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Survey of the montane avifauna of Fergusson Island, Milne Bay Province, Papua New Guinea

by Jason Gregg, Doka Nason & Jordan Boersma

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Summary.—We conducted an ornithological survey of the Kilkerran massif on Fergusson Island, Milne Bay Province, Papua New Guinea. Our records of Torrent Flycatcher *Monachella muelleriana* represent the first confirmation of the family Petroicidae in the D'Entrecasteaux Archipelago. Additionally, Rainbow Bee-eater *Merops ornatus*, Peregrine Falcon *Falco peregrinus*, Red-collared Myzomela *Myzomela rosenbergii longirostris* and Eurasian Tree Sparrow *Passer montanus* were all additions to the avifauna of Fergusson Island. We also report the first visual record of Papuan Mountain Pigeon *Gymnophaps albertisii*. In total, we recorded 70 species. Notably, we did not observe Black-naped Pheasant-Pigeon *Otidiphaps insularis*, a Fergusson Island endemic, and express concern as to the vulnerability of this virtually unknown species to extinction.

The D'Entrecasteaux Archipelago in Milne Bay Province, Papua New Guinea is an area of pronounced avian endemism (Stattersfield *et al*. 1998). The largest islands are Goodenough (687 km^2; max. elevation 2,536 m), Fergusson (1,437 km^2; max. elevation 2,073 m) and Normanby (1,000 km^2; max. elevation 1,158 m) (Fig. 1). The avifauna of Milne Bay Province has been studied by a number of collectors and ornithologists over the last 150 years, however, the outlying islands have received less attention than the mainland (Frith & Beehler 1998). Past ornithological visits to Fergusson Island include those by C. Hunstein and A. Goldie (1882), O. Finsch (1885), Rickard (1891), A. Meek (1894, 1895, 1896, 1897, 1899, 1901, 1912–13), H. Hamlin (1928), F. Mayer (1935), the Fourth Archbold Expedition (1953), the Fifth Archbold Expedition (1956), M. LeCroy (1978), T. Pratt and M. Moore (2003), P. Gregory (2004), and T. Laman and E. Scholes (2011) (Frith & Beehler 1998).

At their closest point, the D'Entrecasteaux Islands are *c*.18 km from mainland New Guinea, with the Goschen Strait separating East Cape (on the mainland) and Normanby Island (Fig. 1). During past ice ages, sea levels were up to 120 m lower than at present, and the D'Entrecasteaux Archipelago formed a contiguous landmass termed the D'Entrecasteaux Shelf (Diamond 1972, Bintanja *et al*. 2005). Consequently, the gap between the D'Entrecasteaux Shelf and mainland New Guinea was narrower during these periods, both between East Cape and Nuakata Island and Normanby Island in the south, as well as between the Mount Trafalgar peninsula, and the Lusancay Islands and Trobriand Islands in the north (Bintanja *et al*. 2005; D. Mitchell pers. comm.).

The D'Entrecasteaux Islands share many bird families with mainland New Guinea, including birds of paradise, honeyeaters, and gerygones. However, the archipelago lacks genera characteristic of those New Guinean satellite islands that were formerly connected by Pleistocene land bridges, such as the Aru Islands, Salawati and Misool (Diamond 1972). The absence of avian genera in the D'Entrecasteaux group including *Talegalla* (Megapodiidae), *Goura* (Columbidae), *Crateroscelis* and *Sericornis* (Acanthizidae), *Ptilorrhoa* (Cinclosomatidae), *Arses* (Monarchidae) and *Pitohui* (Oriolidae) indicates that these are true oceanic islands (Diamond 1972). High rates of avian endemism in the D'Entrecasteaux

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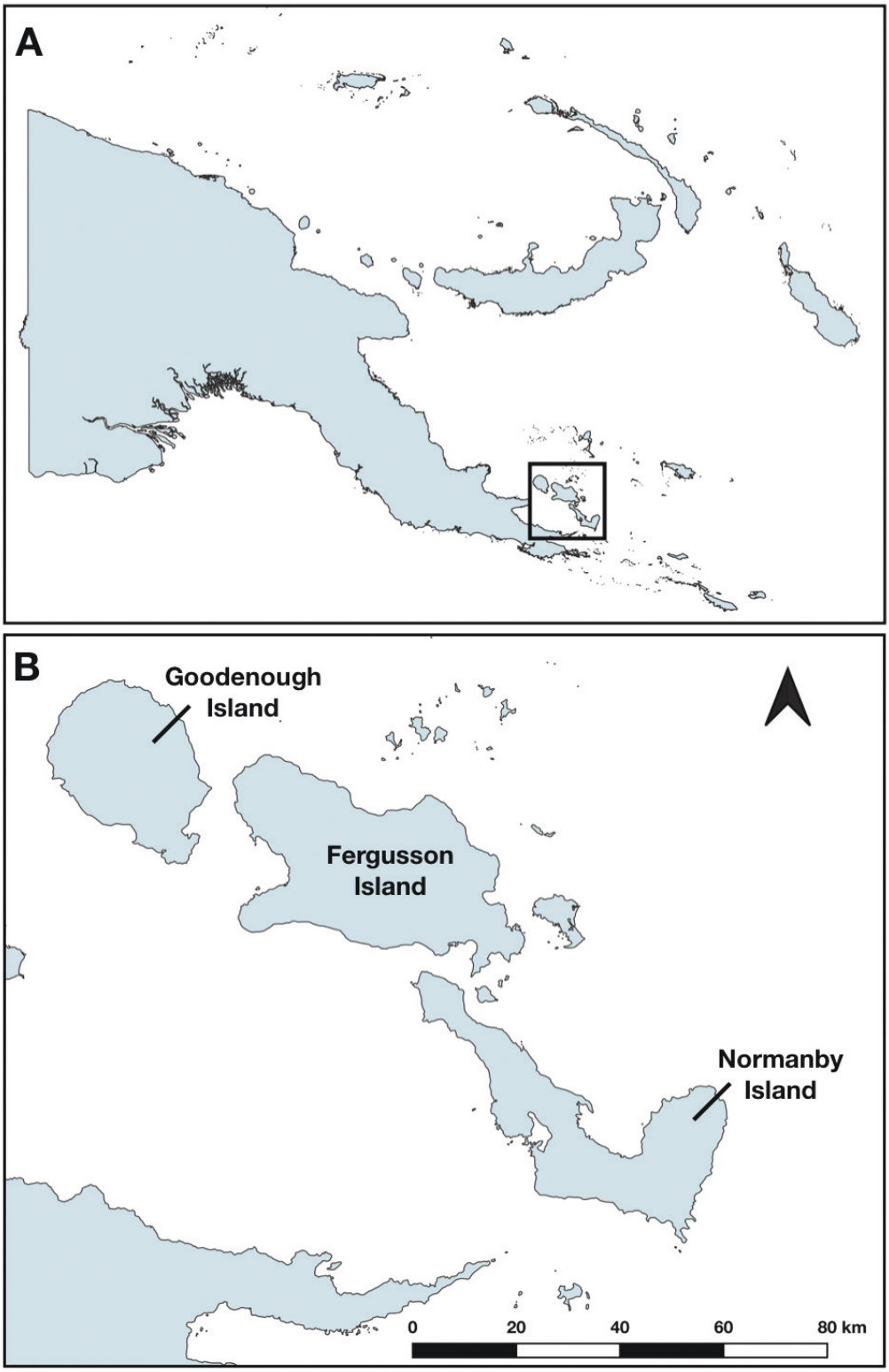

Figure 1. (A) Papua New Guinea and (B) the primary islands of the D'Entrecasteaux Archipelago.

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Archipelago reinforce this conclusion. The current species-level ranking of Oya Tabu White-eye *Zosterops crookshanki*, and the recommendations that Black-naped Pheasant-Pigeon *Otidiphaps nobilis insularis* and Red-collared Myzomela *Myzomela rosenbergii longirostris* merit species status results in a heightened level of importance for the D'Entrecasteaux Islands, which are already recognised as an Endemic Bird Area (Stattersfield *et al*. 1998, del Hoyo & Collar 2014, 2016, Beehler & Pratt 2016). Additional, morphologically distinct subspecies including Papuan Myzomela *Myzomela nigrita forbesi* and Little Shrikethrush *Colluricincla megarhyncha fortis* deserve further taxonomic study.

Mayr & Van Deusen (1956) noted high levels of similarity between the avifaunas of Goodenough, Fergusson and Normanby Islands. Exceptions do occur, such as Goldie's Bird of Paradise *Paradisaea decora*, which is restricted to Fergusson and Normanby, and Fantail Monarch *Symposiachrus axillaris*, which to date has been recorded only on Goodenough. Further surveys will permit a fuller comparison of these islands' avifauna, as many species records are based on observations made during a single visit.

We visited Fergusson Island on 6–22 August 2019, focusing our efforts on a ten-day survey of the eastern mountain range, the Kilkerran Massif (known locally as Oya Tabu). Specifically, we ascended Mount Othona (Oya Nai), the massif's second tallest peak, which to our knowledge has not been surveyed previously for birds. Vegetation on Fergusson Island is characterised by lowland and montane rainforest. Areas around villages present extensive mosaics of subsistence gardens and secondary forest. On the east slope of Mount Othona, forests above *c*.600 m appeared undisturbed, with substantial undergrowth and no established trails.

We report observations of Torrent Flycatcher *Monachella muelleriana* on Fergusson (the first confirmed record of the Petroicidae in the D'Entrecasteaux Archipelago), a range extension for the endemic Red-collared Myzomela *Myzomela rosenbergii longirostris*, as well as four additional first records (three of them documented). We also discuss our failure to find *Otidiphaps nobilis insularis*, which is listed by some authorities as a species (del Hoyo & Collar 2014) and is treated as Endangered (IUCN 2020). This taxon has not been recorded by biologists since it was collected in 1882 (Godman & Salvin 1883, Frith & Beehler 1998, Beehler & Pratt 2016, IUCN 2020, del Hoyo *et al*. 2020a).

Methods

On 7–10 August 2019, we made opportunistic observations between sea level and *c*.300 m in and around Sebutuia Bay (09°56.962'S, 150°86.927'E) and the south-east slopes of the Kilkerran Massif, using active logging roads from Sebutuia to access higher elevation areas. Thereafter, on 11–20 August, we surveyed the avifauna of the eastern slope of Mount Othona. On 11 August, we hiked from sea level at the village of Basima to 920 m, where we camped on a forested ridge (09°49.466'S, 150°79.464'E). On 12 August, we cut a trail from this camp to *c*.1,245 m through primary montane forest. We conducted observations opportunistically between 11 and 17 August from this trail. On 17 August, we descended to 388 m and established a second camp (09°49.362'S, 150°81.018'E). Until 20 August we made observations of birds in a 1 km-stretch of riparian and adjacent forests defined by a large, fast-flowing river (known locally as Awalota).

We follow the taxonomy of Beehler & Pratt (2016) but also acknowledge species splits made in del Hoyo & Collar (2014, 2016). Birds were identified to species visually using Pratt & Beehler (2014) and Gregory (2017), and by ear with the aid of recordings archived at Xeno-canto (https://www.xeno-canto.org). No systematic or quantitative surveys were attempted. Birds were photographed and sound-recorded opportunistically by JG using

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a Sony RX10 IV, a Røde videomic pro shotgun microphone, or an Apple iPhone. Images and sound-recordings have been deposited in the Macaulay Library (https://www.macaulaylibrary.org/) and Xeno-canto, respectively. Reference numbers are provided in Tables 1–2 for all such media.

In December 2019, we studied specimens of *Monachella muelleriana* (AMNH 341290–294, 420600–603, 426812–816, 608387–405 and 70592–599) and *M. m. coultasi* (AMNH 334453–456, 334568–570, 417432) at the American Museum of Natural History, New York, comparing them with photographs of *M. muelleriana* taken by JG on Fergusson.

Results

We identified 70 species on Fergusson Island, including four migrants and 66 residents. Our new records are presented below, followed by a discussion of *Otidiphaps nobilis insularis* and the general conservation of Fergusson's avifauna. Tables 1–2 present our overall species lists, divided into lowland observations made on 7–10 August, during which 37 species were identified (Table 1), and our more thorough survey (45 species) of the montane avifauna up to 1,245 m on 11–20 August (Table 2).

TABLE 1
All bird species observed 7–10 August 2019, at 0–300 m. * = new island record. Reference numbers correspond to photographs uploaded to the Macaulay Library (ML).

Species	Notes on distribution	Reference
Orange-fronted Fruit Dove *Ptilinopus aurantiifrons*	Seen once at sea level.	
Torresian Imperial Pigeon *Ducula spilorrhoa*	Observed in large flocks at sea level.	
Channel-billed Cuckoo *Scythrops novaehollandiae*	Reported austral migrant.	
Brush Cuckoo *Cacomantis variolosus*	Heard.	
Common Sandpiper *Actitis hypoleucos*	Boreal migrant. Several seen in Sebutuia Bay.	
Osprey *Pandion haliaetus*	Seen at Sebutuia.	
Pacific Baza *Aviceda subcristata*	Seen once, in display flight.	ML 242702471
Long-tailed Buzzard *Henicopernis longicauda*	Observed once at *c*.250 m.	ML 238401801
Brahminy Kite *Haliastur indus*	Seen once.	
White-bellied Sea Eagle *Haliaeetus leucogaster*	Regularly seen along the coast.	
Blyth's Hornbill *Rhyticeros plicatus*	Large flock of >60 individuals at higher elevation.	
*Rainbow Bee-eater *Merops ornatus*	Austral migrant. Five individuals seen (see text).	
Oriental Dollarbird *Eurystomus orientalis*	Seen once near sea level.	ML 242703671
Sacred Kingfisher *Todiramphus sanctus*	Austral migrant. Observed at Sebutuia Bay and at *c*.200 m elevation.	ML 238400601
Yellow-billed Kingfisher *Syma torotoro*	Heard only. Common.	
Sulphur-crested Cockatoo *Cacatua galerita*	Common.	
Purple-bellied Lory *Lorius hypoinochrous*	Common.	ML 242700591
Double-eyed Fig Parrot *Cyclopsitta diophthalma*	Seen once.	
Orange-fronted Hanging Parrot *Loriculus aurantiifrons*	Seen once perched on a *Pandanus* sp. near sea level.	ML 242701461
Eclectus Parrot *Eclectus roratus*	Common.	
Red-cheeked Parrot *Geoffroyus geoffroyi*	Seen once in foothills.	
Tawny-breasted Honeyeater *Xanthotis flaviventer*	Commonly heard.	ML 242699281

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Species	Notes on distribution	Reference
Helmeted Friarbird *Philemon buceroides*	Commonly heard.	ML 238402651
Large-billed Gerygone *Gerygone magnirostris*	Several observed, including a juvenile.	ML 238400211
Hooded Butcherbird *Cracticus cassicus*	Seen.	
Varied Triller *Lalage leucomela*	Seen and heard.	
Grey Whistler *Pachycephala simplex dubia*	Several seen.	ML 238400051
Willie Wagtail *Rhipidura leucophrys*	One seen at Sebutuia logging port.	
Northern Fantail *Rhipidura rufiventris*	Seen.	
Curl-crested Manucode *Manucodia comrii*	Apparently less common than at higher elevations.	
Golden Monarch *Carterornis chrysomela*	Several seen.	ML 242673111
Black-faced Monarch *Monarcha melanopsis*	Austral migrant. Seen once in a mixed-species flock.	ML 242704681
Torresian Crow *Corvus orru*	Seen.	
Metallic Starling *Aplonis metallica*	One flock seen.	
*Eurasian Tree Sparrow *Passer montanus*	Flock of five observed at Sebutuia logging port (see text).	
Black Sunbird *Leptocoma sericea*	Seen along the coast.	
Olive-backed Sunbird *Cinnyris jugularis*	Seen along the coast.	

TABLE 2
All bird species observed on 11–20 August 2019, at 300–1,245 m. * = new island record. Reference numbers correspond to sound-recordings uploaded to Xeno-canto (XC) and photographs uploaded to the Macaulay Library (ML).

Species	Notes on distribution	Reference
Slender-billed Cuckoo-Dove *Macropygia amboinensis*	Common at 900–1,245 m.	XC 567475
Emerald dove sp. *Chalcophaps* sp.	Unidentified *Chalcophaps* sp. seen twice above 900 m. Presumably Pacific *C. longirostris* or Stephan's Emerald Dove *C. stephani*.	
Superb Fruit Dove *Ptilinopus superbus*	Two observed above 1,000 m.	ML 238392711
Mountain Fruit Dove *Ptilinopus bellus*	Male and female observed once at *c*.1,200 m. Female with bluish head.	ML 238391101
Pinon's Imperial Pigeon *Ducula pinon*	Louisiade Archipelago subspecies is distinct (Gregory 2017). Two individuals identified by their all-pink neck, seen once at *c*.400 m.	
Zoe's Imperial Pigeon *Ducula zoeae*	Frequently heard and seen above 900 m.	
Little Bronze Cuckoo *Chalcites minutillus*	Relatively common at 900–1,245 m.	
Brush Cuckoo *Cacomantis variolosus*	Heard once at *c*.300 m. Heard much more frequently at lower elevations.	
Marbled Frogmouth *Podargus ocellatus*	Heard at sea level, and *c*.900 m.	
Glossy Swiftlet *Collocalia esculenta*	Observed twice flying low along a large river at *c*.350 m.	
Long-tailed Buzzard *Henicopernis longicauda*	Seen once at *c*.1,000 m.	
Gurney's Eagle *Aquila gurneyi*	Seen once above 1,000 m. It is presumably uncommon on Fergusson.	
Brahminy Kite *Haliastur indus*	Observed several times along a large, fast-flowing river at *c*.350 m.	
Grey-headed Goshawk *Accipiter poliocephalus*	Seen once above 1,000 m.	

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Species	Notes on distribution	Reference
Blyth's Hornbill *Rhyticeros plicatus*	Common.	ML 242672711
Yellow-billed Kingfisher *Syma torotoro*	Commonly heard up to 1,000 m.	XC 567473
Azure Kingfisher *Ceyx azureus*	Seen once at *c*.350 m on a large river and suspected to occur on higher elevation streams.	ML 242707041
*Peregrine Falcon *Falco peregrinus*	Uncommon. An active nest was found at *c*.900 m attended by a pair incubating eggs (see text).	ML 238386491
Sulphur-crested Cockatoo *Cacatua galerita*	Relatively common at 900 m, as well as lower elevations.	
Purple-bellied Lory *Lorius hypoinochrous*	Common at 900–1,245 m.	
Eclectus Parrot *Eclectus roratus*	Uncommon at 900–1,245 m. More common at lower elevations.	
Red-bellied Pitta *Erythropitta erythrogaster macklotii*	Uncommon at 900–1,245 m, but heard regularly.	XC 567478
*Red-collared Myzomela *Myzomela rosenbergii longirostris*	Uncommon at 900–1,245 m.	
Papuan Black Myzomela *Myzomela nigrita forbesi*	Seen regularly at 900–1,245 m.	ML 242672781
Puff-backed Meliphaga *Meliphaga aruensis*	Seen and heard regularly at 900–1,245 m.	
Large-billed Gerygone *Gerygone magnirostris*	Heard once above 900 m. Presumed to be more common at lower elevations.	
Spectacled Longbill *Oedistoma iliolophus*	Very common at 900–1,245 m, also seen at *c*.300 m.	ML 238399461
Hooded Butcherbird *Cracticus cassicus*	Observed once at 900 m. More common at lower elevations.	
Grey-headed Cicadabird *Edolisoma schisticeps*	Commonly seen at 900–1,245 m	ML 242705791
Little Shrikethrush *Colluricincla megarhyncha*	Relatively common at 900–1,245 m.	
Grey Whistler *Pachycephala simplex dubia*	Common at 900–1,245 m.	
Northern Fantail *Rhipidura rufiventris*	Observed once at *c*.1,000 m.	
Spangled Drongo *Dicrurus bracteatus*	Observed once at *c*.900 m.	
Trumpet Manucode *Phonygammus keraudrenii*	Observed once at *c*.900 m.	ML 238398941
Curl-crested Manucode *Manucodia comrii*	Common at 900–1,245 m.	XC 567476
Goldie's Bird of Paradise *Paradisaea decora*	Heard from *c*.900 m where suspected at the bottom of large valleys at lower elevations. Seen at *c*.350 m.	
Shining Flycatcher *Myiagra alecto*	Observed once at *c*.350 m	
Spot-winged Monarch *Symposiachrus guttula*	Relatively common at 900–1,245 m.	
Golden Monarch *Carterornis chrysomela*	Relatively common at 900–1,245 m.	
Grey Crow *Corvus tristis*	Uncommon at 900–1,245 m.	
Torresian Crow *Corvus orru*	Heard once above 900 m. More common at lower elevations.	
*Torrent Flycatcher *Monachella muelleriana*	Observed only along large river at *c*.350 m.	ML 238404731, XC 567490, XC 567488
Island Leaf Warbler *Phylloscopus poliocephalus*	Very common at 900–1,245 m.	ML 238398021
Oya Tabu White-eye *Zosterops crookshanki*	Fairly common above 900 m.	
Red-capped Flowerpecker *Dicaeum geelvinkianum*	Observed once between 900 and 1,245 m, and once at *c*.350 m.	ML 242709131
Blue-faced Parrotfinch *Erythrura trichroa*	Common at 900–1,245 m.	XC 567474

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Species accounts

PAPUAN MOUNTAIN-PIGEON *Gymnophaps albertisii*
On 11 August, one was seen perched in the understorey at *c*.900 m. Its overall drab, non-green plumage quickly differentiated it from *Ptilinopus* fruit doves. The large patch of red orbital skin and dark wings contrasting with a paler breast differed from Pinon's *Ducula pinon* and Zoe's Imperial Pigeons *D. zoeae*. On the same date, we also heard the distinct mechanical wing sounds produced by a flock of *Gymnophaps* in flight. This is the first sight record of *G. albertisii* on Fergusson, although it was previously heard by T. K. Pratt (pers. comm.) during a 2003 visit but has not been otherwise reported. It is endemic to mainland New Guinea, the Bismarck Archipelago, Bougainville, and nearby Goodenough Island (Beehler & Pratt 2016).

RAINBOW BEE-EATER *Merops ornatus*
On 7 August, we identified one at *c*.250 m by its brightly coloured orange, green and blue plumage, and black upper breast-band. On 8 August, we observed four, two of them perched directly by the shore in Sebutuia Bay. On both days, individuals perched on prominent branches providing clear views. This is the first record of *M. ornatus* on Fergusson, although the species has previously been recorded in the D'Entrecasteaux Archipelago on Goodenough (LeCroy & Peckover 2000). *M. ornatus* primarily breeds in northern Australia, but has also been reported nesting at a few localities in New Guinea. It occurs throughout New Guinea, the Bismarck Archipelago, Sulawesi and the Lesser Sundas in the non-breeding season, and has been reported on several New Guinea satellite islands, including Woodlark and Karkar, as an austral migrant (Diamond & LeCroy 1979, Vang 1991, Fry *et al*. 1992). We suspect previous ornithological surveys did not encounter this easily detected species on Fergusson due to its presumed absence outside of the austral winter.

PEREGRINE FALCON *Falco peregrinus*
On 12 August, we observed a vocalising individual, subspecies *ernesti*, on high branches. We subsequently found an active nest in a large emergent Araucariaceae tree above the forest canopy (ML 238386491). Two adults were seen and the nest was observed daily on 12–17 August, during which at least one individual was apparently incubating. *F. peregrinus* has been previously reported on Normanby Island in the D'Entrecasteaux Archipelago (Beehler & Pratt 2014), but this is the first record on Fergusson and the first breeding record in the archipelago. Throughout mainland New Guinea, *F. p. ernesti* is a widespread, uncommon resident that has been seen on other satellites such as Woodlark Island, making its presence on Fergusson expected (Rothschild & Hartert 1896, Gregory 2017).

RED-COLLARED MYZOMELA *Myzomela rosenbergii longirostris*
On 15 August, at 1,055 m, we observed a *Myzomela* that we identified as this taxon foraging in the forest canopy. Its black head and wings, and contrasting bright red neck and breast, immediately differentiated it from Papuan Black Myzomela *M. nigrita forbesi* and any other passerine on Fergusson. On 16 August, we saw another within 20 m of our initial observation. This bird was foraging near a *M. nigrita*, offering a direct comparison. In addition to the obvious plumage differences, its bill appeared longer and less steeply decurved. The same day, we observed what we suspect to have been an immature male, based on its mottled black-and-brown head, foraging at *c*.1,245 m. Finally, we observed a female foraging within a mixed-species flock. Identified by its olive-green body and red collar, female plumage is the most distinctive feature of the D'Entrecasteaux taxon vs. the

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mainland form. Camera failure due to high humidity and limited survey time meant that we failed to photograph *M. r. longirostris*.

M. r. longirostris was described from Goodenough, where it has been reported to be common to very common at 1,000–2,750 m (Mayr & Van Deusen 1956, Gregory 2017). Recently, del Hoyo & Collar (2016) treated it specifically (Long-billed Myzomela) due to its morphology, and the taxon is listed by the IUCN as Near Threatened. Our observations of *M. r. longirostris* on Fergusson are the first on the island of this little-known taxon, but are not unexpected given Pleistocene land connections with Goodenough and because Fergusson's mountains cover its elevational range.

We observed *M. r. longirostris* just four times, all at 900–1,245 m. Our survey only reached the lower elevational range reported for this species on Goodenough and it is possibly commoner at higher elevations on Fergusson. Future work throughout the archipelago is required to better understand this taxon's distribution and its basic biology. However, we suspect it is unlikely that *M. r. longirostris* is present on nearby Normanby, whose mountains lie below this taxon's reported elevational range.

TORRENT FLYCATCHER *Monachella muelleriana*

On 10 August, at least two *M. muelleriana* (Fig. 2) were seen along a fast-flowing large river (the Awalota) with massive boulders and deep pools, at *c*.300 m. They were perched side by side on branches above the channel and alighted on boulders within it, vocalising frequently. On 17–20 August, we returned to the same general area and made sound-recordings of, and photographed, individuals and pairs. None was observed at smaller, higher elevation streams.

The birds had a pale grey back, white rump, white throat, breast and belly, black bill and legs, large white forehead spot, and dark brown eyes. The head, wings and tail were black (ML 238404731). No substantial individual variation was observed, even among pairs of suspected males and females, and no individuals matching the description of a juvenile *M. muelleriana* were observed.

Figure 2. Torrent Flycatcher *Monachella muelleriana*, Fergusson Island, August 2019 (Jason Gregg)

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Two primary vocalisations were recorded. The most commonly heard was a frequently given call of 1–6 piping, bell-like notes on the same pitch (XC 567490). Presumed to be a contact call, it was heard near-constantly while observing closely associating pair members. Less frequently heard was a rapidly delivered, repeated, 2–3-second descending staccato series of notes, followed by several longer, more emphatic, higher pitched ones (XC 567488). We believe this to be the species' song given that it was made during what appeared to be courtship behaviour, as well as when a lone individual moved quickly along the river, as if patrolling or defending a territory.

Our records of Torrent Flycatcher are the first confirmation of the family Petroicidae in the D'Entrecasteaux Archipelago. A report of *M. muelleriana* from Goodenough Island by De Vis (Mayr 1941) was doubted by subsequent authors due to the lack of further observations, but the species' presence on Fergusson now offers support for the earlier record (J. M. Diamond pers. comm). An eBird record, verified by us, also reports the species for Normanby (E. Enbody pers. comm.). We consider ours the first confirmed records of *M. muelleriana* for the D'Entrecasteaux Archipelago.

This New Guinea endemic is widespread and uncommon on fast-flowing hill and mountain streams to 2,130 m (Boles & Christie 2019). A second population, *M. m. coultasi*, suggested for species status by del Hoyo & Collar (2016) based on plumage differences, inhabits a limited number of streams on New Britain (del Hoyo *et al*. 2020b). The apparently small population of *M. muelleriana* in the D'Entrecasteaux Archipelago is presumably confined to the few larger streams on the islands.

The individuals we observed did not appear different from *M. muelleriana* of mainland New Guinea, based on our comparison of photographs with specimens at AMNH. However, those on Fergusson presumably represent an isolated population due to the persistent sea barrier between the mainland and D'Entrecasteaux Archipelago since at least the Pleistocene (Bintanja *et al*. 2005). Given the high degree of endemism in the archipelago, specimens as well as a comparison of the vocalisations of mainland, New Britain and Fergusson birds is necessary to determine their taxonomic placement, but is likely to require additional sound-recordings from all three areas.

EURASIAN TREE SPARROW *Passer montanus*

On 7 August, we observed a flock of five in Sebutuia, an active logging camp and timber shipping port. They were identified by their chestnut cap, black cheek mark, and stout bill, and the species is well known to us. Now breeding in New Guinea, *P. montanus* is introduced in the region, and was first reported in Port Moresby in 2006 (Gregory 2009). Its range is rapidly expanding across mainland Milne Bay Province, where it has invaded several villages outside Alotau over the last five years (JB pers. obs.). This is the first record for the D'Entrecasteaux Archipelago. Its presence in the port of Sebutuia on Fergusson is not unexpected, given the frequent arrival of large logging ships there, which could easily transport this and other invasive species.

Discussion

Conservation of Black-naped Pheasant-Pigeon.—*Otidiphaps insularis* is a large, terrestrial, ground-nesting bird endemic to Fergusson Island, known to science only from the type specimen, collected in 1882 (Godman & Salvin 1883) and now at the Natural History Museum, Tring. For the purposes of this review we follow del Hoyo & Collar (2016) in treating it as a species, which is listed as Endangered by IUCN (2020).

We failed to observe *O. insularis* on Fergusson despite visiting appropriate habitat and being familiar with the loud, far-carrying, whistled songs of the genus. On 17–20 August we

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surveyed an area identified by our local guides as a place where *O. insularis* is hunted. We placed four camera traps at ground level at locations suggested by our guides as favoured by the bird. This area was also reported by our guides as a breeding location for the species, where they had found an active nest. We failed to detect *O. insularis* there.

Several ornithological surveys and birding tourist groups that have visited Fergusson during the last two decades have also failed to find *O. insularis*, and indeed there is no modern-day record of it (Gregory 2007, Beehler & Pratt 2016, del Hoyo *et al*. 2020a; G. Dutson pers. comm., D. Mitchell pers. comm., T. K. Pratt pers. comm.). We urgently recommend an island-wide survey to determine the status of this highly unique and apparently imperilled island endemic.

There is evidence that large, terrestrial, ground-nesting Columbidae in Australasia are vulnerable to extinction, as evidenced by the Choiseul Pigeon *Microgoura meeki*, which occurred on Choiseul in the Solomon Islands. *M. meeki* was last seen in 1904 and is considered to be extinct. Like Black-naped Pheasant-Pigeon, it was known from a single island and believed to lay just one egg. *M. meeki* is thought to have been driven to extinction by the introduction of cats to the island (Tennent 2009, Baptista *et al*. 2020).

Bird conservation on Fergusson Island.—Fergusson, along with Goodenough, Normanby, and the Trobriand Islands form an Endemic Bird Area (EBA 196). BirdLife International lists the priority for this EBA as 'high' and considers knowledge of the area 'poor' (Stattersfield *et al*. 1998). The archipelago hosts the endemic Goldie's Bird of Paradise (Vulnerable), another endemic bird of paradise, the Curl-crested Manucode, and many other poorly studied endemic avian taxa. Our observations of five previously unrecorded species on Fergusson demonstrate that significant gaps remain in our knowledge of the D'Entrecasteaux Archipelago avifauna, which clearly warrants additional field work.

Our results support the assertion made by Mayr & Van Deusen (1956) that Fergusson, Goodenough and Normanby Islands share a very similar avifauna based on their Pleistocene connections as a contiguous landmass, the D'Entrecasteaux Shelf (Diamond 1972). Aside from *P. montanus*, a recently introduced species in New Guinea, our first records on Fergusson are of species that have previously been observed on Goodenough and / or Normanby. Based on this pattern, we suspect that additional species most likely to be present on Fergusson have already been reported elsewhere in the archipelago. Nevertheless, the possibility of undescribed taxa also remains, given the few ornithological surveys of Fergusson, especially above 1,500 m.

Habitat destruction represents a significant threat to the avifauna of the D'Entrecasteaux Archipelago and is currently occurring at a vast scale throughout New Guinea, including other comparably sized satellites such as Woodlark and Manus Islands (D. Mitchell pers. comm). Shearman & Bryan (2011) reported that between 1972 and 2002, the D'Entrecasteaux group suffered the highest level of deforestation relative to forest cover throughout Papua New Guinea, with most loss and degradation in the lowlands. Also, Shearman & Bryan (2011) classified the D'Entrecasteaux Islands as representing a distinct bioregion (one of 11 recognised by their study) based on a 'radically' distinct freshwater and amphibian fauna, and further supported by their high degree of avian endemism (Allison 1993, Polhemus *et al*. 2004, Shearman & Bryan 2011).

Selective logging of primary rainforest has been ongoing on Fergusson for decades. A large network of maintained logging roads originates in Sebutuia and extends throughout central and eastern parts of the island, and we observed the accumulation of many logs bound for foreign markets. The D'Entrecasteaux Archipelago, including Fergusson, also has a large and increasing human population, with a resulting increase in forest clearance for subsistence agriculture. We suspect effective conservation of the islands' birds requires

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locally driven strategies and sustained investment in local communities by NGOs and the Papua New Guinea government. Notably, escalating rates of sea piracy have made essential travel for local people difficult, while also presenting a barrier to research and conservation. Finally, given the frequent arrival of large ships at Sebutuia Bay, it is a potential location for the introduction of species such as cats and rodents which could severely impact Fergusson's ecosystems.

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