MASTER’S OF SCIENCE IN BIOLOGY

THESIS LOG

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | **NAME** | **TOPIC** | **ADVISOR** | **YEAR** | | Mallory Brayer | Defining the Regulatory T Cell Specific Role of Ly-6A as an Immune Checkpoint (IC) using a Mouse Tumor Transplant Model | Dr. Bamezai | 2021 | | Noah Buzinkai | *In Vivo* Role of Ly-6A in T Lymphocyte Activation and Clonal Expansion using B16 Melanoma Tumor Transplantation Mouse Experimental Model | Dr. Bamezai | 2021 | | Timothy Hunter | Transfer and Analysis of the *pdu* Gene Segment from Three *Salmonella* *enterica* Serovars Across Different Gram-Negative Bacteria | Dr. Wilson | 2021 | | Sarina Kao | DNA-Binding with a Novel Regulator: Does STM1266 Regulate and Bind to Biofilm Gene Promotors? | Dr. Wilson | 2021 | | Amanda Morrissey | Investigation of the Ly-6A Ligand’s Functional Role in Ly-6A Mediated Suppression of the Anti-Tumor Immune Response | Dr. Bamezai | 2021 | | Rhiann Sato | Characterizing the Role of Nuclear Body Protein ZC3H8 in Proliferation, Apoptosis, and DNA Repair of Mouse Mammary Tumor Cells | Dr. Schmidt | 2021 | | Abigail Vipperman | Uninvited Guests: Response of Social Networks to Changing Group Composition in the Maritime Earwig (Anisolabis Maritima) | Dr. Iyengar | 2021 | | Taylor Heuermann | Boldness in Black-capped Chickadees (Poecile atricapillus), Carolina Chickadees (P. carolinensis), and their hybrids: Behavioral variation and genetic correlates | Dr. Curry | 2020 | | Haun Hwang | Examining the effects of Soluble Klotho protein on lipid raft-based membrane order and response in CD4+ T helper cells | Dr. Bamezai | 2020 | | Therese Adgie | Investigating the relationship between marsh plant community and encroaching Mangroves in the Florida Mangrove-Marsh Ecotone | Dr. Chapman | 2020 | | Natasha Stepanova | Comparative skull morphology of Southern African Burrowing Skinks (Squamata; Scincidae) | Dr. Bauer | 2020 | | Matthew Buehler | The evolutionary history of Sea Kraits (genus Laticauda) | Dr. Bauer | 2020 | |  |  |  |  | | Ari Rice | Haemosporidians across a Chickadee hybrid zone: Where birds and their parasites collide | Dr. Curry | 2020 | | Christopher Mitchell | Gecko and gecko-inspired synthetic adhesive performance in variable temperature and humidity | Dr. Stark | 2020 | | Brett Butler | Stematics and phylogeography of two Southwest Aftican lizard taxa | Dr. Bauer | 2020 | | Sofia Altamirano | Investigating the Developmental Origins of Sexually Dimorphic Neurons Involved in Drosophila Courtship Behavior | Dr. Shirangi | 2020 | | Emily Geoghehan | Mangroves on the move: Investigating the effects of Mangrove invasion on soil processes along the Northeastern Florida coastline | Dr. Chapman | 2020 | | Suzana Bandeira | Systematic studies on the Angolan Herpetofauna | Dr. Bauer | 2019 | | Kelly Barrett | GPER protein expression in the rat uterus in response to estrogen and the role of GPER in the estrogen-induced activation of a critical inflammatory mediator, NFkB | Dr. Russo | 2019 | | Charles Hyde | Climate change and belowground function in the marsh-mangrove ecotone | Dr. Langley | 2019 | | Sean Lee | How do soil microbial communities affect the invasion of a wetland invasive plant? | Dr. Langley | 2019 | | Grace L. Wong | Investigating a genome-wide role for endogenous siRNAs in mRNA qualilty control in *Caenorhabditis elegans* | Dr. E. Youngman | 2019 | | Benjamin Capozzoli | Examining the Role of Mouse Ly-6A as an Immune Checkpoint Inhibitor | Dr. Bamezai | 2019 | | Patrick Mitrano-Towers | SMK-1 represses the transcriptional response to oxidative stress in post-reproductive adult *Caenorhabditis elegans* | Dr. M. Youngman | 2019 | | William Keilsohn | Dead bugs do tell tales:  Examining genetic variations in the Maritime Earwig (*Anisolabis maritima*) | Dr. Iyengar | 2019 | | Hayden Davis | Investigation into the diversity and morphology of the gecko genus Cyrtodactylus on the Island of Borneo | Dr. Bauer | 2019 | | Evana Mortezavi | A genetic dissection of endogenous siRNA involvement in the nonstop decay pathway in C. *elegans* | Dr. E. Youngman | 2019 | | Sepideh Cheheltani | Studies of Activation, chilling injury, and ice crystal growth-towards cryopreservation of Zebrafish Oocytes | Dr. DiBenedetto | 2018 | | Shannon Keating | Resolving the Diplodactylidae phylogeny using Rapidly Evolving Long Exon Capture (RELEC) loci | Dr. Bauer | 2018 | | Sarah Polekoff | Exploratory behavior in Black-capped Chickadees, Carolina Chickadees, and their hybrids | Dr. Curry | 2018 | | Amber Shelton | Analysis of differential gene expression in cells with altered ZC3H8 | Dr. Knepper | 2018 | | Maura Lavelle | Toxicological effects of fracking fluid flowback on the developing Zebrafish embryo | Dr. DiBenedetto | 2018 | | Soumini Sengupta | Investigating the role of Lipid Raft-based membrane order in CD4+ T Cell responses | Dr. Bamezai | 2018 | | Gifty Abane | Rising temperatures influence invasive plant species dominance and phenology | Dr. Chapman | 2018 | | Caitlin Bauer | Interacting effects of genotype and the environment on nitrogen response of tall-form Spartina alterniflora | Dr. Langley | 2018 | | Stephanie Trimboli | Exercise-induced oxidative stress in Swiss-Webster mice: Effects of training and adaptive responses | Dr. Olson | 2017 | | Sarah Hopkins | Characterizing the role of SMK-1 as a key transcriptional regulator during the oxidative stress response in adult *Caenorhabditis elegans* | Dr. M. Youngman | 2017 | | Julia McMahon | Effects of the Norepinephrine and Dopamine Reuptake Inhibitor, Bupropion and the Selective Serotonin Reuptake Inhibitor, Fluoxetine on Larval Zebrafish Locomotor behavior and development | Dr. DiBenedetto | 2017 | | Jonathan DeBoer | Comparative ecological niche modeling in the New Caledonian Gecko genus Bavayia | Dr. Bauer | 2017 | | Katherine Keenan | Estrogen and Bisphenol A affect expression of certain target genes in the Rat Hypothalamus and Pituitary | Dr. Russo | 2017 | | Gabriella Santone | The Bacterial SSTM2803 and SSTM4270 Genes: Characterizing targets in the pool of unexplored genes | Dr. Wilson | 2017 | | Krupa Patel | Activity and evolution of a protein secretion system: Analysis of the cloned *Salmonella* SPI-1 Type III system | Dr. Wilson | 2017 | | Akshay Patel | Investigating the cytokine-mediated death mechanisms following activation of the GPI-anchored cell surface protein Ly-6A on transformed T Cells | Dr. Bamezai | 2017 | | Kelly Olsen | Role of Brd2 in the transient wave of hematopoiesis within the posterior blood island of the developing Zebrafish embryo | Dr. DiBenedetto | 2017 | | Mikah Schlesinger | Potential alterations of the Methane cycle in Alberta Peatlands in response to elevated nitrogen and wildfires | Dr. Vile | 2017 | | Lindsay Bair | *Panicum virgatum*(switchgrass) as an agent for Phytoremediation of lead contaminated soils | Dr. Chapman | 2017 | | Mark Eastburn | A Lion, a Lamb, and a Hyena:  Comparative studies of the diets and behaviors of three Jumping Spider Species | Dr. Curry | 2017 | | Robert Driver | Hybrid index as a predictor of hatching success and Haldane's Rule in hybridizing Chickadees | Dr. Curry | 2017 | | Elena Koumis | Investigating the functions of DAF-16 age-dependent transcriptional targets as identified from RNA-sequencing in *C. elegans* | Dr. M. Youngman | 2016 | | Chelsea Barreto | Uncovering the impacts of Mangrove encroachment and warming on microbial community composition and function | Dr. Chapman | 2016 | | Arianna L. Kuhn | Systematics of the Namib day geckos (Squamata: Gekkonidae: *Rhoptropus)* | Dr. Bauer | 2016 | | Mikhail Chavis | Phylogeny and population genetics of New Caledonian geckos and skinks for the Isle of Pines Region and Ile Walpole | Dr. Jackman | 2016 | | Justin Bernstein | Phylogenetic analysis, species identification and delimitation of New Caledonian geckos and skinks using DNA barcoding | Dr. Bauer | 2016 | | Jeffrey Weinell | Systematics and phylogeography of the *Trachylepis varia*(Squamata: Scincidae) species complex | Dr. Bauer | 2016 | | Daniel Paluh | Comparative morphology of the quadrate bone within Gekkota: Phylogenetic and functional implications | Dr. Bauer | 2016 | | Gregory Clement | Wildfire legacy effects at elevation: The interaction of disturbance, soil carbon and nitrogen properties, and interspecies competition in the Adirondack Mountains | Dr. Chapman | 2016 | | Aaron Griffing | Developmental osteology of parafrontal bones in *Aristelliger*and *Teratoscincus*(Squamata: Sphaerodactylidae) | Dr. Bauer | 2016 | | Alexander Mott | Investigating a potential role for heat shock proteins in salinity acclimation of *Strongylocentrotus droebachiensis* | Dr. Russell | 2016 | | Ashveen Bains | Are the *kilE*genes essential for IncPβ plasmid stability? | Dr. Wilson | 2016 | | Erin M. Neal | Thiamine's effect on glucose metabilism in *Candida glabrata* | Dr. Wykoff | 2016 | | Julia M. Stuart | N mineralization and nitrification in Alberta bogs as a function of time since wildfire and increasing anthropogenic N deposition | Dr. Wieder | 2016 | | Alison A. Walsh | Charge differences between AMuLV measured through viral clearance using anion exchange chromatography | Dr. Bamezai | 2016 | | Christopher Cangelosi | Analysis of expression and function of the cloned SPI-1 type-III secretion system and associated substrates in *Salmonella*Typhimurium and other bacteria | Dr. Wilson | 2016 | | Titian Ghanforoush | Identifying locations that optimize the conservation of phylogenetic diversity of endemic squamates in the Grand Sud, New Caledonia | Dr. Jackman | 2016 | | Rachel Skinner | Phylogenetic relationships of the *Pachydactylus Geitje*(Sparrman 1778) species complex (Squamata: Gekkonidae) | Dr. Bauer | 2016 | | Benjamin R. Karin | Phylogeography and evolution of three species of *Eutropis*from Borneo | Dr. Bauer | 2016 | | Jackie L. Childers | Phylogenetics and phylogeography of Southern African Sand Lizards *Pedioplanis*(Sauria: Lacertidae) | Dr. Bauer | 2016 | | Walter Bakun | Role of lipid raft-based membrane order in signaling through the antigen receptor in primary CD4+ T Cells: Investigating the mechanism | Dr. Bamezai | 2016 | | Christopher Roche | Social structure among resident Carolina Chickadees (*Poecile carolinensis*) and irruptive Black-capped Chickadees (*P. atricapillus)* | Dr. Curry | 2016 | | E. Alexander Rohtla | The call of the gecko: an acoustic and morphological examination of gecko vocalizations | Dr. Bauer | 2016 | | Kaitlin Allen | Phylogenetics and phylogeography of Central and West African *Trachylepis*Skinks | Dr. Bauer | 2015 | | Kevin Neal | Population structure and spatial genetic diversity of lizards of the Province Sud, New Caledonia:  Implications for conservation in a mining-impacted region | Dr. Bauer | 2015 | | Fatemeh Jalali | Observation of damage to Stage V Zebrafish oocytes during slow and rapid cooling | Drs. Karlsson & DiBenedetto | 2015 | | Kristi Dodbiba | Rapid estrogen signaling through the GPER involves the activation of AKT and NFkB signaling pathways | Dr. Russo | 2015 | | Daniel McHugh | Investigating the potential age-dependent regulation of DAF-16- mediated stress resistance by SMK-1 in *Caenorhabditis elegans* | Dr. M. Youngman | 2015 | | Alex Kuczmarski | Transcriptional rewiring of starvation signal transduction pathways between *Saccharomyces cerevisiae*and *Schizosaccharomyces pombe* | Dr. Wykoff | 2015 | | Melissa Pastore | Nitrogen retention and greenhouse gas mitigation of a brackish marsh under global change | Dr. Langley | 2015 | | Katherine Freeman | Impacts of habitat fragmentation, parental care, and social context on reproductive success in the White-breasted Thrasher | Dr. Curry | 2015 | | Christie Eldredge | Parental attentiveness in Carolina Chickadees (*Poecile carolinensis*): field study of a component of songbird personality | Dr. Curry | 2015 | | Dylan Taylor | Georeferenced atlas and catalog of Libyan reptiles | Dr. Bauer | 2015 | | Andrew Kathriner | Biodiversity and phylogenetics of Lessor Sunda geckos, with emphasis on the *Cyrtodactylus*fauna of Timor-Leste | Dr. Bauer | 2015 | | Katherine A. Bell | The role of FLIZ1 in regulation of GATA-3 in Estrogen receptor negative cell lines | Dr. Knepper | 2015 | | Cheryl Doughty | Carbon storage and coastal protection: Uncovering the potential impacts of Mangrove range expansion | Dr. Chapman | 2015 | |
|

[**MS\_Thesis LOG 2014-1966.pdf**](https://author.villanova.edu/content/dam/villanova/artsci/biology/graduate/MS_Thesis%20LOG%202014-1966.pdf)