

Bach Ma National Park

Alternative site name(s)

Bach Ma-Hai Van

Province(s)

Thua Thien Hue

Status

Decreed

Management board established

Yes

Latitude

16°05' - 16°16'N

Longitude

107°43' - 107°53'E

Bio-unit

05c - North Annam



Conservation status

The Bach Ma area has long been known for its exceptional diversity of flora and fauna. The first proposals to protect the site were made prior to the reunification of North and South Vietnam in 1975. In 1925, a proposal was made to create a 50,000 ha national park in the Hai Van region, primarily in order to protect Edwards's Pheasant *Lophura edwardsi*. Subsequently, several areas of what is now Bach Ma National Park were designated as forest reserves in 1937 (WWF/EC 1997a). On 17 January 1941, L. Cadere proposed establishing a nature reserve at Bach Ma (Cao Van Sung 1995). In 1962, the South Vietnamese government established a protected area at Bach Ma-Hai Van, with a total area of 78,000 ha (WWF/EC 1997a).

In the post-reunification period, Decision No. 194/CT of the Chairman of the Council of Ministers, dated 9 August 1986, decreed the establishment of Bach Ma-Hai Van National Park, with a total area of 40,000 ha (MARD 1997). The purpose of this national park was to protect "high-mountain forest with beautiful landscape and diverse plant species, such as *Aquilaria* tree, and typical wildlife species in the central coastline of central Vietnam" (Cao Van Sung 1995).

The management board of Bach Ma-Hai Van National Park was established on 21 December 1987, following Decision No. 1359/QD-UB of the then Binh Tri Thien Provincial People's Committee (WWF/EC 1997a).

A further planning process then took place, which resulted in Bach Ma-Hai Van National Park being split into the current Bach Ma National Park, together with Bac Hai Van and Nam Hai Van proposed cultural and historical sites. An investment plan for the revised Bach Ma National Park was prepared in 1990 (Anon. 1990), which defined a 22,031 ha national park, situated entirely within Thua Thien Hue province. This investment plan was approved by Decision No. 214/CT of the Chairman of the Council of Ministers, dated 15 July 1991 (WWF/EC 1997a).

On 31 June 1995, a first revision of the investment plan for Bach Ma National Park was approved by the former Ministry of Forestry, following Official Letter No. 1491/CNR. This revision only concerned infrastructure and a revision of the initial budget for the period 1995-2000. In 1997, WWF proposed a second revision of the investment plan for the period 1997-2000 (WWF/EC 1997a).

Bach Ma National Park is zoned into three areas: a strict protection area of 7,123 ha, a forest rehabilitation area of 12,613 ha and an administration and services area of 2,295 ha. In addition, there is a buffer zone of

22,300 ha (Gilmour and Nguyen Van San 1999). The strict protection area and forest rehabilitation area are under the management of MARD, while the administration and services area is managed jointly by MARD and Thua Thien Hue Provincial People's Committee.

Topography and hydrology

Bach Ma National Park is situated towards the southern end of the Annamite mountains. The national park lies on a high mountain ridge that runs west-east from the Laotian border to the East Sea at the Hai Van pass. This ridge interrupts the coastal plain of Vietnam, and, therefore, forms a biogeographic boundary between the faunas and floras of northern and southern Vietnam. This ridge also affects the local climate at the national park, which is probably the wettest place in Vietnam: the mean annual rainfall at the summit of Mount Bach Ma is 7,977 mm (WWF/EC 1997a).

The geology of the national park is dominated by granite, with some overlying areas of sandstone, schist and gneiss. The topography is generally steep and rugged, formed by heavy dissection of the substrate by surface water. The national park is dominated by a west-east ridge with several peaks above 1,000 m, the highest of which is Mount Bach Ma at 1,448 m. The lower slopes and hills are less steep, and are bordered by a narrow alluvial plain (WWF/EC 1997a).

There are many springs on the lower slopes and foothills of the national park. Generally, the north of national park is drained by the Truoi river, which flows north in to the lagoon area of the coast just below Hue city. The south of the national park is drained by tributaries of the Ta Trach river, which leaves the park heading westwards. To the east of the national park, natural sand bars have created large lagoons such as Cau Hai and Lang Co.

Biodiversity value

The Bach Ma area has long been noted for its rich biological diversity. One reason is that, within a relatively small area, the area supports a wide range of habitat types, from coastal lagoon to montane forest. Additionally, Bach Ma is situated at a biogeographic

boundary between northern and southern Vietnam, and between the Annamite mountains and the coastal plain.

The main forest types found within the national park are lowland evergreen forest below 900m, and montane evergreen forest above this elevation (Gilmour and Nguyen Van San 1999). As a result of human disturbance, however, no undisturbed forest now remains, and the dominant habitats at the national park are scrub and grassland, characterised by *Rhodomirtus tomentosa*, *Melastoma candidum* and *Imperata cylindrica* (WWF/EC 1997a). Natural regeneration of scrub and grassland is slow, particularly as a result of periodic burning, and these areas are of little conservation importance. Overall plant diversity within remaining forest areas is, however, still high. The wider Bach Ma-Hai Van area is considered to be one of Vietnam's seven globally important 'Centres of Plant Diversity' (Davis *et al.* eds. 1995).

The mammal fauna of Bach Ma is incompletely known, and only 48 species have so far been confirmed to occur in the national park (WWF/EC 1997a). A large number of mammal species of conservation concern have been recorded at Bach Ma National Park, for example, Robson *et al.* (1991) recorded Red-shanked Douc Langur *Pygathrix nemaeus nemaeus* and Buff-cheeked or White-cheeked Gibbon *Hylobates gabriellae/leucogenys* in 1990. However, the current status of many of these species at the national park is unclear.

To date, 249 bird species have been recorded at Bach Ma National Park, and the number of species recorded in the wider Bach Ma-Hai Van area totals 330 (Eve 1996a). The national park lies at the southern extent of the Annamese Lowlands Endemic Bird Area (Stattersfield *et al.* 1996), and is known to support populations of at least four of the restricted range species found in this EBA: Annam Partridge *Arborophila merlini*, Crested Argus *Rheinardia ocellata*, Short-tailed Scimitar Babbler *Jabouilleia danjoui* and Grey-faced Tit Babbler *Macronous kelleyi* (Eve 1996a). In addition, the national park supports a population of an endemic subspecies of Silver Pheasant *Lophura nycthemera beli* (WWF/EC 1997a). Also of great conservation importance, was the record, in May 1998, of Edwards's Pheasant *Lophura edwardsi*, 1 km outside of the buffer zone of Bach Ma National Park

(Huynh Van Keo 2000a). This critically endangered species was believed extinct until its rediscovery at Phong Dien and Dakrong proposed nature reserves in 1996 (Le Trong Trai *et al.* 1999).

Conservation issues

Large areas of forest in the national park were destroyed by defoliants, bombing and use of heavy machinery during the Second Indochina War. Subsequent commercial logging by state forest enterprises over a 10-year period resulted in the removal of most commercially valuable trees. Since the cessation of official logging operations, large scale illegal exploitation of both timber and non-timber forest products has continued. Forest fires, particularly in the regenerating forest, have contributed to the degradation and inhibited regeneration (Gilmour and Nguyen Van San 1999).

There are still two communities living inside the national park, however these number only 65 households (Gilmour and Nguyen Van San 1999). In comparison, 61,387 people live in the buffer zone of the national park (WWF/EC 1997a). Collection of forest products is a major source of income for the inhabitants of the buffer zone, who reported that supplies of certain forest products are now exhausted near to the villages (Gilmour and Nguyen Van San 1999). This indicates that forest product exploitation is occurring at unsustainable levels.

In order to extend the conservation coverage of the national park, BirdLife and FIPI proposed a 22,500 ha extension to the east (Wege *et al.* 1999). Although the exact boundary of this extension was not defined, it is likely to include all or part of Bac Hai Van and Nam Hai Van proposed cultural and historical sites. Bach Ma National Park also has wider significance as a link in the last chain of contiguous natural forest between the Laotian border and the East Sea (Eve 1996b). Bach Ma National Park will form part of the planned Green Corridor landscape-level conservation project.

Other documented values

Between 1933 and 1943 the French established a hill station on Mount Bach Ma. This hill station comprised two hotels, 130 holiday cottages, a

swimming pool and a tennis court. Of the original buildings, however, only ruins now remain (WWF/EC 1997a). Since reunification in 1975, a tourism resort has been re-established at Bach Ma. There is a guesthouse at the national park headquarters and several nature trails (Dodd and Lewis 1996). The forest at the national park protects two important watersheds, which supply water for irrigation and domestic use to households in the surrounding lowlands.

Related projects

Between 1995 and 1998, an FAO project focusing on the allocation of forest land to local households was implemented in Nam Dong and Phu Loc districts of Thua Thien Hue province. This project (GCP/VIE/080/ITA) was funded by the Italian government and included two more pilot schemes in other buffer zones in Vietnam (R. Delnoye pers. comm.).

Other donor-funded projects that have recently been implemented in the buffer zone of Bach Ma National Park include: (i) a health project implemented by GVC; (ii) a social forestry project implemented by HELVETAS and Hue University; (iii) a village and commune level rural development project implemented by Nordic Assistance to Vietnam, (iv) a project to support afforestation and train technicians implemented by Nord Pas de Calais; (v) a rural development project implemented by World Vision; and (vi) a buffer zone socio-economic survey implemented by IUCN (R. Delnoye pers. comm.).

Between 1995 and 1997, WWF implemented a European Commission-funded project entitled *Participatory Development of Bach Ma National Park* (Newman and Siebert 1996). This project resulted in the development of a national park management plan (WWF/EC 1997a), an ecotourism development plan (Hill undated) and a socio-economic assessment of the buffer zone communities (WWF/EC 1997b).

Thua Thien Hue Provincial DARD recently began a four-year project called *Strengthening the Forestry Management Capacity of Thua Thien Hue Province*. This project aims to develop a sound approach towards management of the buffer zone of Bach Ma National Park. This project does not include the national park itself within its remit. Technical assistance is supplied

by SNV, and funding is from the Dutch government. Furthermore, PAM (Food for Work) has been very active around Bach Ma National Park through the provincial FPD, realising mostly *Pinus* and *Acacia* plantations (R. Delnoye pers. comm.).

Donor-assistance to Bach Ma National Park and its buffer zone currently in the pipeline includes a Global Environment Facility (GEF)/World Bank-funded project for environmental protection in the buffer zone of Bach Ma National Park, which will be implemented by WWF; and a project to protect the watershed of the Huong river, which will be implemented by IUCN (R. Delnoye pers. comm.).

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