

UC SANTA BARBARA

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UCSB Geologist Wins Two National Awards

Tanya Atwater, professor of geology at the University of California, Santa Barbara and a pioneering researcher in plate tectonics, has recently won two national awards for her contributions to the field.

Atwater's interest in plate movements includes the particular kind of giant subduction zone earthquake that causes tsunamis. She is currently creating animations to show why the December 26th tsunami occurred where it did. It is part of the same collision system that is pushing up the Himalayas.

The Geological Society of America recently presented Atwater with the Best Paper Award for "scientific publication of exceptional distinction which advances the fields of structural geology and tectonics."

The winning paper, "Pacific-North America Plate Tectonics of the Neogene Southwestern United States," was written with J.M. Stock, and published in 1998 in the *International Geological Review*. "The paper meshes our regional deformations into global plate tectonic solutions with quantitative rigor for the first time," explained Atwater. "When something changes in the plate motions in the south Atlantic it has ramifications in Nevada; slippage in Death Valley increases mountain building in Seattle; etc. Lots of western geologists are routinely using our solutions (and/or my animation of them) to put their more local work into the global context."

The second award---"for original, innovative, pioneering contributions"---will be made at the triennial meeting of the Society of Woman Geographers (SWG) this spring in Savannah, Georgia. Atwater will also deliver the keynote address at the meeting.

The president of the society wrote, "It is my pleasure to inform you that on November 13, 2004, SWG Council voted to award you our coveted Gold Medal for your 'original, innovative, pioneering contributions to the world's knowledge and understanding of the universe in which we live.' It couldn't have happened to a more deserving person."

This award is only given every few years. There were 16 awards between 1933 and 2002. Previous winners include Amelia Erhardt, Margaret Meade, Mary Leakey, Arlene Blum, Sylvia Earle, Jane Goodall, and Kathryn Sullivan.

Related Links

[Tanya Atwater's Web Page](#)

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