

First description and photograph of the juvenile plumage of the New Britain Goshawk *Tachyspiza princeps*

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Abstract. We describe and for the first time photograph the juvenile plumage of a New Britain Goshawk *Tachyspiza princeps*, observed in the Whiteman Range, New Britain, Papua New Guinea.

Introduction

New Britain is the largest island (36,520 km²) of the Bismarck Archipelago, located east of the Papua New Guinea mainland. Originally it was covered by rainforest from sea level to the highest point at 2334 m above sea level (asl), but today Oil Palm *Elaeis guineensis* plantations have largely replaced the forest in many parts of the lowlands.

New Britain is a hotspot of endemism (Bibby *et al.* 1992). It has 14 endemic bird species and shares with New Ireland 38 restricted-range species (Davis *et al.* 2017). The island has five species of goshawk or sparrowhawk; two are endemic to New Britain [New Britain Goshawk *Tachyspiza princeps* and Slaty-backed Goshawk *T. luteoschistacea* (+ Umboi Island, and reported also from New Ireland but its status there is uncertain: Gregory 2025)], one is shared with New Ireland (New Britain Sparrowhawk *T. brachyura*) and two are widely distributed (Variable Goshawk *T. hiogaster* and Meyer's Goshawk *Astur meyerianus*).

Observation

In September 2025, we explored a location in the forest of the Whiteman Range between 900 and 1000 m asl for 8 days. The main goal was searching for the New Britain Thrush *Zoothera talaseae*; we observed from two hides every morning, one (5°59'S, 150°31'E) where Ethan Linck and Jason Gregg captured images of the New Britain Thrush with a camera trap in July 2024 (E. Linck & J. Gregg pers. comm.). We failed to see the thrush, but a juvenile New Britain Goshawk flew through the understorey and perched just in front of TQ, who was able to examine its plumage in detail, took photographs and made a short video (see <https://youtu.be/5F8QLAeu02o>) as the bird remained perched for several minutes only ~10 m in front of the hide (Figure 1).

Observations of the New Britain Goshawk are rare – the population is estimated at between 2500 and 10,000 birds (Davis *et al.* 2017) – but photographs are even rarer. However, Davis *et al.* (2017) encountered the species five times during their survey: once in degraded montane forest and four times in hill forest. TQ encountered a juvenile in



Figure 1. Juvenile New Britain Goshawk, Whiteman Range, New Britain, September 2025. Photos: Thierry Queleennec

preserved montane forest in the Whiteman Range, but we never found the species in hills or degraded habitat. The only known photograph of the species is of an adult published on ebird and in the literature by Tom Vierus (Vierus 2025), but no published photograph of the juvenile exists. We publish here the first photograph of a juvenile of this species.

Gregory (2025, p. 154) stated that juvenile and immature plumages are “not known with certainty”. Moreover, it is the only species of goshawk or sparrowhawk for which no illustration of a juvenile or immature bird appears in that guide. Phil Gregory confirmed to us that there are no skin specimens of juvenile or immature birds of this species in any museum. Bishop (1983) described a sighting of what he considered was a juvenile of the New Britain Goshawk.

Description

The New Britain Goshawk is a stout goshawk. The bird seen by TQ (Figure 1) was large and seemed slightly shorter-legged than the Variable Goshawk and with a short neck, which gave it a stocky appearance. In the literature, the length of this species is given as 38–45 cm, similar to the more common Variable Goshawk (33–50 cm) found in New Britain (Gregory 2025). However, the bird was larger and more powerful than Variable Goshawks that we found several times in New Britain (the pertinent subspecies *dampieri* is one of the smaller subspecies: Ferguson-Lees *et al.* 2001). The Variable Goshawk seems to be slimmer and more elongated. In the family Accipitridae, females are larger than males, so the juvenile described by us was probably a female.

The head was dark grey apart from the lores, which were slightly orange-cream in colour, and the chin was cream with brown streaks. The orbital ring was red, the iris yellow and the cere orange-red. The beak was black. The breast was cream and heavily barred with broad chestnut bars (the juvenile Variable Goshawk has a white breast and belly with thinner chocolate-brown bars). The mantle and wings were buffy with broad dark-brown bars (the juvenile Variable Goshawk has a uniform grey-brown back). The tail was buffy with at least six broad dark-brown bars. The legs and feet were the same deep orange-red colour as the cere, and the claws black. Compared with the Variable Goshawk, the legs appeared to be stronger, more powerful and not yellow.

Discussion

The adult plumage of the New Britain Goshawk is well known (even if there is only one published photograph of it): grey with unbarred upperparts, white underparts and orange lores, red eyes, and orange cere and legs (Vierus 2025). The juvenile of this species was the only juvenile or

immature goshawk of this part of the world not to have been conclusively described. Bishop (1983, p. 238) described a bird that landed very close to him in 1979 in the Nakanai Mountains. It was a stout goshawk with a head “mid to dark brown”. He continued the description:

the upper wings and back appeared well marked, each feather was dark brown edged with pale brown ... The underparts were heavily barred in rich dark brown with pale buff showing through on the lower breast and belly. The legs were bright yellow, the eye orange-yellow and the bill black.

This description broadly corresponds to what we observed. There are some minor inconsistencies (on the back and wings of the bird we observed the feathers had buffy edges with a large brown bar, and the legs were orange); the orange-cream bare lores, which are one of the major characteristics of the species, are not reported by Bishop (1983). We assume that these minor inconsistencies are because of the brevity of observation or because of minor age-related differences – Bishop’s bird could have been a fresh juvenile and ours an older first-year bird having developed richer (i.e. more adult-like) bare-part colours (S. Debus pers. comm.). We conclude that the observation by Bishop was of a juvenile New Britain Goshawk. Now the juvenile plumage of the species is described and illustrated by us for the first time.

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