



# 30th Annual California Aquatic Bioassessment Workgroup Meeting & 11th Annual California Chapter Society for Freshwater Science Meeting

November 6 - 7, 2023

## FINAL AGENDA

Location: Southern California Coastal Water Research Project [3535 Harbor Blvd STE 110, Costa Mesa, CA 92626](#)

For Remote Attendees: [Join Webcast](#)

### Day 1 – Monday, November 6, 2023

9:00 am – 9:05 am

#### Welcome and Logistics

Ali Dunn | *State Water Resources Control Board*

Angela D. Dow | *County of Lake Water Resources and Society for Freshwater Sciences – CA Chapter*

John Olson | *California State University, Monterey Bay and Society for Freshwater Sciences – CA Chapter*

9:05 am – 9:15 am

#### Announcements

### Session 1 Moderator: Raphael D. Mazor

9:20 am – 10:00 am

#### Natural Dynamics in Artificial Environments: Biogeochemical Functioning in Ditches, Canals, and Urban Stormwater Ponds

AJ Reisinger | *University of Florida*

10:05 am – 10:25 am

#### Improving Biological Conditions in Engineered Channels

Raphael D. Mazor | *Southern California Coastal Water Research Project*

10:30 am – 10:50 am

**Flow-Ecology Assessment in Modified Channels**

Katie Irving | *Southern California Coastal Water Research Project*

**Break**

**10:50 am -11:15 am**

**Session 2 Moderator: Jayme Smith**

11:15 am – 11:35 am

**How the Water Boards Surface Water Ambient Monitoring Program Shares Data with the Public**

Michelle Tang and Carly Nilson | *State Water Resources Control Board – Surface Water Ambient Monitoring Program*

11:40 am – 12:00 pm

**Building a Freshwater Harmful Algal Bloom Assessment Toolbox: using a Multifaceted Approach to Evaluate the Causes of Blooms in H.V. Eastman and Hensley Lakes**

Stephen Huie | *Central Valley Region Water Quality Control Board, SCCWRP*

12:05 pm – 12:25 pm

**Harmful Algal Blooms in Clear Lake: Historical Observations and Future Perspectives**

Jayme Smith | *Southern California Coastal Water Research Project*

**Lunch Break**

**12:25 pm – 2:00 pm**

**Cal-SFS Sponsored Student Lightning Talk Session**

2:00 pm – 3:30 pm

The highlight of these meetings every year is to see the wonderful research being conducted by students and the future freshwater scientists, managers, researchers, and decision makers for California! The lightning student talk session will be the best opportunity for students to participate in lieu of the poster session for this year.

**Working Towards Preventing Freshwater Species Extinction**

Angela D. Dow | *County of Lake Water Resources and Society for Freshwater Sciences – CA Chapter*

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**Terrestrial-Aquatic Connections: Invasive *Ailanthus altissima* Leaf Decomposition in Freshwater Ecosystems and Impacts on Macroinvertebrate Communities**

Jonathon Juarez | *California State University, Bakersfield*

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**Analysis of Fire Retardant in Runoff**

Alexandra Yokomizo | *California State University, Monterey Bay*

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**The California Red-Legged Frog *R. draytonii* Habitat: Defining and Predicting their Current and Future Ranges**

Connor Quiroz | *California State University, Monterey Bay. Department of Applied Environmental Science*

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**Reimagining Urban Hydrologic Modeling: Focusing on Interplay Between Landscape, Runoff Mechanism, and Imperviousness**

Dong-Hyun Kim | *San Diego State University*

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**Effects of Fire and Extreme Weather Conditions on Stream Response in the Santa Ana Watershed**

Jazzmyn Luna | *UC Irvine, Masters in Conservation and Restoration Science*

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**DNA Metabarcoding of Aquatic Invertebrates Gap Analysis**

Garret Keating | *UC Irvine, Masters in Conservation and Restoration Science*

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**Investigating the Influence of Flow Duration on Bioassessment Indices Across Central California**

Skylar Wolfe | *California State University, Monterey Bay*

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**Daily Water Temperature Variation of the Pajaro River Channelized by Levees**

Ellery Charleton | *California State University, Monterey Bay*

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**Comparison of Shell Length for *C. battelariae* Infected and Non-Infected *B. attramentaria* Within Elkhorn Slough and Japan**

Ashley Rawlins | *California State University, Monterey Bay*

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## Cal-SFS Business Meeting

3:30 pm – 4:00 pm

**Cal-SFS Business Meeting**

## Happy hour/ Mixer!

Time: 5:00 pm

Location: [Green Cheek Costa Mesa](#)

2957 Randolph Av unit B, Costa Mesa, CA 92626

Additional Information to be provided at the meeting.

## Day 2 – Tuesday, November 7, 2023

9:00 am – 9:10 am

Welcome and logistics

Ali Dunn | *State Water Resources Control Board*

Angela D. Dow | *County of Lake Water Resources and Society for Freshwater Sciences – CA Chapter*

John Olson | *California State University, Monterey Bay and Society for Freshwater Sciences – CA Chapter*

### Session 3 Moderator: Chad Loflen

9:10 am – 9:30 am

**The Role of Archaea in Methane Emissions, Climate Change, and Carbon Sequestration in Freshwater Systems**

Gaurav Rajen | *Santa Ana Regional Water Quality Control Board - Municipal Stormwater Unit*

9:35 am – 9:55 am

**Visualizing Benthic Macroinvertebrate Community Structures in the Sierra Foothills**

Emma Walker | *Sierra Streams Institute*

10:00 am – 10:20 am

**Understanding the Associations between Flows and Riverine Birds to Inform the Restoration of Effluent-influenced Streams in Coastal Southern California**

Melissa von Mayrhauser | *University of California, Berkeley*

**Break**

**10:20 am -11:35 am**

### Session 4 Moderator: Susanna Theroux

10:35 am – 10:55 am

**A National Strategy for Environmental DNA**

Susanna Theroux | *Southern California Coastal Water Research Project*

11:00 am - 11:20 am

**Harmonizing eDNA Practices for Effective Aquatic Species Monitoring and Resource Management**

Gregory Schumer | *Genidaqs/Cramer Fish Sciences*

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11:25 am – 11:45 am

**Mapping Molecules: Advancing Marine Biomonitoring in the Era of Climate Change Through eDNA**

Nastassia Patin | *California Cooperative Oceanic Fisheries Investigations, Scripps Institution of Oceanography, University of California, San Diego; Southern California Coastal Water Research Project*

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11:50 am – 12:10 pm

**Implementation of Routine eDNA Monitoring Within California Department of Water Resources**

Sarah Stinson | *California Department of Water Resources*

**Lunch Break**

**12:10 pm – 1:30 pm**

**Cal-SFS Sponsored Workshop: North Bay Conservancy Big Canyon Restoration Project**

**Registration:** Please [register](#) if you wish to join this workshop. The limit is 25 people for this tour.

**Donation:** Cal-SFS donation amount of **\$20** is suggested to support student attendance at the Society for Freshwater Science Annual Meeting. Donation options include 1) check made out to Cal-SFS, 2) Venmo to @CalSFS-John-Olson, or 3) Paypal to: cal.chap.sfs@gmail.com

**Time:** 1:30 pm – 2:30 pm; with access to walk and visit at your leisure after the tour!

**Tour Guide:** Alys Arenas (she, her, ella), Restoration Manager

**Background:**

Big Canyon is the largest remaining natural canyon on the east side of Newport Bay. The Conservancy is the final phase of the multi-phase water quality, restoration, and adaptation project in Big Canyon Nature Park. The 60-acre open space is located at the downstream end of the Big Canyon Watershed in the City of Newport Beach, within Orange County, California. Big Canyon Creek drains the 1,300-acre Big Canyon Watershed directly into the Upper Newport Bay Ecological Reserve (UNBER) and State Marine Conservation Area. The area has been heavily influenced by the construction of a salt evaporation pond, historical placement of dredge and fill material, interim restoration efforts, and other human activities. Stockpiling of dredge fill during the 1950s and 1960s within Big Canyon Creek raised the elevations within the canyon and consequently channelized the creek to the north. The creek now winds through the Nature Park in a general southeast to northwest direction and then discharges into Upper Newport Bay.

For more information, visit the [Newport Bay Conservancy Big Canyon Project](#)

The tour will be mostly walking and stops to provide info about the restoration area. It will be casual, so feel free to ask lots of questions!

**Place to meet:** Parking lot at Big Canyon. Upper Newport Bay.

**Directions:**

Navigate towards the Back Bay Science Center ([600 Shellmaker Rd. Newport Beach, 92660](#)), but do not turn left into the parking lot. Instead, go straight on the Back Bay Drive, a one-way road for roughly 1 mile (also called the Mountains to the Sea Trail & Bikeway). There will be one stop sign at San Joaquin Hills Rd. Continue going straight. Then at approximately [33.630662, -117.885568](#), there will be a Parking lot for the Big Canyon / Newport Bay Marine Protected Area on the left. Please be mindful that this is a shared road with cyclists, runners, hikers, dog walkers, etc. Proceed with caution and go slow on any blind turns.

**Things to Bring:** Close-toed shoes, sneakers or boots will be fine, or sturdy, outdoor sandals. Sun protection (hat, sunscreen, sunglasses), water and/or a snack are recommended.

**Post-Tour:**

The tour will be about 1 hour long, but there are plenty of access to leisurely walk around after the tour is complete. The tour guide, Alys Arenas, will provide plenty of suggestions of what is available to do.

**Travel Plans:**

The road is ONE WAY, when you leave the parking lot, exit to the left.

While the Conservancy area is close to the John Wayne Airport (SNA), it will take you about 10-15 minutes to exit the conservancy area, so include that time in your travel plans.