

September 20-21, 2011
State of the San Francisco Estuary Conference
10th Biennial Conference



The following list shows the State of the Estuary Conference Posters by Poster Clusters and Individual Posters. Authors listed below are presenting authors at the conference. For complete abstracts and references see the SOE Conference Book of Abstracts. Student posters are marked with an asterisk.

POSTER CLUSTERS

Atlas of the Watershed- Mapping Hydrology, Topography, and Ecology in the San Francisco Bay Watershed

Visualizing Urban Watersheds in Google Earth: Next-generation Creek & Watershed Maps of the San Francisco Bay Area

Janet Sowers, Fugro Consultants

Marsh Creek Watershed Hydrology Study - ArcGIS, ArcHydro, GeoHMS, and HEC-HMS Analysis

Mark Boucher, Contra Costa County Flood Control and Water Conservation District

Seamless High Resolution Topographic and Bathymetric Mapping of San Francisco Bay Seafloor and Shoreline for Change Detection and Habitat Characterization

Rikk Kvitek, CSU Monterey Bay

Recent High-Resolution Topographic Lidar Surveys of the San Francisco Bay Watershed

Amy Foxgrover, US Geological Survey

A Comprehensive Wetland Map for the Region: Bay Area Aquatic Resource Inventory

Kristen Cayce, San Francisco Estuary Institute

The Conservation Lands Network: Accessing Biodiversity Information for the Bay Area

Nancy Schaefer, Land Conservation Services

One Hundred Fifty Years Later: Contrasting Past and Present Surface Hydrology of the San Francisco Bay Area

Janet Sowers, Fugro Consultants, Inc.

The Mystery of Laguna Dolores and the Founding of San Francisco – Addressing a Longstanding Quandary by Combining the Tools of Geomorphology, History, and Historical Ecology

Christopher Richard, Oakland Museum of California

Intersection of Restoration Projects and Transportation Corridors

Cullinan Ranch Restoration Project Breaks Ground 20 Years after Acquisition

Don Brubaker, Manager, San Pablo Bay National Wildlife Refuge, Petaluma, California

Pains, Trains, and Automobiles: Incorporating Existing Transportation Infrastructure into Restoration Design

Julian Meisler, Sonoma Land Trust

Rising Tides and Highway Corridor Stewardship in North Bay Ecosystems

Fraser Shilling, University of California

Peyton Slough and McNabney Marsh Restoration

Tidal Wetland Restoration in the Constrained Urban Setting of Peyton Slough and McNabney Marsh

Steve Moore, Nute Engineering

Peyton Slough Remediation and Restoration Project in Martinez, California

Francesca Demgen, URS Corp.

San Francisco Bay Joint Venture

San Francisco Bay Joint Venture Habitat Goals and Accomplishments

Sandra Scoggin, San Francisco Bay Joint Venture

San Francisco Bay Joint Venture (SFBJV) Active Wetland and Watershed Projects

Kevin Petrik, Ducks Unlimited

The California Water Quality Monitoring Council and My Water Quality Web Portals

The California Water Quality Monitoring Council

Jon Marshack, California Water Quality Monitoring Council, State Water Resources Control Board

Using Web Portals to Present Meaningful Information

Jon Marshack, California Water Quality Monitoring Council, State Water Resources Control Board

US Fish and Wildlife Service Aquatic Invasive Species Program

Hazard Analysis Critical Control Point (HACCP): A Tool for Preventing the Spread of Invasive Species

Jonathan Thompson, USFWS

Management Tools for an Invasive Watersnake (*Nerodia*)

Louanne McMartin, USFWS

Workshops to Create a Network for Early Detection Monitoring for Quagga and Zebra Mussels

Jonathan Thompson, USFWS

INDIVIDUAL POSTERS

Agriculture

Delta Working Landscapes

Marc Ceccarelli, Delta Protection Commission

Fish Friendly Farming Environmental Certification Program: A Partnership of Agriculture and the Environment

Laurel Marcus, California Land Stewardship Institute

Biological Species: Plants & Food Webs

Factors Controlling the Expansion of *Schoenoplectus californicus* in the Liberty Island Wetland System

Mark Hester, University of Louisiana

Mason's Lilaepsis: Ten Years Monitoring a Metapopulation on the Napa River

Megan Keever, Stillwater Sciences

Tidal Wetlands Link to Pelagic Food Webs in the SF Bay-Delta Estuary

V. Thomas Parker, San Francisco State University

Biological Species: Birds

Prey Availability Affects Reproductive Performance of Brandt's Cormorant (*Phalacrocorax penicillatus*) on Alcatraz Island in the San Francisco Bay

Sara Acosta, PRBO Conservation Science

Importance of Shallow-water Shoals to Migratory Birds: Surf Scoters as a Case Study

Susan De La Cruz, USGS WERC San Francisco Bay Estuary Field Station

Population Status of the Yellow-Billed Cuckoo along the Sacramento River

Mark Dettling, PRBO Conservation Science

Diet of the California Least Tern (*Sternula antillarum browni*) in Alameda, San Francisco Bay

Meredith Elliott, PRBO Conservation Science

Effects of Survey Timing and Environmental Factors on California Clapper Rail Detection Rates

Leonard Liu, PRBO Conservation Science

Nest Survival of Song Sparrows in the Northern San Francisco Bay Salt Marshes: Climate Effects and Future Estimates

Nadav Nur, PRBO Conservation Science

Breeding Status and Diet Trends of Two California Least Tern Colonies in the San Francisco Bay

David Riensche, East Bay Regional Park District

Biological Species: Delta Smelt

Evaluation of Calcein and Photonic Marking for the Delta Smelt (*Hypomesus transpacificus*), an Endemic Fish in the Upper San Francisco Estuary

Gonzalo Castillo, U.S. Fish & Wildlife Service

Delta Smelt Acoustic Telemetry: A Feasibility Study

Kai Eder, Department of Civil and Environmental Engineering, UC Davis

The Influence of Prey Abundance and Composition on Spawning Migrations of Delta Smelt

Aaron Johnson*, Romberg Tiburon Center, San Francisco State University

Spatial Perspectives for Delta Smelt: A Summary of Survey Data

John Merz, Cramer Fish Sciences

Feeding Habits of Adult Delta Smelt in Winter and Spring

Steven Slater, California Department of Fish and Game

Biological Species: Fish

Examining Striped Bass (*Morone saxatilis*) Predation on Hatchery Raised Chinhook Salmon (*Oncorhynchus tshawytscha*) Using Dual-Frequency Identification Sonar (DIDSON)

Bethany Dorin*, University of the Pacific

Saving San Francisco Bay-Delta Native Fishes: Hatchery Management and Reintroduction Strategies

Kathleen Fisch, San Diego Zoo Institute for Conservation Research

Relative Contribution of Local Recruitment to the San Francisco Bay California Halibut (*Paralichthys californicus*) Fishery inside the Golden Gate

Max Fish, California Department of Fish and Game, Bay Delta Region, Stockton

Pacific Herring in San Francisco Bay: Do Little Fish Stay Close to Home?

Jennifer Messineo, California Department of Fish and Game

Native Fish Use of a Restoring Tidal Wetland in the Sacramento–San Joaquin River Delta

Jolene Willis, US Fish and Wildlife Service

Biological Species: Invertebrates

Going with the Flow or Staying Close to Home? Linking Habitat Quality and Population Dynamics of Olympia Oysters in San Francisco Bay

Andrew Chang, University of California Davis and Smithsonian Environmental Research Center

A Broad Range of Intra-Species Diversity in Introduced Copepods in the San Francisco Estuary

Carrie Craig, Romberg Tiburon Center for Environmental Studies, San Francisco State University

How Well Do We Understand the Reproductive Consequences of Copepod Diet in the San Francisco Estuary? A Survey of the Direct Evidence

Diana Engle, Larry Walker Associates

Investigating the Retention of Planktonic Organisms in the Low-salinity Zone Using a Particle Tracking Model

Edward Gross, RMA, Inc.

Double Whammy in the Upper San Francisco Estuary: Smaller Mysids and Less of Them

April Hennessy, California Department of Fish and Game

An Analysis of Copepod Feeding Using FlowCAM

Karen Kayfetz*, Romberg Tiburon Center for Environmental Studies, San Francisco State University

Native Oysters in San Francisco Bay: Widespread, Persistent, Resilient, but not Dominant

Michael McGowan, Maristics

The Role of Microcystis Blooms in the Sacramento-San Joaquin Delta Foodweb: A Functional Approach

Alexander Parker, Romberg Tiburon Center, SFSU

The East Asian Copepod Diet: A Low Carbon Craze Taking San Francisco Estuary Fish by Storm

Lindsay Sullivan, Romberg Tiburon Center for Environmental Studies, San Francisco State University

Climate Change

Determining Climate Change Effects on Two Dominant Tidal Marsh Plant Species

Stephanie Bishop*, San Francisco State University

Remote Sensing of Wetland Carbon in the Sacramento-San Joaquin River Delta

Kristin Byrd, U.S. Geological Survey

Climate Change Impacts and Offsets in San Francisco Bay Tidal Wetlands: Sediment Accretion and Carbon Sequestration

John Callaway, University of San Francisco

Effects of Invasive *Limonium Ramosissimum* on Native Salt Marsh Communities in a Changing Environment

Autumn Cleave*, Romberg Tiburon Center for Environmental Studies / San Francisco State University

The 2010/2011 California King Tides Initiative

Laurel Kellner, California Coastal Commission

Invasive Plant Mapping in the San Francisco Estuary

Cynthia Powell, California Invasive Plant Council

Effects of Simulated Sea-level Rise on the Growth of Two Tidal Marsh Plant Species

Lisa Schile*, University of California, Berkeley

Roadmap for Advancing Wetland Carbon Sequestration and Low Carbon Agriculture in the Sacramento-San Joaquin Delta

Stuart Siegel, Wetland and Water Resources

Modeling Sea-Level Rise and Storms to Enhance the Prospects for Conserving Wildlife Populations in California Salt Marshes

Karen Thorne, U.S. Geological Survey, San Francisco Bay Estuary Field Station

Contaminants

Diuron Herbicide Impacts Estuarine Phytoplankton: Evidence from an Experimental Study

Sarah Blaser*, Romberg Tiburon Center for Environmental Studies, San Francisco State University

Accounting for Variable Matrix Effects in the Fluorometric Analysis of Ammonium in San Pablo Bay and Suisun Marsh

Caitlin Coleman-Hulbert, San Francisco Bay National Estuarine Research Reserve

The Effect of a Commonly Used Pyrethroid Pesticide, Bifenthrin, Under Hypersaline Conditions on the Reproductive Health of the Rainbow Trout

Kristy Forsgren, University of California, Riverside

Strategy for Resolving Low Dissolved Oxygen and Methylmercury Events in Northern Suisun Marsh

Daniel Gillenwater, Wetlands and Water Resources, Inc.

Evaluation of Loads of Mercury, Selenium, PCBs, PAHs, PBDEs, and Dioxins from the Sacramento-San Joaquin River Delta to San Francisco Bay

David Gluchowski, San Francisco Estuary Institute (SFEI)

Who's Monitoring What Where? Developing the Central Valley Water Quality Monitoring Directory

Thomas Jabusch, Aquatic Science Center

Partitioning and Kinetics of Methylmercury in Phytoplankton in the Presence of Dissolved Organic Matter

Allison Luengen, Environmental Sciences Department, University of San Francisco

Modifying Analytical Methods to Keep Up With Changing Pesticide Use in the San Francisco Estuary

James Orlando, U.S. Geological Survey

Mercury Loading to San Francisco Bay from the Guadalupe River and San Francisquito Creek

Jonathan Owens, Balance Hydrologics, Inc.

Ecosystem-Scale Selenium Modeling in Support of Fish and Wildlife Criteria Development for the San Francisco Bay-Delta Estuary, California

Theresa Presser, U.S. Geological Survey

Investigating Estrogenic Effects of Bifenthrin and Hypersalinity in Rainbow Trout

Navneet Riar*, University of California, Riverside

The Song Sparrow as a Biosentinel for Methylmercury in Riparian Food Webs of the San Francisco Bay Area

April Robinson, San Francisco Estuary Institute

Dissolved Nitrate and Phosphate Concentrations in San Francisco Estuary Surface Waters: Spatial Distribution (2002-2009) and Temporal Trends (1993-2009)

John R. M. Ross, San Francisco Estuary Institute

Suspended Sediment Dynamics from In-situ Measurements in Turbulent Flow

Evan Variano, University of California, Berkeley

Effects of the Cosco Busan Oil Spill on Pacific Herring Early Development

Carol Vines, University of California, Davis/Bodega Marine Laboratory

Education, Outreach, & Access

Recreation Proposal for Sacramento-San Joaquin Delta and Suisun Marsh

Cheryl Essex, California State Parks

Building Skills of Future Scientists by Bringing Estuarine Research and Data into Science Classrooms

Sarah Ferner, San Francisco Bay National Estuarine Research Reserve

Integration of Restoration, Public Access, and Education at a North Bay Muted Salt Marsh

Laurel Kelly, H. T. Harvey & Associates

San Francisco Estuary and Watershed Science: Raising the Bar for Discoverability on the Web

Lauren Muscatine, University of California, Davis

San Francisco Bay Fish Project: Public Outreach and Education to Reduce Exposure to Mercury and PCBs

Aida Negron, California Department of Public Health

A 4th Grade Science-based Wetland Restoration Curriculum for the California Delta

Allison Perlman, The Restoration Trust

San Francisco Bay Benthic Macroinvertebrate Atlas

Aariel Rowan*, San Francisco State University

Assessing the Delta's Feasibility for a National Heritage Area Designation

Alex Westhoff, Delta Protection Commission

Habitat Restoration: Eelgrass

Responses to Change: Asexual and Sexual Reproductive Patterns of Eelgrass (*Zostera marina*) in San Francisco Bay

Xuman Tang*, Romberg Tiburon Center - San Francisco State University

25 Years of Monitoring Macro-Invertebrates with the San Francisco Bay Wildlife Society

Tian Bo Yu*, California State University, East Bay

Habitat Restoration: Endangered Species

Prioritizing Research Needs for Threatened and Endangered Species in California Watersheds

W. Martin Williams, Waterborne Environmental, Inc.

Habitat Restoration: Salt Ponds

Simulation Modeling of Waterbird Abundance to Inform Decision-making on Managed Salt Ponds

Nicole Athearn, U.S. Fish and Wildlife Service

Incorporating Science into the South Bay Salt Pond Restoration Project

John Bourgeois, State Coastal Conservancy

Unexpected Consequences of Oxygen Depletion on Trophic Interactions of Avian Predators in a South San Francisco Bay Salt Pond

L. Arriana Brand U.S. Geological Survey

Small Shorebird and Dabbling Duck Responses to Salt Pond Restoration and Management in the South San Francisco Bay Over 2003-2010

L. Arriana Brand U.S. Geological Survey

Wintering and Migrating Shorebird Responses to Enhancement Efforts at Restored Pond SF2

Stacy Moskal, U.S. Geological Survey, Western Ecological Research Center, San Francisco Bay Estuary Field Station

Restoration Progress at the Island Ponds - 5 Years Post Breach

Lisa Porcella, Santa Clara Valley Water District

California Gull Colony Displacement, Population Size and Impacts on Western Snowy Plovers

Caitlin Robinson-Nilsen, San Francisco Bay Bird Observatory

Small Shorebird Foraging Model for a South San Francisco Bay Mud Flat

Ariel Rowan*, San Francisco State University

Habitat Restoration: Streams and Salmonids

Selby Creek Streambank Restoration and Riparian Enhancement Project

Malila Gordon, BioEngineering Associates, Inc.

Napa River Rutherford Reach Restoration Project: Creation of High Flow Refugia and Pool-tail Spawning Habitat for *Salmonids* in an Incised Stream Channel

Gretchen Hayes, Tessera Sciences

Restoring 1200 ft of Stream Channel by Removing Several Sediment Sources from a Tributary to Scott Creek, Napa County, California

Frances Knapczyk, Napa County Resource Conservation District

Suisun Creek Watershed Program

Darcie Luce, California Land Stewardship Institute

Napa River Restoration: Oakville to Oak Knoll Concept Plan

Laurel Marcus, California Land Stewardship Institute

A Regional Perspective on the Ecology and Management of Steelhead in San Francisco Bay Area Streams

Bruce Orr, Stillwater Sciences

Lower Walnut Creek Interim Flood Protection Project

Cece Sellgren, Contra Costa County Flood Control and Water Conservation District

Habitat Restoration: Wetlands

Enhancing Tidal Mudflats and Marshes on Aramburu Island, Richardson Bay, CA

Kathi Borgmann, Audubon California

Improved Tidal Marsh Conditions One Year Post-enhancement at Lower Tubbs Island, San Pablo Bay National Wildlife Refuge

Kathi Borgmann, Audubon California

Improving Tidal Marsh Ecotone Restoration Success through Soil Alterations

Dyain Chapple, Save the Bay

The Lower Yolo Bypass Restoration Project: Large-Scale Restoration of Ecosystem Services in the Delta

Daniel Gillenwater, Wetlands and Water Resources, Inc.

Sediment Deposition and Mercury Transformations in an Intertidal Salt Marsh: San Pablo, California

Jamil Ibrahim, MWH Americas, Inc.

Estuarine Restoration in San Francisco Bay: Design and Adaptive Management

Eric Jolliffe, U.S. Army Corps of Engineers, San Francisco District

Changes in Plant Community Composition in South Bay Marshes

C. Ellery Mayence, H. T. Harvey & Associates

Almonte Marsh Restoration: Benefits of Plant Elevation Surveys, Salvage and Reuse of Bay Soils, and Temporary Irrigation in Tidal Wetland Mitigation

George Salvaggio, Association

Breuner Marsh Restoration and Public Access – Design Tools for Temporal Analysis of the Effects of Sea Level Rise

George Salvaggio, Association

Yosemite Slough Restoration – Tidal Marsh Restoration, Environmental Remediation, Public Access

George Salvaggio, Association

Implementing the Target Seedling Concept to Propagate Native Plants for Successful Transition Zone Restoration

W. Douglas Serrill, Save the Bay

Monitoring Tidal Wetlands Restoration: 10 Years on, a Comparison of Habitat Evolution at Sonoma Baylands and Cooley Landing

Lindsey Sheehan, ESA PWA

Species Difference in Wetland Vegetation Transplant Establishment and Expansion in Liberty Island, California

Taylor Sloey*, University of Louisiana at Lafayette Coastal Plant Ecology Laboratory

San Francisco Bay Joint Venture Monitoring and Evaluation Plan

Christina Sloop, San Francisco Bay Joint Venture

Restoring Tidal Marsh-upland Ecotones

David Thomson, SFB NWRC

Revegetating Arrowhead Marsh After Treatment of the Hybrid Species of *Spartina* (cordgrass): An experimental Design with an Adaptive Plan

Laura Wainer, Save the Bay

Invasive Species: Invertebrates

UC Cooperative Extension Eurasian Mussel Outreach: Working with Small Water and Irrigation Districts to Prevent and Control the Spread of Eurasian Mussels in California

Jodi Cassell, University of California Cooperative Extension

Population Dynamics of Three Invasive Hydrozoan Jellyfish in the Upper San Francisco Estuary

Jessica Donald*, Romberg Tiburon Center for Environmental Studies

Invasive Species: Plants

Predicting the Spread of *Limonium ramosissimum* in San Francisco Estuary Marshes

Gavin Archbald, San Francisco State University

Using a Species Distribution Model to Find Invasive Sea Lavender in Tidal Marshes of South San Francisco Bay

Gavin Archbald, San Francisco State University/ South Bay Salt Pond Restoration Project-Graduate Fellow

Ecological Amplitude of *Spartina Spartina Foliosa* and Hybrids: a Common Garden Experiment *Aterniflora*,

Laura Feinsein, UC Davis

Eradicating Algerian Sea Lavender (*Limonium ramosissimum*) from San Francisco Bay Wetlands

Mike Perlmutter, Bay Area Early Detection Network

Stormwater Runoff

The Effect of Bay-friendly Rated Landscapes on Water Quality in San Francisco Bay

Teresa Eade, StopWaste.Org

Taking Out the Trash: A Source Reduction Pilot Project

Eleanor Jaeger, Clean Water Action

Demonstrating Road Improvements in the Napa River Basin

Frances Knapczyk, Napa County Resource Conservation District

The Lathrop Urban Runoff Study: Preliminary Results

Rachel Pisor, DWR

Soak It Up! Informing South Bay Gardeners about Watershed-friendly Designs

Laura Prickett, EOA, Inc.

TMDL Implementation

The Role of Hydrology and *Corbula amurensis* in Selenium Bioaccumulation in North San Francisco Bay

Limin Chen, Tetra Tech Inc

Litter Travels Through the San Francisco Bay: Community Based Solutions to our Trash Epidemic

Juliana Gonzalez, The Watershed Project, Healthy Watershed Program Manager

Addressing the Sediment Problem in Sonoma Creek Watershed

Rebecca Lawton, Sonoma Ecology Center

Volunteer Monitoring

Community Based Sampling and Monitoring of San Francisco Bay Olympia Oysters

Christopher Lim, The Watershed Project

Creek Watch: Citizen Science in the Palm of Your Hand

Christine Robson, IBM Almaden Research

Wastewater Treatment

How the Interaction of Flow and Ammonium Concentrations Influence Spring Phytoplankton in Suisun Bay

Richard Dugdale, Romberg Tiburon Center, San Francisco State University

Assessing Phytoplankton Communities in Two Urbanized Rivers with Contrasting Inorganic Nitrogen Speciation

Erica Kress*, Romberg Tiburon Center for Environmental Studies, San Francisco State University

Will Nutrients Show You The Way To San Jose?

Ryan Mayfield, Environmental Services Dept., City of San Jose

Water Use & Management

North Bay Water Reuse Program

Kevin Booker, Sonoma County Water Agency

Three Dimensional Hydrodynamic and Salinity Modeling of the Sacramento River Deep Water Ship Channel

Thomas Kendall, United States Army Corps of Engineers, San Francisco District

Watershed Management

Collaboration Enables Watershed-scale First Flush Monitoring in the Guadalupe River

Carol Boland, City of San Jose Environmental Services, Watershed Protection

Suspended-Sediment Dynamics in the Tidal Reach of Corte Madera Creek

Maureen Downing-Kunz, United States Geological Survey

The Watershed Project - Greening Urban Watersheds Initiative

Matthew Freiberg, The Watershed Project, Greening Urban Watersheds Program Manager

Trash Reduction through Partnerships & Collective Impact

Paul Ledesma, City of San Jose - Environmental Services Department

Effects of Water Year Type on Juvenile Chinook Salmon Size at Emigration in the Merced and Tuolumne Rivers

Ramon Martin, US Fish and Wildlife Service

Sediment Transport Processes in the Sacramento-San Joaquin Delta

Tara Morgan, USGS