The Explorers Club flag #186 report  
Submitted by C. William Steele, PESH 2018 Expedition leader  
June 1, 2018

Project overview

Projecto Espeleologico Sistema Huautla (PESH) was launched in 2013 by co-leaders Tommy Shifflett and C. William Steele FE’79. Shifflett and Steele have been key explorers of Sistema Huautla since the late 70s. TEC flag has been carried to Huautla many times, beginning in 1980.

PESH’s goals

- Month-long expeditions in April for ten years, 2014 - 2023
- Conduct full speleological studies (exploration and mapping, cartography, geology, biology, paleontology, archaeology, anthropology, psychology) and publish findings, plus gear development and testing.
- Support Mexican cave scientists
- Photo documentation by accomplished cave photographers
- Extend length of Sistema Huautla from 65 km (40 miles) to 100 km (62 miles) – now 85 km (53 miles)
- Extend depth of Sistema Huautla from 1554 m (5,097 feet) to 1610 m (5,280 feet - vertical mile) and more (1830 m potential) – now 1560 m (5,117 feet)

TEC flag has been carried on all five PESH expeditions to date, 2014-18. Articles have appeared in Explorers Journal (two cover stories) and Explorers Log (one cover story).

2018 Expedition Report

PESH’s month-long expedition April 4 - May 4 was the fifth annual expedition of a goal of ten. Thirty-nine people participated from six countries: USA, Mexico, England, Costa Rica, Canada and Wales.

A connection of Sotano de Agua de Carrizo to Sistema Huautla was made, which combined with new passages discovered this year, added 9.2 km (5.7 miles) to the length of Sistema Huautla and five more entrances. The system now has 25 entrances, is 85.38 km long (53.05 miles), and remains 1560 m deep (5,117 ft.), the deepest cave in the Western Hemisphere and the 9th deepest cave in the world.

The connection of Carrizo to Sistema Huautla was done by exploring a lead 100 m deep in Carrizo noted on a 1977 survey and this year named Spirit of Schreiber. This led to the 160 m (525 ft.) deep TAG Shaft in Nita Ntau. A tight crack off the bottom of this awesome shaft (now the deepest in Sistema Huautla) was pushed, leading to a descending shaft series that
eventually connected in two places to the La Grieta section of Sistema Huautla near Camp 2, also known as Mazateca Shores. This route went 625 m deep before connecting.

Four underground camps were used: the base of the TAG Shaft and Camps 1.5, 3, and 4 in La Grieta. Underground campers in Camp 4, 700 m deep, were trapped for three days by an unexpected sump caused by a rain storm during this unseasonably wet month of April.

Speleological science work was done in geology, biology, paleoclimatology and anthropology. Mexican graduate student, Fernando Hernandez, has been approved to do research and write his masters thesis on the hydro-geology of Sistema Huautla. He participated on the expedition and began his fieldwork data collecting. A biological collecting permit was obtained through Dr. Oscar Francke with UNAM in Mexico City, and specimens collected have been delivered to him. A partnership has been established with the University of Nevada at Las Vegas and Dr. Matt Lachniet gave instructions on collecting a sample to determine the age of Sistema Huautla. Mexican anthropologist Amalia Montoya is interviewing native Mazatec people in the Huautla area about their beliefs in cave spirits.

Success was also realized in public relations and access to previously inaccessible areas. Informative presentations were given to school groups and the public at large.

**TEC Members on the expedition**

Donald Broussard FN’84
James H. Smith FN’85
C. William Steele FE’79
PESH 2018 EXPEDITION
(HUAUTLA SYSTEM)

LEGEND
In Brown - Sótano de San Agustín, Río Iglesia, Nita Nanta, Li Nita
In Purple - La Grieta (light blue passage mapped 2018)
In Red - Sótano de Carrizo, Nita Ntau, and Nita Nido, and new
mapped passage connected to La Grieta 2018

PLAN VIEW
PESH 2018 EXPEDITION  
(HUAUTLA SYSTEM)

PROFILE VIEW  
(270 degrees looking west)

Notes:
Line plot by Tommy Shifflett  
Vertical datum reference ITRF92