

“Productive Pacific Ecosystems”

Lake, Stream, Estuarine, and Marine Environments
From
Alaska to Baja

2003 Annual Meeting
Western Division of the American Fisheries Society
&
California/Nevada Chapter of the American Fisheries Society

Inaugural Meeting of
California Estuarine Research Society

April 14 - 17, 2003 at the Hyatt Regency Islandia Hotel
San Diego, California, USA



Scomber japonicus
(Pacific Mackerel)

Gyotaku print by
Christopher M. Deweese

April 14, 2003

Dear Conference Participants:

Welcome to San Diego! We chose this location because it provides the perfect backdrop for an exciting meeting on lake, stream, estuarine, and marine issues. We believe that this will be one of the best meetings that the WDAFS and Cal-Neva Chapter has ever hosted and will provide a great opportunity for information exchange and building new partnerships. We are very excited about the incredible response we have received from our Mexican colleagues and we have planned a number of activities that highlight international fisheries, professionalism, and AFS throughout western North America.

The Cal-Neva Chapter is pleased to provide the local arrangements for the *2003 WDAFS and Cal-Neva Annual Meeting*. Many of the Cal-Neva Chapter members had a taste of hosting the parent AFS Meeting in Monterey in 1997 and the WDAFS meeting in Sacramento in 1993. We are confident in **Local Arrangements Chair Dave Manning** and his committee members' expertise for providing us with an exciting location and well-organized meeting, lodging, arrangements, and entertainment. Because of the high rewards of hosting meetings such as these, Cal-Neva Chapter members are ready to take their turn and serve AFS again.

We are very pleased with the way the program has come together with 19 symposia and 6 technical sessions scheduled throughout the meeting. **Program Co-Chairs Tom McMahon and Mark Brouder**, deserve special credit for setting up an excellent program. There seems to be something of interest for everybody associated with the aquatic sciences, freshwater as well as marine. The extra strong marine sessions and participation from Mexican fisheries professionals will make this meeting unique in many ways.

We have also incorporated a number of opportunities for you to relax and network with your colleagues throughout the meeting. On Monday, the day is full of opportunities for upgrading your skills with an array of *Continuing Education classes* including Carl Burger's *Leadership Training Course*. We are pleased to announce that the inaugural meeting of the *California Estuarine Research Society* will be held at the Hubbs Sea World Research Institute's Auditorium near the Hyatt Islandia on Monday. The day will end with the AFS "Welcome to San Diego" social at the Hyatt.

On *Tuesday*, we will begin the day with our Plenary Session entitled, "*Global Fisheries Sustainability: Challenges and Prospects for North American Fisheries and Beyond?*" that will feature Carl Burger, Past President of AFS and WDAFS; Gilbert Parent, Canada's Ambassador for the Environment; Dr. Salvador Contreras Balderas, Universidad de Nuevo Leon-retired; and Dr. Bill Hammond, Florida Gulf Coast University. A number of symposia and technical sessions, as well as the *Exhibit Show and Poster Social* that evening, will follow the Plenary Session.

On *Wednesday*, the day will begin with the *Grunion Run/Walk 5K*, followed by a full day of symposia and technical sessions. The *WDAFS Annual Business Meeting Luncheon* (this lunch is included in the cost of your registration) is scheduled for this day, so mark it on your calendar because you don't want to miss it. The day will end at the world renowned *Scripps Institution of Oceanography - Birch Aquarium* in La Jolla, where we will have plenty of food and drink, the WDAFS raffle, and aquarium tours.

The *last day* of the meeting is filled with technical sessions and symposia, with the *Cal-Neva Business Meeting* being held at lunch. We encourage you all to stay for a full day of great sessions and conclude the meeting with our "*Outmigration*" social.

We hope that you will plan to stay an extra day in San Diego to take in some of the many attractions that San Diego has to offer. We have scheduled *scuba diving and ocean fishing charters* on Friday, April 18th departing from the doorstep of the hotel. With the current presence of an El Nino along the equator of the Central Pacific Ocean, we are optimistic that some of warmer water species, such as yellowtail, white sea bass, barracuda, and maybe even tuna, will be available to AFS anglers. So by all means, please sign up for one of these trips! As you can see, the meeting is jammed with events and opportunities for you to learn and exchange information in a relaxed setting. Here's hoping that your stay in San Diego will be a memorable one.

Sincerely,

Don MacDonald, President
Western Division, AFS

Chuck Knutson, President
California-Nevada Chapter, AFS

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Western Division - Cal/Neva Chapter
2003 Meeting
of the American Fisheries Society**

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Hosted by Western Division and California Nevada Chapter

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CALIFORNIA-NEVADA CHAPTER PRESIDENT Chuck Knutson

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PROGRAM COMMITTEE CO-CHAIR Mark Brouder

Continuing Education Kathy Hieb

Fundraising Chuck Knutson, Jim Steele, Eric Knudsen & Don MacDonald

Plenary Session Chuck Knutson & Don MacDonald

Poster Session John Kleinfelter

Printed Program & Abstracts Brenda Brouder, Dale Sweetnam & Mike Meinz

Web Site Mary Whalen & Wayne Lifton

California Estuarine Research Society Inaugural Meeting Randy Brown and Fred Feyrer

LOCAL ARRANGEMENTS CHAIR Dave Manning

Activities

Ocean Fishing Charter Steve Crooke

Scuba Diving Chris Wilkinson & Tricia Parker

Grunion Run Amy Harris

Grunion Tour Camm Swift

AFS Office Coordinator Amy Harris

Audio Visual Mike Meinz

Art Design Chris DeWeese

Budget & Finance Chair Amy Harris

Budget & Finance Monica Hiner & Chuck Knutson

Commercial Exhibits & Trade Show Chair Gary Smith

Fish Fashion Show Shawn Chase

Job Fair Jean Baldrige

Mexico/International Chair Eric Knudsen

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Raffle Dana Bayer & Nick Villa

Registration Chair Judy Urrutia

Registration Margaret Roper, Barbara Simpson & Carolyn Murrata

Signs & Banners Tricia Parker

Student Volunteers & Lodging Fred Feyrer

Transportation Alex Vejar

Student Awards Tom Keegan

LOCAL NON-AFS SERVICE PROVIDERS

Hyatt Regency Islandia – Lena Goldberg, Convention Services Manager, and Sharyn Yee, Convention Services Coordinator.

Marina Village Conference Center – Sandy Atseff, Director of Sales

Hubbs SeaWorld Research Institute - Mike Shane, Director of Facilities Management , and Don Kent, Executive Director

Scripps Institution of Oceanography - Birch Aquarium-Kevin Bentz, Special Events Operations Manager

Dana Inn & Marina – Heidi Park Director of Sales

Activities

Welcome to the joint meeting of the Western Division and the California/Nevada Chapter of the American Fisheries Society being held at the Hyatt Regency Islandia Hotel and the Marina Village Conference Center. In conjunction with this meeting the California Estuarine Research Society (CAERS) Meeting is taking place on Monday at the Hubbs Institute. Please refer to the floor plans inside the back cover of this Program to help you find your way to the many meetings, presentations, activities and events taking place at all locations. At each venue, follow our informational signs to the various rooms and activities. We have attempted to make this information accurate and relevant. However, it is all subject to change. So, **PLEASE CONSULT THE DAILY CHANGE SHEETS AT THE REGISTRATION TABLE FOR THE MOST UP-TO-DATE INFORMATION.**

Registration

Conference registration is located at the **Hyatt Islandia** in the **Regency Ballroom Foyer**. It will be open:

Monday, April 14.....7:30am-6:00pm	Tuesday, April 15.....7:30am-6:00pm
Wednesday, April 16...7:30am-6:00pm	Thursday, April 17...7:30am-10:00am

WD/Cal-Neva Chapter AFS Business Office

Symposium and session coordinators, AFS committee chairs, officers, and student volunteers please feel free to use the office to gather and prepare for the day's events. The Western Division/Cal-Neva Chapter AFS Business Office will be open every day in the **Hyatt Islandia Garden Building C, Suite 120** throughout the meeting as follows:

Monday, April 14.....7:30am-5:00pm	Tuesday, April 15.....7:30am-5:00pm
Wednesday, April 16...7:30am-5:00pm	Thursday, April 17.....7:30am-5:00pm

Audio-Visual Preview Room

Presenters can test their equipment and run through their slides in **Garden Room E** of the **Hyatt Islandia**. A screen will be available – you must provide your own projection equipment (check with your symposium coordinator). This room will be open:

Monday, April 14.....8:00am-10:00pm	Tuesday, April 15.....8:00am-10:00pm
Wednesday, April 16...7:30am-10:00pm	Thursday, April 17.....7:30am-4:00pm

Lost & Found

Did you leave something in one of the meeting rooms?? Perhaps misplace a personal item in the hotel?? Or did you find something you would like to return to its rightful owner?? Please contact the AFS Business Office in **Garden Building C, Suite 120 of Hyatt-Islandia**, about any lost or found item.... we'll be glad to help you.

Activities

CAERS Meeting and Symposia – Monday

The first annual meeting of the newly formed California Estuarine Research Society (an affiliate of the Estuarine Research Federation) will consist of about 20 papers on estuarine related issues including the challenges involved in restoring estuarine habitat. The meeting will take place at the Hubbs SeaWorld Conference Room, and the theme of the one-day session will be “**Natural and restored estuaries and marshes: how important are they to Pacific coast invertebrates and fishes?**” Presentations will begin at 8:30 am and continue until 5:00 pm. A mixer will be held immediately following the presentations.

Monday, April 14.....8:30am-7:00pm	Hubbs SeaWorld Research Institute
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Continuing Education – Monday

Monday, April 14.....8:30am-4:30pm,	Hyatt Regency
Biological Assessments	Regency A
Biotelemetry Systems	Regency B
Conflict Resolution	Regency C

Western Division ExCom Luncheon- Monday Luncheon

All of the WDAFS Officers, Chapter Presidents (or their designates), Committee Chairs (or their designates), and other AFS leaders are encouraged to attend the Executive Committee of the WDAFS. A detailed agenda for the meeting will be distributed to the members of the Executive Committee prior to the meeting. Lunch is provided.

Monday, April 14.....10:00am-2:00pm,	Islandia Restaurant – Hyatt Islandia
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Activities

Volunteer Student Training - Monday Afternoon/Tuesday Morning

If you are a student volunteer who will be helping out with audiovisual needs, please join us for AV training. We'll help you get prepared to handle burnt out bulbs, poorly focused projectors, tricky light switches, and hopefully any other dilemma you may encounter.

Monday, April 14.....12:00pm-2:00pm	Garden Room E – Hyatt Islandia
Tuesday, April 15.....9:30am-11:30am	Garden Room E – Hyatt Islandia

Leadership Principles Training – A Great Opportunity for All AFS Leaders – Monday Afternoon

The AFS Leadership Training is a must for all incoming and current Division/Chapter officers, committee chairs, and anyone else interested in AFS leadership. This training assists you in understanding your leadership role in the Society and gives you great tips on the whats/hows/whys you are there. This is the same training offered at the Parent Society meetings and is being led by our own past-President and friend, Carl Burger.

Monday, April 14.....2:00pm-5:00pm,	Islands A – Hyatt Islandia
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International Attendees Activities Monday – Thursday

A variety of activities will be of interest to international meeting participants starting with the international reception on Monday evening. The Plenary Session will continue the international tone by providing a global perspective on fisheries sustainability. The Mexican fisheries and Sea of Cortez symposia are planned specifically to address Mexican fisheries issues. A special "conclave" will be held immediately following the Mexican Fisheries Symposium Wednesday in the Hyatt's Regency A. The purpose is for Mexican fisheries professionals and AFS leaders to discuss the possible organization of AFS subunits in Mexico.

International Reception – Monday Evening

WDAFS and the Cal-Neva Chapter AFS will host a reception welcoming our international members, speakers, and guests. Refreshments will be served and the reception is open to all international fisheries professionals and students, AFS unit leaders, anyone interested in international fisheries, and their guests. Please come join us for this great opportunity to exchange ideas and network, regardless of international boundaries

Monday, April 14.....5:30pm-7:00pm	Hyatt Tower Penthouse (18 th Floor) - Hyatt Islandia
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Welcome to San Diego Social - Monday Evening

Ease the stress of traveling, relax after a day of continuing education classes, meet old friends, and network with other professionals at the welcoming social. Enjoy cocktails and tray-passed hors d'oeuvres while overlooking Mission Bay at the Hyatt's beautiful Islandia Restaurant.

Monday, April 14.....7:00pm-9:00pm	Islandia Restaurant - Hyatt Islandia
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Plenary Session – Tuesday Morning

The Plenary Session of the Western Division of AFS and the California-Nevada Chapter of AFS 2003 Annual Meeting promises to be one of the highlights of the year. The theme of the Plenary Session is “*Global Fisheries Sustainability: Prospects for Achieving Sustainable Fisheries Management in North America and Beyond*” and will feature keynote addresses by leading fisheries scientists and policy makers from Canada, Mexico, and the United States.

Tuesday, April 15.....8:15am-11:15am	Regency Ballroom - Hyatt Islandia
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Symposia, Technical Sessions –Tuesday Afternoon-Thursday Afternoon

We have 19 symposium and 6 technical sessions throughout the meeting. Concurrent sessions will be held at the Hyatt-Islandia and at the Marina Village. Please check the “quick glance” listing on pages 10-19 of this program for a schedule of presentation times, authors, and titles.

Monday, April 14.....none	Tuesday, April 15.....1:00pm-5:10pm
Wednesday, April 16...8:00am-5:10pm	Thursday, April 17.....8:00am-4:50pm

Activities

Poster Session - Tuesday Afternoon – Thursday Morning

We have over 50 poster presentations that will be set up for three days. The poster session will be held in conjunction with the Commercial Exhibits & Trade Show. The authors will attend their posters from 6:30 p.m. to 7:30 p.m. Tuesday evening during the Exhibit Show and Poster Social.

Monday, April 14 (setup only) 1:00pm-5:00pm
Tuesday, April 15 (set up only) 8:00am-11:00pm Tuesday, April 15 (Open) 11:30am-7:30pm
Wednesday, April 16 (Open)....8:00am-5:00pm
Thursday, April 17 (Open).....8:00am-11:00am Thursday, April 17 (tear down only) 11:30am-3:00pm
Mission Ballroom – Hyatt Islandia

Commercial Exhibits & Trade Show - Tuesday Afternoon – Thursday Morning

Make sure you spend some time at the Commercial Exhibits & Trade Show located in the Mission Ball Room. Exhibits include the latest in marine and freshwater technological equipment; other interesting research equipment and merchandise; and artwork.

Monday, April 14 (setup only) 1:00pm-5:00pm
Tuesday, April 15 (set up only) 8:00am-11:00am Tuesday, April 15 (Open) 11:30am-5:30pm
Wednesday, April 16 (Open)...8:00am-5:00pm
Thursday, April 17 (Open).....8:00am-11:00am Thursday, April 17 (tear down only) 11:30am-3:00pm
Mission Ballroom – Hyatt Islandia

Student Job Fair – Tuesday Evening

Just starting out? Looking for a change? Want to know what it is like to work in a different state, or in a different type of job? Come join us for the Career/Job fair. **Learn more about this exciting field, or just come out to network with your peers.** We will have representatives from State and Federal Agencies, Tribes, Consultants, Education, NGOs, and Fishing guides ready to tell you what it is like to work in their sector, **and about the exciting opportunities they have right now.** Get inside information on how to get a job at their organization. Many groups have job openings for entry and senior level positions. Representatives will be available to discuss active jobs with potential applicants. If you ever wondered about what Fish Heads really do, come and ask. We will disclose all.

Tuesday, April 15...5:15pm-6:30pm Mission Ballroom Plaza - Hyatt Islandia

Commercial Exhibits & Poster Social – Tuesday Evening

The Exhibit Show and Poster Social will feature lively entertainment and refreshments. Poster authors will attend their posters from 6:30 p.m. to 7:30, and commercial exhibitors and trade show representatives will be on hand to answer questions, provide demonstrations and sell their wares. Come and check out the displays, posters and join in the fun!

Tuesday, April 15...5:30pm-7:30pm Mission Ballroom & Plaza - Hyatt Islandia

Fish Fashion Show

Hope you brought some of that fun “fish wear” everyone has been giving you for Christmas, because the Fish Fashion Show is definitely the place to flaunt it if you got it. Not only will you be able to show off your great bass slippers and trout baseball cap you might even win a prize. Categories include most original, most outlandish, best native and/or endangered species ensemble and best of show. No matter whether you are modeling or watching, you are sure to have a bunch of fun. Join us during the Commercial Exhibits and Poster Social in the Mission Ballroom.

Tuesday, April 15...6:00pm-6:30pm Mission Ballroom Plaza - Hyatt Islandia

Student & Faculty Social – Tuesday Night

Students don't miss out on this Student & Faculty social that is sponsored by UC Davis AFS Student Group and is the perfect opportunity to interact with peers and faculty members in a relaxed atmosphere. So, after you've checked out the employment opportunities at the job fair and presented your poster at the social, come on up to the Penthouse Suite for some fun and refreshments. Just as a reminder, the Penthouse can only be accessed by the Penthouse elevator, which will be programmed to allow social participants access from 8:00 to 10:00 pm.

Tuesday, April 15...8:00pm-10:00pm Hyatt Tower Penthouse (18th Floor) - Hyatt Islandia

Activities

Grunion 5K Run/Walk (a.k.a Spawning Run) - Wednesday Morning

Come join us for the Grunion Run! This event will be a 5k run/walk near the hotel with scenic views of Mission Bay. Everyone who signs up will receive a beautiful t-shirt commemorating the event and prizes will be awarded to the first male and female contestants crossing the finish line. Whether you're interested in trying for first place, or just want to start your Wednesday morning getting some casual exercise with your fellow fishheads, sign up and come on out! Participants who didn't sign up before the meeting should sign up at the registration desk the morning of the event. The cost is \$12 and includes the Grunion run 2003 T-shirt. Please meet outside the main lobby by 6:00am Wednesday morning.

Wednesday, April 16...6:00am-7:30am

Outside of Hyatt Islandia –Mission Bay Park

Western Division AFS Business Meeting – Wednesday Luncheon

The WDAFS business meeting represents our most important opportunity to address key issues of interest to the members of the Division. Therefore, we would like to extend an invitation to enjoy an excellent lunch, get caught up on ongoing activities and initiatives, and help shape future priorities in the Western Division. Highlights of the meeting include: the presidents "State of the Division" address, chapter reports, awards and the installation of new officers. Everyone is encouraged to attend; this lunch is included in your registration.

Wednesday, April 16...11:30am-1:45pm

Regency B & C – Hyatt Islandia

Scripps Institution of Oceanography - Birch Aquarium Reception and Dinner – Wednesday Evening

Set atop the bluffs overlooking La Jolla Cove, the setting for Scripps Institution of Oceanography - Birch Aquarium can only be described as stunning. Scripps extends its reputation as a world-class marine science institution to what is accurately described as one of the west coast's premier aquariums. AFS has exclusive use of the facility on Wednesday evening – come enjoy excellent cuisine and beverages while touring the aquarium's displays. All costs for this special event were included in your registration - so board a charter bus on Wednesday and head over to Scripps!

Please take advantage of the provided bus service for the 20 min drive to La Jolla. Buses will begin departing from the Hyatt's main entrance in front of the lobby at 5:30 pm. Continuous shuttle service to and from the site will be available throughout the evening but plan to arrive early to enjoy passed hors d' oeuvres at sunset on the tide pool plaza. This is a casual indoor / outdoor event – please dress accordingly. To maximize your enjoyment of the exhibits we have decided against having a traditional banquet. Unique stations with delicious international and domestic foods will be located throughout the facility. The aquarium's bookstore will also be open so come prepared to buy some hard to find texts.

Wednesday, April 16...6:00 pm-10:00pm

Birch Aquarium - Scripps Institution of Oceanography

(Buses begin departing at 5:30 pm)

Raffle – Wednesday Evening

The Western Division AFS raffle will be open for ticket sales and viewing raffle items on Tuesday and Wednesday near the registration tables and this year's raffle promises to be better than ever. Top prizes include a Novara Mountain Bike and a Dagger Blackwater Kayak. Fishing trips, wildlife artwork and fishing gear will round out the prizes from which participants can choose to be drawn. Proceeds go toward sponsoring fisheries students attending/presenting at the annual WDAFS conference. The raffle drawing will be held Wednesday night at the Scripps Birch Aquarium Reception and Dinner.

Wednesday, April 16...6:00pm-10:00pm (TBA)

Birch Aquarium - Scripps Institution of Oceanography

California-Nevada Chapter Business Meeting – Thursday

All Cal-Neva Chapter members are encouraged to attend and participate in the Cal-Neva Chapter Annual Business Meeting. This is an important opportunity to participate in chapter business and issues, as well as get caught up with important Chapter issues. If you wish, you may purchase a box lunch in the breezeway near the Mission Ballroom and carry it into the Islandia Restaurant.

Thursday, April 17...11:45am-1:15pm

Islandia Restaurant -Hyatt Islandia

Outmigration Social – Thursday Night

Reward yourself for attending the entire conference, bid farewell to colleagues, or kick-off a relaxing weekend in San Diego by enjoying refreshments at the Outmigration Social.

Thursday, April 17...5:30pm-7:30pm

Mission Ballroom

Activities

Charter Fishing Trip – Thursday Night

If you have signed up for the one-day charter trip following the meeting on the boat Cortez, located at Seaforth Sportfishing, the trip leaves Thursday evening (7:30 pm) and returns Friday evening at 8:00 pm. The trip will target kelp bass, yellowtail and white seabass at San Clemente Island. Contact Steve Crooke for last minute questions; (562) 743-6155.

Thursday April 17...7:30pm

Seaforth Sportfishing

Dive Trip – Friday

We will join the *Lois Ann* and her crew for a full day of diving on Friday April 18. The boat will depart from the dock at Seaforth Landing near the Hyatt for an hour-and-a-half trip to the Coronado Islands (looking out for *Mola mola* and California flyingfish along the way). The Coronados, in Mexican waters 20 miles from Mission Bay, are known for 50-foot visibility and dives in the 10-65' depth range. We will be diving in some of the bluest water off of San Diego. Trip includes: steel-80 tank and three air fills, weight belt, lunch and snack. Bring the rest of gear or rent it locally. While participants in the dive trip have pre-registered, if you are feeling spontaneous and interested in seeing if additional space is still available on the boat, or checking into other dive opportunities, please contact Lois Ann Dive charters at 858-780-0130 or 800-201-4381.

Friday, April 18...6:45am-4:00pm

Seaforth Landing

Birch Aquarium Grunion Field Trip

See the famous fish that spawns on land, or at least in the sand just above the reach of the waves on southern California beaches about every two weeks in spring and summer. Join the Birch aquarium program on the evening of Saturday, April 19th, 10:30 pm to about 12:30 am (April 20th). The fee is \$10.00 for adults and \$6.00 for children 13 and younger. The field trip will be lead by Aquarium biologists. Make your reservation through the Aquarium at (858) 534- 7336.

Breaks

Coffee, bagels, and pastries will be available on Tuesday, Wednesday, and Thursday mornings near the ballrooms and at Marina Village starting at 7:30am. Technical Session/Symposia breaks at the Hyatt Islandia will be held the Mission Ballroom with the Commercial Exhibit & Trade Show and the Poster Session. Breaks at Marina Village will be held in the hallways near the session rooms. During the breaks coffee, tea, cookies and/or soft drinks will be served. Daily technical session/symposium break times vary, so be sure to check your daily schedule!

Lunches

Monday – Lunch will be on your own. You may want to try the Baja Café that offers great food with a Southwestern flair, relax in the Baja Cantina, catch a few rays dining poolside, stroll down to Sportsmen's Seafood Fish & Chips, The Seaforth Landing Diner or enjoy the privacy of room service.

Tuesday – You can purchase box lunches in the breezeway near the Mission Ballroom.

Wednesday – A sit-down banquet lunch is provided as part of your registration at the WDAFS Business Meeting Luncheon in the Regency Ballroom, all are invited to attend, first-come, first-served.

Thursday – You can purchase box lunches in the breezeway near the Mission Ballroom.

Fishing, Boat and Bike Rentals

For those interested in sport fishing trips, two landings are located in Mission Bay. Islandia Sportfishing is adjacent to the hotel and Seaforth Sportfishing is located a short walk past Islandia Sportfishing. Both landings offer ½ and ¾ day fishing trips daily – check with the landings for departure times and cost. Water Craft including sailboats, motorboats, personal watercraft, kayaks, and paddleboats can be rented at Seaforth Boat Rentals, the Islandia and Dana Inn Marinas. Bicycles and other self propelled vehicles are available for rent from the Hyatt's Activities Center and vendors along the marina boardwalk adjacent to the hotel. If you brought your own boat, a public launch ramp is located behind the Dana Inn. Live bait and tackle are available at the Islandia Marina.

California Estuarine Research Society (CAERS) Inaugural Meeting

“Natural and restored estuaries and marshes: how important are they to Pacific coast invertebrates and fishes?”

Much of the literature demonstrating that marshes are important rearing habitat for fishes and invertebrates comes from Atlantic and Gulf coast estuaries. Pacific coast estuaries are less well endowed with tidal marshes than their counterparts in the east, and use of these marshes by fish and invertebrates is less well known. Several key questions about use of these habitats in Pacific estuaries may be addressed in this session: 1) To what extent do fishes and invertebrates use marsh and other shallow habitat for rearing or other life cycle phases; 2) Are marshes and shallow estuaries essential habitat for some species; and 3) at what point in the restoration trajectory do restored and natural marshes provide similar habitat value for fishes and invertebrates?

- 8:30 **Introduction** - *Wim Kimmerer*
- 8:40 [C001] Emerging issues of tidal wetlands restoration in the San Francisco Estuary. *Larry Brown*
- 9:00 [C002] Value of coastal wetland habitats to fish feeding and growth: A bioenergetics evaluation. *Sharook Madon*
- 9:20 [C003] Stable isotope ratios as tracers of estuarine migration and habitat utilization in larval and juvenile fishes. *Sharon Z. Herzka*
- 9:50 [C004] Insights gained from top-down food web investigations in the Sacramento-San Joaquin Delta: Implications for restoration. *Lenny Grimaldo*
- 10:10 **Break**
- 10:25 [C005] Juvenile steelhead and coho salmon use of the Albion and Navarro river estuaries. *Steve Cannata*
- 10:45 [C006] Gualala River estuary and lower river assessment. *Thomas P. Keegan*
- 11:05 [C007] Fish populations of small coastal lagoons in southern California. *Camm C. Swift*
- 11:25 [C008] What do long-term datasets reveal about the ecology of longfin smelt (*Spirinchus thaleichthys*) in the San Francisco Bay estuary? *Jonathan A. Rosenfield*
- 11:45 [C009] The prevalence of non-indigenous species in southern California bays and harbors and their effects on benthic macroinvertebrate communities. *J.A. Ranasinghe*
- 12:05 – 1:00 **Lunch**
- 1:00 [C010] Circulation impacts of the Cabrillo shallow water habitat, Port of Los Angeles, CA. *Robert McAdory*
- 1:20 [C011] Breach II: understanding variability in tidal marsh restoration processes and patterns in the San Francisco Bay-delta *Steve Bollens*
- 1:40 [C012] Estuarine macroalgae take up nutrients from sediments leading to increased growth and tissue nutrient content. *Krista Kamer*
- 2:00 [C013] Successes and shortcomings in habitat restoration: a case study of *Cerithidea californica* (Gastropoda) colonization and fitness in a created tidal mudflat. *Anna R. Armitage*
- 2:20 [C014] Using macroalgae as an indicator of terrestrial influences in southern California estuaries. *Risa A. Cohen*
- 2:20 [C015] Nutrient and macroalgal dynamics in five southern California estuaries. *Rachel L. Kennison*
- 3:00 [C016] The North versus The South: are nutrient dynamics fundamentally different? *Peggy Fong*
- 3:30 **Break**
- Special Session: Ecology of Mission Bay** (Organized by *John Largier*)
- 3:40 **Introduction** - *John Largier*
- 3:45 [C017] Historical changes in Mission Bay and observed changes in benthos. *J. A. Crooks and D. M. Dexter*
- 4:00 [C018] Water circulation and transport in Mission Bay. *J. L. Largier, M. L. Carter, D. Sutton, M. Roughan, J. Helly, P. Atjai, and L. Clarke*
- 4:15 [C019] Plankton dynamics in relation to the physical and chemical environment in Mission Bay. *R. S. Kaufmann, R. B. Griggs, J. N. Kittinger, B. L. Swope¹, B. C. Stransky, and H. A. Sarabia*
- 4:30 [C020] A fourteen-year assessment of fishes in Mission Bay surveyed with experimental gillnets. *M. Shane*
- 4:45 [C021] Wetland research in Mission Bay. *D. M. Talley and L. A. Levin*
- 5:00 Adjourn for CAERS mixer
- 5:00pm –7:00 pm **Mixer**

Hubbs-SeaWorld Research Institute
2595 Ingraham St.
San Diego, CA 92109

Hubbs-SeaWorld Research Institute (HSWRI) was initially founded as the Mission Bay Research Foundation in 1963 with the mission “to return to the sea some measure of the benefits derived from it.” Today HSWRI (www.hswri.org) operates as a 501(c)(3) not-for-profit organization with facilities in San Diego and Carlsbad, California and Orlando, Florida. Over four decades, HSWRI has built a legacy of pioneering scientific discoveries that increase our understanding of animals, conserve habitat, and provide solutions to the problems they face. Through scientific research and the application of advanced technologies, the Institute works to conserve the natural world, while ensuring our ability to interact with it through:

- The development of sustainable aquaculture and fisheries enhancement programs to restore wild fish populations and help to meet seafood demand without over-exploiting wild fisheries.
- The application of satellite tracking of seal, sea turtle, and fish movements and behaviors throughout the world in order to understand and conserve these species.
- Bioacoustic and behavioral studies of marine animals in the presence of fishing gear to minimize adverse effects of fishing.
- The use of innovative technologies to understand the role of sound in the sea and the mysteries of animal communication.

Promotion of programs that advance scientific literacy among fellow scientists, students and the general public through collaboration with SeaWorld, academic institutions and education partners around the world.

Monday Continuing Education

Workshop #1: *Biological Assessments: Expediting Section 7 Consultations*

Instructor: Penny Ruvelas, NMFS
 Preparing an adequate Biological Assessment (BA) is a key to expediting Section 7 Endangered Species Act consultations with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service. NMFS personnel will discuss what information is required and recommended and why, with the goal of better and faster opinions. Topics will include:

- writing complete project descriptions
- assessing direct, indirect, and cumulative effects
- making effects determinations
- the ESA/NEPA and the ESA/EFH interface
-

Monday, April 14.....8:30am-4:30pm,
 Regency A-Hyatt Regency

Workshop #2: *Biotlemetry Systems: Theoretical and Practical Considerations*

Instructor: Mitchell M. Sisak, Applied Biometrics Inc.
 This course will examine biotelemetry from both a theoretical and practical perspective. The goal of the workshop is to impart a good understanding of benefits and tradeoffs that must be made during the study design phase of a project. This will permit researchers employing biotelemetry to make informed decisions during the selection of system components, helping to ensure the ultimate success of their projects. The ultimate goal of the workshop is not to turn biologists into engineers, but to impart an awareness and appreciation of methods and techniques that can be readily employed to maximize system performance.

Monday, April 14.....8:30am-4:30pm,
 Regency B - Hyatt Regency

Workshop #3: *Conflict Resolution Skills for Natural Resource Professionals*

Instructor: Michael E. Fraidenburg, Dynamic Solutions Group, LLC
 There is no shortage of conflict that natural resource professionals are asked to deal with. Natural resource issues elicit strong passions because decision-making materially affects people's lives or there are radically different core values involved. People also have different conflict management styles that often make matters worse. Because resource professionals are usually involved in the early stages of a conflict they are well placed to apply conflict resolution skills before matters escalate to higher, often highly adversarial levels. Drawing on basic mediation techniques professionals can diagnose the causes of conflict and move a developing resource dispute from a "me-against-you" to an "us-against-the-problem" dialog. This workshop introduces conflict resolution skills that natural resource professionals can use to manage conflict.

Monday, April 14.....8:30am-4:30pm,
 Regency C - Hyatt Regency

Monday Meetings & Events

Registration

Open 7:30am to 6:00pm Regency Ballroom Foyer

AFS Business Office

Open 7:30am-5:00pm Garden Building C, Suite 120

Audio Visual Preview Room

Open 8:00am-10:00pm Garden Room E

CAERS Inaugural Meeting

8:30am – 5:00pm Hubbs SeaWorld Research Institute

Continuing Education Classes

8:30am-4:30pm Hyatt, Regency A, B & C

Exhibit Show and Poster Setup Only

1:00pm-5:00pm Mission Ballroom

AFS Leadership Principles Training

2:00pm – 5:00pm Islands A

Volunteer Student Training

12:00pm-2:00pm Garden Room E

CAERS Mixer

5:00pm-7:00pm Hubbs SeaWorld Research Institute

International Reception

5:30pm – 7:00pm Hyatt Tower Penthouse

Welcome to San Diego Social

7:00-9:00pm Islandia Restaurant

Leadership Principles Training

The AFS Leadership Principles Training is a must for all incoming and current Division/Chapter officers, committee chairs, and anyone else interested in AFS leadership. This training assists you in understanding your leadership role in the Society and gives you great tips on the whats/hows/whys you are there. This is the same training offered at the Parent Society meetings and is being led by our own past-President and friend, Carl Burger.

Monday, April 14.....2:00pm-5:00pm,
 Islands A – Hyatt Islandia

Plenary Session Regency Ballroom

Global Fisheries Sustainability: Challenges and Prospects for North American Fisheries and Beyond?

8:15 a.m. Welcome and Introductions

Chuck Knutson

Don MacDonald

Fred Harris - Priorities and Activities of AFS: 2002 and 2003

Casey Harthorn – AFS Hutton Program

Cal/Neva Chapter President

WDAFS President

AFS President

AZ/NM Chapter President-elect

Carl V. Burger

“A Global Perspective on Sustaining Fisheries in the 21st Century: Transitioning Beyond Existing Paradigms to an Integrated, Ecosystem Approach”

Past President of AFS, Carl Burger will describe how our single-species approach to fisheries management has played a role in the collapse of many fisheries throughout the world and has also led to some species to becoming economically inefficient to harvest. Carl will present the ecosystem approach to fisheries management that will enable fisheries professionals to conserve and protect many declining fish populations. We hope that this approach to fisheries management will enable us to have sustainable fisheries in the 21st century and beyond.

Ambassador Gilbert Parent

“Managing Marine Fisheries in a Changing Climate: Approaches for Achieving Fisheries Sustainability”

Gilbert Parent, Canadian Ambassador of the Environment will present on the effect that climate change is having on fisheries management throughout the world especially to northern countries who are more susceptible to the impacts of climate change. Ambassador Parent will discuss Canada’s commitment to climate change and the Kyoto Protocol.

WDAFS Award Presentations

Robert Borovicka Conservation Achievement Award

Conservation Achievement Award

Dr. Salvador Contreras-Balderas

“Status and Opportunities for Sustainable Fisheries in Mexico”

Salvador Contreras-Balderas will present on the challenges and opportunities that Mexico faces in trying to achieve sustainability with its fisheries. Dr. Contreras-Balderas has recently retired from the Universidad de Nuevo Leon. He will focus on changes in fish culture and stocking aquaculture, ecosystem approaches, altering marine fishing practices for conservation, protecting habitats, and the effects of climate change on Mexican fisheries.

WDAFS Award Presentation

Award of Excellence

Dr. William Hammond

“Fishing the Edges of the Turning Tide to Develop Partnerships that Protect World Fisheries in a Period of Rapid Global Change”

Bill Hammond will discuss the value of partnerships to help solve and protect world fisheries in this period of rapid global change. This presentation will highlight the various challenges that society faces for sustaining global fisheries as well as provide us with a number of examples of partnership strategies, techniques, and program elements from the Pacific Coast of the United States, Canada, the Arizona desert, Florida, and elsewhere in the world. There are thousands of instructive success stories of powerful partnerships that have worked and continue to be fertile grounds for both protecting and enhancing existing fisheries. This presentation will use media and a creative thinking format that will provide insights into team building, marketing, funding, leadership techniques, pitfalls, cautions, and sustaining and nurturing partnership strategies that synergize individuals in such arrangements.

Closing Remarks- TBA

11:15a.m Announcements and adjourn for Lunch

	Mexican Fisheries	Large-scale Wild Fish Tagging and Marking Projects	Klamath River Fish Kill	Ecology, Conservation, and Management of Grand Canyon Fishes	Ecology and Management of Salmonids
<i>Venue</i>	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia
<i>Room</i>	Regency A	Regency B	Regency C	Islands A	Islands B
<i>Moderator</i>	S. Lluch-Cota	J. Fryer	P. Higgins	C. Paukert	S. Bryan
1:00 pm	Introduction				
1:10	[1101] State of the Basin, Rio Bravo/Rio Grande, MX/US <i>S. Contreras</i>	[1201] Mission impossible? Tagging 200,000 wild juvenile fall Chinook <i>J. Fryer</i>	[1301] Yurok perspective regarding Klamath Basin Water Management <i>S. Master</i>	[1401] Adaptive Management: Bridging science, policy, and competing interests <i>S. Gloss</i>	[1501] Habitat characteristics that drive anadromy or residency of rainbow trout populations <i>S. Cramer</i>
1:30	[1102] Can we manage the Mexican artisanal fishery? <i>O. Sosa-Nishizaki</i>	[1202] Butte Creek spring-run Chinook salmon life history investigation <i>T. Reynolds</i>	[1302] Klamath Inter-Tribal Fisheries Commission: Klamath Basin Water Management Overview <i>R. Pierce</i>	[1402] Native fish monitoring efforts in the Little Colorado River, AZ <i>P. Sponholtz</i>	[1502] Comparison of juvenile outmigration characteristics in two tributaries within the San Joaquin Basin, CA <i>D. Demko</i>
1:50	[1103] The decline of the abalone fishery in Baja California, Mexico, as related to climate variability <i>D. Lluch-Cota</i>	[1203] Monitoring wild coho salmon production, survival, and harvest via trapping and CWT <i>D. Seiler</i>	[1303] Analysis of contributing factors leading to the September 2002 fish kill <i>S. Turek</i>	[1403] Experimental infection of bonytail chub with <i>Bothriocephalus acheilognathi</i> <i>S. Hansen</i>	[1503] Genetic divergence of sympatric resident and anadromous forms of <i>O. mykiss</i> <i>S. Narum</i>
2:10	[1104] The recovery of the California sardine as related to the Pacific Decadal Oscillation <i>M. Ramade</i>	[1204] Application of mark-recapture and radio telemetry to estimate abundance and spawning distribution of sockeye salmon <i>K. Jensen</i>	[1304] Preliminary evaluation of the extent of mortality and associated environmental factors <i>G. Guillen</i>	[1404] Status of fisheries monitoring in the Colorado River <i>H. Johnstone</i>	[1504] Upper Cowlitz River salmon and steelhead reintroduction program <i>M. Kohn</i>
2:30	[1105] Shrimp fishery bycatch in Bahía Magdalena, Baja California Sur, MX <i>S. García-Martínez</i>	[1205] Mark-recapture estimation of chum salmon using fish wheels <i>T. Underwood</i>	[1305] Limnology of the Klamath River <i>M. Deas</i>	[1405] Strategies to conserve native fishes <i>P. Marsh</i>	[1505] Evaluation of Sr/Ca ratios in three structures as records of individual and maternal migration history <i>C. Donohoe</i>
2:50	Break				
3:10	[1106] The Pacific sardine and jumbo squid fishery of the Gulf of California, Mexico <i>M. Navárez-Martínez</i>	[1206] Declining mark-rates upriver from the Rampart, AK mark-recapture study site <i>J. Bromaghin</i>	[1306] Technical assessment approach for instream flows in the lower Klamath River <i>T. Hardy</i>	[1406] Colorado River backwaters: historical distribution and ecological function <i>L. Stevens</i>	[1506] Detecting survival effects of habitat management actions: power analysis and Chinook salmon <i>T. Fisher</i>
3:30	[1107] Collapse of the pink shrimp fishery in the Gulf of Mexico: a simulation model. <i>M. Ramírez-Rodríguez</i>	[1207] Distribution and catch rates of fall Chinook salmon as determined by CWT recoveries <i>R. Sharma</i>	[1307] Coping with competition: economics of managing water in the Klamath Basin <i>E. Niemi</i>	[1407] Longitudinal and near-shore warming patterns of Colorado River <i>W. Vernieu</i>	[1507] Intraspecific competition between hatchery-reared and naturally spawned juvenile Chinook salmon <i>E. Weber</i>
3:50	[1108] Ichthyological research in Baja California Sur. <i>F. Galván-Magaña</i>	[1208] PIT tagging of juvenile salmon in Lake Washington basin <i>P. DeVries</i>	[1308] Klamath Resource Information System (KRIS) <i>P. Higgins</i>	[1408] Efficacy of weir in capturing brown trout in Bright Angel Creek, AZ <i>W. Leibfried</i>	[1508] Ecological risk of IHN virus transmission from hatchery to wild salmon <i>J. Foott</i>
4:10	[1109] Genetic diversity in native and introduced Mexican trout species <i>A. George</i>	[1209] Straying and survival of hatchery fall Chinook in the Central Valley <i>S. Cramer</i>	[1309] Hydro relicensing as a tool for furthering NOAA fisheries mission <i>S. Edmonson</i>	[1409] <i>Truttaedacnitis truttae</i> in rainbow trout from Lee's Ferry tailwater, AZ <i>R. Cole</i>	[1509] Using molecular genetic techniques to identify and conserve endangered Chinook salmon <i>V. Rashbrook</i>
4:30	[1110] The Dolphinfish fishery in Northwest Mexico <i>S. Ortega-García</i>	This symposium sponsored by Northwest Marine Technology, Inc.	[1310] Litigation over flows in the Klamath River <i>K. Boyles</i>		[1510] Monitoring and evaluation of a production Chinook salmon facility <i>D. Fast</i>
4:50			[1311] Trinity River flows, politics and relationships to the Klamath fish kill <i>T. Stokely</i>		[1511] Using hydroacoustics to quantify escapement of adult salmonids <i>B. Ransom</i>

Session		Biology & Manag. of Native & Exotic Fish, Amph. and Reptiles of So. CA/No. Baja, CA (Part I)		Meetings & Events	
Large-scale Watershed Health Monitoring					
Venue	Marina Village	Marina Village		Registration Open 7:30am to 6:00pm Regency Ballroom Foyer	
Room	Terrace Room	Dockside Room			
Moderator	S. Downie	C. Swift		AFS Business Office Open 7:30am-5:00pm Garden Building C, Suite 120	
1:00 pm	Introduction				
1:10	[1601] Putting monitoring first: designing accountable ecosystem restoration and management plans <i>S. Ralph</i>	[1701] Late Cenozoic geographic and climatic influences on the phylogeography and diversity of aquatic systems <i>D. Jacobs</i>	Pre-Plenary Coffee Break 7:45am –8:15am Regency Ballroom Foyer		
1:30	[1602] Driving response variables for monitoring land-use-induced sediment effects <i>M. Furniss</i>	[1702] The influence of human land use modifications on southern CA stream hydrology <i>M. White</i>			
1:50	[1603] Allocation of monitoring sites for regional surveys of hydrologic units <i>R. Gresswell</i>	[1703] Status of and prognosis for the freshwater fishes of coastal southern CA <i>C. Swift</i>	Audio Visual Preview Room Open 8:00am-10:00pm Garden Room E		
2:10	[1604] A comparison of stream habitat characteristics in managed and reference watersheds <i>J. Kershner</i>	[1704] Contributions from archaeological record to understanding distribution of freshwater fishes <i>K. Gobalet</i>			
2:30	[1605] Evaluating the condition of riverine-riparian resources in the Pacific Northwest <i>S. Lanigan</i>	[1705] Late Pleistocene freshwater fish records from southern CA: implications for fossil and current distributions <i>M. Roeder</i>	Commercial Exhibits Show and Poster (Setup) 8:00am-11:00pm Mission Ballroom		
2:50	Break				
3:10	[1606] Fire disturbance and the ability of a large-scale monitoring program to detect change <i>K. Gallo</i>	[1706] Genetics and conservation of Shay Creek stickleback <i>A. Metcalf</i>	Plenary Session 8:15am – 11:15am Regency Ballroom		
3:30	[1607] Regional monitoring programs-can we answer questions at smaller spatial scales? <i>R. Henderson</i>	[1707] Genetic diversity in native and introduced Mexican trout species <i>A. George</i>			
3:50	[1608] A quality assessment program: structure and lessons learned <i>C. Moyer</i>	[1708] Genetics and metapopulations of tidewater gobies in southern CA <i>D. Jacobs</i>	Volunteer Training 9:30am-11:30am Garden Room E		
4:10		[1709] The upper San Gabriel River: a mountain retreat for native fishes <i>J. Baskin</i>			
4:30		[1710] Big Tujunga Wash: south coast minnow/sucker community vs. exotic species <i>C. Swift</i>	Box Lunch (U-Buy) 11:30am-1:00pm Mission Plaza		
4:50		[1711] The Santa Clara River: blurring the line between native and exotic species <i>J. Baskin</i>			



Session	Mexican Fisheries	Use of Science in Public Policy	Ocean Ecology of Pacific Salmon (Part I)	An Unique Ecosystem: The Salton Sea, A Saline Lake in a Desert Environment
Venue	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia
Room	Regency A	Regency B	Regency C	Islands A
Moderator	S. Lluch-Cota	T. Faast/D. MacDonald	M. Trudel	L. Caskey
8:00 AM	Introduction			
8:10	[2101] Index of Biological Integrity of the Rio Nazas, Durango, MX S. Contreras-Balderas	Roundtable Discussion (8:10 – 10:50am) Moderators : Tony Faast, U.S. Fish and Wildlife Service, 503-231-6233, tony_faast@fws.gov Don MacDonald, Sustainable Fisheries Foundation, 250-729-9623, sff@island.net Focus This session is to truly be a facilitated round-table discussion involving audience and panelists. We will moderate/facilitate questions, responses, and observations focused on “the use of fisheries science in the public arena”. This is by design a broad category. Each panelist brings a different personal and professional perspective to the topic via their expertise in the media, management agency, NGO, public involvement strategist, fisheries scientist, etc. We are looking forward to a discussion on the role of science in public decision-making. What it is or has been in the past, and how it might be better in the future. This issue is a source of concern and/or frustration of many fishery professionals.	[2301] Survival rates for 120 pink, chum, and sockeye Pacific salmon on regional scales (< 1000km) R. Peterman	[2401] The Salton Sea: avian and aquatic resources at the crossroads
8:30	[2102] Jewel cichlid, an exotic fish eradicated from Poza San Jose del Anteojo, Cuatro Ciénegas, Coahuila, MX L. Lozano-Vilano		[2302] A spatial hierarchical Bayesian model for multi-stock stock-recruitment analysis of Pacific salmon Z. Su	C. Pelizza
8:50	[2103] An overview of AFS with emphasis on the steps for forming a Mexican AFS chapter E. Knudsen		[2303] Genetic mixed stock analysis of juvenile Chinook salmon in coastal areas of Pacific Northwest D. Teel	[2402] Limnology of the Salton Sea, a saline desert lake M. Tiffany
9:10	[2104] Development of an aquatic resource management strategy for the Sierra Gorda Biosphere Reserve of Central Mexico D. Heller		[2304] Overwinter marine distribution and movements of juvenile coho and Chinook salmon D. Welch	[2403] Some observations on desert pupfish at the Salton Sea R. Sutton
9:30 AM	Break			
9:50	Roundtable Discussion (9:10 – 11:10 am) MX AFS Chapter Formation	Procedure After a brief introduction of the topic by the moderators, each panelist will have 5 minutes to frame their particular perspective on the topic, including their background and experience in dealing with the public and fisheries science. All we need is a quick “who you are”, “what you’ve done”, and a short anecdote or two describing a fisheries issue you have been involved with or observed, and your thoughts on the effectiveness or lack of it, that biologists brought to the issue. We will then pose questions to individuals panel members and solicit responses from other panelists and the audience.	[2305] Otolith based studies on the ecology of juvenile Chinook salmon from the Central Valley of CA C. Grimes	[2404] Gut contents of nonnative fishes in agricultural drains B. Martin
10:10			[2306] Simulating juvenile salmon growth and swimming in a near shore flow field L. Botsford	[2405] Unusual dynamics of the Salton Sea fish populations L. Caskey
10:30			[2307] Role of the Columbia River Plume in growth and survival of juvenile salmon E. Casillas	[2406] Salinity tolerances of juvenile Mozambique tilapia hybrids during direct and gradual transfer to elevated salinity B. Sardella
10:50				[2407] The effect of temperature on salinity tolerance in juvenile Mozambique tilapia hybrids C. Brauner

Session	Determining the Number of Salmon Historically Present (Part 1)	Emerging Theory, Experience, and Issues Related to Fire, Fire Mngmnt., and Aquatic Resources (Part I)	Biology & Manag. of Native & Exotic Fish, Amph. and Reptiles of So. CA/No. Baja, CA (Part II)	<h1>Student Awards</h1>
Venue	Hyatt Islandia	Marina Village	Marina Village	
Room	Islands B	Terrace Room	Dockside Room	
Moderator	H. Michael	G. Contreras	T. Haglund	
8:00 AM	Introduction			
8:10	[2501] Estimating the historic and optimum salmon productivity of sockeye nursery lakes in the Fraser River <i>E. MacIsaac</i>	[2601] Fire, fisheries and aquatic resources: need for improved interagency coordination and collaboration <i>G. Contreras</i>	[2701] Captive maintenance and reproduction in native freshwater fishes <i>K. Russell</i>	
8:30	[2502] Four different approaches to estimating pre-Euroamerican salmon run size, in the Clearwater River, WA <i>J. Cedarholm</i>	[2602] Fire and aquatic ecosystems of the western US: current knowledge and key questions <i>P. Bissou</i>	[2702] Relationships of biological communities to water source and channel type <i>C. Burton</i>	
8:50	[2503] Restoration goals for Puget Sound Chinook <i>N. Sands</i>	[2603] Status of native fishes in the western US and issues for fire and fuels management <i>B. Rieman</i>	[2703] East meets West: mosquitofishes in southern CA <i>J. Seigel</i>	
9:10	[2504] Considerations for establishing recovery plans and goals for endangered salmonids <i>G. Reeves</i>	[2604] Effects of fire on fish populations: landscape perspectives on persistence of native fishes and nonnative fish invasions <i>J. Dunham</i>	[2704] Dynamics of sport fish and non-sport fish species and drawdown effects of Silverwood Reservoir <i>M. Chmeil</i>	
9:30	Break			
9:50	[2505] Restoring nutrients and productivity in salmonid food webs <i>M. Wipfli</i>	[2605] Altered forest landscapes and fire regimes: inland northwest US forests, 1800 – 2000 <i>P. Hessburg</i>	[2705] Introduced parasites of freshwater fishes in southern CA <i>W. Warburton</i>	
10:10	[2506] Effects of abundance of spawning sockeye salmon on nutrients and epilithic algal biomass <i>T. Johnston</i>	[2606] Effects of wildfire and subsequent flood, landslide, and debris torrent on fish distribution and abundance <i>P. Howell</i>	[2706] Native amphibian and aquatic reptile fauna; origin, distribution, and current status <i>R. Fisher</i>	
10:30	[2507] Reconstructing salmon abundance in rivers: an initial dendrochronological evaluation <i>D. Drake</i>	[2607] Scale considerations for the evaluation of physical effectiveness and ecological utility of post-fire stabilization <i>C. Luce</i>	[2707] The plight of the arroyo toad and other amphibians in the rivers of northern Baja CA <i>R. Lovich</i>	
10:50		[2608] Replacing wildfire management activities: will we "protect" aquatic ecosystems to death? <i>G. Reeves</i>	[2708] The CA redlegged frog population at the Santa Rosa Ecological Reserve (1989-2002). What happened to all the frogs? <i>M. Jennings</i>	

The Northern California district and the Southern California district of the American Institute of Fisheries Research Biologists (AIFRB) will be jointly judging and awarding WDAFS/Cal-Neva Chapter prizes for:

- Best Student Paper
- Runner-up
- Third Place
- Best Poster
- Runner-up
- Third Place

The American Institute of Fishery Research Biologists is a professional organization with a membership of approximately 1,000. Established in 1956, the Institute was founded to promote conservation and proper utilization of fishery resources through application of fishery science. The Institute pursues this goal through advancing the theory, practice and application of fishery biology and of related sciences, by maintaining and promoting high professional standards of conduct for practitioners of fishery science, and by recognizing outstanding achievement and competence by fishery scientists.



Session	Status/Trends of Aquatic Resources in the Sea of Cortez	Aquatic Habitat Restoration and Management	Ocean Ecology of Pacific Salmon (Part II)	An Unique Ecosystem: The Salton Sea, A Saline Lake in a Desert Environment (Part II)	Determining the Number of Salmon Historically Present (Part II)
Venue	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia
Room	Regency A	Regency B	Regency C	Islands A	Islands B
Moderator	Y. Muirhead/S. Lluch-Cota	C. Harthorn	R. Brodeur	L. Caskey	H. Michael
2:00 pm	Introduction				
2:10	[3101] Biodiversity and fisheries: are they compatible? <i>D. Thomson</i>	2:20 Introduction	2:20 Introduction	[3401] Salinity tolerance of juvenile red bellied tilapia during direct and gradual transfer to elevated salinity <i>P. Davis</i>	[3501] Why is it important to determine how many salmon used to be there? <i>H. Michael</i>
2:30	[3102] Field guide to the marine fishes from the Gulf of California <i>M. Buckhorn</i>	[3201] Evaluation of common habitat restoration techniques in the Pacific Northwest <i>P. Roni</i>	[3301] Interannual and spatial variability in feeding habits of juvenile salmon in the Columbia River Plume <i>R. Brodeur</i>	[3402] Studies of epizootiology of type C botulism at the Salton Sea <i>P. Nol</i>	[3502] Importance of density dependency and carcass nutrient interactions for pacific salmon strategies <i>D. Schmidt</i>
2:50	[3103] Is there any change in the productivity in the Gulf of California (1997 – 2002)? <i>S. Hernández-Vázquez</i>	[3202] Protecting and restoring riparian area structure and function along forest highways <i>J. Doyle</i>	[3302] Indexing oceanic growth rate of post-smolt coho salmon from the OR/WA coast <i>B. Beckman</i>	[3403] Dynamics of selenium and other contaminants in the Salton Sea ecosystem <i>M. Coe</i>	Panel Discussion (2:50 – 5:10)
3:10	[3104] The Gulf of California shrimp fishery: environmental effects and management implications <i>J. López Martínez</i>	[3203] The adaptive management forum for large-scale riverine habitat projects: a collaborative peer review <i>R. Reed</i>	[3303] Overwinter lipid dynamics of juvenile coho and Chinook salmon <i>M. Trudel</i>	[3404] Fish and fish-eating birds at the Salton Sea: past trends and future prospects <i>S. Hurlbert</i>	
3:30	Break				
3:50	[3105] Evaluating the influence of Colorado River flow on the corvina fishery in northern Gulf of California <i>K. Rowell</i>	[3204] Recommended flow mitigation from Libby Dam for pre-spawn burbot movement <i>V. Paragamian</i>	[3304] Euphausiids and their implications for marine coho and sockeye survival <i>R. Tanasichuk</i>	[3405] How not to structure an ag to urban water transfer <i>K. Doyle</i>	Panel Discussion (2:50 – 5:10)
4:10	[3106] Ecosystem-based management of the Gulf of California region <i>F. Arreguin Sanchez</i>	[3205] Improving Chinook salmon passage and spawning habitat on the Merced River <i>R. Mager</i>	[3305] Differences in early ocean ecology of Chinook and coho salmon in SE Alaska <i>L. Weitkamp</i>	Panel Discussion (4:10 – 6:00pm)	
4:30	[3107] The Gulf of California: ecosystem view and environmental trends <i>S. Lluch-Cota</i>	[3206] Overview of USBR's fish passage research and developments <i>C. Liston</i>	[3306] Juvenile pink salmon in the marine ecosystem of the northern Gulf of Alaska <i>L. Haldorson</i>		
4:50	Panel Discussion	[3207] Mitigation measures for levees and other stabilized banks: reducing impacts to salmonids rearing habitats <i>R. Peters</i>	[3307] Abnormal migration and premature mortality in Fraser River salmon <i>S. Hinch</i>		

Meetings & Events

<i>Sessions</i>	Emerging Theory, Experience, and Issues Related to Fire, Fire Mngmnt., and Aquatic Resources (Part II)	Biology & Manag. of Native & Exotic Fish, Amph. and Reptiles of So. CA/No. Baja, CA (Part III)
<i>Venue</i>	Marina Village	Marina Village
<i>Room</i>	Terrace Room	Dockside Room
<i>Moderator</i>	D. Cross	R. Fisher
2:00 pm		
2:10	2:20 Introduction	2:20 Introduction
2:30	[3601] A simple recipe for better integration of aquatic and fisheries issues in wildland fire planning <i>D. Lee</i>	[3701] Current research and status of the mountain yellow-legged frog in southern CA <i>A. Backlin</i>
2:50	[3602] Effects of fire on aquatic biodiversity in high elevation lakes of the OR cascade range <i>R. Gresswell</i>	[3702] Exotic amphibians, current status, and possible impacts <i>T. Toure</i>
3:10	[3603] Does wildfire favor invasion of nonnative fishes? <i>C. Sestrich</i>	
3:30	Break	
		Exotic Species
3:50	[3604] Wildfires and fishes in the southwestern US: regional short and long-term effects <i>J. Rinne</i>	[3801] Ongoing invasion potential of an alien species <i>Micropterus coosae</i> , in CA waterways <i>B. Chasnoff</i>
4:10	[3605] An initial evaluation of the short-term effects of the Haymen fire on aquatic ecosystems <i>J. Kershner</i>	[3802] Alien fishes in natural streams: fish distribution and conservation in the Cosumnes River, CA <i>P. Moyle</i>
4:30	[3606] The ESA, fire management, and interagency cooperation: success stories from CA and NV <i>C. Mellison</i>	[3803] Use of otolith microchemistry to identify source and timing of exotic species introduction <i>A. Munro</i>
4:50	Where do we go from here? Panel Discussion	[3804] Amphibians and introduced fishes: compatible or pathway to extinction? <i>K. Pope</i>

Grunion 5K Run/Walk
6:00am-7:30am Meet outside Hyatt lobby

Registration
Open 7:30am to 6:00pm Regency Ballroom Foyer

AFS Business Office
Open 7:30am-5:00pm Garden Building C, Suite 120

Audio Visual Preview
Open 7:30am-10:00pm Garden Room E

Exhibit Show & Poster Session
8:00am-5:00pm Mission Ballroom

Round Table Discussion – MX AFS Chapter formation
9:10am –10:50am Garden Room F

WDAFS Business Meeting Luncheon
11:30am –1:45pm Regency Ballroom B & C

Scripps Institution of Oceanography
Birch Aquarium Reception and Dinner
6:00-10:00pm Birch Aquarium

Departure buses will be loading at 5:30pm in front of the hotel lobby and running a continuous circuit between the Hyatt Regency and the Birch Aquarium.

The Scripps Birch Aquarium Reception Dinner is sponsored by:
NOAA Southwest Fisheries Science Center



Session	Ecology and Management of Freshwater Fishes (Part I)	Interactions of Hatchery and Wild Fishes in Marine and Estuarine Environments	Overcoming Impediments to Fish Passage (Part I)	Biology, Ecology, and Management of Pacific Coast Sharks (Part I)	Ecology and Management of Marine Fishes and Habitats
Venue	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia
Room	Regency A	Regency B	Regency C	Islands A	Islands B
Moderator	S. Reger	C. Zimmerman	S. Thomas	D. Holts	S. Denny
8:00 AM	Introduction				
8:10	[4101] Assessment of reproductive success in western mosquitofish exposed to seleniferous ag drainwater <i>M. Saiki</i>	[4201] The role of ocean carrying capacity in the determination of the percentages of hatchery and wild salmon <i>R. Beamish</i>	[4301] Dam removal: Aspen report and more <i>M. Whitman</i>	[4401] Results of a 2-year survey of MX artisanal fisheries targeting sharks, skates, and rays in the Gulf of California <i>R. Hueter</i>	[4501] Age, growth, and radiometric age validation of blackgill rockfish <i>M. Stevens</i>
8:30	[4102] The effect of storage procedures on the β -adrenergic response of rainbow trout red blood cells <i>S. Caldwell</i>	[4202] Evidence for competitive dominance of pink salmon over other salmonids in the north Pacific Ocean <i>G. Ruggerone</i>	[4302] Pacific lamprey passage and the effect of physical and procedural modifications in a test ladder <i>W. Daigle</i>	[4402] Elasmobranches fisheries in the upper Gulf of California <i>J. L. Castillo-Geniz</i>	[4502] Bomb radiocarbon in otoliths of yelloweye rockfish as a chronometer for age validation of quillback rockfish <i>L. Kerr</i>
8:50	[4103] Seasonal fluctuations Na ⁺ , K ⁺ , -ATPase in central CA salmon prior to ocean entry <i>S. Hayes</i>	[4203] Hatchery and wild stock interactions of juvenile chum salmon in marine waters of southeastern AK <i>J. Orsi</i>	[4303] A bypass structure to aid Pacific lamprey passage at hydropower dams <i>M. Moser</i>	[4403] Elasmobranches fisheries from the southwestern Gulf of California <i>A. G. -M. Lenin</i>	[4503] The effect of catch-and-release angling using circle and J-type hooks on pen-reared white seabass <i>S. Aalbers</i>
9:10	[4104] Swimming endurance and blood chemistry profiles of fed and fasted juvenile Chinook salmon <i>D. Jones</i>	[4204] Does increased abundance of salmon lice influence survival of wild salmon? A review <i>N. Hvidsten</i>	[4304] Fish passage at Redding Diversion Dam: Then and Now <i>T. Hamaker</i>	[4404] Diet shift in the common thresher shark during transition from a warm to cold water regime <i>A. Preti</i>	[4504] Habitat structure and recruitment success of two near shore reef fishes <i>K. Andrews</i>
9:30	Break				
9:50	[4105] Relative effects of carcass addition and light enhancement on salmonids biomass and growth <i>M. Wilzbach</i>	[4205] Analysis of genetic hybridization risk posed by fish stocking to a historic walleye spawning group <i>C. Stepien</i>	[4305] Design of fish screens for irrigation diversions in shallow stream flows <i>L. Swenson</i>	[4405] Biological studies on sharks from the state of Baja California Sur <i>F. Galván-Magaña</i>	[4505] The effects of exercise training on growth and muscle development of white seabass <i>G. Buhr</i>
10:10	[4106] Brown bears selectively kill energy-rich salmon but only in habitats facilitating choice <i>S. Gende</i>	[4206] The percentage of crystalline otoliths in hatchery-reared and wild juvenile coho salmon <i>R. Sweeting</i>	[4306] Close encounters with a fish screen: impingements with respect to a flow field analysis <i>D. White</i>	[4406] Concentration of Hg in sharks from the Gulf of California: exploratory results <i>J. García-Hernández</i>	[4506] Applicability and limitations of ultrasonic telemetry and archival tags for defining pelagic fish habitat <i>R. Brill</i>
10:30	[4107] Fish screens: an Intralox solution <i>O. Zubair</i>	[4207] Size at return and environmental variation, large-scale enhancement, and productivity of pink salmon <i>A. Wertheimer</i>	[4307] Performance and behavior of juvenile Chinook salmon near a fish screen: linking laboratory and field studies <i>T. Swanson</i>	[4407] Essential fish habitat of six pelagic sharks in the US Pacific Coast Exclusive Economic Zone <i>S. Smith</i>	[4507] Benthic habitat in the Gulf of Alaska: biological communities, geological habitat, and fishing intensity <i>D. Courtney</i>
10:50	[4108] Using underwater photography to promote conservation: example lower Putah Creek, Yolo County, CA <i>J. Cervant</i>	[4208] Differential effects of ocean fisheries on hatchery and wild salmon <i>P. Lawson</i>	[4308] Use of dual frequency identification sonar (DIDSON) to examine fish behavior near fish screens <i>R. Wantuck</i>	[4408] The nearshore elasmobranch fauna of the southern CA Bight <i>D. Pondella</i>	[4508] Marine Life Management Reform in California <i>M. Weber</i>
11:10		[4209] Differences between wild and hatchery steelhead smolts in the Sacramento River/Delta system <i>R. Titus</i>	[4309] Pile driving impacts on swim bladder fish <i>B. Abbott</i>	[4409] Habitat and migration of the salmon shark <i>K. Weng</i>	[4509] The path to ecosystem-based management in the California nearshore <i>B. Heneman</i>

Meetings & Events

Session	Role of Natural History Collections in Endangered Species Management	Guidelines for Decision Making and Technical Applications for Captive Breeding Programs (Part I)	
Venue	Marina Village	Marina Village	
Room	Terrace Room	Dockside Room	
Moderator	D. Logan	K. Arkush	
8:00 AM	Introduction		Registration Open 7:30am-10:00am Regency Ballroom Foyer
8:10	[4601] The legacy of David Starr Jordan (1851-1931) in ichthyology, fisheries biology, and collection building <i>M. Brittan</i>	[4701] Risk-benefit considerations for captive propagation programs <i>J. Drake</i>	AFS Business Office Open 7:30am-5:00pm Garden Building C, Suite 120
8:30	[4602] The role of natural history museum collections in the conservation of endangered species <i>J. Scheurer</i>	[4702] Guidelines for use of captive broodstocks in recovery efforts for ESA-listed stocks of Pacific salmon <i>H. Pollard</i>	Audio Visual Preview Open 7:30am-4:00pm Garden Room E
8:50	[4603] Techniques to improve the quality of field collections for museum archives <i>A. Snyder</i>	[4703] Nutritional considerations in the development of broodstock diets for captive marine species <i>D. Conklin</i>	Commercial Exhibits and Poster Session 8:00am-11:00am Mission Ballroom
9:10	[4604] Unraveling the double helix: DNA and tissue collections in endangered species management <i>P. Harris</i>	[4704] Controlling age and seasonal timing of reproduction in cultured Pacific salmon <i>P. Swanson</i>	Commercial Exhibits and Poster Session (Breakdown) 11:30am-3:00pm Mission Ballroom
9:30	Break		Box Lunch (U-Buy) 11:30am-1:00pm Mission Ballroom Plaza
9:50	[4605] Problems Associated with Irradiation of Genetic Samples by U.S. Postal Service <i>K. Graham</i>	[4705] Health management of captive threatened and endangered fish populations <i>J. Foott</i>	Cal/Neva AFS Chapter Business Meeting Luncheon 11:45am-1:15pm Islandia Restaurant
10:10	[4606] ESA permitting for museums, specimen ownership, and intellectual property issues <i>D. Logan</i>	[4706] Health research applications in captive breeding programs for fish <i>K. Arkush</i>	Outmigration Social 5:30-7:30pm Mission Ballroom
10:30	[4607] International transfer of legally accessioned collection materials – ESA and CITES concerns <i>A. Coppola</i>	[4707] Release of captive reared adult anadromous salmonids for population maintenance and recovery <i>B. Berejikian</i>	Charter Fishing Trip 7:30pm – Friday 8:00pm Seaforth Sportfishing
10:50	[4608] Utility of baleen and whale bones from museums for assessing changes in genetic diversity <i>R. Brownell</i>	[4708] Evaluation of the supplementation program at Livingston Stone NFH via winter Chinook carcass survey <i>J. Flory</i>	
11:10	[4609] Specimen acquisition and the realization of the potential of natural history collections: from water to jar and beyond <i>S. Platania</i>	[4709] Genes to oceans: intervention in an ecosystem context <i>P. Siri</i>	

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*Special thanks to Smith Root
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Stearns B500 one-person kayak*

Session	Ecology and Management of Freshwater Fishes (Part II)	Western Native Trout	Overcoming Impediments to Fish Passage (Part II)	Biology, Ecology, and Management of Pacific Coast Sharks (Part II)	<i>Oncorhynchus</i> at Their Southern Extremes
Venue	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia	Hyatt Islandia
Room	Regency A	Regency B	Regency C	Islands A	Islands B
Moderator	C. Benedict	S. Gurtin	S. Thomas	O. Sosa-Nishizaki	C. Swift
1:20 PM	Introduction		Introduction		
1:30	[5101] Fish community structure and environmental correlates in the highly altered southern Sacramento-San Joaquin Delta <i>F. Feyrer</i>	[5201] Native trout recovery in Arizona: past, present, and future <i>S. Gurtin</i>	[5301] Participation in hydro relicensing as a tool for furthering NOAA fisheries mission <i>S. Edmondson</i>	[5401] Pop-up archival tagging of shortfin mako sharks in the southern CA Bight <i>S. Kohin</i>	[5501] Steelhead recovery planning in southern CA: taking the first steps <i>M. Capelli</i>
1:50	[5102] Seasonal variation in diet of coastal cutthroat trout in relation to riparian vegetation <i>N. Romero</i>	[5202] Reconnecting fragmented Lahontan cutthroat trout habitats <i>A. Harig</i>	[5302] Assessing the passage potential of anadromous salmonids at five natural falls under varying flow conditions <i>D. Reiser</i>	[5402] Commercial pelagic shark fishery from the western coast of Baja California Sur <i>J. Ramírez González</i>	[5502] Status, habitat, and restoration of southern steelhead in Topanga Creek and State Park <i>R. Dagit</i>
2:10	[5103] Effects of organic chromium on growth and carbohydrate utilization in hybrid tilapia <i>J. Wang</i>	[5203] Assessing the extent of introgression in native greenback cutthroat trout from introduced trout species <i>J. Metcalf</i>	[5303] Fish passage barriers in Colorado: the good, bad, and ugly <i>C. Hirsch</i>	[5403] Elasmobranchs fishery at Isabel Island in the central Mexican Pacific <i>J. C. Perez-Jimenez</i>	[5503] Visual display of stream habitat survey profiles using GIS: an example from Topanga Creek <i>K. Reagan</i>
2:30	[5104] Habitat use and overlap between hatchery-reared adult razorback suckers and flathead catfish <i>J. Slaughter</i>	[5204] Habitat-specific survival, biomass, and biomass accrual of trout in a small coastal stream <i>J. White</i>	[5304] Fish passage: beyond dams and migratory fish <i>M. Hudy</i>	[5404] Estimating a local MSY for the common thresher shark <i>D. Au</i>	[5504] Survival of the southernmost population of steelhead in San Mateo Creek <i>T. Hovey</i>
2:50	[5105] Response of brown trout to elevated metal concentrations in the Arkansas River <i>L. Bergstedt</i>	[5205] Evaluating population-level effects of elevated turbidity on stream trout using an individual-based model <i>B. Harvey</i>	[5305] Caltrans fish passage improvement projects in northern CA <i>J. Oldham</i>	Panel Discussion (2:50 – 4:50 pm)	[5505] Historical notes on trout/steelhead in San Diego County and northern Baja CA <i>A. Greenwood</i>
3:10 PM	Break				
3:30	[5106] Do native fishes reared in non-moving water become couch potatoes? <i>K. Hilwig</i>	[5206] Seasonal movement patterns of stream-resident cutthroat trout in the Snake River headwaters, WY <i>M. Novak</i>	[5306] Monitoring culvert passage of juvenile salmonids with PIT tags <i>S. Hendricks</i>	Panel Discussion (2:50 – 4:50 pm)	[5506] Removing Matilija Dam: opportunities and challenges for Ventura River steelhead <i>M. Capelli</i>
3:50	[5107] Phylogenetic relationships, diversity and zoogeography of western <i>Cottus</i> <i>D. Neely</i>	[5207] Factors influencing the spawning migrations and natural reproduction of the adfluvial Bear Lake Boneville cutthroat trout <i>P. Burnett</i>	[5307] Design considerations for an experimental test bed for assessment of culverts for fish passage <i>W. Pearson</i>		[5507] Salmon and steelhead recovery planning: the essential need for accelerated recovery planning efforts <i>J. Edmondson</i>
4:10	[5108] Assessing self-sustainability of trout populations in Sierra Nevada lakes using experimental halt to stocking <i>T. Armstrong</i>	[5208] An evaluation of the effectiveness of barriers at protecting Apache trout <i>A. Robinson</i>	[5308] Fish passage for native species of the western United States <i>B. Mefford</i>		
4:30	[5109] The “Net” benefits of the world wide web to fisheries science <i>M. Whalen</i>		[5309] Stream simulation-culvert design for passage of aquatic organisms <i>K. Bates</i>		

Other Events

Session	Reservoir Management in the Arid West	Guidelines for Decision Making and Technical Applications for Captive Breeding Programs (Part II)
Venue	Marina Village	Marina Village
Room	Terrace Room	Dockside Room
Moderator	C. Harthorn	K. Lentz
1:20 PM		
1:30	[5601] Assessing species interactions in Elephant Butte Reservoir, NM <i>D. Cowley</i>	[5701] Application of captive broodstocks for preservation of ESA-listed Redfish Lake sockeye salmon <i>T. Flagg</i>
1:50	[5602] Assessing interactions between two species of bass within the same reservoirs <i>S. Denny</i>	[5702] A history of broodstock management and egg production for white seabass in southern CA <i>M. Drawbridge</i>
2:10	[5603] Effects of dam operations on largemouth bass in a southwestern reservoir <i>M. Brouder</i>	[5703] The use of fish culture in the recovery of endangered Sacramento River winter-run Chinook salmon <i>J. Rueth</i>
2:30	[5604] Vegetative islands: a possible alternative to killing them fast or killing them slow. <i>C. Harthorn</i>	[5704] Status of captive breeding of Totoaba, endemic species of the Sea of Cortez <i>C. True</i>
2:50	[5605] Lake Pleasant then and now: a look at changes in the fishery and limnology over the past 12 years <i>S. Bryan</i>	[5705] The US Gulf of MX Marine Stock Enhancement Program (GMSEP) <i>R. Blaylock</i>
3:10PM	Break	
3:30	[5606] Age determination of walleye in central Arizona reservoirs <i>M. Meding</i>	[5706] Documenting biodiversity of coastal coho in northern CA <i>K. Bucklin</i>
3:50	[5607] The biology and foraging demands of northern pike in Arizona lakes and reservoirs <i>J. Flinders</i>	[5707] Initial protocols for the captive breeding and rearing of the spotted sand bass in southern CA <i>E. Miller</i>
4:10		[5708] Captive broodstock of the federally threatened central CA coho salmon: a cooperative effort <i>E. Sturm</i>
4:30		

Dive Trip (Friday)
6:45am-4:00pm

Seaforth Sportfishing

Birch Aquarium Grunion Field Trip (Saturday)
10:30pm-12:30pm

Birch Aquarium

Commercial Exhibitors

Aquabiotics Corporation

BIOMARK

BioSonics, Inc.

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See you next year in
Salt Lake City, Utah.
Have a safe trip home!

Poster Session – Hyatt Regency Mission Ballroom
 Tuesday ♦ April 15th 11:30 am to Thursday ♦ April 17th 11:00am

Abstract #	Title
FISHERIES MANAGEMENT/TECHNIQUES	
P001	Fill It And They Will Come, The Story Of Fish Management On Ephemeral Lower Lake Mary, Coconino County, Arizona, <i>C.T. Benedict</i>
P002	Fish Separation By Size Using Vertical Bar Racks, <i>Cathy Karp</i>
P003	Application Of Electromyogram Telemetry In Fisheries Science, <i>S. J. Crooke</i>
P004	F.E. Warren Air Force Base Acts As A Fish And Macroinvertebrate Hotspot In The Middle Of An Urban Gradient In Southeast Wyoming <i>L.L. Curry</i>
P005	Obtaining Research Permits For Federally-Listed Endangered Or Threatened Anadromous Salmonids In California, <i>R. B. Del Rosario</i>
P006	Identification Of Fish Passage Barriers At Road Crossings Within The Northern Region, <i>Sheila Jacobson</i>
P007	Design Of A Gravity Infiltration Gallery As Part Of Fish Passage Improvements For A Small Surface Water Diversion In York Creek, Napa County, CA, <i>E. M. Kegel</i>
P008	Using A Landscape Perspective To Understand The Dynamics Of Habitat Use By Stream Fishes, <i>Laura Thel</i>
P009	Rose Canyon Lake Rainbow Trout Fishery Renovation, <i>D. C. Mitchell</i>
P010	World Class River Restoration Research Opportunities, <i>Rhonda J. Reed</i>
P011	Trout Versus Pike: The Story Of Fish Management On Long Lake, Coconino County, Arizona, <i>S.J. Reger</i>
P012	Collaborative Research Initiatives: Linking Fishermen And Scientists, <i>K. Russell</i>
P013	Using GIS To Analyze Interagency Consultations Under The Endangered Species Act, <i>Erik Schmidt</i>
P014	Fishes Present In The Sierra Gorda Biosphere Reserve, <i>Steve Lanigan</i>
P015	Ecological Evaluation Of The Hydropower Pulsed Flow Releases On California Stream System: An Introduction To The Project, <i>P.S. Young</i>
FISH ECOLOGY	
P016	Population Status Of North American Green Sturgeon, <i>Acipenser medirostris</i> , <i>Peter B. Adams</i>
P017	Spawning Areas Of Green Sturgeon (<i>Acipenser medirostris</i>) In The Upper Sacramento River, California, <i>K. Brown</i> ,
P018	Evidence For A Contracted Thermal Niche Of Exotic Brook Trout In The Presence Of Native Bull Trout In The Lost River Systems Of SE Idaho, <i>S. Chamberlain</i>
P019	Movement Behaviors Of The Giant Red Sea Cucumber, <i>Parastichopus californicus</i> In Southeastern Alaska, <i>Kristin Cieciel</i>
P020	Variation In Larval Fish Condition In The Consumnes River Floodplain, <i>P.K. Crain</i>
P021	Early Life History Of Fishes In The San Francisco Estuary And Watershed: Symposium And Proceedings Volume, <i>Frederick Feyrer</i>
P022	Test Of Sedimentation Effects On Population Densities Of Small Fishes In Restored And Historic Salt Marshes In Suisun Bay, California, <i>Elisa C. Gill</i>
P023	Physiological Measures Of Chronic Stress In Green Sturgeon, <i>S. E. Lankford</i>
P024	The Feeding Habits Of Three Juvenile Scorpaeniform Fishes In The Eelgrass Beds Of Bodega Harbor, California, <i>Levi Steele Lewis</i>
P025	Growth In Juvenile Green Sturgeon (<i>Acipenser medirostris</i>) At Elevated And Fluctuating Temperatures, <i>Peter Allen</i>
P026	Ontogeny Of Salinity Tolerance In Juvenile Green Sturgeon (<i>Acipenser medirostris</i>), <i>Peter Allen</i>
P027	Shokihaze Goby Life History In The San Francisco Estuary, <i>Steven B. Slater</i>
P028	The Acute Effects Of Gas Saturation On Cultured Juvenile White Seabass (<i>Atractoscion nobilis</i>) In The Laboratory, <i>J. E. Smiley</i>
P029	Effects Of Surgically Implanted Ultrasonic Transmitters On Growth, Feeding Behavior, And Tissue Reaction In Adult White Seabass (<i>Atractoscion nobilis</i>), <i>G. M. Stutzer</i>
P030	Distribution Of Squid Paralarvae <i>Loligo opalescens</i> (Cephalopoda: Myopsida) In The Southern California Bight In The Four Years Following The 1997-1998 El Niño, <i>Louis Zeidberg</i>
ONCORHYNCHUS	
P031	The Relationship Between Temperature And Dissolved Oxygen On Salmonid Distribution In Lake Sammamish, Washington, <i>Hans B. Berge</i>
P032	California Estuaries: Migratory Travel Corridors Or Essential Habitat For Steelhead Rearing And Refugia?, <i>Richard A. Bush</i>
P033	Salmon Spawning Escapement Data: Critiquing The Use Of Mark-Recapture Techniques For Salmon Carcasses, <i>B. Cavallo</i>
P034	Russian River Chinook: Relict Or Thriving, <i>S. D. Chase</i>
P035	Estimating The Abundance Of Sacramento River Juvenile Winter Chinook Salmon With Comparisons To Adult Escapement, <i>P.G. Gaines</i>
P036	Discrimination Of Coho (<i>Oncorhynchus kisutch</i>) And Steelhead (<i>Oncorhynchus mykiss</i>) Redds And Comparison Of Methods For Estimating Spawning Populations In Several Unregulated Streams In Mendocino County, California, <i>Sean P. Gallagher</i>
P037	Life History Monitoring Of Salmonids In The West Fork Smith River, Umpqua Basin, Oregon, <i>Bruce Hansen</i>
P038	Mortality Of Juvenile Steelhead In Artificial Pools - Lessons Learned From A Restoration Effort, <i>Peter Johnsen</i>
P039	Demography, Distribution, And Habitat Use Of Juvenile Steelhead In A Large, Regulated River, <i>R. Kurth</i>
P040	Adult Salmon Escapement: A Non-Traditional Variable To Predict The Timing Of Juvenile Salmon Emigration, <i>J. Kindopp</i>
P041	Coho Salmon (<i>Oncorhynchus kisutch</i>) Spawner Escapement And Distribution In Olema Creek, Marin County, California, 1997-2003, <i>Brannon J. Ketcham</i>

Poster Session – Hyatt Regency Mission Ballroom
 Tuesday ♦ April 15th 11:30 am to Thursday ♦ April 17th 11:00am

P042	Coho Salmon (<i>Oncorhynchus kisutch</i>) Return To Pine Gulch Creek, Marin County, California, <i>Brannon J. Ketcham</i>
P043	Migratory Behavior Of Radio-Tagged Steelhead Smolts In Free-Flowing And Impounded Reaches Of The Russian River: Attempts To Enhance Passage By Manipulating Dam Spill, <i>David Manning</i>
P044	Estimating Juvenile Production Of Winter-Run Chinook Salmon As A Management Tool For Water Operations In The Sacramento-San Joaquin Delta, <i>B.F. Oppenheim</i>
P045	Restoration Of Coho Salmon In The Russian River Basin, <i>Sara F. Randall</i>
P046	Come Hell Or High Water: Rearing Of Juvenile Chinook Salmon On A Large River Floodplain, <i>T. R. Sommer</i>
P047	Reduced Anti-Predator Response And Enhanced Growth Due To Genetic Variability Between Different Strains Of Wild And Domestic Coho Salmon (<i>Oncorhynchus kisutch</i>), <i>W. E. Vandersteen Tymchuk</i>
P048	Relationship Of Hatchery And Wild Chum Salmon, Running To Spawn In The Paratunka River, East Kamchatka Over The Time Of Fisheries: Spatial-Temporal Trends, <i>O. M. Zaporozhets</i>
GENETICS	
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CAERS

**CALIFORNIA ESTUARINE
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The newly formed California Estuarine Research Society (CAERS) is an affiliate of the Estuarine Research Federation (ERF). CAERS was formed to fill a gap in the ERF affiliate societies, there by strengthening ties among costal and estuarine researchers in the region. CAERS is open to all, but scientists and students working on estuarine and coastal environment in California and Mexico are particularly solicited.

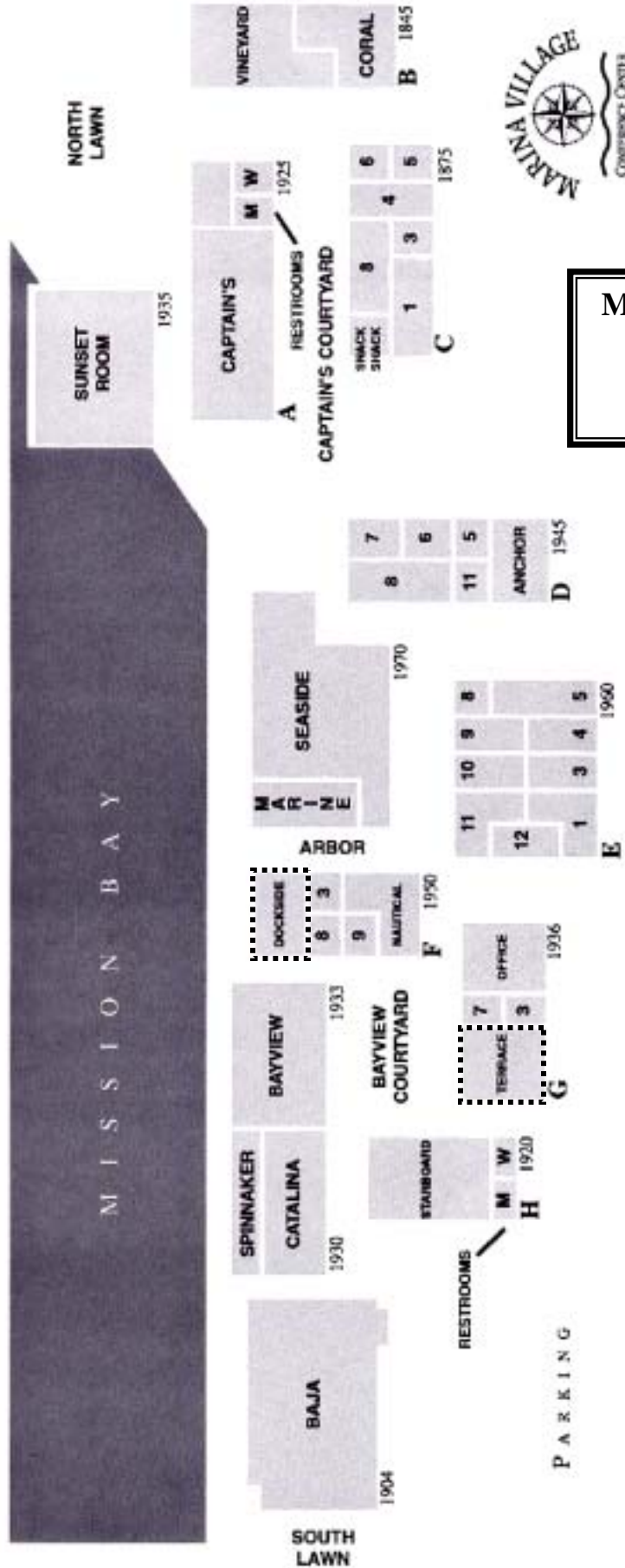
The purpose of the society is to improve education and research regarding California’s estuarine and costal environments by providing a forum to enhance communication among interested scientists, engineers and students. The geographic scope is the estuaries and costal waters of California and Mexico.

To join, please send a check for \$10 (\$7 if you are a graduate or undergraduate student in an institution of higher learning), made out to the California Estuarine Research Society to:

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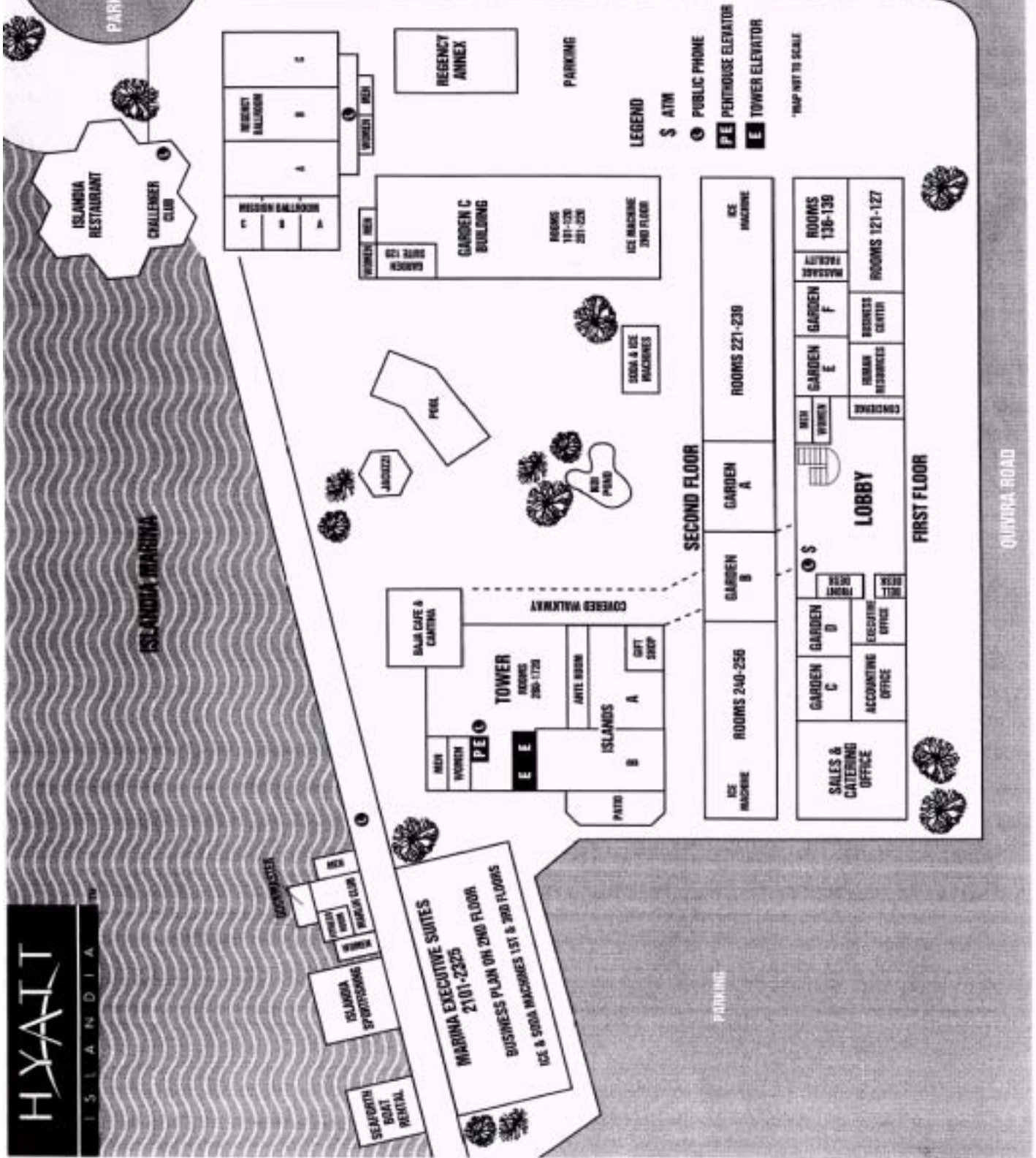
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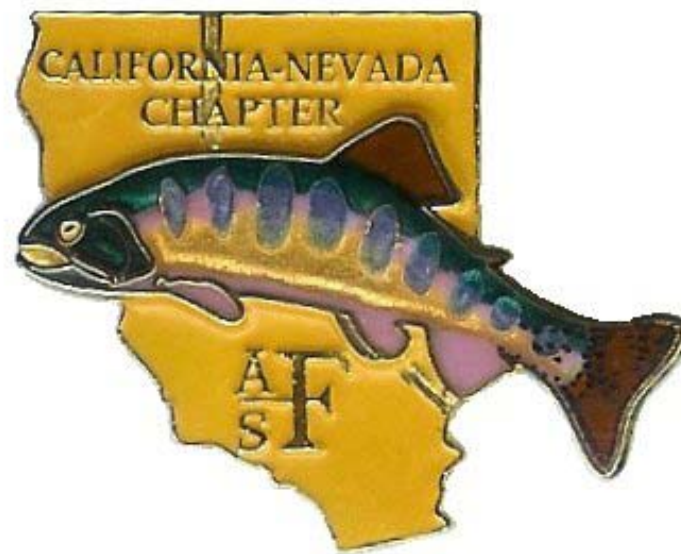
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