

**47 (Room Diamond) Cladistics/Phylogenetic Analysis**

Chair: A. Schulze

- 08:20 47.1** CLAMP, J.C.; The phylogenetic position of *Lagenophrys* (Protista, Ciliophora, Peritricha) inferred from the sequence of the gene for 18S small subunit rRNA  
**08:40 47.2 (DIZ)** SCHULZE, A, CUTLER, E.B., GIRIBET, G.; Molecular and Morphological Evolution in Sipunculan Worms  
**09:00 47.3 (DSEB)** MOTT, TAMI; Molecular Systematics of Brazilian amphisbaenids (Reptilia, Squamata, Amphisbaenidae)  
**09:20 47.4** ZHONG, M., HALANYCH, K. M. ; Mitochondrial Genomes of Three Terebelliformia Annelids  
**09:40 47.5 (DSEB)** MOOI, R., PIMENTEL, F.; From large to small to large: Phylogenetic systematics of rotulid sand dollars and their tiny relatives

**48 (Room Diamond) Development: Invertebrate Evolution and Development**

Chair: D. Munson

- 10:20 48.1 (DEDB)** DUNN, CW, WAGNER, GP; The evolution and development of colony-level organization in the Siphonophora (Cnidaria, Hydrozoa)  
**10:40 48.2 (DEDB)** MATUS, DQ, PANG, K, THOMSEN, GH, MARTINDALE, MQ; Signaling pathway complexity in the development of an anthozoan cnidarian  
**11:00 48.3 (DEDB)** IRVINE, Steven Q; Genomic regulation of the *Dll-A/B* gene cluster in *Ciona intestinalis*.  
**11:20 48.4 (DEDB)** RYCHEL, A.L., SWALLA, B.J.; Evolution of Pharyngeal Gill Bars in the Deuterostomes

**49 (Room Sapphire) Digestion and Excretion: Comparative Digestive Strategies in Flying Endotherms**

Chair: C. R. Tracy

- 08:00 49.1 (DCPB)** LAVIN, S.R., MCWHORTER, T.J., KARASOV, W.H.; Differences in paracellular absorption: a function of solvent drag or pore size?  
**08:20 49.2 (DCPB)** MCWHORTER, T.J., HARTMAN BAKKEN, B., KARASOV, W.H., MARTINEZ DEL RIO, C.; Hummingbirds fuel high metabolism with both paracellular and carrier-mediated intestinal glucose absorption  
**08:40 49.3 (DCPB)** WELCH, KC, BAKKEN, BH, SUAREZ, RK; Use of Dietary Sugar by Hummingbirds as Revealed by Stable Isotope and Respiratory Analysis  
**09:00 49.4 (DCPB)** PODLESAK, D. W., MCWILLIAMS, S. R.; Birds metabolically route exogenous nutrients to rebuild digestive organs after fasting  
**09:20 49.5 (DCPB)** TRACY, C.R., WOJCIECHOWSKI, M.S., MCWHORTER, T.J., YOSEF, R., KARASOV,

- 08:40 51.3 (DEE)** ERWIN, P. M., THACKER, R. W.; Incidence and Importance of Photosynthetic Symbionts in Shallow-Water Sponge Communities  
**09:00 51.4 (DIZ)** COWART, J.D.\*, PAWLIK, J.R; Is there a trade-off between reproduction and growth form for two closely related Florida reef sponges?  
**09:20 51.5 (DEE)** GOFFREDO, S., LASKER, H.R.; Modular Growth of a Gorgonian Coral Generates Predictable Patterns of Colony And Population Growth  
**09:40 51.6 (DIZ)** LAPID, E., CHADWICK, N. E. ; Coral sweeper tentacles as probes to remotely detect competitors  
**10:20 51.7 (DEE)** LEICHTER, J.J., HELMUTH, B., FISCHER, A.M.; What lies beneath the surface: quantifying complex thermal environments on corals reefs  
**10:40 51.8 (DCE)** TARRANT, A.M., CORTÉS, J., BEZY, B, JOHANNING, K.J., CHIANG, T.C., VARGAS, J.A.; Identification and expression patterns of nuclear receptors in the coral *Pocillopora damicornis*  
**11:00 51.9 (DAB)** TRESPALACIOS, D., BEULIG, A.; Coral Luminescent Banding as Environmental Indicator in Bocas del Toro, Panama  
**11:20 51.10 (DIZ)** QUINN, NJ, KOJIS, BL; Assessing Enhancement Techniques to Increase *Acropora cervicornis* Populations and Increase Fish Biodiversity in Jamaica  
**11:40 51.11 (DEE)** BASCH, L.V.; Marine Conservation Science: Examples in a Network of National Parks and Marine Protected Areas in Hawaii

**52 (Room Scotland C) Comparative Evolutionary Morphology I**

Co-chairs: D. Hulsey & E. Hoffman (10:30 am)

- 08:00 52.1 (DSEB)** HILL, R.I.; Morphology and locomotor mimicry in ithomiine butterflies (Nymphalidae)  
**08:20 52.2 (DVM)** MCELROY, EJ, REILLY, SM; The evolutionary relationship between foraging mode and locomotor functional morphology in lizards  
**08:40 52.3 (DVM)** COLLAR, D.C.\*; Testing the bass fishermans hypothesis: Does reaching an adaptive peak limit diversification of the feeding apparatus in *Micropterus* (Teleostei: Centrarchidae)?  
**09:00 52.4 (DCPB)** PAPANASTAMATIOU, Yannis P., LOWE, Christopher G., HOLLAND, Kim N.; Variations in the response of gastric acid secretion during periods of fasting between shark species  
**09:20 52.5 (DVM)** HULSEY, CD, STREELMAN, JT; Cichlid Pharyngeal Jaw Fusion: Is Suturing the Key to Unparalleled Trophic Divergence?  
**10:00 52.6** TODT, C., TYLER, S.; Comparative studies on the pharynx simplex of Acoela  
**10:20 52.7 (DIZ)** SWEENEY, A., DES MARAIS, D.L.,

W.H., PINSHOW, B.; Carbohydrate absorption in migrating blackcaps, upon arrival and after refeeding, at a stopover in southern Israel

**09:40 49.6 (DCPB)** TRACY, C.R., MCWHORTER, T.J., KORINE, C., PINSHOW, B., KARASOV, W.H.; A mystery solved: how the Egyptian fruit bat absorbs sugar

### **50 (Room Sapphire) Digestion and Excretion: Effects of Feeding and Digestion on Metabolism**

*Chair: S. Secor*

**10:20 50.1** ROARK, Alison M., BJORN DAL, Karen A.; Experimentally imposed patterns of food availability and their effects on metabolic rate in Indian stick insects,

*Carausius morosus*

**10:40 50.2 (DIZ)** CURTIS, D.L.\*, MCGAW, I.J.; Feeding and digestion in response to low salinity in the Dungeness crab, *Cancer magister*

**11:00 50.3 (DEE)** HERNANDEZ, R/A, SECOR, S/M, ESPINOZA, R/E; Is a dietary jack of all trades a master of none? Adaptability of gut form and function in an omnivorous lizard.

**11:20 50.4 (DCPB)** BRITT, E.J., HICKS, J.W., BENNETT, A.F.; The energetic consequences of prey specialist and generalist populations of three species of garter snake (*Thamnophis elegans*, *T. couchii* and *T. ordinoides*).

**11:40 50.5 (DCPB)** OTT, BD, SECOR, SM; Postprandial Upregulation of Intestinal Morphology and Function in *Python*

### **51 (Room Scotland A) Coral Reef Biology**

*Co-chairs: N. Chadwick & V. Weis*

**08:00 51.1 (DEE)** RODRIGUEZ-LANETTY, Mauricio, WEIS, Virginia M, PHILLIPS, Wendy S; Transcriptome analysis of a cnidarian dinoflagellate mutualism reveals complex modulation of host gene expression

**08:20 51.2 (DCPB)** BERTIN, M.J., POMPONI, S.A., ELLINGTON, W.R.; Creatine and Arginine Kinases are Widespread in the Porifera

BAN, A., JOHNSEN, S.; Evolving Refractive Index: How Lens Protein Evolution Contributed to High-Resolution Squid Vision

**10:40 52.8 (DEE)** SISON-MANGUS, MP, BRISCOE, AD; Evolutionary origin of a blue opsin gene duplication in lycaenid butterflies

**11:00 52.9** HOFFMAN, Eric A., GOODISMAN, Michael A. D.; Genomic analysis of caste differentiation in yellowjacket wasps

**11:20 52.10** MAHLER, L., KEARNEY, M.; The Palatal Dentition in Squamate Reptiles: Morphology, Development, Attachment, and Replacement

**11:40 52.11** EVANS, A.R., WILSON, G.P., JERNVALL, J., FORTELIUS, M.; New methods in 3D tooth shape analysis: a study of form and function in murine and sigmodontine rodents

### **53 (Room Scotland B) Regulatory Biology: Comparative Endocrinology**

*Chair: D. Buchholz*

**08:20 53.1 (DCE)** MCCORMICK, Stephen D., O'DEA, Michael F., MOECKEL, Amy M.; Are we missing a mineralocorticoid in fish? Effect of corticoids and receptor inhibitors on salinity tolerance of Atlantic salmon.

**08:40 53.2 (DCE)** NORBECK, L., KITTILSON, J., SHERIDAN, M.A.; Nutritional Regulation of the Somatotropic Axis of Rainbow Trout (*Oncorhynchus mykiss*).

**09:00 53.3 (DCE)** MOORE, Brandon C, COOK, Robert W, CHUNG, Koo Whang, ALVERS, Ashley L, WOODRUFF, Teresa K, GUILLETTE, Louis J; Ovarian Response to Gonadotropin in Alligator Neonates

**09:20 53.4** SEABURY SPRAGUE, R.\*, BREUNER, C.W.; Timing of fledging, body condition, and corticosteroid binding globulin in Laysan Albatross

**09:40 53.5 (DCE)** SILVER, M.R., SOWER, S.A.; Characterization of an ancestral type II GnRH receptor: function and pharmacological profile of the sea lamprey GnRH receptor

**10:20 53.6 (DCE)** BUCHHOLZ, D.R., PAUL, B.P., SHI, Y.-B.; Gene-specific changes in promoter occupancy by thyroid hormone receptor during frog metamorphosis: Implications for developmental gene regulation

**10:40 53.7 (DVM)** SERRAT, M.A., LOVEJOY, C.O., KING, D.; Age- and site-specific decline in IGF-I receptor expression and growth plate activity in the mouse hindlimb

**11:00 53.8 (DCPB)** HYNDMAN, K/A, EVANS, D/H; Endothelin receptors in the killifish, *Fundulus heteroclitus*, gill

**11:20 53.9** CHRISTIANS, Julian K, HOEFLICH, Andreas, KEIGHTLEY, Peter D; Investigation of the causal gene underlying a quantitative trait locus (QTL) contributing to genetic variation in growth

**11:40 53.10 (DCE)** KAJIMURA, S., AIDA, K., DUAN, C.; Understanding hypoxia-induced gene expression in early development: In vitro and in vivo analysis of HIF-1-regulated zebrafish IGF1P-1 gene expression

#### 54 (Room Ireland A) Bone Form

Co-chairs: D. Frod & S. Reese

**08:00 54.1 (DVM)** DEVLIN, Maureen, LIEBERMAN, Daniel, LEDOUX, Nicole; Estradiol, strain, and periosteal bone growth

**08:20 54.2 (DVM)** DUMONT, E.R., GROSSE, I.R., COLETTA, C.E.; Applying muscle forces to finite element models of bone: How much modeling precision is necessary?

**08:40 54.3 (DEE)** FORD, D.K., HOLLIDAY, C.M.; An investigation into the effects of PCB 126 on bone density in turtles

**09:00 54.4 (DVM)** HORTON, Jaquan M., RANCHES, Gregory, SUMMERS, Adam P.; The morphology, mechanical properties, and composition of the acellular ribs in a teleost fish *Myoxocephalus polyacanthocephalus*.

**09:20 54.5 (DEDB)** RENO, P.L., MCBURNEY, D.L., LOVEJOY, C.O., HORTON, W.E.; Comparative analysis of mouse metatarsal ossification and implications for differential skeletal growth

**09:40 54.6** VANDEN BROOKS, J.M.; The development of *Alligator mississippiensis* under varying  $pO_2$

**10:20 54.7 (DCPB)** REESE, Scott A., MOORE, Douglas, ULTSCH, Gordon R., WARREN, Daniel E., JACKSON, Donald C.; Mechanical characteristics of bone change little during anoxic submergence at 3 °C in red-eared slider turtles, *Trachemys scripta*.

**10:40 54.8 (DEDB)** ZELDITCH, ML, MYERS, P,

**10:40 56.2 (DCPB)** VOGEL, S; Bioballistics: The Scaling of Prelaunch Acceleration and Subsequent Trajectories

**11:00 56.3** MONEY, N. P., PRINGLE, A., PATEK, S. N., FISCHER, M., STOLZE, J.; Rapid Discharge of Mushroom Spores

**11:20 56.4 (DVM)** ESSNER, R.L., NAUWELAERTS, S., ROME, L.C.; Forelimb and caudopelvic function during takeoff in *Rana pipiens*

**11:40 56.5 (DVM)** JACKSON, B.E., DIAL, K.P.; Allometry of avian flight performance: contribution of legs and wings during maximal burst takeoff and vertical flight

#### 57 (Room Ireland C) Physical Biology and Ecomorphology

Co-chairs: F. Thomas & S. Johnsen

**08:20 57.1** THOMAS, F.I.M., BADGLEY, B.D., YUND, P.O., GRABOWSKI, R.C.; Linking field measurements of hydrodynamic conditions to the fertilization of the green sea urchin *Strongylocentrotus droebachiensis*

**08:40 57.2** BADGLEY, BD, THOMAS, FIM, YUND, PO; The effects of hydrodynamics on fertilization success in the green sea urchin, *Strongylocentrotus droebachiensis*.

**09:00 57.3 (DIZ)** VON DASSOW, M; Influences of flow and feeding on colony organization in a bryozoan

**09:20 57.4** AVENI-DEFORGE, Kyle, WETHEY, David S; *Fortuna dubia*: Byssal function in marine mussel adaptation to seasonal changes in wave energy

**09:40 57.5 (DIZ)** WOLCOTT, TG, WOLCOTT, DL, KAMYKOWSKI, D, WATERS, L; Plankton mimicry: fake dinoflagellates to help understand real red tides.

**10:20 57.6 (DVM)** HILLENIUS, Willem/J, MADERSON, Paul/F; DOES PITH STRETCH A FEATHER? Does pith stretch a feather?

**10:40 57.7 (DCPB)** JOHNSEN, S., KELBER, A., WARRANT, E.J., SWEENEY, A.M., WIDDER, E.A., LEE, R.L.; The color of night: twilight and nocturnal illumination and its effects on color perception

**11:00 57.8** KINANE, S., THOMAS, F.I.M.; Bleaching in the coral *Porites divaricata*: effects of temperature, light, and water motion

**11:20 57.9 (DEE)** SCHNEIDER, KR, HELMUTH, BST; The effect of intertidal thermal environments on survival and growth: a comparison between an invasive and native mussel species

#### 58 (Room Diamond) Biogeography and Biodiversity

Co-chairs: J. Williams & D. Wethey

**13:00 58.1** WILLIAMS, J. D.\*, MCDERMOTT, J. J., BOYKO, C. B.; A world-wide review of hermit crab parasites

**13:20 58.2 (DEE)** WETHEY, DS, GILMAN, SE,

LUNDRIGAN, BL; Dietary consistency and the canalization of skull growth  
**11:00 54.9** (DVM) ESPINOZA, N.R.\*, CIRILO, S.R., HILL, S., BLOB, R.W.; Limb Bone Strain in Jumping Frogs  
**11:20 54.10** (DVM) YOUNG, JW, FERNANDEZ, D; Ontogeny of limb bone geometry and bone strength in an arboreal primate (*Cebus albifrons*)  
**11:40 54.11** (DVM) JACINTO, RD, NAGLE, L, PATEK, SN, SUMMERS, AP; Keeping an open mind: investigating poacher skeletal morphology

### 55 (Room Ireland B) Hydrodynamics - Locomotion I

Co-chairs: F. Fish & B. Chadwell

**08:00 55.1** (DVM) CHADWELL, BA\*, STANDEN, EM, LAUDER, GV; Dorsal and anal fin function during the C-start escape response in bluegill sunfish.  
**08:20 55.2** (DVM) TYTELL, E.D.; Median fin function in bluegill sunfish, *Lepomis macrochirus*: Streamwise vortex structure during steady swimming  
**08:40 55.3** (DVM) SCHAEFER, Justin T, KOOB, Thomas J, LONG, JR., John H; Bending mechanics of elasmobranch vertebral columns  
**09:00 55.4** (DVM) DANOS, N., BRAINERD, E.L.; Biomechanics of the skin during swimming in the American Eel, *Anguilla rostrata*.  
**09:20 55.5** (DVM) KOROBOV, N, BRAINERD, EL, MADDEN, P, LAUDER, GV; Novel pectoral fin kinematics during steady swimming in a benthic fish, the Longhorn sculpin, *Myoxocephalus octodecimspinosus*  
**09:40 55.6** (DVM) FISH, F.E., NUSBAUM, M.K., BENESKI, J.T., KETTEN, D.R., WILLIAMS, T.M.; Dolphin flukes as passively self-adjusting flexible propulsors

### 56 (Room Ireland B) Hydrodynamics - Acceleration

Co-chairs: F. Fish & S. Vogel

**10:20 56.1** (DVM) LAPPIN, A.K., PILARSKI, J.Q., PIEROTTI, D.J., HEMPLEMAN, S.C., NISHIKAWA, K.C.; Neuromechanical events that trigger ballistic prey capture in toads.

HELMUTH, BS, HILBISH, TJ; Ecological hindcasting of biogeographic responses to climate change in intertidal ecosystems

**13:40 58.3** (DEE) MARIONI, N. K., TRACY, C. R., ZIMMERMAN, L. C.; Effects of declining lake levels on fish populations: Lahontan cutthroat trout and tui chub in Walker Lake, NV

**14:00 58.4** (DEE) NISHIGUCHI, M.K.; JONES, B.W.; Population dynamics of sepiolid squid-*Vibrio* mutualism from the Indo-west Pacific

**14:20 58.5** (DSEB) WILSON, N.G., HALANYCH, K.M.; Underestimates of Antarctic biodiversity: phylogeography of the Antarctic crinoid *Promachocrinus kerguelensis*

### 59 (Room Sapphire) Behavioral Plasticity

Chair: S. MacDougall-Shackleton

**13:20 59.1** (DAB) CHRISTY, J.H., RISSANEN, J.R., BACKWELL, P.R.Y.; A One-day Pause in the Biweekly Courtship Cycle of a Tropical Fiddler Crab Allows Females to Avoid Releasing Larvae During Twilight

**13:40 59.2** JOHNSON, M. A.; Does Where an Animal Lives Determine Its Behavior? The Role of Microhabitat in Lizard Territoriality

**14:00 59.3** (DAB) FONTAINE, JOSEPH/J, MARTIN, THOMAS/E; Reproductive responses to experimentally reduced nest predation risk

**14:20 59.4** (DAB) LEE, DN, TANG-MARTINEZ, Z; of Early Social Environment on the Physical Development of Prairie Voles

**14:40 59.5** (DEE) SNELL-ROOD, Emilie C; Developmental costs of behavioral plasticity: exploration during oviposition-cue learning in butterflies (Lepidoptera: Pieridae)

### 60 (Room Emerald) Comparative Neurobiology

Chair: J. Newcomb

**13:00 60.1** (DIZ) HOCHBERG, R; Immunohistochemistry and 3-D cerebral architecture in species of *Asplanchna* (Rotifera)

**13:20 60.2** (DNB) BALTZLEY, MJ, LOHMANN, KJ; Evolution of a neural circuit in sea slugs  
**13:40 60.3** (DNB) NEWCOMB, J.M.\*, KATZ, P.S.; Patterns of neural evolution in nudibranch molluscs: functional divergence of homologous neurons embedded in a common neural network

**14:00 60.4** (DNB) TURNER, A.C., DASARI, S., COOPER, R.L.; Influence of the Dopamine and Serotonergic System on Physiology, Development and Behavior of *Drosophila melanogaster*

**14:20 60.5** (DNB) VON DER OHE, C.G., DARIAN-SMITH, C, HELLER, H.C.; Neural Plasticity in Hibernation

**14:40 60.6** (DNB) BELANGER, RM, MCDOWELL, KE, MOORE, PA, ZIELINSKI, BS; Reproductive significance and sensory hair morphology of the major chelae of male crayfish *Orconectes rusticus*

### **61 (Room Scotland C) Comparative Evolutionary Morphology II**

*Chair: J. Hanken*

**13:20 61.1** (DVM) GROSS, J.B., HANKEN, J.; Embryonic origin of adult cranial cartilages in *Xenopus*: A view from the crest.

**13:40 61.2** (DVM) HANKEN, J., GROSS, J.B.; Fate maps evolve, too: neural crest derivation of the bony skull in frogs, revealed by transgenic labeling

**14:00 61.3** (DVM) CLAESON\*, Kerin M., LUNDBERG, John G.; Micro Catfish Micro CATscans

**14:20 61.4** BLACKBURN, D.C.; The effect of miniaturization on skeletal morphology within the African frog family Arthroleptidae

**14:40 61.5** MILLER, G., ANGIELCZYK, K.D.; Geometric Morphometric Analysis of Shell Kinesis in Emydine Turtles

### **62 (Room Ireland A) Flight Aerodynamics II**

*Co-chairs: S. Swartz & S. Combes*

**13:00 62.1** (DVM) SWARTZ, S, GALVAO, R, IRIARTE-DIAZ, J, ISRAELI, E, MIDDLETON, K, ROEMER, R; Unique characteristics of aerodynamics of bat flight: evidence from direct visualization of patterns of airflow in the wakes of naturally flying bats

**13:20 62.2** (DIZ) COMBES, S.A., DUDLEY, R.; Limits to maximum flight velocity: Pitch control and roll instability in orchid bees during fast, forward flight

**13:40 62.3** BUNDLE, M/W, DIAL, K/P; Power requirements of bird flight with additional mass

**14:00 62.4** (DVM) BERG, A.M., BIEWENER, A.A.; Differences among Ascending, Level, and Descending Flapping Flight

**14:20 62.5** (DCPB) BREWER, Michael/L, CHEVIRON,

**13:40 64.2** BROWN, FD, SWALLA, BJ; Germ Cells and *Vasa* Expression in Ascidians

**14:00 64.3** (DEDB) GALIS, F., VAN DOOREN, T.J.M., METZ, J.A.J., WITKAM, A., WIJNAENDTS, L.C.D.; The coordinated patterning of the embryonic axes and the conservation of the seven cervical vertebrae

**14:20 64.4** GIRIBET, G., EDGECOMBE, G.D., KRISTENSEN, R.M., MARTINDALE, M.Q., SEAVER, E.C., SORESENSEN, M.V.; Assembling the Protostome Tree of Life

### **65 (Room Great Hall West) Complementary to Metamorphosis Symposium**

*Chair: E. Crespi*

**13:00 65.1** (DEE) REITZEL, A.M., SULLIVAN, J.C., FINNERTY, J.R.; Metamorphosis in the Life History of a Parasitic Sea Anemone, *Edwardsiella lineata*

**13:20 65.2** EDWARDS, T.M., MOORE, B.C., GUILLETTE, L.J.; Metamorphic Sex Change: Evolutionary Insight for Endocrine Disruption Studies

**13:40 65.3** (DCE) MILLER, MF, OKADA, R, ITO, Y, DE GROEF, B, YAMAMOTO, K, DENVER, RJ; Involvement of the corticotropin-releasing factor (CRF) type 2 receptor in CRF-induced thyrotropin release from the tadpole pituitary.

**14:00 65.4** (DEE) MCCOY, Krista A, AMICK, Alison M; Metamorphosis and reproductive growth and development

**14:20 65.5** (DCE) CRESPI, Erica J, DENVER, Robert J; Conserved and novel functions of leptin in the South African clawed frog (*Xenopus laevis*)

**14:40 65.6** (DCE) BAKER, M.E.; Role of the Environment on the Evolution of Signal Transduction Proteins and Metamorphosis

Zac/A, BRUMFIELD, Robb/T, ROBERTS, Stephen/P ;  
Altitudinal variation of wing shape in the Andean passerine  
*Zonotrichia capensis*  
14:40 62.6 (DVM) PADIAN, K., DIAL, K.P.; Was there a  
"four-winged" transitional stage between dinosaurs and  
birds?

### 63 (Room Ireland B) Feeding and Flow II

Chair: P. Wainwright

13:00 63.1 (DVM) CASE, J.E., MARSHALL, C.D.; Using  
Morphology to Predict Feeding Behavior: A Preliminary  
Study of Juvenile Red Snapper (*Lutjanus campechanus*)  
Feeding

13:20 63.2 (DVM) VAN WASSENBERGH, S, HERREL,  
A, ADRIAENS, D, AERTS, P; Terrestrial feeding in the eel  
catfish, *Channallabes apus*

13:40 63.3 MARKEY, M. J., MAIN, R. P., MARSHALL,  
C. R.; *In vivo* cranial suture function and suture morphology  
in the extant fish *Polypterus*

14:00 63.4 (DVM) DAY, S W, HIGHAM, T E,  
WAINWRIGHT, P C; THE RELATION OF SUCTION  
PRESSURE AND FLUID SPEED DURING FEEDING IN  
LARGEMOUTH BASS

14:20 63.5 (DVM) FRANCIS, A.W.; Phylogeny and  
Feeding Biomechanics of Pleuronectiform Fishes

14:40 63.6 (DCPB) RICE, Aaron N.; Evolution of  
Coordination in Fish Feeding: The Intersection of  
Functional Morphology and Ecology

### 64 (Room Great Hall East) Complementary to Mesoderm Symposium

Chair: G. Giribet

13:20 64.1 (DEDB) LIVINGSTON, BT, HARMON, M;  
Development of the skeletogenic mesoderm in the  
Ophiuroid *Ophiocoma wendtii*