

Pu Mat National Park

Alternative site name(s)

Anh Son, Thanh Chuong, Thanh Thuy

Province(s)

Nghe An

Area

91,113 ha

Coordinates

18°46' - 19°12'N, 104°24' - 104°56'E

Agro-ecological zone

North Central Coast

Decreed by government

Yes

Management board established

Yes

Investment plan prepared

Yes

VCF eligibility criteria met

A, B, C

Social screening criteria met

None

Conservation needs assessment prepared

No

Operational management plan prepared

Yes - 2003

Tracking tool completed

No

Map available

Yes

Management history

Decision No. 194/CT of the Chairman of the Council of Ministers, dated 9 August 1986, decreed the establishment of two separate Special-use Forests in what is now south-western Nghe An province: Anh Son Nature Reserve in Anh Son district, with an area of 1,500 ha, and Thanh Thuy Nature Reserve in Thanh Chuong district, with an area of 7,000 ha. These two decreed protected areas were later combined to provide the legal basis for establishing Pu Mat Nature Reserve in Anh Son, Con Cuong and Tuong Duong districts (MARD 1997).

In 1993, the Forest Inventory and Planning Institute (FIPI) prepared an investment plan for Pu Mat Nature Reserve. This investment plan was approved by Decision No. 3355/QD-UB of Nghe An Provincial People's Committee, dated 28 December 1995. Following this decision, a nature reserve management board was established, under the management of Nghe An Provincial FPD.

A new investment plan for Pu Mat was prepared during 2000 by FIPI, which proposed revising the Special-use Forest category of Pu Mat from nature reserve to national park. This investment plan was approved by Nghe An Provincial People's Committee on 20 June 2000, by Official Letter No. 2113/BNN-

KH, and by MARD on 26 June 2000, by Official Letter No. 2495/QD/BNN-KH.

Following the approval of the new investment plan, the establishment of Pu Mat National Park was decreed on 8 November 2001, following Decision No. 174/TTg of the Prime Minister. According to the Prime Minister's decision, the total area of Pu Mat National Park is 91,113 ha, comprising a strict protection area of 89,517 ha and a forest rehabilitation area of 1,596 ha. The national park is currently under the financial management of Nghe An Provincial People's Committee, with operational management ceded back to the provincial FPD.

Pu Mat is included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD, as a 91,113 ha national park (FPD 2003); this list has not yet been approved by the government.

Topography and hydrology

Pu Mat National Park is situated in the northern Annamite mountains. Elevations at the national park range between 100 and 1,841 m, although 90% of the national park is under 1,000 m in elevation. The highest points in the national park are found in the south, along the mountain ridge that forms the international border between Vietnam and Laos. A series of steep-sided valleys run perpendicular to this

ridge, forming a series of smaller north-south ridges. The steep terrain in most parts of the national park has been an obstacle to extensive clearance of forest, and has largely restricted illegal logging to the main river valleys (Grieser Johns 2000).

The national park is drained by four main rivers: the Khe Thoi, Khe Bu, Khe Choang and Khe Khang. All four rivers feed the Ca river, which runs from west to east, through a wide valley to the north of the national park.

Biodiversity values

As part of a European Commission-funded project entitled *Social Forestry and Nature Conservation in Nghe An Province (SFNC)*, a series of baseline biodiversity surveys of Pu Mat National Park were conducted during 1998 and 1999 (Grieser Johns 2000). These surveys built on earlier work by FIPI (Anon. 1993a) and Frontier-Vietnam (Kemp *et al.* 1995). Follow-up survey and research work was conducted from 1999 to 2003.

To date, 2,461 plant species have been confirmed to occur at Pu Mat (Nguyen Nghia Thin in press), some of which may be new to science; taxonomic work is currently underway to confirm this. The most widespread vegetation type in the national park is lowland evergreen forest. This forest type is dominated by species in the Dipterocarpaceae (*Hopea* spp. and *Dipterocarpus* spp.), Fagaceae (*Quercus* spp., *Lithocarpus* spp. and *Castanopsis* spp.) and Lauraceae (*Cinnamomum* spp. and *Litsea* spp.) families (Grieser Johns 2000).

At higher elevations, lower montane evergreen forest is distributed. Below 1,500 m, this forest type is dominated by species in the Fagaceae, Lauraceae and Myrtaceae families, although members of the Dipterocarpaceae family are still present. Above 1,500 m, members of the Dipterocarpaceae are absent, and the forest is characterised by the presence of the conifers *Cunninghamia konishii*, *Fokienia hodginsii* and *Decussocarpus wallichianus*. Undisturbed areas of this forest sub-type occur along high ridges in the north-west of the national park (Grieser Johns 2000).

Pu Mat is probably one of the most important sites for mammal conservation in Vietnam. The SFNC

surveys and research have confirmed the presence of five mammal species endemic to Indochina: White-cheeked Crested Gibbon *Hylobates leucogenys*, Red-shanked Douc *Pygathrix nemaeus*, Saola *Pseudoryx nghetinhensis*, Annamite Muntjac *Muntiacus truongsongensis* and Annamite Striped Rabbit *Nesolagus timminsi*. In addition, unconfirmed records were made of a further two Indochinese endemics: Large-antlered Muntjac *M. vuquangensis* and Heude's Pig *Sus bucculentus*. The SFNC studies also confirmed the continued occurrence of a number of other globally threatened mammals at Pu Mat, including Assamese Macaque *Macaca assamensis*, Dhole *Cuon alpinus*, Tiger *Panthera tigris*, Owston's Civet *Hemigalus owstoni* and Asian Elephant *Elephas maximus* (Grieser Johns 2000, SFNC 2003a).

At least 295 bird species have been recorded at Pu Mat, including three globally threatened species: Crested Argus *Rheinardia ocellata*, Rufous-necked Hornbill *Aceros nipalensis* and Beautiful Nuthatch *Sitta formosa* (Round 1999, SFNC 2003a). Because of its international importance for bird conservation, Pu Mat qualifies as an Important Bird Area (Tordoff 2002).

The results of biodiversity surveys to date indicate that Pu Mat National Park preserves one of the best examples of the Annamite mountains ecosystem, and is of international conservation significance. The national park supports one of the largest remaining blocks of natural forest in northern Vietnam, and is linked to other protected areas in Vietnam and Laos by contiguous areas of forest (Grieser Johns 2000).

Conservation issues

Illegal timber extraction continues to take place along the main river valleys in the national park, although the scale of illegal activity has declined in recent years. In some areas, this activity has changed the composition of the forest, and drastically reduced the populations of certain tree species, including the globally threatened *Fokienia hodginsii* and members of the Dipterocarpaceae. Widespread rattan and orchid collection is also depleting populations of these plants within the national park (Grieser Johns 2000).

The greatest threat to populations of a number of species within the national park, particularly bears,

primates, snakes and turtles, is trapping for the wildlife trade (SFNC/TRAFFIC 1999, Robertson *et al.* 2003a). The dynamics of the wildlife trade are constantly changing, and trapping activities are closely related to market forces, but it is clear that immediate action is required to prevent the continuing loss of wildlife (SFNC in press). In particular, control of hunting by professionals from as far away as Quang Binh province is urgently required.

Fishing in the national park by buffer zone communities remains a serious threat to fish stocks: fish from the national park are the major protein source for many of the buffer zone villages (SFNC 2001). The management board is exploring the potential for co-management of fish stocks in peripheral areas of the national park.

Other threats to biodiversity at Pu Mat National Park include clearance of forest for cultivation and gold mining. Clearance of forest for cultivation is only a serious problem in the Khe Khang sector of the national park. A government resettlement programme for the 894 people living in three villages in the Khe Khang valley inside the national park was initiated in 2001. If this is completed, and if movement of people into the national park to fill the ensuing void is avoided, then this should effectively address the increasing level of forest destruction in this area of the national park.

Illegal gold mining is widespread but not intensive throughout the national park. It is conducted mainly by people from outside the immediate area, and is most common along the Khe Thoi river in the north-west. The associated destruction of stream banks causes a limited amount of erosion and sedimentation of water (Le Trong Cuc *et al.* 1998).

With the support of the SFNC Project, the threats to biodiversity at Pu Mat are being combated through improved enforcement of national park management regulations, supported by the development of alternative sources of income for local communities. The SFNC Project terminates at the end of 2004, however, and the effectiveness of the ICDP approach at the site has yet to be demonstrated.

Other documented values

Forest at Pu Mat National Park protects the catchments of four rivers, which, collectively, are the main source of water for irrigation and domestic use for communities in the buffer zone. In addition, the forest at Pu Mat protects part of the watershed of the Ca river, the major river in southern Nghe An province.

Related projects

The SFNC Project is currently being implemented by MARD, in partnership with the European Commission. This project began implementation in 1997 and will finish in December 2004. The aim of the project is to reduce destruction and degradation of the forest resources of Pu Mat National Park and its buffer zone through sustainable resources management techniques, appropriate conservation and management plans, strengthened capacities of relevant local institutions, and reorientation of three forest enterprises. The project has a budget of Euro 18.7 million (SFNC 1998).

Conservation needs assessment

A conservation needs assessment has not been conducted for the site.

Operational management plan

An operational management plan was prepared for Pu Mat National Park in June 2000, with the support of the SFNC Project. The latest available update, covering the period from 2002 to 2011, is from June 2004. Priority management actions for 2003-2004 were formulated in the following areas:

1. in-situ forest protection (patrolling, support for guard stations, forest protection contracts, fire-fighting, wildlife trade control, village forest protection conventions, etc.);
2. environmental education and information dissemination;
3. relocation of remaining households within the national park;
4. scientific/technical support for management (biodiversity reassessment, surveys of human

impacts, medicinal flora, Saola ecology, publication of flora, etc.);

5. monitoring (vegetation mapping, biodiversity monitoring and database development);
6. maintenance of the animal rescue-release programme;
7. maintenance and additions to the herbarium and specimen collection;
8. continuing development of the botanical garden;
9. staff training (particularly in management);
10. upgrading of HQ infrastructure;
11. feeder road construction in the buffer zone.

Eligibility against VCF criteria

The site is eligible for VCF support because it meets criteria A, B and C.

Criterion	Eligibility
A _I	NA4 - Northern Annamites
A _{II}	VN042 - Pu Mat
B _I	Decision No. 174/TTg, dated 08/11/01
B _{II}	National Park
B _{III}	Under provincial management
C _I	Management board established
C _{II}	

Social screening requirements

A social screening report has not been prepared for the site.

Criterion	Eligibility
A	
B	
C	
D	

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