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### **ESA in DC**

### ESA Science Policy Fellows Discuss Insect Science Priorities, Opportunities With Federal Agencies

The ESA Science Policy Fellows traveled to Washington, DC, October 17-19 to engage with federal agency staff to discuss emerging priorities and opportunities at the agencies, establish relationships with agency personnel, and expand ESA's professional network. The <a href="Science Policy Fellows program">Science Policy Fellows program</a> is a two-year active training program to teach entomologists the skills needed to successfully advocate for the discipline.



The visit included eight meetings, beginning with a communications training by Mike Raupp, Ph.D., from the University of Maryland, and including in-person meetings with representatives from the U.S. Department of Agriculture, Department of Energy, National Science Foundation, and White House Office of Science and Technology Policy (OSTP). The Fellows also met with Majority and Minority staff of the House and Senate Agriculture Committees to discuss the upcoming Farm Bill reauthorization and with speakers from the World Bank and the Pan American Health Organization (PAHO).

Maria Denise Dearing, Ph.D., director of the NSF Directorate for Biological Sciences' Division of Integrated Organismal Systems, spoke about the division's priorities, highlighted opportunities relevant to entomologists, and encouraged the Fellows to consider taking on appointments as rotators at the agency. Dorte Verner, Ph.D., a chief economist at the World Bank, spoke with the fellows about World Bank investments in utilizing insects, especially black soldier flies (*Hermetia illucens*), to promote food and nutrition security in Africa through a circular sustainable production model in which the flies are also utilized to break down organic food waste. Verner is open to working with ESA members to explore avenues to further optimize farming and production of black solider flies in developing countries and to gain insights into current research on black soldier flies that may be beneficial to ongoing World Bank pilots in 13 African countries.

Two officials from PAHO's Vector-Borne Disease Unit spoke with the Fellows about their role translating science to implementation throughout the Americas and additionally indicated strong interest to continue engagements with ESA. Finally, Mike Kuperberg, Ph.D., director of the U.S. Global Change Research Program, discussed his organization's efforts in natural capital accounting and previewed an upcoming National Nature Assessment that the White House has initiated through an OSTP-led request for information. (For more detail, see "OSTP Seeks Input on National Nature Assessment" below).

### **Insect Biodiversity Task Force Begins Exploratory Work**

During the Entomology Advocacy Week <u>webinar</u> on insect biodiversity loss in August, ESA President Jessica Ware, Ph.D., announced the launch of a new ESA Presidential Task Force on Insect Biodiversity Loss. Ware nominated individuals reflecting the breadth of ESA's Sections and sectors to serve on the Task Force, but ESA is also soliciting <u>volunteers</u> interested in participating. The group held its first meeting on October 4 and worked to explore and refine the scope of the task force objectives, resulting in six different working groups that will operate in different timelines.

The first two working groups will start meeting after the 2022 Joint Annual Meeting of the Entomological Societies of America, Canada, and British Columbia in November. The first group will focus on addressing the following questions: "What are we doing at ESA toward reducing insect decline? What are we doing at ESA that worsens insect decline? What should we be doing as a learned society on this topic?" The second working group will examine the following: "What ESA members are working on insect decline and how could they be involved? How are Sections and Branches approaching issues of insect decline differently?" For these questions and the task force in general, members are encouraged to volunteer or email suggestions.

#### **ESA Endorses New One Health Bill**

In a meeting earlier this year with Senator Kirsten Gillibrand's (D-NY) staff, they described a new bill on One Health, intended to create a framework to more effectively protect the health of people, plants, animals, and ecosystems and detect emerging threats. ESA provided feedback on the draft legislation, endorsed the bill, and invited the staff to meet with the Vector-Borne Disease Network to get input from the broader community as well. Senator Gillibrand introduced the bill on October 21 and noted ESA's endorsement in the first paragraph of the press release.

The Senator's staff are currently looking for a Republican counterpart. However, the staff have realistic expectations that this will remain a "marker" bill for this Congress and, following the start of the 118th Congress in January, will be reintroduced. ESA has also endorsed another public health bill, the <u>PREVENT Pandemics Act</u>, which members are more hopeful will be included in end-of-year legislation as a final legacy for retiring Senator Richard Burr (R-NC), who has been the Ranking Member on the Senate Health, Education, Labor, and Pensions (HELP) Committee.

### Don't Miss the ESA Science Policy Symposium at 2022 Joint Annual Meeting

The ESA Science Policy Committee will host a symposium at the 2022 Joint Annual Meeting of the Entomological Societies of America, Canada, and British Columbia in Vancouver on Wednesday, November 16, at 9 a.m. PT.



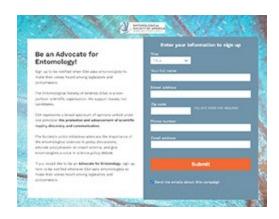
The joint symposium between the Science Policy Committees of ESA and ESC is titled "Harnessing International Policymaking Strategies to Address Grand Challenges:

Inspiring Cooperation." Under the larger umbrellas of public health and vector-borne diseases, sustainable agricultural practices, and international collections, the symposium will explore existing efforts to coordinate on transnational science policy and diplomacy and what can be learned from those successes, identify potential opportunities to increase collaboration, and motivate the audience to think about the ways their own contributions in the scientific enterprise could be valuable to these efforts. We hope to see you there!

## **Advocate for Entomology!**

#### **Sign Up for ESA Action Alerts**

Be an advocate for entomology! In 2022, ESA is issuing new issue-specific advocacy alerts, enabling ESA members to easily connect with legislators and offer timely subject-matter expertise. Sign up now to receive ESA science-policy action alerts.



Or, act now to contact your legislators through one of our three current Action Alerts:

- Help Pass the PREVENT Pandemics Act
- Tell Congress About the Threat of Invasive Species
- Encourage Congress to Help Save Coffee and Promote IPM

### **Federal Agency and Administration Updates**

# Tick-Borne Disease Working Group Continues Work on National Strategy for Vector-Borne Disease Prevention

The Department of Health and Human Services (HHS) Tick-Borne Disease Working Group (TBDWG) held a <u>public meeting</u> in early October in which members provided updates on the development of the first National Strategy for Vector-Borne Disease Prevention and Control in Humans. The *Kay Hagan Tick Act*, passed in late 2019 as part of fiscal year 2020 appropriations, authorized vector-borne disease research programs at the Centers for Disease Control and Prevention and mandated HHS to deliver a National Strategy by the end of 2023 to coordinate interagency efforts to advance vector-borne disease prevention, surveillance, and treatment.

The National Strategy will be based on the <u>National Public Health Framework for the Prevention and Control of Vector-Borne Diseases in Humans</u>, published in 2020 to establish federal priorities and serve as the basis for the National Strategy. The TBDWG stated that HHS plans to release a request for information in November to receive input on the goals and sub-objectives of the National Strategy as part of the final phase of the process.

## White House Releases Global Food Security Research Strategy

The Biden administration released the <u>U.S. Global Food Security Research Strategy for fiscal year 2022-2026</u>, intended to support the <u>U.S. Government Global Food Security Strategy 2022-2026</u> (GFSS) released in fall 2021. The GFSS and accompanying research strategy highlight three core objectives: "(1) inclusive and sustainable, agriculture-led economic growth; (2) strengthened resilience among people, communities, countries, and systems; and (3) a well-nourished population, especially among women and children."

The research strategy emphasizes the importance of agricultural research to economic growth, climate change adaptation and mitigation, inclusive development, and nutritional health. It also highlights the role of partnerships with U.S. universities, including Minority-Serving Institutions and those affiliated with Feed the Future Innovation Labs. The strategy expresses that convergence research, building diverse research teams, interdisciplinary research, scaling and translation of innovations, and community engagement are essential to achieve the goals of the GFSS.

The research strategy additionally indicates that Feed the Future will support research across three themes: (1) climate-smart agricultural innovation, (2) nutrition and food systems, and (3) genetic improvement of crops and livestock. Federal commitments to global food security research will continue to prioritize convergent, inclusive research that incorporates the biophysical, socioeconomic, and behavioral sciences.

# 2022 National Security Strategy Identifies Climate Change as Major Theme

The Biden administration's <u>2022 National Security Strategy</u>, a document sent from the President to Congress to communicate the executive branch's national security vision, puts climate change as a central issue to U.S. engagement in foreign affairs and international policy including with respect to China and the Arctic. The Strategy identifies climate change as a major theme, indicating that it is "the existential challenge of our time," as it notes that impacts of climate change threaten food and water supplies, infrastructure, health, and national security in general.

To protect U.S. interests, the strategy calls for climate considerations to be incorporated into national security and financial policies and planning. Further, in addition to enhancing federal, state, and local preparedness, the strategy calls for more ambitious climate agreements and international research collaborations.

# **NSF Report Outlines Principles of Engaged Research in Environmental Disciplines**

The National Science Foundation (NSF) Directorate for Environmental Research and Engineering (ERE) released a <u>report</u> on the principles of engaged research and its advantages to address societal challenges relevant to environmental research. The report encourages involvement of non-scientists with valuable alternative or traditional expertise in research to broaden participation, further innovation and basic discoveries, and produce knowledge that is relevant and useful to impacted communities.

The Advisory Committee for ERE, whose experiences informed the development of this report, propose that NSF increase its support for engaged research, particularly to address grand challenges of science, engineering, and sustainability, while supporting underserved communities and promoting social justice. The report cites future opportunities in engaged research, including climate change adaptation, energy transitions, the food-energy-water nexus, and urban systems.

### **Wegrzyn Previews Plans for ARPA-H in First Public Remarks**

On October 25, Renee Wegrzyn, Ph.D., inaugural director of the Advanced Research Projects Agency for Health (ARPA-H), delivered her <u>first public remarks</u> about the new agency in a fireside chat at Howard University. Wegrzyn was introduced by Department of Health and Human Services Secretary Xavier Becerra, who lauded her career and the innovation potential of ARPA-H. Additionally, Becerra highlighted the speed with which the new agency would move to hire program managers and launch program areas.

Wegrzyn reiterated Secretary Becerra's message and noted that program managers should be well known in their field and have a specific problem area to solve, but she stopped short of outlining specific research priorities for ARPA-H. After program managers have been hired, the agency plans to engage further with stakeholders and communities through in-person events around the country. Regarding ARPA-H's relationship with the National Institutes of Health, Wegrzyn noted that ARPA-H is currently utilizing NIH's administrative support to help build out the agency. In the longer term, the agency will look to utilize the expertise of individual NIH institutes to assist with programs when priorities align.

National Academies Recommends Global Actions to Improve Utility, Accuracy of Climate Data

The National Academies of Sciences, Engineering, and Medicine (NASEM) Committee on Development of a Framework for Evaluating Global Greenhouse Gas Emissions Information for Decision-Making recently released a <a href="new report">new report</a> calling for the establishment of a global climate data clearinghouse or set of international data centers. The goal for the clearinghouse or centers would be to facilitate the development of data standards and practices to enable greater comparability of national, sub-national, and local level climate data to help enhance or complement national-level programs.

The report was published in time for the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP-27), taking place in Sharm El Sheikh, Egypt, November 6-18. COP-27 negotiations are likely to focus heavily on climate change adaptation and finance, though they will also include discussions to further specify the way in which nations should measure and report on their greenhouse gas emissions. The recommendations included within the NASEM report provide a consensus view of what the scientific community could offer to improve the production, sharing, and communication of climate data and how data itself could be improved should there be sufficient investment and political buy-in from the international community.

## **Federal Agency and Administration Updates**

### **OSTP Seeks Input on National Nature Assessment**

The White House Office of Science and Technology Policy (OSTP), on behalf of the U.S. Global Change Research Program (USGCRP), issued a <u>request for information</u> (RFI) to inform the development of the first National Nature Assessment (NNA). President Biden called for this initiative as part of Executive Order 14072, "<u>Strengthening the Nation's Forests</u>, <u>Communities</u>, and <u>Local Economies</u>," issued on Earth Day this year.

The NNA will "assess the status, observed trends, and future projections of America's lands, waters, wildlife, biodiversity, and ecosystems and the benefits they provide, including connections to the economy, public health, equity, climate mitigation and adaptation, and national security." To facilitate the creation of a use-inspired NNA, USGCRP lays out specific questions in the RFI concerning the key audiences of the NNA and engagement strategies for those audiences; decisions the NNA should inform; the types of information it should gather; its temporal scope; and how to best organize, communicate, and use the NNA's outcomes. The RFI also seeks responses to inform the definition of nature and therefore what the NNA should include or exclude. USGCRP additionally is soliciting input on how it can best engage

with local communities and Indigenous Peoples and incorporate Indigenous knowledge and other existing data sets or knowledge sources in the NNA.

USGCRP will offer several more opportunities for public engagement throughout the process of developing the NNA, including requests for comment on the draft products, public workshops, and calls for authors. There is currently no anticipated timeline for these activities, but more information will be provided on the <a href="USGCRP">USGCRP</a> website as it becomes available. All members of the public may submit responses to this RFI, and USGCRP particularly encourages input from Tribal Nations, scientific research or practitioner organizations, nonprofit or philanthropic organizations, and individuals with Indigenous knowledge, personal or lived experience, or local knowledge. <a href="Responses">Responses</a> must be submitted by **March 31, 2023**.

# Armed Forces Pest Management Board Seeks Proposals for Deployed War Fighter Protection Research Program

The Armed Forces Pest Management Board (AFPMB) is seeking pre-proposals for funding opportunities for the fiscal year (FY) 2023 Deployed War Fighter Protection (DWFP) Research Program. AFPMB seeks research that develops new interventions for the protection of deployed military personnel from medically relevant pests. Diseases of significant interest include Lyme disease, malaria, dengue virus, and other arboviruses.

The program supports research that develops: "(1) new toxicants or the adaptation of existing toxicants to medically relevant pests, (2) new insecticide application techniques, (3) new personal protection tools that prevent human-vector contact, (4) new decision support tools, and (5) surveillance tools that focus on improving vector control outcomes." Research should support the Department of Defense's "Advanced Technology Development" of new insecticides, improved formulations of existing insecticides for vector control, new technology or enhanced modalities of personal protection from biting arthropods, or improved efficacy and sustainability of equipment for application of pesticides in a military operational environment.

The deadline for pre-proposal submissions is **December 8, 2022,** and the estimated deadline for full proposal submissions is **March 8, 2023**. Pre-proposals will be accepted from investigators who are employed by or affiliated with an eligible institution. Eligible institutions include for-profit, nonprofit, public, and private organizations. <u>Learn more and submit a pre-proposal</u>.

### **NSF BIO Releases Three New Funding Opportunities**

The National Science Foundation (NSF) Directorate for Biological Sciences (BIO) has released three new funding opportunities. A new solicitation for <u>Biology Integration Institutes</u> (BII), which aims to support research across multiple subdisciplines of biology and beyond, is offering a total of \$10 million in fiscal year (FY) 2023 for four to five awards of no more than \$2.5 million per year over six years. Proposals are due **February 21, 2023**.

BIO also released a solicitation for a new program, <u>Using the Rules of Life to Address Societal Challenges</u>, which aims to support use-inspired research to address large-scale challenges. NSF expects to issue 10 to 15 awards of no more than \$3 million each over five years, with total program funding of \$28 million. Proposals are due **February 15, 2023**. Finally, BIO issued a <u>Dear Colleague Letter</u> (DCL) encouraging proposals that seek to advance plant genetic transformation to existing BIO programs and to the U.S. Department of Agriculture National Institute of Food and Agriculture. The DCL will remain active through FY 2023 and 2024.

### **Learn More About ESA Science Policy**

### **ESA Science Policy Program Links**

- ESA Science Advocacy Priorities
- Position Statements
- Fact Sheets
- Science Policy Fellows Program
- Partnerships and Coalitions
- Advocacy Tools: Get Involved!
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