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Pale-capped Pigeons *Columba punicea* Consuming the Fruits of *Avicennia marina*

Philip D. Round[1]

The Pale-capped Pigeon *Columba punicea* is a widespread, though enigmatic, relatively little-known and Globally Vulnerable species, distributed in East and Northeast India, Myanmar, Thailand, Laos, Cambodia, Vietnam and South China (BirdLife international 2001, 2020). Most historical Thai records were from Southeast, Southwest and Peninsular Thailand (Deignan, 1963), especially on islands off the west coast, where it was, at times, said to be "very common" (Robinson & Kloss, 1910–1911; Robinson [1917] cited in BirdLife International [2001] and in Wells [2007]). Breeding records of Pale-capped Pigeon from India and in Myanmar are summarized in BirdLife International (2001) with a bird carrying nest material in March, and breeding taking place during May to August. However, there are no descriptions of actual nesting in Thailand.

The presumption that the species was a non-breeding visitor to the Thai peninsular provinces (Wells, 1999) is apparently undermined by a juvenile collected in Phatthalung province in June 1963 (specimen in the Bishop Museum, Hawaii [Wells, 2007]). Observations of birds, apparently including juveniles, were also made during April to August, covering the presumed breeding season, on the island of Ko Yao Noi, Phang-nga Province (Sa-ar *et al*., 2022). The species is now regarded as non-migratory throughout its range although highly dispersive and perhaps semi-nomadic (BirdLife International, 2020).

Although said to be "much rarer" on the east coast of the peninsula (Robinson & Kloss, 1921–1924), since September 2000, non-breeding concentrations of over 100 birds have been recorded annually from September or October up to at least January (and probably February: see below) at several east coast sites between southern Prachuap Khiri Khan and Chumphon provinces, where they apparently roost in mangroves and other coastal vegetation (https://ebird.org/home). Chumphon Province alone may hold possibly as many as 300 individuals during October to February (C. Nualsri, *in litt*., cited in Sreenivasan [2014]). Though these seasonal concentrations on the east coast of the Thai peninsular provinces are now well-known, it remains unclear whether these are birds that breed in the southern Thai provinces, or whether they originate from further afield. There are a few observations from inland forest sites in west, northeast and southeast Thailand (BirdLife International, 2001).

I here report observations, in company with fellow observers Bengt Sjöman and Benny Fredriksson, of Pale-capped Pigeons flying to and from a known, regular, mangrove roost at Ban Krut, Bang Saphan District, Prachuap Khiri Khan Province, at 11°18′ N, 99°33′ E on 7–8 December 2024.

We had stationed ourselves on a road bridge across a canal (Khlong Wang Hin) in order to count Pale-capped Pigeons as they flew to roost in mangroves. The canal (*khlong*) flows north to south, parallel to the coast and only 100–150 m inland of the beach, emptying to the sea

[1] Department of Biology, Faculty of Science, Mahidol University, Rama 6 Road, Bangkok, Thailand.
E-mail: philip.rou@mahidol.ac.th
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approximately 2.5 km south of our observation point. It was narrowly lined with mangroves on both banks, the mangroves extending a distance of 1.5 km north from our observation point, broadening to a maximum width of c.170 m, and occupying an estimated total area of 23 ha. In the late afternoon the pigeons approached from the south, flying over our heads, in small parties, apparently descending into the mangroves to the north. On 7 December our first observation was at 16:15 h, a single individual, later followed at regular intervals by one or two individuals at a time. As time elapsed, the movement increased to groups of mainly 5–7 birds, most passing during 16:40 to 17:05 h. Our total count was at least 150 birds by the time the movement had ceased, around 17:15 h.

We returned to the site the following morning, shortly after dawn, continuing to c. 09:00 h. During that period there was little coordinated passage movement. We initially saw a few pigeons perched in higher trees, and observed some dropping down into mangroves, apparently in order to feed. Small numbers flew overhead, heading south. Both the previous evening and during the morning we saw pigeons landing in mangroves and apparently taking the green fruits of *Avicennia marina* Forssk (Family Acanthaceae). A photograph documenting this behaviour was obtained at 08:22 h on 8 December (Figure 1).

Pale-capped Pigeons are known to take a variety of seeds and grains and the fruits of forest trees, based mainly on observations in India (BIRDLIFE INTERNATIONAL, 2001). At another Thai coastal site, Yao Noi Island, referred to above, multiple individuals took the brownish-red to dark brown mature fruits of *Litsea grandis* (Wall. Ex Nees) Hook. f (Family Lauraceae). The authors of that observation (SA-AR *ET AL*., 2022) also cite an unpublished observation from elsewhere of a Pale-capped Pigeon consuming the fruits of *Avicennia alba* Blume.

These appear to be the first documented observations of Pale-capped Pigeons taking the fruits of *Avicennia*. As noted by R. Corlett (*in litt*.) "*Avicennia* would not interest a strict frugivore, since there is no fleshy reward". As he indicates, and as recorded elsewhere (SNOW, 1981; CORLETT, 2017; ANDO *ET AL*., 2022) *Columba* pigeons are largely seed predators, so they were probably ingesting the entire *Avicennia* fruit and seed.

Little or no attention has previously been given to fruit or seed resources in mangroves as food for birds (ARCEO-CARRANZA *ET AL*., 2021). Nor, for that matter, has consideration been given as to the role of mangroves in supporting large, regular, seasonal non-breeding concentrations of Pale-capped Pigeons on the coasts of the Thai-Malay Peninsula. While inundated stands of dense mangroves may offer secure nocturnal roosts, relatively free from human disturbance, it may well be that a contributory reason for the seasonal occupancy of this habitat by the pigeons are the feeding opportunities offered by a plentiful food resource, the fruits/seeds of *Avicennia*. *Avicennia marina* is seasonal in its fruiting: although mature fruits are found mostly in March and April they are also found in January and February or earlier (Somran Suddee, *in litt*.). Since my observations indicated that *Avicennia* fruits were already reasonably plentiful in early December, the precise seasonality of fruiting may not be well known, or may differ regionally.

There are numerous diurnal sightings of singles and small groups of Pale-capped Pigeons in mangroves remote from roosting areas (author, personal observation) and further investigation of usage patterns would be desirable to discover the extent of diurnal feeding in this habitat. Additionally, given the apparent scarcity or low detectability of Pale-capped Pigeons during its presumed breeding season and in Southeast Asian inland forests throughout the year (BIRDLIFE INTERNATIONAL, 2001), annual coordinated counts of the numbers at mangrove roosts during the non-breeding season could offer a useful means of monitoring the population of this globally vulnerable species.

Figure 1. Pale-capped Pigeon *Columba punicea* consuming an *Avicennia marina* fruit, Ban Krut, Bang Saphan District, Prachuap Khiri Khan Province, 08:22 h, 8 December 2024. Photograph by Philip Round.

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