AIPG GEORGIA SECTION

March 2018

2017-2018 Richard H. Jahns Distinguished Lecturer in Applied Geology

Insight into geologic mapping of mélanges from structural geologic research: Implications for engineering geologic analysis and illustration of the value of field geologic training.

Speaker: John Wakabayashi, Ph.D., Professor of Geology, California State University, Fresno
When: Friday, April 6, 2018 at 12 noon to 1:00 PM
Where: OASIS Consulting Services, 45 Woodstock Street, Roswell, GA 30075

AIPG Members and guests call or email by Thursday April 5, if you plan to attend
[Call or Email Calvin Johnson at cjohnson@oasis-cs.com or (678) 485-6077]

PRESIDENTS MESSAGE

I would first like to thank all the members that gave us donations to help fund our scholarship winners. Without your help we would have to reduce the amount of the scholarships. The spring semester is always the busiest time of the year. We are making plans to visit University of Georgia and I'm already scheduled to give a talk at Columbus State and attend University of West Georgia's career night. In April I'm going to help one afternoon at Tellus Museum. In April I start delivering the scholarships and membership plaques. In this news letter I have the guidelines for student chapter of the year. Each student chapter is to either apply for the award or submit a report on their activities. Within the next few months you will start hearing about our conference on September 18-19, 2018.

2017-2018 Richard H. Jahns Distinguished Lecturer in Applied Geology

Dr. John Wakabayashi has been named the 2017-2018 Richard H. Jahns Distinguished Lecturer in Applied Geology. The Jahns Distinguished Lectureship, established in 1988, is sponsored by the Association of Environmental and Engineering Geologists and the GSA Engineering Geology Division. Its purpose is to provide funding for distinguished engineering geologists to present lectures at colleges and universities in order to increase awareness of students about careers in engineering geology. The lectureship is named in honor of Dr. Richard

H. Jahns (1915- 1983), an engineering geologist who had a diverse and distinguished career in academia, consulting and government.

Insight into geologic mapping of mélanges from structural geologic research: Implications for engineering geologic analysis and illustration of the value of field geologic training.

With the continued decline in the amount and intensity of field training for geology students, researchers and young professionals are less well equipped to deal with the geologic complexity of mélanges than they were 10 to 20 years ago when they were already vexed. Detailed field work challenges the prevailing academic model of mélanges as mega shear zones ("subduction channels") and shows that such mélanges formed as submarine landslide deposits. This leads to a significantly different model of processes along the subduction interface. It also has implications for practical mapping and characterization of mélanges for engineering purposes. A decade ago I had stated that the mode of mélange formation (sedimentary, diapiric, or tectonic) was not relevant to engineering characterization but I have shown this to be wrong, because different modes of formation make very different predictions for the distribution of materials and the nature of various contacts. The sad truth is mélanges are even more complex from a mapping standpoint than we had imagined a decade ago and this places a premium on geologic mapping skills and the training that builds such skills.

Based on the following published papers (but the applied geology implications are not in these papers):

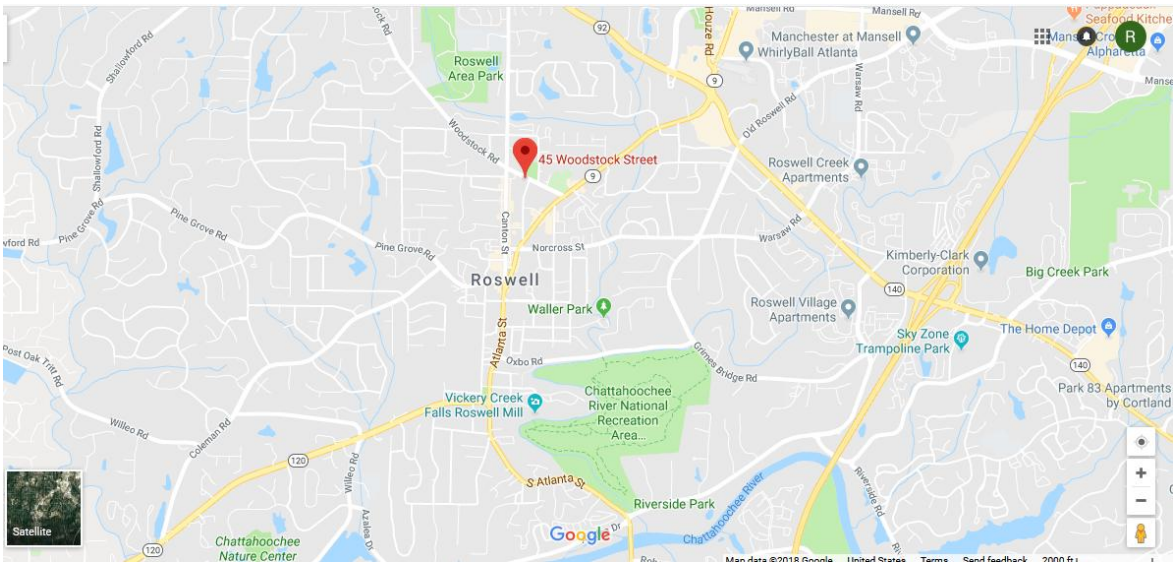
Wakabayashi, J., 2017, Structural context and variation ocean plate stratigraphy, Franciscan Complex of California: Insight into mélange origins and subduction-accretion processes: Progress in Earth and Planetary Sciences 4: 18, 23p., doi: 10.1186/s40645-017-0132-y

Wakabayashi, J., 2015, Anatomy of a subduction complex: Architecture of the Franciscan Complex, California, at multiple length and time scales: International Geology Review, v. 57, p. 669-746. doi:10.1080/00206814.2014.998728.

Biography

John Wakabayashi is a San Francisco Bay Area native who moved to Fresno in 2005 to begin his academic career as a geology professor at California State University, Fresno. He received his B.A. in Geology in 1980 from UC Berkeley, and his PhD in Geology in 1989 from UC Davis (advisor: Eldridge Moores). He is a Professional Geologist (California) and a Fellow of the Geological Society of America.

After graduating from Davis he worked as an engineering and environmental geologist for 16 years (1989-2005), the last 13 years as an independent consultant based in Hayward, California, before becoming an academic. He worked on a variety of different types of projects, including seismic hazard evaluation/paleoseismology, slope stability, engineering and forensic petrography, naturally occurring asbestos, and two Superfund projects on which his primary specialty was evaluation of ambient concentrations of metals of environmental concern in soils and rock. He was a member of the Working Group on California Earthquake Probabilities.



Location in Roswell of the next AIPG/GGWA meeting

AIPG Georgia Section New Program to Place Minerals and Rocks in Schools

One of the activities we have talked about the last few years was to help support schools in Georgia by giving mineral and rock collections to earth science classes. I know one of our former student members was a school teacher and she had asked about minerals. I gave her a few and it was at that point that I spoke to University of West Georgia to see if we could have the geology students put together mineral and rock collections that we would purchase. We end up purchasing 20 sets of 24 minerals, 24 rocks, a glass plate, and a scratch plate for $500.00. We purchased cases for the samples and two will go to a school in Cobb County and the rest went to Troup County High School and Callaway High School. We hope to purchase additional sets in the fall.


Devin Fowler, UWG Rock Kit Co-Chair


Students writing numbers on the samples

Students working on the samples

Devon Lassetter and Buffy Cook receiving the sets for their classes

---

Visit to Milledgeville and Georgia College and State University

On February 28, 2018, Mark Faas with Point to Point Environmental invited me down to Milledgeville to help out on one of his investigations where he had invited students enrolled in environmental science to observe hollow stem auger drilling. I demonstrated the proper use of a handheld miniRAE with soil samples. The students also had an opportunity to bail a well and examine split spoon samples.

Student with miniRAE

Student bailing a well

Scholarship winners for 2018

Georgia Southern – Erin Brinkman
Columbus State – Austin Caughey
University of Georgia – Gian Cella
Georgia State – Katherine Morgan
Georgia Southwestern State – Trevor Dempsey, Andrew May
West Georgia – Nicholas Smith
University of North Georgia – Robert Bandemir
Berry College – Justyn Patterson

Berry College Received Support to Attend GSA Southeastern Section
In early January our student chapter president Mallory Paulk requested funds for 10 students to attend GSA Southeastern Section. Six of the students will be making presentations at the conference. In February I visited the department and presented them with $500.00.

Justyn Patterson receiving the check

AIPG Student Chapter of the Year Award

AIPG STUDENT CHAPTER OF THE YEAR AWARD – DUE April 15th or AIPG STUDENT CHAPTER ANNUAL REPORT - DUE MAY 1st

Submittals are due April 15th and awarded in the fall at the AIPG National Conference. Your submittals may be done online https://goo.gl/forms/76ST62kAmwAvYaMy2 or emailed to aipg@aipg.org.

The AIPG Student Chapter of the Year Award replaced the AIPG Student Chapter Annual Report since it covers the same information. **It is still a requirement for all chapters to provide this information** to the AIPG National Headquarters with the online submittal form https://goo.gl/forms/76ST62kAmwAvYaMy2 or send the below information via email to aipg@aipg.org by April 15th to be eligible for award or by May 1st to meet requirement.

The purpose of the AIPG Student Chapter of the Year Award is to recognize the most outstanding student chapter for their participation in, and contribution to, the American Institute of Professional Geologists. The award will consist of a plaque to be presented to the student chapter, a certificate to each of the officers of the chapter at the time of their submittal, a $500.00 award for the chapter, and a trip for one member of the winning student chapter to the annual AIPG conference and executive meetings. The student that attends the annual meeting will observe the organization and functions of AIPG and participate in the executive board meeting.

All AIPG student chapters are eligible to apply for the award. There is no limit on the number of times a student chapter may win the award. Only one chapter will receive the award per year.

The Student Chapter of the Year Award is administered by the Executive Committee of AIPG. The selection of the winning chapter will be decided by the AIPG Education Committee. The deadline for submittal of application materials for the Student Chapter of the Year Award, to AIPG National Headquarters, is April 15th of each year. The application should be submitted in a pdf or similar format. The winning chapter will be announced at the beginning of the Fall Semester. The certificates will be presented to the students at one of their chapter meetings. The award and plaque will be presented to the chapter delegate at the annual meeting of AIPG.

The submittal for Student Chapter of the Year Award will consist of a written report. Photos documenting chapter activities are strongly encouraged. The submittal should cover the period from the beginning of the Fall Semester to the end of the Spring Semester and include the following as a minimum:

1. Name of the student chapter;
2. Names of student chapter officers;
3. Number of AIPG student members in the chapter;
4. Number of chapter meetings per year;
5. Programs to recruit new members;
6. Activities within the department (seminars, guest speakers, field trips, career day, mentoring, etc.);
7. Fundraisers;
8. Activities within the university (geology awareness, recycling, sustainability awareness, Earth Day, etc.);
9. Activities within the community;
10. Interactions with professional geologists and the local AIPG Section; and
11. Other significant activities that the chapter considers important to the mission of AIPG.

Submittals are due April 15th and awarded in the fall at the AIPG National Conference. Your submittals may be emailed to aipg@aipg.org.

FEDERAL DOCUMENTS

Bipartisan Budget Act of 2018 raises budget caps and directs disaster relief funding to federal agencies

For the second time in 2018, the federal government went into a partial shutdown on February 9 – this time for just under nine hours – until H.R.1892 passed both the House and Senate and was signed into law by President Trump. The bill funds the federal government at fiscal year (FY) 2017 levels until March 23, 2018, raises the budget caps for FY 2018 and FY 2019 by almost $300 billion, increases the debt limit through March 1, 2019, and provides nearly $90 billion in disaster relief for recent fires and hurricanes.

President Trump's FY 2019 budget request proposes cuts to many federal science agencies

President Trump released his $4.4 trillion budget proposal for fiscal year (FY) 2019 on February 12 prioritizing defense, border security, infrastructure, and the opioid crisis, while proposing significant cuts to many domestic programs, including science agencies. The President's FY 2019 Budget was released along with a last-minute addendum outlining additional spending priorities that effectively rolled back some of the initially proposed cuts to a few science agencies, such as the Department of Energy's (DOE) Office of Science and the National Science Foundation (NSF). However, even with the addendum additions, the President's request for non-defense discretionary spending remained $57 billion below the caps agreed upon by Congress.

- **Interior, Environment, and Related Agencies**
  EPA was initially slated for a 34 percent cut compared to FY 2017, but the addendum directed an additional $724 million in spending for the agency, bringing the total EPA request to $6.15 billion, a 25.5 percent cut, for FY 2019. The request for the USGS provides a total of $859.7 million – a 20 percent decrease from FY 2017 enacted levels. This includes $117.3 million – roughly an 18.5 percent cut – for the Natural Hazards Mission Area, and would entirely eliminate the Environmental Health Mission Area.
- **Commerce, Justice, Science, and Related Agencies**
  While the President's original budget proposal would have cut NSF funding by $2.2 billion or 29.5 percent compared to its FY 2017 budget, the addendum in the FY 2019 request restored flat funding for NSF at $7.47 billion. The budget outlined $4.56 billion total funding for NOAA, posing a $1 billion or 20 percent decrease compared to FY 2017 levels. NASA would receive a 1.3 percent increase of $240 million from FY 2017, providing for a total budget of $19.9 billion, after the addendum added $300 million to the agency's original FY 2019 budget request.
- **Energy and Water, and Related Agencies**
  The FY 2019 budget request for DOE is $30.6 billion, providing essentially flat funding compared to FY 2017. The original budget would have cut DOE's Office of Science by 22 percent, but the addendum restored $1.2 billion for fundamental scientific research resulting in flat funding for the Office of Science at $5.4 billion. The request provides $2.5 billion for the DOE's Energy programs. This includes a 66.7 percent decrease at $696 million for Energy Efficiency and Renewable Energy, and a 19.2 percent increase at $502 million for Fossil Energy Research and Development (R&D).

Bipartisan expansion of tax credits for carbon dioxide sequestration signed into law

The Bipartisan Budget Act of 2018, signed into law by President Trump on February 9, contained language that provides tax incentives for carbon sequestration. The bill expands the carbon capture, utilization, and storage (CCUS) tax credits and allows new CCUS technologies, such as direct air capture (DAC), to qualify. This language was initially proposed in the FUTURE Act (S.1535) introduced by Senator Heidi Heitkamp (D-ND) on July 12, 2017.

U.S. District Court overrules suspension of Methane Venting and Flaring Rule as BLM proposes revisions

On February 22, the U.S. District Court for Northern California issued a preliminary injunction against suspension of the Bureau of Land Management's (BLM) 2016 rule on Waste Prevention, Production Subject to Royalties, and Resource Conservation. The Obama-era rule seeks to reduce methane waste from venting, flaring, and leakage during oil and gas production on onshore federal and Indian lands. The latest court decision is one in a series driven by legal sparring between proponents and opponents of the measure, which began almost immediately after the rule was finalized.

Secretary Zinke proposes reorganization plan for the Department of the Interior

Interior Secretary Ryan Zinke is moving forward with major plans to reorganize his department, which includes agencies such as the Bureau of Ocean Energy Management, the National Park Service, the Bureau of Land Management, and the U.S. Geological Survey. Each of the nine agencies within the Department of the Interior (DOI) currently operate under separate and unique regional structures. The Secretary's proposal would change this management structure by establishing unified regional boundaries for all Interior bureaus in an effort to reduce administrative redundancy, shift resources to the field, and improve interagency coordination.

National Academies release second decadal survey for earth observations from space

Last month, the National Academies of Sciences, Engineering, and Medicine released a report titled Thriving on Our Changing Planet: A Decadal Strategy for Earth Observation from Space. Commissioned by the civilian agencies involved with space-based Earth observations – the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, and the U.S. Geological Survey – the study identifies key science and application priorities for 2017-2027. The report calls for the overall U.S. government's program of Earth observations from space to be robust, resilient, and appropriately balanced, and for federal agencies to ensure efficient and effective use of U.S. resources.

To contact Eric Lowe: elowe@smeinc.com
678-244-5043

To contact Ron Wallace: 770-630-6020
rw30075@yahoo.com