# STATUS REPORT ON INDONESIAN GALLIFORMES

Compiled by
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**Introduction**

This is a preliminary report on the status of galliformes in Indonesia, which has been prepared with three objectives: to alert conservationists to areas of danger, to demonstrate the paucity of data for most species, and to serve as a basis for updating Information. An IUCN/ICBP Red Data Book 'category is given for each species (endangered, vulnerable, rare, Indeterminate and out of danger), but it cannot be too strongly emphasized that this category, which refers only to Indonesia, is PROVISIONAL; in many cases it 1s little more than a guess. Against each species is also stated whether or not -it is protected under Indonesian law.

Direct human Intervention is believed to threaten especially the megapodes, which are heavily exploited for their eggs. Traditionally this has been done on a more or less sustainable basis, but there is accumulating evidence that any sharp increase in rural population, for example on government-sponsored transmigration schemes or spontaneous inflow of farmers from other regions, may quickly result in extermination of populations locally, especially for those megapodes that breed colonially. R. Dekker (pers. comm.) states that any one species may give an impression of being common, but if these are only adult birds, it is possible that the eggs are already being over-harvested and the population is not being replaced. Thus surveys, mapping, monitoring and management of breeding sites of certain species may be an urgent priority.

Loss of habitat is the second main threat for all galliformes that are dependent on a forest habitat; this applies especially to the lowland specialists, island endemics, and those intolerant of disturbance through logging. Unfortunately, little is known yet about the precise habitat requirements of the majority of species. Lowland forest is especially threatened in Sumatra and parts of Kalimantan; it is feared, for example, that a 'gold rush' in the lowlands of Central Kalimantan will cause extensive damage in the next decade.

As would be expected, the pheasants and partridges are confined to the Sundanese region (Sumatra, Kalimantan and Java), not one having crossed Wallace's Line (the faunal boundary lying east of Kalimantan and Ball) which separates the Wallacean and' Papuan faunas. The megapodes are mainly 'confined to the latter region, but two small island species have crossed Wallace's Line westwards, to islands off North Borneo and in the Java Sea. Quails and Junglefowl have a wider distribution, although the '(Sundanese) Red Junglefowl is reputed to be an introduced species in Wallacea.

In the species list that follows, the initials are given of those observers who have kindly responded to correspondence or submitted records; they are gratefully acknowledged at the end of the paper.

**Species list**

**RED-BILLIED BRUSH TURKEY *Talegalla cuvieri* Protected C U T O F DANGER**
Irian Jaya, Misool and Salawati islands. Lowland and hill forest to 1600 m. (J.M.D. & K.O.B., B.M.B.). In areas of overlap with *T. fuacirostris, cuvieri* occupies higher ground.

**BLACK-BILLED BRUSH TURKEY *Talegalla fusciroetris* Protected OUT OF DANGER**
Southern New Guinea/Irian Jaya, Aru Islands. Lowland forest, also disturbed forest. Common and widespread (J.M.D. & K.D.B., B.M.B.).

**BROWN-COLLARED BRUSH TURKEY *Talegalla jobiensis* Protected CUT OF DANGER**
Geelvink Bay and Yapen Island eastwards in Irian Jaya/Papua New Guinea. Sea level to 1800 m. Common and widespread (J.M.D. & K.D.B., B.M.B.).

J.M. Diamond states that he regularly encounters all three species, which are largely allopatric, in forested areas of New Guinea. Their mounds are heavily exploited for eggs, and adults are casualty hunted, but they should remain secure in forested areas of low human population. K.D. Bishop states that *Talegalla* spp. in Papua New Guinea are rapidly exterminated by hunting near centres of population.

**WATTLED BRUSH TURKEY *Aepypodius arfakianus* Protected INDETERMINATE**
Mountains of Papua New Guinea/Irian Jaya, also Misoot and Yapen Islands. Fairly common and very widepread (8.M.B.), but thinly distributed and little known (K.D.B.). J.M. Diamond's comments for *Talegalla* species apply also to this, although it is inconspicuous.

**WAIGEO BRUSH TURKEY *Aapypodius bruijni* Protected VULNERABLE**
Endemic to Waigeo Island. The forest on the island appears to be wholly intact, and a nature reserve covers slightly less than half the island (153,000 ha, though this might be reduced to 116,950 ha). Presumably management of the reserve is nonexistent, and it is not known how much logging has occurred. J.M.D & K.D.B. visited Waigeo in 1986 and although they did not see the bird, they got detailed accounts of it from local villagers. It evidently occurs in the karst interior of the island, which is so rugged that it is not surprising that the species has been collected only twice. Difficulties of terrain and the lack of infrastructure on the island are the species' best protection. Threats from loggers and visiting fishermen are believed to be very slight. The species does not occur on surrounding islets *(contra* Collar & Andrew, 1988), and its reported presence on Batanta island requires confirmation. Waigeo has cobalt reserves, which could possibly pose a threat in the future.

**MOLUCCAN SCRUBGFOWL *Eulipoa* (*Megapodius*) *wallacei* Protected ENDANGERED**
Misool (Irian Jaya) - one record only, perhaps as a vagrant. Buru, Seram, Ambon, Bacan, Halmahera, Ternate (Maluku) - one recent record from Manusela National Park, Seram by Bowler & Taylor (1989) who considered it less tolerant to disturbance than *M. reinwarclt.* Collar & Andrew (19088) report it as common on Buru, but this awaits confirmation. K,.O.B. states that it is rare on Halmahera and possibly specific to limestone habitats. It is unlikely to survive on Tenure and Ambon. It is a colonial breeder on beaches and may be endangered; indeed P. Dekker points out that any newly discovered' colony might become exterminated in a single season by just one egg collector.

**DUSKY (COMMON) SCRUBFOWL. *Megapodius freycinet* Protected OUT OF DANGER**
*M. f. affinis* on mainland Irian Jaya and *M. f. fraycinet* on the offshore islands of Irian Jaya, and in the North Maluku islands, ace often separated at species level.

Papua New Guinea and northern and western Irian Jaya. Common and widespread (J.M.D. & K.O.B.,).

Halmahera, Ternate, Tidore, Bacan, Obi and Morotai (North Maluku). Confirmed as still common on Halmahera, including mangroves'(various observers); one was heard on Ternate in July 1989 (B.K.). Status on other Islands requires confirmation. May be VULNERABLE in Maluku, and K.D.B. states that it is heavily trapped on Halmahera

**ORANGE-FOOTED SCRUBFOWL *Megapodius reinwardt* Protected OUT OF DANGER**
Buru, Seram, Ambon, Kai, Tanimbar (Maluku), most islands of Nusa Tenggara, and offshore islands of Sulawesi, Kangean islands, a1so southern and Western Irian Jaya.

In Manusela National Park, Seram, Bowler & Taylor (1989) report it as being moderately comnon .in lowland primary and secondary forest, especially in scrubby .secondary growth. There are recent reports from Nusatenggara; it fairly common in some areas of Floras and Sumba (B.K.). K.D.B states that this is a common ami widespread "tramp" species, well adapted to secondary scrub and capable of recolonizing areas from which it has been exterminated. J. de K. Reports breeding colonies on the tiny islands of Kakabia and Mai in the Flores and Banda Seas.

**SULA SCRUBPOWL *Megapodius bernsteinii* Protected ENDANGERED**
Banggai (Sulawesi) and 8ula (Maluku) Islands. On a 12 day visit to the Su1a Islands in December 1908, D. Y. had .only one sight: and one voice record on Mangote Island. Logging activities may pose a serious threat to the species, and most coastal forest has been cleared. K.D.B. found the species in coastal forest, on Banggai in. 1961, but the forest habitat is severely degraded. Avifaunal surveys of these islands are an urgent priority,and the species' precise distribution among the different islands is not yet established.

**PHILIPPINE SCRUBFOWL *Megapodius cumingii*** **Protected** **INDETERMINE**
Sulawesi and offshore islands, islands off North Borneo, the Philippines. Although probably widespread In remaining forested areas of Sulawesi, with recent reports from Tangkoko-Batuangas, Dumoga and Lore Lindu. K.D.B. (see Andrew, in prep.) has reported a decline at Tangkoko-Batuangas during the present decade, attributed to illegal trapping. The species is potentially threatened on Sulawesi by population pressures and habitat loss, and should be Included in any programme on the Maleo (whose breeding burrows it sometimes shares).

**MALEO *Macrocephalon maleo*** **Protected** **VULNERABLE**
Sulawesi. Probably still quite widespread in forested areas, and not only in the traditionally well known breeding sites such as Tangkoko-Batuangas, Dumoga, Lore Lindu, Morowali etc, but it is at so known that some colonies have been exterminated during the present decade. Threats from population pressure, excessive exploitation and loss of habitat continue to mount, and renewed initiatives in community based protection are considered essential.
Apart from management programmes of individual colonies, it is recommended that surveys should be made to locate and monitor as many colonies as possible.

**SNOW MOUNTAIN QUAIL *Anurophasis monorthonyx*** **Not Protected** **RARE**
Restricted to isolated alpine plateaux of the Snow Mountains, Irian Jaya, but the only report since the Archbold Expedition of 1938-39 is of birds seen above the Tembagapura copper mine by R. Petocz and D. Radcliff *(per.* K.D.B.). Although it may be hunted, it is probably protected by its remote and inaccessible habitat.

**BROWN QUAIL *Cotumix australis*** **Not Protected** **OUT OF DANGER**
Australia, New Guinea and Nusatenggara west to Flores and Timor. Rather inconspicuous birds of grasslands, their habitat is expanding, and there is no apparent cause for concern. Recent records from Flores, and from Sumba where it is common (B. K.), and from Timor and the Tanimbar Islands (F.G.R.).

**BLUE-BREASTED (KING) QUAIL *Coturnix chinensis*** **Not Protected OUT OF DANGER**
Widespread from India and SE China through Indonesia to Australia. As its grassland habitat is expanding, this common bird is secure.

**GREEN JUNGLEFOWL *Gallus varius*** **Not Protected** **INDETERMINATE**
Java, east to Sumba, Flores, and also the Kangean and Bawean Islands.

Believed to be 1oca11y common throughout its range; its habitat ranges from forest margins to open woodland and scrub growth, from sea level to over 2000m, though it avoids densely populated and cultivated areas. Its present status on the smaller islands, eg Kangean and Bawean, needs to be ascertained, but it is moderately common, for example, on Komodo (K.D.B.).

Probably secure, although S.v.B. reports that it 1s sometimes hunted for its meat, and for hybridizing with domestic fowl.

**RED JUNGLEFOWL *Gallus gallus*** **Not Protected** **OUT OF DANGER**

The Indonesian range extends through Sumatra and Java to Sulawesi and offshore islands, Lombok, Wetar, Timor and Roti. It is more confined to forest than G. *varius,* and is not particularly common on Java, Sulawesi and Nusatenggara. Rather common in Sumatra and probably not threatened, but heavily hunted in Sulawesi (K.D.B.). Although considered to be an introduced species in Wallacea, the taxonomic affinities of these populations need to be determined.

**GREEN PEAFOWL. *Pavo muticus*** **Protected** **RARE**

The Javan population is almost confined to forest margins in Ujung Kulon National Park in the extreme west, and savanna wood land in Baluran National Park in the extreme east, where however it is common and the populations appear to be secure. Elsewhere in Java, extinct except for occasional reports from some teak forests (Blambangan) and mountain plateaus (the Yang Highlands) (S.v.B.). Some illegal trapping may continue. As long as these national parks remain secure, the Javan Peafowl is not threatened, but its distribution is dangerously restricted.

**JAVAN PARTRIDGE *Arborophila javanica*** **Not Protected** **INDETERMINATE**

Endemic to the mountain forests of West and Central Java. Replaced in East Java by *A. orientalis,* Still common on Gunung Gede-Pangrango (Andrew, 1985), and in Gunung Halimun (K.D.B.). Probably not presently threatened, but its range is restricted, and mountain forests in Java are still subject to encroachment.

**GREY-BREASTED PARTRIDGE *Arborophila orientalis (bruneocpectus)***
**Not Protected** **INDETERMINATE**

Widespread in SE Asia, Sumatra and East Java, in montane forest. There is no reason to believe this species is threatened, though its taxonomic affinities in Java, where its range is very restricted, require further study. R.E. & A.M.G. reported it at Brestagi (4 May 1982) and Tanjung Barus (2 Sept 1984). The closely related RED-BREASTED PARTRIDGE *A. hyperythra* of montane habitats in North Borneo is reported in Kalimantan only on the borders in the Upper Kayan catchment, but recently, also at Ulu Barito (G.D.); probably secure.

**RED-BILLED TREE PARTRIDGE *Arborophila rubrirostris*** **Not Protected** **INDETERMINATE**

Endemic to montane forests of Sumatra, formerly reported as 'locally abundant'. Recent records from Aceh, Mt. Kerinci (F.L.). and from scrub in pine forest at Brastagi, North Sumatra (K.D.B.) show that the species is extant, and its montane habitat is not severely threatened. G.W.H.D. saw one trapped in a ground-snare at Brastagi in 1984. Further information is required.

**CHESNUT-BREASTHD (SCALY-BREASTED) TREE PARTRIDGE *Arborophila charltonii***
**Not Protected VULNERABLE**

Malay Peninsula, Sumatra,. North Borneo (not Kalimantan), oriental region. Lowland forest, with no recent records from Sumatra. G.W.H.D. considers that the current distribution is relict in isolated areas where there is a drier season; notably in Sumatra it is confined to the extreme north and extreme south. F.L. reports it to be moderately common in 'logged forest in Sabah, and it should be looked for in NE Kalimantan. Possibly threatened. Further information is required.

**LONG-BILLED PARTRIDGE *Rhizothera longirostris* Not Protected**
**INDETERMINATE**

Malay Peninsula, Sumatra and Borneo. In Indonesia, known from few localities in Sumatra and one area of Kalimantan, lowlands and hills, but few recent records. Present at 1000m at G. Leuser in Sept'1988 (B.K. & D.Y.). Studies required.

**BLACK WOOD PARTRIDGE *Melanoperdix nigra* Not Protected INDETERMINATE**

Malay Peninsula, Sumatra and Borneo. Lowland forest. Recent records from Sumatra at Berbak, in peat swamp forest (Silvius & Verheugt, 1986), and two breeding records from Kalimantan at Tanjung Puting (Nash & Nash, 1988). B. K. reported a pair at Tanjung Puting, and also at G. Palung (West Kalimantan) in Oct 1988. These records suggest that the species may be relatively secure, but very difficult to observe. The forests at these two localities do not occur on terrain required for agricultural development. Recently reported at 1200 m in U1u Barito (G.O.), but confirmatory details of this record are awaited.

**FERRUGINOUS WOOD PARTRIDGE *Caloperdix oculea* Not Protected INDETERMINATE**

Malay Penineula, Sumatra, North Borneo (not Kalimantan). Scrub forest in mountains. Recent records from 100m at Sako, West Sumatra (8-9 Sept 1987), by R.E. & A.M.G., at c. 800 metres in West Sumatra (J.H.), and surprisingly, dry forest in the lowlands of Way Kambas, SE Sumatra (K.D.B.), reconfirmed by A.v.d.B. D.Y. reported one at 1000m at G. Leuser in Sept 1988 (per B.K.).

**CRESTED WOOD PARTRIDGE *Rollulus roulоul* Not Protected INDETERMINATE**

Oriental region south to Sumatra and Borneo. Lowland forests, to 800 m Sumatra) and 1200 m (Borneo). Reported to be common, but rather few recent records. Common at Ketambe, Aceh (K.D.B.) and in Way Kambas, S.E. Sumatra (A.V.d.B., and Southampton University Expedition). One record at Tanjung Puting, Kalimantan (Nash & Nash, 1988). The habitat is threatened. Possibly endangered or extinct on Bangka and Belitung islands.

**CRIMSON-HEADED PARTRIDGE *Haemtortyx sanguiniceps* Not Protected INDETERMINE**

Endemic to mountains of Borneo. No recent records from Kalimantan but not expected to be threatened.

**SALVADORI'S PHEASANT *Lophura inorrwta* Not Protected RARE**
Endemic to mountain forest of South and West Sumatra, but taxonomic affinities with *L. hoogerwerfi* undetermined; there is no fresh evidence on which to separate the two taxa (Q.W.H.D.). Recently sighted on Mount Kerinci (Lambert & Howes, 1989), a mountain that has suffered "much deforestation on the edge of Kerinci Seblat National Park . The range is restricted, and surveys are needed in the extensive intact montane forests of this Park before its status can be determined. Subsequent sightings have been obtained at the same locality (A.v.d.B., F.G.R.), and F.G.R. also reported a pair at 1500m on Gunung Kaba, Bengkulu, on 8 Apr 1969.

***HOOGERERFI* PHEASANT *Lophura hoogerwerfi* Not Protected RARE**
Probably conspecific with *inornata* (see above). Endemic to the montane forests of North Sumatra, known only from female specimens. However, several recent sight records are reported from the mountains of Aceh, and continued searches are required in the extensive Gunung Leuser National Park before its status can be determined, dearly a description of a mate is required to establish taxonomic affinity.

**BULWER'S PHEASANT *Lophura bulweri* Protected INDETERMINATE**
Endemic to Borneo, in submontane forests, known south to the upper Kapuas and upper Mahakam. Described as locally common in Malaysian Borneo, and recently' reported at Ulu Barito (G.D.). There are no other recent records from Kalimantan, but it is many decades since surveys have been conducted in the interior , and there is no reason to believe that the species is threatened.

**CRESTLESS FIREBACK PHEA8ANT Lophura eryhrophalma Non Protected VULNERABLE**
Malay Peninsula, Sumatra, Borneo, lowland forest. The only recent records from Indonesia are one in Way Kambas in June 1987 (K.D.B.), and one in Central Kalimantan (Holmes a Burton, 1987);recently reported at Ulu Barito (0.0.). In Indonesia, this pheasant appears to be very scarce, and threats to lowland forests may place lit In the endangered category. In contract, 'It appears to be the commonest *Lophura* pheasant in the Malay Peninsula (G.W.H.D.) and tolerant of logged forest (F.L.).

**CRESTED FIREBACK *Lophura ignita* Not Protected INDETERMINE**
Malay Peninsula, Sumatra, Borneo, Bangka. Lowland forest. In Indonesia, the Crested Fireback is apparently more common and widespread than the Orestless, and the listing of the Crested in Collar & Andrew (1988), rather than the Crestless, is based on Malaysian experience. Recently reported to be common in the dry, heavily disturbed forests of Way Kambas, sometimes in groups of up to a dozen (Southampton University Expedition); also reported in foothills in Ulu Barito and near Matinau, East Kalimantan. F.L. reports it to be common in Sabah, perhaps even more common in logged than in undisturbed forest. Although apparently secure *for* the present, nevertheless its lowland forest habitat is severely threatened in many areas, and monitoring is required. Probably endangered or extinct on Bangka Island, due to habitat loss.

**BRONZE-TAILED PEACOCK-PHEASANT *Polyplectron chalcurum* Not Protected RARE**
Endemic to montane primary and logged forest in Sumatra, with some recent records from the north. In 1985, it was still common in hill forest at Brastagi. but heavily trapped (K.D.B.), and now rare (B.K.). D.Y. & B.K. found it fairly common at 1000m in the Padang Highlands -in Sept 1987, and at 1000 - 1600m at Ketambe in Sept 1988. R.E. & A.M.G. reported it on G. Merapi on 15 Aug 1984. F.G.R. has repeated observat ions from disturbed forest at the lower forest edge on Gunung Kerinci (c. 1700m), and has observed it also in a small forest remnant near Lake Toba in 1981. Its habitat is not seriously threatened, but more surveys are required before its status can be determined.

**BORNEON PEACOCK-PHEASANT *Polyplectron schleiermacheri* Protected VULNERABLE**
Closely related to *P. malacense of* the Malay Peninsula but currently treated as a full species, endemic to lowland forest in Borneo. The only recent record is a voice record (and therefore unconfirmed) in alluvial forest (since cleared) in West Kalimantan by D.A.H. in 1981 (Holmes & Burton. 1987). There is not enough data to assess its status, as dearly the species is unobtrusive; in view of threats to its habitat, and lack of records, it should perhaps be treated as endangered.

**GREAT ARGUS *Argusianue argus* Protected OUT OF DANGER**
Malay Peninsula. Sumatra, Borneo. This noisy bird appears to be common in dry lowland and hill forests throughout, but in the long term, it should be regarded as secure only in reserves and well managed production forest. It is reported to be very scarce in the seriously disturbed forests of Way Kambas (Southampton University Expedition, K.D.B.).

**Discussion**

The total number of galliform species in Indonesia is provisionally assessed as 34. Hoogerwerf's Pheasant should probably be downgraded to a sub-species of Salvadori's *L. inornata,* but the status of the Red-breasted Partridge *A.hyperythra* and of some megapodes remains in doubt.

On present evidence, two of these galliformes are believed to beimmediately endangered: the Moluccan and Sula Scrubfowls; they require urgent attention, A further five species are provision-ally classified as vulnerable: Waigeo Brush Turkey (restricted range), Maleo (excessive harvesting) and Chestnut-breasted Tree Partridge, Crestless Fireback Pheasant and Bornean Peacook-Pheasant (very few recent records). The anomalous position of the Crestless Fireback in contrast to its status in West Malaysia needs further study, and this classification may be pessimistic. The Bornean Peacock-Pheasant must be included because so little is known about it, and its habitat could become severely eroded. The lack of records of the Chestnut-breasted Tree Partridge is worrying if the analysis of its distribution in Sumatra is correct, Way Kambas may be the only suitable location remaining in the south, but it has not been reported there. It should now be sought on the remaining tooth stills in N. and E.

Aceh that still have a forest cover; this area of Sumatra lacks recent survey data.

Although the majority of species are provisionally classed as indeterminate or rare, further data and increased vigilance are clearly required. Reports of heavy hunting or trapping pressure on some species such as the Bronze-tailed Peacock-Pheasant are a source of serious concern, and reliance win need to be placed on such species being secure in the more remote forests.

This leaves nine species that are considered to be currently out-of-danger. Only one forest pheasant, the Great Argus, is inc1uded, principally because its frequent vocalizations reveal it to be widespread, even in logged forest. In fact. its relative abundance in comparison with, say, the more silent Crested Fireback and some of the partridges is unknown. Five of the comparatively secure species are megapodes, especially in Irian Jaya, where their habitat is still substantially intact. However, the evidence of intensive hunting near to centres of population is a clear warning, because it is inevitable that these regions will open up and human population will grow. In time, all forest galliformes are likely to become vulnerable, and it is essential that adequate delinetion and management of nature reserves Is initiated now, with local communities playing a role in conservation.

As an initial step, the list of legally protected species requires revision. At present, six of the fifteen protected species are considered to be out-of-danger, or conversely, six of the ten rare or vulnerable species have no legal protection. While legal protection might not have much meaning in present circumstances, a legal framework needs to be established. It is recommended that all forest galliformes are added to the protected list. The situation of the megapodes is rather anomalous.' where their eggs are openly harvested with the concurrence of the authorities. In fact, there is potential to operate community-based management for species such as the Maleo. which have direct commercial value, and this may well provide, their best long-term security.

There is an urgent need for baseline surveys of the majority of species, but the forest ga11iformes are so secretive that any surveys specifically designed to study them will have little chance of success. This highlights the need for comprehensive surveys of the forest avifauna in a11 regions and in all types of forest, in which galliform studies would be one important component.

The World Pheasant Association is Currently planning to commence training programmes with Indonesian student ornithologists, and the Maleo project which was suspended a few years ago is expected to recommence in 1990. Studies of the Moluccan and Su1a Scrubfowl should be initiated, including the mapping of their breeding grounds in the first instance, with assessment of the current threats to these. As a matter of course, all

ornithologists in Indonesia are requested to make careful notes of whatever forest gal 1iformes they encounter, and submit these to the Indonesian Ornithological Society.

Ultimately, the only way to conserve forest birds is to secure sufficient areas of appropriate reserves and national parks under permanent management. A substantial area of Indonesian territory already has official protection, at least in law, and it is to be hoped that considerable further areas will be retained as a permanent, managed forest estate. However, it is not yet known whether these areas are adequate and representative for the long-term conservation of Indonesia's bio-diversity.

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