



EXCURSION A

Pre Congress Excursion

Paleoenvironment and biostratigraphy of the upper Sinemurian (Lower Jurassic) of east-central Mexico.

January 31 to February 3, 2018.

MAXIMUM NUMBER OF PARTICIPANTS: 15 (FIFTEEN)

EXCURSION FEE: \$350 US DLLS

Leader:

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INFORMATION ABOUT THE TRIP:

The Huayacocotla Formation represents the Sinemurian (Lower Jurassic) of east-central Mexico. The lower Sinemurian is represented by the Bucklandi, Semicostatum and Turneri ammonite zones with all of the subzones included. The upper Sinemurian is represented by the Obtusum, Oxynotum and Raricostatum zones with each one of subzones extant.

The study of the Huayacocotla Formation is important with regard to the origin of fossil hydrocarbons; by the beginings 2000s the viewpoint of the field of oil exploration was that the existing knowledge was sufficient; however, the formation still possesses many geological / structural, paleoenvironmental and paleontological features worthy of study. In recent years' studies of the Huayacocotla have been incorporating concepts and techniques related to taphonomy, geochemistry and petrology; in consequence now it is seen as an extended, rather than condensed, sequence, which represents an intra-arc basin associated with the early extensional stages of Pangean disaggregation and subsequent opening of the Gulf of Mexico.

FEE 350 US DOLLARS (INCLUDING LODGING, MEALS, TRANSPORTATION FROM PACHUCA TO THE LOCALITIES AND TO THE VENUE AT SAN LUIS POTOSÍ).

GENERAL ITINERARY:

WEDNESDAY, 31 January 2018	Arrival in Pachuca. Hotel in downtown
THURSDAY February 1st	Departure to Tenango / Pahuatlán region. 6:00 A.M. from Pachuca toward study locality. - On the route will be observed the geological setting by mean of a couple of stops on the way. 1) The Tulancingo caldera around 9:00 o'clock and 2) A place with panoramic view about structural and topographic characteristics of the sedimentary setting - The route descends to the Sinemurian outcrops. In 3 or 4 of them we will observe the ammonite fauna, the lithology, sedimentary structures and taphonomic attributes.
FRIDAY February 2nd	Biostratigraphy and Paleoenvironments: 1) Las Juntas outcrop 2) Peña Blanca outcrop 2) Depature to Pahuatlán 3) Potrero Outcrop 4) Pahuatlán night facilities
SATURDAY February 3rd	Departure to the Erben's type section of Huayacocotla Formation; or towards the works of Congress in San Luis Potosí State; still to be defined as a function of local conditions.

GENERAL INFORMATION AND SPECIAL INSTRUCTIONS

The participants will be met at the Pachuca bus station or directly at the hotel if a previous e-mail agreement is made with the field-trip leader. For arrival from the airport of Mexico City it is recommended boarding a bus express toward Pachuca, with the fare paid at the airport bus station by each participant, which are 250 Mexican pesos or approximately 15 US dollars. As an alternative you can board the bus express "ADO" brand, direct to Pachuca in the north bus station in Mexico City with a cost of approximately of 200 Mexican pesos or about 10 US dollars; to take the last one option you can board a taxi cab in the international airport of Mexico City.

The city of Pachuca was built in a dry and windy valley 2200 meters above sea level, with a temperature of 15 degrees Celsius. The night sky usually is clear and cold nights are common. Rain is very scarce, although occasionally some brief storms occur.

The villages of Tenango de Doria and Pahuatlán are important towns of the Otomí /Tepehua culture. These mountain valleys are perfectly connected by highway and there is cell phone service in the towns, but not in the field. We have traditional land-based phone service in the downtown locations, and although other tourist facilities are very limited, there

are very simple hotels with bathrooms, hot water and clean blankets, so a sleeping bag or other field equipment will not be necessary.

The temperature will be around of 20° Celsius with high humidity levels, but comfortable to sleep or to walk. However, use of sunscreen for sensitive people and mosquito repellent is advised. In the case of people with strong reaction to mosquitos it is advisable to carry pills of "cetirizine" or other similar strong antihistamine. The altitudes of the field trip vary between 900 to 1500 meters; however, on the highway we will be at places near 2400 meters with pine forest where the cold could be around 8 to 10 degrees Celsius for a short time. Advisable clothing includes a simple hat for the sun and long sleeve shirts and field trousers (not shorts) with sturdy boots because there are common thorny or irritating plants. In Mexico, gastrointestinal illnesses are common, so it is advisable to carry Immodium or similar anti-diarrheal medication for such eventuality. **Nevertheless, the best quality, healthy food and abundant bottled fresh water will be provided during the trip.**

Although fossil material is easy to obtain, this should be done only by permission of the trip leader as outcrops are under study. A simple geologic hammer is adequate for use on sandy siltstones; however, field trip participants must be very alert to the presence of arachnids and other potentially toxic fauna, and the use of gloves is recommended.



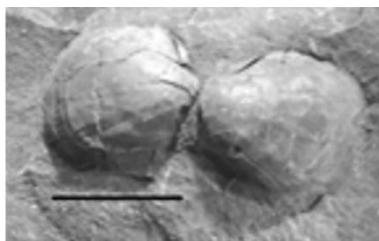
The Otomi/ Tepehua region is rich in traditional customs. Here is holiday dress in the town of Lopez- Mateos, Tenango de Doria County.



Typical landscape of study area.



Sinemurian outcrop in Tenango de Doria County.



Articulated bivalve shells are commonly found in association with ammonoids.



Common preservation of ammonoid in Huayacocotla Fm.

