

Meeting Minutes of the Invasive Species Advisory Committee Meeting Virtual via ZOOM

APRIL 30 – MAY 2, 2024

DAY 1 – Tuesday, April 30, 2024

ATTENDANCE

Members Present

- Slade **Franklin**, Wyoming Department of Agriculture (CHAIR)
- Christy **Martin**, University of Hawai'i/Coordinating Group on Alien Pest Species (VICE CHAIR)
- Charles T. **Barger**, IV, Center for Invasive Species and Ecosystem Health, University of Georgia
- Laura **Brewington**, Arizona State University/East-West Center
- Leah **Elwell**, Invasive Species Action Network
- Leigh F. **Greenwood**, The Nature Conservancy
- Jiri **Hulcr**, Institute of Food and Agriculture Sciences, University of Florida
- David **Pegos**, California Department of Food and Agriculture
- Leroy **Rodgers**, III, South Florida Water Management District
- Lizbeth Ann **Seebacher**, Pacific Northwest Invasive Plant Council/ University of Washington
- Paul **Zajicek**, National Aquaculture Association

Members Absent

- Jack Hicks, Choctaw Nation of Oklahoma

Advisers Present

- Nicole **Angeli**, Association of Fish and Wildlife Agencies
- Steven H. **Long**, National Plant Board
- Mitzi **Reed**, Native American Fish and Wildlife Society
- Elizabeth **Brown**, North American Invasive Species Management Association

Advisers Absent

- William Simshauser, National Association of Conservation Districts

NISC Staff Present

- Kelsey **Brantley**, Operations Director and ISAC Coordinator
- Stas **Burgiel**, Executive Director
- Bryan **Falk**, Program Analyst
- Angela **McMellen Brannigan**, Technical Advisor
- Karen **Stockmann**, Wildland Fire Specialist (USDA-FS Detallee)

OPENING

Burgiel opened the meeting and welcomed ISAC members, Federal experts, and other observers. He explained that the meeting's purpose is to provide Federal updates on key issues and hold deliberations on ISAC's two current priorities, islands and the National Early Detection and Rapid Response (EDRR) Framework. He reviewed housekeeping guidelines, including those related to engagement during the meeting. He then conducted a roll call for ISAC members and advisors.

Franklin, ISAC chair, thanked everyone for joining and acknowledged the difficulties associated with a virtual meeting. He recalled how productive ISAC was during its last meeting and hoped that productivity would continue.

≈

**REMARKS FROM NISC MEMBER
REPRESENTATIVES**

U.S. Department of the Interior (DOI)

*Jacob Malcolm, Deputy Assistant Secretary (Acting),
Policy and Environmental Management*

Malcolm began by noting his recent participation in a bio-blitz that logged around 400 species in the Albuquerque area. Despite all this diversity, he described how his first observation was tree of heaven, an invasive species which is also found closer to home in Maryland. He wondered what difference would have been made if NISC and ISAC had been around in 1784 when the plant was first introduced to the United States. He used this example to underscore the importance of working on invasive species and thanked ISAC members for their work, membership, collaboration, and leadership.

Malcolm went on to discuss the ISAC white papers that were adopted in November 2023. He stated that they are a very thoughtful body of work and have been distributed broadly within DOI. The climate change and invasive species white paper coincided perfectly with a request from the Council on Environmental Quality to update their include climate change adaptation plans. The underserved communities white paper discussed relevant climate and justice tools and will be used to better meet the needs of those communities that Interior intends to serve. Finally, the white paper on the national priorities is being used to identify future areas for consideration through Interior's invasive species task force.

Malcolm then discussed funding through the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) being used for invasive species management. Through BIL's focus on ecosystem restoration, DOI created nine Keystone Initiatives to channel funding, which dovetail nicely with DOI's invasive species initiative, "Three in Three for the WIN" (Wildfire, Islands, and National EDRR Framework). He closed by stating that the work being done by ISAC truly matters, and its contributions are appreciated. He asked ISAC members to keep their "tree of heaven" stories in mind, to help guide efforts and provide inspiration for addressing invasive species.

U.S. Department of Agriculture (USDA)

*Andrea Delgado, Chief of Staff, Natural Resources and
Environment*

Delgado opened by conveying that USDA is an enthusiastic co-chair and is proud of its work in invasive species management and how it overlaps with other areas and resources managed by the Department (e.g., the intersection between invasive species management and climate change). She highlighted ISAC's white papers on climate change and underserved communities, noting that they have been distributed across the USDAS and to interagency groups (e.g., the Global Change Task

Force, Equity Commission, and Justice 40). These papers will be used to continue discussions on invasive species management.

Delgado then explained that U.S. Forest Service (USFS) received \$100,000,000 under BIL funding to utilize over five (5) years for invasive species management with a particular focus on integrated approaches. Funded project areas include work on prevention, early detection, and eDNA tools with a particular focus on quagga mussels, emerald ash borer, Dutch elm disease, Asian longhorn beetle, and the coconut rhinoceros beetle. She added that USDA agencies area actively working on island issues, which aligns with ISAC's current work. This includes some of the aforementioned work by USFS, the Natural Resources Conservation Service's support to private and agriculture interests, and the Agricultural Research Service's pest management programs that address the damage invasive species are causing to the quality of life and food security. She also highlighted cooperative work with other departments on biosecurity training for personnel in Guam, America Samoa, Palau, the Marshall Islands, Micronesia, Puerto Rico, Virgin Islands, and the Northern Mariana Islands. She closed by noting the importance of collaboration around the National EDRR Framework and their interest in ISAC's continued input and advice.

***U. S. Department of Commerce / National Oceanic and
Atmospheric Administration (DOC/NOAA)***

*Jainey Bavishi, Assistant Secretary for Oceans and
Atmosphere & Deputy Administrator*

Bavishi opened by explaining that NOAA's mission is to: understand and predict changes in climate, weather, ocean and coasts; share that knowledge and information with others; and conserve and manage coastal and marine ecosystems and resources. To achieve this mission, NOAA has a strategic plan which focuses on building a climate ready nation, integrating equity into core operations, and promoting economic development. NOAA has received \$3 billion in BIL and IRA funding to protect coasts and ensure climate readiness. Though no direct funds were received for invasive species management, that is a major component of achieving NOAA's mission and goals. General information about this funding is available at www.noaa.gov/infrastructure-law, and state-specific information can be found at <https://www.noaa.gov/legislative-and-intergovernmental-affairs/noaa-in-your-state-territory>.

Bavishi added that ISAC's recent white papers will be disseminated and presented at NOAA's next National Senior Council meeting. The papers have also been highlighted in various meetings and presentations since they were made available. Finally, she noted that for the first time since 2009, NOAA has been specifically requested by Congress to address invasive species management in relation to coastal and oceanic resources with green crab control and South Bay salt pond restoration projects.

Mark Whittrock, Assistant Director, Health, Food, and Agriculture Resilience, U.S. Dept. of Homeland Security (DHS)

Whittrock opened by noting the invitation to the DHS Office of the Secretary to engage with NISC and ISAC on invasive species issues related to national security, agriculture, and human health. He highlighted the importance of the OneHealth concept for addressing the intersection of these issues.

Whittrock posed the question: how can DHS help with leveraging on-going work to address plant, animal, and human health? This would look beyond disease and crop health to longer term to identifying and raising awareness of additional concerns for national security (e.g., climate change impacts on resilience). He noted that people are moving for many reasons, including displacement due to national disasters and changing environments. What are the implications for the spread of invasive species and pathogens/disease? He stated there are a lot of overlapping issues and opportunities to work together. He concluded by noting DHS' interest in future collaboration on these issues with NISC and ISAC.

Discussion

Several ISAC members expressed appreciation for information on how the ISAC papers are being used and volunteered to provide additional context as necessary. **Pegos** expressed interest in more information on NOAA's green crab projects as California is also dealing with management issues. In response to a question, Whittrock acknowledged the difficulties of integrating across issue siloes, but in the long run agencies and their non-federal partners need to be more strategic and effective in their collaboration.

NISC Work Plan Update

Stas Burgiel, NISC Executive Director

In his update, **Burgiel** provided an overview of NISC's background, FY 2024 work plan, and next steps. He explained that NISC was created by direction of Executive Orders 13112 (1999) and 13751 (2016). NISC includes representation from twelve Federal Departments and four White House Offices, and is co-chaired by the DOC, DOI, and USDA. ISAC was established to provide input and advice to NISC from non-federal stakeholders. NISC's work has been guided by a series of comprehensive management plans (2001, 2008, and 2016) and annual work plans (2020-2024).

Burgiel explained that the annual work plans are divided into two sets of activities – core coordination responsibilities and thematic priorities. Core coordination activities include everyday operations such as convening co-chair and senior advisers' meetings, providing information updates, responding to agency requests, running ISAC, coordinating with other interagency committees, and collating the annual crosscut budget. Thematic priority activities include work on

substantive areas of concern to NISC member agencies, such as climate change, wildland fire, and early detection rapid response. He then outlined NISC work activities in the areas of climate change (community of practice, managed relocation, disaster preparedness and response), wildland fire (research and science support, regional efforts), EDRR (the National Framework, aquatic invasive species at ports of entry), as well as interagency dialogues on biological control and islands.

Burgiel concluded by noting ongoing efforts to engage with federal agencies that haven't previously been involved with NISC. He also noted planning efforts for ISAC meetings in the summer and fall, as well as the nomination process for ISAC's next class of members (2024-2026).

America the Beautiful Challenge (AtBC)

Rachel Dawson, National Fish and Wildlife Foundation

Dawson started her presentation with an overview of the National Fish and Wildlife Foundation (NFWF) noting that it was chartered by Congress in 1984; is led by a 30-member board that includes the Secretary of the Interior, the Director of the Fish and Wildlife Service, and the NOAA administrator; and leverages private money with public funding in a 3:1 ratio. NFWF uses competitive grant making with matches to leverage additional funding. Over its history NFWF has funded ~\$1.3 billion over 797 projects across the nation with \$410 million in matching support for a total of ~\$1.7 billion in conservation impact.

Dawson then shifted her focus to the AtBC, explaining that its intent is to be a one stop shop for moving BIL and IRA funding to on the ground conservation projects as quickly as possible. She noted that there is a floor for funding tribes and territories of 10% and 3% respectively, although they have received more than that over the first two years of the program. She outlined their process which includes a request for project concepts in February with a due date in April. Full proposals are requested in June with a July deadline. Funding recommendations are presented at the November board meeting. In the first year, \$119 million was awarded across five funding categories, three of which have an invasive species linkage. By the end of the current funding cycle, \$351 million will have been awarded. Invasive species issues were in 25% of the grant proposals and had a value of \$59.8 million. The major geographic areas were islands and territories, as well as the West and Great Plains region with invasive annual grasses concerns. Other themes included forest health and wildfire management, grassland and prairie restoration, and riparian restoration and aquatic invasive species.

Dawson went on to address underserved community engagement stating that in 2022 53% of grants and 64% of total funding went to underserved communities. Those numbers increased to 69% of grants and 71% of total funding in 2023. One unique feature of the program is the use of field liaisons who are tasked with helping applicants navigate the process as well

as policy requirements (e.g., National Environmental Policy Act - NEPA). Investments to tribes in AtBC far exceed any other NFWF programs. She concluded by emphasizing these process innovations in supporting transformative projects that lay a foundation for future work through capacity building and long-term sustainability.

Discussion

Pegos asked if AtBC funds both eradication and restoration. **Dawson** stated that they can fund such work as long as that is what the grantee is proposing. She explained that grants have a four-to-five-year implementation timeline, are highly competitive, and should include a focus on how conservation and restoration actions will be enduring. **Pegos** then asked for a list of the funded projects and asked if nutria or work on rice fields within a flyway for migratory birds could be eligible topics. **Dawson** replied that the flyway would be eligible as it was evaluated as a landscape level project. Highlighting interest efforts along the Atlantic, Gulf, and Pacific coasts, **Burgiel** noted that a national nutria symposium might be needed.

Franklin asked about the source of AtBC's funding and whether it was BIL and IRA funds or other various sources. **Dawson** replied that the bulk of comes through BIL's restoration program with funding from agencies like DOI and USFS. **Franklin** then asked if land ownership (public vs. private) mattered. **Dawson** replied that it does not matter except for DoD which has restrictions and some categories with different requirements.

Martin noted that there were a few proposals from Hawaii, but that there were challenges. Some underserved communities are not mapped by the Climate and Economic Justice Screening Tool and difficulties in articulating that some invasive species prevention activities may be needed to protect underserved communities. **Dawson** mentioned that the project application had multiple ways to articulate engagement with underserved communities, including how they will be engaged or involved, who would be hired, and what kind of outreach would be done. More broadly NFWF expects that there will be long-term benefits to impacted communities.

McMellen Brannigan asked if the AtBC's community liaison policy assistance tools are being used in other NFWF programs. **Dawson** responded that other NFWF programs are seeing the benefits of those type of tools, and she anticipates more uptake over time.



ISAC SUBCOMMITTEE UPDATES

Islands and Invasives Subcommittee *ISAC Member Laura Brewington, Chair*

Federal Presenters:

Joe Kreiger, DOC-NOAA

Doug Burkett, U.S. Department of Defense (DOD)

Hilary Smith, DOI

Jenna Shinen, U.S. Department of State (DOS)

Phil Andreozzi, USDA

Brewington presented work of the ISAC Subcommittee on Islands and Invasive Species. She gave information showing how invasive species are driving the extinction crisis on islands and how many more invasive species occur on islands as compared to continental systems. She reviewed the relevant NISC activities and agency priorities, including the themes and challenges identified by the NISC task team on islands. The ISAC subcommittee has met four times since the fall ISAC meeting, sharing ideas on a virtual whiteboard that was used to populate a draft white paper outline. Part One includes scope, which is primarily oceanic/coral islands with a justification that solutions developed for islands can be applied in continental systems. Part Two identifies the three priority themes: 1) heavily invaded islands, 2) marine biosecurity; and 3) terrestrial biosecurity. Within those, there are key regulatory or policy gaps that relate to specific case studies and continental issues. Part Three includes actions that are both priorities and achievable, which the subcommittee hopes to inform using guiding questions submitted to agencies. This introduction was followed by brief updates from Federal agencies on their island-related work.

Krieger gave NOAA's island update, starting with guidance for the Pacific. The Regional Biosecurity Plan for Micronesia and Hawaii was developed out of concern about the movement of invasive species across the region. NOAA is one of several partners of the plan and is especially concerned with impacts to the National Marine Sanctuaries. For example, invasive red algae were discovered in the Northwestern Hawaiian Islands in 2019. These two algae species form large, thick mats and smother sessile benthic organisms (e.g., corals). NOAA is working to develop best management practices and pre-entry vessel requirements. He also discussed Stony Coral Tissue Loss Disease, which has devastated reefs in the Atlantic and the Caribbean (it has not been detected in the Pacific). They are developing detection tools and response strategies and are working to understand how it may spread to new areas. In recent months, invasive soft corals (*Unomia* spp.) in Pearl Harbor have taken much of their attention, where NOAA is working regularly and closely with partners. Soft corals have also been detected in the Caribbean, likely introduced from dumped aquaria and spread through other means. He provided a detailed timeline of the detections in Puerto Rico, starting in 2023. **Pegos** asked about the pathway for the algae in Pearl Harbor, and **Krieger** answered that because one of the species

was previously undescribed, the pathways of introduction are unknown. They do suspect the algae are spread via boat propellers or similar means.

Burkett gave an overview of invasive species impacts to the Department of Defense (DOD), noting his presentation is applicable to United States Indo-Pacific Command (INDOPACOM) and not complete for all of DOD (e.g., it excludes U.S. Army Corps of Engineers). He gave an overview of DOD, showing the number of employees and installations, acres of land, etc., and emphasized that the Pacific is an area of strategic importance. Current priorities and projects include biosecurity for deployment and redeployment of military construction projects, brown tree snake, octocoral, coconut rhinoceros beetle, little fire and other ants, spongy moth, and rats. He emphasized the value of the Invasive Species Forum Workshop in July 2023, in which some ISAC members were able to participate. Its purpose was to help prioritize research, identify gaps, and build relationships. He finished by listing projects funded by the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP).

Smith gave a high-level overview for DOI. Starting with its mission statement, she noted it explicitly includes honoring trust responsibilities to islands and Indigenous Communities. DOI formed a Pacific Islands Biosecurity team in 2016 to raise awareness of island and invasive species issues. She considered that mobilization as an influence in including islands in their ‘Three in Three for the WIN,’ where the ‘I’ in ‘WIN’ stands for islands. They are working towards safeguarding native species, biological diversity, island cultural practices, human health, and livelihoods by targeting actions in the most at-risk island areas with high likelihood of success. Examples include biosecurity training and toolkits, programs for Hawaiian forest bird extinction prevention, and others. She gave examples of island-specific work under BIL, including the U.S. Fish and Wildlife Service (USFWS)-led Gulf/Caribbean Collaborative Invasive Species Prevention Strategy, the U.S. Geological Survey (USGS)-led interdiction of invasive species in shipping containers, and others. She was pleased that Goal 1 under the DOI Restoration and Resilience Framework is focused on islands, and she emphasized the importance of their partners to this work. She noted that they have started collecting answers to the ISAC subcommittee questions. Topics for ISAC consideration include: genetic tools for eradication and control, including social science; managed relocation; biosecurity strategies, tools, and associated science; and ways to secure funding for critical infrastructure improvements to support island conservation projects. She affirmed DOI’s commitment to this issue and noted the various DOI bureaus that are engaged.

Shinen gave an update for DOS. She started with a caveat that DOS is less engaged with the technical work as other departments, but islands are nonetheless important from the perspective of international engagement. One area is the exchange of information, where, for example, invasive species remain an important topic under the Convention of Biological

Diversity because of links to food security and other issues. She also mentioned the Convention of Migratory Species, where they are discussing whether range-shifting species, presumably as a result of climate change, meet the definition of a non-native species. She also noted a goal of the Group of 7 is to tie together these international efforts on invasive species for more practical guidance.

Andreozzi gave an update for the USDA, noting that across all the USDA agencies, there are staff located on each of the U.S. islands, where they focus on relationship building. Some agencies also work internationally. Priority invasive species include coconut rhinoceros beetles and invasive ants (red imported fire ants and little fire ants), black-sock disease, and others. USDA’s emphasis is on outreach/education and control. USDA is very interested in identifying and deploying biocontrol agents to naturally regulate pests, including grasses that may exacerbate wildland fires on islands. He emphasized the importance of working collaboratively and noted they continue to develop an invasive species strategy for the Pacific Basin. The strategy will include ‘moonshots’ to address big problems like the coconut rhinoceros beetle. Last November, USDA held a week-long biosecurity training in conjunction with DOS, DOI, and others, which had been prioritized during the Pacific Ecological Security Conference.

Brewington thanked everyone for their updates and asked for those interested to attend their break-out session on Day 2.

Discussion

Rodgers commented that in Florida, they are putting a big emphasis on decontamination, and he acknowledged that they used the [Armed Forces Pest Management Board Tech guide 31](#) to inform those efforts. He asked about any relevant regulations and instructions, and **Burkett** replied that there are extensive regulations. He said most material is inspected by USDA or Customs and Border Protection when it enters the United States. He emphasized the huge amount of work necessary to decontaminate equipment and supplies, saying that it may take all night to decontaminate one tank. **Pegos** noted the risks to islands in areas besides the Pacific, like in the Caribbean.

Early Detection and Rapid Response Subcommittee *ISAC Member Chuck Bargeron, Chair*

Bargeron, ISAC EDRR subcommittee chair, discussed how a joint subcommittee between ISAC and the Aquatic Nuisance Species Taskforce (ANSTF) was formed with Wes Daniel (USGS) and **Bargeron** as co-chairs. The group met multiple times to discuss four questions related to the National EDRR Framework. These address its mission statement, performance metrics, engagement with non-federal experts and stakeholders, and how to best address terrestrial invasive species outside of the purview of efforts to protect agriculture. Currently, the group has proposed answers to the first and

second questions. The intent is to review and talk through the first two questions and adopt those at this meeting. That guidance adopted by ISAC would then to the ANSTF meeting the following week for their consideration.

Discussion

In reviewing the background document (see <https://www.doi.gov/sites/default/files/documents/2024-04/isac-edrr-scadvice-national-edrr-framework4-18-2024.pdf>), **Martin** expressed appreciation for the insertion in the mission statement of language on expanding capacity. She highlighted complexity of authorities surrounding invasive species between federal agencies and indicated that injurious wildlife and agricultural species seem to be excluded. **Smith** clarified that injurious wildlife is included and explained that the scope was non-agricultural species and not pathogens at this point because other systems are in place for those species. **Smith** acknowledged that there is overlap in coverage of natural resource and explained that they are aiming to leverage work across the entire federal family. One question has been whether USDA's system for agricultural protection can be duplicated for areas not currently being addressed.

Elwell echoed **Martin's** point that it is confusing that only a subset of species are covered and indicated a need for clearly articulating conceptually what is and is not covered. **Smith** responded that adding the phrase natural resources management was an attempt to narrow the scope, but DOI is open to suggestions. **Smith** explained that there is also a one pager on the EDRR framework, a multi-page document on projects in the framework, and an online story map with first round of projects. Given this additional information and context, the goal is for a short, impactful mission statement.

Hulcr asked what the intended output of the EDRR subcommittee would be and asked if there would be a standalone white paper on the four questions. **Barger** responded that the subcommittee was not going to produce a white paper, instead providing responses to each question. He noted that the joint group had the ability to continue as new questions were provided from NISC.

PUBLIC COMMENT

No Public Comment on Day 1.

End of Day 1

DAY 2 – Wednesday, May 1, 2024

ATTENDANCE

Members Present

- Slade **Franklin**, Wyoming Department of Agriculture (CHAIR)
- Christy **Martin**, University of Hawai'i/Coordinating Group on Alien Pest Species (VICE CHAIR)
- Charles T. **Barger**, IV, Center for Invasive Species and Ecosystem Health, University of Georgia
- Laura **Brewington**, Arizona State University/East-West Center
- Leah **Elwell**, Invasive Species Action Network
- Leigh F. **Greenwood**, The Nature Conservancy
- Jiri **Hulcr**, Institute of Food and Agriculture Sciences, University of Florida
- David **Pegos**, California Department of Food and Agriculture
- Leroy **Rodgers**, III, South Florida Water Management District
- Lizbeth Ann **Seebacher**, Pacific Northwest Invasive Plant Council/ University of Washington
- Paul **Zajicek**, National Aquaculture Association

Members Absent

- Jack Hicks, Choctaw Nation of Oklahoma

Advisers Present

- Nicole **Angeli**, Association of Fish and Wildlife Agencies
- Elizabeth **Brown**, North American Invasive Species Management Association
- Steven H. **Long**, National Plant Board
- Mitzi **Reed**, Native American Fish and Wildlife Society
- William **Simshauser**, National Association of Conservation Districts

NISC Staff Present

- Kelsey **Brantley**, Operations Director and ISAC Coordinator
- Stas **Burgiel**, Executive Director
- Bryan **Falk**, Program Analyst
- Angela **McMellen Brannigan**, Technical Advisor
- Karen **Stockmann**, Wildland Fire Specialist (USDA-FS Detallee)

OPENING

Burgiel opened and welcomed everyone to Day 2 of the ISAC meeting. He reviewed the agenda, discussed house-keeping rules, and gave instructions for giving public comment. He then conducted a roll call for ISAC members and advisors. **Franklin** had no additional comments, and **Burgiel** opened the session on Federal agency topical updates, starting with biological control.

FEDERAL AGENCY TOPICAL UPDATES

Biological Control

*Bryan Falk, NISC Program Analyst
Vanessa Lopez, U.S. Forest Service (USDA)*

Falk introduced the NISC task on biological control, providing an overview of nascent efforts under the NISC FY 2024 Work Plan. A Federal team of experts was assembled from DOC, DOD, DOI, DOS, USDA, and the Environmental Protection Agency (EPA), with a mix of researchers, managers, and regulatory officials that have interests in both genetic and classical biological control.

They have already met twice and will now meet monthly. NISC staff also gave a keynote and held a session at the National Forum on Biological Control (see below) to hear individual perspectives on the challenges and opportunities related to biological control, which they summarized for the Federal team.

Lopez, Invasive Plants and Biological Control National Program Manager for the U.S. Forest Service, presented on the National Forum on Biological Control, held during March 12-14, 2024, in Annapolis, MD. The objective of the Forum was to build relationships and synergy, with themes on research, management, policy, and impacts. There were talks on molecular innovations, strategies for delivery of agents, chemical ecology, integration of biocontrol with other IPM activities, citizen science and outreach, policy, and impacts. Representatives gave updates from multiple agencies, both Federal and state, as well as international perspectives; attendees were from 8 different countries and a range of agencies and organizations. Each session culminated in a panel discussion, where needs, challenges, and opportunities were identified.

Lopez outlined several challenges including those related to insufficient capacity in funding, personnel, and facilities. In DOI, for example, there is only one program dedicated to biocontrol, located within BLM; it has an annual allocation of just ~\$118,000. There is also a need to connect across

disciplines (e.g., weed scientists, social scientists, economists) and to advance research on a variety of topics, including proactive biocontrol. The need to improve communication was highlighted, both within the biocontrol community as well as to the public and to policy makers. The need to better demonstrate return on investment (ROI) was identified as critical, because the ROI on biocontrol is very good but there are few existing estimates. One of the best examples is from Australia, which may get less traction in the United States. **Lopez** noted that at the end of the last day, discussions went longer than scheduled and had to be cut off, underscoring the strong enthusiasm and engagement among participants. The next Forum will convene in 2025 and occur every other year thereafter.

Discussion

Pegos praised the Forum, noting that several staff from California attended and returned with positive impressions. **Zajicek** asked about scope, with **Lopez** noting the Forum included both plant and insect biocontrol. **Zajicek** also noted the use of triploid grass carp for the control of invasive plants. **Martin** expressed gratitude to be able to attend the Forum and clarified that it did not focus on general predators, like the grass carp. Seebacker noted that most lakes occupied by grass carp in Washington state were subsequently impacted by cyanobacteria blooms. **Rodgers** welcomed the highlighting of integrated pest management (IPM) at the Forum, as he perceives IPM as crucial but not well applied; his agency is funding work to improve IPM strategies. **Franklin** asked if EPA was represented, and **Martin** replied that there was EPA participation. **Franklin** followed by asking if regulations for biopesticides were discussed. **Lopez** replied that it was not covered in depth. **Greenwood** asked if there was much conversation on RNA interference, and **Lopez** recalled that there was not a specific presentation devoted to it, but it was mentioned.

EPA Pesticides Strategy

Brian Anderson, U.S. Environmental Protection Agency (EPA)

Anderson began by outlining the EPA's pesticides and registration program, including connections to invasive species work and Endangered Species Act (ESA) requirements. The program includes the risk assessment of pesticides and has to consider hundreds of landscapes across the country where the pesticide might be used. As part of these risk assessments, they need to consider the impacts to a single individual endangered or threatened species as well as impacts to the entire population and survival of the species as a whole. The ESA requires the consultation process to be initiated once a possible impact to the individual or population is identified to determine if the action will jeopardize the continued existence of the species (or critical habitat if that has been designated).

Anderson explained that in order to review pesticides and be able to capture all the potential impacts, the EPA decided to group the pesticides into the subcategories (e.g., insecticides,

herbicides, etc.) and develop a strategy for each. They are working on the draft Herbicide Strategy which is a framework to identify mitigations for over 900 listed species affected by agricultural uses of conventional herbicides. The EPA needs to consider the use – agriculture, domestic, industrial and the effects of the herbicide on the target plant as well as the indirect effects on other species (food, habitat, etc.) and any other potential effects. Then they determine if there are mitigations that can be used to lessen the impacts or prevent the likelihood of “jeopardy” or “take.” For example, could the rates of application and use be adjusted? Are there runoff, erosion, and drift mitigations? Then they consider if the use of the herbicide (implementation) and mitigations fall into the conservation of the listed species. They are looking for potential programmatic determinations where possible and would develop frameworks for these cases.

Anderson outlined a few next steps. For the draft Herbicide Strategy, once the assessment is made available, the public and other agencies are allowed to comment. They received about 20,000 comments on an initial draft which are being reviewed carefully. They are trying to map areas of use based on refined land qualities and metrics to decrease ambiguity when it comes time for implementation and to betted display potential mitigations. They are still taking input on the Herbicide Strategy but are hoping to finalize it in August 2024. Regarding vulnerable species, the EPA has identified 27 species as vulnerable and are working on developing strategies to protect them from the impact of pesticides. They are trying to be consistent with each species and looking for efficiencies where the species may be protected by another strategy or mitigation. They would like to develop strategies that work for all pesticides; insecticides are next but ultimately all pesticides will be covered. The public has provided comment (December 2023) and additional updates on vulnerable species will be completed by September 2024, including plans for potential expansion to other species.

Discussion

Greenwood asked whether these strategies addressing how the inability to apply pesticides (e.g., on invasive plants) could potentially cause harm to threatened and endangered species. **Anderson** responded that they are aware that not using an herbicide could be just as detrimental. He cited an example from Hawaii where they are looking at different patterns in the use of herbicides for agriculture and invasive species purposes. **Franklin** noted similar concerns and asked whether EPA's definition of agricultural lands also including rangelands. **Anderson** indicated that he would have to check on that (later in the meeting he confirmed that EPA's focus is only on cultivated lands, which does not include rangelands). **Martin** noted that EPA held a meeting in Hawaii on this topic which generated a lot of discussion. She appreciated EPA's recognition that the situation on the Hawai'ian islands is different. She also noted that pesticide registration is usually around an industrial use with less consideration of environmental applications.

National Security

Mark Whittrock, U.S. Department of Homeland Security (DHS)

*Nicole Russo, Animal and Plant Health Inspection Service
(USDA)*

Whittrock opened by highlighting his focus on how to elevate invasive species issues as true national security threats. He explained that DHS wants to create a one stop shop on health, food, and agricultural mission with a direct report to the DHS Secretary. Within the Office of the Secretary, Wittrock works in the Health, Food, and Agricultural Resilience (HFAR) office. HFAR's mission is to support prepared and resilient communities, recognizing that healthy ecosystems are tied to human health. The office is using a OneHealth lens looking at the health of humans, animals, and the environment, and they are particularly interested in those high consequence events that could quickly cascade across critical infrastructure. The goal is not to build new programs, but to leverage existing partnerships through strategic integration. There is also a focus on building and sustaining capacity, as well as information sharing like risk assessments to inform prioritization. They hope to break the "crisis response chain" of constantly reacting to events by shifting to preparedness. This involves questions like: what does a resilient sector look like? What is the cost of interaction? How can we get in front of the curve and identify mitigation measures as early as possible to avoid huge costs? The office works across key stakeholders and key groups and sectors because potential disasters would cut across sectors.

Whittrock went on to explain that economic security is national security. Invasive species can be a national security concern that DHS must address. He noted that DHS' Customs and Border Protection (CBP) participates on the National Invasive Species Council (NISC), but the problem needs to be addressed earlier in the process.

Whittrock also stated that food is health is national security, as illustrated by absenteeism and worker shortages in the food and agricultural sector during COVID 19. In this vein, he stressed the need to think about other potential threats like feral swine, citrus greening, and climate change including the desertification of maritime water ways. The climate crisis could also alter the ability to grow crops in different areas and result in a migration crisis. Within these intersecting issues, what role of do invasive species play and how do we mitigate those risks?

Whittrock discussed three National Security Memoranda that impact invasive species and how each has a risk assessment and risk mitigation strategy that may present opportunities to prioritize threats, identify gaps, and develop strategies for risk management. He ended his remarks by outlining next steps including identifying opportunities to amplify existing efforts, better understanding risk, raising awareness of risk, and strengthening the OneHealth approach to invasive species domestically and globally. Another possible future direction is case studies illustrating the costs of inaction that could be used to raise awareness in the broader national security community.

Russo began her remarks by thanking DHS for looking to bridge invasive species and national security noting that invasive species result in lost jobs, reduced food availability, and many other impacts. It can be a domino effect as impacts on food supply and agriculture impact local communities. She noted the importance of offshore surveillance and understanding threats before they arrive. DHS and USDA have shared a common agriculture mission since DHS formed over 20 years ago and jointly manage the Agricultural Quarantine Inspection (AQI) program to prevent introduction of invasive species and to promote safe trade and travel. On May 7, 2024, APHIS amended the AQI user fee rule that will increase user fees starting October 1, 2024. The increased user fees will facilitate more CBP officers at ports to prevent introduction of invasive species to deal with the tremendous increase in trade and travel. She highlighted the need to elevate attention beyond ports to look at bigger security concerns. This could include raising within DHS, amplifying shared messages, working with ISAC and other stakeholders, and aligning with the needs of the public and stakeholders to deliver tangible solutions. She noted that demand for food has dramatically increased, and millions of people do not have access to safe and nutritious food. Addressing the issue is key to the long-term prosperity of the United States. She concluded by stating that this is an area where USDA has been connected, and that seeing it connected in different ways is exciting.

Discussion

Bargeron asked about what ISAC can do to help, specific needs to move this initiative forward, and funding to support national security memoranda. **Whittrock** responded that white papers are extremely useful, especially if they are framed in economic terms/costs. He continued that he sees the opportunity for cross-purpose messaging to expand people's thinking around invasive species and connections across agencies. He added that there is also a need to help visualize a multilayer defense and that ties the national security enterprise to a broader set of issues.

Hulcr noted that there would be ample material for a white paper on this topic of food security, national security, and invasive species. He asked about the audience for such an endeavor. **Whittrock** responded that awareness is limited because of how issues are stove piped in agencies. He noted that while APHIS' mission is all invasive species and they are budgeted for that, there needs to more connection and expansion of dialogue linking climate, food security, and public health. **Russo** added that there are opportunities to engage non-traditional stakeholders who are not thinking about these things. How are invasive species are playing into those issues? How do you resolve the stove piping of funding and broadening of the issues trying to solve? She noted that this is what APHIS is trying to do within the limits of its authority. **Whittrock** added that the United States sometimes suffers from being too big and too bureaucratic, while highlighting the streamlined biosecurity approaches taken by New Zealand and Australia.

Pegos noted related work on the nexus between food security and broader security issues in California, noting that the agricultural sector doesn't have the same level of security as other sectors. He expressed interest in NISC and/or ISAC tackling this issue.

Burgiel concluded the discussion by saying that NISC needs to engage with DHS, USDA, and HHS to see what input would be most useful. He suggested that the topic could be addressed at the ISAC summer session to give the feds a chance to better articulate their needs.



ISAC SUBCOMMITTEE BREAKOUT SESSIONS

Islands Subcommittee

During the initial part of the subcommittee session, ISAC members continued discussions with Federal agency representatives on their work and priorities related to invasive species and islands. For NOAA, discussion touched on the role of their Marine Sanctuaries and Monuments programs, engagement in the Pacific including through the Regional Biosecurity Plan for Micronesia and Hawaii (RBP), as well as internal awareness of invasive species issues. For DOD, topics included engagement in the RBP and the need for additional agency leadership in its implementation, as well as the need for lists documenting which invasive species are on which Pacific islands. For USDA, the group discussed issues related to: collaboration and intersecting roles with CBP; inspection of goods and passengers including whether quarantine and inspection requirements differ across the territories, Hawaii, and the conterminous United States; application of the Federally Recognized State Managed Phytosanitary Program; the ability to focus on pathways vs. specific species.

The subcommittee then shifted to review the draft outline for their white paper (see subcommittee [background document](#)). **Brewington** reviewed the proposed structure and highlighted

three emerging priority themes: islands are heavily invaded, marine biosecurity, and terrestrial biosecurity. Discussion then addressed the need to include concepts related to national security, herbicide strategies and non-commercial uses, zoonotic diseases and their means of transmission, biological control, and export inspections (e.g., for brown tree snakes). The subcommittee decided that they would continue discussion on the outline during Day 3.

EDRR Subcommittee

The EDRR Subcommittee started their deliberations by revisiting work on the first two questions that had been posed to the joint ISAC/ANSTF group (see <https://www.doi.gov/sites/default/files/documents/2024-04/isac-edrr-scadvice-national-edrr-framework4-18-2024.pdf>).

Question 1: *“What recommendations do you have, if any, on the National EDRR Framework draft Mission statement?”, the group started by considering different additions and changes to the existing text. These included references to the work of other agencies, a focus on protecting natural resources, expanding capabilities and capacity, and emphasizing implementation of the framework.*

Question 2: *“How would you define successful implementation of the Framework, and what metrics would be most effective at measuring that success?”, the subcommittee started to review the text on metrics related to participation. Various suggestions and edits were made, inter alia, to points on coverage of ecosystems and taxonomic groups, as well as targets and types of surveillance (e.g., organisms, impacts, eDNA). The subcommittee agreed that they would continue their review of metrics on Day 3 of the meeting.*



PUBLIC COMMENT

No Public Comment on Day 2.

End of Day 2

DAY 3 – Thursday, May 2, 2024

ATTENDANCE

Members Present

- Slade **Franklin**, Wyoming Department of Agriculture (CHAIR)
- Christy **Martin**, University of Hawai'i/Coordinating Group on Alien Pest Species (VICE CHAIR)
- Charles T. **Barger**, IV, Center for Invasive Species and Ecosystem Health, University of Georgia
- Laura **Brewington**, Arizona State University/East-West Center
- Leah **Elwell**, Invasive Species Action Network
- Leigh F. **Greenwood**, The Nature Conservancy
- Jiri **Hulcr**, Institute of Food and Agriculture Sciences, University of Florida
- David **Pegos**, California Department of Food and Agriculture
- Leroy **Rodgers**, III, South Florida Water Management District
- Lizbeth Ann **Seebacher**, Pacific Northwest Invasive Plant Council/ University of Washington

Members Absent

- Jack Hicks, Choctaw Nation of Oklahoma
- Paul Zajicek, National Aquaculture Association

Advisers Present

- Nicole **Angeli**, Association of Fish and Wildlife Agencies
- Elizabeth **Brown**, North American Invasive Species Management Association
- Steven H. **Long**, National Plant Board
- Mitzi **Reed**, Native American Fish and Wildlife Society
- William **Simshauser**, National Association of Conservation Districts

NISC Staff Present

- Kelsey **Brantley**, Operations Director and ISAC Coordinator
- Stas **Burgiel**, Executive Director
- Bryan **Falk**, Program Analyst
- Angela **McMellen Brannigan**, Technical Advisor
- Karen **Stockmann**, Wildland Fire Specialist (USDA-FS Detallee)

OPENING

Burgiel opened the Day 3 of the ISAC meeting, by reviewing the agenda and highlighting the need to adopt any recommendations from the subcommittees by the end of the day. He also clarified, following up from a question from **Franklin** yesterday during the discussion on the EPA's herbicide strategy, that its focus is on cultivated lands, which does not include rangelands. **Franklin** had no additional comments.

ISAC SUBCOMMITTEE BREAKOUT SESSIONS

Islands Subcommittee

Brewington opened the breakout session highlighting a plan to first discuss and synthesize agency input heard earlier in the meeting before focusing on the policy, gaps, and needs section of the draft outline for the white paper.

The subcommittee discussed an initial effort to categorize agency input in the areas of: plans/policies, aid/assistance, engagement, awareness, successes or challenges, and partnerships. Existing content was reviewed with those agencies that had representatives present. In this regard there was some discussion of DOI activities related to islands with particular attention paid to the National EDRR Framework and the role of DOI's Office of Insular Affairs. Other points raised included development and use of hazard analysis and critical control point and integrated natural resource management plans by DOD. NOAA links to stony coral tissue loss disease and the U.S. Coral Reef Task Force were also highlighted. The subcommittee agreed to work with NISC staff on follow up with other agencies where further input was required, particularly DHS (CBP and the U.S. Coast Guard), DOS, EPA, and USAID.

The subcommittee then transitioned to review the priority gaps and needs in the draft outline. Broad discussion included where and how to address prevention, EDRR, and education and outreach. Under the heavily invaded islands theme, the subcommittee discussed reference to biocontrol and novel control technologies. On marine biosecurity, the subcommittee discussed terminology around the use of 'marine' vs. 'aquatic,' as well as existing regulatory gaps. On terrestrial biosecurity, the subcommittee discussed the interface with ISAC's other ongoing area of work on EDRR, as well as a focus on facilities and infrastructure. The subcommittee also discussed where and how to address extreme weather events and disaster response, including their relation to national security. The group concluded their discussion by making writing assignments and scheduling their next intersessional subcommittee meeting.

Early Detection and Rapid Response

Barger opened the subcommittee session directing the participants to look at the comments on the mission statement before moving on to metrics. He noted the difficulties of wordsmithing the mission statement and suggested providing a more general list of questions and considerations that could be addressed by relevant agencies involved in the framework. These basically reflected the substantive elements of the subcommittee's discussions on Day 2, as well as additional points on relation to USDA's programs, conservation and management vs. protection, and where overall emphasis should be placed. The subcommittee agreed to forward the text to the full ISAC for consideration and adoption.

The subcommittee then moved to discuss the text on metrics. Specific points were raised regarding assessment of hot spot analyses, coverage of eradication, reporting from funded rapid response projects, the role of the Siren information system, incentives for using the framework, and usage of the control and sampling methods catalog. Comments were also made regarding the need to ensure that the metrics addressed how tools within the National EDRR Framework were useful or not, rather than just simply whether they had been used. The subcommittee also discussed higher level concepts that would help focus the metrics and collated a list of big picture questions. The subcommittee agreed to submit the edited list of metrics to the full ISAC for consideration and adoption.

The group then transitioned to the brainstorming on Questions 3 (How should outreach and engagement with non-federal entities be structured going forward, and with whom, for Framework planning and implementation to be effective and inclusive, given the legal restrictions, such as the Federal Advisory Committee Act, that may apply in some cases?) and 4 (USDA and ANSTF provide effective structures for multi-level federal / non-federal collaboration for agricultural and aquatic invasive species. How can we ensure that nonagricultural terrestrial interests are well represented in the Framework? Is there a complementary structure needed at a national level for nonagricultural terrestrial species where gaps exist, and, if so, what would that look like?) The subcommittee walked through a logic model focused on intended outcomes and then works backwards to develop the list of activities that would achieve those outcomes. The subcommittee began the exercise, but did not complete the logic model, which will be an item for future subcommittee work.

SUBCOMMITTEE REPORT-OUT / ADOPTION OF RECOMMENDATIONS

Franklin opened the next session of the meeting, starting with the report out of the Islands subcommittee.

Brewington said the subcommittee does not have anything formal to adopt but noted that this was a very productive

meeting. They received a lot of agency input and then worked to organize that input into a matrix. They plan to follow up with each agency to verify the information obtained thus far. The subcommittee has assigned themselves writing tasks, scheduled their next meeting, and are planning to have a nearly complete draft of the paper to review at the summer meeting.

Elwell asked whether the subcommittee wanted any other feedback prior to the summer meeting, and **Brewington** said she would be happy to receive any comments that ISAC may have on the draft paper. She noted that there would be a more targeted request at the summer meeting.

Barger then introduced the work of the EDRR subcommittee explaining what the subcommittee worked on during breakout sessions. First, the group started down a path of wordsmithing the mission statement and then switched to making recommendations for items that the Federal EDRR team should consider when revising the mission statement. Then the subcommittee discussed the metrics documents, making minor tweaks and identifying some big picture items for consideration. **Barger** concluded by saying that the text for the two recommendations on the mission statement and metrics were ready for consideration by the full ISAC and that the subcommittee would continue to work on questions 3 and 4.

Discussion

For the recommendation on the mission statement, **Hulcr** moved to approve, and **Pegos** seconded the motion. **Barger** asked for comments or recommendations on the mission statement. **Elwell** commented that the approach of providing suggestions is smart, but wondered about the difference between should and must. **Martin** said she shared the same sentiment and suggested moving those bullets with concrete recommendations (vs. questions to consider) to the top to emphasize them and made a motion to amend. Rogers seconded the motion. There was no discussion on the amendment and a voice vote approved the amendment with no nays.

Barger made a motion to move the third bullet on emphasizing the second part of the mission statement to the second bullet. **Elwell** seconded the motion. The motion was approved by voice vote. **Franklin** asked for additional discussion on the motion to approve. There was none. A voice vote was conducted. The motion was approved, and the mission statement recommendation was adopted.

Franklin asked for a motion to approve the metrics recommendation. Rogers moved, and **Pegos** seconded the motion. **Barger** explained the changes that were made to the document included distinctions for local, multi-year participation, and change in metrics over time. There was also clarification on the species groupings. The group added a section on surveillance on hot spots and READINET and created two new metrics for new infestations of species already in the United States. Metrics were added to count eradications

and earlier detections and more responses. He concluded by noting that big picture questions were also added for consideration. **Elwell** stated that early detection is a failure of prevention and asked if the success of this initiative was tied to a failure in another part of the invasion curve. **Barger** stated that the group was directed to address the framework, and thereby didn't have the ability to look at linkages to other parts of the invasion curve. **Elwell** expressed concern that the metrics might penalize those doing a great job at prevention and worried whether there might be accidental penalties embedded in the metrics. **Hulcr** said that question is incorporated into the big picture considerations, adding that failures are a good metric. No amendments were made.

Burgiel clarified that NISC staff will review the draft and correspond with **Barger** on any grammatical or stylistic issues that should be incorporated before layout. **Martin** made a motion to approve, which was seconded by **Barger**. The motion approved by a voice vote.

~
PUBLIC COMMENT

No Public Comment on Day 3

~
PLANNING FOR UPCOMING MEETINGS

For the Summer meeting, **Burgiel** noted that it would be a half day meeting to review progress by the islands and EDRR subcommittees. Based on input from a poll circulated to ISAC, the proposed date will be August 22, 1:00 - 5:00 pm ET. Regarding the fall meeting, **Burgiel** noted that based on discussions with the NISC Co-Chairs and ISAC Officers, as well as a preliminary budgetary analysis, plans will proceed with accepting the

invitation from the Hawaii Invasive Species Council and Governor's Office to host the next in person meeting of ISAC.

The meeting is tentatively scheduled for October 21-23, 2024, and NISC Staff will send information to ISAC on regarding flights, lodging, etc. NISC staff will also consider options for remote participation. **Burgiel** also expressed his hope that both subcommittees would have documents ready for adoption at this meeting.

Regarding the nomination process for the ISAC class of 2024-2026, **Burgiel** noted that the NISC will open a second nomination period, as the first nomination period did not secure enough applications to make a balanced selection. He asked those interested in serving a second term to make sure that their materials were submitted.

~
CLOSING REMARKS AND NEXT STEPS

Burgiel thanked all ISAC members as well as the NISC Co-Chairs and agency staff for participating in the three-day meeting. He thanked the NISC staff, along with **Franklin** and **Martin** as the chair and vice-chair for their participation as well.

Franklin agreed and thanked everyone for their participation. He acknowledged that it is not easy coordinating online, but ISAC accomplished a lot of good work over the past three days. He is looking forward to the summer and fall meetings and reminded everyone that the ISAC nominations will be relisted in the Federal Register and to please circulate the call for nominations broadly.

Pegos motioned to adjourn the meeting, which was seconded by **Martin**.

Meeting adjourned at 4:00 pm ET.