

**Charter for:**  
**Interagency Ecological Program Resident Fishes Project Work  
Team**

Chair: Adam Nanninga, USFWS  
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I. The Interagency Ecological Program (IEP)

IEP is a consortium of nine state and federal agencies that conducts research and monitoring in the San Francisco Estuary (SFE). Since 1970, the IEP and its partners (e.g., universities, NGOs) have worked to: 1) describe the status and trends of aquatic ecological factors of interest in the SFE; 2) develop an understanding of environmental factors that influence the resources of the SFE; and 3) provide information to support natural resource planning, management, and regulatory activities in the estuary. One of the most effective tools for IEP activities and collaboration has been the formation of Project Work Teams (PWTs) that focus on specific research and monitoring topics of interest. All IEP PWTs are open to the public and bring together scientists from agencies, universities, NGOs, private entities, diverse stakeholder groups, etc., with interest and expertise in the PWT's topic. The purpose of the PWTs includes: organizing new studies, reviewing study plans and proposals, writing scientific papers and reports, promoting collaboration among different groups working on the topics of interest, and conducting integrated analysis and synthesis of SFE data sets. More information about IEP PWTs and a calendar with PWT meeting information is available at [IEP's website](#).

II. Relevance of the Resident Fishes PWT to Bay-Delta Science and Management and to the IEP.

The San Francisco Estuary supports a wide variety of fish species that spend their entire life or important portions of their life cycle in the estuary. In addition, a wide variety of fishes from other geographic areas have been introduced into the estuary and many of them have become abundant. As introduced fishes have increased in abundance, many native species have declined in abundance. These contrasting trends could be due to direct species interactions among native and introduced species, such as competition and predation, or due to differing species responses to altered habitat conditions. Understanding these relationships is critical to protecting and restoring native fish populations, a major goal of current management activities in the estuary.

Much of the work of the IEP has involved monitoring and research on fish populations with the goal of understanding trends in those populations and the environmental

factors affecting their abundance. The emphasis of the IEP has evolved from a primary emphasis on Striped Bass and Chinook Salmon, which are economically important species, to include a variety of other species of management concern, such as Delta Smelt, Longfin Smelt, and Sacramento Splittail. The two Smelt species have gained particular prominence due to their listing under state and federal endangered species acts. They have indirect economic importance because management actions for the restoration and protection of these species and other native species of concern can affect water exports and the human activities dependent on a reliable supply of fresh water. Thus, the topic of the proposed PWT is highly relevant to the IEP agencies, other agencies with management responsibilities in the estuary.

The IEP has had a Resident Fishes PWT in the past. In the 1990s, the Resident Fishes PWT was the initial forum for much of the work on Delta Smelt, when that species was listed. In the 2000s, the IEP pelagic organism decline (POD) Management Team and the Estuarine Ecology Team (EET) PWT took on this function. With the listing of Longfin Smelt as threatened under the California ESA in 2010, continued strong regulatory and management interest in Delta Smelt as well as other native species such as Sacramento Splittail, and increasing interest in open and collaborative science forums, the re-establishment of the Resident Fishes PWT seems appropriate. This would also allow the EET PWT to concentrate more on ecology of lower trophic levels and more holistic views of estuarine ecology and decrease the time spent on more “fish-centric” topics. The Resident Fishes PWT would also add some continuity for resident fishes topics.

### III. Proposal to form the Resident Fishes PWT

As mentioned in the previous section, we propose to re-establish the Resident Fishes PWT. The primary goal of the PWT is to serve as an open forum for information exchange, discussion, synthesis, and exploring and recommending next steps in research and monitoring activities related to populations of resident fishes. We define resident fishes rather loosely to include fishes spending all or part of their life cycle as residents in the San Francisco Estuary. This definition will exclude salmonids and sturgeons because there are already separate PWTs for these groups; however, we would encourage members of these PWTs to share their information with the Resident Fishes PWT as memberships are unlikely to overlap completely. We intend that the Resident Fishes PWT will provide a forum that will provide continuity with regard to important topics in fish biology and ecology, including physiology, predator-prey relationships, population-community dynamics, genetics, energetics, and others. We anticipate minimizing overlap with the EET PWT by maintaining communication with EET PWT Chair Wim Kimmerer and making collective decisions about which PWT would be most appropriate for particular topics/presentations. Similarly, we will collaborate with other PWTs, such as the Contaminants and Biotelemetry PWTs, to maximize information transfer, while minimizing overlap. Within the Resident Fishes PWT, we anticipate forming separate sub-PWTs (i.e., subcommittees) for special topics/projects. The “first flush” studies that initiated the Fish-Migration PWT are an example. In fact, we propose

that the Fish-Migration PWT should be subsumed into the new Resident Fishes PWT. New studies of Longfin Smelt are also being initiated, and a new sub-PWT will be initiated under the umbrella of the new Resident Fishes PWT.

#### IV. Examples of Invited PWT Activities

The PWT will serve as an open forum for information exchange, discussion, synthesis, and exploring and recommending next steps in research and monitoring activities related to populations of resident fishes. Examples of invited PWT activities would include:

1. Regular meetings several times a year for discussion of results of ongoing studies, results of ongoing monitoring, data gaps that require new work, and new ideas regarding ecology and biology of resident fishes.
2. Review of new proposals and manuscripts.
3. Establishment of sub-groups to provide focused review and feedback on new studies on specific topics at the request of project leaders.