## **HUAUTLA RESURGENCE, Santo Domingo Canyon, Oaxaca, Mexico**

The Huautla Resurgence is the proven resurgence for Sistema Huautla and the water last seen in sump 9 of San Agustin. The 2013 expedition to San Agustin has encouraged renewed interest in Sistema Huautla and an expedition to the resurgence was organised by Andreas Klocher (Tasmania). Participants were Chris Jewell (UK), David Bardi (Australia), Sandy Varin (Australia) and Zeb Lilly (US). The large number of cylinders and regulators plus compressor, booster and enough spare kit to shame a small dive shop were driven down from the U.S. in Zeb's truck.

This site was last dived in 2001 when Rick Stanton and Jason Mallinson took part in a Bill Stone expedition to the area. After 1,059m of diving JM surfaced in an air bell but was unable to leave the water due to lack of a straightforward exit.

The cave is located in the Santo Domingo canyon but the team stayed in the nearest village, Santa Ana Cuauhtémoc which is located at 1,300m above the canyon. Reaching the cave entailed an hour long drive from the village to the canyon each day and a 40-45minute along the canyon. The walk in was easy going with several shallow river crossings but the sand flies were vicious and everyone ended up with lots of itchy bites.

All dives were completed on CCRs whilst wearing drysuits. For all of the long dives in sump 2 each diver carried an Ali 80 of TMx and an Ali 80 of Air. Whenever possible these cylinders were left on the far side of the waterfall at the start of sump 2 to make the transition from sump 1 to sump 2 as easy as possible. This was achieved by diving sump 1 on a single large cylinder of air. Cylinders of Oxygen, 50% EANx and TMx were staged in sump 2 for the duration of the expedition in case of a bailout situation. The water temperature was 19 degrees and gloves were unnecessary.



24-3-16

**DIVERS: C JEWELL, A KLOCHER** 

Support: D Bardi, S Varin

CJ and AK dived with the task of relining as much of the cave as possible. At 416m from base they surfaced to find a small waterfall which had been described by Paul Heinrith in 1995 but had not been present on 2001. The waterfall was left for the next team to tackle.

26-3-16

DIVERS: D BARDI, S VARIN Support: C Jewell, A Klocher

DB and SV climbed over the waterfall, rigged a hand line and small Tyrolean and continued into sump 2. They failed to take the fullest line reel and were forced to turn back after approx. 250m into sump 2. Two of their cylinders were left on the far side of the waterfall for the next divers to use.

27-3-16

DIVER: A KLOCHER Support: D Bardi, S Varin

AK dived in S1 to check out some potential side passages seen by SV. These didn't go anywhere.

28-3-16

DIVERS: D BARDI, S VARIN Support: C Jewell, A Klocher

DB and SV dived in S2 and passed the -65m elbow encountered by Stanton and Mallinson in 2001. At -60m due to lack of O2 for their rebreathers they decided not to continue. An Ali 80 of O2 was staged at -7m in S2 during this dive.

29-3-16

**DIVERS: C JEWELL, A KLOCHER** 

Support: D Bardi, S Varin

CJ and AK dived in S2 with the goal of searching the massive tunnel for previously missed side passages. They laid three branches off the main line, all to the left hand side of the passage. In each case the divers either encountered silty dead end tunnels or ended up back at the main line. The dive in S2 had a maximum depth of 45m and lasted  $2\frac{1}{2}$  hours.

30-3-16

DIVERS: D BARDI, S VARIN Support: C Jewell, A Klocher

DB and SV repeated the process of searching S2 for missing passages. Again nothing was found. Maximum depth of 55m reach.

1-4-16

**DIVERS: C JEWELL, A KLOCHER** 

Support: D Bardi, S Varin

CJ and AK dived in S2. AK had a flooded light and decided to turn back after staging an Ali 80 of 50% EANx at -20m. CJ continued with additional stage cylinder of TMx. This was carried to the end of the line laid by DB and SV on 28-3-16. From here the new line was continued and fragments of the 2001 line were occasionally encountered. At -30m in the 'boulder floored' chamber discovered by RS in 2001, CJ began a systematic search for an alternative way on. A new tunnel was found with clean washed rock and gravel on the floor. Initially this descended to -38m before it began to rise steeply. Approx. 100m of new line was laid to a depth of 12m where

decompression obligation showed 70minutes to surface. CJ turned back here as it would be easier for the next team to surface. The extra cylinder of TMx was staged part way back. Total dive time in S2 was 4 hours.

#### 2-4-16

DIVERS: D BARDI, S VARIN Support: C Jewell, A Klocher

DB and SV continued laying line in the new tunnel and after another 100m had been covered they surfaced in a medium sized lake with a sand and gravel beach. Two hours were spent exploring in drysuits before the return dive was made.

### 3-4-16

**DIVERS: C JEWELL, A KLOCHER** 

Support: D Bardi, S Varin

CJ and AK took survey, photographic and bolting equipment through to the new dry gallery. It took 85mins to pass S2 including decompression time. On the way through CJ recorded some underwater survey notes. Four and a half hours were spent in the new section of cave and around 600m of passage was surveyed and photographed with the task still incomplete. The divers made it back to the village of Santa Ana at 1am

#### 5-4-16

DIVERS: D BARDI, S VARIN Support: C Jewell, A Klocher

DB and SV dived in S2 to complete the underwater survey from the deep point at -65m to -20m where CJ had started surveying the previous day. This was done as the -65m point was considered the best option for a known survey station.

## 6-4-16

DIVERS: C JEWELL, A KLOCHER, Z LILLY

Support: D Bardi, S Varin

ZL (recently arrived), AK and CJ dived to take underwater photos. ZL aborted the dive partway through S1 so CJ and AK completed the task.

# 7-4-16

DIVERS: D BARDI, S VARIN Support: C Jewell, A Klocher

DB and SV had to abort their dive at the start of S2 due to SV's leaking over pressure value (OPV) on the oxygen bottle on her rebreather.

## 8-4-16

DIVERS: A KLOCHER, Z LILLY

Support: D Bardi, S Varin

AK and ZL dived through S2 to the new section of dry cave and completed the survey. Approximately 300m of cave passage was surveyed. Leads for future exploration were examined and it was concluded that further diving would be necessary. This will either involve diving the new sump pools discovered in the dry section or

