

# Kon Cha Rang Nature Reserve

## Alternative site name(s)

Kon Chu Rang

## Province(s)

Gia Lai

## Status

Decreed

## Management board established

Yes

## Latitude

14<sup>0</sup>26' - 14<sup>0</sup>35'N

## Longitude

108<sup>0</sup>30' - 108<sup>0</sup>39'E

## Bio-unit

05b - South Annam



## Conservation status

Kon Cha Rang Nature Reserve was included on Decision No. 194/CT of the Chairman of the Council of Ministers, dated 9 August 1986, with an area of 16,000 ha (MARD 1997). An investment plan was prepared by the Forest Science Institute in 1994 but was never approved by the former Ministry of Forestry (Anon. 1994). In 1999, a second investment plan was prepared by FIPI (Anon. 1999). This investment plan proposed establishing a 15,900 ha nature reserve, comprising a strict protection area of 8,746 ha and a forest rehabilitation area of 7,154 ha. In addition, the investment plan defined a buffer zone of 56,000 ha in Son Lang and Dak Rong communes, K'Bang district.

The investment plan was approved by Gia Lai Provincial People's Committee on 21 June 2000, by Official Letter No. 857/CV-UB. Following approval at the provincial level, MARD approved the investment plan on 4 August 2000, by Decision No. 2648/BNN-KH. Following the approval of the investment plan by MARD, a joint management board for Kon Cha Rang and Kon Ka Kinh Nature Reserves was established (Le Trong Trai pers. comm.).

## Topography and hydrology

A mountainous plateau dominates the topography of the nature reserve. The highest point is Mount Kon Cha Rang at 1,452 m. A number of other summits attain altitudes greater than 1,000 m in the northern part of the nature reserve. The lowest point at the site is c.800 m.

Kon Cha Rang Nature Reserve is located within the catchment of the Kon river. Numerous streams originate from within the boundaries of the nature reserve, all of which feed the Kon river. This river flows through An Khe and Tay Son districts before emptying into the sea at Quy Nhon town. The lower Kon river is dammed at more than one location for the purposes of generating hydroelectricity for Binh Dinh province. The upper Kon river, within the nature reserve, has a number of waterfalls along its route, the most famous and tallest of which is 50 m high.

## Biodiversity value

Forest covers 15,610 ha or 98% of the total area of Kon Cha Rang Nature Reserve. The main forest type is lower montane evergreen forest, distributed at altitudes between 900 and 1,500 m in the north-west of the nature reserve. Canopy cover of this forest type is 70 to 80%, and the tree flora is dominated by a number of

species from the Fagaceae, Lauraceae and Magnoliaceae families, mixed with gymnosperms, such as *Podocarpus imbricatus* and *Dacrydium elatum*. In certain areas, the local Tram Lap Forest Enterprise has selectively extracted valuable timber species from the lower montane forest belt. However, the disturbance caused is not great. Lowland evergreen forest occurs at elevations below 900 m. Two percent of the nature reserve's area is covered by scrub vegetation that is sparsely populated with trees. Common plant species that occur in this vegetation type include *Miscanthus sinensis*, *Memecylon fruticosum*, *Melastoma normale*, *Imperata cylindrica* and *Cynodon dactylon* (Anon. 1999).

Field surveys by FIPI and BirdLife International in 1999 recorded 546 vascular plant species in 376 genera and 122 families. Of these species, 201 are timber species, 121 have a known medicinal use and 48 have potential economic value as ornamentals. Seven species of plant recorded in the nature reserve are listed in the 1997 IUCN Red List of Threatened Plants as globally threatened, and 18 are listed in the Red Data Book of Vietnam. Nine of the plant species recorded in the nature reserve are endemic to Vietnam: *Acer erythranthum*, *Baccaurea silvestris*, *Bulbophyllum hiepii*, *Calamus poilanei*, *Craibiodendron scleranthum*, *Dalbergia cochinchinensis*, *Dendrobium ochraceum*, *Dialium cochinchinensis* and *Michelia mediocris* (Anon. 1999).

The same survey recorded 62 species of mammal, 169 species of bird and 161 species of butterfly at the nature reserve. Eight of the mammal species recorded at Kon Cha Rang are considered globally threatened, and 17 are considered threatened at the national level. Also, three mammals recorded at Kon Cha Rang are endemic to Indochina: Buff-cheeked Gibbon *Hylobates gabriellae*, Grey-shanked Douc Langur *Pygathrix nemaeus cinereus* and Giant Muntjac *Megamuntiacus vuquangensis* (Anon. 1999).

Six of the bird species recorded at Kon Cha Rang are considered globally threatened, including Masked Finfoot *Heliopais personata*. Five restricted-range bird species were recorded at the nature reserve: Crested Argus *Rheinardia ocellata*, Black-hooded Laughingthrush *Garrulax milleti*, White-cheeked Laughingthrush *G. vassali*, Short-tailed Scimitar Babbler *Jabouilleia danjoui* and Grey-cheeked Tit

Babbler *Macronous kelleyi*. Therefore, Kon Cha Rang lies within the Kon Tum Plateau Endemic Bird Area. Finally, a survey of the butterfly fauna of Kon Cha Rang Nature Reserve has also yielded seven taxa possibly new to science (Anon. 1999).

## Conservation issues

Up until 1975, people lived within the boundaries of what is now the nature reserve, although, today, there are no people living inside the nature reserve. The population of the buffer zone is 5,564 people, who belong to the Ba Na and Kinh ethnic groups. The Ba Na people have a long tradition of forest resource use (Anon. 1999). The four main threats to biodiversity at Kon Cha Rang are perceived to be forest clearance for coffee plantations, hunting, exploitation of forest products and forest fire. Many of these activities are both illegal and damaging to the natural forest habitat (Le Trong Trai pers. comm.).

Although the establishment of Kon Cha Rang Nature Reserve was decreed in 1986, prior to the BirdLife/FIPI survey in 1999, no conservation initiatives had been implemented at the site (Le Trong Trai pers. comm.).

Kon Cha Rang Nature Reserve is situated 12 km to the east of Kon Ka Kinh Nature Reserve, linked by intervening forest areas. The two nature reserves, therefore, form an area large enough to support viable populations of large mammals, such as Tiger *Panthera tigris*, that neither area could support in isolation. However, the intervening forest areas are currently under forest enterprise management. BirdLife and FIPI strongly recommend that, in the future, these areas should be incorporated within the boundaries of the two nature reserves to form one contiguous protected area (Le Trong Trai *et al.* 2000). This recommendation is contained within the *Tropical Forestry Action Plan* (MOF 1991), the *Biodiversity Action Plan for Vietnam* (Government of SRV/GEF 1994) and the BirdLife/FIPI report entitled *Expanding the Protected Areas Network in Vietnam for the 21st Century* (Wege *et al.* 1999).

## Other documented values

Kon Cha Rang Nature Reserve protects a large proportion of the Kon river catchment. The forest at the nature reserve performs an important role in protecting the water supply for hydroelectricity generation, and irrigation of thousands of hectares of wet-rice cultivation in the lower Kon river basin. Kon Cha Rang Nature Reserve also has potential value for tourism and scientific research.

Owston's Palm Civet. *Small Carnivore Conservation* 5: 7.

## Related projects

Kon Cha Rang Nature Reserve, together with Kon Ka Kinh Nature Reserve, is the focus of a medium-sized GEF project currently being developed by Gia Lai Provincial People's Committee and BirdLife International. This project is still in the early stages of development but the objectives are expected to include the preparation and implementation of management plans for the two nature reserves and the intervening forest areas, generating support among stakeholders for the sustainable management of the project area, and building the capacity of the nature reserve authorities.

## Literature sources

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