

## **Alberta Palaeontological Society**

In addition to the main presentation by James Campbell, Robert Kuchinski will provide a brief presentation.

## **Exploring the fossils of the Middle East Anticlines**

Robert Kuchinski, retired sedimentary geologist, Calgary, Alberta

*LOCATION: Mount Royal University, Room B108*

*TIME: November 17, 2017, 7:30 pm*

### ABSTRACT

One of the most well-known features of Middle East geology are the numerous anticline structures that are common in many of the countries near the Persian Gulf. These anticlines, which formed due to the folding and thrusting of the Arabian plate and salt movements in the subsurface, are very well defined and form the immense petroleum traps in the region. They are also expressed on the surface, and are excellent places to explore the late Mesozoic and Cenozoic sediments and fauna of the Arabian plate.

For the most part, the sediments in the section are carbonates that formed on a large passive margin of Gondwana that was positioned in the equatorial waters of the ancient Tethys sea. Today, the arid climate of Arabia with the lack of vegetation and the slow rate of chemical weathering, make these outcrops well exposed and easy to view their areal extent.

Although this depositional environment is comparable to the Devonian and Mississippian of Western Canada, the fossils preserved in these rocks are much younger and represent ancestors to many of today's marine organisms. For that matter, the sediments of the same age in Western Canada are either representative of a different sedimentary environment, or not present due to erosion.

This presentation will introduce the basic elements of Middle East geology and discuss the various life forms that flourished in this region starting from about 70 million years ago to about 20 million years ago. Anticlines in both the United Arab Emirates and Qatar will be discussed with many informative photos and diagrams to illustrate the stratigraphy and structure of these interesting features. A few specimens of the fossils from these locations will be available to examine.

### BIOGRAPHY

Robert Kuchinski received a BSc (Specialization in Geology) from the University of Alberta in 1979. He spent his entire career working in Formation Evaluation where he assumed various roles from doing field work to senior management positions with international service companies.

For 28 years until 2006, Robert was based out of Calgary and worked throughout the western Canada sedimentary basin doing wellsite geology and petrophysics. In 2006, he accepted a business development position with Weatherford International which led him to Dubai, UAE.

For the next 10 years, he traveled extensively throughout the Middle East, North Africa, and Asia working with oil companies on Formation Evaluation challenges. During this time, he was active in various professional societies and is currently the past president of the American Association of Petroleum Geologists, Middle East region.

He returned to Canada in 2016 and is currently retired and living in Calgary.

#### DIVISION INFORMATION

This event is presented jointly by the Alberta Palaeontological Society, the Department of Earth and Environmental Sciences at Mount Royal University, and the Palaeontology Division of the Canadian Society of Petroleum Geologists. For details or to present a talk in the future, please contact CSPG Palaeontology Division Chair Jon Noad at [jonnoad@hotmail.com](mailto:jonnoad@hotmail.com) or APS Coordinator Harold Whittaker at 403-286-0349 or contact [programs1@albertapaleo.org](mailto:programs1@albertapaleo.org). Visit the APS website for confirmation of event times and upcoming speakers: <http://www.albertapaleo.org/>.