

# Adult Sturgeon Mortality and Life History in the San Francisco Estuary

## WHAT'S HAPPENING?



The San Francisco Estuary (SFE) is home to one of the six remaining spawning populations of White Sturgeon (*Acipenser transmontanus*) and the only spawning population of the federally threatened Southern Distinct Population Segment of Green Sturgeon (*Acipenser medirostris*). Over the past year, biologists have observed adult sturgeon carcasses washed up on beaches and shorelines in the SFE (pictured: carcass from April 8, 2020). To date, little is known about sources of mortality for adult sturgeon outside of harvest. Other causes of mortality could include disease, predation by marine mammals, and vessel strikes. Identifying sources of adult sturgeon mortality is considered a high-priority knowledge gap.

## WHAT'S NEXT?

A collaborative effort by academic and agency scientists to better understand sturgeon mortality in the SFE will offer strong scientific support to inform decision-making for restoration and protection of the white sturgeon fishery and threatened green sturgeon.

We propose the use of community reporting to facilitate sample collection (e.g., tissue and fin rays) from sturgeon carcasses in the SFE. Our proposed community science reporting will include:

- (1) public outreach,
- (2) creating a central reporting database, and
- (3) the leveraging of ongoing surveys through the Interagency Ecological Program's Sturgeon Project Work Team.

We have obtained a Scientific Collection Permit to collect samples from sturgeon carcasses for genetic, microstructure, and microchemistry analyses (processed by

University of California Davis and Cramer Fish Sciences) that will identify species, migratory patterns, spatial distributions, and life history strategies of impacted individuals. University of California Santa Cruz also plans to conduct a risk assessment, integrating acoustic telemetry data with shipping traffic data. As of July 2021, the team has documented 55 and sampled 30 sturgeon carcasses reported by members of the public.

## WHO'S INVOLVED?

This work is in collaboration with the following eight resource and research entities:

- Delta Stewardship Council - Delta Science Program: Pascale Goertler
- California Dept. of Fish and Wildlife: John Kelly and Christina Parker
- California Dept. of Water Resources: Alicia Seesholtz
- UC Santa Cruz: Nicolas Demetras
- UC Davis: Andrea Schreier
- Cramer Fish Sciences: Kirsten Sellheim and Jamie Sweeney
- National Oceanic and Atmospheric Administration: Page Vick
- US Bureau of Reclamation: Michael Beakes



## WHERE TO LEARN MORE?

For more information see our [Facebook page @CAsturgeonreseach](#)