

## NOTEBOOK

# Some recent behavioural observations of Masked Finfoot *Heliopais personata* (Gray 1849) in Selangor Darul Ehsan, Peninsular Malaysia

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There are three species of Heliornithidae (finfoots) in the world, one each in Africa, the Americas and Asia. In Asia, the Masked Finfoot *Heliopais personata* occurs from north-eastern India and Bangladesh, through mainland South-East Asia and on the Indonesian island of Sumatra (Robson 2000; see also BirdLife International 2001). It has also been recorded on west Java, Indonesia, although this bird is considered to have been a vagrant beyond the limits of its range (Milton 1985). The Masked Finfoot is considered a scarce winter visitor and passage migrant (and probably a local resident) in southern Thailand and Peninsular Malaysia (Robson 2000). Observations in Peninsular Malaysia of this species have been made from December to May, but proof of breeding there is still lacking and, therefore, the bird continues to be considered a non-breeding winter visitor (Chong 1994).

The Masked Finfoot is largely an aquatic bird (MacKinnon & Phillipps 1993, Robson 2000, Anon. 2001). It is found in lowland forested rivers (sometimes into the low hills), swamps and mangroves (MacKinnon & Phillipps 1993, Robson 2000, Anon. 2001). It is also recorded on reservoirs and ponds, sometimes away from the forest (Anon. 2001). In Peninsular Malaysia most sightings have been in freshwater areas, including unpolluted pools, ornamental pools and former tin-mining pools, only recorded in the state of Selangor, and especially along slow moving stretches of rivers (Chong 1994). There are also a number of sightings in the mangroves on Peninsular Malaysia's west coast.

A Masked Finfoot was recently observed in the state of Selangor, in a pond at the Forest Research Institute of Malaysia (FRIM). The bird was first observed by local birdwatchers in early December 2004, and remained in the pond until 21 May 2005, after which it was not seen. Local and foreign birdwatchers observed the bird daily, and I observed the bird at this location for more than fifteen non-consecutive days within this period.

The Masked Finfoot was judged most likely to be a juvenile male, based on direct observations and examination of photographs. It had markings like that of a female, but had a "horn" at the base of its bill, as do males of this species. The coloration

and markings of juvenile (first-winter) males resemble that of the female (Robson 2000).

The pond where the bird was observed is small (approximately 200 m in diameter) and surrounded by trees on two-thirds of the edges, with one-third surrounded by mown lawns, and much human disturbance. It is situated less than 100 m from a road. The actual depth of the pond is not known, but it appears to be relatively shallow, with aquatic vegetation growing over most of the surface area. There are no other such ponds in the vicinity, although there is a small river flowing past the pond, approximately 100 m away. Apart from this small river, this pond is very much an isolated small body of water.

## Feeding behaviour and movement

The Masked Finfoot was observed to be most active in the mornings from first light at approximately 07h00 until about 11h30 and then again in the evening after approximately 17h00. Unlike grebes, the Masked Finfoot roosts in trees (MacKinnon & Phillipps 1993). In the evenings it was observed roosting on an exposed log protruding from the water, about 1 m above the surface. It remained out of sight under thick vegetation along the edge of the pond at midday. It seemed particularly active on hot days (approx. 30°C), and on overcast or rainy days it was either observed for short periods of time, or not at all.

The Masked Finfoot was observed foraging in the centre of the shallow pond and along the vegetation-covered edges. While it sometimes appeared to be searching for food in the exposed vegetation along the pond, it was not seen striking at or eating anything out of the water. It was always seen taking food from the water. It was observed foraging in shallow water along the pond's edge, but more often in the deeper parts, in the floating aquatic vegetation.

The bird was observed continually swimming, with its head moving back and forth in a jerking fashion, or occasionally extended over the water, and looking for food, by peering into the water. When it appeared to have seen potential prey in the water, and leaned back slightly and rapidly "paddled" its feet in front of it (so that they were



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**Plates 1–5.** Masked Finfoot *Heliopais personata*. Forest Research Institute of Malaysia, Selangor, Peninsular Malaysia, December 2004

**Plate 6.** Masked Finfoot *Heliopais personata* with Water Monitor *Varanus solvator*. Forest Research Institute of Malaysia, Selangor, Peninsular Malaysia, December 2004

just visible in front of the bird to observers). This behaviour was also noted by Howes (1988) and Chong (1994) on a lake at Ayer Keroh, Malacca. It appears that the Masked Finfoot was using its feet to stir up the vegetation under the water to bring its prey into view, after which it would strike, driving its head into the water and usually emerging with food in its bill. The Masked Finfoot at FRIM was observed catching mainly freshwater shrimp but also large beetle-like water insects and small fish in this manner. It was often seen plunging its head into the water and coming up with vegetation

and small invertebrates or fish. Each time, the plants were discarded, and I did not once observe it consuming any plants. However, vegetation is recorded as being part of the Masked Finfoot's diet in Wells (1999) and Smythies (2001).

The Masked Finfoot was observed actively swimming and foraging around the entire pond. Occasionally it would leave the water to defecate or preen. I observed the bird in flight only once, when it made a short flight half-way across the pond, several feet above the surface. Masked Finfoots are thought to take flight rarely and when

they do, it is only a few feet above the water (Khan 2003). On one other occasion it was seen by other local naturalists taking flight and landing in a small tree protruding from the water, when harassed by a pair of otters (Stephen Hogg pers. comm., April 2005).

### Preening, defecating and vocalisation

The Masked Finfoot was seldom seen preening while in the water. It did, however, spend time preening on exposed logs. On four occasions I watched it climbing up a log protruding out of the water at about a 30° angle until it was about a metre above the water and spending approximately 15 minutes there, preening, stretching its legs and wings and peering around its surroundings. On three occasions it was observed leaving the water, immediately defecating on the ground approximately 30–45 cm from the water's edge, and then immediately returning to the water. It was not seen leaving the water during the daytime for any other purpose, except occasionally to preen on exposed logs.

On one occasion, the juvenile male was observed vocalising while swimming. The call was a bubbling sound that lasted approximately three seconds. No other vocalisations were heard. This is fairly consistent with the call described in Wells (1999).

### A second Masked Finfoot

A second Masked Finfoot was observed in the same pond on 23 January 2005. The second bird was observed briefly and only on that one occasion. It had similar markings to the first, but as no "horn" was visible it may have been a female. Both birds foraged in the open and around the water's edge for a few hours, the juvenile male being seen much more often, spending long periods foraging in the open and, at times, climbing onto logs and preening, out of the water. The female was mostly observed at the edge of thick vegetation, often under overhanging plants, barely visible. Only twice were both birds seen in the open pond at the same time. At one point, both were observed foraging on opposite sides of the pond. Later, other birdwatchers saw the juvenile male chasing the female, which presumably moved off to another location.

Both birds, especially the juvenile male, seem undisturbed by people. The juvenile male often approached, while foraging for food in the water, as close as 10 m to birdwatchers observing it from the shore. It also seemed unconcerned with the large Water Monitor Lizards *Varanus salvator* that often swam within less than a metre past it while foraging.

### Conservation

Owing to habitat loss and degradation, and continued hunting in some places, this species has a small and declining population throughout its range, and is red-listed as Vulnerable (BirdLife International 2001). In Peninsula Malaysia, the Masked Finfoot is a protected species. However, as was clearly stated by Chong (1994), it is the habitat that should be the focus of protection. The siltation of rivers from logging operations is believed to have restricted inland foraging habitat (Wells 1999). Small ponds, such as the one discussed here, may be of value to Masked Finfoots as non-breeding (at least) habitat, but clearly further research on the habitat requirements and the status of the Masked Finfoot is needed in order better to understand and protect this species and its habitats.

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