

Bai Boi Proposed Nature Reserve

Alternative site name(s)

Ong Trang

Province(s)

Ca Mau

Status

Proposed

Management board established

No

Latitude

8°38' - 8°47'N

Longitude

104°45' - 104°54'E

Bio-unit

05a - Mekong Delta



Conservation status

Bai Boi is currently classified as coastal protection forest, with the aim of preventing coastal erosion and protecting inland areas from flooding and other severe weather conditions. The official area of the site is given as 8,555 ha but maps available at the site suggest an area of 5,525 ha. The exact extent of the site is difficult to determine due to the high accretion rates and continual growth of the mudflat, the coastal boundary of which defines the seaward boundary of the site. The area of the site is likely to increase as the mudflat accretes (Buckton *et al.* 1999). A management board for Bai Boi Coastal Protection Forest has been established under the management of Ca Mau Provincial FPD.

Based on the results of a project to identify key sites for wetland conservation in the Mekong Delta, BirdLife and IEBR recommended upgrading Bai Boi Coastal Protection Forest to nature reserve status, with an area of 5,525 ha (Buckton *et al.* 1999). Bai Boi has been included on a draft list of protected areas currently being prepared by FPD and FIPI (FPD and FIPI in prep.). On this list, Bai Boi is incorporated with Dat Mui Nature Reserve, and the total area of the two sites is given as 10,000 ha.

Topography and hydrology

Bai Boi proposed nature reserve is situated on the western coast of the Ca Mau peninsular. It comprises a series of abandoned aquacultural ponds, which are being re-colonised by mangrove, and extensive areas of accreting mudflats with naturally regenerating mangrove. The site lies either side of the mouth of the Lon River, in the mouth of which two islands (Con Trong and Con Ngoai) have been formed by the accretion of sediment. To the north of the site is the estuary of the Bai Hap river, one of the largest rivers in Ca Mau province.

Biodiversity value

Bai Boi proposed nature reserve is contiguous with Dat Mui Nature Reserve to the south. Together, these two sites support a large area of intertidal mudflats and mangrove. These provide an important habitat for migratory waterbirds (Buckton *et al.* 1999). Bai Boi and Dat Mui represent an important staging ground for shorebirds on the East Asian-Australasian flyway before they cross the Gulf of Thailand to Peninsular Malaysia and Indonesia.

Mangrove forest on the accreting intertidal mudflats is dominated by *Avicennia* spp. in different successional stages: young mangrove on the newly

emerged mudflats through to medium age and mature mangrove on the landward side. On Con Trong and Con Ngoai islands at the mouth of the Bai Hap river, the main vegetation type is a mixture of *Rhizophora* and *Avicennia* mangrove. Where the deposited mud is still new and soft, *Avicennia* spp. (including *A. marina*, and *A. alba*) are dominant, with only a few scattered, young *Rhizophora apiculata*. Further from the edges of the islands, the dominance of *Rhizophora* gradually increases, and the proportion of *Avicennia* decreases (Buckton *et al.* 1999).

The complex of mudflats and areas of open regenerating mangrove provide excellent habitat for migratory shorebirds, herons, egrets, gulls and terns. Globally threatened and near-threatened bird species recorded at Bai Boi include Chinese Egret *Egretta eulophotes*, Asian Dowitcher *Limnodromus semipalmatus* and Eastern Curlew *Numenius madagascariensis*. Whiskered Tern *Chlidonias hybridus* and Caspian Tern *Sterna caspia* have also been recorded in good numbers. A roost of egrets *Egretta* spp. and Little Cormorants *Phalacrocorax niger*, comprising over a thousand birds, was recorded on the outer of the two river-mouth islands in 1999 but no breeding activity was recorded (Buckton *et al.* 1999).

The mangrove bird community is dominated by common mangrove species, including Ashy Tailorbird *Orthotomus ruficeps*, Golden-bellied Gerygone *Gerygone sulphurea*, Oriental White-eye *Zosterops palpebrosa* and Pied Fantail *Rhipidura javanica*. In 1999, several Brahminy Kites *Haliastur indus* were recorded at Bai Boi, which is noteworthy because the species has declined throughout much of its range in South-East Asia (Lekagul and Round 1991; van Balen *et al.* 1993; Thewlis *et al.* 1998, Buckton *et al.* 1999).

Conservation issues

Current levels of human use of the site are low. Small numbers of fisherman have been seen at the site but little exploitation of the regenerating mangrove has been observed. As the site is rapidly accreting, this site will continue to grow, and its importance as a site for migratory waterbirds may increase (Buckton *et al.* 1999). One potential threat to Bai Boi is that, while the site remains designated as coastal protection forest, the

intertidal mudflats might be afforested with mangrove with the objective of coastal protection. This activity would be incompatible with biodiversity conservation because it would destroy the key habitat for migratory waterbirds. Therefore, it is essential that the management category of the site be revised to nature reserve, and that a management regime consistent with biodiversity conservation be implemented. Buckton *et al.* (1999) recommended that no mangrove planting be carried out on areas of accreting mudflats.

Other documented values

Bai Boi has coastal protection values and is currently being managed with the aim of enhancing these values. The site also has potential for recreation, ecotourism, conservation education and scientific research.

Related projects

The main source of funding for the activities of the coastal protection forest management board is the national 661 Programme, prior to which it was the national 327 Programme.

A coastal wetland development and protection project, funded by the World Bank and implemented by MARD, is being conducted in four provinces in the Mekong Delta, including Ca Mau. The Bai Boi site may be included in this project, with the first major initiative being coastal mangrove protection. Any of the activities of this development project have the potential to disturb the natural environment with negative repercussions on the biodiversity value of the site. Safeguards need to be incorporated into this project to mitigate this threat.

Literature sources

Buckton, S. T., Nguyen Cu, Ha Quy Quynh and Nguyen Duc Tu (1999) [The conservation of key wetland sites in the Mekong Delta](#). Hanoi: BirdLife International Vietnam Programme.

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Lekagul, B. and Round, P. D. (1991) A guide to the birds of Thailand. Bangkok: Saha Karn Bhaet Co. Ltd.

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