

# Caves in Houaphan and Oudomxay Province Lao PDR



## Results of the Northern Lao – European Cave Project

January 11<sup>th</sup>-25<sup>th</sup> 2009

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## 1. Summary

The exploration in January 2007 & 2008 targeted the limestone areas at Xam Neua/Vieng Xay in Houaphan province. The region was one of the high priorities of the project as across the border in Vietnam extensive cave systems were described by Belgian and British expeditions. The expedition in 2007 spent few days in the Vieng Thong area to visit caves that were described in a report from the Wildlife Conservation Society (WCS) as part as a conversation project of the close by Nam Et National Bioconservation Area (NBCA). Surprisingly a river cave of 1 km length was found with many sinter decorations. The villages reported more caves along the road towards the Vietnam border. The 2009 expedition visited this area with the main objective of a systematic search and documentation of caves along the road. The project spent one week and found several river caves within walking distance. The longest system is Tham Nam Mai was completed within two days. Lica Ersek, who works as postdoc at the karst group of Prof. Gideon Henderson at Oxford University, extracted two stalagmites to investigate the



Figure 1: Overview map of Northern Laos with the locations of Vieng Thong and Oudomxay caving areas marked with oval circles.

climate change of the region out of the speleothem data. Approval of the National Park authority was given prior to the extraction of the relative small stalagmites. The expedition spent the last two days in a remote area 75 km North of Vieng Thong. Tham Kokai turned out to be rather big after a 50 m crawl. The main passage continued with a width of 20-25 meters and 15 m height straight into the mountain with hundreds of meters of dry sinter basins filled with sinter pearls of 3-5 cm diameter. The cave ends currently at a narrow 15 cm wide window with strong wind and a big passage behind. It is blocked by sinter formations and needs manual widening.

The second objective of the 2009 expedition was the exploration of a new area in Oudomxay province. The provincial tourism office of Oudomxay reported on the webpage of the National Tourist Authority a new large cave developed for ecotourism. No end has been found by the local villagers so far. The contact was made prior to the expedition and we were invited to survey the cave called Chom Ong. This cave was a big surprise to us in dimension and length and bypassed all other caves know in the North of Laos. The cave stretched along a 4 km long mountain ridge with a parallel running river and fossil passage with passage dimensions of 20 m width and 25 height. The cave turned out to be a trough cave and the whole traverse takes 3.5 hours with 3 hours additional walking time to rear and front entrance. The river and fossil passage is connected as several places by side passages. A big distortion resulted in two huge overlaying chambers of 100 m x 30 m footprint and up to 50 m height. Such dimensions have been found so far only in Khammouane province in the South of Laos. The system was surveyed in only 5 days to a length of 11.3 km with several wide open side passages remaining. It needed a 15 hours trip during the last day to achieve the connections between the known 6 entrances. The cave is now by far the longest cave of Northern Laos and a huge step forward from the former longest cave Tham Nam Long of 5 km length. It gives a promising perspective for the discovery of more long caves in Northern Laos.

The project in 2009 surveyed in total 13 caves with 15 km documented passages. The work will provide the necessary basis for the Oudomxay Tourism Office to develop the Chom Ong Cav as ecotourism site and to implement protection measures.

The table below summarizes the longest caves in Northern Laos:



No.	Cave name	District	Village	Length (m)	Explored
1	<b>Chom Ong System</b>	<b>Oudomxay</b>	<b>Ban Chom Ong</b>	<b>11300</b>	<b>2009</b>
2	<b>Tham Nam Long</b>	<b>Vieng Xai</b>	<b>Ban Napoung</b>	<b>4981</b>	<b>2007/2008</b>
3	<b>Tham Nam Eng (resurgence cave)</b>	<b>Vieng Poukha</b>	<b>Ban Nam Eng</b>	<b>3460</b>	<b>2005</b>
4	<b>Tham Nam Eng (fossile cave)</b>	<b>Vieng Poukha</b>	<b>Ban Nam Eng</b>	<b>3120</b>	<b>2005</b>
5	<b>Tham Nam</b>	<b>Vieng Xai</b>	<b>Ban Napoung</b>	<b>3065</b>	<b>2007/2008</b>
6	<b>Tham Seua / Tham Nam Lot</b>	<b>Muang Phou Khoun</b>	<b>Muang Phou Khoun</b>	<b>2650</b>	<b>2005</b>
7	<b>Tham Pasat</b>	<b>Vieng Poukha</b>	<b>Ban Tha Louang</b>	<b>2600</b>	<b>2005/2006</b>
8	<b>Tham Loum</b>	<b>Xiang Ngeun</b>	<b>Ban Long Khoay</b>	<b>1598</b>	<b>2003</b>
9	<b>Tham Ma Liong</b>	<b>Vieng Xai</b>	<b>Vieng Xai</b>	<b>1565</b>	<b>2008</b>
10	<b>Tham Pageo</b>	<b>Muang Ngoy</b>	<b>Ban Ngoy Nua</b>	<b>1550</b>	<b>2000</b>

It is planned to re-visit the karst of Oudomxay in January 2009. Other areas have been already identified by the provincial tourism office and a compiled list of caves in the province was promised within the next month as a base for further explorations.

The expedition results will be presented at:

1. International Speleological Congress, Kerrville (USA), July 2009
2. German National Congress , Thuringen, Germany, May 2009
3. Hidden Earth, England, September 2009

Short articles about the newest longest cave of Northern Laos will appear in most national caving magazines.



## 2. Ecotourism

Some of the explored caves are suitable for adventurous eco-tourists that want to experience the local environment and hospitality of the nearby villages. The caves can provide a few US\$ extra as income for the village community. Tourism is still undeveloped and visitor numbers are expected to be a handful of tourists per month. A proper training of the village guides must be done before opening the caves for visitors. Chom Ong cave is developed since last year as ecotourism site by the Provincial Tourism office Oudomxay in cooperation with a German development organization. No visitors were received yet due to the long access which requires an overnight stay and high expenses due to the need of 4x4 cars for the last 6km. It is planned to upgrade the road to the village.

Particularly interesting for ecotourism are:

### 1. Tham Chom Ong, Ban Chom Ong, Oudomxay

- Access: 1.5 h 4x4 drive from Oudomxay to Chom Ong village, 55 minutes moderate hike through fields and low hills with some stream crossings.
- To see: Impressive river and fossil passages of 25 m height and 15 m width, huge chambers of 60mx60 m dimension up to 50 m high, through cave with front, middle and resurgence entrance, crossing takes 3.5 hours.
- Difficulties: Entrance area has a flat floor and is easy to visit, afterwards climbs over many boulders with difficult orientation in main chambers.

### 2. Tham Kokai, Ban Sone Neua, Vieng Thong

- Access: 100 m from the road along an easy flat path.
- To see: The cave has a short entrance crawl until after 50 m the main passage of 1 km length is reached. The floor is covered over hundreds of meters with dry sinter basins containing sinter pearls of 3-5 cm diameter. The dimension of the passage is impressive with 15-20 m width and 15 m height. Special protection measures are needed to protect the dry pools.
- Difficulties: short entrance crawl of 50 m length with some mud on the floor.

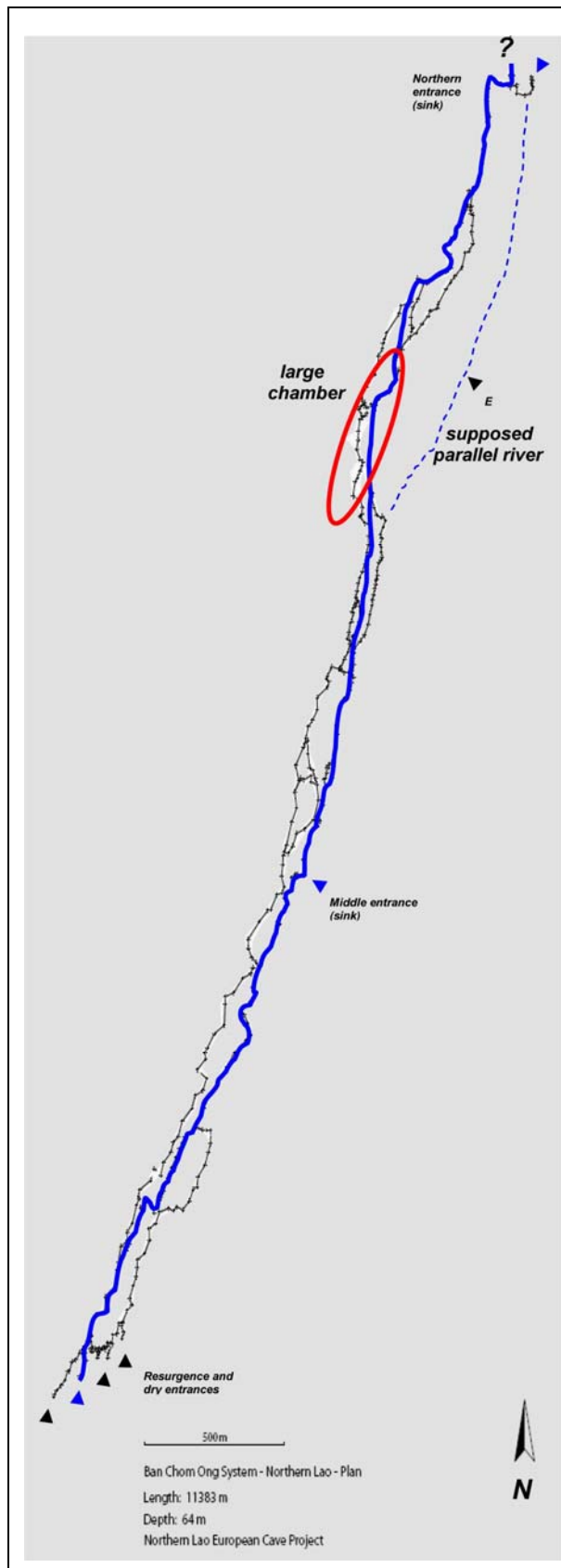
### 3. Tham Nam Lot, Ban Boumfart, Vieng Thong

- Access: 15 minutes from road along fields into a dead end valley.
- To see: Big entrance portal with a disappearing river, some swimming is needed to cross the mountain ridge to the resurgence portal after 300m, an alternative is to squeeze through a narrow bypass. The view from the rear exit is stunning with huge trees in the river bed and untouched forest.
- Difficulties: swimming in 18C water

Remark: The caves were visited in the dry season. The water level inside the cave is higher during and after the rain season and parts of the cave might be flooded.



### 3. Cave Map



#### **Ban Chom Ong Cave System**

The system stretches along a 4 km long mountain ridge and has a parallel running and interconnecting fossil and river passage. It was in just 5 days explored to a length of 11.3 km (preliminary) with several wide open side passages remaining. It ranks now as the longest cave in Northern Laos and is one of the top 20 in all Laos. The typical passage dimension is 20-25 m width and 20-30 m height. Two huge overlaying halls mark the connection of river and fossil passage with each 100 m length, 30 m width and ceiling heights of 30-50 m. The cave is a trough cave and can be entered near the stream inlet and left at the outflow. The full traverse takes 3.5 hours with additional 3 hours return walking time from Chom Ong village! The cave was pushed at the last day in a 15 hour trip to its current length.

**Length of survey: 11.3 km**

preliminary map



#### 4. Pictures of caves:



Michael pointing to the ridge containing Chom Ong Cave



Sinter pearls in Kokai Cave



Main fossil passage Chom Ong Cave



River passage Chom Ong Cave



Cross section of typical 25 m high passage in Chom Ong



Torben and Francois in front of the narrow entrance of Kokai Cave with Kokai tree

Photos by T. Redder and J. Dreybrodt



## 5. Cave Protection

Caves are very sensitive systems and develop very slowly over hundred of thousands of years. Any damage done is not repairable and has a severe impact on the beauty of the cave. Therefore it is important when visiting the caves not to touch any of the dripstone formations and not to leave any rubbish in the cave. It is also important to stay on the main path to avoid any damage to pools and formations on the floor. If there is any cave fauna e.g. bats or insects, these should not be disturbed. All these measures help to preserve the beauty and ecosystem of the cave and to maintain its long term attraction as a tourist site.

We propose the following setup based on the experience of the community based ecotourism project from the European Union in Vieng Phouka:

- a.) selection of limited number of village guides
- b.) awareness training and education in nature and environment protection
- c.) implementation of rules for cave visits
- d.) briefing of tourists prior to any visit

Please keep in mind the three golden rules:

- **Take nothing but pictures**
- **Kill nothing but time**
- **Leave nothing but footprints**



**Fragile eccentrics - Do not touch !**



## 6. Team 2009 of “The Northern Lao – European Cave Project”

We are a group of European cavers from national caving societies in each country. The members are experienced cavers and have participated in several international expeditions in Europe, Asia and Africa. The project was initiated in 2002 after a visit to the limestone area of Muang Ngoi at Luang Prabang Province by German and Dutch cavers.

**Our *Mission* is to visit and map all major caving areas in Northern Laos !**

**We achieve this by:**

- **fruitful cooperation with the local authorities and international development projects**
- **including the local villagers in our expedition as scouts and guides**
- **inviting interested cavers to participate in our expeditions**
- **maintaining good contacts with other active caving groups in Laos**

### Team 2009



**Dr. Joerg Dreybrodt**  
**Michael Laumanns**  
**Dr. Helmut Steiner**  
**Dr. Lica Ersek**  
**Torben Redder**  
**Dave Clucas**  
**Siegfried Moser**  
**Francois Brouquisse**

**Germany (Project Coordinator)**  
**Germany**  
**Germany**  
**Romania (first week)**  
**Denmark**  
**Great Britain**  
**Austria (last week)**  
**France**

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## 8. Caves explored during the 2009 speleological project to Northern Laos

Date	Name	Koordinates	Village	District	Province	Length (m)
13/01/2009	Tham Thia Thong	N 20° 13' 23.6"; E 103° 23' 56.5"	Ban Nam Nguen	Vieng Thong	Houaphan	170
13/01/2009	Tham Nam Lot	N 20° 14' 56.2"; E 103° 23' 47"	Ban Boumfart	Vieng Thong	Houaphan	430
14/01/2009	Tham Gofaan	N 20° 16' 7.3"; E 103° 22' 45.4"	Ban Boumfart	Vieng Thong	Houaphan	590
14/01/2009	Tham Phasouk	N 20° 18' 15.4"; E 103° 22' 11.1"	Ban Phounxong	Vieng Thong	Houaphan	322
15/01/2009	Tham Viet	N 20° 19' 3.7"; E 103° 21' 41.6"	Ban Phounxong	Vieng Thong	Houaphan	156
15/01/2009	Tham Ya	N 20° 19' 0.7"; E 103° 21' 37.6"	Ban Phounxong	Vieng Thong	Houaphan	31
15/01/2009	Nam Outhou	N 20° 18' 34.4"; E 103° 21' 59"	Ban Phounxong	Vieng Thong	Houaphan	resurgence
15/01/2009	Tham Mue	N 20° 16' 54.7"; E 103° 22' 18.4"	Ban Houaydeun	Vieng Thong	Houaphan	112
15/01/2009	Tham Long Mak	N 20° 16' 55.4"; E 103° 22' 24.4"	Ban Houaydeun	Vieng Thong	Houaphan	79
16/01/2009	Tham Long Puang	N 20° 28' 25.7"; E 103° 21' 44.4"	Ban Xop-Tai	Xop	Houaphan	620
16/01/2009	Tham Kokei	N 20° 28' 37.2"; E 103° 21' 33"	Ban Xop-Tai	Xop	Houaphan	1088
17/01/2009	Owl Cave I	N 20° 31' 3"; E 103° 24' 7"	Ban Nong Sai	Vieng Thong	Houaphan	56
17/01/2009	Owl Cave II	N 20° 31' 5"; E 103° 24' 8"	Ban Nong Sai	Vieng Thong	Houaphan	n.surv.
17/01/2009	Tham Giu	N 20° 30' 31.6"; E 103° 23' 41.8"	Ban Nong Sai	Vieng Thong	Houaphan	23
17/01/2009	Tham Outgai	N 20° 27' 43.5"; E 103° 21' 29.4"	Ban Xop-Nua	Xop	Houaphan	n.surv.
19/01/2009	Chom Ong Cave System	N 20° 43' 6.3"; E 101° 45' 49.6"	Ban Chom Ong Tai	Xai	Oudomxay	11445
	Tham Thia entrance	N 20° 43' 6.3"; E 101° 45' 52.3"	Ban Chom Ong Tai	Xai	Oudomxay	
to	200m-entrance	N 20° 43' 5.7"; E 101° 45' 45.7"	Ban Chom Ong Tai	Xai	Oudomxay	
	Northern Entrance	N 20° 45' 6.9"; E 101° 46' 42.7"	Ban Chom Ong Tai	Xai	Oudomxay	
	Middle Entrance	N 20° 43' 55.8"; E 101° 46' 17"	Ban Chom Ong Tai	xai	Oudomxay	
23/01/2009	Fishing Entrance	N 20° 45' 1.8"; E 101° 46' 46.7"	Ban Chom Ong Tai	Xai	Oudomxay	
<b>Total</b>						<b>15122</b>