

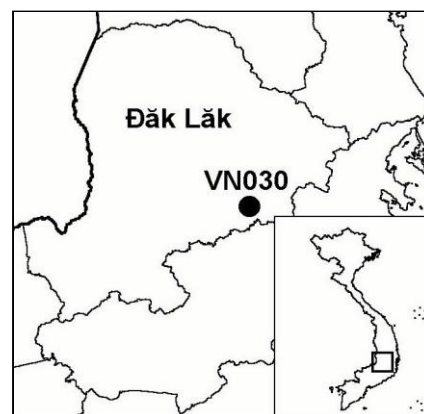
Chu Yang Sin

Criteria: A1, A2 & A3

Province(s): Dak Lak
PA Status: National Park

Latitude: 12°23'N
Longitude: 108°27'E
Area: 59,278 ha
Altitude Range: 600-2,442 m asl

EBA / SA:
 Da Lat Plateau EBA
Priority Landscape:
 SA 3 - Southern Annamites Main Montane Block



General Description

The IBA comprises Chu Yang Sin National Park, which is situated in the north of the Da Lat plateau. The topography of the IBA is mountainous, and dominated by Mount Chu Yang Sin, which, at 2,442 m asl, is the highest point on the Da Lat plateau. The IBA supports a large area of natural forest, which is contiguous with extensive natural forest areas elsewhere on the Da Lat plateau. Below 800 m asl, the IBA supports lowland semi-evergreen forest. Above this elevation, the IBA supports a range of montane evergreen forest formations, including elfin forest formations on mountain summits and ridge crests¹. To the south, Chu Yang Sin IBA is contiguous with Lang Bian IBA in Lam Dong province.

Bird Fauna: Key Features

Chu Yang Sin IBA is a key site for the conservation of restricted-range bird species. The IBA supports seven of the eight restricted-range species that define the Da Lat Plateau Endemic Bird Area (EBA), as well as two of the three species that define the South Vietnamese Lowlands EBA. Most notable among the restricted-range species found at the IBA are Grey-crowned Crocias *Crocias langbianis* and Collared Laughingthrush *Garrulax yersini*, two globally endangered species with global ranges confined to the Da Lat plateau. For both species, Chu Yang Sin IBA is believed to be the site with the greatest potential for their long-term conservation.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Collared Laughingthrush <i>Garrulax yersini</i>	A1, A2	EN	5	The species was recorded on several occasions, at elevations between 1,470 and 2,442 m asl, during January 1994 and March 1995 ^{2,3} .
Grey-crowned Crocias <i>Crocias langbianis</i>	A1, A2	EN	1	The species was recorded at 1,615 m asl in January 1994 ² . The species was recorded on several occasions, between 920 and 1,130 m asl, during March and April 1995 ³ .
Germain's Peacock Pheasant <i>Polyplectron germaini</i>	A1, A2	VU	4	Feathers belonging to this species were found, single birds were heard calling, and a single bird was observed during March 1995 ³ .
Great Hornbill <i>Buceros bicornis</i>	A1	NT	13	The species was observed in March 1995 ⁴ .
Blyth's Kingfisher <i>Alcedo hercules</i>	A1, A3	NT	8	One bird was observed along the Ea K'Tour river at 500 m asl in January 1994 ² . Two birds were seen at the same location in March 1995 ³ .
Yellow-billed Nuthatch <i>Sitta solangiae</i>	A1, A2	NT	11	Two pairs were observed at 1,100 and 1,330 m asl in January 1994 ² . Up to four birds were observed at c.1,000 m asl in April 1995 ³ .
Black-hooded Laughingthrush <i>Garrulax milleti</i>	A1, A2	NT	8	The species was recorded on several occasions between 1,000 and 1,540 m asl during January 1994 ² . Flocks of between three and eight individuals were seen on six days and the species was heard on six other days between March and April 1995 ³ .

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Short-tailed Scimitar Babbler <i>Jabouilleia danjoui</i>	A1, A2	NT	17	The species was recorded on five occasions, between 800 and 1,860 m asl, during January 1994 ² . The species was observed on three occasions during March and April 1995 ³ .
White-cheeked Laughingthrush <i>Garrulax vassali</i>	A2		8	Two flocks were observed at 1,010 and 1,700 m asl in January 1994 ² . The species was observed on 13 occasions, between 900 and 1,700 m asl, during March and April 1995 ⁵ . The population of this species at Chu Yang Sin has been estimated at 30,410 individuals ⁵ .
Grey-faced Tit Babbler <i>Macronous kelleyi</i>	A2		12	The species was recorded at c.1,000 m asl in April 1995 ³ .

Biome Restricted Species: The site qualifies under criterion A3 because it supports 35 species restricted to the Sino-Himalayan Subtropical Forests (Biome 08) and eight species restricted to Indochinese Tropical Moist Forests (Biome 09). See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
[Pygmy Loris <i>Nycticebus pygmaeus</i>] ⁶	DD	[<i>Pinus dalatensis</i>] ⁶	VU
[Rhesus Macaque <i>Macaca mulatta</i>] ⁶	NT	[<i>Pinus krempfii</i>] ⁶	VU
[Long-tailed Macaque <i>Macaca fascicularis</i>] ⁶	NT	[<i>Fokienia hodginsii</i>] ⁶	NT
[Stump-tailed Macaque <i>Macaca arctoides</i>] ⁶	VU	[<i>Podocarpus neriifolius</i>] ⁶	DD
[Silver Langur <i>Trachypithecus villosus</i>] ⁶	DD	[Asian Elephant <i>Elephas maximus</i>] ⁶	EN
[Black-shanked Douc <i>Pygathrix nigripes</i>] ⁶	EN	[Gaur <i>Bos gaurus</i>] ⁶	VU
[Asian Box Turtle <i>Cuora amboinensis</i>] ⁶	VU	[Southern Serow <i>Naemorhedus sumatraensis</i>] ⁶	VU
[Asiatic Softshell Turtle <i>Amyda cartilaginea</i>] ⁶	VU		

Notes: [] = unconfirmed record.

Threats to Biodiversity

Due to the remoteness of the site, the inaccessibility of many high-elevation forest areas and the low human population density in the surrounding area, current threats to biodiversity at Chu Yang Sin IBA are relatively low. A potential future threat is posed by population expansion in the buffer zone of Chu Yang Sin National Park, particularly as a result of the settlement of migrants from northern Vietnam. Such a population increase may lead to increased pressure on the natural resources of the IBA, in the form of hunting, logging and NTFP collection, and clearance of forest for agriculture¹.

Threat	Severity
Agricultural intensification / expansion	●
Fire	●
Hunting	●
Selective logging / cutting	●
Unsustainable exploitation of NTFP's	●

Conservation Actions

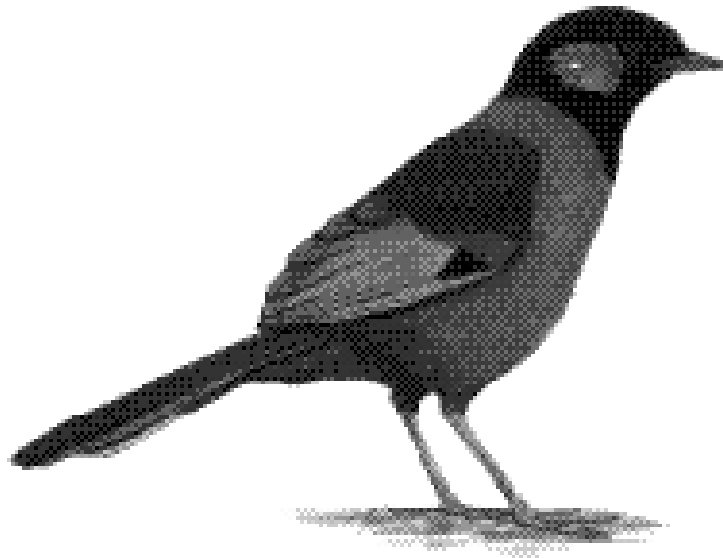
- Chu Yang Sin Nature Reserve was decreed in 1986 and a management board was established in 1997, following approval of a revised investment plan¹.
- A medium-sized GEF project focusing on Chu Yang Sin IBA has been developed by BirdLife International and Dak Lak Provincial Department of Agriculture and Rural Development and is currently awaiting approval. The main objective of this project is to promote biodiversity conservation at the site¹.
- Chu Yang Sin was upgraded to national park status by the government of Vietnam in July 2002.

Recommendations

- Settlement of in-migrants into the buffer zone of Chu Yang Sin National Park should be strictly controlled.
- Environmental considerations should be incorporated into land-use and development plans for the wider area, in order to ensure that future development is compatible with the conservation of the biological resources of the IBA.
- Enforcement of protected area management regulations should be maintained and strengthened through capacity building of the national park management board.

References

1. BirdLife International and the Forest Inventory and Planning Institute (2001) *Sourcebook of existing and proposed protected areas in Vietnam*. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute.
2. Eames, J. C. (1995) Endemic birds and protected area development on the Da Lat plateau, Vietnam. *Bird Conservation International* 5(4): 491-523.
3. Eames, J. C. and Tordoff, A. W. (in prep.) Recent records and a conservation status review of some threatened and near-threatened bird species in Vietnam.
4. Eames, J. C. Personal observation.
5. Hill, M., Eames, J. C., Le Trong Trai and Nguyen Cu (2001) Population sizes, status and habitat associations of forest birds in Chu Yang Sin Nature Reserve, Dak Lak province, Vietnam. *Bird Conservation International* 11(1):49-70.
6. Anon. (1997) [*Investment plan for Chu Yang Sin Nature Reserve, Dak Lak province.*] Buon Ma Thuot: Dak Lak Provincial Department of Agriculture and Rural Development. (In Vietnamese.)



Collared Laughingthrush *Garrulax yersini*

Ea So

Criteria: A1 & A3

Province(s): Dak Lak
PA Status: None

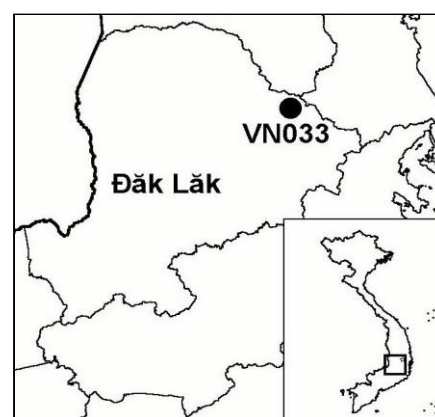
Latitude: 12°56'N
Longitude: 108°37'E
Area: 27,800 ha
Altitude Range: 140-1,046 m asl

EBA / SA:

None

Priority Landscape:

SA 1 - Ea So Complex

**General Description**

The IBA is situated in the Central Highlands and comprises Ea So proposed nature reserve. The topography of the IBA is dominated by a flat plain, around 300 m in elevation, which rises in the north to meet a ridge of low mountains. The IBA supports one of the last extensive areas of natural savanna grassland in the Central Highlands, which is an important habitat for wild cattle species. In addition, the IBA supports large areas of semi-evergreen forest and evergreen forest, as well as a smaller area of deciduous forest¹. To the north and west, the IBA is contiguous with other forest areas in northern Dak Lak and southern Gia Lai provinces.

Bird Fauna: Key Features

The avifauna of Ea So IBA has a component characteristic of deciduous dipterocarp forest. This component includes such species as Green Peafowl *Pavo muticus*, Indian Nightjar *Caprimulgus asiaticus*, Yellow-footed Green Pigeon *Treron phoenicoptera*, Red-headed Vulture *Sarcogyps calvus* and Small Minivet *Pericrocotus cinnamomeus*. The avifauna of the IBA also includes a component characteristic of dense, evergreen and semi-evergreen forests. This component includes Pale-capped Pigeon *Columba punicea*, Great Hornbill *Buceros bicornis* and, potentially, Germain's Peacock Pheasant *Polyplectron germaini*. The latter species has not been confirmed to occur at the site but is judged likely to occur due to the availability of suitable habitat and its presence at a neighbouring site². If the occurrence of this species at the IBA is confirmed, it will qualify for inclusion within the South Vietnamese Lowlands Endemic Bird Area.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
[Germain's Peacock Pheasant <i>Polyplectron germaini</i>]	A1, A2	VU	5	The species was recorded at Ea Tam, a nearby site in Krong Nang district, between February and May 1998 ² . However, while it is judged likely to occur at Ea So, there are no confirmed records from the site to date.
Green Peafowl <i>Pavo muticus</i>	A1, A3	VU	8	One bird was seen, at least four birds were heard calling, and tracks of up to six birds were seen during February 1998 ^{2,3} .
Pale-capped Pigeon <i>Columba punicea</i>	A1, A3	VU	5	Two birds and three birds were observed separate days in February 1998 ² .
Great Hornbill <i>Buceros bicornis</i>	A1	NT	13	A flock of 18 was observed in February 1998 ³ .
[Lesser Fish Eagle <i>Ichthyophaga humilis</i>]	A1	NT	7	A single fish eagle, thought to be this species, although possibly Grey-headed Fish Eagle <i>I. ichthyaetus</i> , was observed in February 1998 ³ .
Red-headed Vulture <i>Sarcogyps calvus</i>	A1, A3	NT	3	A single bird was seen in flight along the Ea Krong Nang river in February 1998 ³ .

Notes: [] = unconfirmed record.

Biome Restricted Species: The site qualifies under criterion A3 because it supports 13 species restricted to the Indo-Malayan Tropical Dry Zone (11). See Appendix 4 for details.

Secondary Criteria

Species

[Elongated Tortoise *Indotestudo elongata*]⁴
Gaur *Bos gaurus*^{2,5}

Status

EN
VU

Species

Banteng *Bos javanicus*²

Status

EN

Notes: [] = unconfirmed record.

Threats to Biodiversity

The major threats to biodiversity at Ea So IBA are hunting, illegal extraction of timber and other forest products, and conversion of natural habitats to agriculture. The human population density in and around the IBA is currently low, with less than 150 people living inside the proposed nature reserve and less than 4,000 people in the buffer zone. Consequently, most threats to biodiversity are currently at relatively low levels, with the exception of hunting, which is a severe threat to the populations of key mammal and bird species at the site. However, the threats to biodiversity at Ea So IBA, particularly habitat loss, are likely to intensify as a result of increased human population pressure due to the settlement of migrants in the area. This problem is likely to be exacerbated if plans to construct a highway through the IBA go ahead¹.

Threat	Severity
Agricultural intensification / expansion	• •
Hunting	• • •
Infrastructure development	• •
Selective logging / cutting	•

Conservation Actions

- A investment plan for Ea So was prepared in 1998 and proposed establishing a 27,800 ha nature reserve. This investment plan was approved by Dak Lak Provincial People's Committee in 1999 and a management board was established in the same year. To date, however, the establishment of a nature reserve at Ea So has not been decreed by the government of Vietnam¹.

Recommendations

- Ea So should be decreed as a nature reserve by the government of Vietnam.
- Enforcement of protected area management regulations should be enforced.
- An Environmental Impact Assessment should be conducted prior to the construction of the planned highway through the IBA, and mitigation measures should be implemented. These may include selection of an alternative route for the highway and introducing strict controls on human settlement along the route.
- Strict controls should be placed on human settlement within the IBA or into surrounding areas, in order to avoid placing additional pressure on the natural resources of site.

References

1. BirdLife International and the Forest Inventory and Planning Institute (2001) *Sourcebook of existing and proposed protected areas in Vietnam*. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute.
2. 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.
3. Eames, J. C. and Tordoff, A. W. (in prep.) Recent records and a conservation status review of some threatened and near-threatened bird species in Vietnam.
4. Anon. (1998) [*Investment plan for Ea So Nature Reserve*]. Buon Ma Thuot: Department of Agroforestry, Tay Nguyen University. (In Vietnamese.)
5. Eames, J.C. Personal observation.



Pale-capped Pigeon *Columba punicea*

Bi Dup

Criteria: A1, A2 & A3

Province(s): Lam Dong
PA Status: Nature Reserve

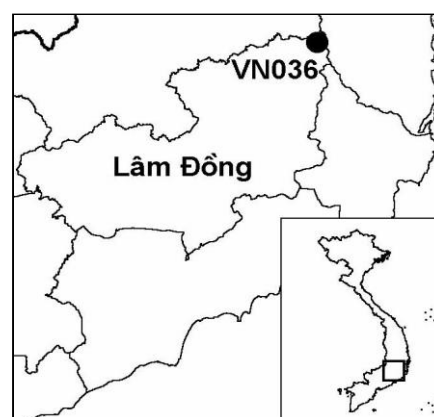
Latitude: 12°08'N
Longitude: 108°40'E
Area: 20,000 ha
Altitude Range: 1,400-2,287 m asl

EBA / SA:

Da Lat Plateau EBA

Priority Landscape:

SA 3 - Southern Annamites Main Montane Block

**General Description**

Situated on the Da Lat plateau, the IBA is centred on Mount Bi Dup, the highest peak in Bi Dup-Nui Ba Nature Reserve. The topography of the IBA is dominated by a range of high mountains, including Mount Bi Dup (2,287 m asl) and Mount Gia Rich (1,922 m asl). The vegetation of the IBA is dominated by montane evergreen forest, although there are smaller areas of coniferous forest and mixed broadleaf and coniferous forest¹. The Da Lat plateau supports high levels of endemism in plants and animals, and a significant proportion of the taxa endemic to the plateau are found on Mount Bi Dup.

Bird Fauna: Key Features

Bi Dup IBA lies within the Da Lat Plateau Endemic Bird Area (EBA), and supports seven of the eight restricted-range bird species that define this EBA. Most notably, Bi Dup supports a population of the globally endangered Collared Laughingthrush *Garrulax yersini*, a species whose global range is confined to the Da Lat Plateau EBA. Bi Dup IBA is of particular importance for the conservation of this species, because it is restricted to montane evergreen forest, a habitat type that is in decline across the Da Lat plateau. Bi Dup IBA is also supports a large number of subspecies endemic to the Da Lat plateau, some of which may be worthy of elevation to species level. These include subspecies of Spot-breasted Laughingthrush *Garrulax merulinus annamensis*, Blue-winged Minla *Minla cyanouroptera* and Grey-headed Parrotbill *Paradoxornis gularis margaritae*.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Collared Laughingthrush <i>Garrulax yersini</i>	A1, A2	EN	5	The species was recorded on several occasions on Mount Bi Dup and at Long Lanh in May 1991 ² . During December 1993, the species was recorded on Mount Bi Dup and Mount Gia Rich, at elevations between 1,780 and 2,130 m asl, on five occasions ² .
Crested Argus <i>Rheinardia ocellata</i>	A1, A2	VU	15	The species was heard calling on Mount Bi Dup and at Long Lanh in May 1991 ³ and, also, on Mount Bi Dup and Mount Gia Rich in December 1993 ² .
Pale-capped Pigeon <i>Columba punicea</i>	A1, A3	VU	5	A single bird was observed on Mount Bi Dup in December 1993 ² .
[Brown Hornbill <i>Anorrhinus tickelli</i>]	A1, A3	NT	17	The species was provisionally recorded on the basis of hornbill calls heard on Mount Gia Rich in December 1994 ² .
Yellow-billed Nuthatch <i>Sitta solangiae</i>	A1, A2	NT	11	Several birds were observed on Mount Bi Dup in May 1991 ³ , and a single bird was observed on Mount Gia Rich in December 1993 ² .
Black-hooded Laughingthrush <i>Garrulax milleti</i>	A1, A2	NT	8	A flock of four to six birds was seen in forest edge on Mount Gia Rich in December 1993 ² .
Short-tailed Scimitar Babbler <i>Jabouilleia danjoui</i>	A1, A2	NT	17	The species was recorded on Mount Bi Dup and Mount Gia Rich in May 1991 and December 1993 ^{2,3} .

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Vietnam Greenfinch <i>Carduelis monguilloti</i>	A1, A2	NT	4	The species was recorded on the lower slopes of Mount Bi Dup and at Long Lanh in May 1991 ^{2,3} . The species was heard flying over Mount Bi Dup at 1,740 m asl in December 1993 ² .
White-cheeked Laughingthrush <i>Garrulax vassali</i>	A2		8	Several birds, including at least one juvenile, were seen on Mount Gia Rich in May 1991 ³ .

Notes: [] = unconfirmed record.

Biome Restricted Species: The site qualifies under criterion A3 because it supports 27 species restricted to the Sino-Himalayan Subtropical Forests (Biome 08). See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
[Stump-tailed Macaque <i>Macaca arctoides</i>] ⁴	VU	<i>Calocedrus macrolepis</i> ^{4,6}	VU
[Black-shanked Douc <i>Pygathrix nigripes</i>] ⁵	EN	<i>Fokienia hodginsii</i> ^{4,6}	NT
Buff-cheeked Gibbon <i>Nomascus gabriellae</i> ⁴	VU	<i>Podocarpus neriifolius</i> ^{4,6}	DD
<i>Pinus dalatensis</i> ⁴	VU	[Asian Elephant <i>Elephas maximus</i>] ⁴	EN
<i>Pinus krempfii</i> ^{4,6}	VU	Gaur <i>Bos gaurus</i> ⁴	VU
<i>Pinus merkusii</i> ⁶	VU	[Southern Serow <i>Naemorhedus sumatraensis</i>] ⁴	VU

Notes: [] = unconfirmed record.

Threats to Biodiversity

Prior to the establishment of Bi Dup-Nui Ba Nature Reserve, significant areas of forest in Bi Dup IBA were degraded and cleared by commercial logging operations. Since the cessation of commercial logging at the site, habitat loss and degradation continue but at lower levels. The main causes of habitat loss at the IBA are clearance of forest for shifting cultivation and fire. Over-exploitation of forest products, particularly firewood collection and charcoal production, also contribute to habitat degradation and loss¹.

Habitat loss presents a particular threat to biodiversity with regards to montane evergreen forest, which is the key habitat for restricted-range bird species at Bi Dup IBA, with the exception of Vietnamese Greenfinch *Carduelis monguilloti*, which prefers coniferous forest. Most remaining montane evergreen forest in the IBA is at elevations above 1,500 m asl, which is towards the upper end of the altitudinal ranges of Crested Argus *Rheinardia ocellata* and Black-hooded Laughingthrush *Garrulax milleti*. Therefore, further loss of montane evergreen forest may result in the extinction of these and other species at the site. Indeed, the globally endangered Grey-crowned Crocias *Crocias langbianis*, a species currently believed restricted to montane evergreen forest between 900 and 1,450 m asl, may already have been extirpated from the site for this reason.

Threat	Severity
Agricultural intensification / expansion	• •
Fire	• •
Hunting	•
Selective logging / cutting	• •
Unsustainable exploitation of NTFPs	• •

Conservation Actions

- The establishment of Thuong Da Nhim Nature Reserve, which was later incorporated within Bi Dup-Nui Ba Nature Reserve, was decreed by the government of Vietnam in 1986¹.
- A management board for Bi Dup-Nui Ba Nature Reserve was established in 1993¹.

Recommendations

- Enforcement of protected area management regulations, particularly over-exploitation of forest products and clearance of forest for cultivation, should be strengthened.
- A comprehensive fire management programme should be initiated, including environmental awareness activities aimed at raising awareness among local communities of the hazards posed by fire.
- Bi Dup IBA should be managed with the objective of conserving the biodiversity of the Da Lat plateau as a whole. In particular, attention should be given to creating or maintaining habitat corridors with other areas of natural habitat, and maintaining sufficient area of each natural habitat to support all endemic taxa for which the IBA is important. To this end, a detailed programme of research should be conducted to investigate the ecological requirements of all endemic taxa on the Da Lat plateau.

References

1. BirdLife International and the Forest Inventory and Planning Institute (2001) *Sourcebook of existing and proposed protected areas in Vietnam*. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute.
2. Eames, J. C. (1995) Endemic birds and protected area development on the Da Lat plateau, Vietnam. *Bird Conservation International* 5(4): 491-523.
3. Robson, C. R., Eames, J. C., Nguyen Cu and Truong Van La (1993) Birds recorded during the third BirdLife/Forest Birds Working Group expedition in Vietnam. *Forktail* 9: 89-119.
4. Eames, J. C. and Nguyen Cu (1994) *A management feasibility study of Thuong Da Nhim and Chu Yang Sin Nature Reserves on the Da Lat Plateau, Vietnam*. Hanoi: WWF Vietnam Programme and the Forest Inventory and Planning Institute.
5. Eames, J. C. and Robson, C. R. (1993) Threatened primates in southern Vietnam. *Oryx* 27(3): 146-154.
6. Nguyen Tien Hiep and Vidal, J. E. (1996) *Flore du Cambodge du Laos et du Vietnam. Vol. 28: Gymnospermae*. Paris: Museum National D'Histoire Naturelle. (In French.)



Crested Argus *Rheinardia ocellata*

Lang Bian

Criteria: A1 & A2

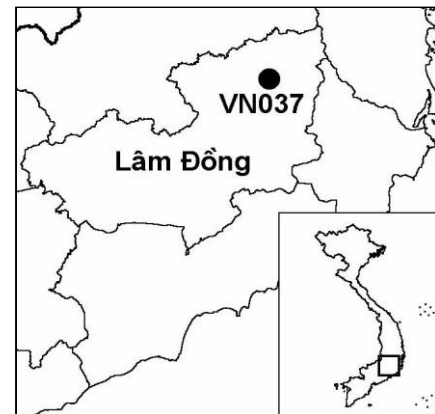
Province(s): Lam Dong
PA Status: Nature Reserve
Latitude: 12°03'N
Longitude: 108°26'E
Area: 10,000 ha
Altitude Range: 1,400-2,167 m asl

EBA / SA:

Da Lat Plateau EBA

Priority Landscape:

SA 3 - Southern Annamites Main Montane Block

**General Description**

The IBA is centred on Mount Lang Bian (also known as Mount Nui Ba), which lies on the Da Lat plateau. The major vegetation types at the IBA are coniferous forest, montane evergreen forest and secondary scrub. The coniferous forest is dominated by *Pinus kesiya*¹. Most of the IBA is contained within Bi Dup-Nui Ba Nature Reserve, although a significant area on the south face of Mount Lang Bian lies outside of the nature reserve, under the management of the provincial tourism company. To the north, Lang Bian IBA is contiguous with Chu Yang Sin IBA in Dak Lak province.

Bird Fauna: Key Features

Lang Bian IBA lies within the Da Lat Plateau Endemic Bird Area (EBA), and supports three of the eight restricted-range species that occur in this EBA: Collared Laughingthrush *Garrulax yersini*, Yellow-billed Nuthatch *Sitta solangiae* and Vietnam Greenfinch *Carduelis monguilloti*². In addition, eight individuals of a previously undescribed taxon of bullfinch were observed on Mount Lang Bian in February 1998. Although no specimens have been collected to date, it may be that these birds, which resemble Brown Bullfinch *Pyrrhula nipalensis*, represent an as yet undescribed species³. Mount Lang Bian is given as a historical collecting locality for the globally endangered Grey-crowned Crocias *Crocias langbianis*, a species endemic to the Da Lat plateau⁴. There are, however, no recent records of this species⁵, and it may now be extinct at the site as a result of loss of lower montane evergreen forest, the habitat type to which it is restricted.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Collared Laughingthrush <i>Garrulax yersini</i>	A1, A2	EN	5	There are regular records of the species in upper montane evergreen forest near the summit of Mount Lang Bian. For example, several birds were heard in May 1991 ^{2,6} , the species was recorded in December 1994 ⁷ , six birds were observed and four were heard in April 1998 ⁸ and two birds were seen in February 2002 ⁹ .
Yellow-billed Nuthatch <i>Sitta solangiae</i>	A1, A2	NT	11	Four birds were recorded in May 1991 ^{2,6} .
Vietnam Greenfinch <i>Carduelis monguilloti</i>	A1, A2	NT	4	There are regular records of the species in coniferous forest. For example, the species was recorded in January 1994 ⁶ , December 1994 ⁷ , April 1998 ⁸ , December 2000 ¹⁰ and March 2002 ¹⁰ .

Biome Restricted Species: The site does not qualify under criterion A3. See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
*[Stump-tailed Macaque <i>Macaca arctoides</i>] ¹¹	VU	* <i>Fokienia hodginsii</i> ¹¹	NT
*Buff-cheeked Gibbon <i>Nomascus gabriellae</i> ¹¹	VU	* <i>Podocarpus neriifolius</i> ¹¹	DD
* <i>Pinus dalatensis</i> ¹¹	VU	*[Asian Elephant <i>Elephas maximus</i>] ¹¹	EN
<i>Pinus krempfii</i> ^{11,12}	VU	*Gaur <i>Bos gaurus</i> ¹¹	VU
<i>Pinus merkusii</i> ¹²	VU	*[Southern Serow <i>Naemorhedus sumatraensis</i>] ¹¹	VU
* <i>Calocedrus macrolepis</i> ¹¹	VU		

Notes: [] = unconfirmed record; * = recorded during a survey of Bi Dup-Nui Ba Nature Reserve but, due to a lack of locality data, it is uncertain whether the species occurs within the IBA or not.

Threats to Biodiversity

Human activities have led to changes in the distribution of different vegetation types at the IBA, with impacts on biodiversity. For instance, charcoal production and firewood collection have led to the destruction of most of the evergreen forest on Mount Lang Bian. Similarly, shifting cultivation has led to loss of forest cover, and associated fires have promoted a transition from montane evergreen forest to fire-climax coniferous forest dominated by *Pinus kesiya*¹. As the biodiversity value of coniferous forest is lower than that of evergreen forest, this transition has tended to reduce the conservation importance of the IBA, especially for Collared Laughingthrush, which is restricted to upper montane evergreen forest².

A further threat to biodiversity at Lang Bian IBA is posed by tourism development. To date, a number of tourism resorts have been constructed on the south face Mount Lang Bian, which is situated close to Da Lat city, a major tourist destination. Wild animal meat is openly sold in these resorts, and the large numbers of visitors represent an increased risk of forest fire.

Threat	Severity
Agricultural intensification / expansion	• •
Fire	• • •
Hunting	• •
Infrastructure development	•
Recreation / tourism	• •
Selective logging / cutting	• •
Unsustainable exploitation of NTFPs	• • •

Conservation Actions

- The establishment of Bi Dup Nature Reserve, which was later incorporated within Bi Dup-Nui Ba Nature Reserve, was decreed by the government of Vietnam in 1986¹.
- A management board for Bi Dup-Nui Ba Nature Reserve was established in 1993¹.

Recommendations

- Important areas of habitat on the southern face of Mount Lang Bian should be incorporated within the boundaries of Bi-Dup-Nui Ba Nature Reserve and managed with the principal objective of biodiversity conservation.
- A tourism management board, including representatives of the nature reserve management board, the provincial tourism company and other local stakeholders, should be established as a basis for environmentally sustainable tourism development at the site.
- Forest management at the site should focus on maintaining remaining areas of good quality montane evergreen forest, and promoting natural regeneration within more disturbed areas.
- Enforcement of protected area management regulations should be strengthened. In particular, strict controls should be introduced on exploitation of forest products, hunting and trade in wildlife.
- A comprehensive fire management programme should be initiated, including environmental awareness activities aimed at raising awareness among local communities of the hazards posed by fire.

References

1. BirdLife International and the Forest Inventory and Planning Institute (2001) *Sourcebook of existing and proposed protected areas in Vietnam*. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute.
2. Eames, J. C. (1995) Endemic birds and protected area development on the Da Lat plateau, Vietnam. *Bird Conservation International* 5(4): 491-523.
3. Robson, C. R. (1998) From the field. *OBC Bulletin* 27: 61-66.
4. Eames, J. C. and Ericson, P. G. P. (1996) The Björkegren expedition to French Indochina: a collection of birds from Vietnam and Cambodia. *Nat. Hist. Bull. Siam Soc.* 44: 75-111.

5. BirdLife International (2001) *Threatened birds of Asia: the BirdLife International red data book*. Cambridge, U.K.: BirdLife International.
6. Robson, C. R., Eames, J. C., Nguyen Cu and Truong Van La (1993) Further recent records of birds from Vietnam. *Forktail* 8: 25-52.
7. Dymond, J. N. (1998) Birds in Vietnam in December 1993 and December 1994. *Forktail* 13: 7-12.
8. Hornbuckle, J. (1998) Vietnam Trip Report 24 March to 14 April 1998. Unpublished Report on WorldTwitch Internet Website.
9. A. W. Tordoff personal observation.
10. R. Craik *in litt.* 2002.
11. Eames, J. C. and Nguyen Cu (1994) *A management feasibility study of Thuong Da Nhim and Chu Yang Sin Nature Reserves on the Da Lat Plateau, Vietnam*. Hanoi: WWF Vietnam Programme and the Forest Inventory and Planning Institute.
12. Nguyen Tien Hiep and Vidal, J. E (1996) *Flore du Cambodge du Laos et du Vietnam. Vol. 28: Gymnospermae*. Paris: Museum National D'Histoire Naturelle. (In French.)



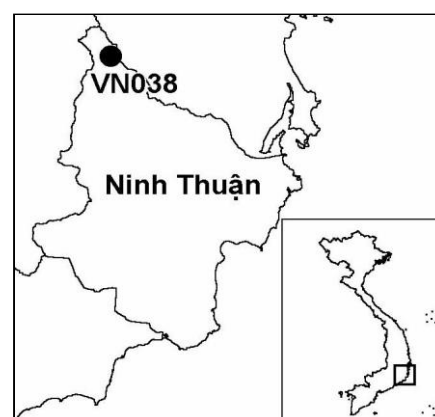
Vietnam Greenfinch *Carduelis monguilloti*

Phuoc Binh

Criteria: A1 & A2

Province(s): Ninh Thuan
PA Status: None

Latitude: 12°04'N
Longitude: 108°47'E
Area: 23,597 ha
Altitude Range: 500-1,978 m asl

**EBA / SA:**

Da Lat Plateau EBA

Priority Landscape:

SA 3 - Southern Annamites Main Montane Block

General Description

The IBA comprises Phuoc Binh proposed nature reserve, which is located on the eastern edge of the Da Lat plateau, and is contiguous with Bi Dup IBA to the west. The topography of the west of the IBA is dominated by several high peaks, while to the east, the terrain drops away towards the coastal plain of south-central Vietnam. The natural vegetation of the IBA comprises a range of evergreen forest types, as well as small areas of coniferous forest. The IBA also contains significant areas of agricultural land¹.

Bird Fauna: Key Features

Phuoc Binh IBA is situated within the Da Lat Plateau Endemic Bird Area (EBA), and supports five of the eight restricted-range species that occur in this EBA, including two globally threatened species: Collared Laughingthrush *Garrulax yersini* and Crested Argus *Rheinardia ocellata*². In addition, Phuoc Binh is one of only six IBAs in Vietnam to support the globally vulnerable Pale-capped Pigeon *Columba punicea*. Furthermore, Phuoc Binh supports a subspecies of Spot-breasted Laughingthrush *Garrulax merulinus annamensis* that is only known from three other IBAs. This form is endemic to the Da Lat Plateau, and is treated by some authors as a distinct species³.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Collared Laughingthrush <i>Garrulax yersini</i>	A1, A2	EN	5	Single birds and small flocks were observed on a total of eight occasions in November 1993 ² .
Crested Argus <i>Rheinardia ocellata</i>	A1, A2	VU	15	A single bird was heard calling in November 1993 ² .
Pale-capped Pigeon <i>Columba punicea</i>	A1, A3	VU	5	A single bird was seen in November 1993 ² .
Yellow-billed Nuthatch <i>Sitta solangiae</i>	A1, A2	NT	11	At least two birds were observed in a mixed flock in November 1993 ² .
Short-tailed Scimitar Babbler <i>Jabouilleia danjoui</i>	A1, A2	NT	16	A single bird and two birds were observed on separate occasions in November 1993 ² .
Vietnam Greenfinch <i>Carduelis monguilloti</i>	A1, A2	NT	4	A pair and a group of five birds were recorded on separate occasions in November 1993 ² .

Biome Restricted Species: The site does not qualify under criterion A3. See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
Buff-cheeked Gibbon <i>Nomascus gabriellae</i> ⁴	VU	<i>Fokienia hodginsii</i> ⁴	NT
<i>Pinus dalatensis</i> ⁴	VU	<i>Podocarpus neriifolius</i> ⁴	DD
<i>Pinus krempfii</i> ⁴	VU	Gaur <i>Bos gaurus</i> ⁴	VU

Threats to Biodiversity

The main threats to biodiversity at Phuoc Binh IBA are clearance of forest for agriculture and associated forest fires. Extensive areas of forest at low and medium elevations in the south-east of the IBA have already been converted to agriculture by local people, who practice a mixture of wet rice and shifting cultivation¹. An additional threat to biodiversity at the IBA is selective timber extraction, which is a particular threat to the valuable timber species *Fokienia hodginsii*.

Threat	Severity
Agricultural intensification / expansion	• •
Fire	• •
Hunting	•
Selective logging / cutting	•
Unsustainable exploitation of NTFPs	•

Conservation Actions

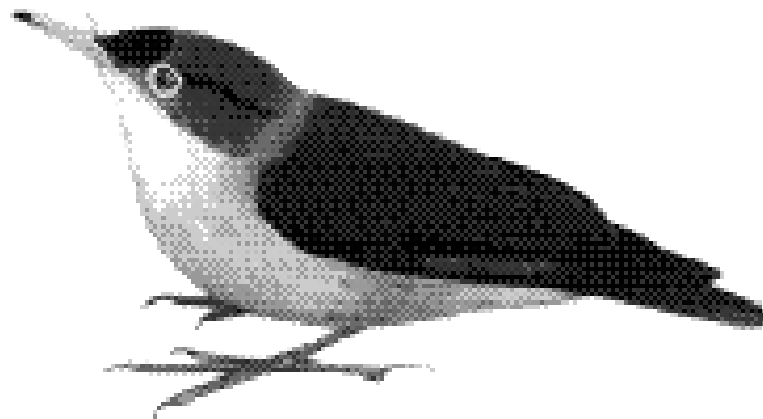
- Phuoc Binh IBA is currently designated as a watershed protection forest¹.

Recommendations

- The establishment of a nature reserve at Phuoc Binh should be decreed by the government of Vietnam, and a management board should be established.
- Extensive areas of agricultural land within the boundary proposed in the investment plan should be excluded from the nature reserve, while any contiguous areas of natural habitat in Ninh Thuan province should be included.
- Protected area management regulations, particularly over-exploitation of forest products and clearance of forest for cultivation, should be enforced.
- A comprehensive fire management programme should be initiated at Phuoc Binh, including environmental awareness activities aimed at raising awareness among local communities of the hazards posed by fire. .

References

1. BirdLife International and the Forest Inventory and Planning Institute (2001) *Sourcebook of existing and proposed protected areas in Vietnam*. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute.
2. Eames, J. C. (1995) Endemic birds and protected area development on the Da Lat plateau, Vietnam. *Bird Conservation International* 5(4): 491-523.
3. Davidson, P., Poole, C., Omaliss, K., Robson, C., Timmins, R. J. and Duckworth, J. W. (unpublished) Priorities for bird conservation in the region of analysis. Unpublished report to the WWF Indochina Programme.
4. Eames, J. C. and Nguyen Cu (1994) *A management feasibility study of Thuong Da Nhim and Chu Yang Sin Nature Reserves on the Da Lat Plateau, Vietnam*. Hanoi: WWF Vietnam Programme and the Forest Inventory and Planning Institute.



Yellow-billed Nuthatch *Sitta solangiae*

Yok Don

Criteria: A1, A2 & A3

Province(s): Dak Lak
PA Status: National Park

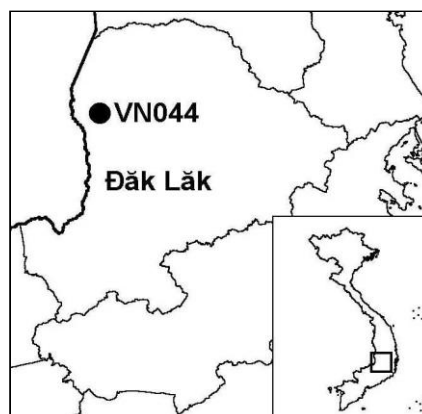
Latitude: 12°54'N
Longitude: 107°40'E
Area: 58,200 ha
Altitude Range: 200-482 m asl

EBA / SA:

None

Priority Landscape:

DF 4 - Eastern Plains Dry Forests

**General Description**

The IBA is situated in the Mekong basin, on the international border with Cambodia. The boundaries of the IBA follow the original boundaries of Yok Don National Park, prior to its expansion in 2001, except that, unlike the original national park, the IBA includes both banks of the Srepok river. The topography of the IBA is relatively flat, and most areas are around 200 m asl. The highest point in the IBA is Yok Don hill, an isolated ridge, which reaches 482 m asl. The forest cover of the IBA is close to 100%, and is dominated by deciduous forest, although there are also smaller areas of semi-evergreen and evergreen forest, particularly along the Srepok river and on Yok Don hill. The IBA is believed to have once supported significant populations of large mammals, including Asian Elephant *Elephas maximus*, Brow-antlered Deer *Cervus eldii*, Gaur *Bos gaurus*, Banteng *B. javanicus* and Tiger *Panthera tigris*. However, most of these species are now much reduced and some may already be locally extinct^{1,2}. To the north, Yok Don IBA is contiguous with Chu M'Lanh IBA, while, to the west, it is contiguous with Upper Srepok Catchment IBA in Cambodia.

Bird Fauna: Key Features

The avifauna of Yok Don IBA is characteristic of the dry forests of central Indochina, with over 20 species restricted to the Indo-Malayan Tropical Dry Zone (Biome 11), including several that are known from few other sites in Vietnam, such as Indian Nightjar *Caprimulgus asiaticus* and Brown Prinia *Prinia polychroa*. There are confirmed records of 11 globally threatened and near-threatened bird species from the IBA. One of the key habitats for these species is permanent watercourses, such as the Srepok river. Species dependent on these habitats include Green Peafowl *Pavo muticus*, Grey-headed and Lesser Fish Eagles *Ichthyophaga ichthyaetus* and *I. humilis*, Oriental Darter *Anhinga melanogaster* and Masked Finfoot *Heliopais personata*. The latter species is only known to occur at one other site in Vietnam: Kon Cha Rang IBA². A recent study predicted that Yok Don IBA supports 11% of the Green Peafowl population of Dak Lak province. This figure may, however, be an over-estimate, due to the recent spread of human settlement along the north bank of the Srepok river³. The western part of the IBA, close to the international border with Cambodia, has been the focus of relatively little ornithological survey, and may still support relict populations of the critically endangered White-shouldered Ibis *Pseudibis davisoni* or Giant Ibis *Thaumatibis gigantea*. However, if a population of either species does occur, it is likely to be very small and extremely susceptible to human pressure².

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Green Peafowl <i>Pavo muticus</i>	A1, A3	VU	8	The species is a widespread resident at low densities ² . A single individual was recorded in May 1997 ⁴ . A total of 10 individuals were recorded between March and April 1998, and the IBA was estimated to support 11% of the population in Dak Lak province ³ . The most recent records were of birds heard calling near Guard Station No. 5 and along the Dak Klau stream in May 2002 ² .
[Sarus Crane <i>Grus antigone</i>]	A1	VU	5	There is a single, unconfirmed record based on a report by a forest guard of a nest containing eggs being found on the ground prior to September 1993 ² .

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Masked Finfoot <i>Heliopais personata</i>	A1, A3	VU	1	A single bird was seen and photographed on the Dak Ken stream, near the confluence with the Srepok river in June 1997 ⁴ . A single male was seen and photographed on the Srepok river on two occasions in May 2002 ² .
Lesser Adjutant <i>Leptoptilos javanicus</i>	A1	VU	7	The species is a scarce resident and non-breeding visitor ² . Small numbers were observed on several occasions in May 1997 ⁴ and May 2002 ² .
Siamese Fireback <i>Lophura diardi</i>	A1, A3	NT	13	The species is a scarce resident. A single female was observed near Guard Station No.4. in May 2002 ² .
Great Hornbill <i>Buceros bicornis</i>	A1	NT	13	Up to three individuals were recorded on four occasions on Yok Don hill in May 1997 ⁴ .
Lesser Fish Eagle <i>Ichthyophaga humilis</i>	A1	NT	6	Two adults and two fledged juveniles were observed along the Srepok river in May 2002 ² .
Grey-headed Fish Eagle <i>Ichthyophaga ichthyaetus</i>	A1	NT	8	Up to two birds were observed along the Srepok river in May 2002 ² .
Red-headed Vulture <i>Sarcogyps calvus</i>	A1, A3	NT	3	The species is believed to be a very rare resident and non-breeding visitor ² . One bird was seen in September 1993 and two birds were seen in April 1995 ⁵ . The species was observed on three occasions between May and June 1997 ⁴ .
White-rumped Falcon <i>Polihierax insignis</i>	A1, A3	NT	4	The species is a scarce resident ² . The species was recorded on several occasions between May and June 1997 ⁴ , and in May 2002 ² .
Oriental Darter <i>Anhinga melanogaster</i>	A1	NT	9	The species is a very rare non-breeding visitor. Single birds (possibly the same individual) were seen on two occasions along the Srepok river in May 2002 ² .
Grey-faced Tit Babbler <i>Macronous kelleyi</i>	A2		12	This species was recorded on Yok Don hill in May 2002 ² .

Notes: [] = unconfirmed record.

Biome Restricted Species: The site qualifies under criterion A3 because it supports 12 species restricted to the Indochinese Tropical Moist Forests (Biome 09) and 21 species restricted to the Indo-Malayan Tropical Dry Zone (Biome 11). See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
Long-tailed Macaque <i>Macaca fascicularis</i> ^{2,4}	NT	*[Brow-antlered Deer <i>Cervus eldii</i>] ⁴	VU
Silver Langur <i>Trachypithecus villosus</i> ⁴	DD	Gaur <i>Bos gaurus</i> ⁴	VU
Asian Box Turtle <i>Cuora amboinensis</i> ⁴	VU	Banteng <i>Bos javanicus</i> ⁴	EN
Asian Elephant <i>Elephas maximus</i> ⁴	EN	*[Wild Water Buffalo <i>Bubalus arnee</i>] ⁴	EN

Notes: [] = unconfirmed record; * = possibly extinct at the site.

Threats to Biodiversity

Infrastructure development is currently the biggest threat to biodiversity at Yok Don IBA. Recent infrastructure developments incompatible with biodiversity conservation at the site include the construction of a dam on the Dak Ken river and the construction of a surfaced road into the IBA, to the base of Yok Don hill². These infrastructure developments will facilitate hunting, fishing and other forms of illegal exploitation of forest products within the IBA. Most worryingly, in the context of high levels of migration into and within Dak Lak province, roads within or close to the IBA will act as foci for human settlement, thereby increasing human pressure on the natural resources of the IBA.

Other threats to biodiversity at the IBA include hunting, which has already resulted in declines in populations of key mammal and bird species⁴; fishing (including dynamite fishing) along the Srepok river, which threatens to disturb key species, such as Masked Finfoot; clearance of forest for agriculture along the Srepok river; and grazing of livestock in the forest. A potential threat is unsustainable tourism development².

Threat	Severity
Agricultural intensification / expansion	● ●
Aquaculture / fisheries	● ●
Construction of dykes / dams	● ●
Forest grazing	●
Hunting	● ●
Infrastructure development	● ● ●
Recreation / tourism	●
Selective logging / cutting	●

Conservation Actions

- Yok Don was designated as a nature reserve in 1977, and a management board was established in 1989¹.
- Yok Don Nature Reserve was upgraded to national park status in 1991¹.
- Yok Don National Park is currently the focus of a full-scale GEF project entitled *Creating Protected Areas for Resource Conservation Using Landscape Ecology* (PARC), which began implementation in 1999¹.
- In September 2001, Yok Don National Park was expanded to include contiguous areas to the north and south, including Chu M'Lang IBA.

Recommendations

- Plans to construct a road through the west of the IBA, along the international border with Cambodia, are wholly incompatible with the objectives of biodiversity conservation and in direct contravention of the management regulations of Yok Don National Park, and should, therefore, be abandoned.
- Similarly, construction of the road to Yok Don hill should be halted and existing stretches of road left unsurfaced to allow natural regrowth to occur².
- All other planned infrastructure developments at the national park should be subjected to Environmental Impact Assessment, and appropriate mitigation measures should be implemented.
- Further human settlement within and immediately adjacent to the IBA should be strictly controlled, especially along the northern bank of the Srepok river.
- The conservation management planning and law enforcement capacity of national park staff should be strengthened².
- Appropriate measures should be introduced to control hunting, poaching of fish stocks, forest clearance and livestock grazing, including construction of new guard stations located in strategic positions in and around the IBA and expansion of existing forest protection activities².
- Mechanisms facilitating dialogue between different stakeholders at the IBA should be strengthened, in order to promote land-use and development planning compatible with maintenance of the integrity of the IBA.

References

1. BirdLife International and the Forest Inventory and Planning Institute (2001) *Sourcebook of existing and proposed protected areas in Vietnam*. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute.
2. Eames, J. C. and Nguyen Duc Tu (2002) *An interim biodiversity report for Yok Don National Park, Dak Lak province, Vietnam*. Unpublished report to the Vietnam PARC Project, Yok Don component.
3. 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.
4. Le Xuan Canh, Pham Trong Anh, Duckworth, J. W., Vu Ngoc Thanh and Lic Vuthy (1997) *A survey of large mammals in Dak Lak province, Vietnam*. Hanoi: WWF/ IUCN.
5. Eames, J. C. and Tordoff, A. W. (in prep.) Recent records and a conservation status review of some threatened and near-threatened bird species in Vietnam.

Dak Dam

Criteria: A1 & A2

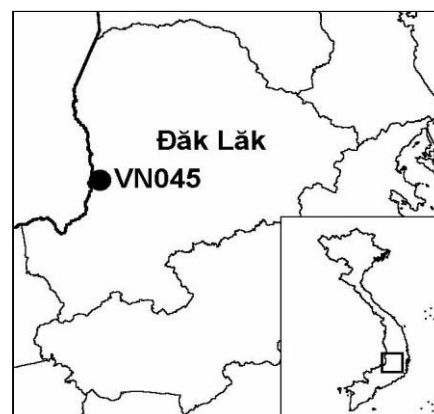
Province(s): Dak Lak
PA Status: None
Latitude: 12°30'N
Longitude: 107°35'E
Area: 10,000 ha
Altitude Range: 300-930 m asl

EBA / SA:

None

Priority Landscape:

DF 4 - Eastern Plains Dry Forest

**General Description**

The IBA is situated in the Mekong basin, and comprises the Dak Dam stream, a tributary of the Srepok river, and associated forest areas on the eastern bank. Dak Dam IBA supports a significant stretch of relatively undisturbed riverine forest, one of the most threatened habitat types in Vietnam. The major vegetation types at the IBA are deciduous forest and semi-evergreen forest, although the riverine forest has a greater evergreen component. The Dak Dam stream forms the international border between Vietnam and Cambodia, as well as the western boundary of Yok Don National Park^{1,2}; the stretch within the national park is included within Yok Don IBA. To the west, Dak Dam IBA is contiguous with Upper Srepok Catchment IBA in Cambodia.

Bird Fauna: Key Features

While Dak Dam IBA has been the focus of relatively little ornithological survey to date, three globally threatened and one globally near-threatened species have been confirmed to occur. Most significantly, Dak Dam IBA is one of only three sites in Vietnam from where there are recent confirmed records of the globally endangered White-winged Duck *Cairina scutulata*, and the only one that is likely to regularly support a significant population. Further survey work at the IBA may reveal the presence of other bird species of conservation concern.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
White-winged Duck <i>Cairina scutulata</i>	A1	EN	2	A pair was seen along the Dak Dam stream on four consecutive days in April 1998 ^{1,3} .
Green Peafowl <i>Pavo muticus</i>	A1, A3	VU	8	Up to 14 birds were heard over a four-day period in April 1998 ¹ .
Pale-capped Pigeon <i>Columba punicea</i>	A1, A3	VU	5	A pair of birds was observed along the Dak Dam stream in April 1998 ^{1,3} .
Siamese Fireback <i>Lophura diardi</i>	A1, A3	NT	13	A single bird was observed in deciduous forest near the Dak Dam stream in April 1998 ^{1,3} .
Grey-faced Tit Babbler <i>Macronous kelleyi</i>	A2		12	The species was recorded in April 1998 ^{1,3} .

Biome Restricted Species: The site does not qualify under criterion A3. See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
Long-tailed Macaque <i>Macaca fascicularis</i> ¹	NT	Gaur <i>Bos gaurus</i> ¹	VU
[Asian Elephant <i>Elephas maximus</i>] ¹	EN	Banteng <i>Bos javanicus</i> ¹	EN

Notes: [] = unconfirmed record.

Threats to Biodiversity

The major threats to biodiversity at the IBA are timber extraction and clearance of forest for agriculture³. Other threats are hunting, unsustainable exploitation of NTFPs and fishing, which is a potential source of disturbance to species dependent on riverine habitats. At the current time, however, most of these threats are potential rather than actual, as the border army strictly control human access into the IBA³.

Threat	Severity
Agricultural intensification / expansion	• •
Aquaculture / fisheries	•
Forest grazing	•
Hunting	•
Infrastructure development	• •
Selective logging / cutting	• •
Unsustainable exploitation of NTFPs	•

Conservation Actions

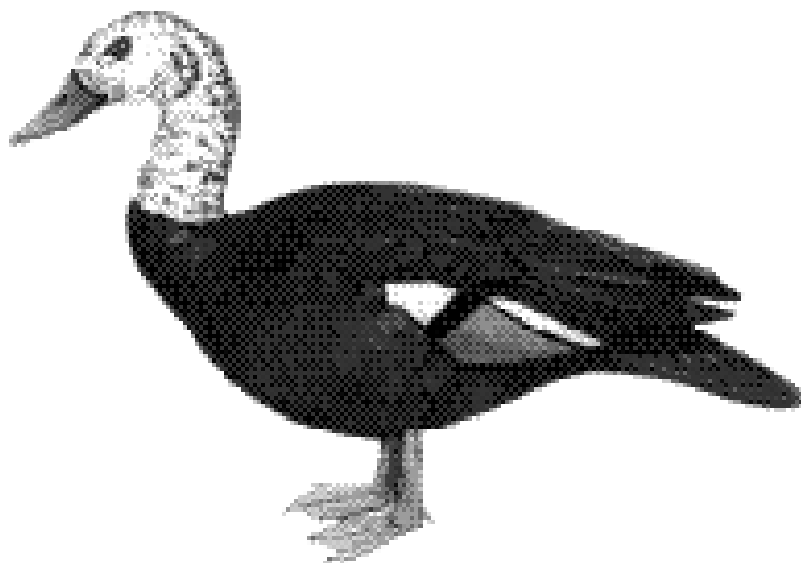
- None to date.

Recommendations

- Yok Don National Park should be extended to the south to include the Dak Dam stream and adjacent areas of habitat. Areas of habitat on the western bank of the Dak Dam stream, in Cambodia, should also be placed under appropriate conservation management.
- Existing controls on human access into the border zone should be maintained. In particular, there should be no human settlement along the border road.
- Further surveys should be conducted to assess the status and distribution of globally threatened bird and mammal species and to evaluate threats to the sites biodiversity, and the findings should be used as a basis for formulating appropriate management recommendations and identifying protected area boundaries.

References

1. 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.
2. Le Xuan Canh, Pham Trong Anh, Duckworth, J. W., Vu Ngoc Thanh and Lic Vuthy (1997) *A survey of large mammals in Dak Lak province, Vietnam*. Hanoi: WWF/ IUCN.
3. N. W. Brickle, *in litt.* 2002.
4. Eames, J. C. and Nguyen Duc Tu. (2002) *An interim biodiversity report for Yok Don National Park, Dak Lak province, Vietnam*. Unpublished report to the Vietnam PARC Project, Yok Don Component.



White-winged Duck *Cairina scutulata*

Ya Lop

Criteria: A1, A2 & A3

Province(s): Dak Lak
PA Status: None

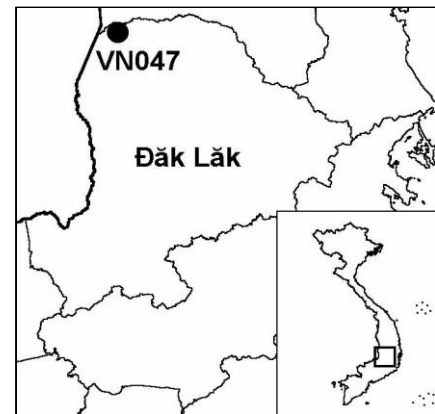
Latitude: 13°19'N
Longitude: 107°43'E
Area: 30,000 ha
Altitude Range: 100-711 m asl

EBA / SA:

None

Priority Landscape:

DF4 - Eastern Plains Dry Forests

**General Description**

The IBA is situated in the Mekong basin, along the international border with Cambodia. The IBA comprises an area of relatively undisturbed natural habitat bounded by the Ya Lop river in the north and the Ea H'Leo river in the south. The boundary of the IBA is defined such that a belt of forest on the southern bank of the Ea H'Leo river is included within the IBA. The topography of the site is mostly flat, although there are a few low hills in the north-east. The major vegetation type at the IBA is deciduous forest, although there are also areas of semi-evergreen and evergreen forest distributed along rivers and streams. One of the most notable physical features of the IBA is the series of ox-bow lakes distributed along the Ea H'Leo river. To the north, Ya Lop IBA is contiguous with Chu Prong IBA in Gia Lai province, while, to the west, it is contiguous with Upper Srepok Catchment IBA in Cambodia.

Bird Fauna: Key Features

Because Ya Lop IBA forms part of a large, contiguous landscape of natural habitats, the potential for the long-term conservation of key bird species at the site is perhaps higher than at other, more isolated, sites. Ya Lop IBA supports some of the most intact stretches of riverine forest remaining in the lowlands of Vietnam. This habitat supports a number of globally threatened and near-threatened bird species, including Grey-headed and Lesser Fish Eagles *Ichthyophaga ichthyaetus* and *I. humilis* and Oriental Darter *Anhinga melanogaster*. Other globally threatened and near-threatened bird species found at the IBA include White-rumped Vulture *Gyps bengalensis* and Red-headed Vulture *Sarcogyps calvus*. The former species is globally critically endangered, and currently known from only one other site in Vietnam: Chu M'Lanh IBA. Both species have declined drastically in Vietnam in recent decades, and are now largely restricted to areas along the Cambodian border. Indeed, it is possible that Vietnam no longer supports a breeding population of either species¹. Neither species has been confirmed to breed at the IBA.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
White-rumped Vulture <i>Gyps bengalensis</i>	A1, A3	CR	1	A single adult was observed on two occasions in June 1997 ² .
Green Peafowl <i>Pavo muticus</i>	A1, A3	VU	8	A single individual was seen and feathers of this species were found in June 1997 ² . The species was recorded on numerous occasions during March 1998 ³ .
[Sarus Crane <i>Grus antigone</i>]	A1	VU	5	During a survey in 1997, loggers reported the occurrence of the species ² .
Lesser Adjutant <i>Leptoptilos javanicus</i>	A1	VU	7	Two single birds and a group of three were observed in June 1997 ² . In addition, three single birds were recorded along the Ea H'Leo river in February 1998 ³ .
Lesser Fish Eagle <i>Ichthyophaga humilis</i>	A1	NT	6	Two single birds, only one of which was identified to species level, were observed along the Ea H'Leo river on separate days in June 1997 ² .
Grey-headed Fish Eagle <i>Ichthyophaga ichthyaetus</i>	A1	NT	8	A single individual was observed in June 1997 ² . A pair was seen displaying along the Ea H'Leo river in February 1998 ³ .
Red-headed Vulture <i>Sarcogyps calvus</i>	A1, A3	NT	3	The species was observed on numerous occasions during June 1997 ² .
White-rumped Falcon <i>Polihierax insignis</i>	A1, A3	NT	4	Four single birds and a group of four were observed in June 1997 ² . A single bird was also recorded in March 1998 ^{3,4} .

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Oriental Darter <i>Anhinga melanogaster</i>	A1	NT	9	A single individual was observed along the Ea H'Leo river in June 1997 ² .
Asian Golden Weaver <i>Ploceus hypoxanthus</i>	A1	NT	3	The species was observed in small numbers on numerous occasions, and three nests were seen under construction, during June 1997 ² .

Notes: [] = unconfirmed record.

Biome Restricted Species: The site qualifies under criterion A3 because it supports 20 species restricted to the Indo-Malayan Tropical Dry Zone (Biome 11). See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
Northern Pigtail Macaque <i>Macaca leonina</i> ²	VU	[Brow-antlered Deer <i>Cervus eldii</i>] ²	VU
[Stump-tailed Macaque <i>Macaca arctoides</i>] ²	VU	Gaur <i>Bos gaurus</i> ²	VU
[Douc species <i>Pygathrix</i> sp.] ²	DD/EN	Banteng <i>Bos javanicus</i> ²	EN

Notes: [] = unconfirmed record.

Threats to Biodiversity

Ya Lop IBA is currently under the management of Ya Lop State Forest Enterprise, and significant areas of forest within the IBA have been subjected to commercial logging in the past. The results of a survey in 1997 revealed that the impacts of logging on the condition of the natural habitats at the IBA did not appear to have been too severe, and the riparian forest along the Ea H'Leo and Ya Lop rivers remained in a largely good condition². However, the situation may have changed significantly during the intervening five years.

The major threat to biodiversity at Ya Lop IBA is the rapid spread of human settlements and associated agricultural expansion along the Ya Lop and Ea H'Leo rivers. Apart from the direct loss of habitat, the increase in human population in the area can be expected to lead to greater pressure on the natural resources of the IBA, through timber extraction, NTFP collection, livestock grazing, fishing and hunting². Patterns of human settlement within the IBA follow logging roads and water courses, and, consequently, future road developments within the IBA must be considered as a potentially serious threat.

Threat	Severity
Agricultural intensification / expansion	• • •
Aquaculture / fisheries	•
Commercial timber extraction	• •
Forest grazing	•
Hunting	• •
Infrastructure development	• •
Selective logging / cutting	•
Unsustainable exploitation of NTFPs	•

Conservation Actions

- None to date.

Recommendations

- The boundaries of Yok Don National Park should be extended northwards to the border with Gia Lai province, thereby incorporating Ya Lop IBA, and linking Yok Don to Chu Prong proposed nature reserve^{2,3}.
- A network of guard stations should be established and patrols should be created to provide a basis for enforcement of forest management regulations at the IBA.
- Concerted action should be taken to halt the spread of human settlement and agriculture along the Ya Lop and Ea H'Leo rivers, and other areas within the IBA.
- Environmental Impact Assessments should be conducted prior to any future infrastructure developments at the site, particularly those involving road construction, and appropriate mitigation measures should be implemented.
- A detailed threat assessment should be conducted to collect up-to-date information on the nature and severity of threats to biodiversity at the IBA as a basis for conservation action.

References

1. Eames, J. C. and Tordoff, A. W. (in prep.) Recent records and a conservation status review of some threatened and near-threatened bird species in Vietnam.
2. Le Xuan Canh, Pham Trong Anh, Duckworth, J. W., Vu Ngoc Thanh and Lic Vuthy (1997) *A survey of large mammals in Dak Lak province, Vietnam*. Hanoi: WWF Indochina Programme and IUCN.
3. 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.
4. N. W. Brickle, *in litt.* 2002.

Tuyen Lam

Criteria: A1, A2 & A3

Province(s): Lam Dong
PA Status: None

Latitude: 11°52'N
Longitude: 108°25'E
Area: 13,000 ha
Altitude Range: 1,400-1,812 m asl

EBA / SA:

Da Lat Plateau EBA

Priority Landscape:

SA 3 - Southern Annamites Main Montane Block

**General Description**

The IBA comprises a large forest fragment on the Da Lat plateau, which extends to the south and west of Tuyen Lam lake, a reservoir located 6 km south-west of Da Lat city. Tuyen Lam lake is surrounded by coniferous forest dominated by *Pinus kesiya*. At the southern end of the reservoir, the coniferous forest is backed by lower montane evergreen forest, which extends south-east to a site known as Cam Ly. The forest fragment is surrounded by a mosaic of market gardens, secondary scrub and plantation forest.

Bird Fauna: Key Features

While the total area of natural forest at Tuyen Lam IBA is lower than that at several other IBAs in the Da Lat Plateau Endemic Bird Area (EBA), the site supports six of the eight restricted-range species that define this EBA: Grey-crowned Crocias *Crocias langbianis*, Yellow-billed Nuthatch *Sitta solangiae*, Collared Laughingthrush *Garrulax yersini*, White-cheeked Laughingthrush *G. vassali*, Black-hooded Laughingthrush *G. milleti* and Vietnam Greenfinch *Carduelis monguilloti*. Of these species, the most significant is the globally endangered Grey-crowned Crocias, of which there are recent records from only one other site in the world: Chu Yang Sin IBA. Tuyen Lam IBA is an important site for the conservation of this species due to the presence of extensive areas of lower montane evergreen forest, a habitat type that has been extensively lost elsewhere on the Da Lat plateau. Tuyen Lam IBA also supports a number of distinctive subspecies, confined to the Da Lat Plateau EBA, some of which may be worthy of elevation to species level. These include subspecies of Spot-breasted Laughingthrush *Garrulax merulinus annamensis*, Blue-winged Minla *Minla cyanouoptera* and Grey-headed Parrotbill *Paradoxornis gularis margaritae*. Other key species recorded at Tuyen Lam IBA include Germain's Peacock Pheasant *Polyplectron germaini*, a restricted-range species characteristic of the South Vietnamese Lowlands EBA, and Pale-capped Pigeon *Columba punicea*, a globally vulnerable species. Regarding the latter species, the largest recent counts of this species in Vietnam have been made at Tuyen Lam IBA¹.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Collared Laughingthrush <i>Garrulax yersini</i>	A1, A2	EN	5	Three birds were observed in December 1994 ¹ .
Grey-crowned Crocias <i>Crocias langbianis</i>	A1, A2	EN	1	Since 1994, the species has been recorded on a number of occasions ^{2,3,4} . The most recent record is of three birds seen in September 2002 ⁵ .
Germain's Peacock Pheasant <i>Polyplectron germaini</i>	A1, A2	VU	4	The species was heard calling in February 1992 ¹ .
Pale-capped Pigeon <i>Columba punicea</i>	A1, A3	VU	5	There are regular records of this species, including 41 birds seen in January 1992 and 92 birds seen in December 1995 ¹ .
Yellow-billed Nuthatch <i>Sitta solangiae</i>	A1, A2	NT	11	Up to 10 birds were observed in May 1991 ⁵ . The species was recorded in December 1994 ² . Flocks of three and four birds were observed in April 1998 ³ . The most recent record is of a single bird seen in February 2000 ⁴ .

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Black-hooded Laughingthrush <i>Garrulax milleti</i>	A1, A2	NT	8	There are regular records of this species, including two flocks of at least five and three birds in May 1991 ⁶ , a flock of six to eight birds in April 1997 ⁴ , and between three and five birds in April 1998 ³ . The most recent record is of a single bird heard in February 2000 ⁴ .
Vietnam Greenfinch <i>Carduelis monguilloti</i>	A1, A2	NT	4	The species was recorded in December 1994 ² and February 2000 ⁴ . The most recent record is of a flock of 12 birds seen in September 2002 ⁵ .
White-cheeked Laughingthrush <i>Garrulax vassali</i>	A2		8	At least 30 birds were observed in May 1991 ⁵ . The species was recorded in December 1994 ² . Four birds were recorded in April 1998 ³ . The most recent record is of a flock of 12 birds seen in September 2002 ⁵ .

Biome Restricted Species: The site qualifies under criterion A3 because it supports 27 species restricted to the Sino-Himalayan Subtropical Forests (Biome 08). See Appendix 4 for details.

Secondary Criteria

Species

Buff-cheeked Gibbon *Nomascus gabriellae*⁷

Status

VU

Threats to Biodiversity

The major threat to biodiversity at Tuyen Lam IBA is habitat loss as a result of conversion of forest to agriculture. The IBA is surrounded by a number of market gardens, some of which are encroaching the natural forest⁶. Small-scale illegal logging has been observed taking place at several places within the site⁵. Firewood collection and charcoal production have also been identified as major causes of habitat loss at the site¹. Tourism development is already taking place around Tuyen Lam lake, and represents a potential additional threat to biodiversity at the IBA.

Threat	Severity
Agricultural intensification / expansion	• •
Fire	• •
Infrastructure development	•
Recreation / tourism	•
Selective logging / cutting	• •
Unsustainable exploitation of NTFPs	• •

Conservation Actions

- None to date.

Recommendations

- Tuyen Lam IBA should be designated as a special-use forest or other appropriate land-use designation compatible with biodiversity conservation, a forest management board should be established, and forest management regulations should be enforced, particularly controls on charcoal production and firewood collection.
- All further conversion of forest to agriculture at the IBA should be strictly prohibited.
- Further surveys should be conducted to assess the status and distribution of key species at the site, as a basis for design of an appropriate site boundary.
- Environmental Impact Assessments should be conducted prior to any further infrastructure development at the site, particularly development of tourism infrastructure, and appropriate mitigation measures should be implemented.
- A tourism management board, including representatives of the forest management board, the provincial tourism company and other local stakeholders, should be established, as a basis for the sustainable development of ecotourism at the site.

References

1. BirdLife International (2001) *Threatened birds of Asia: the BirdLife International red data book*. Cambridge, U.K.: BirdLife International.
2. Dymond, J. N. (1998) Birds in Vietnam in December 1993 and December 1994. *Forktail* 13: 7-12.

3. Hornbuckle, J. (1998) *Vietnam trip report 24 March to 14 April 1998*. Unpublished report posted on the WorldTwitch Website.
4. Eames, J. C. and Tordoff, A. W. (in prep.) Recent records and a conservation status review of some threatened and near-threatened bird species in Vietnam.
5. R. Craik *in litt.* 2002.
6. Robson, C. R., Eames, J. C., Nguyen Cu and Truong Van La (1993) Birds recorded during the third BirdLife/Forest Birds Working Group expedition in Vietnam. *Forktail* 9: 89-119.
7. J. C. Eames personal observations.



Grey-crowned Crocias *Crocias langbianis*

Chu M'Lanh

Criteria: A1 & A3

Province(s): Dak Lak
PA Status: National Park

Latitude: 13°07'N
Longitude: 107°43'E
Area: 54,563 ha
Altitude Range: 100-502 m asl

EBA / SA:

None

Priority Landscape:

DF4 - Eastern Plains Dry Forests

**General Description**

Situated in the Mekong basin, on the international border with Cambodia, the IBA is centred on a ridge of low hills, running east-west, to the north of the Srepok river. To the north of these hills, the terrain is relatively flat, around 200 m in elevation, and drained by the Dak Rue stream, a tributary of the Srepok river. The dominant vegetation type at Chu M'Lanh is deciduous forest, although the IBA also supports smaller areas of evergreen or semi-evergreen forest, mainly on hills and along watercourses, and patches of secondary scrub. The IBA was included within an extension to Yok Don National Park approved in 2001. To the west, Chu M'Lanh IBA is contiguous with Upper Srepok Catchment IBA in Cambodia, while, to the south, it is contiguous with Yok Don IBA. Chu M'Lanh IBA does not include the Srepok river, both banks of which are included within Yok Don IBA.

Bird Fauna: Key Features

The avifauna of Chu M'Lanh IBA is characteristic of the dry forests of central Indochina, and all five of the globally threatened and near-threatened bird species believed to regularly occur at the IBA in significant numbers are typical components of the dry forest ecosystem: Green Peafowl *Pavo muticus*, Lesser Adjutant *Leptoptilos javanicus*, White-rumped Vulture *Gyps bengalensis*, Red-headed Vulture *Sarcogyps calvus* and White-rumped Falcon *Polihierax insignis*. Green Peafowl and Lesser Adjutant are dependent upon water courses within the forest. White-rumped and Red-headed Vultures have both declined drastically in Vietnam in recent decades, and are now largely restricted to areas along the Cambodian border. Indeed, it is possible that Vietnam no longer supports a breeding population of either species¹. Neither species has been confirmed to breed at the IBA.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
White-rumped Vulture <i>Gyps bengalensis</i>	A1, A3	CR	1	The species is believed to be a very rare resident and non-breeding visitor ² . Single birds were seen on four occasions during February 1998 ³ .
Green Peafowl <i>Pavo muticus</i>	A1, A3	VU	8	Footprints of single birds were seen at several locations between June and July 1997 ⁴ . During February 1998, at least 37 individuals were recorded at nine locations ³ .
†Sarus Crane <i>Grus antigone</i>	A1	VU	4	A fully grown immature was observed in a roadside pool in June 1997 ⁴ . The species is probably a rare passage migrant through the site, and it is unlikely that the site regularly supports a significant population ² .
Lesser Adjutant <i>Leptoptilos javanicus</i>	A1	VU	7	A single bird was seen in June 1997 ⁴ . The species was observed on several occasions during February 1998, including a group of 10 near Border Army Station Two ³ .
Red-headed Vulture <i>Sarcogyps calvus</i>	A1, A3	NT	3	The species is believed to be a very rare resident and non-breeding visitor ² . Two single birds and a pair were seen in February 1998 ³ .
White-rumped Falcon <i>Polihierax insignis</i>	A1, A3	NT	4	The species is a scarce resident ² . The species was recorded almost daily during a survey in June and July 1997 ⁴ .

Notes: † = not confirmed to regularly occur in significant numbers.

Biome Restricted Species: The site qualifies under criterion A3 because it supports 19 species restricted to the Indo-Malayan Tropical Dry Zone (Biome 11). See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
Northern Pigtail Macaque <i>Macaca leonina</i> ⁴	VU	Silver Langur <i>Trachypithecus villosus</i> ⁴	DD
Rhesus/ Long-tailed Macaque <i>Macaca mulatta / fascicularis</i> ⁴	NT	Gaur <i>Bos gaurus</i> ⁴	VU
		Banteng <i>Bos javanicus</i> ⁴	EN

Threats to Biodiversity

Prior to the extension of Yok Don National Park in 2001, Chu M'Lanh IBA was under state forest enterprise management, and areas of forest within the IBA were subjected to commercial logging until at least as recently as 1997⁴. While commercial logging may have resulted in temporary habitat disturbance and some degradation, the major on-going impacts on biodiversity are likely to be increased risk of fire, increased access to forest resources, and spontaneous in-migration into areas opened up by logging roads.

Currently, the biggest single threat to biodiversity at Chu M'Lanh is infrastructure development, particularly the planned construction of a road along the international border with Cambodia. The construction of this road might facilitate access to forest resources and act as a focus for human settlement within the IBA. The latter is of particular concern in the context of high levels of migration into and within Dak Lak province. However, the purpose of the road may only be for patrolling by the border army, and, providing that strict controls on entry into the border area are maintained, the impacts of this infrastructure development can be mitigated.

Threat	Severity
Agricultural intensification / expansion	• •
Commercial timber extraction	•
Fire	•
Forest grazing	•
Hunting	• •
Infrastructure development	• •
Selective logging / cutting	•

Conservation Actions

- Chu M'Lanh IBA was included within an extension to Yok Don National Park approved in September 2001, and, subsequently, the IBA has been managed with the principal objective of biodiversity conservation².
- Yok Don National Park is currently the focus of a full-scale GEF project entitled *Creating Protected Areas for Resource Conservation Using Landscape Ecology (PARC)*, which began implementation in 1999².

Recommendations

- Plans to construct a road to the west of the IBA, along the international border with Cambodia, are wholly incompatible with the objectives of biodiversity conservation and in direct contravention of the management regulations of Yok Don National Park, and should, therefore, be abandoned.
- All other planned infrastructure developments at the national park should be subjected to Environmental Impact Assessment, and appropriate mitigation measures should be implemented.
- Further human settlement within and immediately adjacent to the IBA should be strictly controlled.
- The conservation management planning and law enforcement capacity of national park staff should be strengthened².
- Mechanisms facilitating dialogue between different stakeholders at the IBA should be strengthened, in order to promote land-use and development planning compatible with maintenance of the integrity of the site.

References

1. Eames, J. C. and Tordoff, A. W. (in prep.) Recent records and a conservation status review of some threatened and near-threatened bird species in Vietnam.
2. Eames, J. C. and Nguyen Duc Tu. (2002) *An interim biodiversity report for Yok Don National Park, Dak Lak province, Vietnam*. Unpublished report to the Vietnam PARC Project, Yok Don Component.
3. 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.
4. Le Xuan Canh, Pham Trong Anh, Duckworth, J. W., Vu Ngoc Thanh and Lic Vuthy (1997) *A survey of large mammals in Dak Lak province, Vietnam*. Hanoi: WWF Indochina Programme and IUCN.

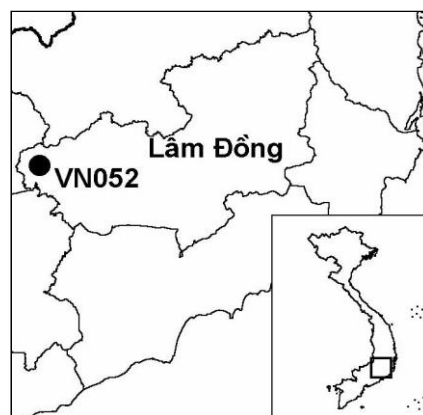
Cat Loc

Criteria: A1, A2 & A3

Province(s): Lam Dong
PA Status: National Park

Latitude: 11°40'N
Longitude: 107°23'E
Area: 30,635 ha
Altitude Range: 150-659 m asl

EBA / SA:
 South Vietnamese Lowlands EBA
Priority Landscape:
 SA 5 - Lowland Dong Nai Watershed



General Description

The IBA comprises the Cat Loc sector of Cat Tien National Park. Cat Loc is situated in the foothills of the Central Highlands, and is quite distinct from the other sectors of Cat Tien National Park in that the topography is not predominantly flat but dominated by undulating hills. The IBA supports a range of habitat types, including lowland semi-evergreen forest, lowland evergreen forest, bamboo forest, flooded forest and grassland. To the west, the IBA is bounded by the Dong Nai river, one of the major rivers in southern Vietnam. Cat Loc IBA is of international significance for mammal conservation, as it is the only site in Vietnam, and one of only two sites in the world, known to support a population of Lesser One-horned Rhinoceros *Rhinoceros sondaicus*¹. Cat Loc IBA is not contiguous with the other sectors of Cat Tien National Park, as it is separated by Cat Tien town, and associated human settlements and agricultural land. The IBA is, however, contiguous with significant areas of natural habitat to the east.

Bird Fauna: Key Features

The avifauna of Cat Loc IBA has a lot of similarities with that of Nam Cat Tien IBA. One major difference between the two sites is that Cat Loc does not support such extensive areas of wetland habitat as are found at Nam Cat Tien, and, therefore, Cat Loc supports fewer wetland-dependent species. Most notably, there are no records of White-winged Duck *Cairina scutulata*, White-shouldered Ibis *Pseudibis davisoni*, Lesser Adjutant *Leptoptilos javanicus* or Painted Stork *Mycteria leucocephala* from Cat Loc, although this may, in part, reflect differences in survey effort between the two IBAs. Regarding terrestrial forest species, Cat Loc supports a similar complement to Nam Cat Tien, most notably the three restricted-range species that define the South Vietnamese Lowlands Endemic Bird Area: Orange-necked Partridge *Arborophila davidi*, Germain's Peacock Pheasant *Polyplectron germaini* and Grey-faced Tit Babbler *Macronous kelleyi*. Of these species, Orange-necked Partridge is perhaps the most significant, as Cat Loc IBA is one of only three sites in the world known to support this globally endangered species.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Orange-necked Partridge <i>Arborophila davidi</i>	A1, A2	EN	1	Up to 27 birds were recorded between February and April 1997 ^{2,3} . The species was recorded on at least 52 occasions between January and May 2000 and between April and June 2001 ⁴ .
Germain's Peacock Pheasant <i>Polyplectron germaini</i>	A1, A2	VU	4	A total of 12 birds were recorded in April 1993, including three groups of three birds ⁵ . Three males and one female were trapped in October 1993 ³ . The species was recorded between February and April 1997 ² . At least 17 individuals were recorded between January and May 2000 and between April and June 2001 ⁴ . Finally, feathers belonging to this species were found in November 2001 ⁶ .
Siamese Fireback <i>Lophura diardi</i>	A1, A3	NT	13	Feathers belonging to this species were found in September 1993 ⁵ and between November and December 2001 ⁶ . The species was also recorded at the site between February and April 1997 ² , between January and May 2000, and between April and June 2001 ⁴ .

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Great Hornbill <i>Buceros bicornis</i>	A1	NT	13	A single bird was recorded in December 2001 ⁶ .
Oriental Darter <i>Anhinga melanogaster</i>	A1	NT	9	The species was recorded in 2000 ⁷ .
[Asian Golden Weaver <i>Ploceus hypoxanthus</i>]	A1	NT	4	Several birds were observed among reeds in a small marsh outside of the IBA in April 1997 ⁵ . While it is likely that the IBA may regularly support a significant population of this species, its occurrence within the IBA has not yet been confirmed.
Grey-faced Tit Babbler <i>Macronous kelleyi</i>	A2		12	The species was recorded on several occasions during October 1993 and April 1997 ⁵ .

Notes: [] = unconfirmed record.

Biome Restricted Species: The site qualifies under criterion A3 because it supports 15 species restricted to the Indochinese Tropical Moist Forests (Biome 09) and seven species restricted to the Indo-Malayan Tropical Dry Zone (Biome 11). See Appendix 4 for details.

Secondary Criteria

Species	Status	Species	Status
Buff-cheeked Gibbon <i>Nomascus gabriellae</i> ⁸	VU	Lesser One-horned Rhinoceros <i>Rhinoceros sondaicus</i> ⁸	CR

Threats to Biodiversity

The major threats to biodiversity at Cat Loc IBA are conversion of forest into agriculture, hunting, and unsustainable exploitation of timber and NTFPs. Of these, clearance of forest for agriculture, principally cashew plantations, is perhaps the biggest threat, as it is resulting in fragmentation and loss of habitat. All these threats are compounded by the presence of several villages within the IBA, populated by members of the Kinh, Tay, Chau Ma and Stieng ethnic groups. However, there exist plans to resettle some of these people outside of the IBA in order to secure the integrity of the key area for Lesser One-horned Rhinoceros¹.

Threat	Severity
Agricultural intensification / expansion	• •
Construction of dykes / dams	•
Hunting	• •
Selective logging / cutting	•

Conservation Actions

- Lam Dong Provincial People's Committee approved an investment plan to establish a rhinoceros sanctuary at Cat Loc in 1992, and a management board was established in 1996¹.
- In 1998, Cat Loc Rhinoceros Sanctuary was incorporated within Cat Tien National Park, together with the Nam Cat Tien sector in Dong Nai province and the Tay Cat Tien sector in Binh Phuoc province¹.
- In 1998, WWF and the Ministry of Agriculture and Rural Development initiated a five-year project, entitled the *Cat Tien National Park Conservation Project*, with funding from the governments of the Netherlands and Vietnam¹. In 2002, this project was extended for a further two years.
- Between 1999 and 2000, the U.S. Fish and Wildlife Service funded two smaller WWF-implemented projects at Cat Tien National Park, which comprised scientific studies and awareness raising activities related to Lesser One-horned Rhinoceros¹.

Recommendations

- Existing controls on hunting, extraction of forest products, and conversion of forest into agricultural land, particularly cashew plantations, should be maintained and strengthened.
- Providing suitable measures are implemented to mitigate negative impacts on the communities involved, all villages currently within the IBA should be resettled outside the boundaries of the national park.
- Existing environmental awareness activities in communities within and around the IBA should be continued.
- The feasibility of extending protected area status, or another appropriate land-use designation, to contiguous areas of natural habitat to the east of the IBA should be assessed.

References

1. BirdLife International and the Forest Inventory and Planning Institute (2001) *Sourcebook of existing and proposed protected areas in Vietnam*. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute.
2. Atkins, R. A. and Tentij, M. (1998) *The Orange-necked Partridge Arborophila davidi and five other galliformes in two protected areas in southern Vietnam*. Amsterdam: Institute of Systematics and Population Biology, University of Amsterdam.
3. Birdlife International (2001) *Threatened birds of Asia: the Birdlife International Red Data Book*. Cambridge, UK: Birdlife International.
4. Nguyen Tran Vy, Nguyen Hoang Hao, Le Van Tinh, Tran Dinh Hung and Nguyen Viet Su (2001) *Pheasant survey in Cat Tien National Park, Vietnam, 2001*. Cat Tien: WWF Cat Tien National Park Conservation Project.
5. Eames, J. C. and Tordoff, A. W. (in prep.) Recent records and a conservation status review of some threatened and near-threatened bird species in Vietnam.
6. Vietnam-Russia Tropical Centre (2002) *Results of complex zoological-botanical expedition in Cat Loc*. Cat Tien: WWF Cat Tien National Park Conservation Project.
7. Nguyen Tran Vy, Nguyen Hoang Hao, Le Van Tinh and Tran Dinh Hung (2000b) [*Distribution of seven pheasant species in Cat Tien National Park, Vietnam.*] Cat Tien: Cat Tien National Park Management Board. (In Vietnamese.)
8. Ling, S. (2000) *A survey of wild cattle and other mammals, Cat Tien National Park, Vietnam*. Cat Tien: WWF Cat Tien National Park Conservation Project.



Orange-necked Partridge *Arborophila davidi*

Cong Troi

Criteria: A1, A2 & A3

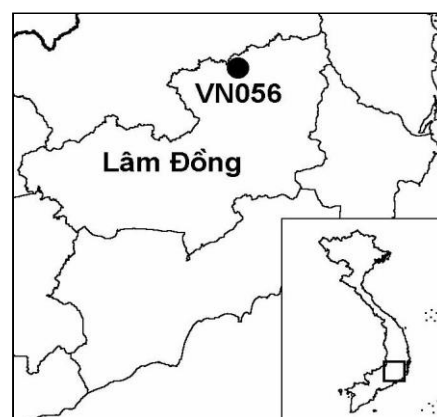
Province(s): Lam Dong
PA Status: None
Latitude: 12°09'N
Longitude: 108°20'E
Area: 28,000 ha
Altitude Range: 1,000-1,628 m asl

EBA / SA:

Da Lat Plateau EBA

Priority Landscape:

SA 3 - Southern Annamites Main Montane Block

**General Description**

The IBA comprises a ridge of gently sloping mountains on the Da Lat plateau, centred on Mount Cong Troi. Cong Troi IBA lies outside of Bi Dup-Nui Ba Nature Reserve, and borders Lang Bian IBA to the west. At higher elevations, the IBA supports extensive areas of lower montane evergreen forest, while, at lower elevations, on south-facing slopes, the IBA supports coniferous forest. There are also extensive areas of secondary scrub and bamboo present, which have developed after clearance of forest and disturbance.

Bird Fauna: Key Features

Cong Troi IBA is situated within the Da Lat Plateau Endemic Bird Area (EBA), and supports five of the eight bird species that define this EBA: Collared Laughingthrush *Garrulax yersini*, Black-hooded Laughingthrush *G. milleti*, White-cheeked Laughingthrush *G. vassali*, Yellow-billed Nuthatch *Sitta solangiae* and Vietnam Greenfinch *Carduelis monguilloti*.

Species	IBA Criteria	Global Threat Status	Other IBAs	Notes
Collared Laughingthrush <i>Garrulax yersini</i>	A1, A2	EN	5	At least eight birds were observed at elevations between 1,500 and 1,700 m asl in May 1991 ¹ .
Yellow-billed Nuthatch <i>Sitta solangiae</i>	A1, A2	NT	11	The species was recorded on several occasions during May 1991 ^{1,2} .
Black-hooded Laughingthrush <i>Garrulax milleti</i>	A1, A2	NT	8	A flock of up to 10 birds was observed twice in evergreen forest at approximately 1,000 m asl in May 1991 ^{1,2} .
Vietnam Greenfinch <i>Carduelis monguilloti</i>	A1, A2	NT	4	Several birds were observed in May 1991 ^{1,2} .
White-cheeked Laughingthrush <i>Garrulax vassali</i>	A2		8	One bird was recorded at 1,700 m asl and a flock of at least 35 birds was recorded at 1,510 m asl in May 1991 ¹ .

Biome Restricted Species: The site qualifies under criterion A3 because it supports 24 species restricted to the Sino-Himalayan Subtropical Forests (Biome 08). See Appendix 4 for details.

Secondary Criteria

Species **Status**
 Southern Serow *Naemorhedus sumatraensis*³ VU

Threats to Biodiversity

One of the major threats to biodiversity at Cong Troi IBA is loss of forest, as a result of shifting cultivation and associated fires. This threat has already resulted in extensive habitat loss at lower elevations. Other threats include hunting and over-exploitation of non-timber forest products, especially firewood and charcoal. These

Threat	Severity
Agricultural intensification / expansion	● ●
Fires	● ●
Hunting	● ●
Selective logging / cutting	● ●
Unsustainable exploitation of NTFPs	● ●

threats are compounded by the fact that Cong Troi is currently not designated as a protected area.

Conservation Actions

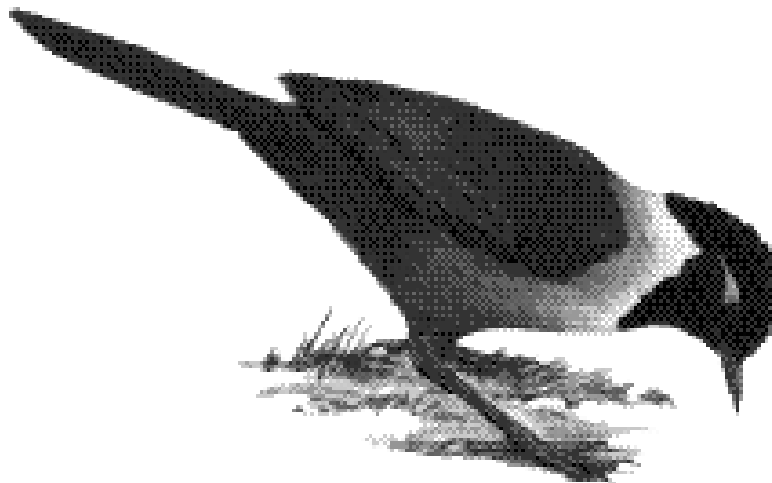
- None to date.

Recommendations

- The feasibility of conferring protected area status on Cong Troi IBA should be assessed, either as an extension to Bi Dup-Nui Ba Nature Reserve or as a separate protected area.
- The enforcement of forest management regulations at the IBA should be strengthened, with a particular focus on preventing further loss of forest cover and controlling hunting.
- A programme of extension activities should be implemented among local communities, aimed at raising awareness of the threat posed by fire, and promoting farming techniques that reduce the risk of accidental fire.

References

1. Robson, C. R., Eames, J. C., Nguyen Cu and Truong Van La (1993) Birds recorded during the third BirdLife/Forest Birds Working Group expedition in Vietnam. *Forktail* 9: 89-119.
2. Eames, J. C. (1995) Endemic birds and protected area development on the Da Lat plateau, Vietnam. *Bird Conservation International* 5(4): 491-523.
3. J. C. Eames personal observation.



Black-hooded Laughingthrush *Garrulax milleti*