

First Confirmed Breeding Records of Little Cormorant *Phalacrocorax niger* in Sumatra

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Introduction and Methods

The Little Cormorant *Phalacrocorax niger* is widely distributed throughout the Indian sub-continent, Southwest China and Southeast Asia (Rasmussen & Anderton 2005; Robson 2008; Oorta 1992). In Indonesia, it is resident in Java (MacKinnon & Phillipps 1993), where it has been recorded breeding at several sites, including Pulau Dua (Milton & Marhadi 1985). However, the presence and status of this species on the neighbouring island of Sumatra has until now remained unclear. Based on the few records, mostly of small numbers, Marle & Voous (1988) and Holmes (1996) presumed the Little Cormorant to be a non-breeding visitor. Here we present the first published evidence of this species breeding on the island of Sumatra.

The authors conducted waterbird surveys at two wetlands: on 17 June 2008, MI surveyed Kumpai Lake, South Sumatra Province, by boat and small canoe; while CAP and DH surveyed the vicinity of Tanjung Rejo village, North Sumatra Province (3°44'N, 98°46'E), including fishponds and coastal mangrove forest **on foot** during 1-4 March and 25 April 2012. We counted the number of individuals and nests, and noted the characteristics of nests. We were aware that great care should be taken in differentiating Little Cormorant from Little Black Cormorant *P. sulcirostris*, which also occurs in Sumatra (Marle & Voous 1988; Holmes 1996). Consequently we obtained several photographs of the breeding birds and detailed descriptions of these birds.

Little Cormorants were identified by several characters: its relatively small size (compared to Little Black Cormorant); wholly black, rounded head; silvery white streaks on the crown; short-necked appearance; and shortish, blackish, tapering, hook-tipped bill; and black legs (Plate 1). These characters conform well with illustrations of adult breeding Little Cormorant shown in various references (Orta 1992; MacKinnon & Phillipps 1993; Sonobe & Usui 1993; Pizzey & Knight 2007; Robson 2008). At the Tanjung Rejo site we noted that some adult Little

Cormorants exhibited a pale yellowish tip to the bill (Plate 1). Photographs of adult Little Cormorant in breeding plumage on the OBC Image Data-base (www.orientalbirdimages.org) also show this character. We suggest this may be a useful diagnostic means of identification for this species in breeding plumage.



Plate 1: Adult Little Cormorant on its nest at Tanjung Rejo, North Sumatra



Plate 2: Heronry where Little Cormorant nested on 17 June 2008 in Kumpai lake, South Sumatra province.

Results

Two breeding locations of Little Cormorant were found during 2008 and 2012 in Sumatra, all of them on the east coast of Sumatra.

South Sumatra Province

On 17 June 2008, a heronry comprising *c.* 300 egrets of three species (Little Egret *Egretta garzetta*, Intermediate Egret *E. intermedia* and Great Egret *E. alba*) was found at Lake Kumpai (2°26'02"S; 105°34'53"E), Tanjung Selokan (Selokan Bay), Ogan Komering Ilir district, South Sumatra. Most were in breeding plumage. The heronry was located in an open mangrove back swamp of *c.* 15 ha, some 6-7 km from the coast, with nests in mangrove trees, 2-10 m above the water (Plate 2). When the area was visited, the area was flooded to a depth of 10-30 cm. The mangrove trees supporting the nests were identified as an *Avicennia* species. Within the egret nesting colony we found at least three nests belonging to Little Cormorant, judged by the presence of adults on the nests. One chick was observed with an adult on its nest, and based on descriptions by Jumilawaty (2002), it was *c.* 15 days old. This indicates that the egg(s) in this nest were laid in May. The bulky nest platform, composed of small, dry twigs, was situated among leafy branches in the canopy of a mangrove tree, possibly *Avicennia* sp, *c.* 10-15 m from the ground.

North Sumatra Province

During March-April 2012, CAP and DH observed a breeding colony of Little Cormorants in mangrove forest near a village fish pond at Tanjung Rejo village (3°44'N, 98°46'E), Percut Sei Tuan subdistrict, Deli Serdang district, North Sumatra province. On 1 March 2012, we observed a loose cluster of seven nests, one of which contained two eggs and the other, four eggs. Over the next three weeks we found a further 11 nests, bringing the total number of active nests to 22. The nests were built in mangrove trees *Excoecaria agallocha* (locally called *Buta-but*a) 4-9 m

above the ground. On 25 April we were able to inspect two nests, both of which contained two chicks (Plate 3). On 17 May 2012 MK observed just one remaining fledging perched near its nest.

In addition to the above observations, a total of 20-30 cormorants were observed during a waterbird survey on the east coast of Lampung province on 29 November 2009. Unfortunately, these birds could not be identified to species because of the great distance between the boat and the coast. However, during February 2012 David Bishop (*in litt.*) photographed a Little Cormorant up river within Way Kambas National Park, providing further confirmation of the presence of this species both in north and south Sumatra.



Plate 3: Chicks of Little Cormorant on their nest at Tanjung Rejo, North Sumatra

Discussion

There are few confirmed records of Little Cormorant in Sumatra, and no previous reports of it breeding there (see Marle & Voous 1988; Holmes 1996). Our observations of active and successful nests of Little Cormorant in North and South Sumatra confirm that this species breeds on Sumatra. On Pulau Rambut, the species breeds from early January to the end of May (Mardiastuti 2002), while in Southeast Asia, they reportedly breed from October to June (Robson 2008). Therefore, our observations of nesting during March-April and May in North Sumatra and South Sumatra, respectively, coincide with the latter half or end of the breeding season in Java.

Although still supporting good habitat for breeding waterbirds, Pulau Rambut is seriously threatened by the deteriorating environmental condition of Jakarta Bay, the decreasing size of potential feeding grounds, disturbance by local people and visitors, and possibly disturbance from the large Jakarta airport (Mardiastuti 2002). This may also apply to the Pulau Dua breeding colony. The presence of breeding populations of Little Cormorant on the east coast of Sumatra may to some degree offset this decline on Java.

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