



## 2020 Symposium Agenda

Saturday, March 28	
8:00 am to 4:00 pm	<b>OSHA Part 1</b>
8:00 am to 4:00 pm	<b>CPO Course</b>
9:00 am to 12:00 pm	Marine Fish Taxon Advisory Group Steering Committee - Closed
9:00 am to 5:00 pm	<b>BAWL Setup and Commissioning Workshop</b>
1:00 pm to 4:00 pm	Freshwater Fish Taxon Advisory Group Steering Committee - Closed
4:00 pm to 7:00 pm	Aquatic Invert Taxon Advisory Group Steering Committee - Closed
Sunday, March 29	
8:00 am to 4:00 pm	<b>OSHA Part 2</b>
8:00 am to 6:00 pm	<b>Attendee, Vendor &amp; Guest Registration</b>
9:00 am to 2:00 pm	<b>BAWL Setup and Commissioning Workshop</b>
10:00 am to 12:00 pm	<b>Marine Fish Taxon Advisory Group - Public</b>
10:00 am to 12:00 pm	<b>LSS 3 and WQ 1&amp;2 Exam Review Sessions</b>
1:00 pm to 3:00 pm	<b>Freshwater Fish Taxon Advisory Group - Public</b>
1:00 pm to 3:00 pm	<b>WQ 3 and LSS 1&amp;2 Exam Review Sessions</b>
3:00 pm to 5:00 pm	<b>Aquatic Invert Taxon Advisory Group - Public</b>
5:00 pm to 8:00 pm (6:30 pm to 7:30 pm)	<b>Ice Breaker/Vendor Interaction - Felts Vendor Hall</b> Poster Session
Monday, March 30	
7:00 am to 8:00 am	<b>Registration and Breakfast</b>
7:30 am to 8:00 am	<b>Vendor Meeting - Vendor Hall</b>
8:00 am to 8:30 am	<b>Opening Ceremonies</b>
8:30 am to 8:50 am	<b>Host Facility Spotlight</b>
8:50 am to 9:25 am	<b>Exhibiting Vendor Introductions</b>
9:25 am to 09:40 am	<b>First Time Attendee Presentation</b>
9:25 am to 10:10 am	<b>Break / Vendor Interaction - Felts Vendor Hall</b>
10:10 am to 11:50am	<b>Workshops</b>
10:10 am to 12:00pm (10:10 am - 10:25am)	<b>Lecture 1 - Water Quality, Life Support &amp; Facility Operations (1)</b> Centrifugal Pump Bench Testing: the Benefits of Conducting Mechanical and Hydraulic Performance Assessments - <i>Jordan Depenbrock, New England Aquarium</i>
(10:25 am - 10:40am)	Fighting Carbon with Carbon: Reducing Emissions Through Transcritical CO2 Heat Pumps - <i>Chris Emmet, Alaska SeaLife Center</i>
(10:40 am - 10:55am)	"The Aquarist Flu" - A Very Real Danger - <i>Nick Zarlinga, Cleveland Metroparks Zoo</i>
(10:55 am - 11:10am)	The Design and Build Process of Moon Bay: A Jelly Touch Experience at the Florida Aquarium - <i>Libby Nickels, Florida Aquarium</i>
(11:10am - 11:25am)	Creating Tropical Seas from the Puget Sound - <i>Kaela Wuesthoff, Seattle Aquarium</i>
(11:25am - 11:40am)	Building and Running a Fully Interactive Aquarium from the Ground Up - <i>Ben Daughtry, Florida Keys Aquarium Encounters</i>
(11:40am - 11:55pm)	Sustainable Design of Aquarium Life Support Systems - <i>Marie Collins, SEA LIFE Europe &amp; Mike Causer, Dryden-Aqua</i>
(11:55am - 12:00pm)	Q&A
12:00 pm to 1:00 pm	<b>Lunch / Vendor Interaction - Felts Vendor Hall</b>
1:00 pm to 2:30pm (1:00pm - 1:15pm)	<b>Lecture 2 - Animal Welfare</b> Aquatic Animal Welfare Assessments...Don't Freak Out! - <i>Albert Chang, California Science Center</i>
(1:15pm - 1:30pm)	The Five Domains in an Aquatic World - <i>Rob Jones, The Aquarium Vet</i>
(1:30pm - 1:45pm)	A Facility Wide Approach to Animal Welfare Assessment Training - <i>Dannel Isaac, Downtown Aquarium Denver</i>
(1:45pm - 2:00pm)	Measuring Animal Wellness at the Texas State Aquarium Using a Continuous, Reactive, and Proactive Monitoring Tool - <i>Catherine Razal, Texas State Aquarium</i>
(2:00pm - 2:15pm)	Development and Implementation of a Comprehensive Welfare Monitoring Program at Mote Marine Laboratory & Aquarium - <i>Rachel Ayala, Mote Marine Laboratory &amp; Aquarium</i>
(2:15pm - 2:30pm)	Implications of Nociceptive Changes During Senescence on the Welfare of Giant Pacific Octopus, <i>Enteractopus dofleini</i> - <i>Megan Holst, Aquarium of the Bay</i>
1:00 pm to 2:30pm	<b>Workshops</b>
1:00 pm to 2:30 pm (1:00-2:30)	<b>Certification Test WQ 3 &amp; LSS Levels 1 &amp; 2</b>
(1:30-2:30)	WQ Level 3 LSS Levels 1 & 2
2:30 pm to 3:15 pm	<b>Break / Vendor Interaction - Felts Vendor Hall</b>

3:15pm - 4:15pm (3:15pm - 3:30pm)	<b>Lecture 3 - Behavior Management</b> Moon Mysteries: The Guide to a Moon Jelly Touch Exhibit - <i>Valerie Burkholder, Aquarium of the Pacific</i>
(3:30pm - 3:45pm)	Dizzy Izzy Gets a Lift: Turning Obstacles into Enrichment - <i>Erika Pinney, Wonders of Wildlife</i>
(3:45pm - 4:00pm)	Animal Behavior and Conditioning of Great Hammerhead Sharks - <i>Sarah Peake &amp; Melissa Paynter, Georgia Aquarium</i>
(4:00pm - 4:15pm)	8000lb Black and White Enrichment for a Collection of California Coastal Marine Fishes and Invertebrates; Creating Dynamic Habitats for a Multi-taxon Display at SeaWorld San Diego - <i>Mike Price, SeaWorld San Diego</i>
3:15pm to 4:45pm	<b>Workshops</b>
3:15 pm to 4:45 pm (3:15-4:45) (3:45-4:45)	<b>Certification Test LSS 3 &amp; WQ Levels 1 &amp; 2</b> LSS Level 3 WQ Levels 1 & 2
6:30 pm to 10:00 pm	<b>Evening Event at Wonders of Wildlife</b> Busses depart hotel at 6:15
<b>Tuesday, March 31</b>	
7:00 am to 8:00 am	<b>Breakfast - Felts Vendor Hall</b>
8:00 am to 9:30 am (8:00am - 8:15am)	<b>Lecture 4 - Water Quality, Life Support &amp; Facility Operations (2)</b> Progress Toward a Cyanide Detection Test for Marine Aquarium Fish - <i>Andrew Rhyne, Roger Williams University</i>
(8:15am - 8:30am)	Optimizing Removal of Nitrate Through Sulfur Denitrification - <i>Olivia Markham, Roger Williams University</i>
(8:30am - 8:45am)	The Efficacy of Various Filter Media in Removing Copper from Treated Seawater - <i>Keshia Naidoo, South African Association of Marine Biological Research, UShaka Sea World</i>
(8:45am - 9:00am)	A Cost Effective Autonomous and Wireless Water Quality Monitoring System: Set in a Small Marine Science Center - <i>Cody Dawson, Pennington Marine Center Camp Emerald Bay</i>
(9:00am - 9:15am)	A Different Take on Ozone - <i>Kenny Alexopoulos, Oklahoma Aquarium &amp; Frank Young, Dynasty Marine Associates</i>
(9:15am - 9:30am)	"Low and Slow": Energy Efficient and Nature-Based LSS Design - <i>Michael Mancini, Neptune Benson &amp; Jeffrey Keaffaber, SeaWorld Orlando</i>
8:00 am to 9:30am	<b>Workshops</b>
9:20 am to 10:00 am	<b>Break / Vendor Interaction - Felts Vendor Hall</b>
10:00 am to 10:45 am (10:00am - 10:15am)	<b>Lecture 5 - Dirty and Clean Laundry</b> Emergency Planning: Losing Potable Water for an Extended Period of Time - <i>Thom Demas, Tennessee Aquarium</i>
(10:15am - 10:30am)	From "Eeew..." to "Ahhhh!" – Mimicking Nature to Create a Biodiverse Wetland Habitat at the Houston Zoo - <i>Mike Fannin &amp; Karen Sprague, Houston Zoo</i>
(10:30am - 10:45am)	Consulting Abroad to Open a Public Aquarium: The Good, the Bad, the Gray Hairs - <i>Elizabeth Kaufman, Tisch Family Zoological Gardens &amp; Debbi Crain, Crain Aquarium Management Consultant</i>
11:00 am to 12:00 pm	<b>The Future of AALSO, Business Meeting, Elections (OK/IL)</b> <b>RAW Business Meeting (Lecture Hall)</b>
12:00 pm to 1:00 pm	<b>Lunch / Vendor Interaction - Felts Vendor Hall</b>
1:00 pm to 2:40 pm (1:00pm - 1:15pm)	<b>Lecture 6 - Conservation Initiatives</b> Endangered Fish, on Sale Cheap in the Back of a Denny's - <i>Steve Bitter, Aquarium at the Boardwalk</i>
(1:15pm - 1:30pm)	Expedition Colombia: Coral Reef Restoration in South America - <i>Barrett L. Christie, The Maritime Aquarium at Norwalk</i>
(1:30pm - 1:45pm)	Working Towards Positive Change: An Overview of Project LINI - <i>Krista Huebner, SEA LIFE Grapevine Aquarium</i>
(1:45pm - 2:40pm)	Florida Reef Tract Program (F RTP) – Progress, Status and Plans - <i>Beth Firchau, Association of Zoos and Aquariums, Tanya Ramseyer Fish &amp; Wildlife Research Institute, &amp; Brian Nelson, National Aquarium</i>
1:00 pm to 2:30 pm	<b>Workshops</b>
2:30 pm to 3:00 pm	<b>Break / Vendor Interaction - Felts Vendor Hall</b>
3:00 pm to 4:00 pm (3:00pm - 3:15pm)	<b>Lecture 7 - Animal Health and Quarantine (1)</b> Adapting Integrated Pest Management Strategies to Planted Exhibits: A Tale of Two Bugs - <i>Christina Minniti, New England Aquarium</i>
(3:15pm - 3:30pm)	Comparison of Mean Abundances of Ectoparasites from North Pacific Marine Fishes - <i>John W. Foster IV, Point Defiance Zoo &amp; Aquarium</i>
(3:30pm - 3:45pm)	Successful <i>Neobenedenia</i> Treatment at the Tennessee Aquarium - <i>Thom Demas, Tennessee Aquarium</i>
(3:45pm - 4:00pm)	Characterization of Biosecurity and Infection Control Practices among Public Display Aquaria - <i>Emily Cook &amp; Brandy Burgess, University of Georgia</i>
3:30pm to 5:00pm	<b>Workshops</b>
4:15pm - 6:00pm	<b>Elasmobranch Stakeholders Meeting - Lecture Hall</b>
<b>Wednesday, April 1</b>	
7:00 am to 8:00 am	<b>Breakfast - Felts Vendor Hall</b>
7:30 am to 8:00 am	<b>Vendor Meeting Elections - Felts Vendor Hall</b>
8:15 am to 9:30 am (8:15 am - 8:30am)	<b>Lecture 8 - Animal Health and Quarantine (2)</b> An Oldie but a Goodie: Phenoxyethanol in Elasmobranchs - <i>Rob Jones, The Aquarium Vet</i>
(8:30am - 8:45am)	Investigation into Lymphoid Neoplasia in the Southern Stingray, <i>Hypanus americanus</i> - <i>Melissa Morrow, Wonders of Wildlife</i>
(8:45am - 9:00am)	Humeral Fracture Repair of Gentoo Penguin, <i>Pygoscelis papua ellsworthi</i> - <i>Betsey Mackie, Wonders of Wildlife</i>

(9:00am - 9:15am)	A Brief Analysis of the Medical Challenges, Successes, and Deficiencies of the Husbandry of Japanese Spider Crabs, <u>Macrocheira kaempferi</u> - <i>Trevor Erdmann, Oregon Coast Aquarium</i>
(9:15am - 9:30am)	Help! I'm Floating and I Can't Get Down! The Novel Use of a Pressure Chamber to Treat the Formation of Gas Bubbles in Syngnathids - <i>Lindsey Williamson, Cabrillo Marine Aquarium</i>
8:00 am to 9:30am	<b>Workshops</b>
9:40 am to 10:30 am	<b>Break / Vendor Interaction - Felts Vendor Hall</b>
10:30 am to 12:00 pm (10:30am - 10:45am)	<b>Lecture 9 - Reproduction, Rearing and Culture</b> The Little Pups That Could: Raising Cownose Ray Pups - <i>Ashley Neumeier, Audubon Aquarium of the Americas</i>
(10:45am - 11:00am)	Culturing Live <u>Americamysis bahia</u> in an Existing System: Saving Money One Shrimp at a Time - <i>Morgan Lindemayer, New England Aquarium</i>
(11:00am - 11:15am)	Culturing the Flower Hat Jelly - <i>Matt Wade, National Aquarium</i>
(11:15am - 11:30am)	Captive Spawning and Larval Rearing of Copper Sweepers, <u>Pempheris schomburgki</u> - <i>Andrew L. Rhyne, Roger Williams University</i>
(11:30am - 11:45am)	Be Careful What You Wish For: The Highs and Lows of Raising 1100 Giant Sea Bass <u>Stereolepis gigas</u> Larvae - <i>Chris Okamoto, Cabrillo Marine Aquarium</i>
(11:45am - 12:00pm)	The Pupdate: The Ups and Downs of Raising Yellow Stingray ( <u>Urobatis jamaicensis</u> ) Pups - <i>Kathryn King, Audubon Aquarium of the Americas</i>
10:30 am to 12:00 pm	<b>Workshops</b>
12:00 pm to 1:00 pm	<b>Lunch / Vendor Interaction - Felts Vendor Hall</b>
1:00 pm to 2:30 pm	<b>Workshops</b>
1:00 pm to 2:00 pm (1:00pm - 1:15pm)	<b>Lecture 10 - Animal Care &amp; Population Management (1)</b> Population Management & Introduction Techniques of Aquacultured Fishes in New England Aquarium's Giant Ocean Tank - <i>Lindsay Phenix, New England Aquarium</i>
(1:15pm - 1:30pm)	Bagging Sharks: Observations and Utilization at Public Aquariums, <i>Clem Kouijzer, 1-2-1 Animal Handling Products &amp; Eric Hovland, Florida Aquarium</i>
(1:30pm - 1:45pm)	Hammering Out Hammerhead Husbandry: Lessons Learned in the Husbandry of <u>Sphyrna lewini</u> , and Designing a New Exhibit to Specifically Meet Their Unique Requirements - <i>Melissa Bishop, Point Defiance Zoo &amp; Aquarium</i>
(1:45pm - 2:00pm)	Protecting Sharks and Beachgoers Using Electromagnetic Fields - <i>Andrea Gann, Oklahoma Aquarium</i>
1:00 pm to 3:40 pm	<b>Vendor Breakdown</b>
2:00 pm to 2:45 pm	<b>Break</b>
2:45 pm to 4:00 pm (2:45 pm - 3:00pm)	<b>Lecture 11 - Animal Care &amp; Population Management (2)</b> Putting Our Toe in the Water: How Can the Reproductive Management Center Help You? - <i>Monica McDonald, Reproductive Management Center at the St. Louis Zoo</i>
(3:00pm - 3:15pm)	Husbandry Techniques for Leafy Seadragons with Improperly Formed Swim Bladders - <i>Shawn O. Garner, Florida Aquarium</i>
(3:15pm - 3:30pm)	"I Caught you a Delicious Bass": Improvements in Safety, Training, and Husbandry Working with Our Growing Giant Sea Bass, <u>Stereolepis gigas</u> at Monterey Bay Aquarium - <i>Ann Greening, Monterey Bay Aquarium</i>
(3:30pm - 3:45pm)	Exhibiting Atlantic Temperate Corals: Husbandry of <u>Astrangia poculata</u> - <i>Alicia Schickle, Roger Williams University</i>
(3:45pm - 4:00pm)	#ChondroCensus 2020: Building and Streamlining Collaborative Capacity - <i>Jennie Janssen, National Aquarium</i>
6:30 pm to 9:30 pm	<b>Certification Banquet</b>