

BIRDS OF THE LAKEKAMU-KUNAMAIPA BASIN

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The Lakekamu-Kunamaipa Basin (herein LKB) is a large expanse of flat lowland humid forest that straddles Gulf and Central Provinces, southeast of the Purari River and northwest of the Angabanga River (Fig. 1). The basin drains the southern scarp of the Ekuti Divide and the Lawson and Chapman Ranges, the northwesternmost segments of the central cordillera on the Papuan Peninsula. Although the LKB is little developed and physiographically isolated by a series of hills and mountain ranges, Kakoro airstrip (point of access) is only twenty-five minutes' flight from Wau, and an hour's flight from Port Moresby. It is thus a wilderness area that is readily accessible to field researchers desiring to spend time in relatively pristine lowland humid forest. This lowland forest supports populations of a number of difficult-to-observe bird species such as Southern Cassowary, Bat Hawk, Southern Crowned Pigeon, Vulturine Parrot, Palm Cockatoo, Long-billed Cuckoo, Shovel-billed Kingfisher, and Tawny Straightbill. Here we summarize our observations of birds made on four field trips to the Lakekamu-Kunamaipa Basin from 1979 to 1992. We present a preliminary bird list (Appendix), and a series of annotated accounts for the more noteworthy observations.

Itineraries

BB first visited the LKB from 6-18 September 1979, and camped and mist-netted birds with Ninga Kawa in the forest ca. 3 km NW of the Kakoro airstrip (Map). BB returned with Carol Beehler and Stephen G. Pruett-Jones, camping on the Si River, ca. 5 km SE of Kakoro, and netting and observing birds from 9-19 July 1982. BB and CGB made a reconnaissance of the Nagore River forest, ca. 6.5 km SSE of Kakoro, from 15-25 April 1992. And finally, BB observed and mist-netted birds at the Nagore Camp with the assistance of Kurt Merg, Chris Filardi, John Sengo, Michael Lucas, Julie Hagelin, Charles Webb, and Alex Van Alen from 3 July-7 August 1992. In all instances we camped and conducted fieldwork with the permission of the local landowners and with clearance from the PNG Department of Environment and Conservation.

The forest where we conducted our studies extends from NW of the Biaru River to the Kunamaipa River, ca. 25 km to the south of the Biaru. It is virtually without relief, and stands ca. 70 m ASL. It is delimited on the west by the low Kurai Hills, on the north by the Tiveri River, on the east by the foothills of the central range, and on the south, by Omeri Mountain. It is drained by four small rivers (from north to south): Si, Parang, Nagore, and Aera. All but the Aera are fast flowing and rocky, with no oxbowing. This is because they flow from steep foothills of the central range just to the east. The entire basin south and east of the Biaru is uninhabited. The forest appears floristically rich, with no apparent taxonomic dominance. Important families include Meliaceae, Lauraceae, Myristicaceae, Myrtaceae, and Moraceae.

Species Accounts

Southern Cassowary *Casuaris casuaris*. Seen on twenty days during the 1992 field season at Nagore Camp, with a maximum single day count of five (including three adults seen simultaneously). In August we repeatedly saw an adult with two chicks, the larger ca. 60 cm high. This species is regularly hunted by the Kurija landowners, but the impact of hunting appears minimal in this particular forest tract. On a number of occasions adults appeared unwary and allowed close approach. In one instance, a large adult cassowary

stood on a trail while CF waited more than ten minutes for the bird to move away. The bird remained, blocking the trail even after CF tossed small sticks at it to frighten it off. Michael Lucas observed two putative males mock fighting and displaying to a putative female. The "males" jumped and made high kicks at saplings in mock battle.

Great-billed Heron *Ardea sumatrana*. Observed by Carol Beehler on the Si River in 1982 and on six occasions on the Nagore in 1992. Invariably seen singly.

Bat Hawk *Macheiramphus alcinus*. Observed at dusk on two consecutive evenings in July 1992.

Southern Crowned Pigeon *Goura scheepmakeri*. Seen daily by our party in 1992. Typical day-counts ranged from four to six, with high counts of 11 and 15 (these counts, while conservative, probably include resightings by different observers). The birds were very wary and often flushed from 20-30 metres (often before being sighted by the observer). While cutting a net lane we flushed a bird on a nest in early August. It was abandoned, apparently because of the disturbance caused by the netting activity.

Goldie's Lorikeet *Trichoglossus goldiei*. Observed in large numbers in 1982. Flocks were observed flying at great altitude in morning and afternoon — apparently ranging out to forage and then returning to regular roosting sites each afternoon. Seen in smaller numbers in April and July (but not in August) 1992.

Pygmy Lorikeet *Charmosyna wilhelminae*. Small numbers were observed in with the flocks of Goldie's Lorikeets in 1982.

Vulturine Parrot *Psittichas fulgidus*. Observed on most days in 1992. Burg observed several pairs in the late afternoon of 17 April 1992, but on a typical day no more than three birds were observed.

Long-billed Cuckoo *Rhamphomantis megarhynchus*. A single bird, in female plumage, was mist-netted in September 1979.

Australian Paradise-Kingfisher *Tanysiptera sylvia*. A single bird in juvenile plumage was mist-netted in 1982.

Shovel-billed Kingfisher *Clytoceyx rex*. Observed repeatedly in 1982 and in 1992. Of the nineteen encounters in 1992, all were of single birds, usually flushed from the ground of flat alluvial rainforest interior. Not heard to call.

Blyth's Hornbill *Rhyticeros plicatus*. Seen daily in 1992. Common and very conspicuous, as birds were pairing and making noisy display flights. No nests were located, although we observed pairs inspecting cavities on three occasions. Also observed in the vicinity of Kakoro.

Stout-billed Cuckoo-shrike *Coracina caeruleo-grisea*. Observed on five days in 1992. This species is rare in flat lowland forest.

Scaly Thrush *Zoothera dauma*. A single individual was mist-netted at Nagore Camp in early July 1992. This is the first record from lowland forest for New Guinea.

Golden-backed Whistler *Pachycephala aurea*. Observed on 15 April 1992 by BB and CGB in very tall

cane grass bordering the Biaru River at Mirimas village. A loud vocalist that could be spished into the open. Local informants report this is the typical habitat of this species.

Slater's Whistler *Pachycephala soror*. A bird in female plumage, apparently of this species, was netted and photographed in July 1992. One of these photographs was forwarded to Mary LeCroy at the Bird Department of the American Museum of Natural History, who compared the photograph with specimens and identified the bird as *P. soror*. This is a apparently the first record of this hill forest form from lowland forest.

Variable Pitohui *Pitohui kirhocephalus*. The black-headed mimetic race occurs in the forest at Nagore Camp. Vocalizations attributed to this species include phrases typical of Hooded Pitohui and of Variable Pitohui. Not as outspokenly vocal and varied in song as the Variable Pitohuis from the East Sepik.

Twelve-wired Bird of Paradise *Seleucidis melanoleuca*. Widespread in the Basin. Adult males were observed in the trees fringing the small wetland immediately adjacent to Mirimas village, and several individuals were observed from the Kakoro airstrip.

Discussion

The Lakekamu-Kunamaipa basin constitutes the largest expanse of undisturbed lowland forest on the southern watershed of the Papuan Peninsula. It supports a very small human population which currently exerts minimum impact on the forest and wildlife. Hunting with shotgun has minimal impact, due mainly to the paucity of guns and the prohibitive cost of cartridges. Because they are so expensive, a cartridge is typically expended only to bring down a pig or large cassowary.

We believe the forest of the LKB should be protected through some form of landowner-mediated conservation plan, although this may be complicated by the complexity of land ownership in this area. We are currently working with the four language groups (Kovio, Kurija, Kamea, and Biaru) that inhabit the LKB in order to aid development of an integrated conservation plan for this important forest ecosystem. Ecological field studies of birds and the rainforest ecosystem are planned at the Nagore camp for the next several years. Fieldworkers and students wishing to participate in this project should contact the senior author.

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Appendix

Summary List of Birds Recorded from the Lakekamu-Kunamaipa Basin

Southern Cassowary *Casuaris casuaris*
 Little Black Cormorant *Phalacrocorax sulcirostris*
 Little Pied Cormorant *Phalacrocorax melanoleucos*
 Darter *Anhinga melanogaster*
 Great-billed Heron *Ardea sumatrana*
 Great Egret *Egretta alba*
 Intermediate Egret *Egretta intermedia*
 Forest Bittern *Zonerodius heliosylus*

Osprey *Pandion haliaetus*
 Crested Hawk *Aviceda subcristata*
 Long-tailed Buzzard *Henicoperis longicauda*
 Bat Hawk *Macheiramphus alcinus*
 Grey Goshawk *Accipiter novaehollandiae*
 New Guinea Grey-headed Goshawk *Accipiter poliocephalus*
 Collared Sparrowhawk *Accipiter cirrhocephalus*
 New Guinea Harpy-Eagle *Harpyopsis novaeguineae*
 Little Eagle *Hieraetus morphnoides*
 Peregrine Falcon *Falco peregrinus*
 Black-billed Brush-turkey *Talegalla fuscirostris*
 Bare-eyed Rail *Eulabeornis plumbeiventris*
 Buff-banded Rail *Rallus philippensis*
 Red-necked Rail *Rallina tricolor*
 Bush-hen *Amaurornis olivaceus*
 Little Ringed Plover *Charadrius dubius*
 Common Sandpiper *Tringa hypoleucos*
 Brown Cuckoo-Dove *Macropygia amboinensis*
 Black-billed Cuckoo-Dove *Macropygia nigrirostris*
 Great Cuckoo-Dove *Reinwardtoena reinwardtii*
 Stephan's Ground-Dove *Chalcophaps stephani*
 New Guinea Bronzewing *Henicophaps albifrons*
 Cinnamon Ground-Dove *Gallicolumbarufigula*
 Thick-billed Ground-Dove *Trugon terrestris*
 Southern Crowned Pigeon *Goura scheepmakeri*
 Wompoo Fruit-Dove *Ptilinopus magnificus*
 Pink-spotted Fruit-Dove *Ptilinopus perlatus*
 Ornate Fruit-Dove *Ptilinopus ornatus*
 Orange-bellied Fruit-Dove *Ptilinopus iozonus*
 Superb Fruit-Dove *Ptilinopus superbus*
 Coronated Fruit-Dove *Ptilinopus coronulatus*
 Beautiful Fruit-Dove *Ptilinopus pulchellus*
 White-throated Fruit-Dove *Ptilinopus rivoli*
 Dwarf Fruit-Dove *Ptilinopus namus*
 Purple-tailed Imperial Pigeon *Ducula rufigaster*
 Pinon Imperial Pigeon *Ducula pinon*
 Zoe Imperial Pigeon *Ducula zoeae*
 Papuan Mountain Pigeon *Gymnophaps albertisii*
 Streaked Lory *Chalcopsitta scintillata*
 Dusky Lory *Pseudeos fuscata*
 Rainbow Lorikeet *Trichoglossus haematodus*
 Goldie's Lorikeet *Trichoglossus goldiei*
 Western Black-capped Lory *Lorius lory*
 Pygmy Lorikeet *Charmosyna wilhelminae*
 Red-flanked Lorikeet *Charmosyna placentis*
 Little Red Lorikeet *Charmosyna pulchella*
 Palm Cockatoo *Probosciger aterrimus*

Sulphur-crested Cockatoo *Cacatua galerita*
 Buff-faced Pygmy-Parrot *Micropsitta pusio*
 Orange-breasted Fig-Parrot *Cyclopsitta gulielmiterti*
 Large Fig-Parrot *Psittaculirostris desmarestii*
 Red-cheeked Parrot *Geoffroyus geoffroyi*
 Eclectus Parrot *Eclectus roratus*
 Vulturine Parrot *Psittichas fulgidus*
 Brush Cuckoo *Cacomantis variolosus*
 Long-billed Cuckoo *Rhamphomantis megarhynchus*
 Malay Bronze-Cuckoo *Chrysococcyx minutillus*
 White-eared Bronze-Cuckoo *Chrysococcyx meyerii*
 White-crowned Koel *Caliechthrus leucolophus*
 Dwarf Koel *Microdynamis parva*
 Indian Koel *Eudynamis scolopacea*
 Channel-billed Cuckoo *Scythrops novaehollandiae*
 Greater Black Coucal *Centropus menbeki*
 Sooty Owl *Tyto tenebricosa*
 Marbled Frogmouth *Podargus ocellatus*
 Papuan Frogmouth *Podargus papuensis*
 Papuan Nightjar *Eurostopodus papuensis*
 Large-tailed Nightjar *Caprimulgus macrurus*
 Moustached Tree-Swift *Hemiprocne mystacea*
 Lowland Swiftlet *Collocalia vanikorensis*
 Glossy Swiftlet *Collocalia esculenta*
 New Guinea Spinetail *Mearnsia novaeguineae*
 Common Paradise-Kingfisher *Tanysiptera galatea*
 Australian Paradise Kingfisher *Tanysiptera sylvia*
 Hook-billed Kingfisher *Melidora macrorrhina*
 Shovel-billed Kingfisher *Clytoceyx rex*
 Rufous-bellied Kookaburra *Dacelo gaudichaud*
 Forest Kingfisher *Halcyon macleayii*
 Sacred Kingfisher *Halcyon sancta*
 Yellow-billed Kingfisher *Halcyon torotoro*
 Dwarf Kingfisher *Ceyx lepidus*
 Little Kingfisher *Alcedopusilla*
 Azure Kingfisher *Alcedo azurea*
 Rainbow Bee-eater *Merops ornatus*
 Dollarbird *Eurystomus orientalis*
 Blyth's Hornbill *Rhyticeros plicatus*
 Blue-breasted Pitta *Pitta erythrogaster*
 Hooded Pitta *Pitta sordida*
 Pacific Swallow *Hirundo tahitica*
 Black-faced Cuckoo-shrike *Coracina novaehollandiae*
 Stout-billed Cuckoo-shrike *Coracina caeruleogrisea*
 Boyer's Cuckoo-shrike *Coracina boyeri*
 Cicadabird *Coracina temirostris*
 Grey-headed Cuckoo-shrike *Coracina schisticeps*

Black Cuckoo-shrike *Coracina melaena*
 Golden Cuckoo-shrike *Campochaera sloetii*
 Varied Triller *Lalage leucomela*
 Scaly Thrush *Zoothera dauma*
 Blue Jewel-babbler *Ptilorrhoa caeruleascens*
 Rufous Babbler *Pomatostomus isidorei*
 Golden-headed Cisticola *Cisticola exilis*
 Emperor Wren *Malurus cyanocephalus*
 White-shouldered Wren *Malurus alboscapulatus*
 Rusty Mouse-Warbler *Crateroscelis murina*
 Yellow-bellied Gerygone *Gerygone chrysogaster*
 Green-backed Gerygone *Gerygone chloronotus*
 Fairy Gerygone *Gerygone palpebrosa*
 Large-billed Gerygone *Gerygone magnirostris*
 Sooty Thicket-Fantail *Rhipidura threnothorax*
 White-bellied Thicket-Fantail *Rhipidura leucothorax*
 Rufous-backed Fantail *Rhipidura rufidorsa*
 Northern Fantail *Rhipidura rufiventris*
 Willie Wagtail *Rhipidura leucophrys*
 Spot-winged Monarch *Monarcha guttula*
 Hooded Monarch *Monarcha manadensis*
 Golden Monarch *Monarcha chrysomela*
 Frilled Monarch *Arses telescopthalmus*
 Shining Flycatcher *Myiagra alecto*
 Yellow-breasted Boatbill *Machaerirhynchus flaviventer*
 Torrent Flycatcher *Monachella muelleriana*
 Olive Flycatcher *Microeca flavovirescens*
 Black-sided Robin *Poecilodryas hypoleuca*
 Sclater's Whistler *Pachycephala soror*
 Golden-backed Whistler *Pachycephala aurea*
 Grey Whistler *Pachycephala simplex*
 Little Shrike-thrush *Colluricincla megarhyncha*
 Variable Pitohui *Pitohui kirhocephalus*
 Rusty Pitohui *Pitohui ferrugineus*
 Crested Pitohui *Pitohui cristatus*
 Black Berrypecker *Melanocharis nigra*
 Papuan Flowerpecker *Dicaeum pectorale*
 Black Sunbird *Nectarinia aspasia*
 Yellow-bellied Sunbird *Nectarinia jugularis*
 Tawny Straightbill *Timeliopsis griseigula*
 Long-billed Honeyeater *Melilestes megarhynchus*
 Yellow-bellied Longbill *Toxorhamphus novaeguineae*
 Dwarf Honeyeater *Oedistoma iliolophus*
 Pygmy Honeyeater *Oedistoma pygmaeum*
 Green-backed Honeyeater *Glycichaera fallax*
 Red-throated Myzomela *Myzomela eques*
 Scrub White-eared Meliphaga *Meliphaga albonotata*

- Puff-backed Meliphaga *Meliphaga aruensis*
- Mimic Meliphaga *Meliphaga analoga*
- Slender-billed Meliphaga *Meliphaga gracilis*
- Obscure Honeyeater *Lichenostomus obscurus*
- Tawny-breasted Honeyeater *Xanthotis flaviventer*
- Plain Honeyeater *Pycnopygius ixoides*
- Streak-headed Honeyeater *Pycnopygius stictocephalus*
- Meyer's Friarbird *Philemon meyeri*
- Helmeted Friarbird *Philemon buceroides*
- Blue-faced Parrot-Finch *Erythrura trichroa*
- Grey-headed Mannikin *Lonchura caniceps*
- Singing Starling *Aplonis cantoroides*
- Metallic Starling *Aplonis metallica*
- Golden Myna *Mino anais*
- Yellow-faced Myna *Mino dumontii*
- Brown Oriole *Oriolus szalayi*
- Spangled Drongo *Dicrurus hottentotus*
- Hooded Butcherbird *Cracticus cassicus*
- Black Butcherbird *Cracticus quoyi*
- Lowland Peltops *Peltops blainvillii*
- White-eared Catbird *Ailuroedus buccoides*
- Glossy-mantled Manucode *Manucodia atra*
- Crinked-collared Manucode *Manucodia chalybata*
- Trumpet Manucode *Manucodia keraudrenii*
- Magnificent Riflebird *Ptiloris magnificus*
- Twelve-wired Bird of Paradise *Seleucidis melanoleuca*
- King Bird of Paradise *Cicinnurus regius*
- Raggiana Bird of Paradise *Paradisaea raggiana*
- Grey Crow *Corvus tristis*

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Legend for Figure 1.

Lakekamu-Kunamaipa Basin.

Horizontal hatching in large-scale map (left) indicates land above 600 m elevation. North is up.

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 Horizontal hatching in large-scale map (left) indicates land above 600 m elevation. North is up.

