

8th IASSC

3rd Circular (April 2016)

Welcome to the
8th International Acid Sulfate Soils Conference
in College Park, Maryland, USA 2016

Conference July 17 – 23, 2016
Excursions July 17 and 22-23, 2016

*Acid Sulfate Soils:
Pathways to Exposure and Remediation*



DEPARTMENT OF
ENVIRONMENTAL SCIENCE
& TECHNOLOGY



Acid Sulfate Soil Working Group
International Union of Soil Sciences

WELCOME

The organizers wish to welcome you to the 8th International Acid Sulfate Soils Conference which will take place in College Park, Maryland, USA, a few miles from Washington, DC and a short drive to Chesapeake Bay, the largest estuary in the United States and one of the most productive water bodies in the world. The conference will be held from July 18-21, with a pre-conference excursion on July 17 and a 2-day post-conference excursion on July 22-23. The Theme of the conference is ***Acid Sulfate Soils: Pathways to Exposure and Remediation.***

INTRODUCTION

Acid Sulfate (AS) soils cover extensive areas particularly on the tropical coasts of Africa, South-East Asia, Australia, Latin America and the Caribbean, and to a lesser extent in Europe and North America. When drained, or disturbed by development and construction, Fe sulfide minerals that have accumulated under a strongly reducing environment are exposed to an aerobic environment and are oxidized, which generates acidity in the soil and associated drainage waters, often with serious environmental ramifications. If reclaimed for agriculture, these soils are commonly used for growing rice in the tropics. In temperate areas they are often drained more intensively, exposing sulfides to oxidation also in deeper horizons. These soils are impacted by change in sea level and climate events.

Previous Conferences have been held in Wageningen, the Netherlands (1972), Bangkok, Thailand (1981), Dakar, Senegal (1986), Ho Chi Minh City, Vietnam (1992), Tweed Heads, Australia (2002), Guangzhou, China (2008), and Vaasa, Finland (2012).

This conference will provide a forum for the exchange of ideas regarding the origins, properties, management, classification and reclamation of Acid Sulfate Soils. We also hope to include components for the education of those less familiar with Acid Sulfate Soil issues and problems (including engineers, geologists, geographers, politicians/lawmakers, environmental control organizations and agencies and the general public .) Three days will be designated for oral and poster presentations (July 18,19 and 21), as well as a mid-conference whole-day field tour (July 20). In addition, a one-day pre-conference tour and a two-day post-conference excursion will be arranged to destinations within the region.

REGISTRATION

The registration fee is **\$595**, or **\$520 for early registrations before May 1**. The student registration fee is half price (**\$295**, or **\$260 for early registrations**) (documentation of student status required). The fee covers admission to the sessions, the one-day mid-conference tour, conference material, breakfast, lunches and both morning and afternoon breaks/snacks during the conference, and the cookout at Sandy Point State Park. Please note that the registration fee does not cover any health or travel insurance, nor accommodations.



Early Registration: before May 1, 2016 – Fee \$520 (\$260 students)
Online Registration Deadline: July 10, 2016 – Fee \$595 (\$295 students)
On-site Registration (after July 10, 2016) – Fee \$645 (\$325 students)

A **one-day pre-conference tour** will be run at an additional cost of \$90. Due to seating limitations with boat travel, space is limited to the 1st 40 individuals that sign up.

A **two-day post-conference excursion** will be run at additional costs of \$375. Transportation, lunch and overnight lodging in Fredericksburg, VA are included in the cost of the trip.

The **mid-week excursion** is included in the conference registration.

CALL FOR ABSTRACTS

Abstracts for presentations - volunteer oral (15 minutes total time with questions) and poster (1.2 m X 1.2 m area available area for hanging each poster):

Colleagues are invited to submit abstracts relevant to the topics of the Conference. Abstracts should not exceed 2 pages (8.5" x 11"; 21.6 cm x 27.9 cm), including a maximum of 1 figure, and references.

Abstracts (with figures) will be published (in color) in an electronic conference volume and distributed as a (Black and White) paper copy at the conference. Abstracts should be submitted using the online form available at this link:

<https://docs.google.com/forms/d/1HEXH9sxFZCxy5ZedbtX5ZwAufXuzwDmfcyXvLFMKQk/viewform>

PUBLICATION

Conference organizers are proposing to publish selected papers in a reputable venue (in negotiation). You may indicate your interest in published a paper at the time you submit your abstract (Note that if selected for publication, complete final manuscripts would be required to be submitted for review not later than August 30, 2016

IMPORTANT DEADLINES:

Abstract Submission and Early Registration closes May 1, 2016

Post-Conference Tour signup/registration closes June 15, 2016

Online Pre-registration closes July 10, 2016

CONFERENCE PROGRAM

Keynote speakers

David Rickard, Cardiff Univ., UK

Darrell Kirk Nordstrom – US Geol. Survey, Boulder, Colorado, USA

Jeff Skousen, West Virginia University, USA

Peter Österholm, Åbo Akademi University, Turku, Finland

Leigh Sullivan, Federation University, Australia

Markku Yli-Halla, Helsinki University, Finland

Major Conference Sessions

- Understanding Sulfidization - Environments for the formation of sulfide minerals and potential acid sulfate soils
- Understanding Sulfuricization - Natural and anthropogenic processes leading to acid sulfate soil problems
- Understanding issues and remediation strategies for inland acid sulfate soils and landscapes, AMD (acid mine drainage), ARD (acid rock drainage)
- Understanding issues and remediation strategies for coastal and agricultural acid sulfate soils and landscapes
- Policy, Regulation and Education - Best practices in avoidance and remediation
- Monitoring and mitigating impacts of acid sulfate soil and water during reclamation and development (assessment techniques, laboratory analysis and soil classification and mapping issues)
- A special session honoring the late **Udo Schwertmann** will be included in the program

Program at a glance

Sunday 7/17/2016

- 9:00 - 17:00 Pre-Conference Field Tour - Maryland Acid Sulfate Field Tour 1– Chesapeake Bay channel dredge material deposition areas on Hart-Miller Island (limited to 40 persons)
13:30 - 17:00 Registration - College Park Marriott Hotel & Conference Center
17:00 - 21:00 Welcome Reception - College Park Marriott Hotel & Conference Center

Monday 7/18/2016

- 7:30 - 10:00 Late Registration
8:00 - 9:30 Opening Session
9:30 - 17:00 Technical Sessions
17:00 - 20:00 Poster Session and Reception

Tuesday 7/19/2016

- 8:30 - 16:00 Technical Sessions
16:00 - 18:00 Poster Session

Wednesday 7/20/2016

- 8:00 - 17:00 Mid-Conference Field Tour - Maryland Acid Sulfate Field Tour 2 – Sulfide-forming processes in subaqueous soils and tidal marshes (Potential Acid Sulfate soils) and Active and Post Active AS soil in Eocene/Paleocene and Cretaceous sediments.
17:00 - 20:00 Barbeque Cookout at Sandy Point State Park, Chesapeake Bay

Thursday 7/21/2016

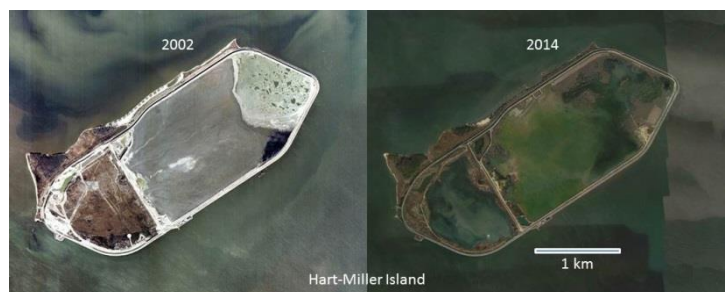
- 8:00 - 15:30 Technical Sessions
16:00 - 17:30 Closing Session/Ceremonies

Fri./Sat. 22-23 Jul-16

- 8:00 Fri. - 17:00 Sat. Post-Conference Field Tour – Maryland/Virginia Acid Sulfate Field Tour 3 - Acid Sulfate soil problems associated with mining activities, and highway, airport and housing development construction in MD and VA.

CONFERENCE TOURS AND EXCURSIONS

Pre-Conference Tour: This one day tour will be run on Sunday (July 17) and will examine Chesapeake Bay channel dredge material deposition areas on Hart-Miller Island and active AS soils and remediation processes. Tour will depart from, and return to, the College Park Marriott Hotel & Conference Center. Includes snacks and lunch. Tour cost: \$90 (limited to 40 persons).



Mid-Conference Tour: This one day tour (July 20) will visit the Univ. of MD research facility in Upper Marlboro and also the Smithsonian Environmental Research Center ([SERC](#)) to view sulfide-forming processes in subaqueous soils and tidal marshes of Chesapeake Bay, and also Active and Post Active AS soil in Eocene/Paleocene and Cretaceous sediments before concluding the tour with a cookout at the scenic Sandy Point State Park (near

Annapolis) overlooking Chesapeake Bay. This tour is included in the conference registration.

Post-Conference Tour: This two-day excursion (July 22-23) will permit participants to view sulfidic materials exposed in the Nanjemoy formation (Eocene) along the Potomac river and native American shell middens en route to the Richmond, VA area where AS soil problems associated with mining/dredging activities and highway construction will be seen. Friday night will be spent near Fredericksburg, VA which was the location of a number of important battles in the US civil war (Dec, 1862). On day two, additional active AS soil exposures associated with the Stafford regional airport and housing development construction will be examined before returning to College Park. Tour cost: \$375 (includes transportation, one night lodging on 7/22, lunches and snacks). **NOTE: Deadline to register for this trip is June 15, 2016.**



ORGANIZED BY

Dept. of Environmental Science and Technology (ENST), Univ. of Maryland, College Park, MD
Acid Sulfate Soil Working Group of the International Union of Soil Sciences (ASS WG, IUSS)

In co-operation with:

United States Dept. of Agriculture - Natural Resources Conservation Service (USDA-NRCS)
Department of Crop & Soil Environmental Sciences, Virginia Tech Univ. (VTU), Blacksburg VA
Soil Science Society of America (SSSA)
American Society of Mining and Reclamation (ASMR)
Mid-Atlantic Association of Professional Soil Scientists (MAPSS)
Virginia Association of Professional Soil Scientists (VAPSS)
Smithsonian Environmental Research Center (SERC)



Organizing Committee

Martin Rabenhorst, Univ. MD ENST, USA
Delvin Fanning, Univ. MD ENST, USA
Brian Needelman, Univ. MD ENST, USA
Maxine Levin, USDA-NRCS, USA
Thomas Reinsch, USDA-NRCS, USA
W. Lee Daniels, VA Tech Univ., USA
Anton Boman, Finland

Rob Fitzpatrick, Australia
Chau Minh Khoi, Vietnam
Chuxia Lin, UK
Paul Shand, Australia
Robert Quirk, Australia
Leigh Sullivan, Australia
Markku Yli-Halla, Finland



[Conference Venue](#)

The 8th IASSC will be held at the College Park Marriott Hotel & Conference Center, 3501 University Blvd E, Hyattsville, MD 20783 (301) 985-7300, which is immediately adjacent to the campus of the University of Maryland in College Park. College Park is a Maryland suburb of Washington, DC, located 8 miles from downtown Washington, DC. A special rate of \$159/night (either 1 king or 2 queen beds) has been negotiated with the Marriott for the conference. [Book your group rate for 8th International Acid Sulfate Soil Conference](#). Setting the standard for Maryland hotels, the College Park Marriott Hotel & Conference Center maintains a strong position for its Leadership in Energy and Environmental Design (LEED) as the first LEED-certified lodging in the United States. The hotel provides free Wi-Fi access, and free onsite parking.

The University of Maryland, College Park, founded in 1856, is the flagship institution in the University System of Maryland. The 1,250-acre College Park campus is just minutes away from Washington, D.C., and the nexus of the nation's legislative, executive, and judicial centers of power. Enrollment in the Fall of 2010 included more than 37,000 students, in over 100 undergraduate majors, and 120 graduate programs, making it the largest university in the state and the largest in the Washington Metropolitan Area. This unique proximity to business and technology leaders, federal departments and agencies, and a myriad of research entities, embassies, think tanks, cultural centers, and non-profit organizations is unparalleled, and provides limitless synergistic opportunities for faculty and students .



Travel to College Park

There are 3 airports serving the greater Washington, DC area: BWI Thurgood Marshall Airport; Reagan National Airport (DCA); and Dulles International Airport (IAD). Shuttles can be obtained from each airport [to College Park](#) (\$28-\$39) or taxis can be taken at a higher cost.

[From BWI Thurgood Marshall Airport](#)

Super Shuttle Costs: \$32.00 one-way

Taxi: 25 miles / 40 kilometers. Approximately \$60

[From Reagan National](#)

Super Shuttle Costs: \$28.00 one-way

Taxi: 15 miles / 25 kilometers. Approximately \$30

[From Dulles International Airport](#)

Super Shuttle Costs: \$39.00 one-way

Taxi: 58 miles / 67 kilometers. Washington Flyer Taxi approximately \$80

Official invitations needed to obtain visa will be sent upon your request. For any additional information, please do not hesitate to contact Conference Chair Martin Rabenhorst mrabenho@umd.edu or Program Chair Maxine Levin maxine.levin@wdc.usda.gov

Please visit our website <http://www.midatlanticsoilscientists.org/acid-sulfate-soils-conference> regularly for news, updates and detailed information.

LINKS:

Official Conference website <http://www.midatlanticsoilscientists.org/acid-sulfate-soils-conference>

Univ. of Maryland <http://umd.edu/>

Dept. of Environmental Science and Technology <http://enst.umd.edu/>

Maryland <http://visitmaryland.org/Pages/MarylandHome.aspx>



United States Department of Agriculture
Natural Resources Conservation Service



Acid Sulfate Soil Working Group
International Union of Soil Sciences



Virginia Tech



Smithsonian Environmental
Research Center

