

AMS (Room Ireland A) American Microscopical Society: Distinguished Scientist Lecture

17:00 AMS. ECKELBARGER, K.; The Dawn of Invertebrate Zoology in America: A Tribute to the Pioneers

HB (Room Great Hall East) Howard Bern Lecture

18:30 HB. (DCE) SOWER, Stacia A.; Howard Bern Lecture: Insight into the Molecular Evolution of Gonadotropin and its Receptor in the Hormonal Regulation of Reproduction

25 (Room Diamond) Development: Character Development and Evolution

Chair: M. Grace

08:00 25.1 (DEDB) STORZ, Brian; Polyphenism, Plasticity, and Canalized Rapid Development; Modifications of the Developmental Program in Spadefoot Toads

08:20 25.2 (DVM) KURATANI, S, NAGASHIMA, H, KURAKU, S, USUDA, R; Nature and function of the carapacial ridge in the turtle embryo

08:40 25.3 (DVM) YOUNG, Nathan M, WAT, Stephen, DIEWERT, Virginia, HALLGRIMSSON, Benedikt; The Relationship of Embryonic Facial Size to Adult Facial Length

09:00 25.4 (DIZ) FARLEY, R. D.; Scorpion respiratory organogenesis: spiracles, sac-like invaginations and book lung lamellae

09:20 25.5 TAYLOR, S/M, GRACE, M/S; Evolution and Ecology of Vision: Development of Photoreceptor Arrays in Elopomorph Fish

09:40 25.6 (DCPB) HAHN, DA; Characterization of hexameric storage proteins during development and reproduction in the flesh fly, *Sarcophaga crassipalpis*.

26 (Room Diamond) Muscle Performance

Chair: S. Kinsey

10:20 26.1 (DCPB) FIELDS, P.A., STROTHERS, C.; Muscle-type lactate dehydrogenase of the Galapagos marine iguana, *Amblyrhynchus cristatus*, is adapted to high temperature.

10:40 26.2 (DCPB) KINSEY, S.T., DA SILVA, M., PATHI, P., LOCKE, B.R.; Diffusion limitation of aerobic metabolism in muscle fibers

11:00 26.3 (DCPB) PRICE, E. R., GUGLIELMO, C. G.; Fatty Acid Composition of Muscle Phospholipids in Migratory Sparrows

11:20 26.4 (DCPB) BATTIPROLU, P.K., RODNICK, K.J.; Evidence for Sex Differences in Glucose-Mediated Cardiac Contractility in Rainbow Trout (*Oncorhynchus*

11:00 28.3 (DVM) STAYTON, C. TRISTAN; Is convergence surprising? A simulation study using a Brownian motion model of evolution among quantitative characters

11:40 28.5 (DEE) ARENDT, Jeff; Cell size vs. cell number. Does it matter?

29 (Room Emerald) Conservation Biology

Co-chairs: T. Rinkus & K. Martin

08:00 29.1 INMAN, Richard D., NUSSEAR, Kenneth E., TRACY, C. Richard; Elusive species: a novel approach to measuring activity and sampling availability

08:20 29.2 NUSSEAR, K. E., INMAN, R. D., TRACY, C. R.; Application of modeling activity and sampling availability toward improving monitoring of an elusive species

08:40 29.3 (DAB) BEAUMAN, R.L., MENDONÇA, M.T.; Factors Affecting Degree of Burrow Collapse and Resulting Tortoise Self Excavation and Behavior

09:00 29.4 (DEE) HAGERTY, B.E., TRACY, C.R.; Identification of population structure for a rare and cryptic species: implications for conservation

09:20 29.5 (DCE) BOUGHTON, R.K., BOWMAN, R, KEARNS, L, SCHOECH, S.J; Variation between suburban and wildland populations in nestling immune response of Florida Scrub-Jays *Aphelocoma coerulescens*

09:40 29.6 (DEE) GOBUSH, K.S., WASSER, S.K.; Patterns of Genetic Relatedness in a Poached Population of African Elephants *Loxodonta africana*

10:20 29.7 (DCPB) MARTIN, KL, JOHNSON, PB, MORAVEK, C, ASHLEY, R, MATSUMOTO, J; Citizen scientists assess populations of an elusive, charismatic fish

10:40 29.8 (DVM) RIMKUS, Todd, GOUVEIA, Michelle, GOMERO, Boloye; The effects of passive integrated transponder tag implantation on the growth of hatchling painted turtles (*Chrysemys picta*)

11:00 29.9 (DEE) REICH, K.J., BJORN DAL, K.A., BOLTEN, A.B.; Tracking Ontogenetic Shifts in Diet and Habitat of Juvenile Sea Turtles with Stable Isotopes

11:20 29.10 HRISTOV, N.I., BETKE, M., KUNZ, T.H.; Assessment of Brazilian Free-tailed Bat (*Tadarida brasiliensis*) Populations Using Advanced Infrared Thermal Imaging

30 (Room Scotland A) Regulatory Biology: Decapod Endocrinology and Reproduction

Chair: S. Tamone

08:00 30.1 (DCE) CHAN, S.-M.; Vitellogenin and vitellogenesis in decapod crustaceans: knowledge from

mykiss)

11:40 26.5 (DVM) DEAN, M.N., AZIZI, E., SUMMERS, A.P.; Uniform strain in broad muscles: A new twist on tendons

27 (Room Sapphire) Macroevolution I

Chair: M. Kidd

08:00 27.1 BOYER, S. L., GIRIBET, G.; Vicariance in the harvestman family Pettalidae (Arachnida, Opiliones, Cyphophthalmi) during the breakup of Gondwana

08:20 27.2 (DIZ) MASSEY, S. E., CURTIS, N. E., PIERCE, S. K.; Identification of a retrovirus that may have a role in the life cycle and chloroplast symbiosis of kleptoplastic sea slugs.

08:40 27.3 (DSEB) TRIPP, Erin, A.; Nothing happens once: systematics and parallel evolution in the species-rich genus *Ruellia* (Acanthaceae)

09:00 27.4 KIDD, Michael R., KOCHER, Thomas D.; Patterns of Ecological Diversification within *Pseudotropheus tropheops*, a Subgenus of Rock Dwelling Cichlid from Lake Malawi

09:20 27.5 CLOUSE, R. M., GIRIBET, G.; The Systematics and Biogeography of the Stylocellidae, a Southeast Asian Family of Cyphophthalmi (Opiliones)

09:40 27.6 (DIZ) SPENCE, H.R., KNOWLTON, R.E., MERCHANT, H.C.; A comparison of cryptic species of *Alpheus* (snapping shrimp) from North Carolina and Florida

28 (Room Sapphire) Evolutionary Theory

Chair: R. Amundson

10:20 28.1 (DEDB) AMUNDSON, R.; Evo-devos Hard Problem: Natural Selection

10:40 28.2 (DIZ) BABBITT, G.A., KILTIE, R., BOLKER, B.; Are fluctuating asymmetry studies adequately sampled? Implications of a new model for size distribution

proteomic and molecular studies

08:20 30.2 PARNES, S, RAVIV, S, ELDOR, R, SINGER, A, KEASAR, C, SAGI, A; The vitellogenin of the penaeid shrimp *Litopenaeus vannamei* and a bioinformatic analysis of decapod vitellogenin deduced amino acid sequences

08:40 30.3 ZMORA, Nilli, TRANT, John M, CHUNG, Sook J; Characterization of a vitellogenin gene and the endocrine regulation of vitellogenesis of the blue crab, *Callinectes sapidus*

09:00 30.4 (DCE) TAMONE, S.L.*, THOMTON, J.D.; Eyestalk Ablation of Female Dungeness Crabs *Cancer magister* Yields Diverse Results Dependent upon Physiological State.

09:20 30.5 MANOR, R, WEIL, S , OREN, S, AFLALO, E.D, VENTURA, T, LAPIDOT, M; Fishing out uniquely expressed genes of the androgenic gland in the Australian crayfish *Cherax quadricarinatus*

09:40 30.6 (DCE) SHECHTER, A, YUDKOVSKI, Y, TOM, M, OPHIR, R, CHALIFA-CASPI, V, CHANG, S.A; Ecdysteroid-affected genes in endocrinologically-induced molt cycle of the crayfish *Cherax quadricarinatus* the use of a cDNA microarray

31 (Room Scotland A) Complementary to Genomic and Proteomic Symposium

Chair: S. Morris

10:20 31.1 (DCPB) HEAD, JM, TERWILLIGER, NB; Crustacean Responses to Hypoxia: The Role of HIF-1 α .

10:40 31.2 (DCPB) CHUNG, J. Sook, ZMORA, N., ZOHAR, Y.; Cloning and expression profile of non-eyestalk Crustacean hyperglycemic hormone (CHH) neuropeptides from the blue crab, *Callinectes sapidus*

11:00 31.3 (DCPB) TERANISHI, Kristen S, STILLMAN, Jonathon H; Seasonal variation in hepatopancreas transcriptome profiles following heat stress in the porcelain crab, *Petrolisthes cinctipes*

11:20 31.4 TRANT, J.M., PLACE, A.R.; Production and Analysis of Normalized cDNA Libraries from Blue Crab (*Callinectes sapidus*) Endocrine Tissues

11:40 31.5 (DCPB) POSTEL, Ute, THOMPSON, Fiona, VINEY, Mark, BARKER, Gary, WEBSTER, Simon, MORRIS, Steve; Red crabs on the run: molecular bases of the seasonal migration of *Gecarcoidea natalis*

32 (Room Scotland C) Regulatory Biology: Reproductive Physiology

Chair: K. Selcer

08:00 32.1 (DCE) ELF, P.K., ROBERT, K., THOMPSON, M., FIVIZZANI, A.; Temperature-dependent sex determination in a viviparous lizard: what role do hormones play?

08:20 32.2 (DCPB) LOURDAIS, Olivier, DENARDO, Dale F., HOFFMAN, Ty C.M.; Maternal brooding in the Children's python (*Antaresia childreni*) promotes egg water balance

08:40 32.3 (DEE) GILMAN, Casey, WOLF, Blair; Lizards, eggs, and ultrasound: testing the efficacy of quantifying reproductive effort in squamate reptiles using portable ultrasonography.

09:00 32.4 (DCE) DODD, K.L.*, WIBBELS, T.; Clutch-specific Sensitivity to Estrogen in a Turtle with Temperature-dependent Sex Determination

09:20 32.5 (DCPB) LIGON, D.B., LOVERN, M.B.; Maternal, Sex and Incubation Temperature Effects on an Endangered Tortoise, *Geochelone sulcata*

09:40 32.6 (DCE) LEBLANC, A.M.*, ROSTAL, D.C., WIBBELS, T.; Predicting loggerhead sex ratios: confounding effects of temperature variation and thermosensitive period

33 (Room Scotland C) Regulatory Biology: Stress III

Chair: M. Mendonca

10:20 33.1 (DEE) BAZE, Monica, HAYES, Jack P., WEBER, Lee A.; Gene Expression of House Mice Acclimated to Chronic Hypoxia

10:40 33.2 (DCPB) JOYNER-MATOS, J., CHAPMAN, L. J., JULIAN, D.; Elevated dissolved oxygen level influences fingernail clam (*Sphaerium* sp.) stress protein expression and population distribution in a Ugandan papyrus swamp

11:00 33.3 (DCPB) PETES, L.E., WEBB, M.A.H., MENGE, B.A.; Differential accumulation of carotenoids in mussel gonadal tissue: a potential response to oxidative stress

11:20 33.4 (DAB) HUGGINS, KA, NAVARA, KJ, HILL, GE, MENDONCA, MT; Long Term Performance Detriment In Songbirds With Extensive Carotenoid-Based Plumage Coloration: Are Carotenoids Toxic?

11:40 33.5 (DCE) MENDONÇA, M T, WARD, C K; Latitudinal variation in stress responsiveness in anurans: preliminary evidence

34 (Room Ireland A) Comparative Morphology II

Co-chairs: A. Summers & B. Moon

08:00 34.1 (DIZ) SPAIN, D. D., PERALTA, M.; Sinking in Sand - An Examination of Burrowing in Sea Cucumbers (Holothuroidea: Echinodermata)

08:20 34.2 (DCPB) WOODS, W. A. Jr., FUSILLO, S. J., TRIMMER, B. A.; Caterpillar Calisthenics: Dynamics of a Slow, Stretchy Muscle During Strain Cycling and Simulated Natural Crawling

08:40 34.3 (DVM) MEHTA, Rita, MOON, Brad; The Scaling of Constriction Strength Snakes

08:40 35.3 (DVM) MEYERS, J.J., IRSCHICK, D., VANHOOYDONCK, B., HERREL, A.; Divergent roles for different color signals in a polygynous lizard: A test of the reinforcement and dual-function hypotheses

09:00 35.4 SCORDATO, ES, DREA, CM; Sex-specific variation in Ringtailed lemur *Lemur catta* olfactory communication

09:20 35.5 (DEE) KIM, Tae Won, KIM, Tae Geun, CHOE, Jae Chun; The evolution of courtship structure building in fiddler crabs: Has it evolved for predation avoidance in both sexes?

09:40 35.6 (DEE) GEE, JM; IEG and Behavioral response to conspecific and heterospecific calls in hybridizing avian species, California and Gambel's quail

36 (Room Ireland B) Sexual Selection

Chair: A. Ophir

10:20 36.1 (DAB) OPHIR, A.G., PHELPS, S.M., WOLFF, J.O.; Selection for social but not genetic monogamy in the prairie vole

10:40 36.2 (DAB) BAEZA, J.A.; The evolution of protandric-simultaneous hermaphroditism in the shrimp *Lysemata wurdemanni* is a consequence of sex-dependent time commitments but not sex-dependent mortality rates.

11:00 36.3 BIERBOWER, SM, SPARKES, TC; Parasite-mediated sexual selection in an intermediate host, Caecidotea intermedius (Isopoda): effects of sperm production and male-male competition

11:20 36.4 (DAB) HUSAK, Jerry F., LOVERN, Matthew B.; Sexual selection on whole-animal performance: lizard locomotion and mating success

11:40 36.5 (DAB) SULLIVAN, Laura E., COCROFT, Reginald B.; The influence of population density on mate-finding tactics and the strength of sexual selection in *Enchenopa binotata* treehoppers (Hemiptera: Membracidae)

37 (Room Ireland C) Complementary to Ecological Immunology Symposium

Chair: L. Rollins-Smith

08:20 37.1 (DCPB) LONDRAVILLE, R. L., NIEWIAROWSKI, Peter/H, KAVETI, Suma, KINTER, Michael; Proteomic Analyses reveal that Components of the Cytoskeletal Network are Up-Regulated before Hibernation in Fence Lizards

08:40 37.2 (DCE) FRENCH, S. S., MOORE, M. C.; Immune and Reproductive Systems Compete for Resources in Female Tree Lizards (*Urosaurus ornatus*)

09:00 37.4 (DCPB) HARMS, Heidi K., BOWDEN, Rachel M., TUCKER, John K.; Seasonal, sex-, and age-related variation in serum immunoglobulin levels in the red-eared slider turtle

- 09:00 34.4** (DVM) MEHTA, Rita; Evolution of Constriction Motor Patterns in Snakes
- 09:20 34.5** DE SCHEPPER*, N*, ADRIAENS, D, DE KEGEL, B; Cranial morphological specializations related to burrowing: a case study of head- and tail-first burrowing *Pisodonophis boro*
- 09:40 34.6** FAULKES, Z.; Do shovel-nosed lobsters shovel with their noses?
- 10:20 34.7** (DIZ) HADDOCK, S.H.D; Radiolarian diversity and morphology: structural adaptations to the deep sea
- 10:40 34.8** (DCPB) KAISER, A., KLOK, C.J., SOCHA, J., LEE, W.K., FEZZAA, K., QUINLAN, M.C.; Structure, function, and allometry of the tracheal system of Darkling Beetles (Tenebrionidae)
- 11:00 34.9** (DIZ) PATEK, Sheila N., BAIO, Joseph, SUMMERS, Adam; Springs, linkages and latches: a mechanical model of the mantis shrimps raptorial appendage
- 11:20 34.10** (DIZ) TAYLOR, J. R. A., KIER, W. M.; Mechanical properties of a crab skeleton following molting
- 11:40 34.11** (DEE) COLLIN, M. A., SWANSON, B. O., HAYASHI, C. Y.; Mechanical Properties of Embioptera Silk

35 (Room Ireland B) Animal Communication

Chair: S. Humfeld

- 08:00 35.1** HYLTON, J.H., BRIDGE, E.S., GAMBLE, L.G., SCHOECH, S.J.; Cryptic Plumage Dimorphism in *Aphelocoma* Scrub-Jays: Assessing Visible and Ultraviolet Reflectance Across Species and Subspecies
- 08:20 35.2** STEFFEN, J.E., SIEFFERMAN, L.; Spectral Properties of the dewlaps of Florida Brown Anoles, *Norops sagrei*

- 09:20 37.5** ADAMO, Shelley A, PARSONS, N; Why does stress suppress immunity? A possible answer from insects.
- 09:40 37.6** (DCPB) WOODHAMS, Douglas C., RAMSEY, Jeremy P., ROLLINS-SMITH, Louise A.; Effects of cold temperature on antimicrobial peptide synthesis and release in northern leopard frogs, *Rana pipiens*
- 10:20 37.7** (DEE) GRINDSTAFF, J.L., SMITH, H.G.; Intestinal parasitism during development affects morphology and ornamentation of ring-necked pheasants
- 10:40 37.8** JIANG, Qiong, GOETZ, Frederick W., PHILLIPS, Ruth, PLACE, Allen R.; Chitinase- A New Member In The Fish Innate Immunity Repertoires

38 (Room Ireland C) Steroid Influences on Reproduction

Chair: C. Blomquist

- 11:00 38.1** (DCE) KAHN, P.F.*, MENDONCA, M.T.; Seasonal Changes in Sex Steroids of the Gopher Tortoise (*Gopherus polyphemus*) and Their Relationship to Upper Respiratory Tract Disease
- 11:20 38.2** (DCPB) FINKLER, M.S., GILLEM, A.D.; Sex-related differences in stored energy reserves in spring-breeding hylid frogs
- 11:40 38.3** (DCPB) BLOMQUIST, Charles H., LIMA, Paul H., ATKINSON, Shannon; Activity of Steroidogenic Enzymes in Placenta and in Lung, Fat and Skin of the Steller Sea Lion Pup (*Eumetopias jubatus*)

39 (Room Diamond) Respiration

Chair: H. Lillywhite

- 13:00 39.1** (DCPB) LIGHTON, JRB, SCHILMAN, PE; What the *Eleodes* going on: Cyclic gas exchange in the xeric beetle, *Eleodes armata*
- 13:20 39.2** (DIZ) SOCHA, J.J.*, HARRISON, J.F., LEE, W.-K., WESTNEAT, M.W.; Tubes squeeze and the air flows out: Correlated patterns of CO₂ emission and tracheal compression in the beetle, *Platynus decentis*
- 13:40 39.3** (DCPB) BRADLEY, TJ, GRAY, EM; Mosquitoes Respire Using the Discontinuous Gas Exchange Cycle.

14:00 39.4 (DCPB) TRUEBLOOD, Lloyd A., SEIBEL, Brad A., GILLY, William F.; Breath holding squid: Physiological constraints on vertical migrations of *Dosidicus gigas*
14:20 39.5 (DCPB) LILLYWHITE, H., SAWYER, W. G., HEATWOLE, H.; A Functional Interpretation of Pulmonary Structure in Marine Snakes
14:40 39.6 (DCPB) GUADAGNOLI, J. A., TOBITA, K., REIBER, C.L.; Assessing changes in the pressure-area relationship in the open circulatory system of a decapod crustacean, *Palaemonetes pugio* in response to hypoxia.

40 (Room Sapphire) Macroevolution II

Chair: A. Aronowsky

13:00 40.1 (DEE) ARONOWSKY, A., ANDERSON, L.C.; Corbulid bivalve phylogeny and the facilitation of ecosystem invasion
13:20 40.2 LIOW, Lee Hsiang; Lineage longevity: Luck and a Little Flexibility Go a Long Way
13:40 40.3 (DSEB) SIDLAUSKAS, B.L.; Unequal rates of morphological diversification in sister clades of characiform fishes
14:00 40.4 (DIZ) VENIT, E.P.; Interzoooidal connection predicts division of labor in colonial marine invertebrates
14:20 40.5 (DSEB) KAMMERER, Christian F.; Temporal patterns in non-mammalian synapsid morphospace
14:40 40.6 (DVM) HOLLIDAY, CM, WITMER, LM; Evolutionary morphology of the orbitotemporal region in Archosauria

41 (Room Scotland A) Prey Processing

Co-chairs: M. Ashley-Ross & L. McBrayer

13:00 41.1 (DVM) ASHLEY-ROSS, MA, WADE, HS; Fearsome fangs and fast feet: Kinematics of prey capture in tarantulas
13:20 41.2 (DVM) MCBRAYER, LD, HERREL, AH, LARSON, PM; Functional basis for intersexual differences in bite force in the lizard *Anolis carolinensis*
13:40 41.3 (DVM) METZGER, K.A.; The effect of food properties on intraoral transport kinematics in lizards
14:00 41.4 (DVM) ROSS, CF; How do primates chew harder?
14:20 41.5 VINYARD, Christopher J, WALL, Christine E, WILLIAMS, Susan H, JOHNSON, Kirk R, HYLANDER, William L; Are jaw-muscle activity patterns correlated with masticatory apparatus morphology among primate species?
14:40 41.6 (DVM) MARSHALL, C.D., DEHNHARDT, G.; Suction Capability and Performance in Feeding Harbor Seals (*Phoca vitulina*)

13:20 43.2 (DVM) TOBALSKE, B.W.*, WARRICK, D.R., POWERS, D.R.; Effect of Wing Design on Wake Structure in Small Flying Birds
13:40 43.3 (DVM) DIAL, K.P., TOBALSKE, T.W.; WAIR Flow: Ontogeny of wing aerodynamics during incline running in birds.
14:00 43.4 (DVM) BISHOP, K.L.; Kinematics and performance in two species of mammalian gliders, *Glaucomys volans* and *Petaurus breviceps*
14:20 43.5 (DVM) CLARK, Christopher J, DUDLEY, Robert; Effects of tail length on hummingbird top speed, power curve, and parasite drag
14:40 43.6 BUTLER, L. K.*, ROHWER, S; Correlations between flight demands and the structure of contour feathers in small birds

44 (Room Ireland B) Feeding and Flow I

Co-chairs: J. O'Reilly & J. Cooper

13:00 44.1 (DVM) CARROLL, Andrew M., WAINWRIGHT, Peter C., COUGHLIN, David J.; Muscle function and muscular power output during suction feeding
13:20 44.2 (DVM) O'REILLY, J.C., INFANTE, C.R., FENOLIO, D.B., DEBAN, S.M.; Prey Capture in Macrochagous Tadpoles
13:40 44.3 (DVM) CLARK, A. J.*, SUMMERS, A. P.; Functional morphology and kinematics of the hagfish feeding apparatus
14:00 44.4 (DVM) COOPER, W. James; The Evolution of Feeding Biomechanics in Damselfishes
14:20 44.5 (DVM) DEVRIES, M.S., WAINWRIGHT, P.C.; The effects of acute temperature change on prey capture kinematics in Largemouth bass, *Micropterus salmoides*
14:40 44.6 (DVM) HIGHAM, T. E., DAY, S. W., WAINWRIGHT, P. C.; Can peak buccal cavity pressure be used to predict peak fluid speed during suction feeding in fishes?

45 (Room Ireland C) Paleomorphology

Chair: S. Sumida

13:00 45.1 (DVM) LONGRICH, N. R.; Aquatic marsupials from the Late Cretaceous of North America
13:20 45.2 (DVM) SUMIDA, S.S., NORIEGA, K., FISK, J.; Developing a digital atlas of a centrosaurine ceratopsian dinosaur foot using nearly complete and articulated materials
13:40 45.3 (DSEB) WEINBAUM, Jonathan; A reassessment of the systematics of rauisuchids and poposaurids (Archosauria: Crurotarsi)
14:00 45.4 (DVM) GIGNAC, P.M., PRIETO-MARQUEZ, A., ERICKSON, G.M., JOSHI, S.H.; Testing the utility of

42 (Room Scotland C) Regulatory Biology: Androgens

Chair: S. Woodley

13:00 42.1 (DAB) DREA, C.M.; Could female ringtailed lemurs be masculinized by maternal androgens?

13:20 42.2 (DCE) JOHNSTON, G.I.H.*, MOORE, M.C.; Transfer of Maternal Corticosterone to Yolk in Preovulatory and Postovulatory Tree Lizard (*Urosaurus ornatus*) Eggs

13:40 42.3 (DAB) SOCKMAN, KW, WEBSTER, MS, TALBOT, V, SCHWABL, H; Sex-Specific Effects of Yolk Androgens in American Kestrels

14:00 42.4 O'NEAL, D.M., PAVLIS, K., KETTERSON, E.D.; The Effects of Experimentally Elevated Testosterone on Parental Care in Female Dark-eyed Juncos

14:20 42.5 GOYMANN, W, MUCK, C, SCHWABL, I; Blocking androgen and estrogen action does not affect territorial behaviour of sex-role reversed female black coucals *Centropus grillii*

14:40 42.6 (DCE) NAVARA, KJ, SIEFFERMAN, LM, HILL, GE, MENDONÇA, MT; Yolk androgens differ independently of maternal androgens in eastern bluebirds: an experimental study

43 (Room Ireland A) Flight Aerodynamics I

Chair: B. Tobalske

13:00 43.1 (DIZ) MILLER, L. A.; Clap and peel in insect flight with flexible and bristled wings

osteological correlates purported to reflect gender in non-avian dinosaurs

14:20 45.5 (DVM) HIERONYMUS, T.L., WITMER, L.M.; From armor to anchor: Character evolution of the skin and horns of rhinos

46 (Room Great Hall West) Complementary to Zebrafish Symposium: Genetics

Chair: I. A. Hurley

13:00 46.1 (DEDB) CROTWELL, P.L., MABEE, P.M.; A comparative analysis of gene expression patterns conserved in segmentation of fish and tetrapod skeletons

13:20 46.2 (DEDB) JACKMAN, W.R., STOCK, D.W.; Transgenic analysis of the mechanism of cypriniform oral tooth loss

13:40 46.3 (DEDB) HURLEY, IA, SCEMAMA, JL, PRINCE, VE; The mechanism and consequences of duplicate gene preservation a comparison of *hoxb1* duplicates across teleost fish

14:00 46.4 (DEDB) WISE, S. B., STOCK, D. W.; Bone morphogenetic protein expression, regulation, and function in teleost tooth development and evolution

14:20 46.5 (DCE) SCHLUETER, P.J., DUAN, C.; Overlapping and distinct functions of the duplicated zebrafish insulin-like growth factor-1 receptor (IGF-1R) genes in early development

14:40 46.6 JIMENEZ, Lizandra; Preliminary Phylogeny of the Tilefishes Based Upon Their Cytochrome b and 16S Gene Sequences