

Atlanta Geological Society Newsletter

Next meeting of the Atlanta Geological Society is
June 28, 2011
Fernbank Museum of Natural History (Clifton Road)
Social begins at 6:30 pm

June 2011

Bits and Pieces

Ben Bentkowski, Newsletter Editor

The other day I was looking at our logo. Yes, the same logo at the top of this page. I was surprised to see the date of 1991. Usually, organizations have the year they were founded on their logo. That would make this the 20th anniversary year of the Atlanta Geological Society. Now, I'm not the AGS historian. We may not have a historian. But twenty years, that should be celebrated.

I do not remember where we first met but I do remember a very early meeting where the presentation was on giant sand dunes that were formed after the rupture of Lake Bonneville and how recent photos of Mars showed dunes of the same size and morphology. I was amazed by geology, once again.

Think of all that has happened and been achieved in twenty years; meetings in the spectacular setting Fernbank, the establishment of the P.G. education classes, the joint meetings with AEG, AGS and AIPG, the founding of the Sandy Pottinger Grant program, the transition to an electronic newsletter, and the thousands of slices of pizza shared in camaraderie in the shadow of those great dinosaurs.

The June Meeting

Join us Tuesday, June 28, 2011 at the Fernbank Museum of Natural History, 760 Clifton Road NE, Atlanta GA. For the June meeting, we will have our annual Social and an IMAX movie. Also part of the festivities will be our door prize drawing. Consider bringing something 'geologic' to liven up the surprise of having your name drawn.

Officially, the Social is for members, and their guests, that have paid their 2011 dues. The newsletter goes out to a much wider group. So, for your convenience, the annual dues of \$25 will be accepted at the door. Checks preferred. See **page 16 for the movie details**. And please remember, the other exhibit rooms in the Museum are not open during our event.

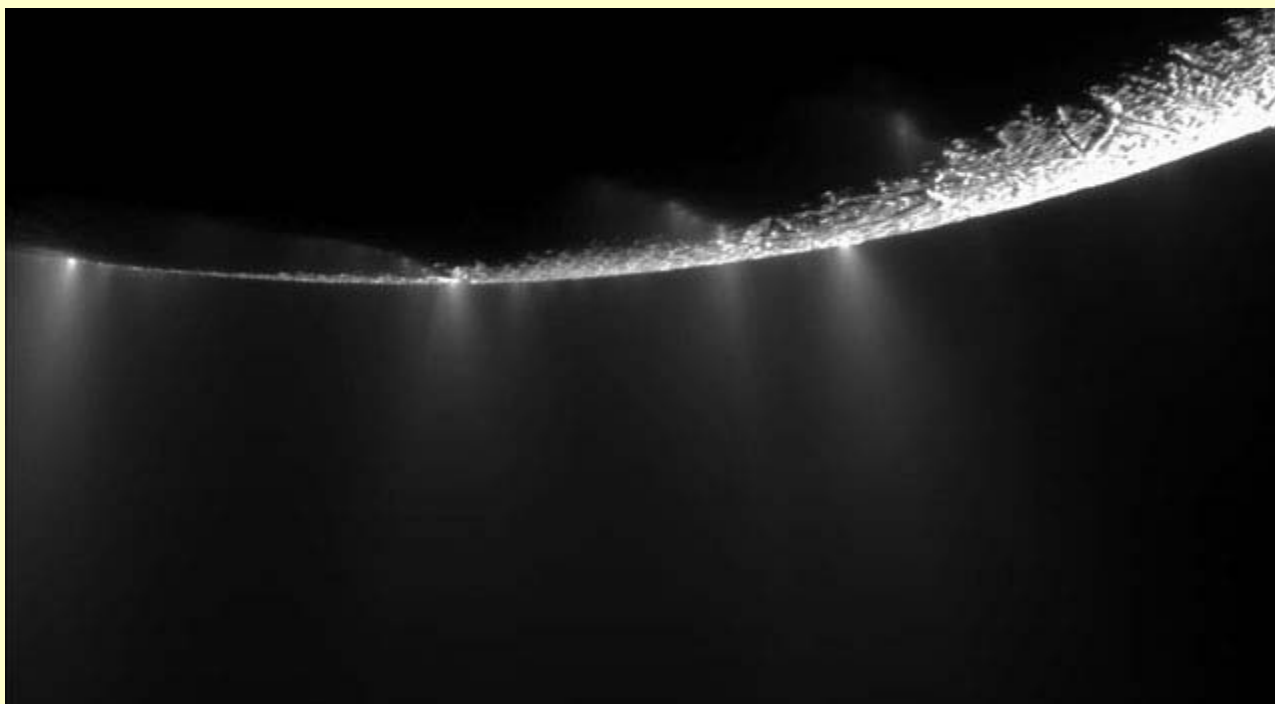
Please support this month's six sponsors. Their generous support helps makes these meeting successful. Please see the sponsor's details in the following pages; 4-9.

Continued

As we gather for our annual Social and a Movie, please remember where we've been and think of where we would like to go. This Society's success was built on the good ideas and hard work of the members before us. Please give it some thought and let's see where we can go in the next twenty years.

Cassini Captures Ocean-Like Spray at Saturn Moon

Dramatic plumes, both large and small, spray water ice out from many locations along the famed "tiger stripes" near the south pole of Saturn's moon Enceladus. The tiger stripes are fissures that spray icy particles, water vapor and organic compounds. Image credit: NASA/JPL/Space Science Institute



June 22, 2011 PASADENA, Calif. -- NASA's Cassini spacecraft has discovered the best evidence yet for a large-scale saltwater reservoir beneath the icy crust of Saturn's moon Enceladus. The data came from the spacecraft's direct analysis of salt-rich ice grains close to the jets ejected from the moon. Data from Cassini's cosmic dust analyzer show the grains expelled from fissures, known as tiger stripes, are relatively small and predominantly low in salt far away from the moon. But closer to the moon's surface, Cassini found that relatively large grains rich with sodium and potassium dominate the plumes. The salt-rich particles have an "ocean-like" composition and indicate that most, if not all, of the expelled ice and water vapor comes from the evaporation of liquid salt water. The findings appear in this week's issue of the journal *Nature*. "There currently is no plausible way to produce a steady outflow of salt-rich grains from solid ice across all the tiger stripes other than salt water under Enceladus's icy surface," said Frank Postberg, a Cassini team scientist at the University of Heidelberg, Germany, and the lead author on the paper. When water freezes, the salt is squeezed out, leaving pure water ice behind. If the plumes emanated from ice, they should have very little salt in them. Read more @ http://www.jpl.nasa.gov/news/news.cfm?release=2011-190&cid=release_2011-190



Plain Geology

By George Otis Smith

The scientific community must be effective in communicating the results of its work to the public in a way that can be understood and used. The need for this is acute, for the complexity and difficulty of environmental and resource problems require full use of all the knowledge scientists can muster. The wisdom of the actions of both the government and private sectors depends in large part on their understanding of resource characteristics.

The U.S. Geological Survey is uniquely qualified to provide much of the required knowledge about natural resources through its many reports and maps and can be proud of the products of its work. Too often, however, reports are couched in words and phrases that are understandable only to other scientists, engineers, or technicians. But, who, really, are the ones to whom the Survey wishes to convey its findings? Other scientists and engineers, yes. But beyond them, by far a larger audience: teachers, students, businessmen, planners, and Federal, State, county, and municipal officials—in short, the public.

More than 50 years ago former Director George Otis Smith (shown on the front cover) recognized the same problem. His plea for "Plain Geology" was a classic, just as applicable now as it was in 1921. It is herewith reprinted to make it generally available. <http://pubs.usgs.gov/gip/plain.html>

From Dave Jenkins at EPA, here is a link to state geological maps that you should be able to pull into Google Earth: <http://tin.er.usgs.gov/geology/state/>

Just an Observation

I recently watched the movie 127 Hours about a young man who, through a very unfortunate accident, fell into a narrow canyon in southern Utah and got his arm caught literally between a rock and a hard place, the canyon wall. Had he only been a geologist instead of an engineer, he would have been out on this adventure with a rock hammer. Then he could have busted up that rock instead of....you'll have to see the movie to see the rest. P.S. Always leave a note saying where you're going.



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Please contact us for any up-coming project needs or pricing. We can be reached at
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Thanks to Todd Roach and our other sponsors for their continued support.
Please consider them when you're scoping your next project.

What's to Blame for Wild Weather? "La Nada"

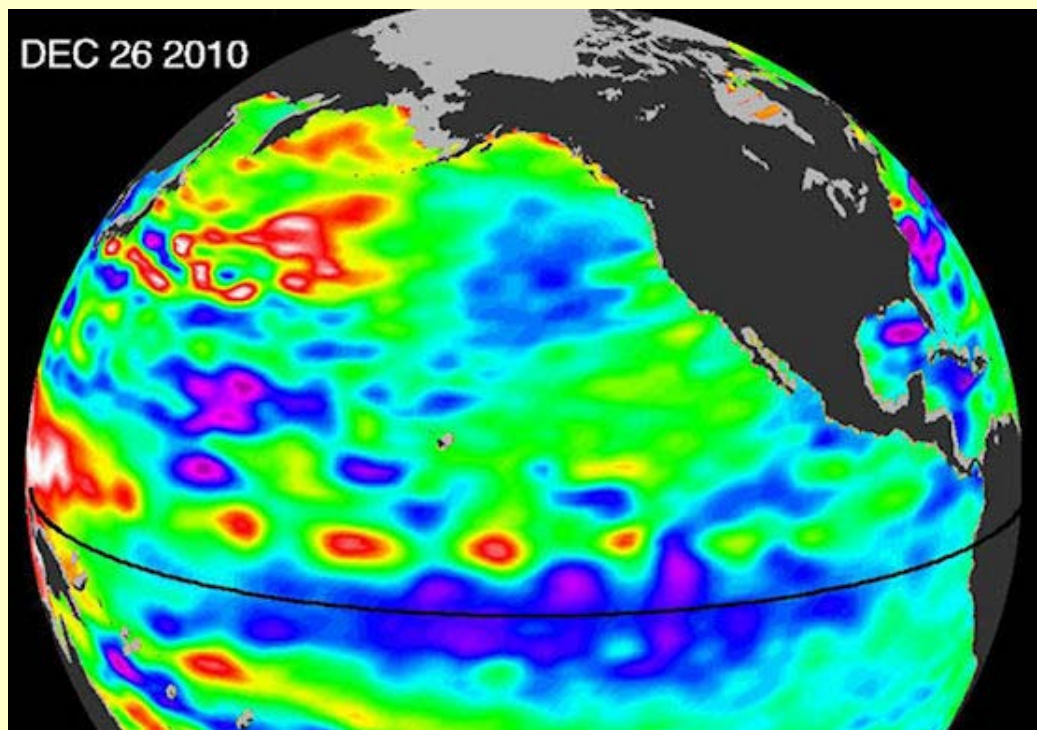
June 21, 2011: Record snowfall, killer tornadoes, devastating floods: There's no doubt about it. Since Dec. 2010, the weather in the USA has been positively wild. But why?

Some recent news reports have attributed the phenomenon to an extreme "La Niña," a band of cold water stretching across the Pacific Ocean with global repercussions for climate and weather. But NASA climatologist Bill Patzert names a different suspect: "La Nada."

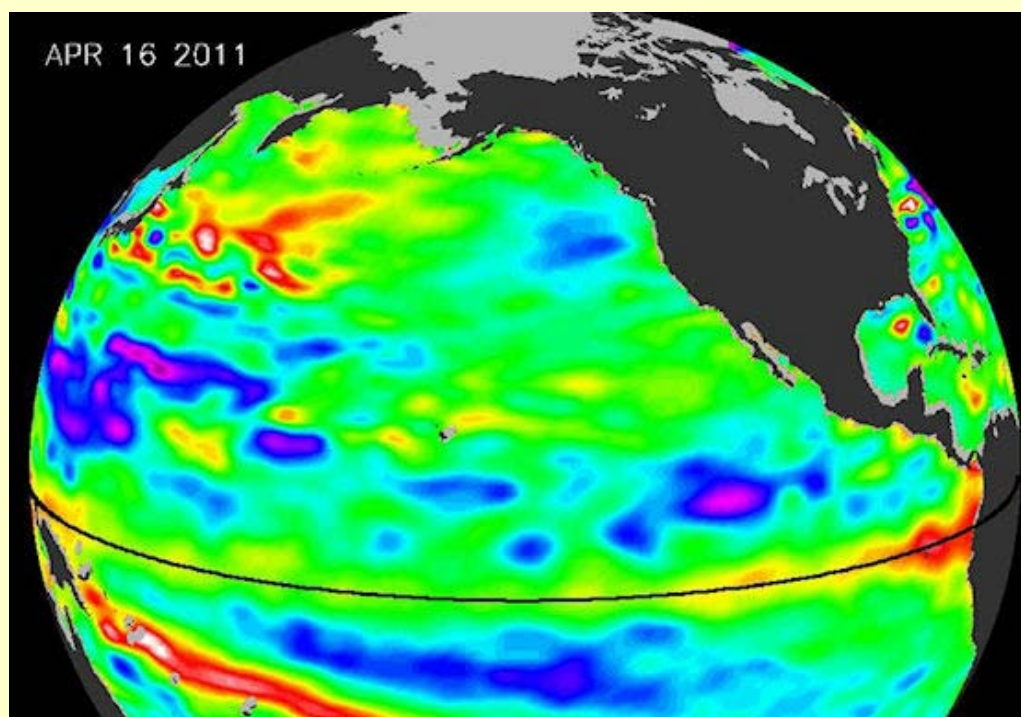
"La Niña was strong in December," he says. "But back in January it pulled a disappearing act and left us with nothing – La Nada – to constrain the jet stream. Like an unruly teenager, the jet stream took advantage of the newfound freedom--and the results were disastrous."

La Niña and El Niño are opposite extremes of a great Pacific oscillation. Every 2 to 7 years, surface waters across the equatorial Pacific warm up (El Niño) and then they cool down again (La Niña). Each condition has its own distinct effects on weather.

Continued on the next page and at the citation http://science.nasa.gov/science-news/science-at-nasa/2011/24jun_wildweather/



The blue and purple band in this satellite image of the Pacific Ocean traces the cool waters of the La Niña phenomenon in December 2010. (from Ocean Surface Topography Mission (OSTM)/Jason-2 satellite, Credit: NASA JPL)



This satellite image, taken in April 2011, reveals La Niña's rapid exit from the equator near the US coast. The cool (false-color blue) water was gone by early spring. (from Ocean Surface Topography Mission (OSTM)/Jason-2 satellite, Credit: NASA JPL)

AGS Members...The Professional Registration Committee Needs YOU...

If you are an AGS member and would like to contribute to the Professional Registration Committee by leading a lecture on one of the subjects listed below, then please contact me either by e-mail or at the monthly AGS meetings. The lecture should be for one hour followed by a Q&A session. We need different speakers for each workshop. Your volunteering to teach on one of these subjects is essential to the success of the Professional Registration Committee – we need more widespread participation by the AGS membership. Speakers can be compensated for expenses and will receive certificates to acknowledge their participation.

The following content domains are covered in the Georgia Professional Geologist exams:

- | | |
|---|---|
| A. General Geology | B. Mineralogy, Petrology, & Petrography |
| C. Sedimentology, Stratigraphy, & Paleontology | D. Economic Geology & Energy Resources |
| E. Structure, Tectonics, & Seismology | F. Hydrology & Environmental Geochemistry |
| G. Engineering Geology | |
| H. Quaternary Geology, Geomorphology, & Surficial Processes | |

We do not "teach the test" our aim is to review fundamental concepts of the earth sciences and acquaint candidates with industry specific information not easily obtainable from the literature. Please inform anyone who might be interested in becoming a professional geologist of our workshop. Please consider joining us even if you are not a P.G. candidate. The workshops are interesting and informative.

Ken Simonton, P.G., Chair
Professional Registration Committee

www.atlantageologicalsociety.org



An exposed sinkhole from the Burren area in northwest Ireland.

Photo Credit BB



Fernbank Museum of Natural History

Upcoming Public Programs and Events

(All programs require reservations, including free programs)

LOCATION:

767 Clifton Rd, NE Atlanta,
GA 404-929-6400

For tickets and details on exhibits,
films, and events, please visit our
website at

www.fernbankmuseum.org

Follow us on Facebook or
Twitter for the latest news and
updates!

On Exhibit:

- *Entrance Plaza, featuring a family of Lophorhothon dinosaurs*
- *Martinis and IMAX: Friday evenings, 5:30 p.m. – 10 p.m.*

Now Showing in the Fernbank
IMAX movie theater:

(Check our website for special
screenings)

Current Daytime Schedule:

- **Ultimate Wave Tahiti**
- **Tornado Alley**



Martinis & IMAX® is presented at the Fernbank Museum of Natural History every Friday evening, January through November; from 5:30 p.m. to 10 p.m. Enjoy no cover charge when you visit us between 5:30 p.m. to 6:30 p.m. This event includes a wine bar, where featured wines can be purchased by the glass and by the bottle. Dinner is also served in the Dining Room, where smaller parties can order chef-prepared dishes-from gourmet pizzas to prime entrées-and dine together in a more intimate and sophisticated setting. Desserts and coffee are available as well.

As always, a full cash bar is offered in the Great Hall where patrons can enjoy a lively atmosphere and musical performances by some of Atlanta's best jazz artists. Bands perform live from 6:30 p.m. to 10 p.m. IMAX® film tickets are \$10. For those who wish to enjoy the atmosphere of Martinis & IMAX® without attending a film presentation, there is a \$5 cover charge after 6:30 p.m. The cover charge is waived for members and patrons who purchase an IMAX® ticket. To purchase tickets in advance, call 404.929.6400.

Fernbank Museum of Natural History

767 Clifton Rd, NE Atlanta, GA 404-929-6400

Special Exhibits On View:

- [*Mythic Creatures: Dragons, Unicorns and Mermaids*](#)
- **Seascapes: Photography of Sandra Gottlieb** (Through August 7, 2011)

Upcoming Programs:

- Pirate and Princess Day Saturday, July 9
- Reptile Day Saturday, July 30
- Pirate and Princess Day Saturday, August 6
- Dinosaur Birthday Bash Weekend Saturday, August 20 and Sunday, August 21

Programs are free to Museum Members.

For tickets and details on exhibits, films, and events, please visit our website at www.fernbankmuseum.org

Follow us on Facebook or Twitter for the latest news and updates!

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AGS 2011 Meeting Dates

Listed below are the planned meeting dates for 2011. Please mark your calendar and make plans to attend.

June 28 Annual Social and IMAX Movie

July – No meeting

August 30 TBD

September 20 TBD

October 25 TBD

November 29 TBD

CALENDAR OF UPCOMING GEOLOGICAL ORGANIZATIONS' EVENTS**June**

28 AGS annual social and IMAX movie (6:30-8:30 at the Fernbank Museum).

July

22 GGWA lecture (12:00-1:00 at the GAWP office). TBA.

30 AGS PG workshop (10:00-12:00 at the Fernbank Science Center in the Bird Room). TBA.

August

11 SME lecture (6:30-8:30 at GC&SU). Krumb Distinguished Lecturer David Armstrong, Montana Tech – Different Techniques for Classifying Mineral Resources.

24-26 Georgia Environmental Conference (GEC) annual conference (Hyatt Regency, Savannah).

27 AGS PG workshop (10:00-12:00 at the Fernbank Science Center). TBA.

30 AGS lecture (6:30-8:30 at the Fernbank Museum in the Bird Room). TBA.

September

20 AGS lecture (6:30-8:30 at the Fernbank Museum). TBA (could be prep for GGS field trip).

23 GGWA lecture (12:00-1:00 at the GAWP office). TBA.

October

7-9 GGS field trip. TBA (could be Fred Rich, Georgia Southern – Coastal Georgia)

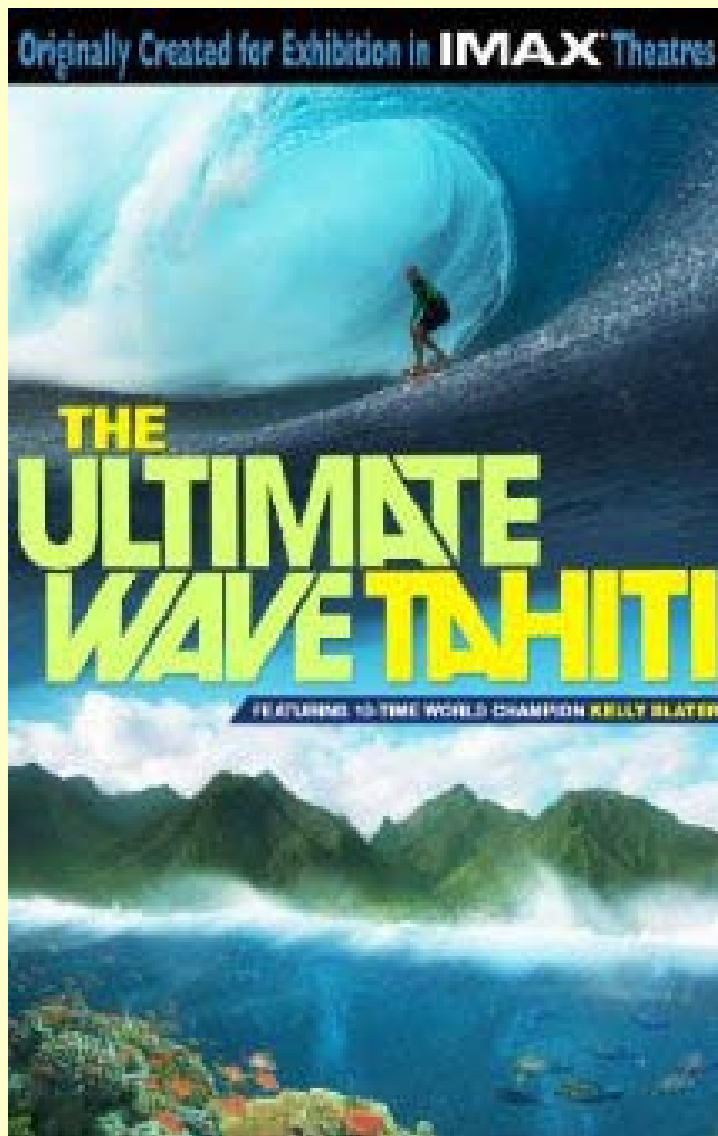
20 SME lecture/webinar (6:30-8:30 at GC&SU or webinar). John Murphy, 2011 SME President – Seeking Opportunities for Dialogue with SME Sections.

25 AGS lecture (6:30-8:30 at the Fernbank Museum). TBA.

November

18 GGWA lecture (12:00-1:00 at the GAWP office). TBA.

29 AGS lecture (6:30-8:30 at the Fernbank Museum). TBA.



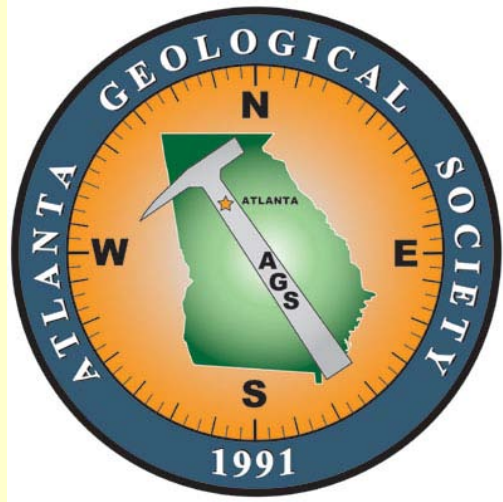
The Ultimate Wave Tahiti

THE ULTIMATE WAVE TAHITI plunges audiences into the stunning beauty of an island paradise on a quest to find the perfect wave-riding experience. Nine-time world surfing champion Kelly Slater and Tahitian surfer Raimana Van Bastolaer and a group of friends seek out the best waves breaking on the reef at Tahiti's famed surf site Teahupo'o. As their quest unfolds, the audience is plunged beneath the surface of things, to explore the hidden forces at work shaping ocean waves and the islands that lie in their path. Amidst playful surfing action, we navigate the cosmos and an ocean storm in a search for the source and nature of a wave's energy.

Exploring mountainous Tahiti, we are thrust into the turbulent volcanic past of the island and its neighbors and discover the seagoing, wave-riding roots of the islanders themselves -- a culture still rich in the music, dance and lore of the sea. Beneath the ocean, swimming with our surfers, we explore the stunning, fragile beauty of the reef habitat -- a turbulent, wave-shaping interface that envelops the island and nurtures the ocean's multitudes in motion -- fish, dolphins, sharks and whales. When the truly big surf arrives at Teahupo'o, surfing play becomes surfing survival as the riders artfully tackle some of the heaviest surf on the planet -- spectacularly captured for the giant screen for the first time. *Written by [K2 Communications](#)*

ATLANTA GEOLOGICAL SOCIETY

www.atlantageologicalsociety.org



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Please print the required details and check the appropriate membership box.

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PROFESSIONAL MEMBERSHIP \$25

CORPORATE MEMBERSHIP \$100

(Includes 4 professional members, please list names and emails below)

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For further details, contact the AGS Treasurer: Stacy Durden-Phillips; telephone: 678.594.9893, ext 205; stacy.durden@lbgatlanta.com.

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