

LINNEA ANDERSEN

United States Department of Agriculture, Agricultural Research Service
990 Wire Road Auburn, Alabama 36832

EDUCATION

Doctor of Philosophy. Biology. Concentration: Cell, Molecular, and Developmental Biology. Minor: Biotechnology. North Carolina State University, Department of Applied Ecology, Raleigh, NC. Advisor: Dr. Benjamin J. Reading. Dissertation: *Machine Learning Approaches to Identify Genes Underlying Aquaculture Production Traits in Striped Bass and their Hybrid*. Degree awarded: December 2022.

Bachelor of Science. Environmental Science and Policy. Concentration: Marine and Coastal Management. University of Maryland, Department of Geographical Sciences, College Park, MD. Degree awarded: December 2016. *Credit hours also earned from the following institutions:*
Danish Institute for Study Abroad, Copenhagen, Denmark. Spring 2015.
Franklin and Marshall College, Lancaster, PA. 2012-2013.

RELEVANT EXPERIENCE

2023-Present	Research Physiologist USDA ARS Aquatic Animal Health Research Unit (AAHRU), Auburn, AL
2023	Postdoctoral Research Scholar North Carolina State University, Department of Applied Ecology, Raleigh, NC
2017-2022	Graduate Research Assistant North Carolina State University, Department of Applied Ecology, Raleigh, NC
2017	Environmental Scientist I Environmental Chemical Corporation (ECC), Abingdon, MD
2015-2016	Aquaculture Technician University of Maryland, Crane Aquaculture Facility, College Park, MD
2014-2016	Environmental Remediation Intern <i>three consecutive, full-time summers</i> Environmental Chemical Corporation (ECC), Abingdon, MD
2016	Intern US Environmental Protection Agency, Office of Environmental Education, Washington, DC
2013	Intern Seer Farms Animal Sanctuary, Jackson, NJ
2012-2013	Neuroscience Undergraduate Research Assistant <i>mentored by Dr. Robert N. Jinks</i> Franklin and Marshall College, Department of Biology, Lancaster, PA

TEACHING EXPERIENCE

North Carolina State University, Raleigh, NC, **Graduate Teaching Assistant – Lecturing and Material Development**
F17, F20, F21, F22 Biology of Fishes (AEC 441/592/442, lecture and laboratory, 71 students)
S20, F20, S21, F21 Genome Engineering: CRISPR Technology (BIT 495/595, lecture and laboratory, 54 students)

North Carolina State University, Raleigh, NC, **Guest Lecturer**
F18, F21, F22 Biology of Fishes (AEC 441/592) Diversity of Fishes and Systematics; Fishes of NC
F20 Current Topics in Biotechnology (BIT 100) Basics of CRISPR and RNAi

PUBLICATIONS

1. **Andersen, L.K.**, Thompson, N.F., Abernathy, J.W., Ahmed, R.O., Ali, A.R.E., Al-Tobasei, R., Beck, B.H., Calla, B., Delomas, T.A., Dunham, R.A., Elsik, C.G., Fuller, S.A., García, J.C., Gavery, M.R., Hollenbeck, C.M., Johnson, K.M., Kunselman, E., Legacki, E.L., Liu, S., Liu, Z., Martin, B., Matt, J.L., May, S.A., Older, C.E., Overturf, K., Palti, Y., Peatman, E.J., Peterson, B.C., Phelps, M.P., Plough, L.V., Polinski, M.P., Proestou, D.A., Purcell, C.M., Quiniou, S.M.A., Raymo, G., Rexroad, C.E., Riley, K.L., Roberts, S.B., Roy, L.A., Salem, M., Simpson, K., Waldbieser, G.C., Wang, H., Waters, C.D., and Reading, B.J. on behalf of The Aquaculture Genomics, Genetics and Breeding Workshop. 2025. Advancing genetic improvement in the omics era: status and priorities for United States aquaculture. *BMC Genomics*, 26(1), 155. DOI: [10.1186/s12864-025-11247-z](https://doi.org/10.1186/s12864-025-11247-z).
2. **Andersen, L.K.**, Goller, C.C., Samsa, L.A., and Sengupta, A. 2025. Navigating computational resources for the CRISPR classroom. In: Wolyniak, M.J., Pattison, D.L., Pieczynski, J.N., Santisteban, M.S. (eds) Introduction to CRISPR-Cas9 Techniques. Learning Materials in Biosciences (pp. 163-189). Springer, Cham. DOI: [10.1007/978-3-031-73734-3_11](https://doi.org/10.1007/978-3-031-73734-3_11).
3. **Andersen, L.K.**, Abernathy, J.W., Farmer, B.D., Lange, M.D., Sankappa, N.M., McEntire, M.E., and Rawles, S.D. 2025. Analysis of striped bass (*Morone saxatilis*) and white bass (*M. chrysops*) spleen transcriptome following *Streptococcus iniae* infection. *Marine Biotechnology*, 27(2), 51. DOI: [10.1007/s10126-025-10431-2](https://doi.org/10.1007/s10126-025-10431-2).
4. **Andersen, L.K.** and Reading, B.J. 2024. A supervised machine learning workflow for the reduction of highly dimensional biological data. *Artificial Intelligence in Life Sciences*, 5, 100090. DOI: [10.1016/j.ailsci.2023.100090](https://doi.org/10.1016/j.ailsci.2023.100090).
5. Rajab, S.A., **Andersen, L.K.**, Kenter, L.W., Berlinsky, D.L., Borski, R.J., McGinty, A.S., Ashwell, C.M., Ferket, P.R., Daniels, H.V., and Reading, B.J. 2024. Combinatorial metabolomic and transcriptomic analysis of muscle growth in hybrid striped bass (female white bass *Morone chrysops* x male striped bass *M. saxatilis*). *BMC Genomics*, 25(1), 580. DOI: [10.1186/s12864-024-10325-y](https://doi.org/10.1186/s12864-024-10325-y).
6. **Andersen, L.K.**, Abernathy, J.W., Farmer, B.D., Lange, M.D., McEntire, M.E., and Rawles, S.D. 2024. Gene expression profiles of white bass (*Morone chrysops*) and hybrid striped bass (*M. chrysops* x *M. saxatilis*) gill tissue following *Flavobacterium covaie* infection. *Comparative Immunology Reports*, 6, 200144. DOI: [10.1016/j.cirep.2024.200144](https://doi.org/10.1016/j.cirep.2024.200144).
7. **Andersen, L.K.**, Abernathy, J.W., Berlinsky, D.L., Bolton, G., Booker, M.M., Borski, R.J., Brown, T., Cerino, D., Ciaramella, M., Clark, R.W., Frinsko, M.O., Fuller, S.A., Gabel, S., Green, B.W., Herbst, E., Hodson, R.G., Hopper, M.S., Kenter, L.W., Lopez, F., McGinty, A.S., Nash, B., Parker, M., Pigg, S., Rawles, S., Riley, K., Turano, M.J., Webster, C.D., Weirich, C., Won, E., Woods III, L.C., and Reading, B.J. on behalf of The StriperHub. 2021. The status of striped bass *Morone saxatilis* as a commercially ready species for U.S. marine aquaculture. *Journal of the World Aquaculture Society*, 52(3), 710-730. DOI: [10.1111/jwas.12812](https://doi.org/10.1111/jwas.12812). Top download first year of publication.
8. Samsa L.A., **Andersen, L.K.**, Groth, A.M., and Goller, C.C. 2020. CRISPR/Cas9 guide RNA design *in silico* activity. *CourseSource*, 7. DOI: [10.24918/cs.2020.46](https://doi.org/10.24918/cs.2020.46).
9. **Andersen, L.K.**, Clark, R.W., Hopper, M.S., Hodson, R.G., Schilling, J., Daniels, H.V., Woods III, L.C., Berlinsky, D.L., Kovach, A.I., Kenter, L.W., McGinty, A.S., and Reading, B.J. 2021. Methods of domestic striped bass (*Morone saxatilis*) spawning that do not require the use of any hormone induction. *Aquaculture*, 533, 736025. DOI: [10.1016/j.aquaculture.2020.736025](https://doi.org/10.1016/j.aquaculture.2020.736025).
10. **Andersen, L.K.**, Clark, R.W., McGinty, A.S., Hopper, M.S., Kenter, L.W., Salger, S.A., Schilling, J., Hodson, R.G., Kovach, A.I., Berlinsky, D.L., and Reading, B.J. 2021. Volitional tank spawning of domestic striped bass (*Morone saxatilis*) using human chorionic gonadotropin (hCG) and gonadotropin releasing hormone analogue (GnRH α)-induced 'pace-setting' females. *Aquaculture*, 532, 735967. DOI: [10.1016/j.aquaculture.2020.735967](https://doi.org/10.1016/j.aquaculture.2020.735967).
11. Reading, B.J., **Andersen, L.K.**, Mushirobira, Y., Todo, T., Ryu, Y.-W., and Hiramatsu, N. 2018. Oogenesis and egg quality in aquaculture: Yolk formation and other factors influencing female fish fertility. *Fishes*, 3(4), 45. DOI: [10.3390/fishes3040045](https://doi.org/10.3390/fishes3040045).
12. Ryan, S.F., Driscoll, L., Adamson, N., Aktipis, A., **Andersen, L.K.**, Austin, R., Barnes, L., Beasley, M.R., Bedell, K.D., Bidell, K., Briggs, S., Chapman, B., Cooper, C., Corn, J., Creamer, N., Delborne, J.A., Domenico, P., Goodwin, J., Hjarding, A., Hulbert, J.M., Isard, S., Just, M.G., Kar Gupta, K., Lopez-Urbe, M., O'Sullivan, J., Landin, J., Landis, L., McKenney, E.A., Madden, A.A., Nichols, L.M., Ramaswamy, S., Reading, B.J., Russell, S., Shapiro, L.R., Shell, L., Sheard, J.K., Shoemaker, D.D., Sorger, D.M., Starling, C., Thakur, S., Vatsavai, R., Weinstein, M., Wilmfrey, P., and Dunn, R.R. 2018. The role of citizen science in the history and future of agriculture and food science. *Proceedings of the Royal Society B*, 285(1891), 20181977. DOI: [10.1098/rspb.2018.1977](https://doi.org/10.1098/rspb.2018.1977).

Reading B.J., Pottle, K.B., **Andersen, L.K.**, Ducharme, E.E., Kenter, L.W., Berlinsky, D.L., McGinty, A.S., Hopper, M.S., and Clark, R.W. Domestic striped bass (*Morone saxatilis*) broodstock diets, fecundity, and egg quality. *Accepted to the Journal of the World Aquaculture Society, in editorial review.*

Andersen, L.K., Abernathy, J.W., Sankappa, N.M., Farmer, B.D., Lange, M.D., McEntire, M.E., and Rawles, S.D. Gill immune response variation between striped bass (*Morone saxatilis*) and white bass (*M. chrysops*) during initial *Aeromonas veronii* infection. *In preparation for submission.*

Andersen, L.K., Ducharme, E.E., Sheoran, D., Carter, R.E., Valdivia-Granda, W.A., and Reading, B.J. Insights into heterosis of hybrid striped bass via motif-fingerprinting. *In preparation for submission.*

Andersen, L.K., Ducharme, E.E., Rajab, S.A.S., Khan, F., Kenter, L.W., Berlinsky, D.L., Borski, R.J., and Reading, B.J. Machine learning analysis of integrated metabolomic and transcriptomic pathways of striped bass (*Morone saxatilis*) growth. *In preparation for submission.*

Andersen, L.K., Cush, M., Williams, V.N., Islam Williams, T., Collins, L.B., Reading, B.J. Proteomic profiling of preovulatory oocytes and ovulated eggs from striped bass via machine learning. *In preparation for submission.*

HONORS, AWARDS, AND FELLOWSHIPS

2021-2022	Center for Environmental Farming Systems Graduate Fellow North Carolina State University
2021-2022	Association for International Agriculture and Rural Development Future Leaders Fellow
2020-2021	Peer Mentorship Award North Carolina State University Department of Applied Ecology
2020	David and Ann Speaks Coastal Conservation Association Scholarship North Carolina CCA
2019	James A. Rice Graduate Award North Carolina State University Student Fisheries Society
2018	Best Student Poster Finalist 148 th American Fisheries Society Meeting in Atlantic City, NJ
2018	Borlaug Summer Institute on Global Food Security Participant Purdue University
2018	Student Travel Award United States Aquaculture Society (WAS-USAS)
2013	Howard Hughes Medical Institute Fellowship Franklin & Marshall College

PROFESSIONAL DEVELOPMENT AND OUTREACH

2025-Present	Aquaculture Coordinator Chair. National Research Support Project (NRSP-8) Genomic Capacity: Building Applied Genomic Capacity for Animal Industries
2020-2025	Selection Committee. American Fisheries Society Hutton Junior Fisheries Biology Program
2023	Organizer, Participant. Aquaculture Genomics, Genetics & Breeding Coordinators Meeting
2022-2023	Honors Thesis Committee Member. Kate Pottle, Davidson College (Davidson, NC)
2017-2023	Facility Guide. North Carolina State University aquaculture facilities
2022	Author and Speaker. Where Does Our Seafood Come From? North Carolina State University <i>Wicked Problems, Wolfpack Solutions</i> Multidisciplinary Course (DOI: 10.52750/273688)
2022	Person-in-Charge. Southeast District & State 4-H Finals Fisheries & Aquatics category
2021-2022	Communications Team. Association for International Agriculture and Rural Development
2021-2022	Representative. The StriperHub Aquaculture Consortium (NOAA Sea Grant) at the 36 th and 37 th Annual North Carolina Seafood Festival in Morehead City, NC
2021-2022	Graduate Student Representative to Faculty. NCSU Department of Applied Ecology
2018-2022	Participant. North Carolina State University Teaching and Communication program
2020-2021	Selected Participant. North Carolina State University Preparing the Professoriate Program

2020	President. North Carolina State University Student Fisheries Society
2020	Representative. NCSU College of Agriculture and Life Sciences Donor Appreciation Event
2018-2020	Volunteer. American Fisheries society Hutton Junior Fisheries Biology Program pen-pal
2019-2020	Volunteer. Big Rock Sportfishing Tournament necropsy and sample collection team
2019	Co-Organizer. NCSU Faculty, Students, Alumni, & Friends Reception at the Wildlife Society & American Fisheries Society Meeting in Reno, NV (>80 attendees)
2019	Secretary. North Carolina State University Student Fisheries Society
2018-2019	Treasurer. North Carolina State University Zoology Graduate Student Association
2018	Volunteer. Margaret B. Pollard Middle School Envirothon Aquatics curriculum instructor
2018	Invited Exhibitor. Never Home Alone: A Gala of Stories, Foods, and Insights from the Study of Life in Homes hosted by Dr. Robert Dunn
2018	Volunteer. State 4-H Finals Fisheries & Aquatics category judge
2018	Representative. US Chapter of the World Aquaculture Society booth at the North Carolina Aquaculture Development Conference in New Bern, NC
2016	Representative. US Environmental Protection Agency Office of Environmental Education at the USA Science and Engineering Festival in Washington, DC

Affiliations World Aquaculture Society (US Chapter), National Aquaculture Association, American Fisheries Society, NCSU Student Fisheries Society, Coastal Conservation Association of North Carolina, Trustee of the Board for the Mullen Andersen Children's Foundation and Trust

Certifications Institutional Animal Care and Use Committee (IACUC); Research, Ethics, Compliance, and Safety Training (CITI); Hazardous Waste Operations and Emergency Response (HAZWOPER) and Hazard Communication Standard (HCS, GHS); Red Cross Cardiopulmonary Resuscitation (CPR) and Bloodborne Pathogen; QPR Institute Gatekeeper: Crisis Response and Intervention

PRESENTATIONS

1. **Andersen, L.K.**, Abernathy, J.W., Farmer, B.D., Lange, M.D., Sankappa, N.M., McEntire, M.E., Rawles, S.D. 2025. Identifying transcriptomic signatures of striped bass, white bass, and hybrid striped bass immune response through machine learning modeling. International Plant and Animal Genome Conference 32. January 11. San Diego, CA, USA. *Oral presentation.*
2. **Andersen, L.K.**, Williams, V.N., Islam Williams, T., Collins, L.B., Reading, B.J. 2024. Striped bass *Morone saxatilis* egg quality: proteomic profiling of preovulatory oocytes and ovulate eggs via machine learning. Aquaculture America 2024 World Aquaculture Society Meeting. February 20. San Antonio, TX, USA. *Oral presentation.*
3. **Andersen, L.K.**, Valdivia-Granda, W., Reading, B.J. 2024. Insight into production traits and heterosis of hybrid striped bass *Morone chrysops* X *M. saxatilis* via motif-fingerprinting. International Plant and Animal Genome Conference 31. January 13. San Diego, CA, USA. *Oral presentation.*
4. **Andersen, L.K.** 2024. US aquaculture genome research. International Plant and Animal Genome Conference 31. January 13. San Diego, CA, USA. *Oral presentation.*
5. **Andersen, L.K.**, Ducharme, E.E., Reading, B.J. 2023. Machine learning analysis of integrated transcriptomic and metabolomic pathways of striped bass *Morone saxatilis* growth. Aquaculture America 2023 World Aquaculture Society Meeting. February 26. New Orleans, LA, USA. *Oral presentation.*
6. **Andersen, L.K.**, Valdivia-Granda, W., Reading, B.J. 2022. Expression profile analysis via machine learning to identify critical genes determinant of hybrid striped bass *Morone chrysops* x *M. saxatilis* growth. Aquaculture 2022 World Aquaculture Society Triennial Meeting. March 3. San Diego, CA, USA. *Oral presentation.*

7. **Andersen, L.K.** 2022. Machine learning analysis of genes underlying growth performance in aquacultured fish (Genus *Morone*). Center for Environmental Farming Systems (CEFS) Board of Advisors Meeting. January 19. Raleigh, NC, USA. *Virtual format*.
8. **Andersen, L.K.** 2021. Machine learning analysis of genes underlying growth performance in aquacultured fish (Genus *Morone*). The Association of International Agriculture and Rural Development (AIARD) “Fireside Chat” featuring AIARD 2021 Future Leaders Forum Members. November 18. *Virtual format*.
9. **Andersen, L.K.**, Baltzegar, D., Fuller, A., Abernathy, J., Reading, B.J. 2019. Striped bass *Morone saxatilis* genome assembly and tools. The American Fisheries Society and The Wildlife Society 2019 Joint Conference. October 3. Reno, NV, USA. *Oral presentation*.
10. **Andersen, L.K.**, Baltzegar, D.A., Fuller, A., Abernathy, J., Reading, B.J. 2019. The striped bass *Morone saxatilis* genome sequence assembly. Aquaculture 2019 World Aquaculture Society Triennial Meeting. March 10. New Orleans, LA, USA. *Oral presentation*.
11. **Andersen, L.K.**, Reading, B.J., Daniels, H.V., Hinshaw, J., Borski, R.J., Hall, S. 2018. Aquaculture in North Carolina. College of Agriculture and Life Sciences, Carter-Finley Football Day. October 6. Raleigh, NC, USA. *Poster, invited*.
12. **Andersen, L.K.**, Clark, R.W., Hopper, M.S., Salger, S.A., Kenter, L.W., Berlinsky, D.L., McGinty, A.S., Reading, B.J. 2018. Captive spawning of domestic striped bass (*Morone saxatilis*) using photothermal induction procedures that do not rely on hormones. The 148th Annual Meeting for the American Fisheries Society. August 20. Atlantic City, NJ, USA. *Poster*.
13. **Andersen, L.K.** 2018. Student Panel on Sustainability—Dimensions of sustainability: aquaculture case study. The 2018 Borlaug Summer Institute on Global Food Security at Purdue University. June 6. West Lafayette, IN, USA. *Oral presentation, invited*.
14. **Andersen, L.K.**, Reading, B.J. 2018. Improving striped bass growth for the farmer. The 32nd Annual Meeting of the Tidewater Chapter of the American Fisheries Society. January 26. Beaufort, NC, USA. *Oral presentation*.

CO-AUTHORED PRESENTATIONS

1. Reading, B.J., Salem, M., Roberts, S., Thompson, N., **Andersen, L.K.**, Phelps, M. 2025. The NRSP-8 National Aquaculture Genome Research Program. Aquaculture 2025 World Aquaculture Society Triennial Meeting. March 9. New Orleans, LA, USA. *Oral presentation, invited*.
2. Reading, B.J., **Andersen, L.K.**, Borski, R.J., Herbst, E. 2025. Striperhub: Business Meeting and Culture Manual Development. Aquaculture 2025 World Aquaculture Society Triennial Meeting. March 9. New Orleans, LA, USA.
3. Reading, B.J., **Andersen, L.K.**, Borski, R.J., Cerino, D., Kenter, L.W., Frinsko, M.O., Hall, S., Herbst, E. 2025. Striperhub: Overview of striped bass *Morone saxatilis* aquaculture. Aquaculture 2025 World Aquaculture Society Triennial Meeting. March 9. New Orleans, LA, USA. *Oral presentation*.
4. Reading, B.J., **Andersen, L.K.**, Kowalchuk, C., Namgung, J., Mushirobira, Y., Todo, T., Hiramatsu, N. 2025. Vitellogenesis in fishes. Aquaculture 2025 World Aquaculture Society Triennial Meeting. March 8. New Orleans, LA, USA. *Oral presentation, invited*.
5. Herbst, E., **Andersen, L.K.**, Abernathy, J.W., Berlinsky, D.L., Bolton, G., Borski, R.J., Cerino, D., Ciaramella, M., Clark, R.W., Frinsko, M.O., Fuller, S.A., Gabel, S., Green, B.W., Hall, S., Hopper, M., Kenter, L.W., Lopez, F., Nash, B., Parker, M., Quagraine, K., Wang, H., Reading, B.J. 2025. Striperhub: Striped Bass *Morone saxatilis* aquaculture. Aquaculture 2025 World Aquaculture Society Triennial Meeting. March 8. New Orleans, LA, USA.
6. Sankappa, N.M., Boregowda, K.K., Kallappa, G.S., **Andersen, L.K.**, Thangavel, S., Abernathy, J.W. 2024. Isolation and characterization of phage AHFM11 against hypervirulent *Aeromonas hydrophila* and its use in aquaculture as a therapeutant. Aquaculture America 2024 World Aquaculture Society Meeting. February 19. San Antonio, TX, USA. *Oral presentation*.
7. Reading, B.J., **Andersen, L.K.**, Abernathy, J., Berlinsky, D.L., Bolton, G., Borski, R.J., Cerino, D., Ciaramella, M., Clark, R.W., Frinsko, M.O., Fuller, S.A., Gabel, S., Green, B.W., Hall, S., Herbst, E., Hopper, M., Kenter, L.W., Lopez, F., Nash, B., Parker, M., Quagraine, K., Rawles, S., Wang, H. 2023. StriperHub: Farm-Raised Striped Bass. Rotary Club of Raleigh. December 4. Raleigh, NC, USA. *Oral presentation*.

8. Reading, B.J., **Andersen, L.K.**, Abernathy, J., Berlinsky, D.L., Bolton, G., Borski, R.J., Cerino, D., Ciaramella, M., Clark, R.W., Frinsko, M.O., Fuller, S.A., Gabel, S., Green, B.W., Hall, S., Herbst, E., Hopper, M., Kenter, L.W., Lopez, F., Nash, B., Parker, M., Quagraine, K., Rawles, S., Wang, H. 2023. StriperHub: Farm-Raised Striped Bass. North Carolina State University, Department of Animal Science. October 6. Raleigh, NC, USA. *Invited seminar*.
9. Reading, B.J., **Andersen, L.K.**, Abernathy, J., Berlinsky, D., Bolton, G., Borski, R., Cerino, D., Ciaramella, M., Clark, R.W., Frinsko, M., Fuller, S.A., Gabel, S., Green, B., Hall, S., Herbst, E., Hopper, M., Kenter, L., Lopez, F., Nash, B., Parker, M., Quagraine, K., Rawles, S., Wang, H. 2023. StriperHub: Striped bass *Morone saxatilis* aquaculture. Aquaculture America 2023 World Aquaculture Society Meeting. February 26. New Orleans, LA, USA.
10. Borski, R.J., Salger, S.A., Mankiewicz, J.L., **Andersen, L.K.**, Lee, W.F., Reading, B.J. 2023. Reduced Frequency Feeding in growout of domestic striped bass *Morone saxatilis* in recirculating aquaculture systems. Aquaculture America 2023 World Aquaculture Society Meeting. February 26. New Orleans, LA, USA. *Oral presentation*.
11. Reading, B.J., Borski, R.J., **Andersen, L.K.**, Herbst, E. C. 2023. StriperHub Business Meeting. Aquaculture America 2023 World Aquaculture Society Meeting. February 26. New Orleans, LA, USA.
12. Reading, B.J., Borski, R.J., **Andersen, L.K.**, Herbst, E. C. 2023. StriperHub Culture Manual. Aquaculture America 2023 World Aquaculture Society Meeting. February 26. New Orleans, LA, USA.
13. Pottle, K.B., **Andersen, L.K.**, Reading, B.J. 2023. StriperHub and the National Breeding Program for the striped bass industry. Aquaculture America 2023 World Aquaculture Society Meeting. New Orleans, LA, USA. *Poster*.
14. Reading, B.J., Rajab, S., **Andersen, L.K.**, Ducharme, E.E., Kowalchuk, C.K. 2022. Artificial Intelligence and machine learning for discovery and predicted outcomes in animal systems. Food Animal Innovation Summit, Animal Health and Nutrition Consortium. September 26-28. Raleigh, NC, USA. *Oral presentation, invited*.
15. Reading, B.J., **Andersen, L.K.**, Kowalchuk, C., Namgung, J., Mushirobira, Y., Todo, T., Hiramatsu, N. 2022. Vitellogenesis in Fishes. Aquaculture 2022 World Aquaculture Society Triennial Meeting. March 2. San Diego, CA, USA. *Oral presentation, invited*.
16. Suresh, N., Spang, D., **Andersen, L.K.**, Sengupta, A. 2021. Adapting experimental CRISPR CLONInG protocols for a biotechnology teaching lab at NC State University. State of North Carolina Undergraduate Research and Creativity Symposium. November 11. Virtual Presentation. Raleigh, NC, USA. *Poster*.
17. Reading, B.J., Kowalchuk, C., **Andersen, L.K.**, Fischer, J., Mushirobira, Y., Todo, T., Hiramatsu, N. 2019. Impact of environmental estrogens on vitellogenin and hybrid striped bass reproduction (Vitellogenesis in Fishes). EDC-NC: Endocrine Disruption Special Interest Group of the Center for Human Health and the Environment. April 5. Research Triangle Park Raleigh, NC, USA. *Oral presentation, invited*.
18. Abernathy, J., **Andersen, L.K.**, Rawles, S., Schilling, J., Fuller, A., McEntire, M., Reading, B.J., Beck, B.H., Peatman, E. 2019. Development and enhancement of white bass *Morone chrysops* resources for genetic improvement of hybrid striped bass. Aquaculture 2019 World Aquaculture Society Triennial Meeting. March 10. New Orleans, LA, USA. *Oral presentation*.
19. Rajab, S.A., Ducharme, E., **Andersen, L.**, McGinty, A., Hopper, M., Daniels, H.V., Reading, B.J. 2019. An in-depth view of sunshine hybrid striped bass (male *Morone saxatilis* X female *M. chrysops*) growth performance using transcriptomics analysis of muscle tissue. Aquaculture 2019 World Aquaculture Society Triennial Meeting. March 10. New Orleans, LA, USA. *Oral presentation*.
20. Ducharme, E.E., Rajab, S.A., **Andersen, L.K.**, McGinty, A.S., Hopper, M., Borski, R.J., Woods III, L.C., Berlinsky, D.L., Kenter, L.K., Reading, B.J. 2019. Understanding sunshine hybrid striped bass (female *Morone chrysops* x male *M. saxatilis*) growth using metabolomic analysis of liver tissues. Aquaculture 2019 World Aquaculture Society Triennial Meeting. March 10. New Orleans, LA, USA. *Oral presentation*.
21. Reading, B.J., **Andersen, L.K.**, Schilling, J., Mushirobira, Y., Todo, T., Hiramatsu, N. 2019. Vitellogenesis in fishes. Aquaculture 2019 World Aquaculture Society Triennial Meeting. March 9. New Orleans, LA, USA. *Invited*.
22. Ducharme, E.E., Rajab, S.A., **Andersen, L.K.**, McGinty, A.S., Hopper, M., Borski, R.J., Woods III, L.C., Berlinsky, D.L., Kenter, L., Reading, B.J. 2019. Identifying metabolite growth markers of sunshine hybrid striped bass (Female *Morone chrysops* x Male *M. saxatilis*) through liver tissue analysis. Northeast Aquaculture Conference and Exposition. January 9-11. Boston, MA, USA. *Oral presentation*.

23. Reading, B.J., Clark, R.W., McGinty, A.S., Hopper, M.S., **Andersen, L.K.**, Ducharme, E.E., Rajab, S., Kenter, L.W., Berlinsky, D.L. 2018. NC State University updates on The National Program for Genetic Improvement and Selective Breeding for the Hybrid Striped Bass Industry. Invited Symposium, Striped Bass Growers Association Industry Forum. Aquaculture America 2018. February 22. Las Vegas, NV, USA. *Oral presentation, invited.*
24. Reading, B.J., Clark, R.W., McGinty, A.S., Hopper, M.S., Salger, S.A., **Andersen, L.K.**, Kenter, L.W., Berlinsky, D.L. 2018. Methods of domestic striped bass *Morone saxatilis* spawning that do not require the use of any hormonal induction procedures. Aquaculture America 2018. February 21. Las Vegas, NV, USA. *Oral presentation.*
25. Reading, B.J., Salger, S.A., Rajab, S., **Andersen, L.K.**, Ducharme, E.E., Clark, R.W., Hopper, M.S., Pigg, S., Dunn, R.R., Daniels, H.V., McGinty, A.S., Berlinsky, D.L., Kenter, L., Kovach, A., Woods III, L.C. 2017. The National Program for Genetic Improvement and Selective Breeding for the Hybrid Striped Bass Industry. North Carolina State University, Department of Applied Ecology Seminar Series. September 28. Raleigh, NC, USA. *Oral presentation, invited.*
26. Reading, B.J., Clark, R.W., **Andersen, L.K.**, Hopper, M., McGinty, A.S. 2017. National Program for Genetic Improvement and Selective Breeding for the Hybrid Striped Bass Industry. North Carolina Southeast District Aquaculture Advisory Committee Meeting. May 18. North Carolina State University, Pamlico Aquaculture Field Laboratory, Aurora, NC, USA. *Oral presentation, invited.*

MENTORSHIP

NCSU Undergraduate Research Projects

Fatma Khan (2018-2022), Microbiologist at Teleflex; Neha Suresh (2021), Biosecurity Research Fellow at Pivotal Research, Research Fellow at BioAstra, Co-Founder of Utero Diagnostics; Daniel Spang (2021), Manufacturing Associate III at Biogen; Sasha Periera (2020-2021), School to Science Program Director at Science Moab; Connor Neagle (2018-2020), completed Master of Science program at NCSU in 2024; Michael McKnight (2017-2019), Provost Professional Experience Program Award Recipient, completed Master of Engineering program at NCSU in 2022, Graduate Electronics Engineer at Cambridge Design Partnership; Eric Crozier (2017-2020), currently employed at a coastal research station; Karnie Yang (2018-2019), Research Associate II at Natera; Erica Burnett (2018-2019), seeking employment; Caleb Crutchfield (2018-2019), Park Scholar, Fraud Investigator at Open Desk, Inc.; Tyler Coriano (2017-2019), Energy Portfolio Technical Program Manager at Google; Fara Marin (2017-2019), Provost Professional Experience Program Award Recipient, completed Doctor of Veterinary Medicine program in 2024, is a practicing DVM; Kenneth Erickson (2017-2018), NOAA Ernest F. Hollings Undergraduate Scholar, completed Master of Science program at LSU in 2020, 2021 NOAA Sea Grant Knauss Fellow, USFWS Congressional and Legislative Affairs Specialist.

NCSU Biotechnology Sequencing-Based Undergraduate Research Experience (BIT SURE)

Irene Faizi (2021), Process Development Engineer I at Caribou Biosciences; Meadow Hansen (2021), Lead Clinical Informatics Specialist at Oak Street Health; Melanie Garcia (2019), currently enrolled in a Doctor of Philosophy program at Clemson University; Malik Lindsay (2018), Data Platform Engineer II at Jamf; Cheyenne Lee (2018), completed Doctor of Philosophy program at Emory University in 2024.

Center for Environmental Farming Systems Agroecology Scholars Program in Research and Extension (CEFS ASPIRE)

Kate Pottle (2022), completed an Honors Thesis at Davidson College and graduated with honors in 2023, completed Master of Science program at Auburn University in Fall 2024, currently enrolled in doctorate program at Auburn.

NCSU Creating Awareness of Agriculture and Life Sciences Disciplines, Degree, and Discoveries (CAALS 3-D)

Annie Allen (2022), Lauryn Cooper (2022), Samuel Lantner (2022), Abraham Cunningham (2022), Laura Isabel (2019), Aniya Woods (2018), Alexander Stanford (2018), Jasmine Lucas (2018), Ezra Melaku (2018), Alexia Woodward (2017), Isabel Huesa (2017). *All currently working towards Bachelor of Arts or Science degrees.*

NCSU Department of Applied Ecology Peer Mentorship Program

William Freimuth (2021), Kate Gorman (2021), Mariely Vega (2021). *Then-enrolled in graduate programs at NCSU.*