

**MEETING OF THE
INVASIVE SPECIES ADVISORY COMMITTEE (ISAC)
March 6-8, 2023, Virtual via Zoom
MINUTES**

DAY 1 – Monday, March 6, 2023: 1:00 PM – 3:00 PM (ET)

ATTENDANCE

Invasive Species Advisory Committee (ISAC)

Voting Members

- Charles T. Barger, IV, University of Georgia
- Laura Brewington, Arizona State University/East-West Center
- Carrie J. Brown-Lima, New York Invasive Species Research Institute, Cornell University
- Leah Elwell, Invasive Species Action Network
- Slade M. Franklin, Wyoming Department of Agriculture
- Leigh F. Greenwood, The Nature Conservancy
- Jack Hicks, Choctaw Nation of Oklahoma
- Jiri Hulcr, University of Florida
- Christy Martin, Coordinating Group on Alien Pest Species, University of Hawai'i
- David Pegos, California Department of Food and Agriculture
- LeRoy Rodgers, South Florida Water Management District
- Lizbeth Ann Seebacher, University of Washington, Pacific Northwest Invasive Plant Council
- Paul Zajicek, National Aquaculture Association

Ex Officio (Non-Voting) Members

- Elizabeth Brown, North American Invasive Species Management Association
- Laurel James, Native American Fish and Wildlife Society
- Steven H. Long, National Plant Board
- William Simshauser, National Association of Conservation Districts

National Invasive Species Council (NISC) Staff

- Kelsey Brantley, Operations Director and ISAC Coordinator
- Stas Burgiel, Executive Director
- Michele Crist, Program Specialist (BLM detailee)
- Bryan Falk, Program Analyst
- Angela McMellen Brannigan, Technical Advisor

Federal Presenters and Observers

- Phil Andreozzi, U.S. Department of Agriculture
- Elyssa Arnold, U.S. Department of Agriculture
- Joyce Bolton, U.S. Department of Agriculture
- Douglas Burkett, Department of Defense

Federal Presenters and Observers *(continued)*

- Andrea Delgado, U.S. Department of Agriculture
- Deb Haaland, Department of the Interior
- Joe Krieger, Department of Commerce
- Deborah Lee, Department of Commerce
- Hilary Smith, Department of the Interior
- Vanessa Lopez, U.S. Department of Agriculture, Forest Service
- Susan Pasko, Department of the Interior
- Caroline Ridley, Environmental Protection Agency
- Jenna Shinen, Department of State
- Samantha Simon, U.S. Department of Agriculture
- Eric Werwa, Department of the Interior
- Steven Young, U.S. Department of Agriculture

Public Observers

- Debra DiCianna, Lake Carriers' Association
- Kailee Lefebvre, Coordinating Group on Alien Pest Species
- Janis McFarland, Independent
- Elliott Parsons, Pacific Regional Invasive Species and Climate Change Network, University of Hawai'i
- Stephen Phillips, Pacific State Marine Fisheries Commission
- Christie Trifone Millhouse, North American Invasive Species Management Association
- Lee Van Wychen, Weed Science Society of America

PROCEEDINGS

Welcome and Opening Remarks

Burgiel called the meeting to order. He introduced himself, provided background on ISAC's purpose, and reviewed guidelines for participation in the virtual FACA meeting. He introduced the Secretary of the Interior, Deb Haaland.

Greetings from Interior Secretary Deb Haaland

Secretary Haaland welcomed ISAC, noting that this is the first meeting in four years and that invasive species issues continue to grow. This is evident in interactions with wildland fire, negative impacts to public health, and reduced ecosystem and storm resilience. She noted that funding from the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) can be used to improve early detection and rapid response (EDRR). The Secretary highlighted the Biden-Harris administration's focus on addressing the climate crisis and emphasized that invasive species management is an important part of this focus. She discussed her travel to Florida and learning about invasive species issues there. She closed by emphasizing ISAC's role as a stakeholder resource that can improve federal coordination on invasive species issues and expressed interest in the results of its deliberations.

Greetings from Interim Chair, Chuck Barger, University of Georgia

Barger welcomed the new ISAC members and provided brief introductory remarks. Noting that their appointments are for only two years, he encouraged the group to be efficient in its work. He also stated that his role as interim Chair was for this meeting only and members interested in serving as Chair or Vice-Chair to contact Kelsey Brantley.

Remarks from NISC Co-Chair Principals

Presenter: Andrea Delgado, Chief of Staff, Natural Resources and Environment, U.S. Department of Agriculture (USDA)

Delgado described how USDA regularly coordinates both internally and externally in invasive species issues, and she indicated that climate change and underserved communities are a priority. She reviewed the broad work that is being accomplished by USDA agencies, including EDRR for agricultural lands, forestry, and trade. She highlighted the importance of food security, the particular situation of island territories and nations, and biological control. Delgado highlighted USDA's climate action plan, which includes pest management, a climate change road map, and addresses invasive annual grasses in the context of wildfire. She underscored the National Invasive Species Information Center as a federal information gateway on invasive species including topics such as prevention, management, and control. Delgado also provided background on U.S. Forest Service (USFS) activities funded under BIL that will detect, prevent, and eradicate invasive species on both federal and non-federal lands. Funding priorities include wildfire mitigation, protection of Greater Sage-grouse habitat from invasive annual grasses and wildfire, and invasive species control in forest management and prescribed fire.

Presenter: Deborah Lee, Director and Great Lakes Regional Team Lead, Great Lakes Environmental Research Laboratory (GLERL), National Oceanic and Atmospheric Administration (NOAA), U. S. Department of Commerce (DOC)

Lee provided an update on invasive species through the lens of NOAA, which has a number of legislative and executive directives to manage invasive species. She indicated that NOAA also prioritizes issues related to climate change (e.g., coastal resiliency) and underserved communities (e.g., impacts to indigenous peoples). Lee provided details about NOAA's efforts on aquatic invasive species, including European green crabs, dreissenid mussels, and stony coral tissue loss disease. She emphasized the need for preparedness, evaluating modes of transport, and development of response strategies.

Presenter: Eric Werwa, Deputy Assistant Secretary, Policy and Environmental Management, Office of Policy Management and Budget, U.S. Department of the Interior (DOI)

Werwa provided an update on DOI invasive species activities. He noted that reestablishing ISAC was part of early conversations when he began in his position at DOI. He explained that DOI efforts are largely guided by their Invasive Species Strategic Plan, which outlines broad goals and points of engagement with stakeholders. Werwa described the Department's efforts under "3 in 3 for the WIN," which include tasks related to Wildfire and invasive species, Islands and invasive species, and a National EDRR framework. He also emphasized how climate change and underserved communities are a DOI priority.

ISAC Member and NISC Agency Introductions

(Note: ISAC member biographies are available at <http://www.doi.gov/invasivespecies/about-isac>)

ISAC members, NISC staff, and NISC senior advisors introduced themselves. **Burgiel** noted that a new nominee for the Association of Fish and Wildlife Agencies (AFWA) ex officio seat is forthcoming.

Review of Agenda

Burgiel provided an overview of the agenda for the three-day meeting. In addition to the opening session, Day 1 will also include a closed-meeting session that will provide member orientation and address administrative processes. Day 2 will feature updates from federal agencies on the Bipartisan Infrastructure Law, efforts to build a national EDRR framework, and wildland fire. ISAC will also start substantive deliberations on their list of national priorities. ISAC will continue its deliberations in Day 3 with a focus on climate change and underserved communities. Opportunities for public comment will occur at the end of Days 2 and 3. Selection of committee officers will also occur on Day 3. He reiterated the call for expressions of ISAC member interest in serving as Chair or Vice-Chair and opened the floor to questions.

Franklin asked if there were still opportunities to submit public comment. **Burgiel** stated that written comments could be received through the end of the meeting and that those interested in making verbal comments should contact Kelsey Brantley.

Martin (Christy) asked if there would be a 'cheat sheet' of relevant agency personnel. **Burgiel** replied that could be done.

Burgiel adjourned the official session for Day 1.

DAY 2 – Tuesday, March 7, 2023: 1:00 PM – 5:00 PM (ET)

ATTENDANCE

Invasive Species Advisory Committee (ISAC)

Voting Members

- Charles T. Barger, IV, University of Georgia
- Laura Brewington, Arizona State University/East-West Center
- Carrie J. Brown-Lima, New York Invasive Species Research Institute, Cornell University
- Leah Elwell, Invasive Species Action Network
- Slade M. Franklin, Wyoming Department of Agriculture
- Leigh F. Greenwood, The Nature Conservancy
- Jack Hicks, Choctaw Nation of Oklahoma
- Jiri Hulcr, University of Florida
- Christy Martin, Coordinating Group on Alien Pest Species, University of Hawai'i
- David Pegos, California Department of Food and Agriculture
- LeRoy Rodgers, South Florida Water Management District
- Lizbeth Ann Seebacher, University of Washington, Pacific Northwest Invasive Plant Council
- Paul Zajicek, National Aquaculture Association

Ex Officio (Non-Voting) Members

- Elizabeth Brown, North American Invasive Species Management Association
- Laurel James, Native American Fish and Wildlife Society
- Steven H. Long, National Plant Board
- William Simshauser, National Association of Conservation Districts

National Invasive Species Council (NISC) Staff

- Kelsey Brantley, Operations Director and ISAC Coordinator
- Stas Burgiel, Executive Director
- Michele Crist, Program Specialist (BLM detailee)
- Bryan Falk, Program Analyst
- Angela McMellen Brannigan, Technical Advisor

Federal Presenters and Observers

- Aimee Agnew, Department of the Interior
- Phil Andreozzi, U.S. Department of Agriculture
- Elyssa Arnold, U.S. Department of Agriculture
- Joyce Bolton, U.S. Department of Agriculture
- Rick Cooksey, U.S. Department of Agriculture
- James English, Department of the Interior

Federal Presenters and Observers (*continued*)

- Joe Krieger, Department of Commerce
- Deborah Lee, Department of Commerce

- Craig Martin, Department of the Interior
- Hilary Smith, Department of the Interior
- Vanessa Lopez, U.S. Department of Agriculture, Forest Service
- Susan Pasko, Department of the Interior
- Caroline Ridley, Environmental Protection Agency
- Jenna Shinen, Department of State
- Samantha Simon, U.S. Department of Agriculture
- Steven Young, U.S. Department of Agriculture

Public Observers

- Debra DiCianna, Lake Carriers' Association
- Kailee Lefebvre, Coordinating Group on Alien Pest Species
- Stephen Phillips, Pacific State Marine Fisheries Commission
- Christie Trifone Millhouse, North American Invasive Species Management Association
- Lindsey Woodward, Hot Springs Weed and Pest District, Wyoming
- Lee Van Wychen, Weed Science Society of America

PROCEEDINGS

Opening Remarks and Overview of Day 2 Agenda

Stas Burgiel, NISC Executive Director and Chuck Bargeron, University of Georgia (Interim ISAC Chair)

Burgiel provided a recap of Day 1 and explained that he would share facilitation duties with interim Chair Chuck Bargeron. Burgiel reviewed the agenda for Day 2 including federal thematic updates on BIL, a national EDRR framework, and wildland fire, as well as ISAC deliberations on a national priorities exercise. He noted that Day 2 will end with a forum for ISAC members interested in officer positions to speak as well as a public comment period.

NISC Thematic Priority Updates

(NOTE: Presentations are available upon request to kelsey.brantley@ios.doi.gov)

Bipartisan Infrastructure Law (BIL) Funding Update

Burgiel transitioned to the thematic priority updates informing participants that BIL aka the Infrastructure, Investment, and Jobs Act, was signed into law in November 2021 and allocated ~\$1.2 trillion in federal spending. He noted that Title VIII – Natural Resources-related Infrastructure, Wildfire Management, and Ecosystem Restoration provides investments in invasive species. Burgiel then introduced the three presenters providing BIL updates.

Presenter: Hilary Smith, Senior Advisor for Invasive Species, DOI

Smith gave a presentation on the BIL-funded activities in DOI. Title VII of BIL provided \$905 million over five years, which includes \$100 million under Activity 6 for Invasive Species. Guiding priorities for the Department include climate adaptation and resilience for ecosystems and communities; restoration and improvement of cores and connectivity; and leveraging activities and partnerships for restoration. The presentation highlighted the processes that DOI used to identify priorities, decide which projects were funded, allocate funds to projects, and determine funding goals for the funding. Smith emphasized that these projects would not have been achievable without BIL funding.

Presenter: Deborah Lee, Director and Great Lakes Regional Team Lead, Great Lakes Environmental Research Laboratory (GLERL), DOC/NOAA

Lee provided a presentation giving information on funding received by NOAA under BIL. NOAA did not receive funding directly for invasive species but is looking for ways to incorporate invasive species management into funding decisions. In total, NOAA received \$3 billion across 18 provisions of BIL. The presentation included the context of NOAA's mission and strategic plan, the amount of funding allocated to each of the 18 provisions, and additional information sources about the programs and community outreach.

Presenter: Vanessa Lopez, Invasive Plants and Biological Control National Program Manager, State and Private Forestry, USDA/USFS

Lopez gave a presentation on the BIL-funded activities in USFS. Under Title VIII, the Forest Service received \$100M over 5 years for invasive species on federal and non-federal land. Lopez gave an overview of how USFS prioritized funding, solicited stakeholder input, and coordinated with other departments. She noted the kinds of projects that were funded (e.g., intersections of invasive species and wildfire, EDRR). Finally, she described how funds were divided among regions and also allocated to non-federal lands.

ISAC Discussion on BIL Funding

Hulcr asked about measurable outcomes or performance indicators for BIL funding. **Rick Cooksey**, USFS, responded that they are working on developing metrics. He described how they are using a couple of ideas to guide the development as they develop projects, including consideration of scale, stakeholder engagement, and landscape-level and cross-boundary approaches. He noted that USFS funds are split between non-federal and federal lands, but there's a desire to support projects that work on a landscape level. He closed by noting efforts to work with state governments, including forest and agricultural agencies. **Lee** responded that two metrics that NOAA is using include tons of debris removed and acres of habitat restored. She noted that there are other metrics, but that these two are easier to measure directly. **Smith** responded that scale matters in DOI as well. While the first round of funding focused on project level outputs, DOI's BIL project management office is now developing broader program guidance on how to roll up funded projects for more meaningful impact and reporting.

Martin (Christy) posed a specific question on coral tissue loss disease. She noted a budget request of \$125 million but stated that it wasn't clear where the funds would be sourced. She emphasized that it's hard to secure funding for work in the Pacific Islands and expressed hope that there may be a shift in funding availability. **Lee** stated that she could not speak to the \$125 million request but would inquire within her agency. She explained that there is no separate funding line for invasive species in NOAA, and that unless funding comes from BIL or IRA, any invasive species funding has to come out of operational funds.

Barger asked specifically about DOI's funding of prevention projects through BIL. **Smith** responded that the four projects include: NAISMA work on Clean, Play, Go and boot brush stations, as well as weed-free seed efforts; Wildlife Forever on watercraft inspection stations; the Nature Conservancy for a biosecurity tool kit for islands; and trade and transportation for aquatic invasive species in commerce.

Noting his experience with California state agencies, **Pegos** asked if it was possible for Departments to provide allocate funds to NISC, including support for ISAC. **Burgiel** responded that is food for thought for agency consideration.

National Early Detection and Rapid Response (EDRR) Framework Update

Burgiel introduced the discussion of the National EDRR Framework by saying that NISC and its member agencies have been working on the idea since 2014 by assessing federal capacities, analyzing necessary components, and outlining a conceptual framework. He highlighted how DOI is now making major strides at implementing aspects of a national framework and is interested in engaging other federal agencies and key stakeholders, and introduced the presenter.

Presenter: Craig Martin, Chief, Branch of Aquatic Invasive Species, Fish and Conservation Program, U.S. Fish and Wildlife Service (USFWS), DOI

Martin (Craig) provided a presentation on the development and the operationalization of the National Early Detection and Rapid Response Framework. The framework is driven by the idea that early action is the least costly and most effect. The framework was built up from years of work prior in developing the conceptual outline and now has the opportunity with BIL funding to bring the framework into being. He highlighted various components where DOI bureaus are actively engaged, including areas such as horizon scanning, eDNA testing, rapid response funding, and information systems. He expressed his hope that this could serve as core capacity for a national system that brings in other agencies and partners.

ISAC Discussion on National EDRR Framework

Seebacher asked whether the U.S. Geological Survey (USGS) or USFS is in charge of the framework. She also asked about the use of the incident command system, and whether additional funding would have made a difference in the response to the Spotted Lanternfly. **Smith** responded on behalf of DOI. She provided context on forward looking projects indicating that there is no funding yet for the interjurisdictional response teams. She explained that the response teams will not happen overnight and that DOI is working on a proof of concept. She highlighted USGS as a lead science agency in developing infrastructure but emphasized that all DOI agencies are working on the framework and want to improved coordination with other agencies through NISC. She noted that the USDA early detection and rapid response activities served as a model for what DOI is trying to operationalize for species that fall through the cracks. She deferred to USDA on the Spotted Lanternfly as lead agency.

Martin (Craig) added that a pilot rapid response fund was proposed under the FY2023 President's budget. Work is ongoing under the Aquatic Nuisance Species Task Force (ANSTF) to develop a protocol. Complimentary to that effort is the development of a rapid response plan template or guidance document that could include consideration of the incident command system and other processes. **James English**, USGS, provided links to other presentations with more details on projects and contacts for getting involved in projects, including Kaylin Clements, the Partner Coordinator for EDRR Projects (KClements@contractor.usgs.gov) and a series of talks from National Invasive Species Awareness Week on the BIL EDRR Framework Projects (<https://www.youtube.com/watch?v=jW2XmUzAk7A>).

Andreozzi, USDA, responded that there are many elements that go into a response, not just funding. He indicated that he could reach out to experts within USDA for additional information on the response to the Spotted Lanternfly.

Franklin commented that the situation with moss balls and zebra mussels is great example and asked whether it is being considered as an example in the development of the framework. **Martin (Craig)** responded that the moss ball incident revealed a number of shortcomings, including species and pathways that could or should be a on watchlist. **English** added that there is a plan to use the BIL funded projects in a stress test. Various scenarios would be used to see where there are gaps or surprises. He added that a number of BIL projects were informed by moss ball situation, including understanding what worked well and where there were obvious gaps.

Long stated that as the state plant regulatory official he works very closely on EDRR with USDA. He asked how the framework would transfer funding to states (e.g., routing through APHIS-PPQ). He also asked how DOI defines non-agriculture pests. **Smith** responded for DOI stating there is a well-established EDRR program in USDA and that DOI efforts would be complimentary. For non-agricultural species, DOI hopes to supplement capacity to fill gaps, including the need for additional coordination. She noted that DOI is piloting a response fund for aquatic invasive species because USFWS has authorities to lead in that area along with NOAA through the ANSTF. She also explained that there are grey areas for authorities such as terrestrial plants that cross different sectors (e.g., forestry, rangelands). She emphasized that this is a point for discussion with USDA and non-federal partners.

Hulcr asked how basic science and research, particularly on species, is included in the framework. **Smith** responded that those issues are incorporated in the conduct of high-level horizon scanning and watch list. Those items are helping to identify which species we may need better understanding if they are introduced. **English** added that research is imbedded throughout and not isolated to any specific component of the framework. For example, subject matter experts are involved in horizon scans and watch list development, as well as inform species detection and response actions.

Andreozzi added that he is pleased that DOI is developing this framework, and that USDA looks forward to working with DOI as the framework develops.

Wildland Fire Update

Introducing the topic, **Burgiel** stated that in 2020 NISC leadership identified the intersection between invasive species and wildland fire as a major issue and developed a partnership with the Wildland Fire Leadership Council (WFLC), an analogue to NISC, which shares many of the same federal agencies. The initial goal was to bridge the gap separating the invasive species and wildland fire management communities, which has enabled NISC and WFLC to advance discussions at the national level and now increasingly at the regional level. He introduced the presenter, who is on detail to NISC from the Bureau of Land Management.

Presenter: Michele Crist, Program Specialist – Wildland Fire (Detail) NISC/Bureau of Land Management

Crist delivered a presentation on the connections between invasive species and wildland fire. She explained how invasive species can alter the timing, frequency, and severity of fire. She noted that most fire management strategies have traditionally focused on forests, but invasive grasses are changing fire regimes across the U.S. Additionally, climate change may favor invasive grasses, and is predicted to exacerbate these issues over time. Crist described how NISC has partnered with WFLC to produce a Departmental memo, signed by the NISC and WFLC Co-Chairs that outlines stages of engagement and crosscutting focal areas, while also identifying 13 priority opportunities for work. Recently, NISC and WFLC are generating a roadmap for coordination and outreach related to the memo and are meeting with regional partners. Crist closed by outlining key emerging needs (e.g., data availability, regional prioritization).

ISAC Discussion on Wildland Fire

Martin (Christy) noted that the assessment of invasive plant control for fuel management is a landscape-level issue, and that no control tools (e.g., biocontrols) were specifically identified in the presentation. **Crist** acknowledged that a whole suite of strategies is required for invasive grass control, and that identifying areas of spread will be critical for efficient control. **Burgiel** echoed the large scale of the problem and said that one of their goals was to highlight the needs of invasive grass management in the context of fuels management.

Franklin commented that the fire work is headed in the right direction for western concerns. He noted that one area of failure has been media engagement on wildfire and the link to invasive species. For example, a recent fire in Arizona was 85-90% fueled by invasive grasses, but that was never mentioned in the media. He also asked why there was a focus on urban areas. **Crist** responded that many fires are concentrated in the urban/forest interface because of the high number of human-caused ignitions and a focus on protecting communities. Rural areas with lower population density have some challenges, and fire-fighting partnerships have been developed to help address wildfire and wildlife issues in those communities. **Burgiel** noted that a lack of capacity around outreach as well as the intent to address that in the future.

Bargeron noted that data and data sets were mentioned several times, but there are problems with data at the national scale. For example, many counties do not collect data due to resource limitations, and in the Eastern U.S. extensive private land ownership can impede data collection. **Crist** highlighted meetings with Regional Fire Science Exchange Networks and others to focus need on collecting data at the local level. She also highlighted the potential to fill data gaps through remote sensing at a landscape scale to inform modeling of invasive species distribution. **Burgiel** noted the short-term need for discussions with invasive species data managers to help information discussions with the wildland fire management community.

Zajicek stated that the presentation's photos from 1901 to recent were impactful and that the amount of soil erosion was striking. He asked about the role of invasive species in soil loss as well as whether past land management may have had a bigger impact. **Crist** responded that soil erosion is caused by high wind events, which also spread invasive grass seeds. This is especially a concern after fires and rehabilitation often focuses on stopping erosion and protecting native plants. She explained that everything that was brown in the photo was invasive grass. The photo was meant to illustrate the spread of invasive grasses more than soil erosion. She closed by stating that soil disturbance allows the invasive grasses to seed, but fire is the bigger driver of invasive species spread.

ISAC Member Deliberations – National Priorities Exercise

(NOTE: A draft compilation of ISAC priorities is available at <https://www.doi.gov/sites/doi.gov/files/2023.0224-isac-priorities.pdf>)

Burgiel opened the discussion explaining how each ISAC member had been asked to contribute their top three invasive species priorities at the national level. NISC staff compiled this input into a draft document for ISAC's further consideration. He highlighted the objective of transmitting these priorities to NISC so that they could be considered in future strategic planning by NISC, its member agencies, and in the context of ISAC's future work. He explained that this effort is independent of planned ISAC work around climate change and underserved communities, as well as the updates on federal activities provided earlier in the meeting. He suggested that it may be helpful for ISAC to consider whether the current organization of priorities is appropriate and whether there is significant overlap or gaps among them.

In reviewing the document, discussion focused on a range of substantive and procedural issues. **Martin** noted how the priorities are thematic (e.g., climate change), but they are multi-faceted. She suggested with support from **Barger** that it might be useful to explore them further and possibly do some editing and reorganization. Exploring that and possibly reorganizing them could be useful. **Franklin** suggested that there may be specific points related to the federal updates that could be incorporated into the list of national priorities. In reviewing the proposed priorities, **Zajicek** noted how the priorities could be categorized in different ways. He suggested that a focus on operational efforts could provide a lens to look at more conceptual topics, providing an example of restoration efforts in the Florida everglades that may be at risk from sea level rise. Members discussed whether and how to prioritize across the list as well as how to address areas of overlap between the existing list and the upcoming discussions on climate change and underserved communities. Comments also focused on how to ensure that ISAC products are relevant to federal agencies in the short term as well as to future administrations.

On climate change **Brewington** asked about the role of ISAC with regional entities, particularly with respect with climate change and making linkages to the federal level. **Burgiel** replied that there is a lot of existing activity at the regional level on climate change, including several Regional Invasive Species and Climate Change Networks. He noted challenges in making the national-regional connections in the past, and suggested that ISAC might be helpful in pointing out key connections for NISC, which focuses primarily at the national level. **Hulcr** highlighted how the ability of the US to mitigate climate change is adversely affected by invasive species and gave the example of invasive species impacting carbon sequestration efforts.

Responding to questions about forming subcommittees, **Burgiel** stated that ISAC can determine which subcommittees it wishes to form. He suggested that members hold on forming subcommittees until after the discussions on climate change and underserved communities scheduled for Day 3. He also noted that the subcommittees have the flexibility to bring in other non-federal experts, particularly where there are key information needs or gaps. He added that subcommittees will require a chair and that subcommittee outputs will need to be submitted back to ISAC for review and adoption. He clarified that subcommittees need to have a limited number of participants (i.e., they can't include all ISAC members) and that ex officio representatives are welcome to participate in them. There was discussion on how to populate subcommittees while ensuring that all ISAC members can provide input at appropriate stages of work. **Burgiel** expressed hope that work around national priorities could be completed by ISAC's fall of 2023 meeting and that work on climate change and underserved communities could be completed within a year. Anticipating the upcoming discussions on climate change and underserved communities, **Barger** suggested that ISAC form three subcommittees for intersessional work on climate change, underserved communities, and national priorities.

Elwell volunteered to serve as chair of a subcommittee on the national priorities exercise.

Officer Candidate Forum

Burgiel introduced the officer candidate forum noting that only two nominations had been received: Carrie Brown-Lima for vice-chair and Slade Franklin volunteered for either vice-chair or chair.

Brown-Lima provided background on her relevant experience, noting that she's been working in conservation for more than 25 years, 14 of which have been focused on invasive species issues. She's the director of the New York Invasive Species Research Institute at Cornell University, where she regularly engages with stakeholders and looks for ways to integrate science and innovation. Brown-Lima has been on a number of boards and committees (e.g., NAIMSA boards and committees, NY Invasive Species Advisory Committee).

Franklin highlighted his work with the Wyoming Department of Agriculture and more broadly in the west. He highlighted his engagement with several committees, including ISAC, and expressed his enthusiasm for working with this group.

Noting that the number of candidates matches the number of officer vacancies, **Burgiel** explained that the positions for Chair and Vice-Chair would be formalized at the end of Day 3.

Public Comment

Lee Van Wychen, Executive Director of Science Policy for the Weed Science Society of America, explained how they had surveyed members of his organization for priorities. He highlighted the need for a nationwide policy for EDRR, especially given a present lack of funds to carry out EDRR. He noted new technologies being developed for invasive species control (e.g., drones, artificial intelligence). He also recognized the importance of biocontrol, stating that the approval process needs to be evaluated before more funds are directed to it. Van Wychen closed by stressing the value of integrated weed management for invasive species control, where a broad range of tools can be considered and applied.

Burgiel adjourned Day 2 of the meeting.

DAY 3 – Wednesday, March 8, 2023; 1:00 PM – 5:00 PM (ET)

ATTENDANCE

Invasive Species Advisory Committee (ISAC)

Voting Members

- Charles T. Barger, IV, University of Georgia
- Laura Brewington, Arizona State University/East-West Center
- Carrie J. Brown-Lima, N.Y. Invasive Species Research Institute, Cornell University
- Leah Elwell, Invasive Species Action Network
- Slade M. Franklin, Wyoming Department of Agriculture
- Leigh F. Greenwood, The Nature Conservancy
- Jack Hicks, Choctaw Nation of Oklahoma
- Jiri Hulcr, University of Florida
- Christy Martin, Coordinating Group on Alien Pest Species, University of Hawai'i
- David Pegos, California Department of Food and Agriculture
- LeRoy Rodgers, South Florida Water Management District
- Lizbeth Ann Seebacher, University of Washington, Pacific Northwest Invasive Plant Council
- Paul Zajicek, National Aquaculture Association

Ex Officio (Non-Voting) Members

- Elizabeth Brown, North American Invasive Species Management Association
- Laurel James, Native American Fish and Wildlife Society
- Steven H. Long, National Plant Board
- William Simshauser, National Association of Conservation Districts

National Invasive Species Council (NISC) Staff

- Kelsey Brantley, Operations Director and ISAC Coordinator
- Stas Burgiel, Executive Director
- Michele Crist, Program Specialist (BLM detailee)
- Bryan Falk, Program Analyst
- Angela McMellen Brannigan, Technical Advisor

Federal Observers

- Aimee Agnew, Department of the Interior
- Phil Andreozzi, U.S. Department of Agriculture
- Joyce Bolton, U.S. Department of Agriculture
- David Cottle, U.S. Department of Agriculture
- Joe Krieger, Department of Commerce
- Hilary Smith, Department of the Interior
- Jenna Shinen, Department of State
- Samantha Simon, U.S. Department of Agriculture
- Eric Werwa, Department of the Interior
- Steven Young, U.S. Department of Agriculture

Public Observers

- Debra DiCianna, Lake Carriers' Association
- Kailee Lefebvre, Coordinating Group on Alien Pest Species
- Elliott Parsons, Pacific Regional Invasive Species and Climate Change Network, University of Hawai'i
- Christie Trifone Millhouse, North American Invasive Species Management Association
- Lindsey Woodward, Hot Springs Weed and Pest District, Wyoming
- Lee Van Wychen, Weed Science Society of America

PROCEEDINGS

Opening Remarks and Overview of Day 3 Agenda

Stas Burgiel, NISC Executive Director, and Chuck Barger, University of Georgia (Interim ISAC Chair)

Burgiel opened the meeting with house-keeping and procedural information for the meeting. He highlighted input from DOI's Federal Advisory Committee Act management officer that given ISAC's size each sub-committee should not include more than six voting members per subcommittee to avoid having a majority of ISAC voting members within the subcommittee.

ISAC Member Deliberations

Two members of the NISC Staff provided presentations to familiarize the ISAC on current work being done in the areas of Climate Change and Underserved Communities.

(NOTE: Presentations are available upon request to kelsey.brantley@ios.doi.gov)

Climate Change and Invasive Species

Presenter: Bryan Falk, NISC Program Analyst

Falk provided an overview of NISC-related work on climate change and invasive species using an article by Hellman et al. 2008 as an organizing framework.¹ He also posed some key questions for ISAC's consideration.

ISAC Discussion on Climate Change and Invasive Species

Brewington asked whether ISAC should consider providing input into ongoing NISC activities, including those on managed relocation and disaster preparedness and response. Falk noted efforts by NISC's interagency task teams to better scope these issues, and with Burgiel raised the question of whether there are other areas that might benefit from ISAC's attention (e.g., engagement with the Regional Invasive Species and Climate Change Networks [RISCCs]). **Lima-Brown** noted that the RISCC's have been identifying research gaps and needs. **Hulcr** emphasized the need to highlight research, and a number of members discussed whether and how BIL funds should be directed towards research or other issues.

Regarding the framework outlined in the Hellman paper, **Hulcr** noted that it omits some key areas of consideration, most particularly how invasive species management can provide opportunities for climate change mitigation. Several members also stressed the need to consider international outreach and coordination, as well as policy interactions. **Martin** highlighted the importance of invasive species prevention and control for ensuring ecosystem resilience to climate change. **Greenwood** added the need to focus on nature-based solutions. **Brown-Lima** remarked that climate change can shift objectives around invasive species management. For example, climate change may alter what is feasible in restoration activities as some native species may not be suitable in future climate scenarios. She stressed the need to think about adaptation in this regard. **Franklin** suggested a particular focus on reclamation and restoration using non-native species. **Long** highlighted the need to consider timescales. For example, how far out should decision-makers and managers plan for shifting native and non-native species. He noted that South Carolina is considering a potential future role in the citrus industry but needs to be cognizant of potential threats now (e.g., citrus pathogens). **Martin** stressed the need to include marine environments, including the protection of coral reefs, in ISAC's analysis.

Zajicek suggested looking at past ISAC white papers on climate change to see if they should be updated, and Rodgers asked how their recommendations had been received and acted upon by NISC member agencies. Burgiel noted their general nature given the time at which they were written and noted that a more focused approach and detailed recommendations could be easier for federal agencies to consider. **Martin**, supported by **Pegos**, suggested looking at agency climate adaptation and resilience plans to see whether and how they address invasive species. In this regard **Brewington** suggested a gap analysis to look at how federal agency planning aligns with relevant international frameworks as well as how they look at these issues across multiple scales (e.g., local, regional, national, international).

Pegos inquired about how to best frame the work on climate change issues in a way that is non-partisan and will be considered by any future administrations. Burgiel noted past efforts to focus on specific areas such as disaster response or resilience, as well as to look at other frames to advance priorities, such as EDRR. **Bargeron** and **Franklin** highlighted the need for any recommendations on the topic to move beyond federal efforts focused on invasive species to include decision-makers and programs focused on climate change. **Simshauser** stressed the importance of holder engagement, particularly working with organizations with access to the landscape level. He highlighted that there over 3000 conservation districts that can have a major impact. **Hulcr** highlighted landowners as a major stakeholder, noting the need for incentives for their engagement. **Hicks** pointed to overlapping considerations regarding underserved communities. **Laurel** added that discussions on underserved communities and climate change should be integrated and noted that tribes are struggling in terms of their capacity to address all these issues. **Greenwood** noted that it may be instructive to look at tribal climate action plans as they may take a different approach from federal plans.

The group agreed to discuss next steps, including the formation of a subcommittee, during the closing session.

Invasive Species and Underserved Communities

¹ See Hellmann, J. J., Byers, J. E., Bierwagen, B. G., & Dukes, J. S. (2008). Five potential consequences of climate change for invasive species. *Conservation biology*, 22(3), 534-543. <https://doi.org/10.1111/j.1523-1739.2008.00951.x>

Presenter: Angela McMellen Brannigan, NISC Technical Advisor

McMellen Brannigan gave a presentation on invasive species and underserved communities. She provided a background on Executive Order 14008, which focused on climate change but provided strong direction for environmental justice. She provided an overview of the Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool, showing how the categories of burden are populated across census-tract areas in the CEQ tool. Similarly, she gave an overview of the Environmental Protection Agency (EPA) Environmental Justice (EJ) Screen tool. McMellen Brannigan also provided examples of how indigenous cultures and livelihoods have been negatively impacted by invasive species, potential human health disparities associated with invasive species, and issues related to urban areas and invasive species.

ISAC Discussion on Invasive Species and Underserved Communities

Martin noted that there isn't a single invasive species issue that doesn't affect an underserved community, and it may be hard to use the CEQ and EPA tools and data to understand impact. She also noted that some jurisdictions have greater capacity to address invasive species and wondered if there is potentially a measure of that disparity.

Rodgers noted observed disparities where in Florida, and he wondered if there was information about the resources that different communities have. He noted that the tribal nations in the Everglades do not receive money for invasive species management, and maybe largescale restoration efforts could be a means to provide resources. **McMellen Brannigan** replied that the EPA tool is most appropriate for that question, but that the Environmental Justice 40 initiative may be a place to focus. **Brewington** asked what ISAC would consider an underserved community and how that might affect their work.

Brewington asked if the Centers for Disease Control vulnerability index would be useful for this discussion. She acknowledged that all these tools have problems, particularly that they are at the resolution of the census tract, which does not capture disparities within Pacific Islands, for example. **Franklin** asked if the CDC tool lacked some information (e.g., West Nile Virus). **Brewington** replied that the CDC tool does not include information like West Nile Virus. She also highlighted a tool by the National Fish and Wildlife Foundation (NFWF) that includes terrestrial and marine indices.

Seebacher highlighted that some communities do not know where to find resources or know that certain issues are detrimental (e.g., harmful algal blooms). She emphasized prioritizing outreach, including information on identifying funding opportunities, drafting competitive grant proposals, and implementation of funded projects.

Barger added that poorer areas may not be able to collect sufficient data, which contributes to a lack of resources and attention. **James**, supported by **Hicks**, underscored that the outreach approach does work, highlighting efforts to help tribes learn about and apply for funding. She added that tribes typically have low staffing and don't have the capacity to devote staff to these issues (e.g., grant writing). **Long** suggested looking at what outreach and education approaches work best.

Franklin noted similar capacity issues with smaller communities. **Simshauser** underscored attention to the potential role of conservation districts in addressing these issues. **Martin** highlighted challenges in the Pacific Islands that are not always clear to outsiders (e.g., inability to use microscopes given lack of air conditioning). **Laura Brewington** noted that DOI's Office of Insular Affairs has aggressively and consistently reached out island entities about invasive species, because OIA had been hearing that invasive species were a big issue for islands. In some cases, they've removed the match requirements for funding.

Greenwood pointed out that many initial points of introductions are in urban areas, and **Barger** suggested focusing on improving EDRR in urban areas. **Pegos** noted strong connections between the national work and work that's underway in California.

Rodgers suggested starting with a characterization of the issue to understand its scale and scope. **Burgiel** reviewed the general ideas he perceived for an ISAC output: 1) characterization of the issue; 2) outreach and education/engagement; and 3) and an assessment of available federal tools.

Public Comment

Burgiel opened the meeting up to public comment, and there were no requests. Burgiel noted that written comments could be submitted until the end of the meeting.

Closing Remarks and Next Steps

Stas Burgiel, NISC Executive Director, and Chuck Bargeron, University of Georgia (Interim ISAC Chair)

Bargeron opened the closing session highlighting the need to identify subcommittee assignments, confirm ISAC officers, and set dates for the next meeting. He noted general agreement to form three subcommittees focused on national priorities, climate change, and underserved communities.

Based on discussion among ISAC members, the following assignments were made for the three subcommittees:

- National Priorities: Bargeron, Brown, Elwell (chair), Hulcr, Long, Seebacher
- Climate Change: Brewington, Brown-Lima, Greenwood, Rodgers, Zajicek
- Underserved Communities: Franklin, Hicks, James, Martin, Pegos, Simhauser

The group could not identify chairs for the subcommittees on climate change and underserved communities and agreed that those selections could be made at the first intersessional meetings of those subcommittees. There was discussion of whether and how information could be shared outside of the subcommittees, and **Burgiel** noted they would clarify that with DOI's Federal Advisory Committee Act management adviser.

Bargeron with support from **Greenwood** asked if a short, virtual meeting in the summer would be possible to share progress and solicit input from the full ISAC. **Brantley** said that is possible, noting it would still need to be announced in the Federal Register. She noted that she would send a poll out to ISAC members to identify a potential date. Regarding a fall meeting, Brantley identified the best option based on ISAC member input as November 13-15, 2023. It will be an in-person meeting in the DC area. It is not yet clear if virtual options will be available from a FACA standpoint. Travel instructions will be forthcoming.

On approval of ISAC officers, **Burgiel** highlighted that Franklin volunteered for Chair and Brown-Lima volunteered for Vice Chair. He asked for a motion to nominate them for the respective positions of Chair and Vice Chair. **Zajicek** made a motion to nominate Carrie Brown-Lima for ISAC Vice Chair and Slade Franklin for ISAC Chair. **Bargeron** seconded. In the ensuing vote, there were no abstentions, and no one opposed.

Slade Franklin will serve as Chair of ISAC, and **Carrie Brown-Lima** will serve as Vice Chair.

In closing the meeting, **Burgiel** expressed his thanks to the ISAC members, NISC staff, and federal agency experts. **Franklin** thanked Bargeron for his work as interim Chair during this meeting.

Meeting Adjournment

Franklin moved, and **Greenwood** seconded to adjourn the meeting. The meeting was adjourned.