



27th Annual California Aquatic Bioassessment Workgroup Meeting & 8th Annual California Chapter Society for Freshwater Science Meeting

October 13th & 14th, 2020

AGENDA

Day 1 - Tuesday, October 13, 2020

9:00 am – 9:10 am

Welcome and Logistics

Ali Dunn, State Water Resources Control Board and
Nick Macias, Society for Freshwater Sciences – CA Chapter

9:10 am – 9:35 am

Keynote

Obi Kaufmann, Coyote Thunder
Through the Bottleneck: The Ecology of California's Future

Session 1 Panel: Incorporating Temporary Streams into Monitoring and Management: The UK Experience

Moderator: Raphael Mazor, Southern California Coastal Water Research Project

9:35 am – 9:40 am

An introduction to collaborative temporary stream research in the UK

Rachel Stubbington | Nottingham Trent University

9:40 am – 9:50 am

English temporary streams and why we are interested in them

Judy England | Environment Agency, Freshwater Biological Association
and Queen Mary University of London

9:50 am – 10:00 am

Chalk stream winterbournes - a case study

Tim Sykes | University of Southampton

10:00 am – 10:10 am

Terrestrial Invertebrates as Biomonitors in 'Winterbourne' Streams

Rachel Stubbington | Nottingham Trent University

10:10 am – 10:20 am

Dry-phase Plant Community Responses to Human Impacts in Cool, Wet Temporary Streams

Chloe Hayes | Nottingham Trent University

10:20 am – 10:30 am

Identifying Sites of High Terrestrial Invertebrate Richness and Rarity from Simple Habitat Surveys

Kieran Gething | Nottingham Trent University

10:30 am – 10:40 am	Exploring Public Perceptions of Dry Temporary Streams Tim Sykes University of Southampton
10:40 am – 11:00 am	Panel Discussion
11:00 am – 11:15 am	Break

Session 2

Moderator: Peter Ode, California Department of Fish and Wildlife

11:15 am – 11:35 am	A Conceptual Framework and Sampling Methodology for Bioassessment in Eelgrass (<i>Zostera marina</i>) Beds in California's Estuaries David Gillett and Kenneth McCune Gillett, McCune - Southern California Coastal Water Research Project; McCune - California State University Long Beach
11:35 am – 11:55 am	A Regional Assessment of Trends in Stream Condition in Southern California Raphael Mazor Southern California Coastal Water Research Project
11:55 am – 12:15 pm	Restoration and Protection Prioritization Tool for Southern California Streams Jerry Diamond Tetra Tech, Inc.
12:15 pm – 1:15 pm	Lunch Break Cal-SFS Business Meeting – to be held concurrently during lunch break. This Business Meeting will have the following <u>separate</u> zoom meeting link to access:

Click [HERE](#) to be directed to the Cal-SFS Business Meeting meeting

Virtual Poster Session

The goal of hosting this session is to encourage student attendance and participation in CABW & Cal-SFS, as students are the future members of SFS and the next generation of freshwater scientists!

1:15 pm – 2:15 pm This years' poster session will come of two forms: virtual posters and lightning talks. You will find all posters and lightning talks available for you to view and enjoy all day throughout the meeting on both days [HERE](#).

We will be using the Slack platform to gather questions for the virtual poster presenters and lightning talk presenters. Questions can be submitted all day and long after the meeting is over. This time on the agenda is reserved for a live Q&A session with virtual poster presenters and lightning talk presenters, where you can converse and get live feedback and responses immediately from the presenters.

If you are interested in participating in the Q&A, please view this [Slack Guide](#) for instructions on how to sign up and join (it is free!)

This first day will be the competitive student poster competition, where students can be judged on their virtual posters/lightning talk for a chance to win cash prizes (UG, MS, and PhD categories). These student poster/lightning talk opportunities are aimed to help attract students to attend this meeting and to showcase their current research or projects while learning from other freshwater scientist professionals and about other freshwater activities being conducted by universities, tribes, agencies, and other organizations.

Workshop #1: Beginning R

2:15 – 4:15

The Beginning R Workshop is aimed at folks with little/no experience in R, or who are just beginning to use R. All are welcome, but we will be covering content assuming folks have not used R before.

If you are interested in signing up for the R workshop, please fill out the [Registration Form](#) [Registration Form](#) and make sure you select “Yes” for “Day 1”. We will email the Zoom information out to the **first 50 participants**. Recordings will be made public after the workshop and will be posted on the [State Water Board Program Page](#).

The session will be approx. 2 hours, with breaks.

Day 2 – Next Page

Day 2 – Wednesday, October 14, 2020

9:00 am – 9:05 am

Welcome and Logistics

Ali Dunn | State Water Resources Control Board

Session 3 Panel: Environmental DNA Approaches for Biodiversity and Species Monitoring

Moderator: Suzie Theroux, Southern California Coastal Water Research Project

9:05 am – 9:10 am

Panel Opening and Introduction

Suzie Theroux | Southern California Coastal Water Research Project

9:10 am – 9:20 am

Advancing eDNA Tools for Bioassessment Applications

Suzie Theroux | Southern California Coastal Water Research Project

9:20 am – 9:30 am

Using Enclosure Experiments to Inform eDNA Interpretation in the San Francisco Estuary

Ann Holmes | University of California, Davis

9:30 am – 9:40 am

CDFW's First In-House eDNA Projects: Recent Success in Aiding Reintroduction of a Listed Trout and Future Directions with Native Fishes

Kristen Ahrens | California Department of Fish & Wildlife

9:40 am – 9:50 am

A Biodiversity Composition Map of California Derived from Environmental DNA Metabarcoding and Earth Observation

Meixi Lin | Department of Ecology and Evolutionary Biology, University of California - Los Angeles

9:50 am – 10:00 am

Jonah Ventures: Knowledge in Sequence

Nicole Witzel and Peter Houpt | Jonah Ventures and the State Water Resources Control Board

10:00 am – 10:20 am

Panel Discussion

10:20 am – 10:25 am

Break

Session 4

Moderator: John Olson, California State University, Monterey Bay

10:25 am – 10:45 am

Surface Water Ambient Monitoring Program (SWAMP) Bioassessment Program: Preview of Statewide Conditions of Perennial Streams & Snapshot of Current Program Efforts

Ali Dunn | State Water Resources Control Board

10:45 am – 11:05 am

Predicting Geographic Distributions of Fishes in Remote Stream Networks Using Maximum Entropy Modeling and Landscape Characterizations

Anna Holder | Desert Research Institute, California State University, Monterey Bay and State Water Resources Control Board

11:05 am – 11:25 am	Climate Change Impacts on a Sierra Nevada Foothill Watershed Two Decades of Citizen-Science Data Demonstrate Climate-Driven Shifts in Perennial Stream Water Quality Jeff Lauder University of California Merced and Sierra Streams Institute, Sierra Streams Institute
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11:25 pm – 12:10 pm	Lunch Break
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Session 5

Moderator: Keith Bouma-Gregson, State Water Resources Control Board

12:10 pm – 12:30 pm	Hypolimnetic Oxygenation to Control Mercury Bioaccumulation in Lakes: Two Case Studies Marc Beutel and Mark Seelos UC Merced Environmental Systems Graduate Group and Valley Water
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12:30 pm – 12:50 pm	Statistically Modeling 28 Years of Periphyton Blooms in an Oligotrophic Lake Karen Atkins Tahoe Environmental Research Center, University of California, Davis
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12:50 pm – 1:10 pm	Managing the Nitrogen to Phosphorus (N:P) Ratio for Improved Aquatic Ecosystem Function Byran Fuhrmann SePRO Corporation. and University of California, Merced
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1:10 pm – 1:20 pm	Break
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Workshop #2: Intermediate R

2:15 pm – 4:15 pm

The Intermediate R Workshop is aimed at folks with some experience in R. All are welcome, but we will be covering content assuming folks have at minimum covered content from Day 1 and/or used R before.

If you are interested in signing up for the R workshop, please fill out the [Registration Form](#) and make sure you select “Yes” for “Day 2”. We will email the Zoom information out to the **first 50 participants**. Recordings will be made public after the workshop and will be posted on the [State Water Board Program Page](#).

The session will be approx. 2 hours, with breaks.
