

Inland Geological Society

April 2011

Newsletter of the Inland Geological Society

Volume 27 No. 4

This Meeting:

**Wednesday,
April 6th**

Time:

**Social: 6:00pm
Dinner: 6:30pm
Lecture: 7:00pm**

Location:

**LSA Associates
1500 Iowa Ave
Suite 200
Riverside, CA
92507**

(Map on Pg. 4)

Coming to

Dinner?

Please RSVP to

Steve Mains:

**By Friday 04/1
(951) 784-2168
dixie.lass@att.net**

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April Speaker:

Alan Smith, Ph.D.

**Chair and Professor, Dept. of Geological Sciences
California State University, San Bernardino, CA**



Lesser Antilles: pirates, rum, beaches and VOLCANOES

Abstract

The Caribbean is famous for its white sand beaches, blue waters, its exotic rum drinks, and stories of pirates. It is also infamous for being the site of the worst volcanic disaster in the 20th century with the eruption of Mt. Pelee, Martinique in 1902, and the loss of 30,000 lives. Other recent activity include the 1902, 1971 and 1979 eruptions on Soufriere, St. Vincent, the 1976 eruption of Soufriere, Guadeloupe and the 1995-present eruption of the Soufriere Hills, Montserrat. Hazard assessment of the 19 potentially active volcanoes of the Lesser Antilles is complicated due to their short historic records (written historic records only began with European settlement in the mid-17th century), and relatively infrequent eruptions (only 4 of the 19 potentially active volcanoes) have had magmatic eruptions in the last 350 years). For such volcanoes the only tool for understanding their volcanic histories and thus assessing their potential hazards are geological studies. The need for such studies become extremely important in view of the fact that three-quarters of the islands contain significant population

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centers located within hazard zones designated very high to high thus placing large percentages of the islands' populations at risk. Geological studies including, new geological maps and detailed stratigraphies, have allowed maps showing the areas of greatest risk to be constructed for each island. These studies have shown that pyroclastic flows dominate both the historic and pre-historic record, with effusive volcanism being mainly restricted to the generation of felsic domes. The island of Dominica provides a special case of hazard assessment in that in an area of 750 km², there are eight potentially active volcanoes, most of which are within 10 km of the capital of Roseau. In addition, Dominica is the site of the largest eruptions in the last 200,000 years in the entire Lesser Antilles. One such eruptive sequence, between 50,000 to 20,000 years ago, affected most of southern Dominica including the capital of Roseau (population 84,000), which is built on the pyroclastic flow fan produced by these eruptions.

Biography:

Dr. Alan Smith received his B.S. degree from the Kings College, University of London, England and his Ph.D. from the University of California, Berkeley. Since 2000, Dr. Smith has been the Chair and Professor in the Department of Geological Sciences of the California State University, San Bernardino (CSUSB). Prior to joining CSUSB, he was the Professor and Chair Department of Geology, University of Puerto Rico at Mayaguez. In 2006, he received the California State University Wang Professor of Science Award. His research focus been in volcanology and volcanic hazards assessment, particularly of the Caribbean volcanoes. Dr. Smith has published two books (currently working on third book on geology of Dominica), five book chapters, over 60 peer reviewed publications, over 100 abstracts, many with undergraduate students as co-authors.



Soufriere Bay at Scotts Head, Dominica

Upcoming Meetings/Events

Rock & Gem Shows—Various locations

Various rock and mineral shows will be throughout So. California. To find one near you, visit www.rockngem.com/showdates.asp

Los Angeles Basin Geological Society



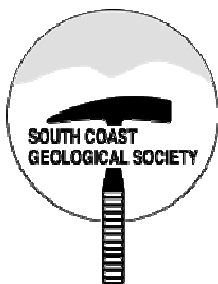
Ray Ingersoll will be presenting a talk on 'Reconstructing Southern California'. The meeting will be on **April 28, 2011** at The Grand at Willow Street Conference Center.

For more info, visit www.labgs.org.

Fourth IWA Specialty Conference

The topic of this year's conference will be *Natural Organic Matter: From Source to Tap and Beyond* and will be held **July 27–29, 2011** in Costa Mesa, CA. For more info., visit www.regonline.com/NOM2011

South Coast Geological Society meeting



Dr. David K. Lynch will be presenting a talk on the "San Andreas Fault: What it is, where to find it and what it means". The next meeting will be held on **Monday, April 11, 2010** at the Doubletree Club Hotel in Santa Ana, CA. The speaker is

to be determined. For more info., visit www.southcoastgeo.org



IGS Meeting Schedule

May 5, 2011 (Thursday)

Eric Scott, CSU, Curator of Paleontology, San Bernardino County Museum
TBA

June 1, 2011 (Wednesday)

Andrew Hillstrand, Boart Longyear
Sonic Drilling

July 7, 2011 (Thursday)

TBA

August 3, 2011 (Wednesday)

TBA

September 01, 2011 (Thursday)

TBA

STUDENTS!!

The end of academic year is approaching and many of you will begin looking for work from summer internships to full-time employment.

By presenting your undergraduate or graduate Research at an upcoming IGS meeting, you have a chance to introduce yourself to potential employers!

Please contact Cindy Li, Jon Smith or Steve Mains to schedule your talk!

IGS MEETING LOCATION:

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Riverside, CA 92507

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