Science Societies

The U.S. National Committee for Soil Science: Activities, opportunities for service

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Attendees of a recent meeting of the U.S. National Committee for Soil Science (USNC/SS).

The U.S. National Committee for Soil Science (USNC/SS) is a standing committee of the National Academy of Sciences (NAS). It represents the interests of the U.S. soil science community in the International Union of Soil Sciences (IUSS, the global union of soil scientists with about 60,000 members), provides leadership in the advancement of soil science nationally and internationally, and advises the National Academies of Sciences, Engineering, and Medicine (NASEM) on the IUSS and the U.S. participation in the international soil arena.

All U.S. soil scientists are affiliated with the IUSS due to the U.S. membership that is managed by NAS and supported by the National Science Foundation (NSF). The objectives of IUSS are promoting all branches of soil science, supporting all soil scientists across the world in the pursuit of their activities, and putting soils and soil science on the global agenda. The National Academy of Sciences is the U.S. adhering member to many international scientific organizations, whereby each national committee in NAS represents the U.S. in its respective discipline and union, making the USNC/SS the adhering body to IUSS. The membership of the USNC/SS consists of distinguished scientists representing many disciplines within soil science, U.S. leaders in IUSS, an ex-officio member representing SSSA as well as liaisons from several professional scientific societies that have members with expertise in soil sciences (USNC/SS, **2020**).

How Can SSSA Members Get Involved?

There are many ways that U.S. scientists, including soil scientists, can get involved with USNC/SS. Early career scientists can apply for the Wilford Gardner travel fellowship awards (see more below) and participate in workshops, symposia, mentoring events, and other activities sponsored by the USNC/SS. Mid/senior level career scientists can take advantage of opportunities related to travel awards, workshops, symposia, and/or through their participation in mentoring activities as a mentor or mentee. In addition, mid/senior level scientists can help lead NAS sponsored or managed activities through their participation as members of USNC/SS and be nominated for leadership roles and governance activities. Finally, U.S. policymakers pursuing soil science-related goals can receive policy and technical advice from past and current members of USNC/SS, get access to international scientific networks in specific areas of interest, and co-design opportunities for or with the soil science community.

Committee Activities

One of the roles of USNC/SS is to articulate critical and timely topics in soil science for wider scientific and policy audiences. For example, committee members led an effort that resulted in the publication of "Soil and Human Security in the 21st Century" in *Science* (Amundson et al., **2015**). The article highlighted how human food, climate, and national security rely on the earth's diverse soil resources and that the soil resource is currently facing an unprecedented level of stress from the combined effects of human-induced degradation, climate change, and dwindling nutrient stocks (Amundson et al., **2015**).

In addition, USNC/SS hosted a 2016 workshop at NASEM in Washington, DC entitled "Soils: The Foundation of Life" as a continuation of the activities that celebrated the International Year of Soils in 2015 and marked the start of the International Decade of Soils (2015–2024). The purpose of the workshop was to increase awareness of the

complexity of the roles and great importance of soils to national security, food and nutritional security, water quality and renewability, climate change mitigation and adaptation, human health, and biological diversity. A 12-page workshop summary highlighting presentations and discussions on areas such as soil and national security, biodiversity, and the communication of soil science was published by NASEM (**2017**). A video discussion with three distinguished soil scientists, past and current members of USNC/SS, highlights the organization and goals of the committee, as well as expected frontiers for soil science research (**https://youtu.be/-LO298_hstQ**).

More recently, the USNC/SS co-sponsored a conference, "Soil Health and Human Health," in October 2018 in Maryland (Soil Health Institute, **2019**) that highlighted the connections between soil health and human health as a follow-on activity derived from the Soils: the Foundation of Life workshop. Several past and current members of USNC/SS organized a special session symposium, "Soil and National Security," at the 2019 SSSA International Soils Meeting in San Diego, CA (**https://bit.ly/37aRmWI**).

Service to the U.S. Soil Science Community

The USNC/SS organizes and manages the Wilford Gardner IUSS Congress Fellowship Program. This program is intended for early career U.S. researchers, including graduate students and postdoctoral scholars studying or working at U.S. institutions, to help defray the costs of attending the World Congress of Soil Science (WCSS), which takes place every four years in different countries. The fellowship program is named in honor of USNC/SS's founding chair and SSSA past president, Wilford R. Gardner, and has been supported by the NSF and SSSA. In addition to providing funds, the Wilford Gardner IUSS Congress Fellowship Program also organizes mentoring activities for U.S. early career soil scientists at the WCSS. The most recent USNC/SS-SSSA Gardner Fellowship Program helped support the travel of 18 students and early career scientists to the

20th WCSS, allowing them to present their research at an international congress. The next World Congress of Soil Science will be held in Glasgow in 2022, so please keep an eye out for our announcement! Please visit our website for more information on our current membership and on this and other activities (USNC/SS, **2020**). If you have any questions, please contact Ester Sztein (Send Message).

References

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