



SAN FRANCISCO SECTION NEWSLETTER

**Meeting Details:**

- **Tuesday, April 12th**
- The Englander, San Leandro
- 6:00pm – Cocktail Hour
- 7:00pm – Dinner
- 8:00pm – Speaker
- \$35 members, \$15 students, \$40 non-members

Reservations Due By NOON, FRIDAY, April 8th!

APRIL 2005 PROGRAM

David L. Wagner, California Geological Survey

NEW CONSTRAINTS ON THE AGE AND DISTRIBUTION OF CENOZOIC VOLCANICS NORTH OF SAN PABLO BAY, CALIFORNIA: IMPLICATIONS FOR DISPLACEMENT ALONG FAULTS INBOARD OF THE SAN ANDREAS FAULT

Most of the volcanic fields in the San Francisco Bay Region are part of a succession of volcanic fields located along the trend of the San Andreas fault system (SAF) that become younger to the northwest within each fault block. These fields include the Quien Sabe Volcanics (QSV), volcanic rocks in the Berkeley Hills (BHV), the Burdell Mountain Volcanics (BMV), the Tolay Volcanics (TV), the Sonoma Volcanics (SV), and the Clear Lake Volcanics. All of these fields are complex, heterogeneous, bimodal volcanic suites inferred to be the result of mantle upwelling behind a slab window trailing the Mendocino triple junction.

The Sonoma Volcanic field differs from the other fields within the San Francisco Bay Region by being much more voluminous, by containing the only significant amount of ignimbrites, and by being active much longer. The BMV and the TV were once considered to be part of the SV, but with the availability of radiometric ages, it became clear that most of the volcanic rocks west of the Rodgers Creek fault in southern Sonoma and Marin counties are older than the SV. Recent Ar/Ar results show that many K/Ar ages in the North Bay region are too old and that volcanics in the Cotati/Petaluma area correlated to the BMV are part of the TV. The TV correlate with the BHV indicating about 40-45 km of displacement along the Hayward and Rodgers Creek faults. The BMV have been correlated with the QSV suggesting about 170 km of displacement along the Calaveras-Hayward-faults as well as unknown faults west of Petaluma Valley (Burdell Mountain and related faults?). The distribution of the TV indicated by these new dates requires that displacement along the Petaluma Valley Fault is much less than previously suggested and that little or no lateral displacement along the Tolay Fault.

RESERVATION FORM

AEG San Francisco Section Meeting • Tuesday, April 12, 2005 • 6:00 pm • The Englander, San Leandro
Reservation Deadline: 12:00 PM, FRIDAY, APRIL 8TH

SEND RESERVATION FORM TO **SACHIKO TANIKAWA**
 FAX: **510-208-2039** or E-MAIL: **TREASURER@AEGSF.ORG**

Please include "AEG SF Reservation" in subject line • Include entrée choice • This reservation form can be completed electronically.

Do not send payment – check or cash at the door – make checks payable to AEG SF SECTION

Dinner and Meeting Cost: \$35 – members \$15 – student members \$40 – non-members

No shows and late cancellations will be charged!

NAME _____ COMPANY _____

TELEPHONE NO. _____ NO. OF PEOPLE _____

PLEASE CHOOSE ENTRÉE(S): Chicken Fish Vegetarian