

Monday, July 28 AM

Room Multnomah

**Session Plenary Session**

08:30 Welcome and Opening Remarks  
Alec Maule, Don MacKinlay, Alan Kolok

09:00 IS THE BIRTH CONTROL PILL AN  
EFFECTIVE FORM OF  
CONTRACEPTION FOR WILD FISHES?  
Karen Kidd

09:30 TRIMETHYLAMINE OXIDE AS A  
PROTEIN STABILIZER IN  
ELASMOBRANCH AND DEEP-SEA  
FISHES  
Paul Yancey

10:00 BREAK

10:30 PROBING CONTAMINANT EFFECTS ON  
THE HPG AXIS OF LARGEMOUTH BASS  
BY EXPRESSION PROFILING  
Nancy Denslow

11:00 THE OREGON HATCHERY RESEARCH  
CENTER: A RESEARCH LABORATORY  
IN THE NATURAL ENVIRONMENT  
David Noakes

11:30 FISH CONSERVATION IN CALIFORNIA:  
PHYSIOLOGICAL/BEHAVIORAL  
APPROACHES  
Joe Cech

12:00 LUNCH

Monday, July 28 PM

Room	Morrison	Ross Island	Sellwood	Hawthorne
Session	<b>Tribute to Joe Cech, Jr.</b>	<b>Contributed Papers</b>	<b>Social Behavior Models</b>	<b>Physiological BioTelemetry</b>
13:00	DR. JOSEPH J. CECH – A SALUTE TO A FORTY-YEAR CAREER OF EXCELLENCE AS A FISH PHYSIOLOGIST Chris Myrick	ISOTOPIC COMPARISON BETWEEN GEODUCK SHELLS AND ROCKFISH OTOLITHS: IMPLICATIONS FOR LIFE HISTORY AND BEHAVIOR Yongwen Gao	Opening Remarks Mike Webster and Ashley Ward	Opening Remarks Kurt Gamperl and Michael Axelsson
13:20	PREVALENCE OF UROLITHIASIS IN FREE-RANGING DESERT TORTOISES, GOPHERUS AGASSIZII, IN JOSHUA TREE NATIONAL PARK. Carlos Crocker	STUDIES OF GALEASPID ENDOCRANIUM SHED NEW LIGHT ON THE ORIGIN OF PAIRED NOSTRILS AND JAW Zhikun Gai	COSTLY INFORMATION: PREDATION RISK AND SOCIAL LEARNING Mike Webster	CONDITION, MIGRATION BEHAVIOUR AND ENERGY USE OF AN IMPERILED STOCK OF CHINOOK SALMON IN A REGULATED RIVER SYSTEM Caleb Hasler
13:40	CONSERVATION PHYSIOLOGY: SALINITY TOLERANCE OF THE ENDANGERED LAKE QINGHAI SCALELESS CARP, GYMNOCYPRIS PRZEWALSKII. Colin Brauner	EARLY HATCHERY REARING DENSITY INFLUENCE BEHAVIOUR AND POST-RELEASE PERFORMANCE IN JUVENILE BROWN TROUT Jörgen Johnsson	CORRELATED RESPONSES TO SELECTION ON BOLDNESS BEHAVIOR IN ZEBRAFISH Mary Oswald	DEVELOPING A MECHANISTIC UNDERSTANDING OF FISH MIGRATIONS BY LINKING TELEMETRY WITH PHYSIOLOGY, BEHAVIOUR, GENOMICS AND EXPERIMENTAL BIOLOGY Steven Cooke
14:00	OXYGEN TRANSFER IN FISH AND GENTLEMAN JOE David Randall	REGULATION OF POSTPRANDIAL HYPEREMIA - IMPORTANCE OF MECHANICAL AND CHEMICAL STIMULI Henrik Seth	CRF1 RECEPTORS INFLUENCE STRESS COPING CHOICE IN A DICHOTOMOUS MODEL OF FEAR CONDITIONING IN ONCORHYNCHUS MYKISS Cliff Summers	MIGRATION BEHAVIOR AND SURVIVAL OF KELT STEELHEAD (ONCORHYNCHUS MYKISS) Ryan Branstetter
14:20	EFFECTS OF AGE AND SALINITY INCREASE ON GILL EPITHELIA OF JUVENILE GREEN STURGEON (ACIPENSER MEDIROSTRIS). Maryann McEnroe	SPATIAL DISTRIBUCIÓN OF REPRODUCTIVE ACTIVITY OF PERUVIAN HAKE (MERLUCCIIUS GAYI PERUANUS) Betsy Buitrón	COMPARATIVE ENERGETICS AND PHYSIOLOGY OF PARENTAL CARE FOR SMALLMOUTH BASS (MICROPTERUS DOLOMIEU) ACROSS A LATITUDINAL GRADIENT Marie-Ange Gravel	CAN ENERGETICS EXPLAIN INTRASPECIFIC HOME RANGE ALLOMETRY IN AN APEX PREDATOR, THE NORTHERN PIKE? Carolyn Knight
14:40	ION AND OSMOREGULATION IN GREEN STURGEON; SCIENCE AND FUN WITH JOE Peter Allen	ANNUAL AND SEASONAL VARIATIONS IN GONADAL DEVELOPMENT AND STEROID PROFILES IN CATLA CATLA S. Fatima	LAKE SUPERIOR'S COASTER BROOK TROUT: A COMPARISON WITH THE STREAM RESIDENT FORM Jill Leonard	TELEMETRY, DIDSON CAMERA, AND GIS USED WITH TRADITIONAL MARK-RECAPTURE METHODS TO ESTIMATE THE NUMBER OF GREEN STURGEON THAT SPAWN IN THE ROGUE RIVER, OREGON Dan Erickson
15:00	BREAK	BREAK	BREAK	BREAK

Monday, July 28 PM

Room	Morrison	Ross Island	Sellwood	Hawthorne
Session	Tribute to Joe Cech, Jr.	Morphometrics	Social Behavior Models	Physiological BioTelemetry
15:20	STRESS BIOMARKER DISCOVERY IN STURGEON USING PROTEOMICS Dietmar Klitz	THE COSTS OF ABDOMINAL DISTENTION TO THE PREDATOR ESCAPE RESPONSE OF GRAVID TRINIDADIAN GUPPIES (POECILIA RETICULATA) Corey Handelsman	QUORUMS, CONSENSUS AND LEADERSHIP IN FISH SHOALS Ashley Ward	RADIO WAVES TAINTED WITH BLOOD: THE LATEST IN FISH TELEMETRY Albin Grns
15:40	STURGEON, SWIMMING, STRESS, AND METABOLIC PRODUCTS - I.E., ALL THINGS JOE CECH JR. Scott Lankford	THE MORPHOLOGICAL CORRELATES OF MATE CHOICE AND PARENTAL CARE PERFORMANCE IN BLACK BASS Kyle Hanson	USING COGNITIVE TRAFFIC RULES TO IDENTIFY RELEVANT INFORMATION TOPOLOGIES WITHIN A FISH SCHOOL. Bertrand Lemasson	AUTONOMOUS RECORDING AND TELEMETRY OF FEEDING EVENTS IN FREE SWIMMING SHARKS Kim Holland
16:00	JOURNEYS WITH JOE: RESEARCH AT THE INTERFACE OF PHYSIOLOGY AND BEHAVIOR Christina Swanson	INCREASING PREDATION INTENSITY IN TWO TRINIDADIAN GUPPY SPECIES (POECILIA RETICULATA AND POECILIA PICTA) Julian Torres Dowdall		FUTURE DIRECTIONS IN PHYSIOLOGICAL TELEMETRY: A DISCUSSION FORUM Kurt Gamperl: Facilitator
16:20	JUVENILE SALMON ENERGETIC ESTIMATES IN A VEGETATED, SIMULATED FLOODPLAIN, VIA TBF – MO2 RELATIONSHIPS Joe Cech, Jr.	DIFFERENCES IN THE BODY MORPHOMETRICS AND ASSOCIATED SWIMMING COSTS BETWEEN WILD, HATCHERY, AND FARMED ATLANTIC SALMON Eva Enders	VISUAL FUNCTION IN CHESAPEAKE BAY'S PREDATORY FISHES Andrij Horodysky	Continued... Kurt Gamperl: Facilitator
16:40		PLASTICITY OF DIFFERENCES IN PERFORMANCE AMONG BLACKNOSE DACE POPULATIONS ACROSS A GRADIENT OF URBANIZATION; THE ROLE OF MORPHOLOGY Jay Nelson		Continued... Kurt Gamperl: Facilitator
17:00		STUDY OF LIVER AND PANCREAS IN ADULT OTOLITHES RUBER IN PERSIAN GULF Rahim Abdi		Continued... Kurt Gamperl: Facilitator

Tuesday, July 29 AM

Room	Morrison	Ross Island	Sellwood	Hawthorne
Session	Stress Effects and Responses	Tropical Fish Adaptations	Biology of Lampreys	Swimming Performance
08:00	Opening Remarks  Lluís Tort, George Iwama, Scott Lankford	Opening Remarks  Dal Val, Vera Almeida-Val	Opening Remarks Ben Clemens, Mary Moser, Margaret Docker, Stacia Sower	Opening Remarks John Williams, Chris Katopodis, Chris Myrick
08:20	MELANOCORTIN 2 RECEPTOR AND ITS ROLE IN THE STRESS RESPONSE Matt Vijayan	DIVERSITY OF MORMYRID FISH IN SOUTHERN AFRICA: A MULTIDISCIPLINARY APPROACH Bernd Kramer	MATING SYSTEMS IN LAMPREYS: THE ROLE OF GENETIC COMPATIBILITY R. Rodríguez-Muñoz	"LITTLE FISH" PASSAGE – MEASURING SWIMMING AND JUMPING PERFORMANCE OF NON-GAME FISHES Chris Myrick
08:40	STRESS-RELATED HORMONES AFFECT CYTOKINE EXPRESSION IN SEABREAM HEAD KIDNEY Lluís Tort	GENETIC STRUCTURE OF A SPAWNING SCHOOL: A TRACK TO KNOWLEDGE ON THE POPULATION STRUCTURE OF THE FRESHWATER MIGRATORY FISH, BRYCON HILARII Pedro Manoel Galetti Junior	A TALE OF TWO BROOK LAMPREYS: ANCIENT VICARIANCE AND RECENT DISPERSAL M. White	BRIDGING THE GAP BETWEEN HYDRAULICS AND FISH BEHAVIOUR: THE APPLICATION TO FISH PASSAGE Paul Kemp
09:00	HUSBANDRY STRESS AND DISEASES OF ZEBRAFISH Jennifer Ramsay	LIFE-HISTORY TRAITS AND ENERGETICS OF MOUTH BROODING IN DIVERGENT OXYGEN ENVIRONMENTS Erin Reardon	ENVIRONMENTAL AND GENETIC SOURCES OF VARIATION IN JUVENILE SEA LAMPREY DISPERSAL AND PHENOTYPE Kim Scribner	EFFECTIVE FISH PASSAGE SYSTEMS MATCH HYDRAULICS TO FISH BEHAVIOR John Williams
09:20	VARIATION IN GENE-EXPRESSION IN TEMPERATURE STRESSED SEXUALLY-SELECTED VERSUS HATCHERY-BRED CHINOOK SALMON Romina Bortoluzzi	TESTING THE "ADAPTIVE MODULATION HYPOTHESIS" IN A DETRITIVOROUS FISH Meaghan Callahan	GENETIC DIVERSITY, ENDEMISM, AND BIOGEOGRAPHY OF THE WESTERN BROOK LAMPREY (LAMPETRA RICHARDSONI) Dave Boguski	FISH BIOMECHANICS DATA BASE AND FISH SWIMMING PERFORMANCE Chris Katopodis
09:40	CADMIUM AND COLD SHOCK INDUCE METALLOTHIONEIN-2 EXPRESSION BUT NOT SIMILAR TO METALLOTHIONEIN-B (SMT-B) IN ZEBRAFISH (DANIO RERIO) LARVAE Su Mei Wu	DIGESTIVE ENZYME ACTIVITIES IN THE WOOD-EATING CATFISH, PANAQUE NOCTURNUS Rosalie Bittong	TOWARDS A PHYLOGENY OF LAMPREYS OF THE WORLD Claude Renaud	EVALUATING THE BARRIER POTENTIAL OF INSTREAM OBSTACLES TO UPSTREAM BROOK TROUT MOVEMENT Matt Kondratieff
10:00	BREAK	BREAK	BREAK	BREAK

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10:20	DIVERGENT CORTISOL STRESS RESPONSIVENESS IN FAMILIES OF ATLANTIC COD (GADUS MORHUA) SUBJECTED TO HANDLING STRESS Tiago Hori	THE BEAVERS OF THE FISH WORLD: CAN WOOD-EATING CATFISHES DIGEST WOOD? Donovan German	THE INTRASPECIFIC STRUCTURE OF THE ARCTIC LAMPREY LETHENTERON CAMTSCHATICUM, AND ITS FORMATION IN THE RIVERS OF WESTERN KAMCHATKA (BY THE EXAMPLE OF THE UTKHOLOK RIVER) Alexandr Kucheryavyy	UPSTREAM MIGRATION OF FISH AT NATURAL OBSTRUCTIONS AND FISH PASSES EFFICIENCY IN SOUTHERN BELGIUM Michael Ovidio
10:40	PHYSIOLOGICAL DISTURBANCES IN LARGEMOUTH BASS: CONSEQUENCES OF TEMPERATURE AND OXYGEN SHOCK Cory Suski	SHORT TERM VENTILATORY DEPRESSION AND PHENOTYPIC PLASTICITY MAY PROTECT THE ARMoured CATFISH FROM REOXYGENATION INJURY AND OXIDATIVE STRESS. Gillian Renshaw	ANGUILLIFORM LOCOMOTION AND CLIMBING IN LAMPREY Paul Kemp	CHANGING VELOCITY CONDITIONS ENCOUNTERED BY SMOLTS: HOW DO THEY INFLUENCE CHINOOK SALMON BEHAVIOR Eva Enders
11:00	PHYSIOLOGICAL CONSEQUENCES OF SELECTION FOR ANGLING VULNERABILITY IN A RECREATIONAL SPORTFISH Tara Redpath	FOOD AVAILABILITY ALTERS HYPOXIA RESISTANCE OF THE AMAZONIAN OSCAR (ASTRONOTUS OCELLATUS). Gudrun De Boeck	ASSESSING THE SWIMMING BEHAVIOUR OF UPRIVER MIGRATING SEA LAMPREY WITH ELECTROMYOGRAM TELEMETRY Pedro Raposo de Almeida	SWIMMING PERFORMANCE AND AEROBIC METABOLIC SCOPE IN DOMESTICATED STRAINS OF EUROPEAN SEA BASS C. Lefrançois
11:20	THE SPAWNING MIGRATION OF KISSING LOACH BETWEEN RIVERS AND FLOOD AREAS: POSSIBLE GENERAL TRIGGER FOR FISH MIGRATIONS IN RIVERS Tsukasa Abe	INTRINSIC MECHANICAL PROPERTIES AND HYPERCAPNIC TOLERANCE OF THE PERFUSED ARMoured CATFISH HEART Linda Hanson	MORE THAN MEETS THE EYE: THE SENSORY BASIS OF LIGHT AVOIDANCE IN UPSTREAM MIGRATING SEA LAMPREYS Tom Binder	APPLYING METHODS AND CONCEPTS OF PSYCHOLOGICAL RESEARCH TO FISH PASSAGE James Anderson
11:40	INTEGRATING PHYSIOLOGICAL, BEHAVIOURAL, AND ENVIRONMENTAL INDICES TO UNDERSTAND MIGRATION FALL BACK AND MORTALITY DURING THE FRESHWATER PHASE OF THE SOCKEYE SALMON SPAWNING MIGRATION IN THE FRASER RIVER Michael Donaldson	NEWS ON EIF2<sup>#61537</sup>; IN THE AMAZONIAN FISH COLOSSOMA MACROPOMUM Dal Val	RELATING MIGRATION CHARACTERISTICS OF ADULT PACIFIC LAMPREY, ENTOSPHENUS TRIDENTATUS, TO HIGH SUMMERTIME TEMPERATURES Ben Clemens	IBERIAN BARBEL RESPONSE TO DIFFERENT HYDRAULIC ENVIRONMENTS ON A EXPERIMENTAL POOL-TYPE FISHWAY Ana Silva
12:00	LUNCH	LUNCH	LUNCH	LUNCH

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Session	Stress Effects and Responses	Tropical Fish Adaptations	Biology of Lampreys	Swimming Performance
13:00	DISRUPTION OF THE STRESS ENDOCRINE SYSTEM OF INSHORE WILD FISH OF THE SOUTHERN CALIFORNIA BIGHT Andrew Hamilton	EVALUATION OF FISHES LIVING IN AN AMAZON AREA INFLUENCED BY PETROLEUM TRANSPORT Fabiola Valdez	RESPONSES OF JUVENILE PACIFIC LAMPREY TO LIGHT AND WATER VELOCITY DURING SEAWARD MIGRATION Mary Moser	COLLECTION OF JUVENILE SALMONIDS AT COWLITZ FALLS DAM: PHYSICAL AND HYDRAULIC CONDITIONS THAT RESULT IN DELAY OR REJECTION OF VOLITIONA L ENTRY INTO A SURFACE COLLECTION SYSTEM Tobias Kock
13:20	REPRODUCTION CAPACITY OF FATHEAD MINNOW IN TWO POPULATIONS FROM NORTHERN ONTARIO Mery Martinez	DIFFERENTIAL GENE EXPRESSION IN COLOSSOMA MACROPOMUM EXPOSED TO CRUDE OIL AND HYPOXIA. Vera Val	METAMORPHOSIS, METABOLIC PLASTICITY, & FEEDING IN THE SEA LAMPREY Michael Wilkie	SIZE MATTERS - LONGER FLUMES INCREASE CRITICAL SWIMMING SPEEDS Christian Tudorache
13:40	THE INFLUENCE OF MATERNAL CONDITION AT SPAWNING ON OFFSPRING SWIMMING PERFORMANCE Keith Tierney	BIOLOGICAL SENSITIVITY OF AMAZONIAN ORNAMENTAL FISHES TO COPPER Fabiola Valdez	PERIPHERAL REGULATORS OF THYROID STATUS IN LAMPREY: PHYSIOLOGICAL, DEVELOPMENTAL AND EVOLUTIONARY CONSIDERATIONS. Richard Manzon	EFFECTS ON THE SWIM PERFORMANCE, BEHAVIOR, AND KINEMATICS OF A DECLINING SPECIES, SACRAMENTO PERCH Christa Woodley
14:00	MINUTE TEMPERATURE DECREASE TRIGGERS HORMONE MEDIATED DOWNSTREAM MOVEMENT IN PACIFIC SALMON Carl Schreck	OSMO-IONIC ALTERATIONS IN PROCHILODUS LINEATUS AFTER ACUTE ALUMINUM EXPOSURE IN LOW PH Marina Mori Pires de Camargo	PUTATIVE PHEROMONES OF THE PACIFIC LAMPREY (ENTOSPHEMUS TRIDENTATUS) Michael Siefkes	COMPARISON OF JUVENILE PINK SALMON UMAX AND UCRIT SWIMMING PERFORMANCE , AND THE EFFECT OF SEA LICE ON UMAX Laura Nendick
14:20	ANESTHESIA WITH PROPOFOL OR BENZOCAINE IN FISH: WHICH FITS BETTER? Gilson Luiz Volpato	ANTIOXIDANTS, LIPID PEROXIDATION AND DNA DAMAGE IN A NEOTROPICAL FISH AFTER 24H EXPOSURE TO LEAD Claudia B R Martinez	USING STABLE ISOTOPES TO ASSESS POTENTIAL SEA LAMPREY DAMAGE TO LAKE SUPERIOR FISHES Chris Harvey	DEVELOPMENT OF LAMPREY-SPECIFIC FISHWAYS Mary Moser
14:40	RAPID FIELD ASSESSMENT OF FISH MORBIDITY AND DELAYED MORTALITY USING EXTRINSIC REFLEX IMPAIRMENT Michael W. Davis		ELECTROFISHING FOR LARVAL LAMPREY: THE INFLUENCE OF CAPTURE EFFICIENCY ON ESTIMATES OF DISTRIBUTION AND ABUNDANCE Timothy Whitesel	SWIMMING IN AN UNSTEADY WORLD: MODIFIED BODY-CAUDAL FIN KINEMATICS DUE TO ACTIVE STABILITY REQUIREMENTS Hans Triticco
15:00	BREAK			
15:20	CHOICE FOR NUMBER OF SHELTERS IN FISH Gilson Luiz Volpato		THE RANGEWIDE PACIFIC LAMPREY CONSERVATION INITIATIVE - STATUS AND FUTURE Streif, Bianca	
15:40	ETHOLOGICAL EVALUATION OF CHROMATOPHORE DISTRIBUTION IN TILAPIA- OREOCHROMIS MOSSAMBICUS K. Kesavan		GENE DUPLICATION AND THE EVOLUTION OF CHONDROGENIC NEURAL CREST David McCauley	
16:00			EVOLUTION OF GLYCOPROTEIN HORMONE RECEPTOR SYSTEMS IN VERTEBRATES FROM A SEA LAMPREY PERSPECTIVE Mihael Freamat	
16:20			ORIGINS OF GNRH IN VERTEBRATES: IDENTIFICATION OF A NOVEL GNRH IN A BASAL VERTEBRATE, THE SEA LAMPREY Stacia Sower	

Wednesday, July 30 AM

Room	Morrison	Ross Island	Sellwood	Hawthorne
Session	Ion and Acid-base Regulation	Fish Growth	Immunity and Disease Resistance	Fish Living on the Edge
08:00	Opening Remarks Greg Goss, Colin Brauner, Steve McCormick	Opening Remarks Brian Small, Brian Peterson	Opening Remarks Stephen Kaattari, Greg Wiens	Opening Remarks Patricia Wright, Suzie Currie, Louise Milligan
08:20	SALINITY DEPENDENT ISOFORMS OF GILL NA <sup>+</sup> ,K <sup>+</sup> -ATPASE IN ATLANTIC SALMON: PROTEIN CHARACTERIZATION, ABUNDANCE AND LOCALIZATION. Stephen McCormick	IGF SIGNALING IN A SMALL FISH Cunning Duan	A NOVEL PATTERN RECOGNITION RECEPTOR ON NCC WITH BACTERICIDAL ACTIVITY: ROLE IN THE INNATE IMMUNE RESPONSE OF CATFISH. Liliana Jaso-Friedmann	ADAPTATIONS FOR AN AMPHIBIOUS LIFE IN MANGROVE KILLIFISH Patricia Wright
08:40	GILL NA <sup>+</sup> K <sup>+</sup> -ATPASE ISOFORM SWITCHING IN SALMONID FISHES DURING SALINITY ACCLIMATION Jason Bystriansky	Continued... Cunning Duan	A COMPARATIVE GENOMICS APPROACH FOR DISCOVERY OF CYTOKINES AND THEIR REGULATORY REGIONS Ram Savan	ALL STRESSED OUT AND NO WAY TO GO: THE RELATIONSHIP BETWEEN STRESS AND NITROGEN WASTE EXCRETION IN TOADFISH. Danielle McDonald
09:00	EXPRESSION AND LOCALIZATION OF GILL ISOFORMS OF FX <sub>1</sub> YD PROTEINS AND NA,K-ATPASE ALPHA-SUBUNIT DURING DEVELOPMENT OF SEAWATER TOLERANCE IN ATLANTIC SALMON Christian Tipsmark	GROWTH REGULATION BY INSULIN-LIKE GROWTH FACTOR IN EEL S. Moriyama	GROWTH FACTORS OF TELEOST MACROPHAGES Mike Belosevic	WASTE EXCRETION IN AGNATHAN FISHES Susan Edwards
09:20	GILL NA <sup>+</sup> , K <sup>+</sup> ATPASE ALPHA SUBUNIT ISOFORM EXPRESSION AND MIGRATION TENDENCY IN JUVENILE STEELHEAD William Gale	REGULATION OF GROWTH HORMONE FAMILY RECEPTORS IN PRIMARY CULTURED TILAPIA HEPATOCYTES: EFFECTS OF HORMONES ON EXPRESSION OF THE GH RECEPTOR AND THE PUTATIVE SL RECEPTOR Andrew Pierce	Continued... Mike Belosevic	ECOPHYSIOLOGY OF THE CENTRAL MUDMINNOW, UMBRA LIMI, AN AIR-BREATHING FISH LIVING IN A VARIABLE ENVIRONMENT Suzie Currie
09:40	GILL NA <sup>+</sup> /K <sup>+</sup> -ATPASE ACTIVITY OF EURYHALINE TELEOSTS INCREASES WITH OSMOTIC STRESS IN ENVIRONMENTS DISTINCT FROM THEIR PRIMARY NATURAL HABITATS Tsung-Han Lee	NUTRITIONAL REGULATION OF IGFS IN CHANNEL CATFISH Brian Peterson	ISOLATION AND FUNCTIONAL CHARACTERIZATION OF GOLDFISH (CARASSIUS AURATUS L.) NEUTROPHILS Barbara Katzenback	SWIMMING UNDER THE INFLUENCE: ETHANOL PRODUCTION DURING EXERCISE IN GOLDFISH C. Louise Milligan
10:00	BREAK	BREAK	BREAK	BREAK

Wednesday, July 30 AM

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10:20	ONTOGENY AND EXPRESSION OF THE CFTR CHLORIDE CHANNEL IN THE IONOCYTES OF THE EUROPEAN SEA-BASS ACCORDING TO SALINITY. Charlotte Bodinier	REGULATION OF INSULIN-LIKE GROWTH FACTOR-1 RECEPTORS Mark Sheridan	MOLECULAR AND FUNCTIONAL ANALYSIS OF GOLDFISH TUMOR NECROSIS FACTOR-ALPHA. Leon Grayfer	BULLIES IN THE FISH TANK: PHYSIOLOGICAL EXTREMES ELICITED BY SOCIAL STRESS Katie Gilmour
10:40	EVIDENCE FOR A NOVEL MECHANISM OF CL- UPTAKE IN FRESHWATER SEA LAMPREYS Michael Wilkie	TEMPORAL SEQUENCE OF GROWTH-RELATED ENDOCRINE CHANGE FOLLOWING AN ANABOLIC STIMULUS IN COHO SALMON Brian Beckman	CHARACTERIZATION OF TRANSFERRIN-DERIVED SYNTHETIC PEPTIDE THAT INDUCES PRO-INFLAMMATORY RESPONSES OF MACROPHAGES George Haddad	LESSONS FROM THE COLD: PROTEIN HOMEOSTASIS IN ANTARCTIC FISHES Anne Todgham
11:00	IONOREGULATORY AND GROWTH DIFFERENCES IN PLOIDY MANIPULATED OCEAN-TYPE CHINOOK SALMON Mark Shrimpton	ENDOCRINOLOGY OF CATCH-UP GROWTH FOLLOWING SEASONAL COLD-BANKING IN HYBRID STRIPED BASS (MORONE CHRYSOPS X M. SAXATILIS) Russell Borski	UNDERSTANDING THE MOLECULAR MECHANISMS BEHIND DIETARY IMMUNOSTIMULATION IN THE RAINBOW TROUT USING PARALLEL TARGETED CDNA MICROARRAY AND ISH ANALYSIS Carmen Donate	THE AMAZONIAN CHALLENGE: COPING WITH LOW ION, OXYGEN AND FOOD LEVELS. Gudrun De Boeck
11:20	ONTOGENY OF ION REGULATION AND GROWTH IN WILD AND LABORATORY-REARED JUVENILE PINK SALMON (ONCORHYNCHUS GORBUSCHA) Manuela Gardner	ENVIRONMENTAL DISRUPTION OF GROWTH ENDOCRINE FACTORS AND PROTEOME BIOMARKERS IN WILD FISH FROM IMPACTED MARINE AND ESTUARINE ENVIRONMENTS IN CALIFORNIA Kevin M. Kelley	FUNCTIONAL CHARACTERIZATION OF THREE DISTINCT IGD BEARING CELL POPULATIONS IN CHANNEL CATFISH, ICTALURUS PUNCTATUS Melanie Wilson	CELLULAR ASPECTS OF METABOLIC DEPRESSION IN CUNNER (TAUTOGOLABRUS ADSPERSUS) Courtney MacSween
11:40	DIRECT ACTIONS OF PROLACTIN, MINERALO- AND GLUCOCORTICOIDS ON THE ESOPHAGUS OF EURYHALINE FISHES Chiyo Takagi	PARTITIONING THE EFFECTS OF GROWTH HORMONE (GH) ON MUSCLE PHYSIOLOGY: IN VIVO FINDINGS AMONG GH TRANSGENIC AND WILD COHO SALMON (ONCORHYNCHUS KISUTCH). Peter M. Dimoulas	Continued... Melanie Wilson	CHRONIC HYPOXIC EFFECTS ON THE PHYSIOLOGY ATLANTIC COD (GADUS MORHUA): ADAPTATION OR COMPROMISED FUNCTION? Kurt Gamperl
12:00	LUNCH	LUNCH	LUNCH	LUNCH

Wednesday, July 30 PM

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Session	Ion and Acid-base Regulation	Fish Growth	Immunity and Disease Resistance	Fish Living on the Edge
13:00	OVERWINTERING OF SEA TROUT (SALMO TRUTTA) IN FRESHWATER: ESCAPING SALT AND LOW TEMPERATURE OR AN ALTERNATE LIFE STRATEGY? Steffen Madsen	EXPRESSION OF GROWTH-RELATED GENES DURING GONADAL STEROIDOGENESIS AND GAMETOGENESIS Brian Small	IDENTIFICATION AND CHARACTERIZATION OF A FC RECEPTOR HOMOLOG IN THE CHANNEL CATFISH (ICTALURUS PUNCTATUS) Eva Bengten	MITOCHONDRIAL PROTEIN SYNTHESIS IS DEFENDED IN GILL BUT NOT HEART OF THE CUNNER (TAUTOGOLABRUS ADSPERSUS) IN RESPONSE TO ACUTE HYPOXIA AND HYPOTHERMIA Johanne Lewis
13:20	IMPACTS OF SHORT-TERM ACID AND ALUMINUM ON THE ION REGULATORY PHYSIOLOGY OF ATLANTIC SALMON SMOLTS: MECHANISMS OF IMPAIRED SEAWATER TOLERANCE Michelle Monette	EXPRESSION OF GROWTH RELATED GENES DURING THE TRANSITION FROM LATE STAGE EMBRYO TO EARLY STAGE JUVENILE IN RAINBOW TROUT John Leatherland	A NOVEL B CELL SUBSET OF TELEOST FISH EXPRESSING SURFACE IgT: ROLE IN PHAGOCYTOSIS Oriol Sunyer	PROTEOME RESPONSES TO ANOXIA AND HYPOXIC PRECONDITIONING IN THE EPAULETTE SHARK Wes Dowd
13:40	THE EFFECT OF SEA LICE (LEPEOPHTHEIRUS SALMONIS) ON IONOREGULATION IN JUVENILE PINK SALMON (ONCORHYNCHUS GORBUSCHA) Michael Sackville	GONADOTROPIN-RELEASING HORMONE (GNRH) STIMULATION OF HORMONE SECRETION AND SYNTHESIS INVOLVES COMMON, AS WELL AS DISTINCT, KINASE SIGNALING SYSTEMS IN GOLDFISH PITUITARY CELLS. John P Chang	COSTIMULATORY RECEPTORS IN FISH: GENOMIC ANALYSIS OF THE CD28 AND B7 FAMILIES John Hansen	LIFE ON THE EDGE: CAPE HAKE IN THE BENGUELA UPWELLING SYSTEM Maryann McEnroe
14:00	SALINITY STRESS IN GREEN STURGEON: THE EFFECTS OF GLOBAL CLIMATE CHANGE ON SAN FRANCISCO BAY-DELTA POPULATIONS. Brian Sardella	PRECOCIOUS MATURATION IN MALE SALMONIDS: A MODEL FOR UNDERSTANDING INTERACTIONS BETWEEN THE GROWTH AND REPRODUCTIVE AXES. Don Larsen	GENERATION OF IMMUNOGLOBULIN DIVERSITY IN ZEBRAFISH: EVIDENCE FOR INVERSIONAL VJ-REARRANGEMENTS BOTH WITHIN AND BETWEEN IGL GENE CLUSTERS Ana Zimmerman	PHYSIOLOGICAL RESPONSES TO WATER QUALITY IN LARGE SCALE COMMERCIAL ATLANTIC SALMON SMOLT PRODUCTION Torstein Kristensen
14:20	MOLECULAR TO ORGANISMAL RESPONSES TO SALINITY CHANGE IN THE LEOPARD SHARK Wes Dowd	GHRELIN-INDUCED GROWTH HORMONE AND GONADOTROPIN RELEASE FROM GOLDFISH PITUITARIES UTILIZE BOTH CALCIUM ENTRY AND THE PKC PATHWAY. Caleb Grey	USE OF A SOLID PHASE IMMUNOPARTITIONING TECHNIQUE TO MONITOR THE DYNAMICS OF THE TROUT ANTIBODY RESPONSE Ilsa Kaattari	CORTISOL-SENSITIVE BASOLATERAL UREA TRANSPORT ACROSS THE GILLS OF THE GULF TOADFISH, OPSANUS BETA Tammy Rodela
14:40	REPRODUCTIVE-BASED CHANGES IN CALCIUM REGULATION IN A FRESHWATER, CARTILAGINOUS FISH Peter Allen	INVESTIGATIONS INTO GHRELIN'S ROLE IN REGULATING FISH GROWTH AND METABOLISM Larry Riley	UNIQUE TELEOST ANTIBODY ASSEMBLY PROCESSES MAY LEAD TO ENHANCED AFFINITY MATURATION Stephen Kaattari	EFFECTS OF CROWDING ON ENZYME ACTIVITIES AND GENE EXPRESSION OF ORNITHINE-UREA CYCLE ENZYMES IN THE GULF TOADFISH (OPSANUS BETA) Tammy Laberge MacDonald
15:00	BREAK	BREAK	BREAK	BREAK

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Room	Morrison	Ross Island	Sellwood	Hawthorne
Session	Ion and Acid-base Regulation	Fish Growth	Immunity and Disease Resistance	Fish Living on the Edge
15:20	INTERSPECIFIC AND INTRASPECIFIC VARIATIONS IN THE PHYSIOLOGICAL PLASTICITY OF FUNDULUS TO OSMOTIC STRESS Fernando Galvez	SEXUAL DIMORPHISM IN THE HEPATIC TRANSCRIPTOME OF ZEBRAFISH AND THE EFFECT OF DIETARY CARBOHYDRATES Robert Drew	MOLECULAR AND CELLULAR ANALYSES ON THE ACTIVATION STATE OF B CELLS IN THE RAINBOW TROUT USING FLOW CYTOMETRY. Patty Zwollo	MECHANISMS OF HIGH AMMONIA TOLERANCE IN THE GOLDFISH Michael Wilkie
15:40	THE DEVELOPMENT OF NITROGEN EXCRETION IN ZEBRAFISH Marvin Braun	THE EFFECT OF DIETARY RATION AND FASTING ON GLOBAL PROTEOMIC EXPRESSION IN RAINBOW TROUT LIVER, SERUM, AND MUSCLE. Bradley Baumgarner	GERMINAL CENTRE-LIKE TISSUE ARCHITECTURE EXISTS IN FISH LYMPHOID ORGANS. Brad Magor	IMPOSING ADDITIONAL STRESS ON WILD FISH DURING ALREADY CHALLENGING PERIODS: PHYSIOLOGICAL AND BEHAVIOURAL CONSEQUENCES OF CHRONIC STRESS DURING PARENTAL CARE Constance O'Connor
16:00	EVIDENCE FOR AN APICAL NA-CL COTRANSPORTER INVOLVED IN ION UPTAKE IN TILAPIA EMBRYOS Junya Hiroi	CHARACTERIZATION OF MYOSTATIN INTERACTING PROTEINS IN TROUT Steven Roberts	Continued... Brad Magor	OLD FISH IN COLD STREAMS: EVIDENCE FOR EXOTIC BROOK TROUT NICHE CONTRACTION IN THE PRESENCE OF NATIVE BULL CHARR. Kai Steimle
16:20	ENERGY METABOLISM FOR FISH ION REGULATION: IDENTIFICATION AND FUNCTIONAL ANALYSIS OF GLUCOSE TRANSPORTERS IN ZEBRAFISH IONOCYTES Yung-Che Tseng	THE ROLE OF MYOSTATIN IN THE GROWTH AXIS OF INDETERMINATE AND DETERMINATE GROWING FISH. Peggy Biga	FISH IMMUNE SYSTEM AND INTERACTIONS WITH ENVIRONMENT Giuseppe Scapigliati	TEMPERATURE DEPENDENT PROPERTIES OF ACTION POTENTIALS AND SARCOLEMMA K+ CURRENTS FROM BLUEFIN TUNA MYOCYTES Gina Galli
16:40	FUNCTIONAL EXPRESSION OF AQUAPORIN WATER AND SMALL SOLUTE CHANNELS IN THE EEL (ANGUILLA ANGUILLA) Christopher Cutler	THE ROLE OF MYOSTATIN AND ACTRIIB IN MUSCLE DEVELOPMENT OF FISH Terence Bradley	REFERENCE LEVEL OF SOME SERUM ENZYMES IN HUSO HUSO LINNAEUS, 1758 Farhad Rajabipour	EFFECTS OF INCREASING SALINITY ON SURVIVAL AND METABOLIC RATE OF THREE EURYHALINE FISHES Allison Wilkes
17:00		VARIATIONS OF METABOLITES IN RELATION TO THE OVARIAN CYCLE IN TILAPIA J.G.K. Pathan		

Thursday, July 31 AM

Room	Morrison	Ross Island	Sellwood	Hawthorne
Session	Ions and Acid-base Regulation	Environmental Pollution	Immunity and Disease Resistance	Genomics of Adaptation
08:00	Recap of Day 1 Greg Goss, Colin Brauner, Steve McCormick	Opening Remarks Suzie Currie, Mark Hartl, Chris Kennedy, Ashley Ward	INTEGRATING SELECTIVE BREEDING WITH MICROBIAL GENOMICS TO IMPROVE RAINBOW TROUT DISEASE RESISTANCE Greg Wiens	Opening Remarks Trish Schulte Wendy Tymchuk, Bob Devlin
08:20	A MODEL FOR ACID SECRETION/SODIUM UPTAKE IN ZEBRAFISH P. P. Hwang	BISPHENOL A IMPACTS EMBRYOGENESIS AND GROWTH BY DISRUPTING THE SOMATOTROPIC AXIS IN RAINBOW TROUT. Neel Aluru	Continued... Greg Wiens	COMPARATIVE GENE EXPRESSION PATTERNS AMONG AND WITHIN ATLANTIC SALMON POPULATIONS OF THE BAY OF FUNDY Wendy Tymchuk
08:40	THEORETICAL CONSIDERATIONS UNDERLYING NA <sup>+</sup> UPTAKE MECHANISMS IN FRESHWATER FISHES Greg Goss	EFFECTS OF ETHINYLESTRADIOL IN THE ESTUARINE KILLIFISH FUNDULUS HETEROCLITUS DURING DIFFERENT REPRODUCTIVE PERIODS Deb MacLatchy	RESISTANCE AND RECOVERY FROM MYXOZOAN AND MICROSPORIDIAN INFECTIONS IN SALMONID FISHES Michael Kent	EST-DERIVED SNPS REVEAL DIVERSIFYING SELECTION IN CANADIAN ATLANTIC SALMON (SALMO SALAR) POPULATIONS. Mark Culling
09:00	THE INVOLVEMENT OF NA <sup>+</sup> /H <sup>+</sup> EXCHANGERS IN BRANCHIAL AND RENAL ACID-BASE REGULATION IN RAINBOW TROUT Steve Perry	ELEVATED ESTROGEN IN MALE FLATFISH IN SOUTHERN CALIFORNIA'S URBAN OCEAN: BIOACCUMULATION OR TESTICULAR SYNTHESIS? Jesus Reyes	Continued... Michael Kent	USING GENOMICS TO IDENTIFY GENES ASSOCIATED WITH UPPER TEMPERATURE TOLERANCE IN SALMONIDS WITH APPLICATIONS TOWARD AQUACULTURE AND CLIMATE CHANGE Nicole Quinn
09:20	BRANCHIAL COEXPRESSION OF GILL NHE3 AND RHG IN THE MARINE LONG HORN SCULPIN: DOES NA <sup>+</sup> /H <sup>+</sup> EXCHANGE PLAY A ROLE IN AMMONIA EXCRETION ACROSS THE GILLS? James Claiborne	EVALUATING THE IMPACTS OF CURRENT USE PESTICIDES ON THE PHYSIOLOGY, ECOLOGY, AND PRODUCTIVITY OF SALMON POPULATIONS David Baldwin	CHARACTERIZATION OF PATHOGENESIS AND HOST IMMUNE RESPONSES IN TWO CHINOOK SALMON POPULATIONS THAT DIFFER IN THEIR ABILITY TO SURVIVE RENIBACTERIUM SALMONINARUM CHALLENGE Maureen Purcell	RESPONSES OF HEAT SHOCK PROTEINS TO THERMAL STRESS IN POPULATIONS OF GAMBUSIA Paulette Reneau
09:40	INTRACELLULAR PH IMAGING REVEALS CELLULAR MECHANISMS FOR NA <sup>+</sup> AND CL <sup>-</sup> TRANSPORT IN GILLS FROM FRESHWATER FISH Scott Parks	GIRLS GONE WILD: DEFEMINIZATION IN THE ELKHORN RIVER Marlo Sellin	NRAMP, TNF, TLR5, AND HEPCIDIN EXPRESSION IN RESISTANT AND SUSCEPTIBLE FAMILIES OF CHANNEL CATFISH FOLLOWING CHALLENGE WITH E. ICTLAURI Natha Booth	IDENTIFICATION AND CHARACTERIZATION OF VOMERONASAL-LIKE RECEPTOR GENES IN ATLANTIC SALMON Kimberley Johnstone
10:00	BREAK	BREAK	BREAK	BREAK

Thursday, July 31 AM

Room	Morrison	Ross Island	Sellwood	Hawthorne
Session	Ions and Acid-base Regulation	Environmental Pollution	Immunity and Disease Resistance	Genomics of Adaptation
10:20	ACID-BASE REGULATION IN A VERTEBRATE SALINITY-EXTREMOPHILE Rod Wilson	ISOMERIC SPECIFIC BIOACCUMULATION AND TOXICITY OF PERFLUOROOCTANE SULFONATE (PFOS) TO ADULT AND EMBRYONIC ZEBRAFISH Rainie Sharpe	THE ZEBRAFISH COELOMIC CAVITY: A NOVEL MODEL READ-OUT TISSUE FOR STUDIES OF IMMUNE RESPONSES TO BACTERIAL INFECTIONS D. L. Evans	EXPLORING THE EVOLUTION OF PHYSIOLOGICAL TRAITS USING COMPARATIVE GENOMICS Trish Schulte
10:40	BREATHING IN THROUGH THE GILL AND OUT THROUGH THE GUT - UNUSUAL GAS EXCHANGE AND ACID-BASE BALANCE IN FISH AT HYPERSALINITIES Chris Cooper	STREAM QUALITY ASSESSMENT USING REAL-TIME BIOASSAYS, CHEMSITRY, AND MOLECULAR MARKERSOVER A RURAL-URBAN LAND-USE GRADIENT Daniel Weber	COMPETITION FOR ANTERIOR KIDNEY PLASMA CELL NICHES DETERMINES THE SUCCESS OF VACCINES Erin Bromage	Continued... Trish Schulte
11:00	MEMBRANE-ASSOCIATED CARBONIC ANHYDRASE IN THE RESPIRATORY SYSTEM OF THE PACIFIC HAGFISH (EPTATRETUS STOUTI). Andrew Esbaugh	A REALISTIC MIXTURE OF PESTICIDES AFFECTS SALMON OLFACTORY TISSUE RESPONSES Keith Tierney	LONG-TERM CUTANEOUS IMMUNITY IN CHANNEL CATFISH AGAINST THE PARASITIC CILIATE ICHTHYOPHTHIRIUS Harry Dickerson	GENOMIC ANALYSIS OF BEHAVIORAL ADAPTATION TO CAPTIVITY IN THE ZEBRAFISH Barrie Robison
11:20	PHYSIOLOGICAL MECHANISMS OF CO2 TOLERANCE IN THE PRIMITIVE FISH, THE WHITE STURGEON (ACIPENSER TRANSMONTANUS) Daniel Baker	MAKING SENSE OF NON-SCENTS IN METAL-CONTAMINATED WATERS Greg Pyle	DEFINING ACQUIRED IMMUNITY TO FLAVOBACTERIUM PSYCHROPHILUM WITH IMPLICATIONS FOR DEVELOPMENT OF A COLDWATER DISEASE (CWD) VACCINE Ken Cain	MIGRATORY GENOMICS AND THE FATE OF FRASER RIVER SOCKEYE SALMON Kristi Miller
11:40		ATLANTIC SALMON PRIMARY CELL CULTURE BIOASSAYS OF TOXICITY & EFFICACY OF CHEMOTHERAPEUTANTS Alastair Lyndon	EARLY RESPONSE GENES OF CHINOOK SALMON MAY BE IMPORTANT IN INFECTION BY RENIBACTERIUM SALMONINARUM Linda Rhodes	Continued... Kristi Miller
12:00	LUNCH	LUNCH	LUNCH	LUNCH

Thursday, July 31 PM

Room	Morrison	Ross Island	Sellwood	Hawthorne
Session	Ions and Acid-base Regulation	Environmental Pollution	Immunity and Disease Resistance	Genomics of Adaptation
13:00	SOLUBLE ADENYLYL CYCLASE (SAC): NATURE'S HCO <sub>3</sub> <sup>-</sup> /CO <sub>2</sub> SENSOR? Martin Tresguerres	LEGACY EFFECTS OF DIRECT EXPOSURE TO X-RAYS AND TO THE X-RAY INDUCED BYSTANDER EFFECT IN RAINBOW TROUT (ONCORHYNCHUS MYKISS) Richard Smith	EFFECTS OF INJURY AND STRESS ASSOCIATED WITH TRANSPORT OF LIVE TILAPIA: DO THEY INOCULATE EACH OTHER WITH PATHOGENS? Carl Schreck	FUNCTIONAL GENOMICS OF ACCLIMATION AND ADAPTATION IN KILLIFISH Andrew Whitehead
13:20	GETTING TO THE ROOT OF TISSUE OXYGENATION IN TELEOST FISH: A MORE UBIQUITOUS ROLE FOR THE ROOT EFFECT IN OXYGEN DELIVERY Jodie L. Rummer	FUNCTIONAL AND ENERGETIC CHARACTERIZATION OF P-GLYCOPROTEIN-MEDIATED EFFLUX OF XENOBIOTICS IN TELEOSTS Chris Kennedy	LITTLE BUGS FROM FISH WITH SMALLER, NASTIER BUGS: PRELIMINARY STUDIES ON THE ROLE OF SEA LICE AS A VECTOR OF BACTERIAL PATHOGENS TO SALMON Duane Barker	Continued... Andrew Whitehead
13:40	HEMOGLOBIN-PROTON SENSITIVITY IN FISHES OCCUPYING A TRANSITIONAL PHASE IN ROOT EFFECT EVOLUTION Matthew Regan	PROTEOMIC PROFILING FOR BIOMARKER DISCOVERY IN THE ZEBRAFISH GILL Tyson MacCormack	DISEASE SUSCEPTIBILITY OF JUVENILE RAINBOW TROUT EXPOSED TO A DIETARY MIXTURE OF HIGH MOLECULAR WEIGHT POLYCYCLIC AROMATIC HYDROCARBONS Mary Arkoosh	GENOMIC RESEARCH FOR IMPROVING FISH HEALTH Matthew Rise
14:00	REMODELING OF THE GILL IN THE CLIMBING PERCH Jonathan Wilson	EFFECTS OF SUBLETHAL CONCENTRATION OF DIAZINON ON PLASMA BIOCHEMICAL PROFILE OF THE AFRICAN CATFISH CLARIAS GARIEPINUS B. Adedeji Olufemi	EFFECTS OF POLLUTION ON IMMUNE FUNCTION AND DISEASE SUSCEPTIBILITY IN SALMONID POPULATIONS: A REVIEW OF FIELD AND LABORATORY STUDIES AND FUTURE DIRECTIONS Deborah Boylen	Continued... Matthew Rise
14:20	LOCALIZATION OF IONOCYTES IN CRUCIAN CARP (CARASSIUS CARASSIUS) GILLS DURING HYPOXIC REMODELLING Agnieszka Dymowska	TESTING THE WINTER STRESS SYNDROME HYPOTHESIS IN JUVENILE FISH EXPOSED TO METAL MINING DISCHARGES David Janz	THE IMMUNE AND STRESS RESPONSES OF ATLANTIC COD TO LONG-TERM INCREASES IN WATER TEMPERATURE Juan Carlos Pérez-Casanova	TRANSCRIPTOMIC PROFILING REVEALS A SURPRISING CAPACITY TO RESPOND TO HEAT IN COLD-ADAPTED ANTARCTIC FISH AND A POTENTIAL NEW BIOMARKER OF THERMAL STRESS. Brad Buckley
14:40	PARTITIONING OF OXYGEN AND SODIUM UPTAKE BETWEEN THE GILLS AND SKIN DURING LARVAL DEVELOPMENT OF THE RAINBOW TROUT Clarice Fu	TOXICITY ANALYSIS OF MILKFISH EXPOSURE TO THREE HEAVYMETAL POLLUTANTS: PB, HG, CD. C. Archana Devi	SUBYEARLING CHINOOK SALMON AFTER EXPOSURE TO A DIET CONTAINING THE FLAME RETARDANT POLYBROMINATED DIPHENYL ETHER (PBDES) Joseph Dietrich	MOLECULAR ECOLOGY AND EVOLUTION OF INTERTIDAL FISH Marina L. Ramon
15:00	BREAK	BREAK	BREAK	BREAK
15:20				GENETIC DIVERSITY AND HOST-SPECIFICITY OF KUDOID PARASITES IN FISHES OF THE GREAT BARRIER REEF Mieke Burger