

Breeding of Oriental Darters *Anhinga melanogaster* at Berbak National Park, Sumatra

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Ringkasan. Disajikan laporan berbiaknya Pecuk-ular asia *Anhinga melanogaster* di kawasan Taman Nasional Berbak, Jambi. Laporan ini merupakan yang pertama untuk kawasan Taman Nasional ini tapi merupakan laporan berbiak yang kedua untuk pulau Sumatra. Laporan ini juga mengkaitkan antara kejadian kebakaran hutan gambut dengan keberlangsungan berbiak spesies burung tersebut.

The Oriental Darter *Anhinga melanogaster* is a resident Near-threatened species of South and South-east Asia (Sonobe *et al.* 1993). In Indonesia, this species has long been known to breed in Kalimantan and Java (MacKinnon *et al.* 1992), but until rather recently was regarded as a non-breeding visitor to Sumatra (van Marle & Voous 1988). Breeding Darters were first observed in Sumatra at Tulang Bawang swamps, Lampung (Noor *et al.* 1994; Holmes & Noor 1995). The following observations constitute the second breeding record for Sumatra, and the first breeding record for Berbak National Park.

From 17 February to 30 May 2004, surveys were undertaken in Berbak National Park, Jambi province, Sumatra, as part of an investigation of the effects of the 1997-8 and 2002 forest fires. During this period, Darters were observed almost daily, mostly as single individuals, flying over rivers and roosting in riverside trees, but sometimes as small groups of up to four individuals. The species was seen in freshwater swamps and peat swamp forest throughout the park, in both burnt and unburnt areas. On 3 March the burnt core zone of the park that is flooded during much of the year was visited following large floods in January 2004. At this site, locally known as Simpang Raket, in close proximity to the Air Hitam Laut River, a roost consisting of 10 birds was found. On 9 April Simpang Raket was visited again and by that time, the Darters had established a breeding colony spread over three dead Perupuk (*Mallotus muticus*) trees (7-10 m high), approximately 100 m apart, containing 12, 8 and 4 nests, respectively. Some birds were observed sitting on the nests while others were still building nests. On 12 April, 89 darters were counted at the same site.

Following further flooding in April, a final visit was made to the site on 30 May, when 14 nests (5, 4, 4 and 1, respectively) were counted in four Perupuk trees closer to the river than the previous location. Although four adult birds were observed perching on nearby trees, all nests were empty. Given an incubation period of 26-30 days and a nestling period of c. 7 weeks (Orta 1992) and assuming that clutches at the latter nests were started at the same time as the previously-observed nests, it seems likely that all nests had failed. A local fisherman informed us that Darter colonies had been present in Simpang Raket since at least 1996, and that fishermen often took the birds' eggs and chicks for food, or kept the chicks as cage birds.

The 1997-98 and 2002 forest fires degraded approximately 17,000 ha (over 10% of the park's area) of formally pristine freshwater swamp forest, as well as peat swamp forest, and caused excessive flooding due to combustion of the upper peat layer. Although the fires have been detrimental to forest biodiversity generally (Giesen 2004), there is no evidence to show that Darters were affected by habitat changes following the fires. Although the colony lies inside the National Park, its future remains uncertain as the park is subjected to illegal logging and poaching activities because of the lack of law enforcement.

The surveys were carried out as part of a project entitled 'Promoting the river basin management and ecosystem approach for sustainable management of SE Asian lowland peat swamp forests'. The project was funded by the Government of the Netherlands through its International Agricultural Centre, and the Government of Canada through the "Climate Change, Forests and Peatlands in Indonesia" project of the Canadian International Development Agency. The authors were assisted in the field by Pieter Leenman (Wageningen University, the Netherlands), Iwan Tri Cahyo Wibisono and Hidayat Sunarsyah (Wetlands International – Indonesia Programme), and Hendra Simbolon and Dian Afriani (Jambi University). PT Putra Duta Indah Wood provided transport to enter the location. Permits and administration support were also provided by the Berbak National Park authority.

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