

# Delta Interagency Invasive Species Coordination (DIISC) Team

## First Quarter Meeting

Tuesday, February 20, 2024; 10:00 am – 12:00 pm

Teams meeting

Participants:

Aviva Fiske (DWR), Cesar Blanco (USFWS), David Bubenheim (NASA), Ed King (Solano County Ag Commissioner), Elizabeth Brusati (DSC), Gabriel Chan (Contra Costa County Ag Commissioner's office), Gina Darin (DWR), Jatinder Gill (San Joaquin County Ag Commissioner's office), Jeff Caudill (DBW), Julie Gonzalez (SF Bay NERR), Rachael Klopfenstein (DSC), Rachel Wiggington (SSJDC), Thomas Jabusch (CDFW).

### 1. Welcome and Announcements

#### a. CISAC/ISCC update

\*\*CISAC (California Invasive Species Advisory Committee) is part of and appointed by the Invasive Species Council of California (ISCC). ISCC was formed by the legislature with the Secretaries of Natural Resources and Food and Agriculture serving as its co-chairs.

Notable news:

- The CISAC Outreach and Education Subcommittee completed three tours open to the public in autumn of 2023, including a NorCal, a SoCal, and a Sacramento area tour. The Sacramento tour was well attended and included one AIS stop at the American River. There will be another fourth tour upcoming for legislators in the Delta.
- Also planned: another Invasive Species Summit at the State Capitol, but there's no date yet.
- A rapid response fund proposed by the CISAC got approved by the ISCC. A total of \$600K got approved, to be made available to get projects started. CDFA is trying to get information about the fund and how to apply on its portal.
- ISCC's list of shovel-ready projects to be funded includes a statewide AIS survey.
- The next CISAC meeting will be on April 17. At this meeting, the CISAC will talk more about the planned invasive species tour centered in the Delta. Future ISCC meetings have not been scheduled yet.

## **2. Report out on 2023 Delta Invasive Species Symposium**

The 2023 DISS was held as a hybrid in-person/remote event on November 30 at the Natural Resources building. The theme was “Making Connections: Understanding Connectivity in an Invaded Estuary” and there were four sessions: 1) Connectivity Within and Among Estuaries, 2) Connecting Research, Management, and Policy, 3) Lightning Talks, and 4) Challenges and Advantages of Connectivity. There were about 70 in-person and 140 remote attendants, including “hybrid” attendants that participated online as well as in person for some parts. [Abstracts and video recordings](#) can be accessed on the Delta Conservancy website. Video recordings are posted on the [Delta Conservancy YouTube channel](#). Team feedback: there was no immediate feedback.

## **3. Nutria Genetics Team Update**

Aviva Fiske from DWR gave an update on a project that is currently evaluating the utility of eDNA/eRNA for nutria monitoring. eDNA and eRNA are shed into the environment in minute amounts and are of interest for use in early-detection monitoring of invasive species. Early detection can help with the eradication of an invasive species before it gets established. The goal is to eventually develop a rapid field test method with high specificity and sensitivity based on the SHERLOCK technology. SHERLOCK (Specific High-sensitivity Enzymatic Reporter Unlocking) uses a fluorescent signal to determine if a species of interest is present. The DWR team is currently testing their method and would like more development trying to get the specificity and sensitivity of their test down even further.

They recently sampled at a Delta site but there were challenges with this first sampling effort. Only a limited sample volume was tested because the extraction filters got clogged. They are planning to sample and test more volume in the future. They see pathways forward with new equipment which they’ll be trying out soon.

Cesar Blanco mentioned a USFWS project using molecular tools for assessing the distribution of three invasive loach species in the San Joaquin Valley. The goal is to create a heat map illustrating the geographic distribution of eDNA from these species.

## **4. Research Needs Table**

The purpose of the DIISCT Research Needs Table is to help prioritize proposed research projects based on management needs, uncertainties, and knowledge gaps related to invasive species in the Delta. Gina Darin (DWR) gave background on the development of the table and how it aligns with the purpose of the DIISCT and its goals as identified in the DIISC framework, which include making research recommendations, defining funding sources, and coordinating funding opportunities for shared priorities. As of current, tangible outcomes include DSC-funded directed action proposals related to EDRR and Prop1-funded investigations of restoration techniques that limit invasion of tidal wetlands.

The table was created in 2015 and updated in 2019. Gina explained that it's again time for an update and potentially add new needs and questions. The meeting participants were split up into 2 breakout groups and each assigned with reviews of needs binned into "brackets" like "Range Expansions and New Introductions," "Prioritization & Control," etc. following the table format. For example, the need "A framework and threshold determination methodology for prioritizing IAV control efforts [idea of functional eradication]" is in the bracket "Prioritization & Control." Google Jamboards were used for this exercise.

An ad hoc "synthesis" of the outcomes from the exercise suggested interest in water lettuce, research on employing mycorrhizal fungi as part of the solution in restoration projects, and an interagency assessment of which molecular methodologies (eDNA etc.) to prioritize for R&D as potential tools in invasive species management.

## **5. Agency Round Robin**

Prompts:

- a. All agency representatives introduce themselves (names, positions)
- b. 1-2 representatives from each agency provide a brief overview of the invasive species work you want to highlight that has taken place since the last meeting. (November 2023 – now) and any upcoming work that is relevant.
- c. Which of the research topics or goals discussed in the previous agenda item are most relevant to your work?

Delta Conservancy (Rachel Wiggington)

- Developing presentation about IAV and restoration sites with DSC and DBW; co-presenting to DPIIC restoration subcommittee in March. Meeting notice with Zoom link will be posted [here](#).
- Looking for partners in next budget season
- Work most relevant to Conservancy includes climate change & IS, EDRR

DWR Fish Restoration program (FRP) (Gina Darin)

- Assisting nutria eradication program; trying to enter contract with CDFW nutria eradication program.
- Trying to address IAV control needs in areas that DBW doesn't treat; working on Blacklock restoration site with Solano County, trying out how to spray using drones. The work is part of a Prop1 grant funded by the Delta Conservancy doing phragmites control for restoration.

DSC (Elizabeth Brusati and Rachael Klopfenstein)

- Working on presentation on harmful algal blooms (HABs), plans announcing cyanoHAB strategy document to be released soon; planning to and likely presenting at meeting with the Delta Science Group on March 19.

CDFW (Thomas Jabusch)

- Few updates since last meeting; Thomas Jensen is now the QZ Mussel Prevention Plan lead.
- EDRR very relevant to CDFW Invasive Species program, also topics not necessarily included in DIISC research priorities; like how to engage recreational users like boaters and anglers more effectively in preventing the spreading of AIS from one place to another.

USFWS (Carlos Blanco)

- Funding opportunities through the USFWS Ecological Services and Science Applications programs; solicitations need a sponsor in USFWS; proposed deadline is March 8. Nothing specific on AIS but the loach project was funded with this funding source and the Mojave Desert Network (which includes Death Valley NP, Mojave Desert Preserve, and other federal protected areas in the Mojave region) is using it for invasive plants. Bottom line: this funding can be accessible if a project is relevant to a national refuge, wildlife area, etc. and can be used for EDRR, IS control, and eradication. It's not a long-term option, though, and a relatively small pot and expected award funding will be in the range of \$100-140K.
- There's also a national pot for EDRR. Case in point: funding for Caulerpa eradication in San Diego.
- New Zealand mudsnails were found in Lake Tahoe, still working on that.

SF Bay National Estuarine Research Reserve (Julie Gonzalez):

- New to group
- Climate change is very relevant to SF Bay NERR.

Solano County Ag Commissioner (Ed King):

- USDA Wildlife Services and CDFA have prepared a joint Draft EIR/EIS evaluating alternatives for both agencies' involvement in managing wildlife damage and conflict in California, expecting it to be out for public review in mid-March. About 30 counties, Tribes, local municipalities, and other groups are collaborating with Wildlife Services in wildlife damage and conflict management. The EIR/EIS will cover all these activities across the state.

Contra Costa County Ag Commissioner's Office (Gabriel Chan):

- Thistle and ground squirrel control: has been negotiating contract and visiting locations in Concord.
- IS update: first reported detection of Mexican pokeweed in Contra Costa County

San Joaquin County Ag Commissioner's Office (Jatinder Gill):

- Reporting for Pest Enforcement Program; no updates.

DBW (Jeff Caudill):

- Currently mostly thinking about treatment plans that'll guide the IAV control work for the rest of the year; cleared regulatory hurdles for employing bubble curtains; they are expected to keep herbicides in the curtained treatment area and by keeping them in help increase retention times and treatment efficacy, at the same time keeping endangered species out of the area; expecting Western pond turtle and longfin smelt to be listed as endangered species; continuing collaborating with DWR, USFWS, and CDFW.