

ROMI L. BURKS

CURRICULUM VITA

Department of Biology, Southwestern University, 1001 E. University Ave., Georgetown, TX 78626
tel: 512.863.1280 | e-mail: burksr@southwestern.edu | Social Media: @ProfRomi | website: <http://www.profromi.com>

EDUCATION

| | |
|---------------------------------|--|
| University of Notre Dame (UND) | Ph.D. Ecology, Evolution & Environmental Biology, 2000 Dissertation title: <i>Daphnia</i> 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 (fall) – present | Garey Endowed Chair in Biology |
| 2024 (fall)– present | Chairperson, Department of Biology |
| 2013 – present | Professor, Southwestern University (SU) Department of Biology |
| 2021 – 2022 | Animal Studies Minor, Coordinator |
| 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 |
| 08/01 – 7/03 | Research and Teaching Fellow, Rhodes College (RC) |
| 12/00 – 7/03 | Postdoctoral Fellow, The Ohio State University |

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 | Ms. Homecoming Faculty Honor, 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 |
| 2014 | Invited judge, International Chocolate Awards, New York City |
| 2013 | Invited Senior Mentor, WEBS Symposium (http://advance.washington.edu/webs/) |
| 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 | Panelist for IRES (International Research Experiences for Students), NSF |
| 2007 | Panelist for DDIG Review in Ecology, National Science Foundation |
| 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 |

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

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

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

- **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
- 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
- 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.
- 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>.
- 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>
- 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*.
- 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>.
- 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.
- 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>
- 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>
- **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>.

- 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.
- **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.
- **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.
- 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.
- **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.
- **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.
- Lindquister, 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.
- 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.
- **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.
- **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.
- **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.
- 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.

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.

EXTERNAL 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, 2015 | Sam Taylor Fund, United Methodist, \$1400 & \$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) |
| 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) |
| 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 |

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: 7 students – project development stage

[G. Mallo, A. Guerrero, R. Ling, S. Berver, K. Allemeier, K. Pitarski, J. Reyes].

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

| | |
|-------------------|--|
| 01/2022 - 05/2024 | Esme Rosas '24 , (Faculty-Student Project 2023); eDNA monitoring of South Austin pond |
| 01/2022 – 03/2024 | Cassidy Reynolds , (Faculty-Student 2023); Estimating biomass vs. eDNA |
| 03/2021 – -5/2023 | Cynthia Bashara '23 (2021 SCOPE); Snail eDNA during active summer San Antonio, |
| 03/2021 – 05/2023 | Lillian Dolopchiev '23 (2021 SCOPE), Size-fractionation of apple snail eDNA |
| 08/2021 – 05/2022 | Kate Henderson and Abby White , Keep Austin Snail-free |
| 01/2019 – 05/2021 | Kaitlin Galassini '21 (2019 SCOPE), microplastics and eDNA |
| 03/2018 – 05/2021 | Lauren Muskara '21 (2018 SCOPE), field eDNA and primer development; <i>MS in Biomedical Visualization</i> |
| 03/2018 – 05/2019 | Shellsea Miller '20 (2018 SCOPE), field eDNA, <i>Field Technician, UT Breckenridge</i> |
| 03/2018 – 05/2019 | Nicole Kelly , (2018 SCOPE), <i>mysterysnails, Masters' Program in Genetic Counseling, Baylor</i> |
| 05/2017 – 05/2019 | Hannah Winkler '19 , Identity of Chinese and Japanese mysterysnails through 16S |
| 01/2016 - 05/2019 | Madison Granier '19 (2016 HHMI SCOPE), senior, eDNA and apple snails |
| 08/2016 – 08/2018 | Shannon Walsh '18 , senior, Identity of Chinese and Japanese mysterysnails via COI, <i>Employed as medical scribe</i> |
| 08/2016 – 05/2017 | Hugo Cepeda '18 , learned molecular techniques, <i>IDEA Science Teacher</i> |

| | |
|-------------------|---|
| 03/2015 – 06/2017 | Carissa Bishop '17 , (2015 HHMI SCOPE), Screening for <i>Angiostrongylus cantonensis</i> in native apple snails, <i>Employed in biotech lab</i> |
| 11/2013 – 12/2016 | Sofia Campos '16 , (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 | Bianca Perez '16 , Japanese mysterysnail identification, <i>State Biologist, West Virginia</i> |
| 07/2014 – 05/2016 | Paul Glasheen '16 , Honors Student, Hybridization potential of <i>Pomacea</i> spp. in native range of Uruguay, <i>Searching for MD Residencies, Psychology</i> |
| 11/2013 – 05/2015 | Averi Segrest '16 , SU AB Major, Native apple snails and invasive bivalves, <i>Self-employed businesswoman</i> |
| 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 <i>Pomacea</i> across southeastern US, <i>Accepted 2017 into medical school at UT Medical - Houston</i> |
| 11/2013 – 05/2015 | Allie Watts '15 , (AB capstone; 2014 HHMI); Chemical cue responses to predators by hatchling <i>Pomacea maculata</i> , <i>Employed environmental non-profit</i> |
| 03/2013 – 01/2015 | Amy Miller '16 (Jr. Yr. Work; 2013 HHMI & 13-14 UR) Genetic, anatomical and ecological work on <i>Felipponea</i> |
| 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 <i>P. megastoma</i> |
| 05/2013 – 03/2014 | Alex Petrucci '16 , GIS Project with <i>Pomacea</i> , <i>PhD student in neuroscience</i> |
| 03/2013 - 08/2013 | Alexandria Hill '13 (BS Biology); Turtle predation on hatchlings; <i>Pharmacist</i> |
| 09/2011 – 05/2014 | Jonathan Miley '14 (BA Biology); Molecular ecology of <i>Pomacea</i> |

EXTERNAL GRANTS AND AWARDS FUNDED OR EARNED BY UNDERGRADUATES

- **2023: Cynthia Bashara**, 2nd place Undergraduate Oral Presentation, Freshwater Science, TAS;
- **2022: Lillian Dolapchiev and Cynthia Bashara**, Undergraduate recognition, Texas Conservation Symposium
- **2022: Lillian Dolapchiev**, 1st place Undergraduate Oral Presentation, Freshwater Science, Texas Academy of Sciences; **Cynthia Bashara**, 2nd place Undergraduate Oral Presentation, Freshwater Science, TAS; **Cynthia Bashara and Lillian Dolapchiev**, 2nd place Undergraduate Poster, Freshwater Poster, Texas Academy of Sciences;
- **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
- **Granier**: 2017 2nd place Texas Academy of Sciences
- **Walsh & Winkler**: 2018 3rd place Texas Academy of Sciences Research Award (**Funded for \$1000**)
- **2017: Sofia Campos '16**, 2nd **Best Poster Overall**; Best Poster Presentation in Systematics and Evolution Section; TAS; \$200 presented
- **2017: Madison Granier '19**, Best Oral Presentation in Conservation Ecology Section; TAS; \$50 presented
- **2017: Carissa Bishop '17**, Best Oral Presentation in Freshwater Ecology Section; TAS; \$50 presented
- **2017: Carissa Bishop '17, Sofia Campos '16, Shannon Walsh '18 and Hugo Cepeda '18**, Undergraduate Poster Award in Science Education Section; TAS; \$50 presented

COURSES TAUGHT AT SOUTHWESTERN (in approximate frequency taught)

- Study Abroad:
 - Ecologies of Belize (Spring and Summer 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

RECENT 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 lds to develop application for species detections of nonnative apple snails from water samples. Oral presentation. Triennial (3rd) 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.

Category 2: RECENT CONTRIBUTED PAPERS AT NATIONAL OR REGIONAL CONFERENCE

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

- 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.

EXAMPLE 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 environmental DNA. Paideia Connections Lecture 10/21
- ^ **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.

UNIVERSITY SERVICE:

| | |
|-------------|--|
| 2024 - | Paideia Committee |
| 2021 - 2022 | External Member, Statistics Faculty Search |
| 2020 – 2023 | First Year Seminar Committee |
| 2021 – 2023 | Faculty Steering Committee |
| 2020 – 2021 | Member, Environmental Science Faculty Search |
| 2020 – 2021 | 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 |

RECENT DEPARTMENTAL SERVICE - Southwestern University

- Webmaster for Department sites
- Helped develop DIBE statement
- Creator and Publisher of *BioScope*, Biology Department newsletter
 - Links: <http://www.southwestern.edu/live/files/5570-bioscopefall16-082316lpdf>

EDITORIAL RESPONSIBILITIES:

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

PROFESSIONAL MEMBERSHIPS

- 2015 – present, Fine Chocolate Industry Association
- 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
 - 2009 – 2012: 4 year term: Vice President, President-Elect, President, Past-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

REVIEWER ACTIVITIES (JOURNALS)- *Acta Oecologia*, *Advances in Zoology and Botany*, *Animal Behaviour*, *Annals of Applied Biology*, *Aquatic Botany*, *Aquaculture*, *Aquatic Invasions*, *Biological Invasions*, *Bioinvasion Records*, *Biological Bulletin*, *BioScience*, *Diversity and Distributions*, *Environmental DNA*, *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, Limnologica, Limnology and Oceanography, Malacologia, 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 (new)

MEDIA:

Most recent:

- Romi Burks. Science Stories Podcast. 2/24/23. Invasive snails and chocolate.
<https://rss.com/podcasts/fm/842900/>
- Romi Burks, <https://www.southwestern.edu/live/news/15744-the-sweet-side-of-science>

Teaching:

- 02/05/2022 - Conversations in Cocoa: A Conversation with Dr. Romi Burks
 - <https://laurenonthewknd.substack.com/p/audio-dr-romi-burks?s=r>
- 07/13/2021 - Profile on Research Student Lauren Muskara – Full STEAM Ahead
 - <https://www.southwestern.edu/live/news/14848-full-steam-ahead>
- 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>

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>
- July 2020: Concern about apple snails growing
 - <https://sanantonioreport.org/growing-apple-snail-population-in-san-antonio-river-raises-concerns>

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>