

# ROMI L. BURKS

## CURRICULUM VITA

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### EDUCATION

University of Notre Dame (UND)

**Ph.D. Ecology, Evolution & Environmental Biology, 2000**

Dissertation title: *Daphnia* in littoral zones: costs & benefits associated with diel horizontal migration;  
Advisor: D. M. Lodge

Loyola University Chicago (LUC)

**B.S. in Biology with honors, magna cum laude, 1995**

**B.A. in English with honors, magna cum laude, 1995**

### POSITIONS HELD

2024 (7/1) – now	Garey Endowed Chair in Biology
2024 (7/1) - now	Chairperson, Department of Biology
2013 – present	Professor, Southwestern University (SU) Department of Biology
2017 – 2020	Chairperson, Department of Biology
2009 – 2013	Associate Professor, SU Department of Biology
2003 – 2009	Assistant Professor, SU Department of Biology
2012 – 2018	Co-Chair, SU Environmental Studies Program
2006 – 2018	Co-Chair, SU Animal Behavior Program
2009 – 2012	Paideia Professor, Southwestern University
2003 – 2008	Associate Doctoral Faculty, Texas State University
08/01 – 7/03	Research and Teaching Fellow, Rhodes College (RC)
12/00 – 7/03	Postdoctoral Fellow, The Ohio State University
08/00 – 12/00	Visiting Assistant Professor in Biology & Teaching Associate for the Kaneb Center for Teaching and Learning, UND
08/99, 08/04	Invited Researcher, Netherlands Institute of Ecology, Centre for Limnology
1997 – 2002	Invited Researcher, National Environmental Research Institute, Silkeborg, DK
1995 – 1997	Teaching Assistant, Department of Biology, UND
1992 – 1995	Aquatic Ecology Research Technician, LUC

### HONORS, LEADERSHIP ROLES & AWARDS

2024	Study Abroad Faculty Co-Leader, Belize
5/23 – 12/23	Invited Chair, Chocolate Glossary Committee, Fine Chocolate Industry Association
2022	London Program Faculty
2022	Invited judge, Academy of Chocolate, UK
2022	Invited judge, Grand Jury Guest, International Chocolate Awards, Americas Competition
2021	Paideia Connections Faculty Lecture
2019	Chair, SU Sustainability Committee
2019	Integrated Learning Fellow, SU
2017	Judge, Good Food Awards, Chocolate
2017	SU Senior Faculty Award for Excellence in Scholarship and Creative Works
2016	Invited judge, World Finals, International Chocolate Awards, London
2016	Alternate, Fulbright Competition to Uruguay
2014	Invited judge, International Chocolate Awards, New York City
2014	Texas Academy of Science, Board of Directors, Development Committee Chairperson
2013	Invited Senior Mentor, WEBS Symposium ( <a href="http://advance.washington.edu/webs/">http://advance.washington.edu/webs/</a> )
2011 – 2013	Faculty Participant, National Science Foundation (NSF)-CCLI: Developing and Assessing Process Skills in Conservation Biology and Other Integrative Fields

2012	Invited Mentor representing faculty at small liberal arts colleges, ECODAS Symposium ( <a href="http://cmore.soest.hawaii.edu/eco-das/index.htm">http://cmore.soest.hawaii.edu/eco-das/index.htm</a> )
2010 - 2012	Executive Officer, Researchers at Undergraduate Institutions Section, ESA
2010	Invited Opponent, Limnology Department, Lund University
2010	Joined Editorial Board of <i>Freshwater Biology</i> (invitation only)
2009 – 2013	Texas Academy of Sciences Past-President (12-13), President (11-12), President-Elect (10-11), Vice President (09-10), Awards Committee Chair
2009	Texas Academy of Sciences Fellow
2009 – 2010	Guest Editor, <i>Hydrobiologia</i> , Proceedings 2008 International Shallow Lakes
2009	Invited Participant, AAAS Conference: Transforming Undergraduate Education in Biology: Mobilizing the Community for Change
2009	Panelist for IRES (International Research Experiences for Students), NSF
2008 – 2010	BEN (BioEdNet) Scholar, AAAS, Washington, D.C.
2008 – 2009	SU Partner of the Year, Georgetown Partners in Education
2007	SU Nomination for Piper Professor; Finalist for Brown Junior Investigator Award
2007	Panelist for DDIG Review in Ecology, National Science Foundation
2006, 2009	Nominated for Outstanding Teaching Award, SU; working with disabilities
2004, 2005	Associated Colleges of the South (ACS) Environmental and Technology Fellow
2004	Invited participant (16 chosen from 70 applicants) for SEEK (Science Environment for Ecological Knowledge) workshop in Ecoinformatics
2003	Invited Panelist for Grant Review in Ecology, National Science Foundation
2001	Selected Participant (44 chosen from 180) in DIALOG IV in Bermuda
2000	The Kaneb Center Graduate Student Award for Excellence in Teaching
1998	Fulbright Scholar to Denmark
1997	UND Graduate Student Union Teaching Assistant of the Year Award
1995	Presidential Medal Recipient from the College of Arts and Sciences, LUC
1995 -	<i>Phi Beta Kappa</i> , member

### RESEARCH INTERESTS

- Impacts of non-native species on community structure
- Molecular ecology of apple snails
- Environmental DNA
- Predator-prey interactions (esp., invertebrate) and structural complexity within littoral zones
- Chemical communication in aquatic systems

### MANUSCRIPTS IN REVIEW

- Rosas, E.,\* C. Bashara\*, L. D. Christie, M. A. Barnes, and R. L. Burks. 2024. Winning the shell game: Environmental DNA (eDNA) confirms local control of the invasive apple snail, *Pomacea maculata*. *Management of Biological Invasions*; in review submitted 08/06/24.

### PUBLICATIONS – PEER-REVIEWED UNLESS NOTED (\* denotes undergraduate)

An \* indicates an undergraduate co-author at the time at which the research occurred.

#### 2024:

- Burks, R. L., C. Reynolds\*, E. Rosas\*, C. Bashara\*, L. Dolopchiev\*, C. Jerde and M. A. Barnes. 2024. Snail slime in real time: Challenges in predicting the relationship between environmental DNA and apple snail biomass. *Management of Biological Invasions* 15(3): 415-435. doi.org/10.3391/mbi.2024.15.3.06

#### 2020:

- Burks, R. L. 2020. Setting Up Nonparametric Tests. Make Teaching with R in Undergraduate Biology Less Excruciating 2020, QUBES Educational Resources. [doi:10.25334/PFE8-D888](https://doi.org/10.25334/PFE8-D888)

- Glasheen, P. M.\*, S. R. Campos\*, **R. L. Burks** and K. A. Hayes. 2020. First evidence of introgressive hybridization of apple snails (*Pomacea* spp.) in a native range. *Journal of Molluscan Studies* 86(2): 96-103. Accepted (Click on PDF), [doi:10.1093/mollus/eyz035](https://doi.org/10.1093/mollus/eyz035).

#### **2019:**

- Emery, N., A. Hunt, **R. Burks**, M. Duffy, C. Scoffoni, and A. Swei. 2019. Students as ecologists: Strategies for successful mentorship of undergraduate researchers. *Ecology and Evolution*: <https://rdcu.be/btaia>.

#### **2018:**

- Sterling, E. J, **R. L. Burks**, J. Linder, T. Langen, D. S. Fernandez, D. Ruby, and N. Bynum. 2018A. Why is biodiversity important? An oral communication exercise. *Lessons in Conservation* 8:10–12. Available from <http://www.amnh.org/our-research/center-for-biodiversity-conservation/resources-and-publications/lessons-in-conservation/lessons-in-conservation-volume-viii>
- Sterling, E. J, **R. L. Burks**, J. Linder, T. Langen, D. S. Fernandez, D. Ruby, and N. Bynum. 2018B. Selecting areas for conservation: an oral communication exercise. *Lessons in Conservation* 8:13–16. Available from <http://www.amnh.org/our-research/center-for-biodiversity-conservation/resources-and-publications/lessons-in-conservation/lessons-in-conservation-volume-viii>
- Sterling, E. J, **R. L. Burks**, J. Linder, T. Langen, D. S. Fernandez, D. Ruby, N. Bynum, A. Bravo, and A.L. Porzecanski. 2018. Sharpen your oral communication skills! *Lessons in Conservation* 8:17–20. Available from <http://www.amnh.org/our-research/center-for-biodiversity-conservation/resources-and-publications/lessons-in-conservation/lessons-in-conservation-volume-viii>

#### **2017:**

- Perez, K. P., V. G. Gamboa, C. M. Schneider\* and **R. L. Burks**. 2017. Resaca supports invasive apple snails (*Pomacea maculata*, Perry, 1810; Caenogastropoda: Ampullariidae) within the Rio Grande Valley, Texas. *CheckList* 13(3): <https://doi.org/10.15560/13.3.2134>
- Glasheen, P. M.\*, C. Clavo, M. Meerhoff, K. A. Hayes and **R. L. Burks**. 2017. Survival, recovery, and reproduction of apple snails (*Pomacea* spp.) following exposure to drought conditions. *Freshwater Science* 36(2): 316 - 324.
- **Burks, R. L.**, J. Bernatis, J. E. Byers, J. Carter, C. W. Martin, W. G. McDowell and J. van Dyke. 2017. Identity, reproductive potential, distribution, ecology and management of invasive *Pomacea maculata* in the southern United States. Pages 293-334. 2nd edition of *Global Advances in Ecology and Management of Golden Apple Snails*.

#### **2016:**

- Sterling, E., A. Bravo, A. Porzecanski, **R. Burks**, J. Linder, T. A. Langen, D. S. Fernandez, D. Ruby and N. Bynum. 2016. Think before (and after) you speak: Practice and self-reflection build student confidence and bolster performance in oral communication skills in ecology and conservation biology classes. *Journal of College Science Teaching* 45(6): 87-99.
- **Burks, R. L.**, A. Miller\* and A. Hill\*. 2016. CABI Compendium project on *Pomacea maculata*. (Not traditional peer-review): <http://www.cabi.org/isc/datasheet/116486>
- Perez, B. J.\*, A. H. Segrest\*, S. R. Campos\*, R. L. Minton and **R. L. Burks**. 2016. First record of Japanese Mystery Snail *Cipangopaludina*, *CheckList* 12(5): <http://dx.doi.org/10.15560/12.5.1973>.

#### **2015:**

- Hayes, K.A, **R. L. Burks**, A. Castro-Vazquez, P. C. Darby, H. Heras, P. R. Martín, J.-W. Qiu, S. C. Thiengo, I. A. Vega, T. Wada, Y. Yusa, S. Burela, M. P. Cadierno, J. A. Cueto, F. A. Dellagnola, M. S. Dreon, M. V. Frassa, M. Giraud-Billoud, M. S. Godoy, S. Ituarte, E. Koch, K. Matsukura, M. Y. Pasquevich, C. Rodriguez, L. Saveanu, M. E. Seuffert, E. E. Strong, J. Sun, N. E. Tamburi, M. J. Tiecher, R. L. Turner, P. L. Valentine-Darby & R. H. Cowie. 2015. Insights from an integrated view of the biology of apple snails (Caenogastropoda: Ampullariidae). *Malacologia* 58(1-2): 245-302.

#### **2014:**

- Liebl, M.\*, K. Roberts\*, A. Mohammed\*, M. Lowther\*, E. Navaira\*, A. Frankel\*, S. Pukys and **R. L. Burks**. 2014.

Staying SMART: Introduction and assessment of a one-on-one inquiry model to teach the scientific method to elementary school students. *Science Education and Civic Engagement: An International Journal* 6(1): 32-44.  
<http://d320goqmya1dw8.cloudfront.net/files/secej/winter14/smart.pdf>

### **2013**

- Kyle, C. H.\*, A. Plantz\*, T. Shelton and **R. L. Burks**. 2013. Count your eggs before they invade: Identifying and quantifying egg clutches of two invasive apple snail species (*Pomacea*). *PLoSOne* Open Access.  
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0077736>

### **2012**

- **Burks, R. L.** 2012. One McBug Burger Please: Eating insects in ecology class to contextualize climate change discussion. *EcoEd*, <http://ecoed.esa.org/index.php?P=FullRecord&ID=383>.

### **2011**

- Kyle, C. H.\*, A. W. Kropf\* and **R. L. Burks**. 2011. Prime waterfront real estate: Apple snails choose wild taro for oviposition sites. *Current Zoology* 57(5): 630-641.
- **Burks, R. L.**, S. A. Hensley\* and C. H. Kyle\*. 2011. Quite the appetite: juvenile island apple snails (*Pomacea insularum*) survive consuming only exotic, invasive plants. *Journal of Molluscan Studies* 77(4): 423-428.

### **2010**

- **Burks, R. L.**, C. H. Kyle\* and M. K. Trawick\*. 2010. Pink Eggs and Snails: Field oviposition patterns indicate shallow aquatic systems susceptible to invasion by *Pomacea insularum*. *Hydrobiologia, Shallow Lakes 2009 Special Volume* 646: 243-251.

### **EDITORIAL SUMMARY (not peer-reviewed):**

- Meerhoff, M., M. Beklioglu, **R. Burks**, F. García-Rodríguez, N. Mazzeo and B. Moss. 2010. Shallow Lakes: Preface. *Hydrobiologia* DOI 10.1007/s10750-010-0247-2.

### **2009**

- **Burks, R. L.** and M. M. Chumchal. 2009. To Co-author or Not to Co-author: How to write, publish, and negotiate issues of authorship with undergraduate research students. *Sci. Signal.* 2 (94), tr3.
- **Burks, R. L.** 2009. A Kernel of Truth: Microwave popcorn makes it easier to teach basic statistics. *The L&O Bulletin* 18(2): 36-40.
- Kyle, C. H.,\* M. K. Trawick,\* J. P. McDonough\* and **R. L. Burks**. 2009. Population dynamics of an established reproducing population of the invasive apple snail (*Pomacea insularum*) in suburban southeast Houston, Texas. *Texas Journal of Science* 61(4): 1-5.

### **2008**

- Barnes, M.A.\*, R. K. Marfurt\*, J. J. Hand and **R. L. Burks**. 2008. Fecundity of the exotic applesnail, *Pomacea insularum*. *The Journal of the North American Benthological Society* 28(3): 738-745.
- Youens, A. K.\* and **R. L. Burks**. 2008. Comparing applesnails with oranges: the need to standardize measuring techniques when studying *Pomacea*. *Aquatic Ecology* 42(4): 679-684.
- Boland, B.\*, M. Meerhoff, C. Fosalba, N. Mazzeo, M. Barnes\* and **R. L. Burks**. 2008. Juvenile snails, adult appetites: Contrasting resource consumption between two species of applesnails (*Pomacea*). *Journal of Molluscan Studies* 74(1): 47-54.

### **2007**

- **Burks, R. L.** and L. Boles. 2007. Evolution of the Chocolate Bar: A creative approach to teaching phylogenetic relationships within evolutionary biology. *The American Biology Teacher* 69(4): 229-237.

## EDITOR-REVIEWED BOOK REVIEW

- Burks, R. L. 2007. Math for Wiser Decisions (a review of Rockwood's *Introduction to Population Ecology*). *BioScience* 57(3): 288-289.

### 2006

- **Burks, R. L.**, G. Mulderij, E. Gross, I. Jones, L. Jacobsen, E. Van Donk, and E. Jeppesen. 2006. Chapter 3 - Center stage: The Crucial Role of Macrophytes in Regulating Trophic Interactions in Shallow Lake Wetlands. Pages 37-59 in R. Bobbink, B. Beltman, J. T. A. Verhoeven, and D. F. Whigham (eds) *Wetlands: Functioning, Biodiversity Conservation, and Restoration*. Ecological Studies, Volume 191, Springer-Verlag Berlin Heidelberg.
- R. G. Howells, L. E. Burlakova, A. Y. Karatayev, R K. Marfurt\*, and **R. L. Burks**. 2006. Chapter 5 - Native and introduced Ampullariidae in North America: History, status and ecology. Pages 73-112 in R. C Joshi (ed) *Global Advances in Ecology and Management of Golden Apple Snails*. Philippine Rice Research Institute (PhilRice), Philippines.

### 2005

- Lindquenter, G., **R. L. Burks**, and C. R. Jaslow. 2005. Developing information fluency in introductory biology students in the context of an investigative laboratory. *Cell Biology Education* 4: 58-96.

### 2004

- Tuchman, N. C., **R. L. Burks**, C. A. Call, and J. J. Smarrelli. 2004. Flow rate and vertical position influence ingestion rates of colonial zebra mussels (*Dreissena polymorpha*). *Freshwater Biology* 49: 191-198.

### 2002

- **Burks, R. L.** and D. M. Lodge. 2002. Cued in: advances and opportunities in freshwater chemical ecology. *Journal of Chemical Ecology* 28(10): 1881- 1897.
- **Burks, R. L.**, N. C. Tuchman, C. A. Call, and J. E. Marsden. 2002. Colonial aggregations: the effect of spatial position on zebra mussel responses to interstitial water quality. *Journal of the North American Benthological Society* 21(1): 64-75.
- **Burks, R. L.**, D. M. Lodge, E. Jeppesen and T. L. Lauridsen. 2002. Diel horizontal migration of zooplankton: costs and benefits of inhabiting littoral zones. *Freshwater Biology* 47: 343-366.

### 2001

- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. 2001. Pelagic prey and benthic predators: impact of odonate predation on *Daphnia* among complex structure. *Journal of the North American Benthological Society* 20(4): 683-696.
- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. 2001. Littoral zone structures as *Daphnia* refugia against fish predation. *Limnology and Oceanography* 46(2): 230-237.

### 2000

- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. 2000. Macrophyte and fish chemicals suppress *Daphnia* growth and alter life history traits. *Oikos* 88(1): 139-147.

### 1999

- Lauridsen, T. L., E. Jeppesen, S.F. Mitchell, D. M. Lodge and **R. L. Burks**. 1999. Horizontal distribution of zooplankton in lakes with contrasting fish densities and nutrient levels. *Hydrobiologia* 408/409: 241-250.

## FUNDING

2023	Associated Colleges of the South, \$23,813; Workshop Chocolate Covered Teaching: An Innovative Approach to Using Commodity-Based Goods to Foster Cross-disciplinary Critical Thinking Skills in Undergraduates
2018	Sam Taylor Fund, United Methodist, \$1400, molecular ecology
2015	Sam Taylor Fund, United Methodist, \$1700, molecular ecology

2012 National Science Foundation, Research Opportunity Award, \$19,815 (via R. Cowie)  
 2011-2015 National Science Foundation, International Research Experience for Students  
 IRES-AMPLIFIED (\$72,075 to SU; \$77,877 match to Univ. Hawaii)  
 2010-2011 Sam Taylor Fund, United Methodist, \$2000, stable isotope analysis  
 2010 National Science Foundation, IRES Planning Grant (\$18,670)  
 2009 HEB Community Partnership (3 allotments of \$300 each) and Sprouts (\$50)  
 2007-2008 Sam Taylor Fund, United Methodist, \$2000, lab improvements  
 2001 The Ohio State University Postdoctoral Fellowship  
 1999-2000 National Science Foundation Fellowship (Graduate Research Training)  
 08/1999 Netherlands Institute of Ecology, Centre for Limnology, @ \$400  
 07/1999 American Scandinavian Foundation Research Grant, \$3,000  
 1998-1999 Fulbright Fellowship for Study in Denmark (DK), \$11,000  
 1999-2000 National Science Foundation Graduate Research Training Grant; \$2000 + salary

**UNIVERSITY-SUPPORTED PROFESSIONAL ACTIVITY**

2023-24: Fall Sabbatical Research Award (~\$5,000)  
 2023-24: Annual Faculty Professional Development (\$2400)  
 2023: Faculty-Student Projects for 6 weeks for two students (~\$8,000)  
 2022: Fall London Semester  
 2022: Annual Faculty Professional Development (\$2400)  
 2021: SCOPE funds for two students (~\$10,000)  
 2019: SCOPE funds for two students (~\$10,000)  
 2019: Faculty Professional Development Support for Travel to International Meeting (\$2400)  
 2018: SCOPE funds for four students (~\$18,000)  
 2018: Annual Faculty Professional Development Support (\$3000)  
 2017: Annual Faculty Professional Development Support (\$2500)  
 2016: Keck Funds for Molecular Ecology (\$1375 in 2016 plus travel funds; \$2000 in 2016)  
 2016: Fall Sabbatical Research Award (~\$5,000)  
 2016: HHMI Faculty-Student Collaboration (~\$12,000) for two students  
 2016: Annual Faculty Professional Development Support (\$1400)

*Previous:*

2015: Keck Funds for Molecular Ecology (\$1875 in 2015 plus travel funds; \$875 in 2016)  
 2015: HHMI/Keck Inquiry-Based Module Development (~\$3,500) for three courses  
 2015: HHMI Faculty-Student Collaboration (~\$12,000); Mellon Foundation - Environmental Studies (~\$5000)  
 2014: HHMI Faculty-Student Collaboration (~\$16,750): HHMI Pedagogical Project (\$2500); \$400 Non-competitive;  
 Competitive Faculty Development (\$5000).  
 2013: HHMI Faculty-Student Collaboration (\$14,445); \$1400 Non-competitive; \$1000 supplies for molecular project  
 through Faculty Competitive Professional Development  
 2012: Faculty-Student Collaborative Projects Development Funding (\$6400); \$1400 Non-competitive  
 2011: Competitive Professional Development Funding (\$4300); \$1400 Non-competitive  
 2010: Faculty-Student Collaborative Projects (\$15,455)  
 Competitive Professional Development Funding (\$3260); \$1400 Non-competitive  
 2009: 3M San Gabriel River Trail Project: \$2500 for Civic Engagement Ecology course  
 Faculty-Student Collaborative Projects (\$12,945)  
 Sabbatical award funding (1 semester salary + \$4350); Non-competitive Faculty Development (\$1400)  
 2008: Mundy Fellowship for Collaborative Research (\$9000)  
 Cullen Faculty Funds for International Travel (\$3000), Shallow Lakes, Uruguay  
 2007: Cullen Faculty Funds for International Travel (\$2000), SIL in Montreal  
 Fleming Funds, Southwestern Undergraduate Research Group Experience  
 Brown Fund for Innovation in Teaching, 2007 (\$1250)  
 2006: Brown Junior Fellowship for Fall 2006 (3 course release + \$5000 in stipend and expenses)  
 2005: Mundy Fellowship for Collaborative Research, 2005 (~\$4000)

Fleming Funds, Biology Summer Research Program Participant, 2005, 2006  
 2004: Cullen Faculty Fellowship, 2003-2004 (\$4700)  
 2003: Faculty Development Enhance Grant (\$5000), Rhodes College

#### **TRAVEL GRANTS beyond ANNUAL SOUTHWESTERN FUNDS**

- Brighton Chocolate Festival (\$300 in FYS Support)
- Chocolate Conservatory and New England Chocolate Festival (2018), \$550
- American Museum of Natural History, \$1330 for workshop participation at Ecological Society of America
- Additional Southwestern University Professional Development Funds:
  - \$700 (Sept. 2008) for networking trip to Georgia Tech University in Atlanta, Georgia
  - \$315 (Sept. 2006) for NSF Meeting in Washington, D.C.
- ACS Environmental Summit at Morehouse College (Feb. 2005) & ACS Keck Workshop on Improving Non-major Science Education (Nov. 2004)
- North American Benthological Society General Endowment Fund (05/2000), \$300
- American Society of Limnology and Oceanography Grant (06/1998), \$400
- UND Gordon Grants: 5 grants (totalling \$1542 covering period of 02/1997 – 08/2000)
- UND Zahm Grant for international research travel to Denmark (06/1997), \$1250

#### **PEDAGOGICAL INTERESTS**

- Examining the integration between teaching and research
- Encouraging critical thinking analysis through hands-on activities with graphing and statistics
- Understanding and improving the mentoring process
- Inquiry-based teaching and learning

#### **UNDERGRADUATE RESEARCHER MENTORING EXPERIENCE**

**Current: 08/2024 – now: new students with projects under development**

**Kylie Allemeier, Sarah Berver, Alanna Guerrero, Rachel Ling, Gage Mallo, Katelin Pilarski, John Reyes**

**Last 10 Years SU Students (with at least two semesters of research or summer work):**

01/2022 – 05/2024	<b>Esme Rosas '24</b> , (Faculty-Student Project 2023); eDNA monitoring of South Austin pond
01/2022 – 03/2024	<b>Cassidy Reynolds</b> , (Faculty-Student 2023); Estimating biomass vs. eDNA
03/2021 – -5/2023	<b>Cynthia Bashara '23</b> (2021 SCOPE); Snail eDNA during active summer San Antonio,
03/2021 – 05/2023	<b>Lillian Dolopchiev '23</b> (2021 SCOPE), Size-fractionation of apple snail eDNA
08/2021 – 05/2022	<b>Kate Henderson and Abby White</b> , Keep Austin Snail-free
01/2019 – 05/2021	<b>Kaitlin Galassini '21</b> (2019 SCOPE), microplastics and eDNA
03/2018 – 05/2021	<b>Lauren Muskara '21</b> (2018 SCOPE), field eDNA and primer development; <i>MS in Biomedical Visualization</i>
03/2018 – 05/2019	<b>Shellsea Miller '20</b> (2018 SCOPE), field eDNA
03/2018 – 05/2019	<b>Nicole Kelly</b> , (2018 SCOPE), mysterysnails
05/2017 – 05/2019	<b>Hannah Winkler '19</b> , Identity of Chinese and Japanese mysterysnails through 16S
01/2016 - 05/2019	<b>Madison Granier '19</b> (2016 HHMI SCOPE), senior, eDNA and apple snails
08/2016 – 08/2018	<b>Shannon Walsh '18</b> , senior, Identity of Chinese and Japanese mysterysnails via COI, <i>Employed as medical scribe</i>
08/2016 – 05/2017	<b>Hugo Cepeda '18</b> , learning molecular techniques
03/2015 – 06/2017	<b>Carissa Bishop '17</b> , (2015 HHMI SCOPE), Screening for <i>Angiostrongylus cantonensis</i> in native apple snails, <i>Employed in biotech lab</i>
11/2013 – 12/2016	<b>Sofia Campos '16</b> , (2014/2016 HHMI SCOPE summer student), Phylogenetics and phylogeography of <i>Pomacea</i> spp. in Uruguay, <i>Employed at wellness center</i>
08/2015 – 05/2016	<b>Bianca Perez '16</b> , Japanese mysterysnail identification, <i>State Biologist, West Virginia</i>
07/2014 – 05/2016	<b>Paul Glasheen '16</b> , Honors Student, Hybridization potential of <i>Pomacea</i> spp. in native range of Uruguay, <i>Accepted 2017 into medical school at U. Colorado Denver</i>

11/2013 – 05/2015 **Averi Segrest '16**, SU AB Major, Native apple snails and invasive bivalves, *Self-employed businesswoman*

11/2013 – 01/2016 **Ryan Beeman '17**, SU Math Major, Modelling and morphometrics of apple snails

03/2015 – 10/2015 **Sarah Wilting '17**, SU Biology Major (2015 HHMI), acidification and apple snails

01/2013 – 05/2015 **Carson Savrick, '15** (BS Biology) Origin of established *Pomacea* across southeastern US, Accepted 2017 into medical school at UT Medical - Houston

11/2013 – 05/2015 **Allie Watts '15**, (AB capstone; 2014 HHMI); Chemical cue responses to predators by hatchling *Pomacea maculata*, *Employed environmental non-profit*

03/2013 – 01/2015 **Amy Miller '16** (Jr. Yr. Work; 2013 HHMI & 13-14 UR) Genetic, anatomical and ecological work on *Felipponea*

08/2013 – 05/2014 **Rebecca Petro '14** (BA Biology & Art), Pink Eggs I Am (Science and Art Communication using apple snails)

06/2013 – 05/2014 **Amber Cochran '14** (BS Biology), Hatchling apple snail growth and survival; focus *P. megastoma*

05/2013 – 03/2014 **Alex Petrucci '16**, GIS Project with *Pomacea*, *PhD student in neuroscience*

03/2013 – 08/2013 **Alexandria Hill '13** (BS Biology); Turtle predation on hatchlings; *Pharmacist*

09/2011 – 05/2014 **Jonathan Miley '14** (BA Biology); Molecular ecology of *Pomacea*

09/2009 – 08/2013 **Allyson Plantz** (BA Biology & Art); Egg predation by riparian predators & reproduction of *P. megastoma*; *TCEQ; Employed non-profit.*

04/2010 – 12/2012 **Tracy Day** (BA Biology, Music minor, Paideia Scholar); Establishing trophic position of *P. maculata*; *Employed, Georgetown, TX*

01/2011 – 05/2012 **Katie Gibson** (BA Animal Behavior; Minor Environmental Studies; Paideia Scholar) Putting on Mussel: Apple snail interactions with *Limnoperna*; *Ph.D. student U. Georgia*

01/2011 – 05/2012 **Kevin Burge** (BA Biology; Minor Comp. Sci), pH impacts on hatchling apple snails

01/2009 – 05/2011 **Megan (Rice) Shelton** (BS Biology; 2011 Biology Student of the Year) Disturbing environments: post-hatching survival of apple snails; *Medical Resident*

04/2008 – 05/2010 **Matthew Trawick** (BA Environmental Studies; Minor Biology), Hatchling survival success versus water stress; MS in Public Policy, Texas Tech; *JD University of Michigan: Lawyer, Environmental Protection Agency*

08/2008 – 05/2010 **Olivia Stanzer** (BS Biology), Persistence of pink: ecological role of overubin protein; *PhD, Physical Therapy*

04/2009 – 08/2010 **Alexis Kropf '12** (BA Biology, 2012 Biology Student of the Year, BA Anthropology), Relationship of fecundity & female snail size; *Physician, UT Southwestern*

08/2008 – 05/2009 **Scott Manusov** (BS Biology) Natural and induced aggregation patterns in *P. insularum*. *Chemistry Lab technician and Science Tutor.*

04/2007 – 05/2009 **James McDonough** (BS Biology), Field oviposition in *P. insularum*; *MD Resident*

01/2007 – 05/2009 **Colin Kyle** (BS Biology), **Honors Student**, Oviposition behavior of *P. insularum* (now *P. maculata*). *Ph.D. 2015 University of Chicago: Current: Game Development*

08/2006 – 5/2008 **Sarah Hensley** (BS Biology), Juvenile consumption of exotic plants. *Ph.D. 2014 University of Massachusetts at Amherst: AP High School Teacher.*

04/2006 – 05/2007 **Abby Youens** (BA Biology), Growing at a Snail's Pace: Juvenile growth patterns. *Completed M.S. Public Health at UTHSC Houston; MD Resident.*

08/2004 – 05/2007 **Brandon Boland** (BS Biology, Paideia Scholar), Understanding mechanisms behind food choice in the channelled apple snails. *Ph.D. 2015 University of Chicago: Current Postdoctoral Researcher.*

05/2005 – 06/2006 **Matthew Barnes** (BA Biology), **Honors Student**, The Snail and the Egg: understanding the egg-hatchling transition in apple snails. *Ph.D. 2013 University of Notre Dame; Faculty, Texas Tech.*

08/2004 – 05/2005 **Cathy Duong** (BA Biology, Paideia Scholar), Temperature and chemical cues influences on diel horizontal migration of *Daphnia*. *Employed at corporate real estate firm working with tenants.*

08/2003 – 05/2005 **Rebecca Marfurt** (BA Environmental Studies), Life history and ecological impacts of the exotic channelled apple snail, *Pomacea "canaliculata (now P. insularum)."* *M.S. Aquatic*



08/2003 – 08/2005

*Ecology at Texas State. OK DEQ and now environmental consultant  
Austin Hill (BS Biology). Dual effects of pesticides and chemical cues on Daphnia  
growth and reproduction. Finished M.S. at Texas State.*

#### **EXTERNAL GRANTS FUNDED BY UNDERGRADUATES**

- **Walsh & Winkler:** 2018 3<sup>rd</sup> place Texas Academy of Sciences Research Award (**Funded for \$1000**)
- **Granier:** 2017 2<sup>nd</sup> place Texas Academy of Sciences Research Award (**Funded for \$1500**)
- **Bishop:** 2016 Sigma Xi Grants-in-Aid (**\$500 awarded**)
- **Beeman:** 2015 Sigma Xi Grants-in-Aid (**\$400 awarded; \$285 returned;** project did not materialize)
- **Savrick:** 2014 Sigma Xi Grants-in-Aid (**\$500 awarded**)
- **Day:** 2012 Texas Academy of Sciences Research Award (**Funded for \$1000**)
- **Plantz:** 2010 Sigma Xi Grants-in-Aid (**\$800 awarded**); 2011 Texas Academy of Sciences Research Award (**Funded for \$1500**)
- **Stanzer:** 2009 Sigma Xi Grants-in-Aid (**\$400 awarded**)
- **Kyle and McDonough:** 2008 Texas Academy of Sciences Research Award (**Funded for \$1000**); student collaborators for Mundy Faculty Fellowship (**Funded for ~\$9000**)
- **Barnes/Boland:** 2006 Texas Academy of Sciences Research Award (**Funded for \$750 each**)

#### **EXTERNAL AWARDS EARNED BY UNDERGRADUATES**

- **2020:** Lauren Muskara (**\$250**), Kaitlin Galassini (**\$150**), and Esther Nyaberi (**\$50**), Best undergraduate presentations, Texas Conservation Symposium, Georgetown, TX
- **2017:** Madison Granier '19, Best Oral Presentation in Section; University of Texas Molecular Biosciences
- **2017:** Sofia Campos '16, **2<sup>nd</sup> Best Poster Overall**; Best Poster Presentation in Systematics and Evolution Section; Texas Academy of Sciences; \$200 presented
- **2017:** Madison Granier '19, Best Oral Presentation in Conservation Ecology Section; Texas Academy of Sciences; \$50 presented
- **2017:** Carissa Bishop '17, Best Oral Presentation in Freshwater Ecology Section; Texas Academy of Sciences; \$50 presented
- **2017:** Carissa Bishop '17, Sofia Campos '16, Shannon Walsh '18 and Hugo Cepeda '18, Undergraduate Poster Award in Science Education Section; Texas Academy of Sciences; \$50 presented
- **2016:** Carissa Bishop '17, Best Poster Presentation in Freshwater Ecology Section; Texas Academy of Sciences; \$50 presented
- **2016:** Victoria Gamboa '19 (undergraduate at UTRGV), Best Poster Presentation in Systematics and Evolutionary Biology Section; Texas Academy of Sciences; \$50 presented
- **2015:** Carson Savrick '15, Best Oral Presentation in Freshwater Ecology Section; Texas Academy of Sciences; \$50 presented
- **2015:** Averí Segrest '16, Travel Grant (\$785) to Society for Freshwater Science as part of Instars Program.
- **2010:** Colin Kyle '09, Travel Grant (\$500) to Ecological Society of America to present undergraduate research. Strategic Environmental Research and Development Program, Defense Department.
- **2010:** Colin Kyle '09, National Science Foundation Graduate Research Fellowship
- **2010:** Matt Trawick '10, Outstanding Oral Presentation in the Collegiate (i.e. Undergraduate) Academy at the Texas Academy of Sciences, Tarleton State University. \$300 presented; Best Abstract in Freshwater Ecology Section; \$100 presented
- **2009:** Matt Trawick, Olivia Stanzer, Brandon O'Connor, Ryan Saurage, Allyson Plantz and Jessilyn Massey. \$2950 from King Creativity Grant for documentary about invasive species and public perceptions: "Snakes, Snails and Yuppie Tales"
- **2008:** Sarah Hensley '08, Honorable Mention for Best Oral Presentation in the Collegiate (i.e. Undergraduate) Academy at the Texas Academy of Sciences, Texas A&M Corpus Christi. \$50 presented to student.
- **2006:** Brandon Boland '07, Outstanding Oral Presentation in the Collegiate (i.e. Undergraduate) Academy at the Texas Academy of Sciences, Lamar University. \$300 presented to student.
- **2005:** Rebecca Marfurt '05, Travel Award (\$285) Freshwater Mollusk Conservation Society Meeting, St. Paul, MN.

### **PEDAGOGICAL WORKSHOPS GIVEN**

- June 2016: *Quasi-flipped: Fostering critical thinking and studying skills in detail-rich courses through in-class activities*, HHMI Conference, Southwestern University
- February 2016: U R What U Tweet: Applying Your Work as a Teacher-Scholar to Twitter with Dr. Matthew Barnes, Texas Tech University.
- March 2015: Best Professional Advice Ever Received; Panel Discussion, Texas Academy of Science, University of Incarnate Word, San Antonio, TX.
- February 2014, 2016: The Science of Chocolate. Art.Science.Gallery, Austin, TX.
- August 2013: REEFS (Resources for Ecology & Education: Fair and Share) Presentation. Flip-cams & iPhones make presentations smarter: Encouraging better oral communication skills through reflective practice. Ecological Society of America (ESA) Meeting.
- March 2013: How Connected Do Scientists Need to Be? A look at social media options. Texas Academy of Science, Schreiner University, Kerrville, TX
- August 2011: REEFS (Resources for Ecology & Education: Fair and Share) Presentation of "Insects on the Menu: Entomophagy, ecology and climate change." Ecological Society of America (ESA)
- August 2010: REEFS (Resources for Ecology & Education: Fair and Share) Presentation of Wetland Ecology and Policy Course. ESA annual meeting, Pittsburgh, PA
- March 2010: Teaching Tips and How to Write and Publish with Undergraduates; Texas Academy of Sciences, Tarleton State University
- March 2008 & November 2008: "Increase Your "Teach"nology: The Course Management System Sakai as a potential REAL time saver, paper preserver & student pleasing teaching tool." SU Brown Bag Workshop.
- April 2008, Invited panelist, "State of the Faculty: How is the faculty of the liberal arts changing and what does this mean in relationship to their engagement with information technology?" Instructional Technology Leaders Conference, Washington & Lee University
- June 2006 & July 2005, SPSS/Basic Statistics Workshop. Centre College/St. Olaf College, NITLE

### **COURSES TAUGHT AT SOUTHWESTERN (in approximate frequency taught)**

- Study Abroad:
  - Ecologies of Belize (Spring 2024) – Study Abroad Course
  - London Semester (Fall 2022): Darwin – Then and Now; Chocolate Coated London
- General Education:
  - The Science of Chocolate (May Term 2017, 2020, 2021; Spring 2022)
  - First Year Seminar: Dark Chocolate: Science and Culture (Fall when possible)
- Biology Research Methods:
  - Methods in Ecology and Evolution (Usually Every Spring)
  - Independent Research in Biology
- Rotational Upper Levels:
  - Biology Capstone – Stress (2021); Biodiversity (2020); Invasion (2018)
  - Conservation Biology (Bi-annual)
  - Invertebrate Ecology/Biology (Every other Spring)
  - Introduction to Animal Behavior; Animal Behavior
  - Ecology (alternate Spring; sections – see syllabus links on webpage or below)
    - Burks, R. L. 2012. Campus Ecology at Southwestern University
      - <http://ecoed.esa.org/index.php?P=FullRecord&ID=438>

#### Previous Courses:

- Introduction to Animal Behavior
- Paideia Seminar – The Anthropocene (team-taught once; M. Johnson)
- Biodiversity (Every Fall; 36+ sections); Now Living Systems
- Writing About Science (May Term 2012)
- Wetland Ecology and Policy (cross-listed with Environmental Studies)
- Paideia Seminar (6 semesters)
- Senior Seminar: Aquatic Invasive Species

- Environmental Science (POK)
- First Year Seminar Wet N' Wild: Wetland Science in a Changing Landscape

#### **INVITED PLENARY OR TUTORIAL ADDRESSES**

- **R. L. Burks.** October 2010. Everything I needed to know about BIO2010 I learned from snails. Plenary Address. Association of College and University Biology Educators. Lourdes College, Sylvania, Ohio.
- **R. L. Burks.** December 2008. If every species is a magic well, what can we learn from them? Plenary, IX Jornadas De Zoología del Uruguay, Facultad de Ciencias, Montevideo, Uruguay.
- **R. L. Burks.** November 2008. If every species is a magic well, how do we get to the bottom of biodiversity issues in shallow lakes. Tutorial: Invasive Species and Diversity. 2008 International Shallow Lakes Meeting, Punta del Este, Uruguay.
- **R. L. Burks.** May 2002. Littorally complex: linkages between structural, chemical, and behavioural food web interactions in littoral zones. 2002 International Shallow Lakes Meeting, Balatonfured, Hungary.

#### **NATIONAL OR INTERNATIONAL CONFERENCE PRESENTATIONS**

**Category 1: INVITED PAPERS OR SPECIAL SESSIONS** (\* denotes undergraduate author, oral presentation unless otherwise noted, underline represents presenting author if not R. L. Burks)

- **Burks, R. L.** 2022. "Amplifying" Research: Increasing scope of molecular tools to study native and non-native apple snails (*Pomacea* spp.). Special Symposium: Two decades (and counting) of applying DNA techniques to aquatic sciences. Joint Aquatic Sciences Meeting, Grand Rapids, MI.
- **Burks, R. L.,** Muskara, L. E.\*, S. E. Miller\*, K. Galassini\*, E. Nyaberi\*, and M.A. Barnes. December 2019. Genetic ABCs – COI to eDNA: Using barcoding Ids to develop application for species detections of nonnative apple snails from water samples. Oral presentation. Triennial (3<sup>rd</sup>) Congress of the Argentinean Malacological Society. Bahia Blanca, Argentina.
- **Muskara, L. E.\*, S. E. Miller\*,** M. A. Barnes, and **R. L. Burks.** May 2019. A snail out of water: Hitting the target on primer optimization for apple snails. Poster Presentation, Society for Freshwater Science, Salt Lake City, UT.
- **Burks, R. L.** August 2018. Wait, wait, don't leave me: How to maintain research productivity with undergraduates after they graduates. Special Session: Students as Ecologists. INSPIRE Talk, Ecological Society of America, New Orleans. LA.
- **Burks, R. L.,** S. R. Campos\*, P. M. Glasheen\*, C. A. Bishop\*, A. H. Segrest\*, C. Calvo, M. Meerhoff, F. Scarabino, A. E. Röhrdanz, C. Clavijo and K. A. Hayes. 2017. Overlapping and overlooked: *Pomacea* species distribution, diversity and hybridization in Uruguay. Ampullariidae Symposium, XCLAMA 10th meeting de la Asociación Latinoamericana de Malacología (ALM). Piriapolis, UR.
- **Meerhoff, M.,** C. Clavo and **R. L. Burks.** 2017. Moluscos en aguas calientes: cómo el Cambio Climático puede afectar a los moluscos y qué sabemos ya. *Pomacea* species distribution, diversity and hybridization in Uruguay. Ampullariidae Symposium, XCLAMA 10th meeting de la Asociación Latinoamericana de Malacología (ALM). Piriapolis, UR.
- **Clavo, C.,** R. L. Burks and M. Meerhoff. 2017. Desempeño de *P. canaliculata* frente a distintos escenarios ambientales: una aproximación experimental. *Pomacea* species distribution, diversity and hybridization in Uruguay. Ampullariidae Symposium, XCLAMA 10th meeting de la Asociación Latinoamericana de Malacología (ALM). Piriapolis, UR.
- **Burks, R. L.** June 2017. Putting your lab classes (and resources) to work for you: An example of a molecular ecology course research module. Special Session: Scholarship of Teaching and Learning in Freshwater Science. Society for Freshwater Science, Raleigh, NC.
- **Burks, R. L.** May 2016. Worldly Science: Developing undergraduate research and mentoring activities to train diverse global scientists – a NSF-IRES case study. Special Session: Future Freshwater Science. Sacramento, CA.
- **Burks, R. L.,** C. Savrnick\*, A. D. Cochran\*, A. L. Plantz\*, R. Beeman\* and K. A. Hayes. December 2014. Not all apple snails are invasive: Fecundity, life history, identity and distribution of native *Pomacea megastoma* in Uruguay. Invited oral presentation in Ampullariidae session of 3<sup>rd</sup> Uruguayan Congress of Zoology.
- Hayes, K. A. and R. L. Burks. December 2014. Systematics, biogeography and conservation of apple snails (Caenogastropoda: Ampullariidae) of the Río de la Plata Basin. Invited oral presentation in Ampullariidae session of 3<sup>rd</sup> Uruguayan Congress of Zoology.
- **Burks, R. L.,** **A. L. Plantz\*,** M. E. Rice\* and T. V. Day\*. August 2011. Living on the edge: Potential fates of apple snail (*Pomacea insularum*) eggs laid on emergent vegetation in riparian areas. Special Session: "Pair Power." Ecological Society of America, Austin, TX.
- **Burks, R. L.,** O. D. Stanzer\*, M. E. Rice\*, A. L. Plantz\*, A. W. Kropf\* and C. H. Kyle\*. November 2010. Synthesizing studies of the island apple snail (*Pomacea insularum*) egg clutches to reveal ecological insights. Invited oral presentation. 4<sup>th</sup> International POMACEA Meeting. Tucuman, Argentina.
- **McDonough, J. P.\*,** C. H. Kyle\* and **R. L. Burks.** November 2008. Pink eggs and snails: oviposition patterns of *Pomacea insularum* that may indicate areas susceptible to invasion. Poster presentation, 2008 International Shallow Lakes Meeting,

Punta del Este, Uruguay.

- Kyle, C. H.\*, J. P. McDonough\* and **R. L. Burks**. November 2008. Location, location, location: oviposition preferences of the exotic, invasive applesnail, *Pomacea insularum*. Poster presentation, 2008 International Shallow Lakes
- **Burks, R. L.** August 2008. Who's On First?: How to negotiate issues about authorship and writing abilities of undergraduates when writing papers for publication. Special Session "Mentoring Future Ecologists at Small Liberal Arts Colleges through Research." Ecological Society of America, Milwaukee, WI.
- **Burks, R. L.**, M. A. Barnes, J. Hand, A. K. Youens\* and S. A. Hensley\*. August 2007. Bad Eggs: An investigation of how natural variability, submersion, and predation may act together to determine the fate of eggs laid by exotic applesnails, *Pomacea insularum*. Oral presentation, Special Session "Ecology and Ecotoxicology of Invasive Species in Inland Waters," 30th Congress of the International Association of Theoretical and Applied Limnology.
- **Burks, R. L.**, B. B. Boland\*, M. A. Barnes\*, M. Meerhoff, C. Fosalba and N. Mazzeo. May 2006. The Tale of Two Snails: Comparing and contrasting the ecological roles of a natural versus exotic population of *Pomacea*. Oral Presentation in Applesnail Session. International Conference on Aquatic Invasive Species, Key Biscayne, FL.
- Hill, A. E.\* and **R. L. Burks**. February 2005. What doesn't kill you...may give cues to survival: N vs. P pesticides uniquely impact reproduction in *Daphnia magna* at different scales. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Poster Presentation in Special Session in Undergraduate Research. Salt Lake City, UT.
- **Burks, R. L.**, H. Michels, M. D. G. Sagrario, and E. Jeppesen. February 2005. Spineless...but not wimpy: Invertebrate predator *Chaoborus* prompts diel horizontal migration of large-bodied *Daphnia*. ASLO Aquatic Sciences Meeting. Poster Presentation, Special Session: The Role of Zooplankton Predator-Prey Interactions in Structuring Plankton Communities. SLC, UT.
- **Burks, R. L.** July 2004. Hierarchical responses by *Daphnia* to multiple cues in shallow lakes. INTECOL - International Wetlands Conference. Invited Special Session: Macrophytes & lakes. Utrecht, The Netherlands.
- **Burks, R. L.** February 2003. Cues, cues and more cues. *Daphnia* swim away from *Chaoborus*, crushed-up conspecifics and pelagic lake water chemical cues. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting, Special Session: Tribute to John Gilbert. Salt Lake City, UT.
- **Burks, R. L.**, A. C. Haines\*, and D. M. Lodge. June 2002. Do littoral and pelagic zones 'smell' different? *Daphnia* behavioral responses to chemical cues from whole lake zones, macrophytes and multiple predators. Poster Presentation in Special Session: Habitat Coupling. ASLO. Victoria, British Columbia.
- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. June 2000. *Daphnia* in littoral zones: costs and benefits associated with diel horizontal migration in shallow lakes. Invited Oral Presentation, Special Session: The role of aquatic macrophytes in lakes. ASLO. Copenhagen, Denmark.
- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. May 2000. Planktivorous fishes indirectly enhance prey resources (*Daphnia*) for predacious benthic macroinvertebrates. Invited Presentation, Special Session: The role of fish in benthic food webs. North American Benthological Society (NABS), Colorado.
- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. May 1999. Responses of pelagic and littoral macroinvertebrates to fish cue and foraging in experimental mesocosms. Special Session: Benthic-Pelagic Linkages, NABS, Duluth, Minnesota.
- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. October 1998. Chemicals from macrophytes depress *Daphnia* growth in shallow lakes. Invited Presentation. Oikos Nordic Ecology Symposium, Lund, Sweden.
- **Snively, R. L.** (maiden name) and D. M. Lodge. February 1997. Littoral zone structures reduce *Daphnia* mortality due to fish predation. Special Session: Fish-Zooplankton Interactions. ASLO Aquatic Sciences, Santa Fe, New Mexico, USA.

### **Category 2: CONTRIBUTED PAPERS AT NATIONAL OR REGIONAL CONFERENCE**

(\* denotes undergraduate author, underline indicates presenting author if not R. L. Burks)

#### **Last 2 years:**

- C. Reynolds\* E. Rosas\*, D. Christie, M. A. Barnes, and **R. L. Burks**. 2024. Jumping in the deep end: quantifying environmental DNA concentrations of *Pomacea maculata* at varying depths in a South Austin pond. Freshwater Science Oral Presentation, Texas Academy of Sciences, Odessa, TX.
- E. Rosas\*, C. Reynolds\*, D. Christie, M. A. Barnes, and **R. L. Burks**. 2024. Telling a snail's tale: assessment of eDNA analysis as a tool to monitor removal efforts of *Pomacea maculata* in South Austin. Freshwater Science Oral Presentation, Texas Academy of Sciences, San Odessa, TX.
- E. Rosas\*, C. Reynolds\*, D. Christie, M. A. Barnes, and **R. L. Burks**, and M. A. Barnes. 2024. Looking for "a snail in a pond": Investigating how eDNA contributes to eradication efforts of the invasive apple snail, *Pomacea maculata*. Poster Presentation, Society for Integrated and Comparative Biology, Seattle, WA.
- Bashara, C.\*, L. Dolapchiev\*, C. Vaughn, S. Bittner, **R. L. Burks**, and M. A. Barnes. 2023. Now you see them,

now you don't? Using eDNA to confirm removal of invasive snails by local agency. Freshwater Science Oral Presentation, Texas Academy of Sciences, San Angelo, TX.

- Reynolds, C.\*, E. Barrientos-Rosas\*, **R. L. Burks**, and M. A. Barnes. 2023. Large snails & small DNA: Relating *Pomacea maculata* biomass & environmental DNA concentration. Poster Presentation, Society for Integrated and Comparative Biology, Austin, TX.
- Reynolds, C.\*, E. Barrientos-Rosas\*, **R. L. Burks**, and M. A. Barnes. 2023. Large snails & small DNA: Relating *Pomacea maculata* biomass & environmental DNA concentration. Freshwater Science Poster Presentation, Texas Academy of Sciences, San Angelo, TX.
- Bashara, C.\*, L. Dolapchiev\*, C. Vaughn, S. Bittner, **R. L. Burks**, and M. A. Barnes. 2022. Snail (*Pomacea maculata*) Days of Summer: Associations between reproductive output, snail removal efforts, and environmental DNA (eDNA) concentration. Freshwater Science Oral Presentation, Texas Academy of Sciences, Clear Lake, Houston, TX.
- Dolapchiev, L.\*, C. Bashara\*, **R. L. Burks**, and M. A. Barnes. 2022. Filter me...if you can: using size fractionation to separate, measure, and determine the size of *Pomacea maculata* eDNA. Freshwater Science Oral Presentation, Texas Academy of Sciences, Clear Lake, Houston, TX.
- Henderson, K.\*, A. White\*, C. Bashara\*, L. Dolapchiev\*, **R. L. Burks**, and M. A. Barnes. 2022. Keep Austin snail-free: ongoing removal of *Pomacea maculata* and evaluation by eDNA. Freshwater Science Poster, Texas Academy of Sciences, Clear Lake, Houston, TX.
- Bashara, C.\*, L. Dolapchiev\*, C. Vaughn, **R. L. Burks**, and M. A. Barnes. 2022. Stop escargo in San Antonio: developing best methodology for detecting *Pomacea maculata* using environmental DNA (eDNA). Freshwater Science Poster, Texas Academy of Sciences, Clear Lake, Houston, TX.

#### Previous:

- E. Nyaberi\*, Galassini, K.\*, **R. L. Burks** and M. A. Barnes. 2020. Effect of the degradation of eDNA in the presence of microplastics. Texas Conservation Symposium, Georgetown, TX.
- Galassini, K.\*, E. Nyaberi\*, **R. L. Burks** and M. A. Barnes. 2020. Old school or new school: Comparing the efficiency of eDNA sampling by hand and with the ANDE eDNA backpack. Texas Conservation Symposium, Georgetown, TX.
- Muskara, L. M.\*, S. Miller\*, **R. L. Burks** and M. A. Barnes. 2022. Indicating invasion with eDNA: Detecting apple snails along Oyster Creek. Oral Presentation. Texas Conservation Symposium.
- **Burks, R. L.** 2020. Looking at and beyond the horizon: Studying non-native apple snails in Texas and diversity across the globe. Oral Presentation. Texas Conservation Symposium, Georgetown, TX.
- Winkler, H.\*, N. Kelly\*, S. Odell\*, S. Walsh\*, **R. L. Burks** and R. L. Minton. 2019. Unraveling the mystery: Genetic identification of nonnative Asian Mysterysnails, *Cipangopaludina chinensis* and *C. japonica*. Oral Presentation, Texas Academy of Science, Freshwater Science, Howard Payne University, Brownwood, TX.
- Muskara, L. E.\*, S. E. Miller\*, M. A. Barnes, and **R. L. Burks**. 2019. A snail out of water: Apple snail detection along Oyster Creek (Missouri City/Sugar Land, TX). Oral Presentation, Texas Academy of Science, Freshwater Science, Howard Payne University, Brownwood, TX.
- Kelly, N.\*, S. Odell\*, H. Winkler\*, S. Walsh\*, **R. L. Burks** and R. L. Minton. 2019. Highway to shell: Troubleshooting methods of genetic detection and identification in two invasive species, *Cipangopaludina chinensis* and *C. japonica*. Poster Presentation, Texas Academy of Science, Freshwater Science, Howard Payne University, Brownwood, TX.
- Miller, S. E.\*, L. E. Muskara\*, M. A. Barnes, and **R. L. Burks**. 2019. Bullseye! Hitting the target on primer optimization. Poster Presentation, Texas Academy of Science, Freshwater Science, Howard Payne University, Brownwood, TX.
- Granier, M., M. A. Barnes and **R. L. Burks**. 2018. Following the curve: Environmental DNA accumulation and degradation rates using apple snails. Oral Presentation, Texas Academy of Science, Freshwater Science, Midland College, Midland, TX.
- Walsh, S., and **R. L. Burks**. 2018. Unraveling the mystery: Species determination and distribution patterns of two Asian mystery snail species (*Cipangopaludina japonica* and *C. chinensis*). Oral Presentation, Texas Academy of Science, Freshwater Science, Midland College, Midland, TX.
- Perez, K. P., V. G. Gamboa, C. M. Schneider\* and **R. L. Burks**. 2017. Abandoned but not forgotten: Resaca supports invasive apple snails (*Pomacea maculata*, Perry, 1810; Caenogastropoda: Ampullariidae) within the Rio Grande Valley, Texas. Platform presentation. Freshwater Mollusk Conservation Society, Cleveland, OH.
- Bishop, C. A.\* and **R. L. Burks**. 2017. Applying Band-Aids: Challenges associated with molecular detection of *Angiostrongylus cantonensis* infection within Uruguayan and Brazilian apple snails. Oral Presentation, Texas Academy of Science, Freshwater Science, University of Mary Hardin Baylor, Belton, TX.
- Bishop, C. A.\*, S. R. Campos\*, S. Walsh\*, H. Cepada\* and **R. L. Burks**. 2017. Innovating molecular art: Communicating

the true cost of science through repurposed materials. Poster Presentation, Texas Academy of Science, Science Education, University of Mary Hardin Baylor, Belton, TX.

- Campos, S. R.\*, C. Clavo, M. Meerhoff, K. A. Hayes and **R. L. Burks**. 2017. Cryptic yet curiously common: Population genetic structure and diversity of a cryptic *Pomacea* sp. and its better known congeneric *P. canaliculata*. Poster Presentation, Texas Academy of Science, Systematics and Evolution, University of Mary Hardin Baylor, Belton, TX.
- Granier, M., M. A. Barnes and **R. L. Burks**. 2017. Snail slime in real time: qPCR detection of environmental DNA using apple snails. Oral Presentation, Texas Academy of Science, Conservation Biology, University of Mary Hardin Baylor, Belton, TX.
- Bishop, C. A.\* and **R. L. Burks**. 2016. Can you see it now? Molecular screen for *Angiostrongylus cantonensis* in Uruguayan apple snails. Poster Presentation, Texas Academy of Science, Freshwater Science, Texas Tech University Llano Field Station, Junction, TX.
- Gamboa, V. G.\*, **R. L. Burks** and K. E. Perez. 2016. Identification of a newly discovered population of apple snails (*Pomacea* spp., Family Ampullariidae) in the Rio Grande Valley. Poster Presentation, Texas Academy of Science, Systematics and Evolutionary Biology, Texas Tech University Llano Field Station, Junction, TX.
- Medellin, A., R. Minton, P. Glasheen\*, and **R. L. Burks**. 2016. Desiccation tolerance of introduced *Pomacea maculata* populations in Texas. Poster Presentation, Texas Academy of Science, Freshwater Science, Texas Tech University Llano Field Station, Junction, TX.
- Perez, B.\*, A. Segrest\*, L. S. Campos\*, **R. L. Burks** and R. Minton. 2016. New Record of Mystery Snails in Harris County Texas. Poster Presentation, Texas Academy of Science, Freshwater Science, Texas Tech University Llano Field Station, Junction, TX.
- Glasheen, P. M.\*, C. Clavo, M. Meerhoff, **R. L. Burks** and K. A. Hayes. 2015. The snail also rises: Desiccation tolerance of *Pomacea* species (Gastropoda: Ampullariidae) Oral Presentation, American Malacological Society, University of Michigan Biological Station, Pellston, MI.
- Campos, L. S.\*, C. Clavijo, F. Scarabino, **R. L. Burks** and K. A. Hayes. 2015. A tale of two species: Comparative phylogeography and genetic diversity of *Pomacea canaliculata* and a putative cryptic congeneric in the Rio de la Plata Basin. Oral Presentation, American Malacological Society, U. of Michigan Biological Station, Pellston, MI.
- Segrest, A.\*, C. Clavijo, K. A. Hayes and **R. L. Burks**. 2015. Sex despite the cost: Attachment of *Limnoperna fortunei* (Dunker, 1857) alters apple snail activities in native *Pomacea* species (Lamarck, 1822). Poster Presentation. Society for Freshwater Science, Milwaukee, WI.
- Campos, S. R.\*, C. Clavijo, F. Scarabino, **R. L. Burks** and K. A. Hayes. 2015. A tale of two species: Comparative phylogeography and genetic diversity of *Pomacea canaliculata* and a putative cryptic congeneric in the Rio de la Plata Basin. Oral Presentation, Texas Academy of Science, Systematics and Evolutionary Biology, University of the Incarnate Word, San Antonio, TX.
- Savrick, C.\*, **R. L. Burks** and K. A. Hayes. 2015. Spread of invasive *Pomacea maculata*, Perry, 1810 (Ampullariidae) in the southeastern United States. Oral Presentation, Texas Academy of Science, Freshwater Science, University of the Incarnate Word, San Antonio, TX.
- Segrest, A.\*, C. Clavijo, K. A. Hayes and **R. L. Burks**. 2015. Cling on me: Impacts of settlement of invasive *Limnoperna fortunei* (Dunker, 1857) on the native *Pomacea* spp (Lamarck, 1822) in Uruguay. Oral Presentation, Texas Academy of Science, Freshwater Science, University of the Incarnate Word, San Antonio, TX.
- Watts, A.\* and **R. L. Burks**. 2015. Cued in: Hatching *Pomacea maculata* behavioral responses to predator chemical cues. Oral Presentation, Texas Academy of Science, Freshwater Science, University of the Incarnate Word, San Antonio, TX.
- Cochran, A. D.\* and **R. L. Burks**. 2014. Why bigger may not always be better: a comparison of hatchling development of two apple snail species, *Pomacea maculata* and *Pomacea megastoma*. Oral Presentation, Texas Academy of Science, Freshwater Science, Texas A&M Galveston.
- Cochran, A. D.\* and **R. L. Burks**. 2014. Go snail! Grow: Hatchling growth of *Pomacea maculata* under predation stress. Poster Presentation, Texas Academy of Science, Freshwater Science, Texas A&M Galveston.
- Petrucci, A.\*, A. E. Miller\*, A. Hill\* and **R. L. Burks**. 2014. Like water for snails: A case study of Emerald Lake as a system invaded with apple snails (*Pomacea maculata*). Poster Presentation, Texas Academy of Science, Freshwater Science, Texas A&M Galveston.
- **R. L. Burks**, A. E. Miller\*, A. Hill\* and A. L. Plantz\*. 2014. How Do You Like Your Eggs (and Hatchlings)? Red-eared slider turtle (*Trachemys scripta elegans*) predation of developing apple snails (*Pomacea maculata*). Oral Presentation, Texas Academy of Science, Freshwater Science, Texas A&M Galveston.
- Petro, R.\* 2014. Pink Eggs I am: The making of a clutch deposit informing the public about the invasive apple snail (*Pomacea maculata*). Oral Presentation, Texas Academy of Science, Science Education, Texas A&M Galveston.
- Savrick, C.\*, **R. L. Burks** and K. Hayes. 2014. Go west young snails: Origins of invasive *Pomacea maculata* in Louisiana. Poster Presentation, Texas Academy of Science, Freshwater Science, Texas A&M Galveston.
- **Burks, R. L.**, E. J. Sterling, A. L. Porzecanski, N. Bynum, A. Bravo, D. S. Fernandez, T. A. Langen, J. M. Linder and D. E. Ruby. 2013. Practice does not make quite perfect but does build student confidence in oral communication skill. Education Pedagogy and Assessment. Ecological Society of America Meeting, Minneapolis, MN.

- Plantz, A. L.\*, C. Clavijo, A. Röhrdanz, K. Gibson\*, F. Scarabino and **R. L. Burks**. 2013. The apple doesn't fall far from the tree: Reproductive characterization of the newly renamed apple snail, *Pomacea megastoma*. Oral Presentation, Texas Academy of Science, Schreiner University, Kerrville, TX.
- Miley, J. O.\*, A. L. Plantz\*, Tracy V. Day\* and **R. L. Burks**. 2013. Double trouble for local salamanders: substrate and food availability for two populations of the endangered Georgetown salamander, *Eurycea naufragia*. Oral Presentation, Texas Academy of Science, Schreiner University, Kerrville, TX.
- Day, T. V.\* and **R. L. Burks**. 2013. Title. My omnivore dilemma: Diet flexibility in two different apple snails, *Pomacea maculata* and *P. canaliculata*. Texas Academy of Science, Schreiner University, Kerrville, TX.
- Porzecanski et al. (Burks = 7<sup>th</sup> of 19 authors). 2012. How much can students gain in data analysis and critical thinking skills in one semester? Oral Presentation in Education Research and Assessment. Ecological Society of America. Portland, OR.
- Plantz, A. L.\* and **R. L. Burks**. 2012. The pink predicament: *Pomacea insularum* eggs fail to deter predation by red-eared sliders (*Trachemys scripta elegans*). Oral Presentation, Texas Academy of Science, Sul Ross University, Alpine, TX.
- Liebl, M.\*, K. Roberts\*, S. Pukys and **R. L. Burks**. March 2012. Staying SMARt: Assessment of a one-on-one inquiry model to teach the scientific method to elementary school students. Oral Presentation, Texas Academy of Science, Sul Ross University, Alpine, TX.
- Miley, J. O.\*, A. L. Plantz\*, Tracy V. Day\* and **R. L. Burks**. March 2012. Microscopic buffet: Estimates of meiofauna availability for the Georgetown salamander in two permanent springs. Poster Presentation, Texas Academy of Science, Sul Ross University, Alpine, TX.
- Day, T. V.\* and **R. L. Burks**. March 2012. Probably not snail eating plants: Enriched macrophyte N<sup>25</sup> values in a stable isotope study of *Pomacea insularum*'s trophic interactions. Poster Presentation, Texas Academy of Science, Sul Ross University, Alpine, TX.
- Gibson, L. C.\*, A. L. Plantz\*, C. Clavo and **R. L. Burks**. March 2012. Putting on Mussel: Interactions between the Asian Golden Mussel (*Limnoperna fortunei*) and native ampullariid snails. Poster Presentation, Texas Academy of Science, Sul Ross University, Alpine, TX.
- Burge, K.\* and **R. L. Burks**. March 2012. Frail snails: Effect of pH on the growth and survival rate in juvenile apple snails *Pomacea insularum*. Effect of pH on the growth and survival rate in juvenile apple snails *Pomacea insularum*. Poster Presentation, Texas Academy of Science, Sul Ross University, Alpine, TX.
- Liebl, M.\*, K. Roberts\*, S. Pukys and **R. L. Burks**. March 2011. Get SMARt: Introduction of Science and Math Achiever Teams. Oral Presentation, Texas Academy of Science, St. Edward's University, Austin, TX.
- Plantz, A. L.\* and **R. L. Burks**. March 2011. Incredible, edible eggs: Predation of apple snail (*Pomacea insularum*) eggs by a native, riparian predator, the red-eared slider (*Trachemys scripta elegans*). Oral Presentation, Texas Academy of Science, St. Edward's University, Austin, TX.
- Rice, M. E.\* and **R. L. Burks**. March 2011. Disturbing environments: Nutrient enrichment negatively impacts water stressed *Pomacea insularum* hatchlings. Oral Presentation, Texas Academy of Science, St. Edward's University, Austin, TX.
- Kyle, C.H.\*, G. Dwyer, T. Shelton and **R. L. Burks**. August 2010. Count your eggs before they invade: Models estimating egg number in clutches laid by invasive apple snails. Poster Presentation, Ecological Society of America, Pittsburgh, PA.
- **Burks, R. L.**, C. H. Kyle\* and M. M. Meerhoff. June 2010. Paint the littoral pink: native *Pomacea canaliculata* clutches present power of reproduction for invasive apple snails. Poster Presentation, Joint Meeting of American Society of Limnology and Oceanography and North American Benthological Society, Sante Fe. NM.
- Kropf, A.\* and **R. L. Burks**. March 2010. Size doesn't matter for exotic female snails (*Pomacea insularum*) in terms of fecundity. Poster Presentation, Texas Academy of Science, Stephenville, TX.
- Trawick, M. K.\* and **R. L. Burks**. March 2010. Waterlogged: Egg maturity mitigates effects of water stress on reproductive efforts of a freshwater invasive apple snail (*Pomacea insularum*). Oral Presentation, Texas Academy of Science, Stephenville, TX.
- Stanzer, O. D.\* and **R. L. Burks**. March 2010. The persistence of pink: Perivitellin fluid fails to protect (*Pomacea insularum*) eggs from predation. Oral Presentation, Texas Academy of Science, Stephenville, TX.
- **Burks, R. L.** and J. Van Dyke. August 2009. Not a slow snail: Rapid rise of environmental awareness and ecological insights regarding invasive island applesnails (*Pomacea insularum*). Wetlands Session. Ecological Society of America. Albuquerque, New Mexico, USA.
- Trawick, M. K.\*, A. K. Youens\*, S. A. Hensley\*, M. A. Barnes\* and **R. L. Burks**. May 2009. Stay out of the water: Hatching efficiency and short-term survival of an invasive apple snail. Poster Presentation, North American Benthological Society, Grand Rapids, MI.
- McDonough, J.P.\*, C. H. Kyle\* and **R. L. Burks**. March 2009. Pink Eggs and Snails: Field oviposition patterns of *P. insularum* that may identify wetlands or shallow lakes susceptible to invasion. Oral Presentation, Texas Academy of Science, Junction, TX.
- Kyle, C.H.\*, J. P. McDonough and **R. L. Burks**. March 2009. Location, location, location: oviposition preferences of the exotic, invasive apple snail, *Pomacea insularum*. Oral Presentation, Texas Academy of Science, Junction, TX.

- Trawick, M. K.\* and **R. L. Burks**. March 2009. Wetter isn't better: Effects of disturbance on *Pomacea insularum* hatching efficiency. Oral Presentation, Texas Academy of Science, Junction, TX.
- **Burks, R. L.**, S. A. Hensley\*, C. H. Kyle\* and J. P. McDonough. May 2008. What are invasion meltdowns made of: Maybe eggs and snails and elephant tails (or ears)? Poster Presentation, North American Benthological Society, Salt Lake City, UT.
- Hensley, S.\*, C. H. Kyle\*, J. P. McDonough\* and **R. L. Burks**. March 2008. Small snails grow up fast: Feeding preferences, habitat choice and growth of juvenile applesnails (*Pomacea insularum*) in the presence of *Procambarus clarkii*. Oral Presentation, Texas Academy of Science, Corpus Christi, TX.
- Kyle, C. H.\*, J. P. McDonough and **R. L. Burks**. March 2008. Location, Location, Location: Laboratory experiment shows invasive *P. insularum* chose elephant ear as oviposition sites. Oral Presentation, Texas Academy of Science, Corpus Christi, TX.
- McDonough, J. P.\*, C. H. Kyle and **R. L. Burks**. March 2008. Pink Eggs and Snails: Comparison of field and lab oviposition behavior in *P. insularum*. Oral Presentation, Texas Academy of Science, Corpus Christi, TX.
- Youens, A. K.\*, B. B. Boland\* and **R. L. Burks**. March 2007. Growing at a Snail's Pace: Negative impacts of salinity and high density on growth measures of *Pomacea insularum*. Oral Presentation, Texas Academy of Science, Waco, TX.
- Boland, B. B.\*, A. K. Youens\*, M. Meerhoff, C. Fosalba, N. Mazzeo and **R. L. Burks**. March 2007. Juvenile Snails, Adult Appetites: Contrasting resource consumption between two species of applesnails. Oral Presentation, Texas Academy of Science, Waco, TX.
- Barnes, M. A.\*, A. K. Youens\*, S. A. Hensley\* and **R. L. Burks**. March 2007. In Too Deep: Egg clutch water exposure may suppress hatching and increase conspecific predation of eggs in the potentially invasive applesnail, *Pomacea insularum*. Oral Presentation, Texas Academy of Science, Waco, TX.
- Barnes, M. A.\*, B. B. Boland\*, M. Meerhoff, C. Fosalba, N. Mazzeo, and **R. L. Burks**. June 2006. That's the way the egg hatches: Determining patterns in egg size, clutch variability, and hatchling emergence in an exotic versus native population of applesnails. Poster Presentation, North American Benthological Society, Anchorage, AK.
- Boland, B.\*, M. Meerhoff, C. Fosalba, N. Mazzeo, and **R. Burks**. June 2006. Distinct palettes: feeding preferences between native and exotic applesnail populations and the implications for invasion. Poster Presentation, North American Benthological Society, Anchorage, AK.
- Boland, B.\*, M. Meerhoff, C. Fosalba, N. Mazzeo, and **R. Burks**. March 2006. Distinct palettes: Feeding preferences between native and exotic applesnail populations. Oral Presentation, Texas Academy of Science, Beaumont, TX.
- Barnes, M. A.\* and **R. L. Burks**. March 2006. The Snail or the Egg? Early life history factors contribute to invasive success of applesnails. Oral Presentation, Texas Academy of Science, Beaumont, TX.
- Marfurt, R. K.\*, B. Boland\*, and **R. L. Burks**. June 2005. Life history variation in invading applesnails (*Pomacea canaliculata*) may pose ecological threat to wetlands. Poster Presentation at North American Benthological Meeting, New Orleans, LA.
- Marfurt, R. K.\* and **R. L. Burks**. May 2005. Invaders from the South: Ecology of the Channeled Applesnail. Poster Presentation at Freshwater Mollusk Conservation Society, St. Paul, MN.
- Marfurt, R. K.\* and **R. L. Burks**. February 2005. Invaders from the South: Ecology of the Channeled Applesnail. Oral presentation for Associated Colleges of the South Environmental Summit, Atlanta, GA.
- Haines, A. C.\*, **R. L. Burks** and D. M. Lodge. June 2001. Impact of chemical cues from odonates fed different diets on daphnid growth and reproduction. Poster Presentation, NABS, La Crosse, WI.
- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. August 1998. Chemicals from macrophytes and fishes depress *Daphnia* growth in shallow lakes. Poster Presentation, Shallow Lakes '98 Conference, Blossin, Germany.
- Beklioglu, M., F. Landkildehus, E. Jeppesen, M. Søndergaard, O. Ince and **R. L. Burks**. August 1998. Diel changes in distribution of plant-associated microcrustaceans at contrasting densities of 0+ perch (*Perca fluviatilis*) and macrophytes. Oral Presentation, Shallow Lakes '98 Conference, Blossin, Germany.
- Lauridsen, T. L., E. Jeppesen, S. Mitchell, D. M. Lodge and **R. L. Burks**. August 1998. Horizontal distribution of zooplankton in lakes with contrasting fish densities and nutrient levels. Oral Presentation, Shallow Lakes '98 Conference, Blossin, Germany.
- **Burks, R. L.**, E. Jeppesen and D. M. Lodge. June 1998. Chemicals from macrophytes and fishes suppress *Daphnia* growth in shallow lakes. Poster presentation. Trophic Interactions. ASLO and The Ecological Society of America (ESA) Joint Meeting, St. Louis, MO, USA.

## OTHER INVITED LECTURES AND PRESENTATIONS

- ♣ **Burks, R. L.**, Educated by Chocolate. Dallas Chocolate and Northwest Chocolate Festivals (Fall 2024).
- ♣ **Burks, R. L.**, Telling Fact from Fiction in Science of Chocolate, Northwest Chocolate Festival.
- ♣ **Burks, R. L.**, Chocolate Covered Science: Connect what you love to eat with what you love to study, Schreiner



University, September 2024.

- ^ **Burks, R. L.** How to Better Love Your Chocolate. Georgetown Women's Society. 01/10/24.
- ^ **Burks, R. L.** I Say Cocoa, You Say Cacao: An industry glossary's mission to establish a common language for fine chocolate. [Northwest Chocolate Festival](#), Seattle, WA, 10/06/23.
- ^ **Burks, R. L.** Chocolate "Definitions" - the dream of developing a common language. Dallas Chocolate Festival, 09/09/23.
- ^ **Burks, R. L.** How to Taste Chocolate like a Competition Judge. Dallas Chocolate Festival, 09/10/23.
- ^ **Burks, R. L.** Now You See Them, Now You Don't? Using eDNA to confirm removal of invasive snails by local agency; APHIS-USDA 2023 Apple Snail Workshop, 2/21/23.
- ^ **Burks, R. L.** Biology and Chemistry of Chocolate. Westwood High School, Round Rock, TX, 2/17/23.
- ^ **Burks, R. L.** How to Cultivate a Real Relationship with Chocolate. Rockport Fine Arts Council, 2/12/23.
- ^ **Burks, R. L.** Making the word chocolate mean more to everyone" at the first edition of the Latin American International Festival of Chocolate and Cocoa in Europe. Porto, Portugal, 10/21/22.
- ^ **Burks, R. L.** Chocolate Chemistry. Austin Science and Nature Center, 2/12/22.
- ^ **Burks, R. L.** The nature of knowing and the science of eDNA. Paideia Connections Lecture 10/21.
- ^ **Burks, R. L.** Cacao Biodiversity 101. Northwest Chocolate Festival. November 2019, Virtual 2020.
- ^ **Burks, R. L.** Worth every pound? Why to invest in Fine Chocolate. Corinthia Hotel, London, and Brighton Chocolate Festival, United Kingdom. October 2019.
- ^ **Burks, R. L.** Is there a genetically engineered future for chocolate?. Northwest Chocolate Festival. Nov. 2018.
- ^ **Burks, R. L.** Delicious Science. New England Chocolate Festival. October 2018.
- ^ **Burks, R. L.** The Future of Chocolate. Dallas Chocolate Festival. September 2018..
- ^ **Burks, R. L.** Tackling the chocolate wall. Dallas Chocolate Festival. September 2017.
- ^ **Burks, R. L.** Fermentology and Chocolate with SRSLY Chocolate. The Thinkery. February 2017.
- ^ **Burks, R. L.** Origins, Artisans and Special Beans: Trends in the US Bean. Midland Country Club. September 2016.
- ^ **Burks, R. L.** The Academic Side of Chocolate. University of Houston Clear Lake. April 2016.
- ^ **Burks, R. L.** Liberally Applied Chocolate: Arts & Science. Northwest Chocolate Festival, Seattle. October 2015.
- ^ **Burks, R. L.** Revenge of the Chocolate Nerds. Dallas Chocolate Conference. September 2015.
- ^ **Burks, R. L.** The science of chocolate. Art.Science.Gallery. February 2015.
- ^ **Burks, R. L.** The science of chocolate. Presentation for SU DC Alumni Association February 2013.
- ^ **Burks, R. L.** Building a strong research shell: Development of an externally funded, international, undergraduate research program. ECODAS Symposium, Honolulu, HI. October 2012
- ^ **Burks, R. L.** Chocolate, Science and More: melding your hobbies with your academic life. ECODAS Symposium, Honolulu, HI. October 2012
- ^ **Burks, R. L.** One Bad Apple Snail Spoils the Bunch: What I learned on my summer work-cations about apple snails. Guest Researcher at Armand Bayou Nature Center. September 2012
- ^ **Burks, R. L.,** A. L. Plantz\*, M. E. Rice\* and T. V. Day\*. Living on the edge: Potential fates of apple snail (*Pomacea insularum*) eggs laid on emergent vegetation in riparian areas. St. Edward's University Seminar Series. September 2011.
- ^ **R. L. Burks.** Two snails are not better than one: Basic ecology suggests that the invasive potential of the island apple snail, *Pomacea insularum*, could surpass its more notorious relative, *P. canaliculata*. Department of Limnology, Lund University, Sweden, March 2010.
- ^ **R. L. Burks.** The light and dark side of buying good chocolate. Midland Country Club. February 2010.
- ^ **R. L. Burks.** The Wonders of Chocolate. University of Mary Hardin Baylor. February 2009.
- ^ **R. L. Burks.** The Wonders of Chocolate in the Liberal Arts. Midland, TX. April 2008.
- ^ **R. L. Burks.** Tale of Two Snails. March 2006, Baylor University. October 2006. Loyola University Chicago.
- ^ **R. L. Burks** and M. A. Barnes\*. Feb. 2006. Tale of Two Snails. Rice University.
- ^ **R. L. Burks.** December 2005. Going from Top to Bottom: Connecting Lessons Learned from Research with *Daphnia* and Snails. Facultad de Ciencias, Universidad de Republica de Montevideo, Uruguay.
- ^ **R. L. Burks** and R. Marfurt. March 2005. Abiotic and biotic life history influences on the channelled applesnail (*Pomacea canaliculata*). United States Department of Agriculture Mollusk Action Plan Working Group Meeting. Houston, TX.

- ⤴ **R. L. Burks.** March 2004. What about the flipside? Reorienting one's view of *Daphnia* migration in shallow lakes. Texas State University.
- ⤴ **R. L. Burks.** 2002/3. Littorally complex: Understanding food web interactions in shallow lakes (Bucknell University, Muhlenberg College, Oglethorpe University, Rowan University, University of Central Arkansas, Southwestern University, University of Tampa).
- ⤴ **R. L. Burks.** 2002. To Switch or Not To Switch? How *Daphnia* and aquatic plants act to stabilize alternative stable states in lakes. Austin College.
- ⤴ **R. L. Burks.** 2001. *Daphnia* in littoral zones: potential costs and benefits associated with diel horizontal migration in shallow lakes. University of Memphis.

#### **UNIVERSITY SERVICE:**

2024 -	Paideia Committee
2020 – 2023	First Year Seminar Committee
2021 – 2023	Faculty Steering Committee
2021 - 2022	External Member, Statistics Faculty Search
2020 – 2021	Member, Environmental Science Faculty Search
2020 – current	External Member, Computer Science Faculty Search
2017 – 2020	Biology Department Chairperson
2017 – 2020	Sustainability Committee (Chair in 2019-2020)
2015 – 2020	Institutional Animal Care and Use Committee
2010 – current	Environmental Studies Committee (2012-2017 Co-Chair)
2002 – current	<i>Phi Beta Kappa</i> Committee, 2010-2011 President

#### *Previous:*

2018	Search, Sustainability Coordinator 2012 – 2015
2016	Internal Budget Review Task Force
2013 – 2017?	Civic Engagement Advisory Board
2012 – 2014?	Gender Equity Task Force
2011 – 2013	Internal Awards Committee
Fall 2011	Homecoming: Classes without Quizzes
2010, 2011	Search Committee Member, Environmental Studies Tenure-Track position
2009	Search Committee Member, Environmental Studies ACS/Mellon Postdoc
Jan 2008	Road Scholar, San Antonio
Nov 2007	Homecoming Lecture: The Wonders of Chocolate for Development Event
2007 - 2009	Budget Advisory Committee
2007	Search Committee Mathematics, Outside Member
2006 - 2009	Natural Sciences Division Secretary
2006 - 2007	Integrated Marketing and Advisory Board
2005 - 2007	Cullen Faculty Development Committee
2005 - 2008	Intercultural Perspective Committee
2004 – 2014	Animal Behavior Committee
2002 - 2006	Environmental Studies Program Committee (completed 5-year review)

#### **DEPARTMENTAL SERVICE - Southwestern University**

- Webmaster for Department sites
- Past Creator and Publisher of *BioScope*, Biology Department newsletter (29 issues as of 12/19)
  - Links: <http://www.southwestern.edu/live/files/5570-bioscopefall16-082316lpdf>
- Participant in Biology Department 5-year and 10-yr Reviews, Curricular Reform and Grant Preparations for Howard Hughes Grant and three Search Committees
- Secondary Capstones (beyond lab research):
  - Anna Frankel '09, Alonzo Thomas '09, Rachael Manly '09, Kayla Odom '10

- UL Course Capstone Advisor & Internships: Jason Jones '07, Josh Weinstein '07, Josh Watson '08, Jean Herberger '08 and Jacob Dickson '08, Amanda Mohammed '08; Capstone Committee: Jana Marshall, Aaron Guel; ES Intern Supervisor: Sarah Wolters, Courtney Blechel

### **COMMUNITY SERVICE**

- SMARteams Outreach Program, Georgetown (Spring 2007 -2022)
- Organized Fleming Science Lecture – November 2013
- Friends of the Fine Arts, Lecture – Four scientific reasons why we love chocolate (2/14/13)
- Free School, Chocolate 101
- Biology Alumni Advisory Board, Loyola University Chicago (November 2007 – present)
- Professional Mentor for Meg Fencil, 5<sup>th</sup> yr graduate student from UT Marine Science Institute (07/2007-05/2008)
- Question & Answer Session, Liberal Phrases: Language lessons from life on the tenure track at a small liberal arts college (Oct. 2006, University of Notre Dame)
- Guest lecture on Biodiversity and Texas, Houston-Tillotsen (Oct. 2005)
- DIALOG Panel, Careers within and beyond Academia, Salt Lake City, Utah (Feb. 2005)
- Member, Biology Action Team, Williamson County, TX (appointed Spring 2005)
- Mentor, Georgetown High School Senior Capstone (Spring 2004)
- Panelist, How to Land an Academic Job, University of Texas, August 2003
- Results Analyst, Information Fluency Survey for General Biology Curriculum, Summer 2002,
  - Associated Colleges of the South Grant (PI = G. Lindquister)

### **EDITORIAL RESPONSIBILITIES:**

- 2012 – current, *Freshwater Biology* (Editorial Board)
- 2010 – 2017, *The American Midland Naturalist* (Associate Editor)

### **PROFESSIONAL MEMBERSHIPS**

- 2017 – present, Freshwater Mollusk Conservation Society
- 2013 – present, American Association of University Professors (AAUP), member
- 2009 – present, *American Association for the Advancement of Science*, member
- 2005 – present, *Sigma Xi* Research Society, elected member
- 2004 – present, Texas Academy of Sciences member
  - 2012, Past-President
  - 2011, President
  - 2010, President-Elect
  - 2009, Vice President
  - 2007, Chair for Marine and Freshwater Section
  - 2006, Vice-Chairperson for Marine and Freshwater Ecology Section
- 1997 – present, Ecological Society of America (ESA) member
  - 2010-2011, RUI Section Chair
- 1992 – present, Society for Freshwater Science (formerly NABS) member:
  - Mentor for graduate students
  - 2006, Appointed Sponsorship Committee (2007-2009 Chair)
  - 2002, International Profile Committee
  - 2001, Organized Student Presentation Judging
  - 2001-present, Student Presentation Judge (orals and posters)
  - 1999, Appointed member of the NABS Long-Range Planning Committee
  - 1998 – 1999 Chairperson, NABS Graduate Resources Committee (GRC)
  - 1996 – 1997 NABS Endowment Festivities Coordinator
  - 1996 Co-founder, NABS GRC to address student concerns, 3 year member
- 2004 – 2007, National Association of Biology Teachers member

- 1997 – 2008, American Society of Limnology and Oceanography:
  - 2005-2007, Meetings Committee
  - 2001-present, Student Poster Judge
  - 1997 – 1999 ASLO Endowment Committee Member
- 2002 – 2004, American Institute of Biological Sciences member
- 2001 – 2003, Council for Undergraduate Research (CUR) member
- 2001 – 2003, Tennessee Academy of Sciences (TAS) member
- 1999 – 2003, Association of Women in Science (AWIS) member
- 1999 – 2002, American Scandinavian Foundation (ASF) member
- 1999 – 2002, Fulbright Alumni Association member

**REVIEWER ACTIVITIES (JOURNALS)**- *Acta Oecologia, Animal Behaviour, Annals of Applied Biology (new), Aquatic Botany, Aquaculture, Aquatic Invasions, Biological Invasions, Bioinvasion Records, Biological Bulletin, BioScience, Diversity and Distributions, Fresenius Environmental Bulletin, Archiv für Hydrobiologia, Canadian Journal of Fisheries and Aquatic Sciences, CUR Quarterly, Ecology, Ecological Research, Ethology, Freshwater Biology, Frontiers in Ecology and Evolution, Functional Ecology, Hydrobiologia, Invertebrate Reproduction and Development, Journal of Chemical Ecology, Journal of Ecology, Journal of Ethology, Journal of Herpetology, Journal of Experimental Marine Biology and Ecology, Journal of Experimental Agriculture, Journal of Limnology, Journal of the North American Benthological Society/Journal of Freshwater Science, Journal of Pest Management, Limnetica, Limnology and Oceanography, Malacologia, Management of Biological Invasions (new), Marine & Freshwater Research, PeerJ, PLOS One, Scientific Reports, Southeastern Naturalist, Studies on Neotropical Fauna and Environmental, Tropical Biology, Turkish Journal of Zoology, Wetlands*

**REVIEWER ACTIVITIES (GRANTS)**- *Ecology Program, National Science Foundation, Estonia Research Foundation, and US Fish and Wildlife Service, Polish Research Service*

**PEDAGOGICAL** - *John Wiley & Son, Current Contents, Pearson (Campus Ecology), Sinauer Publishing (Cain's Ecology), ETS, McGraw Hill (Brooker's Biology)*

**PUBLISHING COMPANIES:** *University of Chicago Press*

**REPRESENTATIVE MEDIA COVERAGE – General Publicity:** Who's Who at Southwestern:  
<http://www.southwestern.edu/whoswho-archive/0507fac.html> and [12/05](http://www.southwestern.edu/whoswho-archive/12105)

**Most recent:**

- Romi Burks, Chocolate Profile, The Sweet Side of Chocolate
  - <https://www.southwestern.edu/live/news/15744-the-sweet-side-of-science>
- Romi Burks. Science Stories Podcast. 2/24/23. Invasive snails and chocolate.  
<https://rss.com/podcasts/fm/842900/>
- Romi Burks, FCIA Fine Chocolate Glossary Project, KahKow Podcast, <https://www.spreaker.com/episode/fcia-glossary-project-a-resource-for-everyone--56441399>
- Contribution to *Science World* - <https://scienceworld.scholastic.com/issues/2023-24/021224/chocolate.html?language=english#1040L>

**Teaching:**

- 02/05/2022 - Conversations in Cocoa: A Conversation with Dr. Romi Burks
  - <https://laurenonthewknd.substack.com/p/audio-dr-romi-burks?s=r>
- 07/14/2020 - Profile on Research Student Esther Nyaberi – Becoming a Better Thinker Through Science
  - <https://www.southwestern.edu/live/news/14197-becoming-a-better-thinker-through-science>
- 02/14/2019: Bloomberg News
  - <https://www.bloomberg.com/news/audio/2018-02-14/bloomberg-markets-burks-on-wonders-of-chocolate>
- 07/16/2014: SU Students study chocolate – *Williamson County Sun*

- 08/15/2014: Twitter as a Teaching Tool
  - <http://www.southwestern.edu/live/news/9845-twitter-as-a-teaching-tool>
- 05/29/2012: Experiment with Science Writing
  - <http://www.southwestern.edu/live/news/6853-experimenting-with-science-writing>
- 06/15/2011: Insects on the Menu (about entomophagy in Invertebrate Ecology course)
  - <http://southwestern.edu/live/news/5281-insects-on-the-menu>
- 09/16/2010: Snacking on Homework (about using microwave popcorn to teach statistics)
  - <http://www.southwestern.edu/newsroom/story.php?type=news&id=3233>
- 11/22/08: SU Website: Thanksgiving in Uruguay (about research trip to South America)
  - <http://www.southwestern.edu/newsroom/story.php?id=431>
- 09/22/08: Fox 7 News Austin: Sweetest subject in the world (about FYS chocolate course)
  - <http://www.myfoxaustin.com/myfox/pages/Home/Detail;jsessionid=24626082306F4770C64C58B92DFC4FD1?contentId=7483726&version=1&locale=EN-US&layoutCode=VSTY&pageId=1.1.1&sflg=1>
- 08/01/08: AAAS Story about BEN Scholars
  - <http://www.aaas.org/news/releases/2008/073oben.shtml>
- 07/09/08: BEN Scholar Bio:
  - <http://www.bioscienet.org/portal/about/benScholarsBios2008.php>
  - 07/02/07 SU Website: Biology professor selected to participate in national program:
  - <http://www.southwestern.edu/cgi-bin/newsroom/article.cgi?id=92>
- 12/06/07: SU Website: Class uses chocolate to help students learn about topics from advertising to evolution:
  - <http://www.southwestern.edu/cgi-bin/newsroom/article.cgi?id=55>
- 12/30/07: *The Houston Chronicle*: "A course that's coated in chocolate"
  - <http://www.chron.com/disp/story.mpl/metropolitan/5410714.html>
  - Also carried by *The Austin American Statesman* as "Southwestern professor finds a calling in chocolate."
- 2/14/08: New 8 Austin: Professor shares chocolate and knowledge
  - [http://www.news8austin.com/content/your\\_news\\_/your\\_neighbors/default.asp?ArID=200541](http://www.news8austin.com/content/your_news_/your_neighbors/default.asp?ArID=200541)
- 3/21/08: *The Chronicle of Higher Education – Syllabus*: In This Course, the Main Dish is Chocolate
  - <http://chronicle.com/temp/email2.php?id=jHW2SFhy6CmgDYnM2KWZvgv5vw3Bmwb>
- 4/14/08: Professor to cook up chocolate standard for education
  - [http://www.mywesttexas.com/articles/2008/04/14/news/top\\_stories/education\\_foundation\\_sunday.prt](http://www.mywesttexas.com/articles/2008/04/14/news/top_stories/education_foundation_sunday.prt)

### Research:

- February 2022: Biologists score big at the Texas Academy of Science Meeting
  - <https://www.southwestern.edu/live/news/15168-southwestern-biologists-score-at-the-texas-academy>
- 07/13/2021 - Profile on Research Student Lauren Muskara – Full STEAM Ahead
  - <https://www.southwestern.edu/live/news/14848-full-steam-ahead>
- July 2020: Concern about apple snails growing
  - <https://sanantonioreport.org/growing-apple-snail-population-in-san-antonio-river-raises-concerns>
- February 2014: Environmental Studies Scholar Profile
  - <http://www.southwestern.edu/live/news/8962-dr-romi-l-burks>
- November 2013: International researchers
  - <http://www.southwestern.edu/live/news/8789-international-researchers>
  - Gallery: <http://www.southwestern.edu/live/galleries/656-international-researchers>
- June 2013: Alex Hill of Wichita Falls Conducting Biological Research at Southwestern
  - <http://readme.readmedia.com/Alex-Hill-of-Wichita-Falls-Conducting-Biology-Research-at-Southwestern-University-this-Summer/6758598>
- February 2013: Southwestern University Students, Faculty Members Presenting at TAS
  - <http://www.southwestern.edu/live/news/7771-southwestern-students-faculty-members-presenting>
- January 2012: Research that Hits Home
  - <http://www.southwestern.edu/live/news/6414-research-that-hits-home>
- September 2011: Southwestern Professor Receives \$72,000 National Science Foundation Grant
  - <http://www.southwestern.edu/live/news/5684-southwestern-professor-receives-72000-national>
- March 2011: Student Spotlight: Allyson Plantz
  - "SU sophomore on the trail of an elusive snail" *The Williamson County Sun*, 03/09/11
- March 2011: Finding Art in Biology (Profile of Research Student, Allyson Plantz)
  - <http://www.southwestern.edu/live/news/4501-finding-art-in-biology>
- November 2010: Biology Professor Receives National Science Foundation Grant

- <http://www.southwestern.edu/live/news/3571-biology-professor-receives-national-science>
- November 2009: Lab students awarded creativity grant
  - <http://www.southwestern.edu/newsroom/story.php?id=1736>
- February 2009: Highlighted on new blog about apple snails
  - <http://snailbusters.wordpress.com/2009/03/04/collaborative-research-with-students/>
- May and December 2006, Filmed for Texas Parks and Wildlife show;
  - Documentary premiering on TV show March 9<sup>th</sup> 2008
  - See segment at: <http://www.southwestern.edu/~burksr/test/research/>
- 01/18/06: *The Williamson County Sun*; "Sizable snails lure SU Prof, student to Uruguay"
- Southwestern University Student, Professor To Spend Holidays Conducting Research In Uruguay
  - <http://www.southwestern.edu/newsroom/news/051205.html>

**Outreach:**

- 10/03/19: "Romi Burks, Ms. Homecoming 2019"
  - <https://www.southwestern.edu/live/news/13611-romi-burks-ms-homecoming-2019>
- 11/18/17: "SMARTeams celebrates its 20th semester at Southwestern"
  - <http://www.southwestern.edu/live/news/11621-smartteams-celebrates-its-20th-semester-at/academics/news.php>
- 06/17/12: "Georgetown-Based Foundation Endows Math and Science Mentoring Program"
  - <http://www.southwestern.edu/live/news/6894-georgetownbased-foundation-endows-math-and-science>
- 04/01/09: SU Webpage "Thinking SMARt"
  - <http://www.southwestern.edu/newsroom/story.php?id=1082>
- 04/26/07: *The Williamson County Sun*, "Results of Pairings: No Doubt, they're SMARt"