

Ngoc Linh (Quang Nam) Proposed Nature Reserve

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Alternative site name(s)

Ngoc Linh

Province(s)

Quang Nam

Area

18,430 ha

Coordinates

15°00' - 15°15'N, 107°56' - 108°07'E

Agro-ecological zone

South Central Coast

Decreed by government

No

Management board established

No

Investment plan prepared

No

VCF eligibility criteria met

A, B

Social screening criteria met

None

Conservation needs assessment prepared

No

Operational management plan prepared

No

Tracking tool completed

No

Map available

Yes

Management history

Ngoc Linh (Quang Nam) proposed nature reserve is located in Tra Leng, Tra Don, Tra Tap, Tra Cang and Tra Linh communes, Nam Tra My district, Quang Nam province. Ngoc Linh (Quang Nam) proposed nature reserve is situated on the eastern face of Mount Ngoc Linh, the western face of which is included within Ngoc Linh (Kon Tum) Nature Reserve, Kon Tum province (Tordoff *et al.* 2000).

The first official recommendation relating to Mount Ngoc Linh was included in Decision No. 194/CT of the Chairman of the Council of Ministers, dated 9 August 1986, which proposed establishing a 20,000 ha nature reserve in Gia Lai-Kon Tum province (now Gia Lai and Kon Tum provinces) (MARD 1997). However, this decree did not extend to Quang Nam province. In 1994, North-western Forest Inventory and Planning Sub-institute produced an investment plan for Ngoc Linh Nature Reserve in Quang Nam-Da Nang (now Quang Nam province and Da Nang city) and Kon Tum provinces (Anon. 1994). However, this investment plan was not approved at the ministerial level (Anon. 1998).

In December 1998, an investment plan for a 41,420 ha nature reserve in Kon Tum province was published by the Forest Inventory and Planning Institute (FIPI) and BirdLife International (Anon. 1998), and, in October 1999, Ngoc Linh (Kon Tum) Nature Reserve was established (Tordoff *et al.* 2000).

Following the establishment of Ngoc Linh (Kon Tum) Nature Reserve, FIPI and BirdLife International prepared a feasibility study for Ngoc Linh (Quang Nam), which recommended establishing an 18,430 ha nature reserve (Tordoff *et al.* 2000). This feasibility study was published in January 2000 and approved by Quang Nam Provincial People's Committee in April 2000. Consequently, MARD instructed FIPI to prepare an investment plan for Ngoc Linh (Quang Nam). To date, however, an investment plan has not been prepared, and a management board has not been established (Thai Truyen, Vice-director of Quang Nam Provincial FPD *in litt.* 2003). Currently, the site is under the management of Nam Tra My District Forest Protection Department, and there is one forest guard station at the site.

Ngoc Linh (Quang Nam) is not included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD (FPD 2003).

Topography and hydrology

Ngoc Linh (Quang Nam) proposed nature reserve is situated on the Kon Tum plateau, a montane isolate, which is separated from other high altitude areas by relatively long distances. The highest point in the proposed nature reserve is Mount Ngoc Linh (2,598 m), the highest point in the central Annamite mountains, which lies on the border between Kon Tum and Quang Nam provinces (Tordoff *et al.* 2000).

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There are two main river systems at the site: the Tranh river and the Leng river. The Tranh river, which originates in the south of the proposed nature reserve, flows north, becoming the Thu Bon river, one of the main rivers in Quang Nam province. The Leng river, which originates in the north-west of the proposed nature reserve, is a tributary of the Tranh river. The river systems at the site are short, narrow, steep and fast flowing, and are, therefore, subject to erosion if forest cover is lost. In the rainy season, there are many sudden floods, which cause erosion of river banks and damage to irrigation schemes and other infrastructure. During the dry season, most watercourses are dry, with the exception of some larger streams and rivers. This presents a serious problem for local people with regard to agricultural production and domestic use of water (Tordoff *et al.* 2000).

Biodiversity values

Ngoc Linh (Quang Nam) proposed nature reserve supports high levels of endemism in plants and animals. The proposed nature reserve supports populations of several plant species that are endemic to Vietnam, including *Pinus dalatensis* and *Panax vietnamensis*. Also, Ngoc Linh (Quang Nam) supports a population of the recently discovered, endemic mammal species, Annamite Muntjac *Muntiacus truongsonensis*. Furthermore, the proposed nature reserve supports one bird species, Golden-winged Laughingthrush *Garrulax ngoclinhensis*, whose known global range is restricted to the central Annamites. Due to the presence of Golden-winged Laughingthrush and three other restricted-range bird species, Ngoc Linh (Quang Nam) proposed nature reserve qualifies for inclusion in the Kon Tum Plateau Endemic Bird Area (EBA), the most recently discovered of Vietnam's four EBAs (Tordoff *et al.* 2000). In addition, together with parts of the contiguous Ngoc Linh (Kon Tum) Nature Reserve, the site qualifies as an Important Bird Area (Tordoff 2002).

Ngoc Linh (Quang Nam) proposed nature reserve supports a continuum of natural habitat types from c.150 to 2,598 m, which is the longest altitudinal gradient of natural habitat types remaining in Vietnam. From 150 to 1,000 m, the proposed nature reserve supports lowland evergreen forest, with a high number of tree species. Large areas of this vegetation type have

been cleared for agriculture, particularly in the south of the proposed nature reserve, although levels of disturbance in remaining areas are low. Lower montane evergreen forest is distributed between 1,000 and 1,700 m. The tree flora is dominated by members of the Fagaceae, Lauraceae and Magnoliaceae families, although several species of conifer are also found in this vegetation type, including *Podocarpus imbricatus*, *P. neriifolius* and *Dacrydium elatum*. This vegetation type exhibits low levels of disturbance, with human impact limited to hunting and non-timber forest product (NTFP) collection. Upper montane evergreen forest is distributed above 1,700 m. This vegetation type is characterised by members of the Fagaceae, Lauraceae and Ericaceae. In addition to these major vegetation types, small areas of mixed coniferous and broadleaf forest containing *Pinus dalatensis* are distributed above 1,700 m, elfin forest is distributed at the highest elevations along mountain ridges, and a range of secondary vegetation types are distributed close to human habitation (Tordoff *et al.* 2000).

Conservation issues

The overall level of human impact on the proposed nature reserve is moderately low. The average population density in the buffer zone communes is only 18 people per square kilometre, compared with 232 people per square kilometre for Vietnam as a whole. Agricultural practices appear to be largely sustainable: rates of conversion of forest to agriculture over the last 10 years are very low compared with other areas in the Central Highlands. However, clearance of forest for agriculture is likely to pose a formidable challenge to conservation in the future. This is likely to be driven by both natural population growth (based on the available data, the population growth rate in the buffer zone is 2.9% per annum) and settlement of migrants from other areas. If conservation is to be effective, strategies will need to be developed to address both of these factors. Therefore, conservation measures must focus on limiting natural population growth, and controlling the settlement of migrants into Nam Tra My district, particularly in the area of a new economic zone at Tac Po village, just outside of the buffer zone (Tordoff *et al.* 2000).

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Other threats to biodiversity are hunting and over-exploitation of NTFPs. Rapid rural appraisal data indicates that abundances of forest products, such as muntjacs, wild pigs and rattans, have declined over the past 10 years, suggesting that these products are being exploited at unsustainable levels. These threats could be mitigated by such measures as cultivating NTFPs, controlling the wildlife trade, promoting alternative sources of income and conducting conservation awareness activities (Tordoff *et al.* 2000).

Other documented values

The principal economic value of the proposed nature reserve is catchment protection. Loss of forest cover could result in increased periods of drought, with negative repercussions for downstream communities, which depend upon rivers originating within the proposed nature reserve for irrigation and potable water. Forest at high elevations in the proposed nature reserve has a particularly important hydrological function as it can 'capture' moisture by condensation and contribute this to the total yield of the watershed. Conversely, the forests of Ngoc Linh (Quang Nam) are also likely to play an important role in alleviating the severity of flooding, by slowing surface water run-off. The importance of this function is highlighted by the two bouts of severe flooding that devastated parts of Quang Nam province in November and December 1999 (Tordoff *et al.* 2000). According to the results of a recent GIS analysis, Ngoc Linh (Quang Nam) is the most important area in the province for catchment protection (B. Long *in litt.* 2003).

Related projects

The United Nations Development Programme, the United Nations Capital Development Fund, Quang Nam Provincial People's Committee and the Australian Agency for International Development are currently providing assistance for a rural infrastructure development project in Nam Tra My district. This project is providing US\$50,000 of commune-level assistance to each of 14 participating communes, in the form of infrastructure development selected by local communities. Tra Don and Tra Leng communes in the buffer zone of the proposed nature reserve are included in the project, while Tra Linh, Tra Cang and Tra Tap

communes are included in the 1,715 Poorest Communes Programme of the government of Vietnam (Tordoff *et al.* 2000).

Since 2002, with funding from USAID and WWF-US, the WWF Vietnam Programme, in collaboration with Quang Nam Provincial FPD have been implementing an integrated programme of activities in Quang Nam province, as part of the *Management of Strategic Areas for Integrated Conservation (MOSAIC) Project*. To date, few activities have been implemented at Ngoc Linh (Quang Nam) proposed nature reserve, although the site has been prioritised in a provincial conservation strategy prepared by the provincial FPD, with support from the project.

Conservation needs assessment

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

Operational management plan

An operational management plan has not been prepared for the site.

Eligibility against VCF criteria

Ngoc Linh (Quang Nam) is not currently eligible for VCF support because it is not under appropriate conservation management.

Criterion	Eligibility
A _I	CA1 - Central Annamites
A _{II}	VN043 - Ngoc Linh
B _I	Proposed Special-use Forest
B _{II}	Nature Reserve
B _{III}	Under provincial management
C _I	
C _{II}	

Social screening requirements

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

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Criterion	Eligibility
A	
B	
C	
D	

Vietnam News (2001) Ngoc Linh ginseng re-invigorates lives of Kon Tum farmers. Vietnam News 13 March 2001.

Literature sources

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