



# San Joaquin Geological Society

SPOUSE NIGHT - February 10, 2009

## Plutons, Pyroclastics, Pinnipeds, and Penguins: A Trip to the Antarctic Peninsula"

by

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### ABSTRACT

The February program is planned as a family-friendly presentation. The geology discussion will be low-tech and brief. There will be lots of photos of sea lions, penguins, and Antarctic glacial scenery. Bring your family, spouse, or friends for a preview of a trip you might want to take yourself someday. During the Mesozoic the Antarctic Peninsula was an extension of the Andes arc. The rocks exposed on the peninsula include andesitic volcanics and associated sedimentary rocks and the underlying intrusive plutons. Sedimentary rocks range from marine turbidites to nonmarine sandstone beds containing coal and plant fossils. Mafic dikes are common in the granitoid plutons. During the last five million years, the area of the South Shetland Islands on the north end of the peninsula spread northwestward away from the main part of the peninsula. The spreading allowed for decompression melting, the extrusion of volcanic rocks, and the creation of a caldera where volcanism is still active today. Most of the present land surface is covered with snowfields or glaciers. Valley and piedmont glaciers abound with their associated crevasses and icefalls. Fractures in the glacial ice, which is a mineral, are identical to those in rocks. Some barren or tundra-covered areas exist where zodiac landings can be made and the fauna and flora studied. Several types of seals, sea lions, and penguins live here, and because they have not yet learned to fear humans, nose-to-nose photographs are easy to take. Don't miss this short pictorial visit to this exotic place.

### BIOGRAPHY

*Dr. Gene Fritsche was born and raised in the Los Angeles area. Received A.B. and Ph.D. degrees in Geology from UCLA. Taught in the Geological Sciences Department at California State University, Northridge for 37 years. Received Distinguished Teaching Awards from the Pacific Section, AAPG and from CSUN, plus the Grover Murray Distinguished Educator Award from the National AAPG. Other awards include Honorary Membership, a Leadership Award, and a Lifetime Achievement Award from the Pacific Section, SEPM, and a Volunteer Service Award from CSUN. He uses his retirement to do some traveling and to volunteer on Habitat for Humanity projects around the world. He is presently serving as Technical Program Chair for the upcoming Pacific Section, AAPG meeting hosted by the CGS in Ventura next May, 2009 and is hoping that you all will help to make the meeting a success by volunteering your time or presenting an abstract for an oral or poster presentation.*