

LITTLE-KNOWN ASIAN BIRD

New record of the Critically Endangered Javan Blue-banded Kingfisher *Alcedo euryzona* in Central Java, Indonesia

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Introduction

Java is the most densely populated island in the world and has suffered extreme anthropogenic pressure, resulting in the loss of over 90% of its natural forests. Nonetheless, some high-quality forest does remain on the steep slopes of the many volcanoes, and lowland forest fragments of significant conservation value also remarkably persist (Whitten *et al.* 2000). Java has its own suite of endemic and near-endemic bird species, and supports two Endemic Bird Areas (EBA 160: Java and Bali forest, and EBA 161: Javan coastal zone), with 48 Important Bird and Biodiversity Areas (IBAs) identified (BirdLife International 2019a, b).

The Javan Blue-banded Kingfisher *Alcedo euryzona* is a monotypic species endemic to Java since the elevation of the taxon *A. e. peninsulae* of mainland South-East Asia, Borneo and Sumatra to full species status as Malay Blue-banded Kingfisher *A. peninsulae* (del Hoyo *et al.* 2019). As this riverine kingfisher is believed to be a lowland forest specialist, it is listed as Critically Endangered due to a suspected ongoing population decline because of significant forest loss in the lowlands of Java, but with the caveat that ‘there remains a possibility it has been under-recorded’ (BirdLife International 2019c). The last specimen was collected from East Java in 1937 (Helm 2017) and, although there have been some unsubstantiated reports from East Java since then, Gn Halimun-Salak National Park in West Java appears to be the only confirmed site, with a handful of reported sightings (Woodall *et al.* 2019). However, there is an important additional, largely overlooked, record which involved five mist-netted birds at Cikaniki Research Station in Gn Halimun-Salak NP during 2000–2001 (Noske *et al.* 2011). The species remained so rarely seen that *in situ* images were obtained for the first time only on 9 March 2018, again in Gn Halimun-Salak NP (Plate 5).

Observations

Over a period of six days in October 2018, BPLC carried out a bird survey in the vicinity of Pekalongan Regency, Central Java, and recorded Javan Blue-Banded Kingfisher. This area is one of

the few forested landscapes in Central Java, with a mosaic of tall semi-evergreen rainforest and mature forest gardens near villages. The locations surveyed ranged in altitude from 300 to 600 m, and covered natural and plantation forests, man-made open habitats and streams. Central Java has generally received little ornithological attention because of its remoteness, but certain areas have been studied in some detail by Nijman & van Balen (1998), van Balen (1999) and Sodhi *et al.* (2005).

The first sighting was on a fast-flowing rocky stream in a well-forested area at about 500 m (Plate 1) at 16h44 on 12 October 2018, when an adult male Javan Blue-banded Kingfisher flew upstream and perched briefly on a low rock about 30 m away from BPLC; images were obtained before the bird flew off back downstream (Plate 2). The same location was visited again in the early morning of 14 October, when an adult male was seen to fly downstream at 07h36, perching on a large rock about 50 m away for about two minutes before flying on downstream.

AS made follow-up surveys in early November 2018, during which he visited the same stream. At 05h25 on 3 November, at the same location as the sightings in October, a male bird again perched on a low rock, and the characteristic blue breast band was clearly seen (Plate 3). Then, at 08h02 on 4 November, a male was photographed 700 m upstream from the site of the previous observations.

Eight other stream-associated bird species were also recorded at the same location: Buffy Fish Owl *Ketupa ketupu*, Javan Kingfisher *Halcyon cyanoventris*, Collared Kingfisher *Todiramphus chloris*, Oriental Dwarf Kingfisher *Ceyx erythaca rufidorsa* (Plate 4), Blue-eared Kingfisher *Alcedo meninting*, Blue Whistling Thrush *Myophonus caeruleus*, Sunda Forktail *Enicurus velatus* and Grey Wagtail *Motacilla cinerea*.

Discussion

The Javan Blue-banded Kingfisher is reported to occur in humid evergreen forest, most commonly in the lowlands at altitudes of about 100 m but occasionally locally up to 1,500 m. The Cikaniki

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Plate 1. Habitat of Javan Blue-banded Kingfisher *Alcedo euryzona* in Pekalongan Regency, Central Java, Indonesia, 12 October 2018.

Plate 2. Javan Blue-banded Kingfisher, Pekalongan Regency, 12 October 2018.

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Plate 3. Javan Blue-banded Kingfisher, showing the characteristic blue breast band, Pekalongan Regency, 3 November 2018.

Plate 4. Oriental Dwarf Kingfisher *Ceyx erythaca rufidorsa*, Pekalongan Regency, 14 October 2018.

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Plate 5. Javan Blue-banded Kingfisher, Gn Halimun NP, Java, 9 March 2018.

Research Station in Gn Halimun-Salak NP is located in wet rainforest at 1,045 m, and our Central Java site is in a semi-evergreen rainforest at 500 m, both within the altitudinal range of the species in published sources (BirdLife International 2019c, Woodall *et al.* 2019). However, both the Cikaniki Research Station records and our records are from swift-flowing rocky streams, which is at variance with published literature which describe the species's habitat as 'slow-flowing streams and larger rivers in primary rainforest' and 'mainly in lowlands' (BirdLife International 2019c, Woodall *et al.* 2019), implying that the waterways are deep with a sandy or muddy substrate.

The discovery of this little-known and Critically Endangered endemic in Central Java adds a new location for the species and opens new perspectives for its conservation. Central Java has the least forest cover of any of the Javan provinces (Whitten *et al.* 2000) and, probably because of this, there has been relatively little biodiversity research and conservation effort there. The discovery of such an enigmatic species in the province, over 300 km from the only other currently known site in Gn Halimun-Salak NP, highlights the fact that the avifauna and biodiversity of Central Java are understudied and underestimated.

Our site also supports an impressive community of stream-associated birds, indicating that the

ecosystem is in a healthy state, with abundant fish and aquatic insects. However, the site lies outside a gazetted conservation area and is managed by Perum Perhutani, a state-owned enterprise responsible for the management of state-owned forests in Java. We observed regular anthropogenic disturbance along the stream—for example, the excavation of stone and sand for building materials, raw domestic wastewater discharge, recreational angling and such ever-increasing river-related tourism activities as river tubing and trekking. If not properly managed and controlled, the stream ecosystem and stream bird community will inevitably suffer. Thus it is imperative that the Indonesian government agencies responsible for conservation and sustainable development of the area strengthen their efforts in biodiversity research and protection.

Note: In line with Oriental Bird Club policy we have chosen not to disclose the exact locality of this Critically Endangered species in this publication because of the rampant bird-trapping which is occurring in Java, and which is driving many bird species to extinction. Such information has been presented to relevant government agencies and selected conservationists, and will be made available, when deemed necessary, upon request by fellow conservation ornithologists.

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