

FIELD STUDY

Observations at a Mangrove *Pitta Pitta megarhyncha* nest in peninsular Malaysia

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Introduction

The Mangrove Pitta *Pitta megarhyncha* is an uncommon resident of Malaysia. It is confined mainly to remaining pockets of mangroves along the west coast and a few sites on the east coast of peninsular Malaysia (Erritzoe 2003, Wells 2007), but can also be found in freshwater swamp-forest. In Singapore it is a rare resident, designated as Endangered (Wang & Hails 2007) whilst globally its status is Near Threatened, due mainly to habitat loss (Erritzoe 2003).

The breeding biology of the Mangrove Pitta has not been well studied: only a handful of breeding records having been documented. The most recent of these in Singapore was in July 2006 on the offshore island of Pulau Ubin (Foo 2008). Two chicks were found in the nest but one died for unknown reasons and the other was in poor condition.

Nest building

On 9 May 2009 two Mangrove Pittas were seen and photographed collecting nesting material at a site next to the carpark of the Air Hitam Dalam Recreational Forest, near Butterworth, Penang, Malaysia, an area of freshwater swamp-forest (Plate 1). The birds were collecting fibrous material, dead leaves, roots and stems. The damp and waterlogged

habitat of the swamp-forest offers a plentiful supply of such semi-decaying materials. In drier habitats nesting material is generally collected as individual items such as a strand of fibre, a piece of dead leaf or a short twig (Subaraj & Wee 2006). Both birds participated in the collection of nesting material and construction of the nest.

It was not possible to visit the site every day, and the next visits were on 13, 15, 23 and 28 May. On 15 May material was still being collected for the nest (Plate 2), which was built near the base of a clump of nibong palms *Oncosperma tigillarum* growing along the inner edge of the forest (Plates 3 & 4). The dome-shaped structure was built of loose twigs, roots, dried leaves and fibres, using dense decaying vegetation as an outer support. Erritzoe (2003) and Wells (2007) describe the nest as 45 cm in diameter with an inner cavity lined with finer materials and a distinct nest cup, sometimes with mud over the roof and a solid platform of long sticks which may extend to the front of the side entrance. The finished structure was similar in design and size to these descriptions.

Incubation

On 23 May a bird was sitting inside the nest (Plate 5) and three eggs were seen five days later when

Plate 1. Adult Mangrove Pitta *Pitta megarhyncha* collecting root pieces for nest construction, Penang, 9 May 2009.



Plate 2. Adult Mangrove Pitta *Pitta megarhyncha* collecting fibres for nest construction, Penang, 15 May 2009.





Plate 3. Nesting area of Mangrove Pitta *Pitta megarhyncha*, Penang, 13 May 2009.



Plate 5. Nest of Mangrove Pitta *Pitta megarhyncha* with a brooding adult, Penang, 23 May 2009.



Plate 4. Nesting site of Mangrove Pitta *Pitta megarhyncha* at the base of a nibong palm *Oncosperma tigillarum*, Penang, 5 June 2009.



Plate 6. Three eggs in the nest of Mangrove Pitta *Pitta megarhyncha*, Penang, 28 May 2009.

the nest was temporarily vacated (Plate 6). The eggs were lightly glossed creamy-white and mottled with dark markings. On 5 June an adult was seen delivering food and on 8 June, 11 days after the eggs had first been seen, three recently hatched chicks covered with dark pin feathers were in the nest (Plate 7). As the chicks reportedly hatch naked (Erritzoe 2003) it is probable that the eggs were laid some time before they were detected, thus the incubation period was at least 13 days, probably more.

Feeding the young and protecting the nest

Both adults were involved in feeding the chicks (Plates 8 & 9). During our observations, they mostly

brought small crabs, returning to the nest with food at intervals of 15–30 minutes (Plates 10 & 11). The removal of a faecal sac after feeding was observed on 17 June (Plate 12). The sac was deposited some distance away from the nest, a measure taken to avoid parasite infestation.

On 10 June, both adults were persistently giving their single-note alarm call from undergrowth near the nest. On further investigation it was found that the reason for their agitation was the presence of an intruding Mangrove Pitta which one of the adults eventually chased off. On another occasion an adult bird persistently uttered its alarm call when a troop of Long-tailed Macaques *Macaca fascicularis* foraged close to the nest area.



Plate 7. Three recently hatched chicks of Mangrove Pitta *Pitta megarhyncha*, Penang, 8 June 2009.



Plate 8. Two chicks of Mangrove Pitta *Pitta megarhyncha* inside the nest, Penang, 17 June 2009.

Throughout the nesting period the Mangrove Pittas were tolerant of human presence when observed and photographed from a car. In fact the birds came close to the vehicle when one of us (CWM) made regular observations from the 'mobile hide' as they collected nesting material.

Fledging

On 17 June only two chicks remained in the nest and were being fed by the adults. The chicks were seen moving in and out of the nest later that evening but returned to it for the night. The next morning the adults continued to feed the chicks in the nest, after which the chicks vacated the nest and remained in its vicinity for most of the morning.



Plate 9. Adult Mangrove Pitta *Pitta megarhyncha* feeding its chicks, Penang, 17 June 2009.

They finally moved away from the nest, the adults still feeding them in the undergrowth. The fate of the third chick is not known.

In the period just prior to the chicks vacating the nest the adults, who would usually fly directly away from the nest after feeding, hopped almost the entire width of the carpark before flying into the forest. This behaviour may have been a way of encouraging the chicks to leave the nest, and occurred exactly 10 days after the chicks were first photographed in the nest.

Conclusion

The known details of nesting are described in Erritzoe (2003). The incubation period is at least 15 days and both sexes are probably involved, but the nestling period is said to be unknown. In this case it is not known if both adults took part in incubation as no change-overs were seen. If the chicks in this nest were four to seven days old when first seen and photographed, and they left the nest 10 days later, fledging occurred 14–17 days after hatching. This adds a little to our knowledge of the species.

Acknowledgement

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References

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Plate 10. Adult Mangrove Pitta *Pitta megarhyncha* with the limbless carapace of a crab, Penang, 10 June 2009.



Plate 11. Adult Mangrove Pitta *Pitta megarhyncha* with a crab for its young, Penang, 17 June 2009.



Plate 12. Adult Mangrove Pitta *Pitta megarhyncha* removing a faecal sac from its nest, Penang, 17 June 2009.

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