

## P1 Poster Session 1

- P1.1 (DCPB)** HORNE, F. R.; Carbonic anhydrase in slipper lobster cuticles
- P1.2 (DCPB)** LEE, SG, KIM, HW, BADER, BD, CHANG, ES, MYKLES, DL; Effects of elevated ecdysteroid on expression of three guanylyl cyclases in tropical land crab, *Gecarcinus lateralis*
- P1.3 (DCPB)** HOFFMAN, G.G., SONA, S., ELLINGTON, W.R.; Evolution of the Octameric State in Mitochondrial Creatine Kinases
- P1.4** CHUANG, S.C., CHEN, J.H.; The study of crawling behavior, oxygen consumption and oxidative stress in earthworm *Amyntas gracilis* after UV-B exposure
- P1.5** LIANG, Wenbin, WANG, Rui; Hydrogen sulfide-modulated calcium homeostasis in pancreatic beta cells
- P1.6 (DCPB)** HOLMAN, J.D., HAND, S.C.; Anoxia Tolerance, Anaerobic Metabolism and Lack of a Mitochondrial Permeability Transition in the Ghost Shrimp, *Lepidophthalmus louisianensis*
- P1.7 (DIZ)** KURZE, E/M, KERSHNER, J, ADAMS, N/L; In situ solar ultraviolet radiation delays development of sea urchin embryos *Strongylocentrotus purpuratus*
- P1.8** KIMBLE, M., TREMBLAY, N., HINSCH, G.W., COURSEY, Y., ARMSTRONG, P.B.; Cyanocytes in *Limulus polyphemus* trilobite larvae.
- P1.9** SANTOS, N, HOOPER, T, KIMBLE, M; Cyanocytes in staged *Limulus polyphemus* trilobite larvae.
- P1.10 (DIZ)** FROELICH, Jenna, STENGER, Krista, HILL, Malcolm, KINGSLEY, Roni; UREASE AND CALCIUM CARBONATE SPICULE FORMATION IN THE OCTOCORAL LEPTOGORGIA VIRGULATA
- P1.11 (DCPB)** FRANK, D.M., DEATON, L.E., WARD, J.E., SHUMWAY, S.E.; Gill cilia in the blue mussel, *Mytilus edulis*: Effects of neurotransmitters and calcium blockers
- P1.12 (DCPB)** GILLEN, C.M., GAO, Y., WYLDE, M.R., WHEATLY, M.G.; Cloning and expression pattern of *Procambarus clarkii* elongation factor 1&gamma
- P1.13 (DCPB)** PARKER, M/E, ADAMS, N/L; Effects of ultraviolet radiation on Cdc2 in *Strongylocentrotus purpuratus* embryos
- P1.14** HAVIRD, J/C, CHOE, K/P, EVANS, D/H; The evolution of cyclooxygenase in ancestral chordates
- P1.15 (DCPB)** GROVE, T.J., MOERLAND, T.S.; Troponin C isoforms from *Fundulus* sp. adapted to different thermal regimes are highly conserved
- P1.16 (DCPB)** PORE, S.A., SILVERMAN, L.N., SPIVAK, A., LIGHT, D.B.\*; Regulated Volume Decrease in *Alligator mississippiensis* Erythrocytes
- P1.17** FORSMAN, A.M., SAKALUK, S.K., VOGEL, P1.27 FLY, E.K.\*, BURNAFORD, J.L., TULLIS, A.; Temperature effects on the metabolism and microhabitat choice of the keystone predator *Pisaster ochraceus*
- P1.28 (DCPB)** SCHOLNICK, D.A., BURNETT, L.E.; Respiratory Responses to Bacterial Exposure in the Penaeid Shrimp *Litopenaeus vannamei* During Locomotory Activity and Recovery
- P1.29** SKINNER, E.C.\*, BENNETT, V.A.; Comparing seasonal changes in metabolism and cold-hardiness of winter- and summer-emerging stoneflies
- P1.30 (DCPB)** MYER, Bonnie L., BURGGREN, Warren ; ALLOMETRY AND SCALING OF METABOLIC RATE OF DEVELOPING SILKWORMS, BOMBYX MORI
- P1.31 (DCPB)** VATNICK, I, MADIGOSKY, SR, CARANCI, A, OJO, B, MORGAN, R; Body mass and metabolic rate changes of Hercules beetles, (*Dynastes hercules*) during ontogenesis
- P1.32 (DCPB)** OATMAN, Kim/A., GAVIGLIO, Amy/M., STEYERMARK, Anthony/C.; Mitochondrial correlates of among - individual variation in maintenance metabolism
- P1.33 (DCPB)** STEYERMARK, A.C., OATMAN, K.A., GAVIGLIO, A.M., WILSON, K.; Among - individual variation in standard metabolic rate: how much, where from, and who cares?
- P1.34 (DCPB)** MCCLOSKEY, K/L, NESTLER, J/R; DIEL CYCLES OF ACTIVITY, METABOLISM, AND NUTRIENT EXCRETION IN THE TEMPERATE SEA CUCUMBER *PARASTICHOPUS CALIFORNICUS*
- P1.35** SMITH, S.B., MCWILLIAMS, S.R., GUGLIELMO, C.G.; Effect of diet composition on plasma metabolites in a migratory songbird
- P1.36 (DCPB)** OLSON, Christopher R., VLECK, Carol M., VLECK, David; Growth costs increase with periodic cooling in house wren eggs
- P1.37 (DCPB)** HOOPEES, L.A., REA, L.D., WORTHY, G.A.J.; Born free: resting metabolic rate in free-ranging Steller sea lions (*Eumetopias jubatus*).
- P1.38 (DCPB)** CASTAÑEDA, L.E., NESPOLO, R.F., ROFF, D.A.; Dissecting the variance-covariance structure in insect physiology: the multivariate association between metabolism and morphology in the nymphs of the sand cricket (*Gryllus firmus*)
- P1.39 (DCPB)** BROWN, A.C., WEBER, K.L.; Effect of Seasonal Temperature on Prey Size Selection, Consumption Rates, and Energetic Cost of Attack by *Asterias vulgaris* on *Mytilus edulis*
- P1.40 (DCPB)** WITT, T.L., MENZE, M.A., HAND, S.C.; Isolation and Characterization of AMP-activated Protein Kinase from Embryos of *Artemia franciscana*
- P1.40A (DCPB)** BECKER, Tracy A, RODNICK, Kenneth

- L.A., ARQUETTE, R.F., THOMPSON, C.F.; Do measures of female condition predict survival, condition, and immune response of nestling house wrens (*Troglodytes aedon*)?
- P1.18** ROOSENBERG, A.S., TIELEMAN, B.I., WILLIAMS, J.B., KLASING, K.C.; Seasonal trends in immune function of tropical house wrens
- P1.19** (DIZ) ROGERS-LOWERY, C. L., DIMOCK, JR., R. V.; Changes in activity and composition of the proteases of fish skin mucus during development of acquired resistance to glochidia larvae of freshwater mussels
- P1.20** (DCPB) IKERD, J.L.\*, BURNETT, K.G., BURNETT, L.E.; Effects of salinity on the accumulation of the bacterium *Vibrio campbellii* in the gills of the blue crab, *Callinectes sapidus* (Rathbun)
- P1.21** MA, T.H.T., CHAN, S.-M.; Characterization of the C-type lectin cDNA from the shrimps *Penaeus monodon* and *Litopenaeus vannamei*
- P1.22** YANG, C.D., PENG, J.M., LIANG, S.M.; Cellular effects in host cells induced by recombinant VP1 (rVP1) of foot-and-mouth disease virus (FMDV)
- P1.23** (DCPB) MUIR, T.J., COSTANZO, J.P., LEE, R.E.; Hypometabolism induced by urea in a terrestrially-hibernating frog
- P1.24** (DEE) PRI-TAL, B., BUNKELMANN, J., DAVIDOWITZ, G., GIBBS, A. G.; METABOLISM AND WATER BALANCE IN ARIZONA GRASSHOPPERS
- P1.25** (DCPB) WILLIAMS, J.B., LEE, R.E.; Plant senescence cues entry into diapause in the gall fly, *Eurosta solidaginis*: resulting metabolic depression is critical for water conservation.
- P1.26** (DCPB) GODDARD, Adam C, BATTIPROLU, Pavan K, RODNICK, Kenneth J; Effects of Exogenous Glucose on Cardiac Oxygen Consumption and Lactate Release in Rainbow Trout (*Oncorhynchus Mykiss*)
- J; Evidence that hypoxia stimulates lactate efflux but not glucose transport in cardiac tissue of rainbow trout (*Oncorhynchus mykiss*)
- P1.41** (DAB) CERICOLA, Vincent, DANIEL, Peter; The Phylogeny of Antennular Grooming Behavior in Decapod Crustaceans
- P1.42** (DVM) DUFEAU, D.L., WITMER, L.M.; Tympanic pneumaticity in theropod dinosaurs: Recognizing patterns of organization and homology.
- P1.43** HEIMER-TORRES, V.R., BRAUN, E.L., KIMBALL, R.T.; Molecular Evolution of Non-Canonical Introns in the Class Aves
- P1.44** COX, N.L., HALANYCH, K.M.; Phylogeography of *Sterechinus neumayeri* from South American and Antarctic waters using the 16S mtDNA marker
- P1.45** (DVM) WALKER, JA; A General Model of Functional Constraints on Phenotypic Evolution
- P1.46** (DEE) MERRY, J. W., KEMP, D. J., BERTRAM, S. M., RUTOWSKI, R. L.; Butterfly growth and development: the role of phosphorus
- P1.47** COLEMAN, A.T., LEWIS, J., DIZON, M., COWAN, J., WIBBELS, T.; Real-time PCR assay for quantifying mullerian-inhibiting substance (anti-mullerian hormone) in a turtle with TSD.
- P1.48** (DCE) PAITZ, Ryan, JANZEN, Fredric, BOWDEN, Rachel; Relationship between plasma and egg yolk steroid levels in the painted turtle
- P1.49** VITOUSEK, Maren N., MITCHELL, Mark A.; Reproductive pattern and follicular development in the Galapagos marine iguana (*Amblyrhynchus cristatus*)
- P1.50** (DCPB) LOURDAIS, O., DENARDO, D. F., HEULIN, B.; Does gravidity influence thermoregulation in an oviparous reptile?
- P1.51** (DCPB) JAMES, LN, HAHN, DA; Adult starvation reveals critical feeding threshold for reproduction in the flesh fly, *Sarcophaga crassipalpis*.

- P1.52** SMITH, K.J., LEE, R.E.; Entry into diapause enhances the cold tolerance of specific tissues in the flesh fly *Sarcophaga crassipalpis* (Diptera: Sarcophagidae)
- P1.53** MOORE, C. W., YI, S-X., LEE, JR., R. E.; Does the rapid cold-hardening response protect *Drosophila* from cold-induced apoptosis?
- P1.54** DISHONG, B.D., MUIR, T.J., COSTANZO, J.P., LEE JR., R.E.; Influence of Temperature on Overwintering Energetics in the Hatchling Painted Turtle, *Chrysemys picta*
- P1.55** (DCPB) COSTANZO, J.P., LEE, R.E., Jr.; Cryoprotection by urea in a terrestrially-hibernating frog
- P1.56** (DCPB) BAKER, P.J., COSTANZO, J.P., LEE, R.E.; Induction of Oxidative Stress in a Terrestrially-Hibernating Turtle
- P1.57** (DCPB) SWANSON, DL, THOMAS, NE; Relationship of plasma triglycerides and creatine kinase to overnight temperature in winter acclimatized small birds
- P1.58** (DEE) GIBBS, A. G., LARSEN, K. M. F.; EFFECTS OF DAILY HEAT SHOCK ON DEVELOPMENT AND WATER BALANCE IN *DROSOPHILA MELANOGASTER*
- P1.59** (DCPB) FINCEL, E.A.\*, WALLACE, E., MARJANOVIC, M., COSTANZO, J.P., LEE, R.E.; Urea: a natural cryoprotectant in the freeze-tolerant wood frog (*Rana sylvatica*)
- P1.60** (DCPB) ALBERS, Melissa A, BRADLEY, Timothy J; A Phylogenetic Analysis of the Evolution of Saline-Tolerance in Mosquito Larvae
- P1.61** (DCPB) BOLIN, Greta M., BURGGREN, Warren W.; Effects of Incubation Humidity on Kidney Development in Chicken Embryos
- P1.62** (DCPB) KAPPER, M.A.; Aquaporin and Salinity Adaptation in the Ribbed Mussel
- P1.63** (DCPB) HENRY, R.P., SMITH, C.; CARBONIC ANHYDRASE REPRESSOR IN THE SINUS GLAND OF THE EURYHALINE GREEN CRAB *CARCINUS MAENAS*
- P1.64** (DCPB) CRAWFORD, Alisa, DECKER, Sarah, KELLEY, Catherine, BELTZ, Eleanor, TELLES, Conner, RATNER, Martha; Identifying the specific basolateral potassium channel that is involved in Cl<sup>-</sup> secretion of the spiny dogfish (*Squalus acanthias*)
- P1.65** (DCPB) POWELL, MP, WATTS, SA, HENRY, RP; Inhibition of branchial carbonic anhydrase induction in the euryhaline blue crab, *Callinectes sapidus*, by a repressor in the sinus gland
- P1.66** (DCPB) PARIKH, P.C.\*, TIERNEY, K.J., GERBER, N.L., LOVETT, D.L.; Na<sup>+</sup>,K<sup>+</sup>-ATPase activity in gills of the green crab *Carcinus maenas* may be modulated by membrane trafficking during salinity change
- P1.67** (DICI) PAN, T. C., LIAO, B. K., HUANG, C. J.,
- P1.78** (DCPB) HELMSTETTER, C, SECOR, S.M, POPE, R.K., LIGNOT, J-H; Postprandial cellular replication and morphological responses of the Burmese python gastrointestinal tract.
- P1.79** COX, Christian L., SECOR, Stephen M.; Determinants of energy efficiencies for juvenile Burmese pythons, *Python molurus*
- P1.80** PICARD, Kathryn T., NEWSOM, Ellen, SECOR, Stephen M.; Postprandial response of circulating metabolites for snakes
- P1.81** (DCPB) HO, D.H., WANG, J., BURGGREN, W.W.; Cardiac Performance and Embryo Mass in Early Avian Embryos Depends Upon Egg-Borne Maternal Cues Specific to Species and Breed
- P1.82** (DCPB) GREYNER, H, COPELAND, J, PALENSKE, N, WARBURTON, S, BURGGREN, WW, DZIALOWSKI, EM; Cardiovascular changes during hatching in emus (*Dromaius novaehollandiae*)
- P1.83** (DCPB) BURGGREN, Warren W, YAMADA-FISHER, Miho; CHRONIC BRADYCARDIA ACCELERATES DEVELOPMENT OF FRANK-STARLING MECHANISM DURING EARLY AVIAN EMBRYOGENESIS
- P1.84** JOHNSON, Keven R, OLSON, Kenneth R; Natriuretic peptide expression in saltwater and hemorrhaged rainbow trout
- P1.85** KEELEY, K.O., KREFT, J.M., NAUSEEF\*, J.T., REYNOLDS, L.W., HAUSSMANN, M., HIEBERT, S.M.; Recombinant human erythropoietin reduces time to exhaustion during endurance running in Djungarian hamsters, *Phodopus sungorus*
- P1.86** (DCPB) GRAY, P., MEYERS, R., BERNAL, D.; The effect of temperature on the metabolic biochemical capacity in the hearts of warm bodied sharks
- P1.87** (DDCB) TWEETEN, KA, CURTIS, J, DERBY, R, SEEFELD, M, VANG, L; Analysis of the Extracellular Hemoglobin from *Lumbriculus variegatus*
- P1.88** (DCPB) SANSCRAINTE, N.D.\*, HEFFRON, J.K.\*, MOERLAND, T.S.; Molecular size and isoform distribution of parvalbumin from five species of elasmobranchs
- P1.89** (DCPB) GAINEY, L.F., Jr, GREENBERG, M.J.; Hypoxia abolishes potentiation of the gill muscles in the clam *Mercenaria mercenaria*
- P1.90** PETERSEN, A.M., GLEESON, T.T.; Characterization of metabolic recovery from activity in *Rana catesbeiana*
- P1.91** (DCPB) HARDY, KM\*, KINSEY, ST; The Effects of Cell Size on Post-Contractile Arginine Phosphate Recovery and Glycogen Depletion in the Blue Crab, *Callinectes sapidus*
- P1.92** ERICKSON, J.R., SIDELL, B.D., MOERLAND,

- LIN, L. Y., HWANG, P. P.; Epithelial Ca<sup>2+</sup> Channel Expression and Ca<sup>2+</sup> Uptake in Developing Zebrafish
- P1.68** MONETTE, M.Y., MCCORMICK, S.D.; A comparison of responses of Atlantic salmon parr and smolts to acid/aluminum exposure; why are smolts more sensitive?
- P1.69** KUNKEL-PATTERSON, A.\*, FIESS, J.C., MATHIAS, L., SAMEROTTE, A., HIRANO, T., YANCEY, P.H.; Effects of salinity and temperature on osmolyte composition in tilapia
- P1.70** EBANKS, S.C., BRIX, K.V., GROSELL, M.; Extra-cellular Volume and Solute Recovery in the Pond Snail *Lymnaea stagnalis* After Simulated Predatory Attack
- P1.71** (DCPB) BLANK, T.M., BURGGREN, W.W.; Early Respiratory Development of the Blue Gourami (*Trichogaster trichopterus*), an Air-breathing Fish
- P1.72** (DVM) MARKLEY, J.S., CARRIER, D.R.; The cost of ventilation in birds
- P1.73** (DCPB) RASCON, B., HENRY, J.R., HARRISON, J.F., FEZZAA, K., LEE, W-K., SOCHA, J.J.; Peering inside the insect thorax: an examination of thoracic autoventilation in live insects using synchrotron x-rays
- P1.74** (DCPB) KRISTAN, D.M., MANIBUSAN, P.T., ALVARADO, I.; Chronic caloric restriction increases susceptibility of laboratory mice to infection with the intestinal nematode *Heligmosomoides polygyrus*
- P1.75** FASSBINDER-ORTH, C.A., KARASOV, W.H.; Are gut immune and digestive functions regulated independently?
- P1.76** (DCPB) TRACY, C.R., MCWHORTER, T.J., WOJCIECHOWSKI, M.S., KORINE, C., KARASOV, W.H., PINSHOW, B.; Relatively low paracellular absorption in a reptile, the Egyptian mastigure, *Uromastix aegyptius*
- P1.77** ALLMAN, Andrea/L, PLACE, Allen/R; The effect of dietary chitin and cellulose on growth and digestive enzyme production in the juvenile blue crab, *Callinectes sapidus*.
- T.S.; Temperature Sensitivity of Magnesium Affinity for Parvalbumins Isolated from Teleost Fish
- P1.93** (DCPB) NYACK, A.C., KINSEY, S.T.; Changes in mitochondrial distribution and fiber diameter during ontogeny in black sea bass (*Centropristis striata*) white muscle and potential influence on aerobic metabolism
- P1.94** BERTING, J.I., KINSEY, S.T.; The Response of Myoglobin Concentration to Chronic Hypobaric Hypoxia is Strain Specific in Mice
- P1.95** (DVM) YU, B, CLARK, C.J., DUDLEY, R; Using a Physical Model to Study the Aerodynamic Cost of Hummingbird Tails
- P1.97** (DVM) KOT, B.W.; Ventral Pouch Flow Dynamics in Feeding Rorqual Whales: A Kinematic Analysis
- P1.98** (DCE) LACY, Eva L, WILSON, Mark E; Social Rank Affects Feeding Patterns and Metabolic Hormones in Female Monkeys
- P1.99** SHAW, Barbara J., RUEDAS, Luis A.; Evolution of Order Xenarthra modality distinct from all other mammals
- P1.100** (DEE) TURMELLE, Amy S., ALLEN, Louise C., SCHMAEMAN, Cynthia, MENDONCA, Mary T., KUNZ, Thomas H., MCCRACKEN, Gary F.; Ecological Effects of Innate and Adaptive Immune Function in Brazilian Free-tailed Bats (*Tadarida brasiliensis*).
- P1.101** (DCPB) RATHBURN, C.K.\*, MACEY, B.M., BURNETT, L.E., BURNETT, K.G.; Influence of a Previous Exposure to *Vibrio campbellii* on the Immune Response of the Blue Crab, *Callinectes sapidus*
- P1.102** CHAMBERS, D.L., HULSE, A.C.; Amphibians and Reptiles as Possible Sources of *Salmonella* Infection to Humans
- P1.102A** FUENTES, S, RICK, H, NOEL, J; Development of Real-Time PCR assays for rapid detection of *Cylindrospermopsis raciborskii*
- P1.103** VIRTA, Valerie C., COOPER, Mark S.; Ontogeny and Phylogeny of the Yolk Extension in Cypriniform Fishes

- P1.104** STAAB, KL, HERNANDEZ, LP; Evolutionary developmental biology of the kinethmoid: Using zebrafish to investigate the development and evolution of a unique mechanism of premaxillary protrusion
- P1.105** ROGERS, S.A., CHANG, Y.; Evolution of Regulatory Elements that Control Tissues-Specific Expression of Recombination Activation Genes
- P1.106** (DVM) HULSEY, CD, FRASER, GJ, STREELMAN, JT; Evolution and Development of Complex Biomechanical Systems: 300 Million Years of Fish Jaws and Teeth
- P1.107** RO, J., MUNOZ-GARCIA, A., BROWN, J.C., WILLIAMS, J.B.; Identification of Complex Mixtures of Sphingolipids in the Stratum Corneum by Reverse Phase High Performance Liquid Chromatography and Atmospheric Pressure Photospray Ionization Mass Spectrometry
- P1.108** (DAB) ZYSLING, D.A., KETTERSON, E.D., DEMAS, G.E.; Effects of 2-DG induced metabolic stress on immune function in long- and short-day housed Siberian hamsters *Phodopus sungorus*
- P1.109** (DCPB) NICODEMUS, J, SILIC, S, ZHU, T, GHILIOTTI, L, CHENG, C-H; Evolutionary analyses of the antifreeze glycoprotein genomic locus in Antarctic Notothenioid fish
- P1.110** SPEISER, D. I., JOHNSEN, S.; Wavelength-dependent phototaxis as a depth regulating mechanism in a ctenophore
- P1.111** (DCPB) GEFEN, E., MARLON, A.J.; The effects of selection for desiccation resistance on larval development of *Drosophila melanogaster*
- P1.112** ST MARY, CM, LINDSTRÖM, K; Stabilizing and directional selection acting on male parental care
- P1.113** (DEE) SCHWARZ, Ryan S., CADAVID, Luis F.; Somatic cell parasitism and the evolution of histocompatibility systems
- P1.114** MCCURDY, D.G., COOK, K.A., FORBES, M.R.; Brood sizes and egg sizes of the intertidal amphipod *Corophium volutator* in relation to season and density
- P1.115** SPARKMAN, A.M., ARNOLD, S.J., BRONIKOWSKI, A.M., HERRIGES, M.J.; Evolutionarily divergent patterns of age-specific reproduction in the garter snake *Thamnophis elegans*
- P1.116** (DCPB) TIELEMAN, B. I., DIJKSTRA, T.H., WILLIAMS, J.B., VISSER, G.H., KLASING, K.C.; Effects of experimentally increased costs of reproduction on parental effort in the tropical house wren
- P1.117** KINLOCK, Ballington, SUN, Jingxia , SUN, Yujie , TAN, Kim ; Treatment Of Md-mb 435 Cancer Cell Line With Troglitazone And Epirubicin Hydrochloride Synergistically Inhibits Proliferation And Induces
- P1.130** SCHROCK, SE, YOUNG, RC, KETTERSON, ED; Is the aggressive response of captive female dark-eyed juncos to repeated intrusions mediated by testosterone?
- P1.131** (DEE) KAMILAR, JM, PATEL , BA; Ecological and behavioral correlates of fore- and hind-limb lengths in primates
- P1.132** (DEE) HARPER, F.M., POMERLAU, E.A., RAWSON, P.D.; Species-specific egg-borne proteins in the blue mussels, *Mytilus edulis* and *M. trossulus*
- P1.133** CHANDLER, C. H., PHILLIPS, P. C., JANZEN, F. J.; Characterization of thermal reaction norms for sex ratio in two mutant lines of *Caenorhabditis elegans*
- P1.134** (DEE) VON DASSOW, Y.J.; Abundance, diversity, and paleoecology of Pleistocene encrusting organisms
- P1.135** (DIZ) TEMKIN, M.H., TWICHELL, N.P., ERICKSON, J.M.; Contemporary gene flow and historic events have produced geographic associations of genetic variation in populations of the freshwater mussel *Elliptio complanata* from northern New York
- P1.136** CRAFT, J.D.\*, SANTOS, S.R.; Phylogeography of *Halocaridina rubra*: Discerning relatedness between populations of an endemic Hawaiian shrimp
- P1.137** (DSEB) SANTINI, F, LECOINTRE, G; Phylogeny of the Caproidae (Acanthomorpha), with comments on their relationship with Tetraodontiformes and Acanthuroidae
- P1.138** RODRIGUEZ, A., KELLY, R.P., EERNISSE, D.J.; Is the Palos Verdes peninsula a barrier to gene flow for chitons and limpets?
- P1.139** (DIZ) BREAKER, Rioshannon, HERNANDEZ, Jazmir, WILLIAMS, Judith; The Expression of PBAN-like Peptides in Two Ontogenetic Stages of the Commercial White Shrimp *Litopenaeus setiferus* From The Gulf of Mexico
- P1.140** EDWARDS, D.D., VIDRINE, M.F.; Patterns of host specificity among unionicolid water mites of North America
- P1.141** (DCE) HAHN, Thomas P, BREUNER, Creagh W; How does the acute adrenocortical stress response relate to fitness?
- P1.142** DICKENS, M. J., ROMERO, L. M.; Crowding induces a greater cardiovascular stress response in male European starlings (*Sturnus vulgaris*) when in breeding condition
- P1.143** (DCE) TILMAN-SCHINDEL, E, KELLY, T, BERZINS, L, HUSSELL, DJT, BOONSTRA, R, BURNES, G; Do avian growth rates, immune function and corticosterone levels vary with insect abundance?
- P1.144** (DCE) EARLE, Kristen A., ROMERO, L. Michael; Effects of chronic stress on the cell-mediated immune response in European Starlings (*Sturnus vulgaris*)
- P1.145** (DCPB) DURANT, S.E., HOPKINS, W.A.,

Apoptosis

**P1.118** (DIZ) JAECKLE, W., SLOTT, A., BALSER, E.; Patterns of nutrient assimilation and distribution in tornaria larvae.

**P1.119** GREWAL, A.K, SIBLE, J, BELDEN, L.K; Examining developmental responses to environmental insults in early stage amphibian embryos

**P1.120** (DEDB) LIUBICICH, Danielle M., SERANO, Julia M., PATEL, Nipam H.; Functional approaches to understanding the role of hox genes in specifying crustacean appendage identity

**P1.121** (DDCB) BUSKIRK, MC, HAHN, DA; Starvation reveals critical larval body size for adult development in the flesh fly, *Sarcophaga crassipalpis*.

**P1.122** (DCE) BOUZAIENE, M., ANGERS, A., ANCTIL, M.; A retinoic acid-like receptor in interstitial cells of two colonial anthozoans (Cnidaria)

**P1.123** KENDALL, Lindsay R., MCMULLIN, Erin, MARSH, Adam G.; Genome methylation patterns during early development in the Antarctic sea urchin, *Sterechinus neumayeri*

**P1.124** AYERS, M, MOORE, F, BAGATTO, B; Searching for Critical Windows in the Development of the Zebrafish Cardiovascular System

**P1.125** ALVERS, A.L.\*, MOORE, B.C., MILNES, M.R., IGUCHI, T, GUILLETTE, L.J.; Sexually Dimorphic Gonadal Gene Expression in 13 Month Old Alligators

**P1.126** (DDCB) KOBAYASHI, KAZUYA, ARIOKA, SACHIKO, MATSUMOTO, MIDORI, HOSHI, MOTONORI; Reproductive Mode of the Inbred Offspring of Acquired Sexuels in the Planarian *Dugesia ryukyuensis*

**P1.127** (DCE) LYNN, Sharon E., WINGFIELD, John C.; Dissociation of testosterone and male-male aggression in breeding Chestnut-collared longspurs, *Calcarius ornatus*

**P1.128** (DCE) MALUEG, A. L., MOORE, I. T., WALTERS, J. R.; Hormonal differences between helpers and breeders in a cooperatively breeding bird

**P1.129** (DCE) WACKER, DW, WALKER, BG, COVERDILL, AJ, O'BRIEN, S, WINGFIELD, JC; Plasma testosterone and aggression in breeding sooty fox sparrows, *Passerella unalaschcensis*

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**P1.146** (DCPB) BERNAL, Diego, SEPULVEDA, Chugey; Molecular indicators of capture related stress in pelagic sharks captured with different fishing gear

**P1.147** (DCPB) STEIN, J.R., HOFER, T., LEEUWENBURGH, C., JULIAN, D.; Cellular oxidative stress in H<sub>2</sub>S-exposed erythrocytes from a marine polychaete

**P1.148** (DCPB) SPERTUS, M.S., JULIAN, D.; Cellular oxidative stress in polychaete coelomocytes during in vitro exposure to multiple abiotic stressors

**P1.149** SLOAN, N.J.B.; Burial Tolerances of Reef-Building Sabellariid Worms from the East Coast of Florida

**P1.150** (DCPB) ANDRZEJEWSKI, JE, BRIGGS, LE, JOYNER-MATOS, JL, JULIAN, D; Functional responses to high temperature, hypoxia, and hyposalinity in the stress-tolerant clam *Mercenaria mercenaria*

**P1.151** (DDCB) PALENSKE, N.M., DZIALOWSKI, E.M.; Effects of the Environmental Contaminant Triclosan on the Physiology of Developing *Xenopus laevis* Tadpoles