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A survey of the eastern uplands of Yapen Island, New Guinea, reveals three new species records

by Brecht Verhelst & Jonas Pottier

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Summary.—Compared to the outlying mountain ranges of New Guinea and surrounding islands, the known avifauna of Yapen Island numbers fewer upland species than expected, perhaps reflecting reduced coverage by ornithologists. In particular, the eastern portion of Yapen's uplands remained ornithologically unexplored until September 2019, when a seven-day expedition reached an elevation of 1,315 m, and documented three new species for the island. Two (Black-eared Catbird *Ailuroedus melanotis* and Yellow-legged Flyrobin *Kempiella griseoceps*) are widespread across the other outlying ranges and were therefore expected to occur on Yapen, whereas the third (Dimorphic Jewel-babbler *Ptilorrhoa geislerorum*) concerns a presumably isolated population of a species otherwise known from south-east New Guinea.

Survey

The avifauna of Yapen's uplands is of special interest in the study of dispersal and colonisation patterns between New Guinea's Central and outlying mountain ranges (Diamond 1985, Diamond & Bishop 2020). However, it remains poorly studied, and prior to 2019 only four ornithological expeditions had reached the higher elevations: G. Stein in 1931, J. Diamond in 1983, K. D. Bishop in 2016, and Diamond and Bishop in 2017 (Diamond & Bishop 2020). All four expeditions targeted the western uplands, which lie almost due north of the island's main town Serui, reach an elevation of 1,340 m, and have an area above 1,000 m of *c*.28 km^2 (measured using Google Earth). The eastern section is slightly higher, with a max. elevation of 1,430 m and an area above 1,000 m of *c*.31 km^2. The two upland areas are separated by hilly country over a distance of 22 km between the two highest points.

To document the avifauna of the eastern upland section, we undertook a ten-day survey in September 2019. We started from the village of Jobi on Yapen's north coast on 5 September, and reached a max. elevation of 1,315 m on 7 September. Attempts to reach higher were unsuccessful due to the extremely rugged karstic terrain. From there, we gradually descended the same trail, establishing camps at 1,315 m, 989 m, 470 m and 50 m. We divided our transect into five segments. The upper plateau (PH, above 1,250 m) is strewn with huge boulders and covered in stunted forest. From here, a very steep slope leads to segment R (600–1,250 m), where an existing trail to the village starts. It runs along a horizontal ridge through tall, mature forest before descending towards the river through extensive bamboo. Segment L (200–600 m) descends along a stream until reaching a rather level plateau (segment PL, 150–200 m) with numerous hunting trails but no evidence of recent logging. Finally, the trail runs through degraded forest intersected by small agricultural clearings, along a second river (segment D, 0–150 m). On average, we moved every second day between camps and spent the remaining time surveying birds along the trail. Where possible, we documented interesting observations with a Nikon D7200 camera and 300 mm lens, and recorded vocalisations with an Olympus LS11. In addition, we

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surveyed the higher parts (above 900 m) with the aid of nine camera traps of various types, which we retrieved on the final day of the survey. Throughout, the weather was dry, with only a little rain on the last day.

Observations

We observed a total of 76 bird species (Table 1), including three species new to the avifauna of Yapen: Black-eared Catbird *Ailuroedus melanotis*, Dimorphic Jewel-babbler *Ptilorrhoa* cf. *geislerorum* and Yellow-legged Flyrobin *Kempiella griseoceps*.

TABLE 1
Species observed by the authors in the uplands of eastern Yapen Island in September 2019. Columns D, PL, L, R and PH refer to different parts of the transect covered (see main text). Order and nomenclature follow Beehler & Pratt (2016).

		D	PL	L	R	PH
Wattled Brushturkey	*Aepypodius arfakianus*				X	X
Red-legged Brushturkey	*Talegalla jobiensis*		X	X		
New Guinea Scrubfowl	*Megapodius decollatus*	X				
Brown Cuckoo-Dove	*Macropygia amboinensis*			X	X	
Cinnamon Ground Dove	*Gallicolumba rufigula*				X	
Victoria Crowned Pigeon	*Goura victoria*		X			
Wompoo Fruit Dove	*Megaloprepia magnifica*		X	X		
White-bibbed Fruit Dove	*Ptilinopus rivoli*				X	X
Orange-bellied Fruit Dove	*Ptilinopus iozonus*	X				
Purple-tailed Imperial Pigeon	*Ducula rufigaster*		X			
Zoe's Imperial Pigeon	*Ducula zoeae*		X	X		
Greater Black Coucal	*Centropus menbeki*	X				
Chestnut-breasted Cuckoo	*Cacomantis castaneiventris*				X	
Marbled Frogmouth	*Podargus ocellatus*				X	X
Glossy Swiftlet	*Collocalia esculenta*	X				
Long-tailed Buzzard	*Henicopernis longicauda*	X		X	X	
Gurney's Eagle	*Aquila gurneyi*				X	X
Brahminy Kite	*Haliastur indus*	X				
Grey-headed Goshawk	*Accipiter poliocephalus*	X				
Papuan Boobook	*Ninox theomacha*				X	X
Blyth's Hornbill	*Rhyticeros plicatus*	X	X	X	X	X
Hook-billed Kingfisher	*Melidora macrorrhina*		X	X	X	X
Rufous-bellied Kookaburra	*Dacelo gaudichaud*	X		X		X
Yellow-billed Kingfisher	*Syma torotoro*	X	X	X		
Palm Cockatoo	*Probosciger aterrimus*	X			X	
Sulphur-crested Cockatoo	*Cacatua galerita*	X	X	X		
Black-capped Lory	*Lorius lory*		X	X	X	X
Rainbow Lorikeet	*Trichoglossus haematodus*	X		X		
Eclectus Parrot	*Eclectus roratus*	X				

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		D	PL	L	R	PH
Red-bellied Pitta	*Erythropitta erythrogaster*	X			X	
Black-eared Catbird	*Ailuroedus melanotis*				X	X
Red Myzomela	*Myzomela cruentata*			X		
Papuan Black Myzomela	*Myzomela nigrita*	X		X		
Tawny-breasted Honeyeater	*Xanthotis flaviventer*	X		X	X	
Helmeted Friarbird	*Philemon buceroides*			X	X	
Long-billed Honeyeater	*Melilestes megarhynchus*				X	
Mimic Meliphaga	*Meliphaga analoga*			X		
Mountain Meliphaga	*Meliphaga orientalis*				X	X
White-eared Meliphaga	*Meliphaga montana*				X	X
Rusty Mouse-Warbler	*Crateroscelis murina*		X	X	X	X
Pale-billed Scrubwren	*Sericornis spilodera*				X	X
Tropical Scrubwren	*Sericornis beccarii*			X	X	X
Yellow-bellied Gerygone	*Gerygone chrysogaster*		X	X	X	
Fairy Gerygone	*Gerygone palpebrosa*			X	X	X
Black Berrypecker	*Melanocharis nigra*		X	X		
Spectacled Longbill	*Oedistoma iliolophus*	X		X	X	
Yellow-bellied Longbill	*Toxorhamphus novaeguineae*		X	X	X	X
Dimorphic Jewel-babbler	*Ptilorrhoa* cf. *geislerorum*			X	X	
Hooded Butcherbird	*Cracticus cassicus*	X				
Boyer's Cuckooshrike	*Coracina boyeri*			X		
Papuan Cicadabird	*Edolisoma incertum*				X	
Black Cicadabird	*Edolisoma melas*				X	
Little Shrikethrush	*Colluricincla megarhyncha*			X	X	X
Rusty Shrikethrush	*Pseudorectes ferrugineus*			X	X	
Grey Whistler	*Pachycephala simplex*			X		
Northern Variable Pitohui	*Pitohui kirhocephalus*	X	X	X	X	
Hooded Pitohui	*Pitohui dichrous*				X	X
Rufous-backed Fantail	*Rhipidura rufidorsa*		X	X		X
Chestnut-bellied Fantail	*Rhipidura hyperythra*				X	
Northern Fantail	*Rhipidura rufiventris*	X	X	X	X	
Spangled Drongo	*Dicrurus bracteatus*				X	
King Bird of Paradise	*Cicinnurus regius*		X			
Magnificent Bird of Paradise	*Cicinnurus magnificus*			X	X	X
Lesser Bird of Paradise	*Paradisaea minor*	X	X	X	X	X
Ochre-collared Monarch	*Arses insularis*		X	X	X	X
Shining Flycatcher	*Myiagra alecto*			X		
Spot-winged Monarch	*Symposiachrus guttula*		X			
Grey Crow	*Corvus tristis*	X			X	
Yellow-legged Flyrobin	*Kempiella griseoceps*			X		

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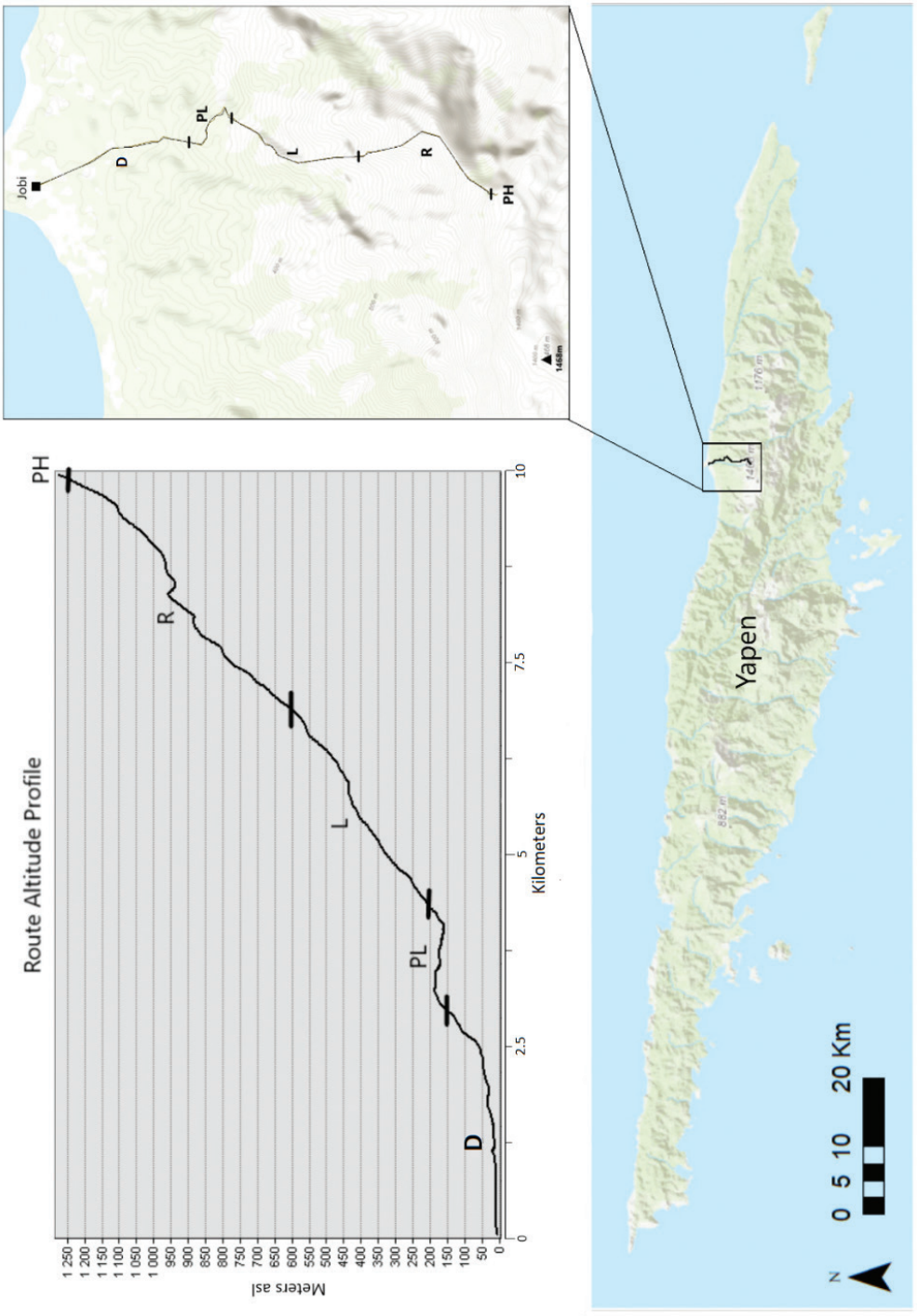


Figure 1. Survey transect of eastern Yapen Island, from the village of Jobi to the upper camp at 1,315 m.

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Figure 2. Black-eared Catbird *Ailuroedus melanotis*, Yapen Island, New Guinea, 8 September 2020 (Brecht Verhelst)

		D	PL	L	R	PH
Olive Flyrobin	*Kempiella flavovirescens*		X			
Black-chinned Robin	*Heteromyias brachyurus*			X		
White-faced Robin	*Tregellasia leucops*				X	X
Island Leaf Warbler	*Seicercus poliocephalus*					X
Green-fronted White-eye	*Zosterops minor*			X	X	
Metallic Starling	*Aplonis metallica*	X				
Red-capped Flowerpecker	*Dicaeum geelvinkianum*				X	
Number of species observed		**24**	**22**	**39**	44	25

Species accounts

BLACK-EARED CATBIRD *Ailuroedus melanotis*

We observed small groups of 5–10 individuals twice, on 8 and 9 September, at 980 and 1,300 m, and photographed two individuals. The dark throat with small pale spots, rufous-cinnamon breast with sharply contrasting dark crescents and black ear patch are suggestive of the subspecies *jobiensis*, which is also present in the Foja Mts., *c*.200 km further east in mainland New Guinea.

DIMORPHIC JEWEL-BABBLER *Ptilorrhoa* cf. *geislerorum*

A presumed male and female were observed at 980 m on 9 September by BV & JP, and a presumed male and two females on 10 September by BV at 440 m. One (presumed) male was photographed and its song sound-recorded (https://www.xeno-canto.org/566068).

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Figure 3. Presumed male Dimorphic Jewel-babbler *Ptilorrhoa* cf. *geislerorum*, Yapen Island, New Guinea, 9 September 2020 (Brecht Verhelst)

Although these observations were made at dawn and dusk, in poor light, the colour patterns could be reliably discerned. All individuals had a white throat bordered by a narrow black band that extended as a broad black mask. The three (presumed) females agreed with female *P. geislerorum* in being all dark chestnut-brown dorsally and ventrally, except the throat and mask. The (presumed) males agreed with male *P. geislerorum* in being entirely dark blue except the throat and mask, with a dull brown crown and pale superciliary. Both sexes differed greatly from Chestnut-backed Jewel-babbler *P. castanonota*, which in both sexes is blue ventrally, but dorsally largely or all chestnut-brown. Call was a loud *CHEW*, similar to that of *P. castanonota.* The song bout recorded was a repeated series of 13 accelerating, disyllabic whistles, rising in pitch. The observed colour pattern matches *P. geislerorum*, which is known from the Adelbert Mts. and north slopes of the Central Range in south-east Papua New Guinea. However, the song is very different from available recordings of *P. geislerorum* from the Adelbert Mts. and Kokoda Track in south-east Papua New Guinea, by its slower rhythm and higher max. frequency. Further study of the Yapen population is required to understand if any other differences exist vs. *P. geislerorum* and to define its taxonomic status. Collections and observations in the ranges between Yapen and the Adelberts—North Coastal Range, Cyclops, Foja and Van Rees—found only *castanonota* and Blue Jewel-babbler *P. caerulescens*, but not *geislerorum* (Beehler & Pratt 2016). If the birds on Yapen are confirmed as *geislerorum*, then the disjunct range might be explained by local extinctions in the intervening ranges. Interestingly, Diamond & Bishop (2020) found only *castanonota* during their surveys of the western uplands of Yapen, which species we did not observe. This may indicate a difference in species composition between the eastern and western uplands. Conversely, the co-occurrence of *P. geislerorum* and *P. castanonota* on the same island is not unusual. In the Herzog Mts. and Adelbert Mts., *P. geislerorum* and *P. castanonota* have been collected at nearby localities (Greenway 1935, Gilliard & LeCroy

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1967), and in the Adelberts they have even been observed in the same forest (Coates 1990; J. Diamond & K. D. Bishop unpubl. obs.).

YELLOW-LEGGED FLYROBIN *Kempiella griseoceps*

One observed by BV and JP on 7 September at 440 m for several minutes, but no photo or sound-recording could be obtained. A medium-sized flycatcher with an upright posture, yellow legs and mandible, pale olive upperparts and pale yellow underparts, grey head with white throat and rather conspicuous eye-ring.

WHITE-FACED ROBIN *Tregellasia leucops*

Frequently seen above 900 m, with several individuals photographed. Apparently common at the upper elevations of our survey area. Previously, this species had been observed only in 1983 in the western uplands of Yapen (Diamond 1985), where it seems to be rare. The observed difference in abundance between the eastern and western upland sections of the island may suggest a process of ongoing local extinction.

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