

A CHECKLIST OF THE BIRDS OF THE BOTANICAL GARDENS OF BOGOR, WEST JAVA

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(Received 1 August 1987)

INTRODUCTION

The avifauna of the Botanical Gardens at Bogor has long attracted ornithologists, both among resident scientists and among newcomers whose first encounters with Javan birds took place here. The present checklist briefly enumerates the bird species observed in the Gardens during the past twenty years. Only a brief discussion is given concerning decreases in some species, as this is discussed more fully in van Balen *et al.* (1986) and Diamond *et al.* (1987)

HABITAT

The Botanical Gardens of Bogor were established in the last century and have become famous as the largest collection of tropical trees in South-east Asia. The Gardens cover an area of 85 ha and are situated in the center of the city of Bogor (population 100,000 in 1951, 250,000 in 1981). Formerly there was a green corridor to surrounding woodlands but the last connection was severed in 1936 when the area was developed as suburban villas. Thus the Gardens are now entirely surrounded by urban land and ringed by roads carrying heavy traffic. The nearest extensive forest plots are those in the hills near Cipayung (12-15 km to east) and Mt. Salak (ca 12 km to south). There are smaller forest plots near Ciburial (5 km to SW) and Mt. Pancar (10 km to NE). Within this isolated green area, the President's Summer Palace with extensive lawns and pastures borders the Gardens. The Gardens are divided into numerous plots separated by a network of asphalt roads and more or less hardened tracks. A large lawn, some ponds, the valley of the Ciliwung river and its tributary, and several building areas alternate with these plots that are covered with trees and shrubs in varying densities and heights. Very few places have sufficient undergrowth for the plots to resemble natural forest. During the war the Gardens were neglected and overgrown (1942-1947), but this has been followed by intensive clearing and visitor pressure. Several hundreds of visitors now come to the Gardens at weekends and holidays.

HISTORICAL REVIEW

Konigsberger (1901-1909) was the first to mention the common occurrence of some species readily seen here (e.g. *Hemiprocne longipennis* and *Zoothera citrina*). Sody (1927) paid rather scant attention to the Garden's birds, listing only nine species.

Hoogerwerf (1948, 1949, 1953) contributed several papers on the Garden's avifauna, listing at least 142 species, mostly observed by himself between 1931 and 1952. However, this total includes many that occurred during the period of neglect (see Table 3) and which would not be characteristic of the present habitats.

During 1967-1971, 42 species were caught and banded in the Gardens by Somadikarta and McClure and their team (M.Z.B & M.A.P.S., not published, McClure 1974), including *Cuculus micropterus*, *Megalaima australis*, *Zoothera sibirica* and *Ficedula zanthopygia*, which were new additions to the bird list. Surveys undertaken by van Balen (1984) in the framework of a study into the changing numbers of birds of Bogor and surroundings (November 1980 to September 1981), visits by the three authors in April-May 1984, and some other visits since 1979, provided more recent data. New additions have been *Loriculus pusillus*, *Cuculus saturatus*, *Apus affinis*, *Phylloscopus borealis* and *Sturnus melanopterus*. Other data since 1974 have been collected from J.H. Becking, K.D. Bishop, J.M. Diamond, D.A. Holmes, G.R. Milton, Pak Naat and F.G. Rozendaal, and their records are gratefully acknowledged.

SPECIES LISTS AND DISCUSSION

The 81 species recorded in the Gardens over the past twenty years are listed in Table 1. This is only 54% of the number recorded by Hoogerwerf (1949, 1953), whose list includes many species that were attracted to the wilder conditions of the Gardens during the war (see Table 3). More alarming is the total disappearance of formerly common birds (see Table 2). In most cases these losses reflect the urban development in the surrounding area (e.g. *Haliastur indus*, *Spizaetus cirrhatus*, *Geopelia striata*, *Eudynamis scolopacea*, *Sturnus contra*), while in other cases they are consequent upon the decrease of suitable habitat in the gardens (e.g. *Turnix suscitator*, *Amaurornis phoenicurus*, *Pitta guajana*) or isolation from other wooded areas (e.g. *Sitta frontalis*, *Aethopygia mystacalis*).

The "minimal" habitats given in the tables correspond more or less with different degrees of disturbance by Man. If more than one habitat type can potentially sustain populations of a certain species in considerable numbers, the type that appears first in the sequence of decreasing disturbance (TV - AL - OW - FE - F; wetlands (W) form a separate category) is given priority over the other(s). Differences in response to overall habitat destruction are presumably reflected in this way.

A short annotated list follows below of those species still present (see Table 1) whose status has evidently changed in recent years.

The status described by Hoogerwerf (1949, 1953) is given first in brackets, where relevant. English names are given in the tables.

Nycticorax nycticorax. (rarely observed in the Gardens but often heard flying overhead in the evening). A large group of adults and juveniles can be seen daily around the main pond. From 20-30 birds several years ago (van Balen, 1984), the numbers have increased steadily to 150-200 at present. However, no attempts at breeding have yet been observed. It should be noted that formerly a breeding colony was reported in front of the railway station of Bogor (Groeneveldt, 1939), an area now totally built over.

Amaurornis phoenicurus. (rather regularly seen). Two birds together observed by G.R. Milton (pers. comm.) on 9 Sept 1984; most recent records of single birds on 5 July 1987 and two weeks later. Certainly much less common than formerly.

Geopelia striata. (One of the most common birds). Recently this has been observed only rarely, always singly.

Loriculus pusillus. One observed in a tree bordering the main lawns on 13 Jan 1986 is surprisingly the first record for the Gardens.

Cuculus micropterus. Two individuals were banded by Somadikartas's team on 9 Nov 1967 and 18 Jan 1970. There have been some other observations in the last seven years (5 March 1981, 1 March 1986), but the subspecific identity could not be ascertained (migratory *micropterus* or resident *concretus*). These records are the first for the Bogor area.

Cuculus saturatus. One sight record on 31 Jan 1986. Its largish size, moderately barred breast and belly, brownish throat and uniformly dark tail exclude confusion with any other cuckoo except *C. canorus*, which has never been recorded from the mainland of Java. An unidentified cuckoo (yellow eyering, dark grey upperside, barred underparts of wings and tail and largish size) was seen on 13 Dec 1980.

Cacomantis variolosus. (Permanent resident, probably more common than *C. merulinus*). Occasional. Several males were heard calling on 25 Feb and 7 March 1981.

Surniculus lugubris. (Probably always several birds present). One banded by Somadikarta's team on 17 Sept 1969 and one heard on 14 and 15 May 1987 are the only recent records.

Apus affinis. A flock of at least four seen on 26 March 1987 appears to be the first documented record for the Bogor area. This is surprising in view of its residence in Bandung and frequent appearance in the southern part of Jakarta.

Megalaima australis. One banded by Somadikarta's team on 20 Jan 1970 is the first record from the Bogor area. D.A. Holmes (pers. comm.) heard one calling on 6 May 1974, but there are no subsequent records.

Lalage nigra. (Observed quite regularly though not common). The only recent record is one banded on 23 Sept 1969.

Criniger bres. (A rather common bird in many places). Five specimens were caught by Somadikarta's team in 1968-69, and single birds were seen on 15 Sept 1979 and 30 June 1986.

Zoothera citrina. (One of the most common birds in the Gardens). During 1967-70 Somadikarta's team banded 25 birds. The species is still observed occasionally, but the population is probably reduced to one or two pairs.

Zoothera sibirica. Two birds banded on 14 Nov 1968 and 22 Feb 1969 are the first and only records for the Bogor area.

Phylloscopus borealis. The first documented record of this species for the Bogor area was obtained in the Gardens on 21 April 1984.

Prinia flaviventris. Observed on 9 Sept 1984 by G.R. Milton (per. comm.), which is the first record of this species for the Gardens.

Ficedula zanthopygia. One was collected by Somadikarta on 5 Nov 1970. This was the first record for the Gardens and probably also for the Bogor area (see Hoogerwerf, 1948); a male observed by G. Allport (per P. Andrew) on 16 Oct 1984.

Pachycephala cinerea. (Common in many places within the Gardens). Not recorded since one was banded by Somadikarta's team on 20 Nov 1968.

Aplonis panayensis. (Periodically common, but sometimes rare or even absent from the Gardens). The only recent records are of a small party of mainly immature birds on 8 January 1975 (D.A. Holmes, pers. comm.) and a pair seen on 6 and 10 April 1981.

Sturnus contra. (Common in certain parts). Irregular visitor to the Gardens; records of single birds or pairs on 13 Jan and 6 April 1981, 21 April 1984, 27 Oct 1983 and 5 July 1987 (J.M. Diamond & K.D. Bishop, pers. comm.; own observations); more regular observations during Jan-March 1984 (G.R. Milton, pers. comm.) of 2-10 individuals, and during Jan-March 1986 of single birds.

Sturnus melanopterus. One on 18 Aug 1981 appears to be the first documented record of this species for the Bogor area.

From table 1 and 2 and the notes above, it is apparent that different species tend to decrease by category according to their "minimal" habitats (see above). None of these species seen regularly in the Gardens that are associated with heavily populated areas (TV) have disappeared. Among the open woodland species (OW - includes wooded villages, secondary and disturbed forest), 61% of the species that were formerly common have disappeared or become very rare. Some of these have not been observed for 15 years or more (*Lalage nigra*, *Pachycephala cinerea*), or may soon become extinct (*Criniger bres*, *Zoothera citrina*), given the increasing isolation and the dwindling numbers of such species even in suitable habitat in the surrounding areas. Among the birds of arable land (AL - includes waste land, pastures, dry fallow ricefields, etc.), 71% of those formerly common in the Gardens have decreased or disappeared. Forest birds (F, FE) and the wetland species (W) have never formed part of the typical resident avifauna.

Less than 40 species are now seen regularly in the Gardens (c or f in Table 1), and these are principally species of populated areas (TV) or open woodland (OW). Nevertheless there have also been some significant additions during the last twenty years, including migratory species, and this could indicate an increasing importance of areas such as the Bogor Gardens as a more or less temporary refuge for woodland species in this overpopulated island.

Part of the Garden's avifauna may be formed by birds that have escaped from the nearby bird-market. This could include such temporary visitors as *Geopelia striata*, *Loriculus pusillus*, *Copsychus malabaricus*, *Criniger bres*, and both *Sturnus* species, all popular cagebirds.

As a consequence of the increasing urbanisation of Bogor and its surroundings, the open woodland species especially are decreasing in numbers. Due to various ecological processes, the Gardens tend to become more and more a mirror of their impoverished surroundings (Diamond *et al.*, 1987). Despite this the Botanical Gardens still play an important role as a study area. They offer an assemblage of birds that is within easy reach of most local educational institutes and accessible to urban visitors, and 30 species can readily be seen over a three hour period. For overseas visitors who need to spend time in Bogor, the Gardens still provide a pleasant introduction to the Javanese avifauna in relaxed surroundings.

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SUMMARY

A checklist is given of the bird species recorded at the Botanical Gardens of Bogor, West Java, over the past twenty years, and of the species that were recorded previously but have now disappeared. Less than 40 species now occur regularly, and many species have decreased or become irregular in occurrence, while 15 formerly regular species have disappeared. Nevertheless the Gardens may play an important role as a temporary refuge in an overcrowded island and, lying close to major urban conurbations, have an important educational function.

ACKNOWLEDGEMENTS

The Authors gratefully acknowledge the assistance of those who have so readily supplied their records, especially G. Allport, K.D. Bishop, D.A. Holmes, G.R. Milton, Pak Naat, F.G. Rozendaal and S. Somadikarta.

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Table 1.
Species recorded in the Bogor Gardens during 1967 - 1987

<u>Scientific Name</u>	<u>English Name</u>	<u>Status</u>	<u>"Minimal" Habitat</u>
<i>Phalacrocorax niger</i> (M)	Little Cormorant	or	W
<i>Anhinga melanogaster</i>	Oriental Darter	or	W
<i>Ardea cinerea</i>	Grey Heron	or	W
<i>Nycticorax nycticorax</i>	Black-crowned Night- Heron	c	W
<i>Accipiter cf trivirgatus</i>	Crested Goshawk	or	OW
<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	or	W
<i>Actitis hypoleucos</i>	Common Sandpiper	or	W(m)
<i>Treron griseicauda</i>	Grey-cheeked Green Pigeon.	c	OW
<i>Ptilinopus melanospila</i>	Black-naped Fruit- Dove	c	OW
<i>Streptopelia bitorquata</i> (M)	Javanese Collared Dove	or	OW
<i>Streptopelia chinensis</i>	Spotted Dove	c	AL
<i>Geopelia striata</i>	Peaceful Dove	or	AL
<i>Psittacula alexandri</i>	Red-breasted Parakeet	or	OW
<i>Loriculus pusillus</i>	Yellow-throated Hanging-Parrot	or	FE
<i>Clamator coromandus</i> (S)	Chestnut-winged Cuckoo	or	OW

<i>Cuculus micropterus</i>	Indian Cuckoo	or	F(?m)
<i>Cuculus saturatus</i>	Oriental Cuckoo	or	?F(m)
<i>Cacomantis sonneratii</i>	Banded Bay Cuckoo	f	OW
<i>Cacomantis merulinus</i>	Plaintive Cuckoo	f	TV
<i>Cocomantis variolosus</i>	Brush Cuckoo	or	OW
<i>Surnniculus lugubris</i> (S)	Drongo Cuckoo	or	OW
<i>Tyto alba</i> (HB, N)	Barn Owl	or	TV
<i>Otus bakkamoena</i>	Collared Scops-Owl	or	TV
<i>Strix seloputo</i>	Spotted Wood-Owl	or	F
<i>Collocalia fuciphaga</i>	Edible-Nest Swiftlet	f	TV
<i>Collocalia esculenta</i>	White-bellied Swiftleft	c	TV
<i>Apus affinis</i>	House Swift	or	TV
<i>Cypsiurus batasiensis</i>	Asian Palm-Swift	c	TV
<i>Alcedo meninting</i>	Blue-eared Kingfisher	f	OW
<i>Halcyon cyanoventris</i> (S)	Javan Kingfisher	or	OW
<i>Halcyon chloris</i>	Collared Kingfisher	c	TV
<i>Megalaima australis</i> (S,H)	Blue-eared Barbet	or	OW
<i>Megalaima haemacephala</i>	Coppersmith Barbet	f	OW
<i>Dinopium javanense</i>	Common Goldenback	or	OW
<i>Picoides macei</i>	Fulvous-breasted Woodpecker	f	OW
<i>Hirundo rustica</i>	Barn Swallow	or	TV(m)
<i>Hirundo tahitica</i>	Pacific Swallow	f	TV
<i>Hirundo daurica</i>	Red-rumped Swallow	f	TV
<i>Hemipus hirundinaceus</i>	Black-winged Flycatcher-Shrike	f	OW
<i>Lalage nigra</i> (S)	Pied Triller	or	OW
<i>Aegithina tiphia</i>	Common Iora	c	TV
<i>Pycnonotus aurigaster</i>	Sooty-headed Bulbul	c	TV
<i>Criniger bres</i>	Grey-cheeked Bulbul	or	OW
<i>Dicrurus leucophaeus</i>	Ashy Drongo	c	OW
<i>Oriolus chinensis</i>	Black-naped Oriole	c	TV
<i>Corvus Enca</i>	Slender-billed Crow	f	OW
<i>Corvus macrorhynchos</i>	Large-billed Crow	or	TV
<i>Parus major</i>	Great Tit	c	TV
<i>Trichastoma sepiarium</i>	Horsfield's Babbler	c	OW
<i>Copsychus saularis</i>	Magpie Robin	c	TV
<i>Copsychus malabaricus</i>	White-rumped Shama	or	F
<i>Zoothera interpres</i> (S,A,WA)	Chestnut-capped Thrush	or	F
<i>Zoothera citrina</i> (JB,KB,R)	Orange-headed Thrush	or	OW
<i>Zoothera sibirica</i> (S)	Siberian Thrush	or	FE(M)
<i>Phylloscopus borealis</i>	Arctic Warbler	or	OW(M)
<i>Orthotomus sutorius</i>	Common Tailorbird	or	TV
<i>Orthotomus ruficeps</i>	Ashy Tailorbird	c	TV
<i>Prinia flaviventris</i> (M)	Yellow-bellied Prinia	or	W
<i>Prinia familiaris</i>	Bar-Winged Prinia	c	TV
<i>Muscicapa latirostris</i>	Asian Brown Flycatcher	or	OW(M)

<i>Ficedula zanthopygia</i> (S,A)	Yellow-rumped Flycatcher	or	OW(M)
<i>Cyornis banyumas</i>	Hill Blue Flycatcher	f	OW
<i>Rhipidura javanica</i>	Pied Fantail	f	TV
<i>Pachycephala cinerea</i> (S)	Mangrove Whistler	or	OW
<i>Lanius cristatus</i> (S)	Brown Shrike	or	AL (M)
<i>Aplonis panayensis</i>	Philippine Glossy Starling	or	OW
<i>Sturnus contra</i>	Asian Pied Starling	or	AL
<i>Sturnus melanopetrus</i>	Black-Winged Starling	or	AL
<i>Acridotheres javanicus</i>	White-vented Myna	c	AL
<i>Anthreptes malacensis</i>	Brown-throated Sunbird	c	TV
<i>Nectarinia jugularis</i>	Olive-backed Sunbird	c	TV
<i>Arachnothera longirostra</i>	Little Spiderhunter	c	TV
<i>Arachnothera affinis</i>	Grey-breasted Spider hunter	or	OW
<i>Dicaeum concolor</i>	Plain Flowerpecker	f	OW
<i>Dicaeum trochileum</i>	Scarlet-headed Flowerpecker	c	TV
<i>Zosterops palpebrosa</i>	Oriental White-eye	c	TV
<i>Passer montanus</i>	Eurasian Tree-Sparrow	c	TV
<i>Ploceus manyar</i>	Streaked Weaver	or	AL
<i>Padda oryzivora</i>	Java Sparrow	f	TV
<i>Lonchura leucogastroides</i>	Java Munia	c	TV
<i>Lonchura punctulata</i>	Scaly-breasted Munia	c	TV

Table 2. Species observed more or less regularly by Hoogerwerf (1949, 1953) in the Bogor Gardens, but not recorded since 1953.

<u>Scientific Name</u>	<u>English Name</u>	<u>"Minimal" Habitat</u>
<i>Haliastur indus</i>	Brahminy Kite	AL
<i>Spizaetus cirrhatus</i>	Changeable Hawk-Eagle	OW
<i>Turnix suscitator</i>	Barred Buttonquail	AL
<i>Treron vernans</i>	Pink-necked Pigeon	OW
<i>Eudynamis scolopacea</i> (HB)	Common Koel	OW
<i>Apus pacificus</i>	Fork-tailed Swift	AL(M)
<i>Hemiprocne longipennis</i> (HB)	Grey-rumped Tree-Swift	OW
<i>Pitta guajana</i>	Banded Pitta	OW
<i>Pericrocotus cinnamomeus</i>	Small Minivet	OW
<i>Sitta frontalis</i>	Velvet-fronted Nuthatch	OW
<i>Pellorneum capistratum</i>	Black-capped Babbler	OW
<i>Motacilla cinerea</i>	Grey Wagtail	OW(M)
<i>Artamus leucorhynchos</i>	White-breasted Wood-Swallow	OW
<i>Aethopyga mystacalis</i>	Scarlet Sunbird	OW
<i>Erythrura prasina</i>	Pin-tailed Parrotfinch	OW

Table 3. Species that have been observed in the Bogor Gardens only a few times up to 1953 (Hoogerwerf 1949, 1953).

<u>Scientific Name</u>	<u>English Name</u>
<i>Ardea purpurea</i>	Purple Heron
<i>Butorides striatus</i>	Little Heron
<i>Ardeola speciosa</i>	Javan Pond-Heron
<i>Bubulcus ibis</i>	Cattle Egret
<i>Egretta intermedia</i>	Plumed Egret
<i>Gorsachius melanolophus</i>	Malayan Night-Heron (M)
<i>Ixobrychus sinensis</i>	Yellow Bittern
<i>Ixobrychus cinnamomeus</i>	Cinnamon Bittern
<i>Dupetor flavicollis</i>	Black Bittern (M)
<i>Dendrocygna javanica</i>	Lesser Treeduck
<i>Dendrocygna arcuata</i>	Wandering Whistling Duck
<i>Pandion haliaetus</i>	Osprey (M)
<i>Pernis apivorus</i>	Honey Buzzard (M)
<i>Pernis ptilorhynchus</i>	Oriental Honey Buzzard
<i>Elanus caeruleus</i>	Black-shouldered Kite
<i>Spilornis cheela</i>	Crested Serpent-Eagle
<i>Accipiter gularis</i>	Japanese Sparrowhawk (M)
<i>Accipiter soloensis</i>	Chinese Goshawk (M)
<i>Ictinaetus malayensis</i>	Black Eagle
<i>Falco moluccensis</i>	Moluccan Kestrel
<i>Falco severus</i>	Oriental Hobby
<i>Falco peregrinus</i>	Peregrine Falcon
<i>Porzana paykulli</i>	Band-bellied Crake (M)
<i>Porzana cinerea</i>	White-browed Crake
<i>Gallinula chloropus</i>	Common Moorhen
<i>Porphyrio porphyrio</i>	Purple Swamphen
<i>Glareola maldivarum</i>	Oriental Pratincole (M)
<i>Chalcophaps indica</i>	Green-winged Pigeon
<i>Phaenicophaeus curvirostris</i>	Chestnut-breasted Malkoha
<i>Centropus bengalensis</i>	Lesser Coucal
<i>Bubo sumatranus</i>	Barred Eagle-Owl
<i>Ketupa ketupu</i>	Buffy Fish-Owl
<i>Ninox scutulata</i>	Brown Hawk-Owl
<i>Caprimulgus macrurus</i>	Large-tailed Nightjar
<i>Ceyx rufidorsus</i>	Rufous-backed Kingfisher
<i>Pelargopsis capensis</i>	Stork-billed Kingfisher
<i>Halcyon smyrnensis</i>	White-throated Kingfisher
<i>Merops leschenaulti</i>	Chestnut-headed Bee-eater
<i>Merops philippinus</i> (HB)	Blue-tailed Bee-eater (M)
<i>Picoides moluccensis</i>	Brown-capped Woodpecker
<i>Pitta sordida</i>	Hooded Pitta
<i>Chloropsis cochinchinensis</i>	Blue-winged Leafbird
<i>Pycnonotus goiavier</i>	Yellow-vented Bulbul
<i>Stachyris melanothorax</i>	Pearl-cheeked Tree-Babbler

<i>Dicrurus macrocercus</i>	Black Drongo
<i>Myophonus caeruleus</i>	Blue Whistling Thrush
<i>Prinia polychroa</i>	Brown Prinia
<i>Motacilla flava</i>	Yellow Wagtail (M)
<i>Lanius schach</i>	Long-tailed Shrike
<i>Gracula religiosa</i>	Hill Myna
<i>Anthreptes singalensis</i>	Ruby-cheeked Sunbird
<i>Aethopyga siparaja</i>	Crimson Sunbird
<i>Lonchura maja/malacca</i>	White-headed/Chestnut Munia.

Footnotes to Table 1, 2 and 3 :

Nomenclature and English names taken from King et al. (1975) and Howard & Moore (1980).

S. Species trapped by Somadikarta's team (M.Z.B. & M.A.P.S., not published.

WA. See Wilson & Allport (1985).

JB: Data collected by J.H. Becking; KB: K.D. Bishop; H: D.A. Holmes; M : G.R. Milton; N: Pak Naat; R: F.G. Rozendaal; A: G. Allport.

HB. Observed by D.A. Holmes (1974-1975) in the very neighbourhood of the gardens; each species has been observed only once, except for *Eudynamys scolopacea*, which voice was heard during Dec 1974; although it is not unlikely that these species have been visitors to the Gardens during at least the last twenty years, they have not been included in Table 1.

Status :

C : common; f: frequent; or: occasional/rare;

"Minimal" habitat :

TV: towns, suburbs and villages; OW: open woodland; AL: arable land; W: wetlands; FE: forest edge; F: forest; (M: migrant)