

KAYAH – LAND OF RIVER CAVES



28.01. –
12.02.16

Myanmar Cave Documentation Project 2016



The project visited Kayah state the 2nd time after 2015 and found an amazing variety of landscapes. All districts except Mese are now covered helped by a fast improving road network. The Red River Cave, discovered last year in Bawlahe is extended to 4.1 km length and now the 2nd longest cave of Myanmar. The exploration of valleys in the east of Demoso reveals a very scenic tower karst with a new coffin cave. A large river cave is documented near Hpruso with a stream disappearing in cascades into a scenic 50 m high entrance portal. The cave continues for 2.6 km in a 20-30 m high passage until the exploration end. The resurgence is identified in 10 km distance giving it the potential for one of the longest caves in Southeast Asia. Kayah's tower karst is confirmed as new caving frontier with a large potential for karst related eco-tourism.

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Summary & Results:

Kayah State has an amazing variety of landscapes due to its geographical situation at the southern edge of the Shan plateau. Here north-south trending karst ridges merge and 1000 m deep valleys are cut-in by the Salween river and its tributaries (see map on p. 4). This provides a great opportunity for karst related eco-tourism in combination with a rich tribal culture. The project team visited this year the new districts of Hpasawng, Demeso and Hpruso. The fast extending and improving road network makes access easier with one day scouting trips into remote areas from a base in either Loikaw or Bawlakhe. The key findings are a very scenic karst landscape in easy reach of Loikaw, Red River cave with 4.1 km length now 2nd longest cave of Myanmar and the new discovered Phruno River Cave having a potential for one of the longest caves of Southeast Asia with >>10 km. Further details in the next sections:

The **tower karst landscape** in eastern Demeso/Hpruso is only hour driving distance from Loikaw on a good road. The mountain chain is visible from the plane shortly before arriving in Loikaw from Yangon. A view point on top of an isolated hill with a monastery provides spectacular views. The peak has a network of paths and stupas. The **Dragon cave** with sinter formations can be visited by climbing down few stairs into a main chamber.

A day trip along the road from Demeso towards Shan state had as surprise a formerly not known **cave with coffins**, estimated to be 1000-2000 years old, similar to the one in Kyet cave. Sadly only few of the former dozens of coffins remained. The others were used for building material by nearby farmers. This cave in combination with Kyet cave are the most eastern reported sites and expands the area such coffins are found from Thailand into Myanmar.

The new winding mountain road from Bawlakhe to Ywarthit crosses a sharp ridge and provides impressive views. Ywarthit has a pleasant monastery overlooking a dammed lake with a fish pond. A nearby resurgence cave can be visited or having a look on the **mighty Salween river**.

The **Red River Cave** surveyed to 1.2 km length in 2015 continued into a maze of passages and has a final length of 4.1 km making it the 2nd longest of Myanmar. The downstream part possesses strong currents and it is dangerous to proceed without ropes. The entrance hall has impressive formations and is easy to reach by a 15 minute walk and short down-climb. A tour was given to 7 officials from Immigration, Police and State Government in Bawlakhe, who wondered why the team returned several days to the same cave.

The major finding is the **large River Cave Phruno**, heard from in 2015. The area is under control of local Karen tribes and permission from the KNPP liason office was obtained in order to pass the military check point beyond Hpruso. A river disappears at the end of a valley in cascades into a 50 m high extremely scenic entrance portal. Access is easy with 10 minutes walking. The first 500 meters of the 20-30 m high passage is impressive, requiring a longer climb over a hall filled with large blocks before reaching the major stream. The resurgence is according to several villages the Kwaing Ngant cave in about 10 km distance. The passage was surveyed for 2.6 km and continues. It requires overnight stays in the nearby village since it takes a 5 hour return trip to the exploration end. This cave has the potential to rank as one of the longest caves in South-East Asia.

Conclusion and Outlook

An overview of the area and access situation is achieved with several river caves now the longest in the country. This confirms Kayah as new frontier for large river caves so far only known from Northern Thailand.

Its combination of karst phenomena, tribal culture with a high biodiversity in a very compact area makes it interesting as eco-tourism site. The challenges for further documentation are overnight stays in rural areas since commuting times from Loikaw or Bawlake are too long (> 2h one way).

The cooperation with a local partner is a next step to increase visibility and stimulate interest on the caves and karst. Therefore an initial contact with the geology department of Loikaw University was established during the last day of the expedition. The Pro-Rector expressed his interest on a co-operation for karst research. The next step is to setup a project, define interfaces and establish a funding. The first objective is a speleological project for geology students with a.) lectures in karst science, b.) teaching exploration and survey techniques and c.) practical application during a field trip.

Cave Documentation Results

The project surveyed 12 caves with a length of 5.9 km. The table below gives an overview:

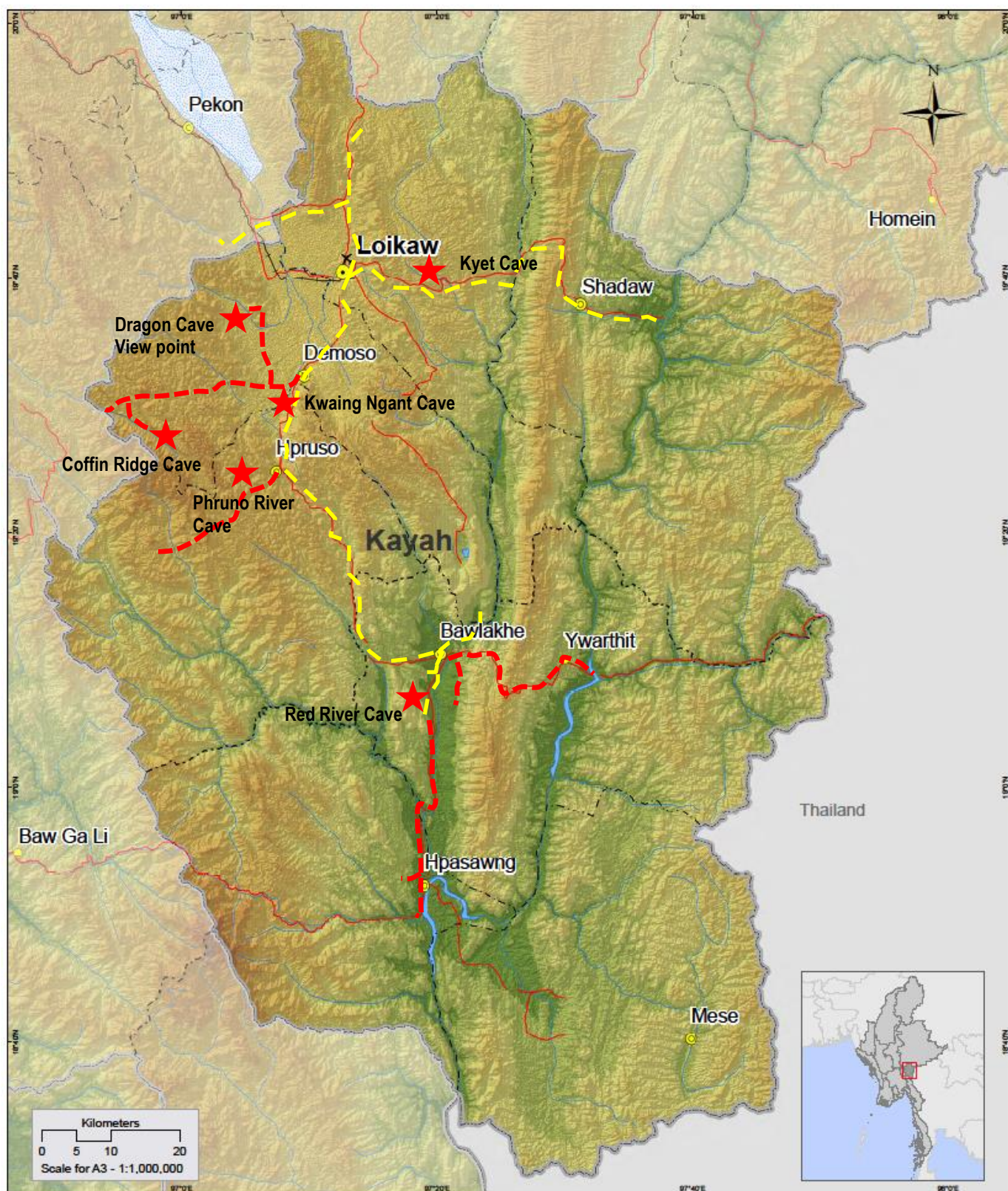
No.	Date	Name	Village / Ban	Township	Length (m)	Depth (m)
1	31.1.16	Taung Paw Upper Collapse	Taung Paw	Hpasawng	37	
2	31.1.16	Bat Cave		Hpasawng	69	
3	1.2.16	Nan Hpe Gu	Nan Hpe	Bawlakhe	30	
4	1.2.16	Red River Japan Soldier	Yae Ni Pauk	Bawlakhe	189	
5	1.2.16	Red River Cave (in addition to 2015)	Yae Ni Pauk	Bawlakhe	2,300	
6	2.2.16	Monastery Spring	Ywarhit	Bawlakhe	32	
7	6.2.16	Dragon Cave		Demoso	15	
8	6.2.16	Shaft near dragon cave		Demoso	10	10
9	7.2.16	Coffin Ridge Cave	Lo Bar Kho	Demoso	73	
10	8.2.16	Phruno River Cave		Hpruso	2,600	
11	10.2.16	Khe Ka Yaw Gu (Dead man pit)	Htee Paw Sol	Hpruso	350	-208
12	10.2.16	Priest Joseph Cave	Ho Yar	Hpruso	240	
					5,945	

Three of the five longest caves of Myanmar are located in Kayah (marked bold). This state possesses a much greater potential as indicated by the years of exploration. The 10 longest caves of Myanmar are to date:

No.	Name	State	District	Length (m)	Year
1	Khauk Khaung (Stone Cave)	Shan	Ywangan	4'790	2012-14
2	Red River Cave	Kayah	Bawlakhe	4'095	2015-16
3	Namun Spring Cave	Shan	Pinlaung	2'628	2013-14
4	Phruno River Cave	Kayah	Hpruso	2'600	2016
5	Kyet Cave	Kayah	Loikaw	2'194	2015
6	Stone Spring Cave	Shan	Ywangan	1'917	2014
7	Mondowa Gu	Shan	Taunggyi	1'770	1998
8	Hopon Spring Cave	Shan	Hopon	1655	2011
9	Na Gar Gu (Dragon Cave)	Shan	Ywangan	1654	2014
10	White water Buffalo and Tiger Cave	Shan	Hopon	1'343	2010

Overview visited areas in the years 2015 and 2016

Driven roads are indicated by dashed lines (yellow: 2015, red: 2016, in addition), red stars mark caves of interest.



Map ID: MIMU182v03
Creation Date: 17 April 2012.A3
Projection/Datum: Geographic/WGS84

Map produced by the MIMU - info.mimu@undp.org
www.themimu.info

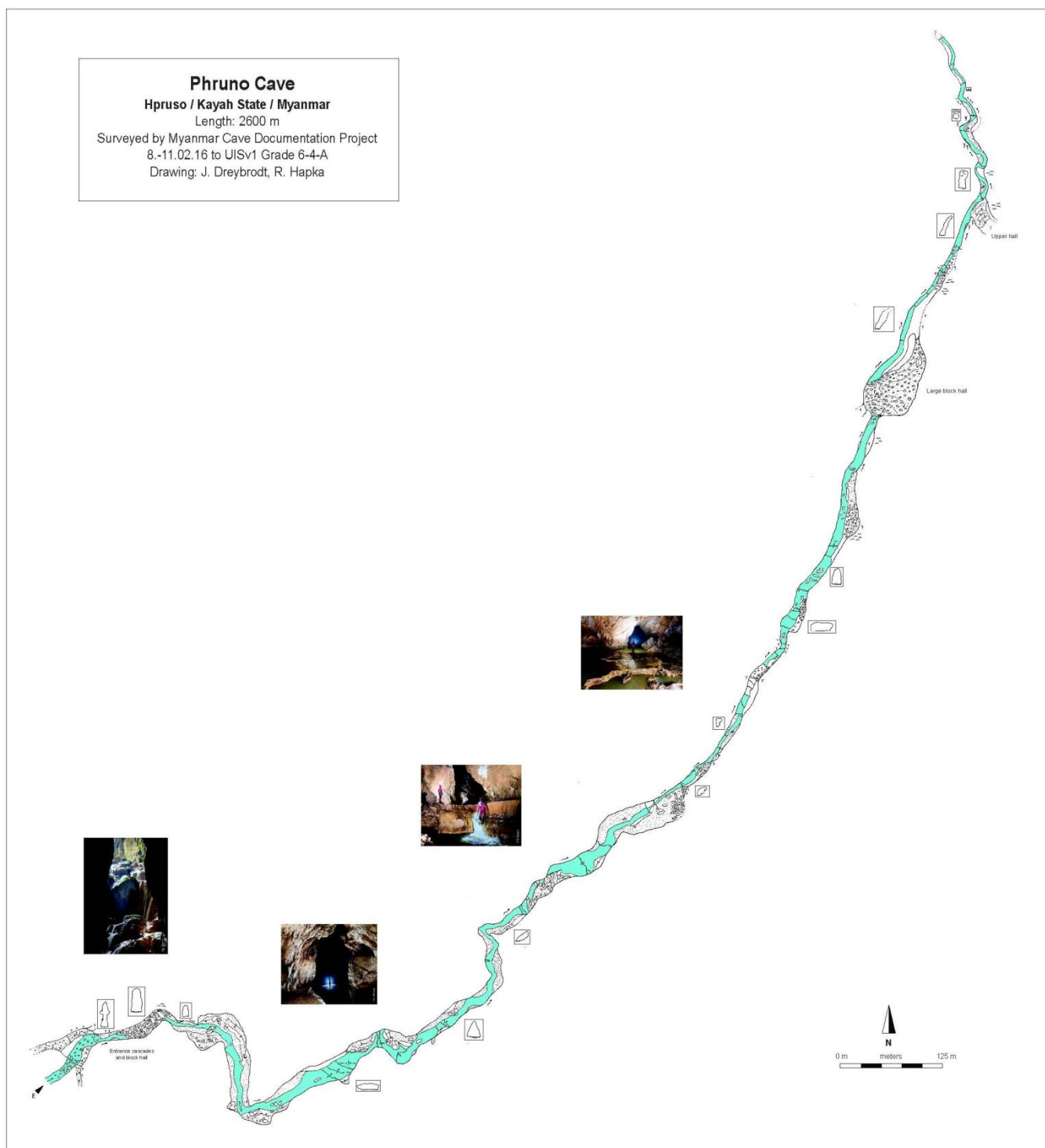
✈ Airports	— Railway	--- District Boundary	Elevation (meters)	2,001 - 2,500
● State Capital	— Road	--- State Boundary	0 - 250	2,501 - 3,000
○ Township	— Stream	--- International Boundary	251 - 500	3,001 - 4,000
○ Sub-Township	--- Township Boundary	--- River/Water Body	501 - 750	4,001 - 5,000
		Non-Perennial	751 - 1,000	5,001 - 7,002
		Perennial	1,001 - 1,500	
			1,501 - 2,000	

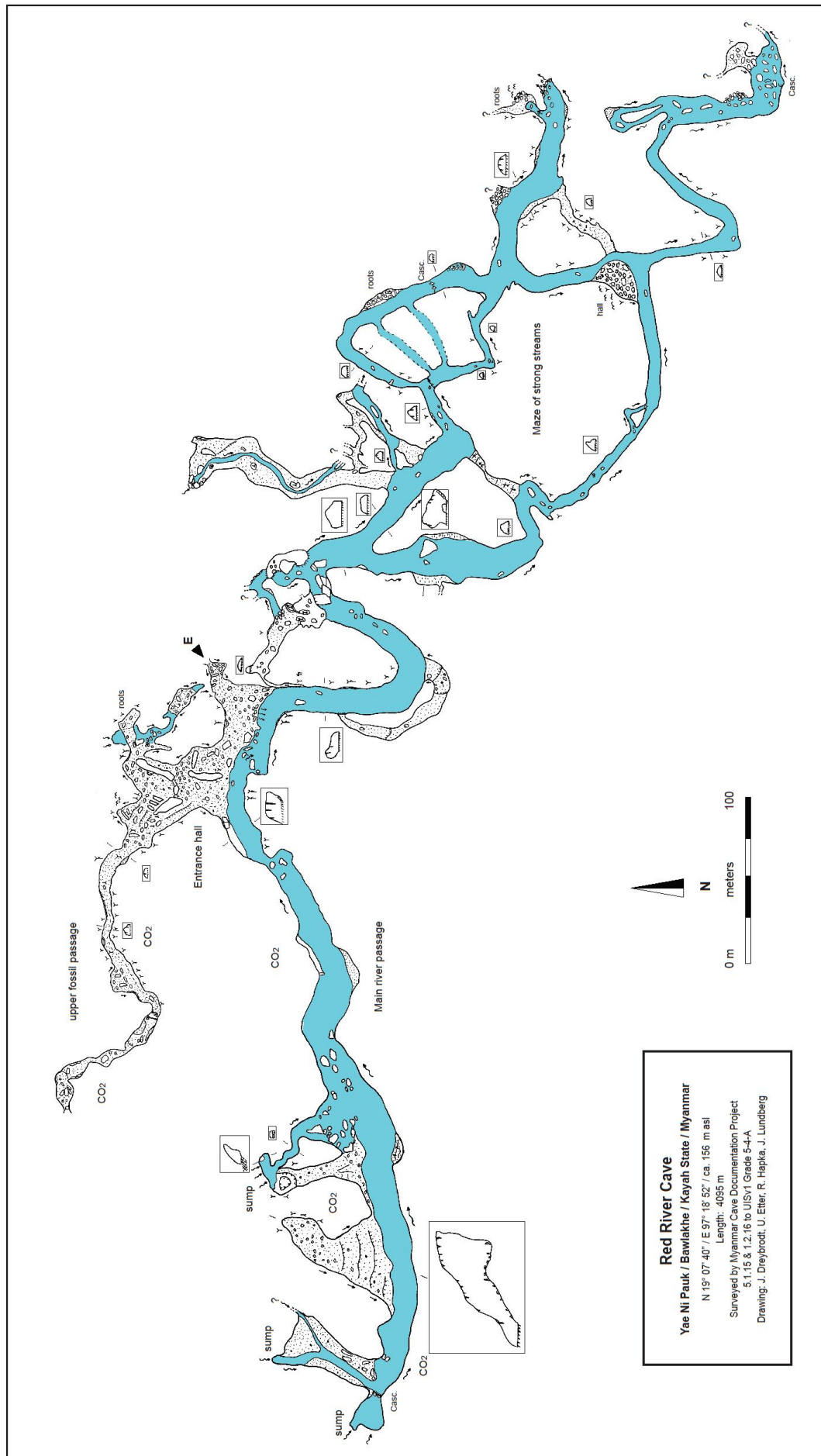
Data Sources : MIMU
Base Map - MIMU
Boundaries - WFP/MIMU
Elevation : SRTM
Place names - Ministry of Home Affairs (GAD) translated by MIMU

Disclaimer: The names shown and the boundaries used on this map do not imply official endorsement or acceptance by the United Nations.

Cave Maps

Map of Phruno River Cave with 2.6 km length until open passage (© Myanmar Cave Documentation Project)





Hpruso Karst

Hpruso tower karst (M. Scheurerer) ▼



▲ Overlooking the valley from Coffin Ridge Cave (P. Bence)

▼ Coffin (M. Boureau)

▼ Karst valley P. Bence)



Cave pictures

Red River Cave (P. Bence) ▼



Dragon Cave Chamber (J. Dreybrodt) ▼



Red River Cave upstream (P. Bence) ▼



Hill top of Dragon Cave overlooking the karst ridges (JD) ▲

Pictures Phruno River Cave

Water fall series at the Entrance (Photo P. Bence) ▼



Active Sinter Pools in the main passage (Photo P. Bence) ▲ ▼



Main river passage 1 km from entrance (Photo P. Bence) ▼



Expedition Team 2016

From left to right: Mr. Myoe (driver,MY), Manuela Scheuerer (AT), Sai Naing (guide,MY), Joerg Dreybrodt (D/CH), Johannes Lundberg (SE), Marc Boureau (F), Phil Bence (F), Roman Hapka (CH), Urs Etter (CH) with our generous host Pater Martino from Bawlakhe Church in the center.

Photo M. Scheuerer



We are

Experienced cavers organized in worldwide national caving societies with a large speleological expertise.

We partner with authorities, NGO and research institutions.

Our Mission

We bring value to Myanmar by a systematic documentation of caves and karst for conservation and ecotourism purposes. 28 cavers of 10 nations contributed in 12 expeditions.

Acknowledgement

We acknowledge the cooperation with the Ministry of Hotels & Tourism, the Myanmar Tourism Promotion Board and the Karenni National Progressive Party.

Receiving EuroSpeleo Project Status from the European Speleological Federation (FSE) is highly appreciated.



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