

Phou Daen Din NBCA (PDD)

0 GENERAL INFORMATION

Name Phou Daen Din (also spelt Phou Dendin, Phou Dene Dinh)

Translated Border Mountains

Status

Established by PM Decree 164, 29 October 1993.

Location

Latitude: 21° 40' – 22° 18' N

Longitude: 102° 00' – 102° 40' E

Map Sheets

Scale I: 50,000

5453-4	5453-1	
5453-3	5453-2	5553-3
5452-4	5452-1	5552-4
	5452-2	5552-3

Scale I: 100,000

F-48-61
F-48-73
F-48-74

Scale I: 200,000

F-48-13
F-48-19

Scale I: 500,000

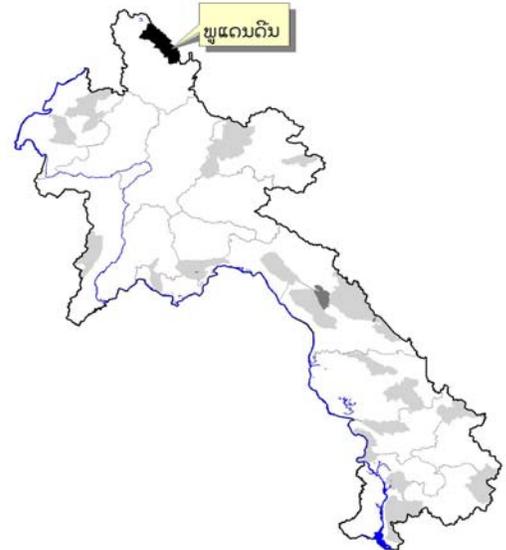
F-48-A
F-48-C

Province

Phongsaly

Districts

Mai %
Khoua %
Sam Phanh %
Boun Dtai %
Boun Neua %



Boundaries

The NBCA is based around the Nam Ou and its catchment from the confluence with the Nam Va in the S, upstream to the confluence with the Nam Khang, then W along the Nam Ou to around Phou Tokachong, and for a similar distance N along the Nam Khang. The boundaries do not follow any clear topographical feature and will be largely determined by the distribution of remaining habitat. To the W the boundary runs close to the Nam Ou for most of its length. To the E it extend to the Vietnamese border in the S, although for much of its length it runs parallel to and up to 10km within the border. *Robichaud (1995)* reported that the PAFO had mapped two sets of borders; a core area corresponding to the NBCA proper, and a buffer zone extending some way beyond it (at least in the S), in which tree cutting was permitted, but hunting was prohibited.

Area

159,240 ha

Proposed Extensions

Berkmüller (1995) substantially refined the boundaries, making small excisions in several northern areas, extending a narrow corridor to the Vietnamese border in the N, and adding a sizeable area (c. 30% of existing area) to the SE, extending the boundary S along the Vietnamese border to the Nam Houn and its confluence with the Nam Paho.

Reasons for proposed Extensions or Excisions

Berkmüller's (1995) amendments were made on the basis of satellite imagery to maximise the coverage of natural habitat and excise heavily degraded areas.

Access

Access is by boat along the Nam Ou and Nam Khang or by foot. From Phongsaly, the NBCA can be reached by a short drive to Ban Hatxa and a ½-day boat journey, or by a 2-day walk. The Nam Ou upstream of the confluence with the Nam Khang can be travelled by boat, but it is dotted with rapids and the trip requires much time, effort and expense.

Stakeholder Villages and Population

District	No. of Villages	No. of Villages by type				Population
		I	II	III	IV	
TOTAL						

Note: Only small villages within the NBCA.

Principal Local Resource Uses

Shifting cultivation with a long (10-15yr) rotation period. Poppy and wet rice are grown on river and stream terraces. NTFPs are collected mainly for domestic consumption, but occasionally for sale.

Ethnic Composition

Mostly hill tribes: Lue, Haw, Yao, Si-dah, Alou, Hmong and others.

2 BRIEF HISTORY

1992	Reconnaissance survey. Interviews with Phongsaly officials and in a small number of villages.
1993	NBCA declared.
1995	Brief wildlife survey by Cedar Grove Ornithological Research Station.
1995	Brief wildlife survey by WCS.
1998	EU Phongsaly Forest Conservation and Rural Development Project commenced.
1999	EU PFCRDP reconnaissance visit to NBCA.
1999	WCS herptile survey (October).

3 ECOLOGY

Physical Features

The great majority of the area is comprised of hills around the Nam Ou valley. The highest hills are along the Vietnamese border to the E, and most drainage is to the W into the Nam Ou. The area is hilly throughout, with 60% above 1000m.

Elevation

450m – 1948m.

Climate

Main Forest Types

Predominantly dry evergreen and semi-evergreen. Areas around main rivers relatively degraded, with a mosaic of swidden and forest at various stages of regeneration, but habitat still in markedly better condition than areas outside the NBCA. Large tracts of contiguous old-growth forest apparently survive towards the Vietnamese border to the E and along the Nam Ou, upstream of the Nam Khang confluence.

Other Habitat Features

In 1992, heavily used saltlicks were reported by the Nam Ou, upstream of the Nam Khang.

Recorded Vertebrates¹

MAMMALS

Common Name	Scientific Name	National Priority	Global Threat Category	Lao Risk Status
Rhesus Macaque	<i>Macaca mulatta</i>	-	GNT	PARL
Phayre's Langur	<i>Semnopithecus phayrei</i>	INP	DD	ARL
Bear species	<i>Species not identified</i>	-	-	-
Asian Elephant	<i>Elephas maximus</i>	HNP	EN	ARL

¹ See priority/ threat/ risk classification key at the end of this section.

Pig species	<i>Species not identified</i>	-	-	-
Inornate Squirrel	<i>Callosciurus inornatus</i>	-	VU	LKL
East Asian Porcupine	<i>Hystrix brachyura</i>	-	VU	0

BIRDS

Common Name	Scientific Name	National Priority	Global Threat Category	Lao Risk Status
Great Hornbill	<i>Buceros bicornis</i>	HNP	0	ARL
Brown Hornbill	<i>Anorrhinus tickelii</i>	-	GNT	PARL
Rufous-necked Hornbill	<i>Aceros nipalensis</i>	HNP	VU	ARL
Wreathed Hornbill	<i>Aceros undulatus</i>	-	0	ARL
Blyth's Kingfisher	<i>Alcedo hercules</i>	-	VU	PARL
River Lapwing	<i>Vanellus duvaucelii</i>	INP	0	ARL
Lesser Fish Eagle	<i>Ichthyophaga humilis</i>	INP	GNT	ARL
Brown Dipper	<i>Cinclus pallasii</i>	-	0	PARL
Green Cochoa	<i>Cochoa viridis</i>	-	GNT	0
Yellow-vented Warbler	<i>Phylloscopus cantator</i>	-	GNT	0
Rufous-throated Fulvetta	<i>Alcippe rufogularis</i>	-	GNT	0

In addition to the above information, the NBCA has recorded 10 species of Reptile (2 key) and 20 species of Amphibian.

CLASSIFICATION KEY (from Duckworth *et al.*, 1999)

<p>National Priority Categories</p> <p>ANP: Acute National Priority; HNP: High National Priority; INP: Intermediate National Priority</p>
<p>Global Threat Categories</p> <p>0: not listed as of concern; DD: data deficient; GNT: globally near-threatened; GT-CR: globally threatened - critical; GT-EN: globally threatened - endangered; GT-VU: globally threatened - vulnerable; n/a: not applicable.</p>
<p>Lao Risk Status</p> <p>0: not at risk in Lao PDR; ARL: at risk in Lao PDR; CARL: conditionally at risk in Lao PDR; LKL: little known in Lao PDR; n/a: not applicable; PARL: potentially at risk in Lao PDR.</p>

4 PRINCIPAL CONTRIBUTIONS TO THE NBCA SYSTEM

Biodiversity Values

PDD is a mid-ranking NBCA in terms of biological importance. It is the only NBCA in biogeographic subunit 10c, but surveys of birds and herptiles to date suggest it is not particularly distinct from other northern Lao sites (R. Tizard & B. Stuart, verbally; Ling 1999).

Three bird species are present that are not recorded from any other NBCA, however none of these is a key species. There are also elephants, gibbons and a high density of Lesser Fish-eagles.

High densities of deer, otter and water monitor tracks around the Nam Ou, upstream of the Nam Khang, suggest this area is little affected by hunting, almost certainly due to the difficulty of access. The extent of disturbance in the other remaining block of old forest, near the Vietnamese border, is unknown.

There have been reports of several species of large mammals - more extensive surveys may well yield appreciable numbers of additional species.

Watershed Values

Settlements within the NBCA tend to be located where smaller tributaries join the main rivers, and probably depend directly on local catchments. The importance of the contribution of the NBCA to the overall catchment of the Nam Ou is unclear.

Cultural Values

Three dis-used temple complexes and a number of stone carvings lie within the area. Their cultural value is not known.

Recreation and Tourism Values

Main rivers and ethnic groups are potential attractions. Despite the relatively remote location, *Kjøller (1999)* reports that several tourists already visit the area each year.

Principal Threats

- Shifting cultivation has had a major impact on the lower stretches of the Nam Ou, and given patterns of habitat clearance in northern Laos, even the highest areas must be at risk of eventual use.
- The impact of other traditional uses has not been assessed to date, and neither has a current plan to introduce Cardamom cultivation to the area. Hunting will undoubtedly have depressed populations of larger vertebrates, however, and the growing local population is cause for concern.
- Foreign intruders are active in the area, but information regarding their precise impact is currently confused. *Kjøller (1999)* was told that Vietnamese poachers, loggers, gold miners and Mai Dam collectors were present, but was given conflicting information about the severity of their impact. B. Stuart was told later that year, in the same villages, that the major problem came largely from Chinese, not Vietnamese poachers, and that villagers actively pursued and arrested the Chinese.
- The thin, elongate shape of the NBCA places it at inherent risk from edge effects and habitat fragmentation.

5 CURRENT MANAGEMENT

Contact

Staffing

Management Structure

No current management structure

Buildings

Financial Support & Training

The EU Phongsaly Forest Conservation and Rural Development Project was begun in 1998, and has committed to supporting conservation activities within the NBCA. No management or action plan has yet been produced for the NBCA, however.

Current Management Priorities

Possible Research Topics

Other Projects Active in the Area

6 REPORTS AND PUBLICATIONS

- 1) Berkmüller, K. et al. (1993). Protected area system planning and management in Lao PDR: status report to mid-1993. LSFCEP/IUCN, DoF.
- 2) Berkmüller, K. et al. (1995). Protected area system planning and management in Lao PDR: status report to mid-1995. LSFCEP/IUCN, DoF.
- 3) Duckworth, J. W. et al. (1999). Wildlife in Lao PDR: 1999 Status Report. IUCN/WCS/CPAWM.
- 4) Flint, C. (1999). Data/Information on Conservation Management and Protected Areas in the Lao PDR. CMS & TNA Project, DoF.
- 5) Kjølner, P. (1999). Visit to Phou Dehn (sic.) Din, May 1999. Fieldtrip report for EU PFCRDP.
- 6) Ling, S. D. (1999). A Biological System of Prioritisation for Protected Areas in the Lao PDR. Report to WCS.
- 7) Robichaud, W. G. (1995) A Preliminary Wildlife and Habitat Survey of Phou Dendin NBCA, Phongsali. Cedar Grove Ornithological Research Station / CPAWM.
- 8) Robichaud, W. G. (in prep) Wildlife and Habitat Survey of Phou Dendin NBCA. WCS/CPAWM.