC	VU	1	1	1
129	Nordmann's Greenshank	<i>Tringa guttifer</i>	M	EN	EN	1		1

Appendix 1 (Cont'd)

130	Oriental Pratincole	<i>Glareola maldivarum</i>	M	LC	EN	1	1	1
131	Small Pratincole	<i>Glareola lactea</i>	M	LC	NE			
132	Brown-headed Gull	<i>Chroicocephalus brunnicephalus</i>	M	LC	NE	1		1
133	Black-headed Gull	<i>Chroicocephalus ridibundus</i>	M	LC	NT	1	1	1
134	Gull-billed Tern	<i>Gelochelidon nilotica</i>	M	LC	DD	1	1	1
135	Caspian Tern	<i>Hydroprogne caspia</i>	M	LC	NE			1
136	Greater Crested Tern	<i>Thalasseus bergii</i>	M	LC	EN	1		1
137	Lesser Crested Tern	<i>Thalasseus bengalensis</i>	M	LC	EN	1		1
138	Little Tern	<i>Sternula albifrons</i>	R/M	LC	EN	1	1	1
139	Aleutian Tern	<i>Onychoprion aleuticus</i>	M	VU	VU			1
140	Bridled Tern	<i>Onychoprion anaethetus</i>	M	LC	EN			
141	Black-naped Tern	<i>Sterna sumatrana</i>	R	LC	EN	1		1
142	Common Tern	<i>Sterna hirundo</i>	M	LC	LC	1	1	1
143	Whiskered Tern	<i>Chlidonias hybrida</i>	M	LC	LC	1	1	1
144	White-winged Tern	<i>Chlidonias leucopterus</i>	M	LC	EN	1	1	1
145	Parasitic Jaeger	<i>Stercorarius parasiticus</i>	M	LC	LC	1		1
146	Long-tailed Jaeger	<i>Stercorarius longicaudus</i>	M	LC	LC			
147	Swinhoe's Storm Petrel	<i>Hydrobates monorhis</i>	M	NT	NT			
148	Wedge-tailed Shearwater	<i>Ardenna pacifica</i>	M	LC	NE			

Appendix 1 (Cont'd)

149	Short-tailed Shearwater	<i>Puffinus tenuirostris</i>	M	LC	NE			
150	Milky Stork	<i>Mycteria cinerea</i>	R	EN	NA	1	1	1
151	Painted Stork	<i>Mycteria leucocephala</i>	R	NT	NA	1	1	1
152	Asian Openbill	<i>Anastomus oscitans</i>	NBV	LC	LC	1	1	1
153	Lesser Adjutant	<i>Leptoptilos javanicus</i>	NBV	VU	VU	1	1	1
154	Christmas Frigatebird	<i>Fregata andrensi</i>	NBV	VU	NE	1		1
155	Lesser Frigatebird	<i>Fregata ariel</i>	NBV	LC	LC			
156	Red-footed Booby	<i>Sula sula</i>	NBV	LC	LC			
157	Brown Booby	<i>Sula leucogaster</i>	NBV	LC	LC	1		1
158	Oriental Darter	<i>Anhinga melanogaster</i>	NBV	NT	NT	1	1	1
159	Black-headed Ibis	<i>Threskiornis melanocephalus</i>	NBV	NT	NE	1		1
160	Glossy Ibis	<i>Plegadis falcinellus</i>	M	LC	NE	1		1
161	Yellow Bittern	<i>Ixobrychus sinensis</i>	R/M	LC	VU	1	1	1
162	Von Schrenck's Bittern	<i>Ixobrychus eurhythmus</i>	M	LC	NT	1	1	1
163	Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	R/M	LC	VU	1	1	1
164	Black Bittern	<i>Dupetor flavicollis</i>	M	LC	LC	1	1	1
165	Malayan Night Heron	<i>Gorsachius melanolophus</i>	M	LC	NT	1	1	1
166	Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	R	LC	EN	1	1	1
167	Striated Heron	<i>Butorides striata</i>	R/M	LC	NT	1	1	1

Appendix 1 (Cont'd)

168	Indian Pond Heron	<i>Ardeola grayii</i>	M	LC	NE			
169	Chinese Pond Heron	<i>Ardeola bacchus</i>	M	LC	LC	1	1	1
170	Javan Pond Heron	<i>Ardeola speciosa</i>	M	LC	LC	1		1
171	Eastern Cattle Egret	<i>Bubulcus coromandus</i>	R/M	LC	VU	1	1	1
172	Grey Heron	<i>Ardea cinerea</i>	R	LC	LC	1	1	1
173	Great-billed Heron	<i>Ardea sumatrana</i>	R	LC	CR	1	1	1
174	Purple Heron	<i>Ardea purpurea</i>	R	LC	EN	1	1	1
175	Great Egret	<i>Ardea alba</i>	M	LC	VU	1	1	1
176	Intermediate Egret	<i>Egretta intermedia</i>	M	LC	LC	1	1	1
177	Little Egret	<i>Egretta garzetta</i>	M	LC	LC	1	1	1
178	Pacific Reef Heron	<i>Egretta sacra</i>	R	LC	EN	1		1
179	Chinese Egret	<i>Egretta eulophotes</i>	M	VU	EN	1	1	1
180	Western Osprey	<i>Pandion haliaetus</i>	NBV	LC	LC	1	1	1
181	Black-winged Kite	<i>Elanus caeruleus</i>	R	LC	VU	1	1	1
182	Crested Honey Buzzard	<i>Pernis ptilorhynchus</i>	M	LC	LC	1	1	1
183	Jerdon's Baza	<i>Aviceda jerdoni</i>	M	LC	LC			
184	Black Baza	<i>Aviceda leuphotes</i>	M	LC	LC	1	1	1
185	Himalayan Vulture	<i>Gyps himalayensis</i>	M	NT	NT	1		1
186	Cinereous Vulture	<i>Aegypius monachus</i>	M	NT	NE			

Appendix 1 (Cont'd)

187	Crested Serpent Eagle	<i>Spilornis cheela</i>	R	LC	CR	1	1	1
188	Short-toed Snake Eagle	<i>Circaetus gallicus</i>	M	LC	LC	1	1	1
189	Bat Hawk	<i>Macheiramphus alcinus</i>	NBV	LC	LC			
190	Changeable Hawk-Eagle	<i>Nisaetus cirrhatus</i>	R	LC	VU	1	1	1
191	Rufous-bellied Eagle	<i>Lophotriorchis kienerii</i>	M	NT	LC	1	1	1
192	Greater Spotted Eagle	<i>Clanga clanga</i>	M	VU	VU	1	1	1
193	Booted Eagle	<i>Hieraaetus pennatus</i>	M	LC	LC		1	1
194	Steppe Eagle	<i>Aquila nipalensis</i>	M	EN	NE			
195	Eastern Imperial Eagle	<i>Aquila heliaca</i>	M	VU	NE		1	1
196	Crested Goshawk	<i>Accipiter trivirgatus</i>	R	LC	NT	1	1	1
197	Shikra	<i>Accipiter badius</i>	M	LC	NE			
198	Chinese Sparrowhawk	<i>Accipiter soloensis</i>	M	LC	LC	1	1	1
199	Japanese Sparrowhawk	<i>Accipiter gularis</i>	M	LC	LC	1	1	1
200	Besra	<i>Accipiter virgatus</i>	M	LC	LC			
201	Eurasian Sparrowhawk	<i>Accipiter nisus</i>	M	LC	NE			
202	Eastern Marsh Harrier	<i>Circus spilonotus</i>	M	LC	EN	1	1	1
203	Pied Harrier	<i>Circus melanoleucos</i>	M	LC	LC		1	1
204	Black Kite	<i>Milvus migrans</i>	M	LC	EN	1	1	1
205	Brahminy Kite	<i>Haliastur indus</i>	R	LC	LC	1	1	1

Appendix 1 (Cont'd)

206	White-bellied Sea Eagle	<i>Haliaeetus leucogaster</i>	R	LC	LC	1	1	1
207	Grey-headed Fish Eagle	<i>Haliaeetus ichthyaetus</i>	R	NT	VU	1	1	1
208	Grey-faced Buzzard	<i>Butastur indicus</i>	M	LC	NT	1	1	1
209	Common Buzzard	<i>Buteo buteo</i>	M	LC	LC	1	1	1
210	Eastern Barn Owl	<i>Tyto javanica</i>	R	LC	LC	1		1
211	Northern Boobook	<i>Ninox japonica</i>	M	LC	DD	1		1
212	Brown Hawk-Owl	<i>Ninox scutulata</i>	R	LC	LC			
213	Oriental Scops Owl	<i>Otus sunia</i>	M	LC	NT	1		1
214	Sunda Scops Owl	<i>Otus lempiji</i>	R	LC	LC	1	1	1
215	Long-eared Owl	<i>Asio otus</i>	M	LC	NE			
216	Short-eared Owl	<i>Asio flammeus</i>	M	LC	LC			
217	Barred Eagle-Owl	<i>Bubo sumatranus</i>	NBV	NT	CR			
218	Buffy Fish Owl	<i>Ketupa ketupu</i>	R	LC	VU	1	1	1
219	Spotted Wood Owl	<i>Strix seloputo</i>	R	LC	VU	1	1	1
220	Brown Wood Owl	<i>Strix leptogrammica</i>	R	LC	CR			
221	Oriental Pied Hornbill	<i>Anthracoceros albirostris</i>	R	LC	NT	1	1	1
222	Black Hornbill	<i>Anthracoceros malayanus</i>	NBV	VU	NT			
223	Oriental Dollarbird	<i>Eurystomus orientalis</i>	R/M	LC	LC	1	1	1
224	Stork-billed Kingfisher	<i>Pelargopsis capensis</i>	R	LC	LC	1	1	1

Appendix 1 (Cont'd)

225	Ruddy Kingfisher	<i>Halcyon coromanda</i>	R/M	LC	CR	1	1	1
226	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	R	LC	LC	1	1	1
227	Black-capped Kingfisher	<i>Halcyon pileata</i>	M	VU	VU	1	1	1
228	Collared Kingfisher	<i>Todiramphus chloris</i>	R	LC	LC	1	1	1
229	Blue-eared Kingfisher	<i>Alcedo meninting</i>	R	LC	EN	1	1	1
230	Common Kingfisher	<i>Alcedo atthis</i>	M	LC	VU	1	1	1
231	Oriental Dwarf Kingfisher	<i>Ceyx erithaca</i>	M	LC	NT	1		1
232	Pied Kingfisher	<i>Ceryle rudis</i>	M	LC	NE			
233	Blue-tailed Bee-eater	<i>Merops philippinus</i>	M	LC	LC	1	1	1
234	Blue-throated Bee-eater	<i>Merops viridis</i>	MB	LC	LC	1	1	1
235	Lineated Barbet	<i>Psilopogon lineatus</i>	R	LC	NA	1	1	1
236	Red-crowned Barbet	<i>Psilopogon rafflesii</i>	R	NT	VU			
237	Coppersmith Barbet	<i>Psilopogon haemacephalus</i>	R	LC	LC	1	1	1
238	Sunda Pygmy Woodpecker	<i>Dendrocopus moluccensis</i>	R	LC	LC	1	1	1
239	White-bellied Woodpecker	<i>Dryocopus javensis</i>	R	LC	CR			
240	Banded Woodpecker	<i>Chrysoplegma miniaceum</i>	R	LC	LC	1	1	1
241	Crimson-winged Woodpecker	<i>Picus puniceus</i>	NBV	LC	LC			
242	Laced Woodpecker	<i>Picus vittatus</i>	R	LC	LC	1	1	1
243	Common Flameback	<i>Dinopium javanense</i>	R	LC	LC	1	1	1

Appendix 1 (Cont'd)

244	Rufous Woodpecker	<i>Micropternus brachyurus</i>	R	LC	LC	1	1	1
245	Buff-rumped Woodpecker	<i>Meiglyptes tristis</i>	NBV	LC	LC			
246	Great Slaty Woodpecker	<i>Mulleripicus pulverulentus</i>	NBV	VU	VU			
247	Black-thighed Falconet	<i>Microhierax fringillarius</i>	R	LC	LC			
248	Lesser Kestrel	<i>Falco naumanni</i>	M	LC	NE			
249	Common Kestrel	<i>Falco tinnunculus</i>	M	LC	LC	1	1	1
250	Amur Falcon	<i>Falco amurensis</i>	M	LC	NE			
251	Eurasian Hobby	<i>Falco subbuteo</i>	M	LC	NE			
252	Peregrine Falcon	<i>Falco peregrinus</i>	M	LC	LC	1	1	1
253	Tanimbar Corella	<i>Cacatua goffiniana</i>	R	NT	NA	1	1	1
254	Yellow-crested Cockatoo	<i>Cacatua sulphurea</i>	R	CR	NA			
255	Blue-rumped Parrot	<i>Psittinus cyanurus</i>	R	NT	EN			
256	Red-breasted Parakeet	<i>Psittacula alexandri</i>	R	NT	NA	1	1	1
257	Long-tailed Parakeet	<i>Psittacula longicauda</i>	R	VU	NT	1	1	1
258	Rose-ringed Parakeet	<i>Psittacula krameri</i>	R	LC	NA	1	1	1
259	Coconut Lorikeet	<i>Trichoglossus haematodus</i>	R	LC	NA		1	1
260	Blue-crowned Hanging Parrot	<i>Loriculus galgulus</i>	R	LC	LC	1	1	1
261	Black-and-red Broadbill	<i>Cymbirhynchus macrorhynchos</i>	NBV	LC	CR	1		1
262	Green Broadbill	<i>Calyptomena viridis</i>	NBV	NT	NT			

Appendix 1 (Cont'd)

263	Blue-winged Pitta	<i>Pitta moluccensis</i>	M	LC	LC	1	1	1
264	Mangrove Pitta	<i>Pitta megarhyncha</i>	R	NT	CR	1		1
265	Hooded Pitta	<i>Pitta sordida</i>	M	LC	LC			
266	Fairy Pitta	<i>Pitta nympha</i>	M	VU	DD			
267	Golden-bellied Gerygone	<i>Gerygone sulphurea</i>	R	LC	NT	1	1	1
268	Black-winged Flycatcher-shrike	<i>Hemipus hirundinaceus</i>	NBV	LC	DD			
269	Large Woodshrike	<i>Tephrodornis virgatus</i>	NBV	LC	DD			
270	Common Iora	<i>Aegithina tiphia</i>	R	LC	LC	1	1	1
271	Scarlet Minivet	<i>Pericrocotus speciosus</i>	R	LC	CR			
272	Ashy Minivet	<i>Pericrocotus divaricatus</i>	M	LC	LC	1	1	1
273	Pied Triller	<i>Lalage nigra</i>	R	LC	LC	1	1	1
274	Lesser Cuckooshrike	<i>Coracina fimbriata</i>	R	LC	CR			
275	Mangrove Whistler	<i>Pachycephala cinerea</i>	R	LC	EN	1		1
276	Tiger Shrike	<i>Lanius tigrinus</i>	M	LC	NT	1	1	1
277	Brown Shrike	<i>Lanius cristatus</i>	M	LC	VU	1	1	1
278	Long-tailed Shrike	<i>Lanius schach</i>	R	LC	LC	1	1	1
279	White-bellied Erpornis	<i>Erpornis zantholeuca</i>	NBV	LC	LC			
280	Black-naped Oriole	<i>Oriolus chinensis</i>	R	LC	LC	1	1	1
281	Crow-billed Drongo	<i>Dicrurus annectans</i>	M	LC	NT	1	1	1

Appendix 1 (Cont'd)

282	Greater Racket-tailed Drongo	<i>Dicrurus paradisus</i>	R	LC	LC	1	1	1
283	Hair-crested Drongo	<i>Dicrurus hottentottus</i>	M	LC	NE			
284	Ashy Drongo	<i>Dicrurus leucophaeus</i>	M	LC	LC	1	1	1
285	Black Drongo	<i>Dicrurus macrocercus</i>	M	LC	VU	1	1	1
286	Malaysian Pied Fantail	<i>Rhipidura javanica</i>	R	LC	LC	1	1	1
287	Black-naped Monarch	<i>Hypothymis azurea</i>	R	LC	CR			
288	Indian Paradise Flycatcher	<i>Terpsiphone paradisi</i>	M	LC	NE	1		1
289	Blyth's Paradise Flycatcher	<i>Terpsiphone affinis</i>	M	LC	LC	1	1	1
290	Amur Paradise Flycatcher	<i>Terpsiphone incei</i>	M	LC	LC	1	1	1
291	Japanese Paradise Flycatcher	<i>Terpsiphone atrocaudata</i>	M	NT	NT	1	1	1
292	Malayan Black Magpie	<i>Platysmurus leucopterus</i>	NBV	LC	NE			
293	House Crow	<i>Corvus splendens</i>	R	LC	NA	1	1	1
294	Large-billed Crow	<i>Corvus macrorhynchos</i>	R	LC	VU	1	1	1
295	Japanese Tit	<i>Parus minor</i>	M	LC	NE			
296	Eurasian Skylark	<i>Alauda arvensis</i>	M	LC	NE			
297	Buff-vented Bulbul	<i>Iole olivacea</i>	R	NT	CR			
298	Cinereous Bulbul	<i>Hemixos cinereus</i>	NBV	LC	LC	1		1
299	Streaked Bulbul	<i>Ixos malaccensis</i>	NBV	NT	NT	1		1
300	Black-and-white Bulbul	<i>Pycnonotus melanoleucos</i>	NBV	NT	NT			

Appendix 1 (Cont'd)

301	Black-headed Bulbul	<i>Pycnonotus atriceps</i>	R	LC	CR	1		1
302	Black-crested Bulbul	<i>Pycnonotus flaviventris</i>	R	LC	NA			
303	Cream-vented Bulbul	<i>Pycnonotus simplex</i>	R	LC	VU			
304	Olive-winged Bulbul	<i>Pycnonotus plumosus</i>	R	LC	LC	1	1	1
305	Asian Red-eyed Bulbul	<i>Pycnonotus brunneus</i>	R	LC	VU	1		1
306	Straw-headed Bulbul	<i>Pycnonotus zeylanicus</i>	R	CR	EN	1	1	1
307	Stripe-throated Bulbul	<i>Pycnonotus finlaysoni</i>		LC	NE			
308	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	R	LC	NA	1	1	1
309	Yellow-vented Bulbul	<i>Pycnonotus goiavier</i>	R	LC	LC	1	1	1
310	Sooty-headed Bulbul	<i>Pycnonotus aurigaster</i>	R	LC	NA	1	1	1
311	Sand Martin	<i>Riparia riparia</i>	M	LC	LC	1	1	1
312	Pacific Swallow	<i>Hirundo tabitica</i>	R	LC	LC	1	1	1
313	Barn Swallow	<i>Hirundo rustica</i>	M	LC	NT	1	1	1
314	Siberian House Martin	<i>Delichon lagopodum</i>	M	LC	NE			
315	Asian House Martin	<i>Delichon dasyus</i>	M	LC	LC	1	1	1
316	Red-rumped Swallow	<i>Cecropis daurica</i>	M	LC	LC	1	1	1
317	Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	M	LC	LC	1	1	1
318	Dusky Warbler	<i>Phylloscopus fuscatus</i>	M	LC	NE			
319	Eastern Crowned Warbler	<i>Phylloscopus coronatus</i>	M	LC	LC	1	1	1

Appendix 1 (Cont'd)

320	Sakhalin Leaf Warbler	<i>Phylloscopus borealoides</i>	M	LC	NT	1		1
321	Pale-legged Leaf Warbler	<i>Phylloscopus tenellipes</i>	M	LC	NE			
322	Arctic Warbler	<i>Phylloscopus borealis</i>	M	LC	LC	1	1	1
323	Oriental Reed Warbler	<i>Acrocephalus orientalis</i>	M	LC	VU	1	1	1
324	Black-browed Reed Warbler	<i>Acrocephalus bistrigiceps</i>	M	LC	NT	1	1	1
325	Booted Warbler	<i>Iduna caligata</i>	M	LC	NE		1	1
326	Pallas's Grasshopper Warbler	<i>Locustella certhiola</i>	M	LC	LC	1	1	1
327	Lanceolated Warbler	<i>Locustella lanceolata</i>	M	LC	NT	1	1	1
328	Zitting Cisticola	<i>Cisticola juncidis</i>	R	LC	VU	1	1	1
329	Yellow-bellied Prinia	<i>Prinia flaviventris</i>	R	LC	NT	1	1	1
330	Common Tailorbird	<i>Orthotomus sutorius</i>	R	LC	LC	1	1	1
331	Dark-necked Tailorbird	<i>Orthotomus atrogularis</i>	R	LC	LC	1	1	1
332	Rufous-tailed Tailorbird	<i>Orthotomus sericeus</i>	R	LC	NT	1	1	1
333	Ashy Tailorbird	<i>Orthotomus ruficeps</i>	R	LC	LC	1	1	1
334	Swinhoe's White-eye	<i>Zosterops simplex</i>	R	LC	VU	1	1	1
335	Pin-striped Tit-Babbler	<i>Macronous gularis</i>	R	LC	LC	1	1	1
336	Chestnut-winged Babbler	<i>Stachyris erythroptera</i>	R	LC	CR			
337	Moustached Babbler	<i>Malacopteron magnirostre</i>	R	LC	CR			
338	Short-tailed Babbler	<i>Malacocincla malaccensis</i>	R	NT	VU			

Appendix 1 (Cont'd)

339	White-chested Babbler	<i>Trichastoma rostratum</i>	R	NT	CR	1	1	1
340	Abbott's Babbler	<i>Malacocincla abbotti</i>	R	LC	LC	1	1	1
341	Chinese Hwamei	<i>Garrulax canorus</i>	R	LC	NA			
342	White-crested Laughingthrush	<i>Garrulax leucolophus</i>	R	LC	NA	1	1	1
343	Asian Fairy-bluebird	<i>Irena puella</i>	R	LC	NT			
344	Velvet-fronted Nuthatch	<i>Sitta frontalis</i>	NBV	LC	LC			
345	Asian Glossy Starling	<i>Aplonis panayensis</i>	R	LC	LC	1	1	1
346	Common Hill Myna	<i>Gracula religiosa</i>	R	LC	NT	1	1	1
347	Javan Myna	<i>Acridotheres javanicus</i>	R	VU	NA	1	1	1
348	Common Myna	<i>Acridotheres tristis</i>	R	LC	LC	1	1	1
349	Red-billed Starling	<i>Spodiopsar sericeus</i>	M	LC	NE			
350	White-cheeked Starling	<i>Spodiopsar cineraceus</i>	M	LC	NE			
351	Daurian Starling	<i>Agropsar sturninus</i>	M	LC	LC	1	1	1
352	Chestnut-cheeked Starling	<i>Agropsar philippensis</i>	M	LC	DD			
353	White-shouldered Starling	<i>Sturnia sinensis</i>	M	LC	LC		1	1
354	Brahminy Starling	<i>Sturnia pagodarum</i>	M	LC	NE			
355	Rosy Starling	<i>Pastor roseus</i>	M	LC	NE			
356	Common Starling	<i>Sturnus vulgaris</i>	M	LC	NE			
357	Siberian Thrush	<i>Geokichla sibirica</i>	M	LC	NT			

Appendix 1 (Cont'd)

358	Orange-headed Thrush	<i>Geokichla citrina</i>	M	LC	NT			
359	Chinese Blackbird	<i>Turdus mandarinus</i>	M	LC	NE			
360	Eyebrowed Thrush	<i>Turdus obscurus</i>	M	LC	NT		1	1
361	Oriental Magpie-Robin	<i>Copsychus saularis</i>	R	LC	VU	1	1	1
362	White-rumped Shama	<i>Copsychus malabaricus</i>	R	LC	EN	1	1	1
363	Spotted Flycatcher	<i>Muscicapa striata</i>	M	LC	NE			
364	Grey-streaked Flycatcher	<i>Muscicapa griseisticta</i>	M	LC	NE			
365	Dark-sided Flycatcher	<i>Muscicapa sibirica</i>	M	LC	NT	1	1	1
366	Asian Brown Flycatcher	<i>Muscicapa dauurica</i>	M	LC	LC	1	1	1
367	Brown-streaked Flycatcher	<i>Muscicapa williamsoni</i>	M	LC	LC		1	1
368	Brown-breasted Flycatcher	<i>Muscicapa muttui</i>		LC	NE			
369	Ferruginous Flycatcher	<i>Muscicapa ferruginea</i>	M	LC	NT	1		1
370	Chinese Blue Flycatcher	<i>Cyornis glaucicomans</i>	M	LC	NT	1		1
371	Mangrove Blue Flycatcher	<i>Cyornis rufigastra</i>	R	LC	CR	1		1
372	Brown-chested Jungle Flycatcher	<i>Cyornis brunneatus</i>	M	VU	VU	1		1
373	Blue-and-white Flycatcher	<i>Cyanoptila cyanomelana</i>	M	LC	NT			
374	Zappey's Flycatcher	<i>Cyanoptila cumatilis</i>	M	NT	NT			
375	Verditer Flycatcher	<i>Eumyias thalassinus</i>	NBV	LC	NE			
376	Siberian Blue Robin	<i>Larvivora cyane</i>	M	LC	NT	1		1

Appendix 1 (Cont'd)

377	Yellow-rumped Flycatcher	<i>Ficedula zanthopygia</i>	M	LC	LC	1	1	1
378	Green-backed Flycatcher	<i>Ficedula elisae</i>	M	LC	NT	1		1
379	Narcissus Flycatcher	<i>Ficedula narcissina</i>	M	LC	DD			
380	Mugimaki Flycatcher	<i>Ficedula mugimaki</i>	M	LC	LC	1		1
381	Taiga Flycatcher	<i>Ficedula albicilla</i>	M	LC	NE			
382	Black Redstart	<i>Phoenicurus ochruros</i>	M	LC	NE			
383	Daurian Redstart	<i>Phoenicurus auroreus</i>	M	LC	NE			
384	Blue Rock Thrush	<i>Monticola solitarius</i>	M	LC	LC			
385	White-throated Rock Thrush	<i>Monticola gularis</i>	M	LC	NT			
386	Amur Stonechat	<i>Saxicola stejnegeri</i>	M	NE	NE	1	1	1
387	Greater Green Leafbird	<i>Chloropsis sonnerati</i>	R	EN	CR			
388	Lesser Green Leafbird	<i>Chloropsis cyanopogon</i>	R	NT	CR			
389	Blue-winged Leafbird	<i>Chloropsis cochinchinensis</i>	R	EN	NT			
390	Scarlet-breasted Flowerpecker	<i>Prionochilus thoracicus</i>	NBV	NT	NT			
391	Thick-billed Flowerpecker	<i>Dicaeum agile</i>	NBV	LC	DD			
392	Yellow-vented Flowerpecker	<i>Dicaeum chrysorrheum</i>	R	LC	CR			
393	Orange-bellied Flowerpecker	<i>Dicaeum trigonostigma</i>	R	LC	NT	1	1	1
394	Scarlet-backed Flowerpecker	<i>Dicaeum cruentatum</i>	R	LC	LC	1	1	1
395	Ruby-cheeked Sunbird	<i>Chalcopteryx singalensis</i>	NBV	LC	DD	1		1

Appendix 1 (Cont'd)

396	Brown-throated Sunbird	<i>Anthreptes malacensis</i>	R	LC	LC	1	1	1
397	Van Hasselt's Sunbird	<i>Leptocoma brasiliana</i>	R	LC	LC	1		1
398	Copper-throated Sunbird	<i>Leptocoma calcostetha</i>	R	LC	VU	1	1	1
399	Olive-backed Sunbird	<i>Cinnyris jugularis</i>	R	LC	LC	1	1	1
400	Crimson Sunbird	<i>Aethopyga siparaja</i>	R	LC	LC	1	1	1
401	Little Spiderhunter	<i>Arachnothera longirostra</i>	R	LC	NT	1		1
402	Thick-billed Spiderhunter	<i>Arachnothera crassirostris</i>	R	LC	CR			
403	Yellow-eared Spiderhunter	<i>Arachnothera chryso-genys</i>	R	LC	CR			
404	Eurasian Tree Sparrow	<i>Passer montanus</i>	R	LC	LC	1	1	1
405	House Sparrow	<i>Passer domesticus</i>	R	LC	NA			
406	Streaked Weaver	<i>Ploceus manyar</i>	R	LC	NA	1		1
407	Baya Weaver	<i>Ploceus philippinus</i>	R	LC	VU	1	1	1
408	Scaly-breasted Munia	<i>Lonchura punctulata</i>	R	LC	LC	1	1	1
409	White-rumped Munia	<i>Lonchura striata</i>	R	LC	CR	1	1	1
410	Javan Munia	<i>Lonchura leucogastroides</i>	R	LC	NA	1	1	1
411	Chestnut Munia	<i>Lonchura atricapilla</i>	R	LC	VU	1	1	1
412	White-headed Munia	<i>Lonchura maja</i>	R	LC	LC	1	1	1
413	Red Avadavat	<i>Amandava amandava</i>	R	LC	NE	1	1	1
414	Forest Wagtail	<i>Dendronanthus indicus</i>	M	LC	LC	1	1	1

Appendix 1 (Cont'd)

415	Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	M	LC	VU	1	1	1
416	Citrine Wagtail	<i>Motacilla citreola</i>	M	LC	NE			1
417	Grey Wagtail	<i>Motacilla cinerea</i>	M	LC	LC	1	1	1
418	White Wagtail	<i>Motacilla alba</i>	M	LC	LC	1	1	1
419	Paddyfield Pipit	<i>Anthus rufulus</i>	R	LC	LC	1	1	1
420	Tree Pipit	<i>Anthus trivialis</i>	M	LC	NE			
421	Olive-backed Pipit	<i>Anthus bodgsoni</i>	M	LC	NE			
422	Red-throated Pipit	<i>Anthus cervinus</i>	M	LC	LC		1	1
	Total					281	235	298

Notes:

This 2023 Singapore Species list was shared by the Nature Society (Singapore) Bird Group.

Key:

R – resident, NBV – Non-breeding visitor, M – Migrant.

LC – Least Concern, NT – Near Threatened, VU – Vulnerable, EN – Endangered, CR – Critically Endangered, DD – Data Deficient, NA – Not Applicable, NE – Not Evaluated.