**ANNUAL REPORT 2011: NAGT – USGS COOPERATIVE SUMMER FIELD TRAINING PROGRAM**

The 2011 Field Season for the NAGT-USGS Cooperative Summer Field Training Program marked the 46th year of what is now one of longest running science internship programs in the nation. More than 2000 students have participated in this program since it was first conceived in 1965 by William "Bill" Pecora, then the newly appointed Director of the US Geological Survey. Many of these students have gone on to become well-known leaders, influential professors and outstanding contributors to the knowledge base of geoscience. (More information about the history, operation of this program, and this year's interns can be found at: http://education.usgs.gov/docs/NAGT2011updatedJune.pdf)

This year, a record number of 105 students were nominated by field camp directors, and 68 of those students completed an application for the program. After receiving 56 proposals from USGS scientists, and after the proposal review panel meet and matched students to projects, a total of 47 students were placed with USGS science projects. Since breathing new life back into this historic program in 2003, we have now gone from 8 placements in 2002, to numbers that are consistent with the historical average for this program.

Summary of information and tasks completed in 2011:

- Using data published in past issues of the Journal of Geoscience Education, we were able, for the first time, to create an authenticated list of names of interns participating in the NAGT-USGS Internship Program. Information obtained from JGE allowed the listing to be brought back to 1989. This listing will be posted on the program's website both at the USGS and NAGT. In order to further extend the listing, this site will also have a section that will solicit information about the names of interns who participated in the program prior to1989.

- The annual letter to Field Camp Directors was modified to request that field camp directors include a brief description of the attributes of the particular nominees selected. This greatly helps the USGS Placement Panel in their efforts to place a student with a project best suited to their abilities while also helping USGS mentor scientists in preparing to conduct their interviews with students.

- This year a small but unexpected number of students (7) withdrew from the program after initially accepting their position with a project. We ran an analysis of potential factors for each of these students in an attempt to determine possible reasons for such withdrawals. Factors examined included the student's GPA, their interests listed in their cover letter, whether or not they planned on attending graduate school, as well as several other variables, such as age and home institution. Although no significant correlation could be established with any particular measure, we did find that one common reason cited for withdrawing among this group was that they had just acquired (after acceptance) a full-time, permanent position. While we read that so many recent graduates are seeking employment, and that internships are, unquestionably, the principal pathway into securing a position, with this select group at least – most of whom have, heretofore, went on to graduate school – a number are first opting for employment. It is our sense that this occurrence is linked to the current economic and job situation, and to certain aspects of the "is higher education worth it" discussion that is playing out in various sectors of the media. Although one can understand why a student would not want to let a full-time employment position slip by, it does raise program operational issues as much time and effort is invested in getting each of these students on-board.

- As information available on geology field camps often tends to be inaccurate or out of date, we spent considerable time developing a comprehensive listing of geology field camps nationwide, including contact names and websites where possible. The procedure followed was first harvesting information from the various listings available (NAGT/USGS's Field Camp listing, several internet site listings, e.g., Geology.com., as well as individual academic dept. listings).That listing was then reconciled against listings identified in the AGI Directory of Geoscience Departments as well as every college or university identified as having a geology or

earth science program in the Nat'l Center for Educ. Statistics (IPEDS) data base. Operationally, any 4 yr. or above degree granting institution having a department with the word geology, geoscience, or earth science anywhere in its title was selected, and then that department's website was examined to determine whether or not they offer their own specific field camp course. A given field course title, field course #, and designated credit hrs. > 6 was the given criteria for being selected. With this procedure and selection criteria we were able to identify 137 departments as having an active field camp program (present academic year 2111). Website links were identified for each program, as well as specific contact information for the respective field camp instructors. This listing, now available on the USGS Education website and, on soon to be on NAGT's website, brings field camp information up-to-date, and assists in our collective ability to more fully assist with the many field camp and NAGT/USGS internship inquiries received.

- As in recent years, program evaluations were sent to both scientists and interns. USGS takes the lead in sending evaluations to the scientists and NAGT takes the lead in sending evaluations to interns. These evaluations, as well as copies of information referenced in the bulleted items above, and detailed, multi-year comparative program information, will be provided in packets to those attending our Annual NAGT & USGS Internship Meeting.

9/1/2011

Robert W. Ridky
National Education Coordinator
U.S. Geological Survey

Penny Morton
NAGT Internship Representative
University of Minnesota, Duluth

## 2011 NAGT-USGS Internship Placements

| Intern Name/University | Project Title | Researcher/Location |
|---|---|---|
| Anna Ahlstrom<br>BS Geology<br>Texas A&M University | Runoff Response after Fourmile Canyon Fire | John Moody<br>Boulder, CO |
| Tyler Brown<br>BS Geology & Geophysics<br>University of Wyoming | Seismic monitoring of Cascade Range volcanoes | Seth Moran<br>Vancouver, WA |
| Caitlin Casar<br>BS Geology<br>East Carolina University | Characterizing deep-sea invertebrate communities associated with shipwrecks and natural reefs found in the Gulf of Mexico | Amanda Demopoulos<br>Gainesville, FL |
| Scott Ceciliani<br>BS Geology<br>Oregon State University | Surface-water and Ground-water Networks | Gerard Butch<br>Troy, NY |
| Sam Coleman<br>BS geology<br>Northern Arizona University | Monitoring to Predict Escherichia coli Concentrations at Presque Isle Beaches | Curtis Schreffler<br>Erie, PA |
| Bart Cubrich<br>BS Geology<br>University of Nebraska | Northern Appalachian Bedrock Mapping Project | Greg Walsh<br>Montpelier, VT |
| Nicholas Dosch<br>BS Geological Engineering<br>University of Wisconsin | Nutrient Loads to Long Island Sound from Rivers and Groundwater | John Mullaney<br>East Hartford, CT |
| Neil Fenning<br>BS Geophysical Sciences<br>Western Washington University | Earthquake Hazards in the Central and Eastern USA: Field and Office Activities | John Mooney<br>Menlo Park, CA |
| Krista Garrett<br>Senior, Geology<br>Whitman College | Benthic Nutrient Flux from Water-Storage Wetlands Adjacent to Upper Klamath Lake, Oregon | James Kuwabara<br>Menlo Park, CA |

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| Harrison Gray<br>BS Earth Science<br>University of California | Luminescence Dating | Shannon Mahon<br>Denver, CO |
| Brandon Guttery<br>BS Geology<br>University of Oklahoma | Melt or Fluid Inclusion Analysis in Resource Investigations | Albert Hofstra<br>Denver, CO |
| Lauren Harrison<br>BS Geology<br>University of Wyoming | The toxicity of Te, In, Ga, and Li species as measured by *in vivo* test kits | Andrea Foster<br>Menlo Park, CA |
| Isabel Hong<br>BA Geology<br>Whitman College | Physical Properties of the WAIS Divide Ice Core, West Antarctica | Joan Fitzpatrick<br>Denver, CO |
| Charles Horowitz<br>BS Geology<br>University of Pittsburgh | Geophysical Methods for Examining Flow Processes in the Unsaturated Zone | John Nimmo<br>Menlo Park, CA |
| Miquela Ingalls<br>BS Geological Sciences<br>University of North Carolina | Fine-scaled Monitoring of Hydrologic and Thermal Regimes of High-elevation Streams within Greater Yellowstone Ecosystem and the Implications to Instream Biota | Robert Al-Chokhachy<br>Jackson, WY |
| Robert Spencer Kellum<br>BS Environmental Science<br>Eastern Michigan University | Assessing Foodweb Resources for Juvenile Salmonids Utilizing the Lower Columbia River | Jennifer Morace<br>Portland, OR |
| Tyler Kent<br>BS Geology<br>Western Washington University | Geodetic monitoring of Cascade Range Volcanoes and Yellowstone | Michael Lisowski<br>Vancouver, WA |
| Scott Kenyon<br>BS Geology<br>California State University | Mercury Study of the Santee River Basin and Coastal Drainages (SANT) as part of the National Water Quality Assessment Program | Celeste Journey<br>Columbia, SC |
| Sabina Kraushaar<br>BS Environmental Geology<br>Fort Lewis College | Geophysical investigations related to geothermal, mineral, and water resources and to natural hazards in the western U.S. | Victoria Langenheim<br>Menlo Park, CA |
| Evan Larsell<br>BS Geology<br>Western Washington Universtiy | Noninvasive Grizzly Bear Population Monitoring in Northwestern Montana | Katherine Kendall<br>West Glacier, MT |
| Evin Maguire<br>BS Geology<br>University of Michigan | Identification of Biological Methods for Evaluating Wetland Water Quality Conditions in Arkansas | David Friewald<br>Little Rock, AR |
| Cody Mason<br>BS Geology<br>Fort Lewis College | Geologic Mapping, Neotectonics, and Global Climate Change within the Northern Rio Grande Rift | Cal Ruleman<br>Denver, CO |
| Kelly McHugh<br>BS Geology<br>Miami University | Investigation of eruptive processes during the 2006 eruption of Augustine Volcano | Michelle Coombs<br>Anchorage, AK |
| Amelia McMillin<br>BA Geology<br>Western State College of Colorado | Combining Borehole Strainmeter and Tide Gauge Data to Study VerticalDeformation During Slow Slip Events in the Cascadia Subduction Zone | Evelyn Roeloffs<br>Vancouver, WA |
| Matthew Miller<br>BS Geology<br>University of Oklahoma | Fate and Transport of Biodegrading Contaminants in Fractured-Rock Aquifers | Thomas Imbrigiotta<br>West Trenton, NJ |
| Patrick Norby<br>BS Geology<br>Brigham Young University | Rock Creek Fish Population and Life History Assessment | Brady Allen<br>Cook, WA |
| Daven Quinn<br>BS Geology and Economics<br>University of North Carolina | Applied Hydrogeophysics Research | John Lane<br>Storrs, CT |
| Curtis Reid<br>BA Geology<br>Whitman College | Evaluation of the Exchanges of Greenhouse Gases, Energy, and Evapotranspiration Over Forest, Grasslands, and Urban Ecosystems | Dean Anderson/Edwin Weeks<br>Lakewood, CO |
| Nicole Rockentine | Cape Cod Toxic Substances Hydrology Field Research | Denis LeBlanc |

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| BA Geological Science<br>Albion College | Project | Northborough, MA |
| Diana Rotter<br>BS Earth Science<br>George Mason University | George Washington National Forest | James Coleman<br>Monterey, VA; Reston, VA |
| Andrew Schneider<br>BA Geology<br>University of Cincinnati | Evaluating the Water Budget of the Torres Martinez Desert Cahuilla Indians Wetlands | Tracy Nishikawa<br>San Diego, C A |
| Courtney Sprain<br>BS Geophysics and Geology<br>University of Minnesota | Microgravity measurements to characterize groundwater storage in caves, fractures, and other voids, Black Hills of South Dakota | Andrew Long<br>Black Hills, SD |
| Jonathon Stautberg<br>BS Geology<br>Texas A&M University | Quaternary mapping and Geomorphology Studies Along the Columbia River Corridor | James O'Connor<br>Portland, OR |
| Elizabeth Studebaker<br>BS Geology<br>University of Arkansas | Monitoring Urban Green Treefrog Populations and Their Environment | Jacoby Carter<br>Lafayette, LA |
| Helen Thomas<br>BS Geological Sciences<br>University of California | Geological and Geophysical Studies of the San Andreas Fault System, California | Shane Detweiler<br>Menlo Park, CA |
| Peter Tierney<br>BA Geosciences and Art<br>Williams College | Computer analysis of digital seafloor imagery in support of Ridge-to-Reef studies of Hawaiian coral reefs | Michael Field<br>Santa Cruz, CA |
| Sara Ulrich<br>BA Geology<br>University of Wisconsin | Stream-bank Vegetation Characteristics and Bank Erosion Rates | Nancy Rybichi<br>Reston, VA |
| Jillian Votava<br>Senior, Geology<br>Michigan Technological University | Dominance in Late Succession in the Alaskan Boreal Forest | Kirsten Barrett<br>Fairbanks, AK |
| Evan Wolf<br>Senior, Earth Sciences<br>University of California | Paleoseismology: the Geologic Study of Active Faults | Carol Prentice<br>Menlo Park, CA |
| Donald Yezerski<br>BS Geosciences<br>Denison University | Geochemical Processes Relating to Aquatic Health and Resource Extraction | Curtis Schreffler<br>Harrisburg, PA |