

A Yun Pa Proposed Nature Reserve

Alternative site name(s)

None

Province(s)

Gia Lai

Status

Proposed

Management board established

No

Latitude

13°24' - 13°38'N

Longitude

108°30' - 108°45'E

Bio-unit

05b - South Annam



Conservation status

A Yun Pa is not included on any government decision regarding the Special-use Forests system (MARD 1997). However, a recommendation to establish a 37,800 ha nature reserve in south-eastern Gia Lai province was made by BirdLife International and FIPI, following their review of Vietnam's protected areas system (Wege *et al.* 1999). Consequently, BirdLife International and FIPI prepared a feasibility study for this site, based upon a detailed field survey in April 2000. This feasibility study recommended establishing a 44,268 ha nature reserve, with a buffer zone of 54,190 ha (Tran Quang Ngoc *et al.* in press.).

A Yun Pa is included on a proposed list of protected areas currently being prepared by FPD and FIPI as a nature reserve (FPD and FIPI in prep.).

Topography and hydrology

A Yun Pa proposed nature reserve is located in Ia Tul, Chu Mo and Ia K Dam communes, A Yun Pa district and Ia R Sai commune, Krong Pa district. The buffer zone comprises the remaining areas of these four communes, together with Ia Broai commune, A Yun Pa district and Chu R Cam commune, Krong Pa district.

The proposed nature reserve is situated in a low mountainous area of the Central Highlands that lies between the much higher Da Lat and Kon Tum plateaus to the south and north. The proposed nature reserve rises in elevation from c.150 m in the valley of the Ba river in the west and south of the site to over 1,200 m on the border with Phu Yen province in the north-east.

The proposed nature reserve is drained by several permanent streams, all of which feed the Ba river, one of the major rivers in Gia Lai province. The Ba river flows to the south-east and meets the sea at Tuy Hoa town.

Biodiversity value

The proposed nature reserve supports 40,120 ha of natural forest, equivalent to 91% of the total area. Large areas of forest have been degraded by selective timber extraction, although the canopy is closed in most areas. Despite past and continued disturbance, the proposed nature reserve still supports suitable habitats for most animal and plant species that naturally occur in the area. If any species have been extirpated from the area, this has probably been as a result of over-exploitation not habitat degradation or loss (Tran Quang Ngoc *et al.* in press.).

The proposed nature reserve supports three major forest types: lowland deciduous forest, lowland semi-deciduous forest and lower montane evergreen forest. In addition, riverine forest occurs as a subtype of the first two forest types; this habitat subtype has a greater proportion of evergreen trees and supports a different assemblage of plant and animal species. A Yun Pa proposed nature reserve is situated in the transition zone between the deciduous forests of the Central Highlands, centred on Dak Lak province and southern Gia Lai province, and the evergreen forests of the central coastal region. This transition in natural forest type is, in large part, the result in the shift from a dry, seasonal climate to a moist, aseasonal one. The only other protected area in Vietnam to support such a transition in habitat types is Kalon Song Mao Nature Reserve; although the transition at Kalon Song Mao is associated more with variations in altitude as opposed to variations in climatic regime (Le Trong Trai and Tran Hieu Minh 2000, Tran Quang Ngoc in press.).

During the BirdLife/FIPI survey, a total of 439 vascular plant species were recorded at the site, including three globally threatened species: *Dipterocarpus baudii*, *Psychotria condorensis* and *Cycas micholitzii*. In addition, a number of plant species endemic to Vietnam were recorded, including *Croton dongnaiensis*, *C. maieuticus* and *Dalbergia cochinchinensis* (Tran Quang Ngoc *et al.* in press.).

With regard to the fauna of A Yun Pa proposed nature reserve, 27 mammal and 147 bird species were recorded during the BirdLife/FIPI survey. These include six globally threatened mammal species (Pig-tailed Macaque *Macaca nemestrina*, Douc Langur *Pygathrix nemaeus* subsp., Asiatic Black Bear *Ursus thibetanus*, Tiger *Panthera tigris*, Southern Serow *Naemorhedus sumatraensis* and Malayan Porcupine *Hystrix brachyura*) and three globally threatened bird species (Siamese Fireback *Lophura diardi*, Green Peafowl *Pavo muticus* and Pale-capped Pigeon *Columba punicea*).

A Yun Pa proposed nature reserve is a nationally important site for the conservation of Green Peafowl. A recent study of the habitat requirements of Green Peafowl in Dak Lak province revealed that the species occurs at highest densities in deciduous forest within 2 km of permanent water and greater than 2 km from permanent human settlement (Brickle *et al.* 1998). A

Yun Pa proposed nature reserve contains 16,070 ha of this habitat, compared with 12,300 ha at Yok Don National Park (Brickle *et al.* 1998, Tran Quang Ngoc *et al.* in press). Therefore, assuming that relative abundances of Green Peafowl are comparable between the two sites, A Yun Pa proposed nature reserve can be considered to be at least as important for the conservation of Green Peafowl as Yok Don National Park (Tran Quang Ngoc *et al.* in press).

Conservation issues

The biodiversity and forest resources of A Yun Pa proposed nature reserve are threatened by a number of human activities. Presently, one of the biggest threats is hunting and trapping of wildlife. The gentle topography, wide stream valleys and open forest structure of the proposed nature reserve facilitate access to even the most remote areas. The results of the BirdLife/FIPI survey indicate that abundances of many animal species, including Sambar *Cervus unicolor*, Wild Boar *Sus scrofa* and primates, have declined over the past 10 years. A threat associated with hunting is the fires that are frequently set by hunters (Tran Quang Ngoc *et al.* in press).

Another major threat is timber extraction. In the past, parts of the proposed nature reserve were commercially logged by forest enterprises. Although commercial logging has now ceased, small-scale timber extraction by local people is widespread. This activity is concentrated in the dry season, and restricted to species with high economic value, such as *Dalbergia cochinchinensis*, *D. oliveri*, *Pterocarpus macrocarpus*, *Sindora siamensis* and *Markhamia stipulata*. All these species are threatened by over-exploitation. The presence of large numbers of illegal loggers in the forest intensifies other threats, such as hunting and forest fire (Tran Quang Ngoc *et al.* in press).

Clearance of forest for agriculture is currently not a major threat. However, forest clearance, together with hunting and timber extraction, may increase in the future as a result of population growth. The rate of population growth in the buffer zone communes is currently 2.6% per year: significantly above the national average. To date, in-migration into the buffer zone communes has not been particularly high. In the

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future, however, the rate of in-migration threatens to increase, as there already exist plans to settle migrants from northern Vietnam into the buffer zone (Tran Quang Ngoc *et al.* in press).

Currently, part of the proposed nature reserve is under the management of Chu Mo Forest Enterprise. Establishment of a nature reserve at A Yun Pa will necessitate transferring 12,721 ha from this forest enterprise to the nature reserve (Tran Quang Ngoc *et al.* in press).

Other documented values

Forest at the proposed nature reserve has an important role in protecting the water resources of local communities and the watershed of the Ba river. This role may become more important in the future, if irrigation is extended to larger areas of agricultural land in the buffer zone (Tran Quang Ngoc *et al.* in press).

Related projects

Each buffer zone commune has abundant areas of flat land suitable for agriculture. However, the full potential of this land has not been realised because agricultural productivity is limited by low water availability, especially during the dry season. In order to more fully develop the agricultural potential of the area, Krong Pa and A Yun Pa District People's Committees have prepared plans for two rural development projects for buffer zone communes: *Development of the Commune Group of Ia R Sai, Chu R Cam and Ia Suom* and *Construction of a Dam on the Ia Thul Stream*. To date, however, neither project has been implemented (Tran Quang Ngoc *et al.* in press).

Literature sources

Brickle, N. W., Nguyen Cu, Ha Quy Quynh, Nguyen Thai Tu Cuong and Hoang Van San (1998) [The status and distribution of Green Peafowl *Pavo muticus* in Dak Lak province, Vietnam](#). Hanoi: BirdLife International Vietnam Programme.

Le Trong Trai and Tran Quang Ngoc (2000) [Summary of field survey and assessment of two proposed protected areas in Gia Lai province].

Unpublished report to Birdlife International Vietnam Programme and the Forest Inventory and Planning Institute. In Vietnamese.

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Tran Quang Ngoc, Tordoff, A. W., Hughes, R., Vu Van Can and Le Van Phong (2001) [[A feasibility study for the establishment of A Yun Pa Nature Reserve, Gia Lai province, Vietnam](#)]. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute. In Vietnamese.