

EDUCATION

Doctor of Philosophy in Ecology, Evolution, and Marine Biology, University of California, Santa Barbara 2018 – June 2024

Master of Arts, Ecology, Evolution and Marine Biology 2023

Bachelor of Arts, Integrative Biology (Ecology, Evolution, and Organismal Biology), High Distinction, University of California, Berkeley, GPA: 3.94 2017

Associate of Arts (2 of 4 degrees), Chemistry, Biology with Highest Honors, Santa Barbara City College 2015

PUBLICATIONS

19. Oyinlola MA, Khorsandi M, Mayer N, Butler N, **Van Wert JC**, Eliason EJ, Arsenault R, Brauner CJ, Hinch SG, St-Hilaire A. Evaluating the effectiveness of the current Nechako water management program on Chinook salmon under climate change scenarios. *Clim. Change*. In review.
18. **Van Wert JC**, Ekström AE, Gilbert MJH, Hendriks B, Cooke SJ, Patterson DA, Hinch GS, Eliason EJ. (2024). Coronary circulation enhances the aerobic performance of wild Pacific salmon. *J Exper Biol*.
17. **Van Wert JC**, Birnie-Gauvin K, Landfield K, Gallagher J, Burkepile DE, Eliason EJ. (2024). Despite plasticity, heatwaves are costly for a coral reef fish. *Sci Rep*.
16. Ekström AE, Hendriks B, **Van Wert JC**, Gilbert M, Farrell AP, Cooke SJ, Patterson DA, Hinch SG, Eliason EJ. (2023). Impairing cardiac oxygen supply in swimming coho salmon compromises their heart function and tolerance to acute warming. *Sci Rep*.
15. Schwieterman GD, Hardison EA, Cox G, **Van Wert JC**, Birnie-Gauvin K, Eliason EJ. (2023). Mechanisms of cardiac collapse at high temperature in a marine teleost (*Girella nigricans*). *CBPA*.
14. **Van Wert JC**, Ezzat L, Munsterman K, Landfield K, Schiettekatte N, Parravicini V, Casey J, Brandl S, Burkepile DE, Eliason EJ. (2023). Fish feces reveal diverse nutrient sources for coral reefs. *Ecol*.
13. Schiettekatte N, Casey JM, Brandl SJ, Mercière A, Degregori S, Burkepile D., **Van Wert JC**, Villéger S, Parravicini V. (2023). The role of fish feces for nutrient recycling on coral reefs. *Oikos*.
12. **Van Wert JC**, Hendriks B, Ekström AE, Patterson DA, Cooke SJ, Hinch GS, Eliason EJ. Population variability in thermal performance of pre-spawning adult Chinook salmon. *Cons Phys*.
11. Eliason EJ, Muir CA, **Van Wert JC**, Ekström AT. Thermal sensitivity of cardiac performance: Implications for sustainable fisheries. *Encyclopedia of Fish Physiology*.
10. Guerra AS, **Van Wert JC**, Haupt A, White T, Lecchini D, Eliason E, McCauley D, Caselle J. (2023). Diverse intraspecific differences between a shoaling and solitary coral reef fish. *Ecol and Evol*.
9. Rogers LS, **Van Wert JC**, Mensinger AF. (2022). Utricular sensitivity to multimodal inputs in the toadfish, *Opsanus tau*. *J Neurophysiol*.
8. Eliason, EJ, **Van Wert JC**, Schwieterman GD. (2022). Fish Physiology 39A: Conservation Physiology for the Anthropocene – A Systems Approach. Chapter 4: Applied Aspects of the Cardiorespiratory System.
7. Rempel H., Siebert A, **Van Wert JC**, Bodwin KN, Ruttenberg BI. (2022). Feces consumption by nominally herbivorous fishes in the Caribbean: an underappreciated source of nutrients? *Coral Reefs*.
6. Hardison E, Kraskura K, **Van Wert JC**, Nguyen T, Eliason EJ. (2021). Diet mediates thermal performance traits: implications for marine ectotherms. *J Exper Biol*.
5. **Van Wert JC**, Weinstein S, Kinsella M, Tkach V, and Lafferty KD. (2019). Southern California and range-wide raccoon gastrointestinal helminth database. *Ecol*.
4. Weinstein S, **Van Wert JC**, Kinsella M, Tkach V, Lafferty KD. (2019). Infection at an ecotone: cross system foraging increases satellite parasites, but decreases core parasites in a coastal raccoon population. *Ecol*.
3. **Van Wert JC** and Mensinger AF. (2019). Seasonal and daily patterns of the mating calls of the oyster toadfish, *Opsanus tau*. *Biol Bull*. 236(2).
2. Mensinger AF, **Van Wert JC**, and Rogers LS. (2019). Lateral line sensitivity in free swimming toadfish, *Opsanus tau*. *J Exper Biol*.
1. Rogers LS, **Van Wert JC**, and Mensinger AF. (2017). An implantable two axis micromanipulator made with a 3D printer for recording neural activity in free-swimming fish. *J Neurosci Methods* 288:29-33.

CONFERENCE
PRESENTATIONS

Oral

- *Metabolic recovery of marine Chinook salmon from catch-and-release fishing.* **Van Wert JC**, Hendriks B, Johnston S, Zinn K, Hinch SG, Eliason EJ. International Congress on the Biology of Fish. Ann Arbor, Michigan. June 2024.
- *Heart function and pathology are linked to the migration success of Pacific salmon.* **Van Wert JC**, Birnie-Gauvin K, Robinson KA, Patterson DA, Eliason EJ. Canadian Society of Zoologists. William S. Hoar Award Finalist. Moncton, Canada. May 2024.
- *Gotta catch 'em all: A Guide to best practices in the salmon fishery.* **Van Wert JC**, Hendriks BJ, Zinn K, Johnston S, Patterson DA, Eliason EJ, Hinch SG. Ecology, Evolution and Marine Biology Graduate Student Symposium. Santa Barbara, CA. Feb. 2024.
- *Metabolic recovery of catch and released Chinook salmon.* **Van Wert JC**, Hendriks BJ, Zinn K, Johnston S, Patterson DA, Eliason EJ, Hinch SG. Salmonids Migrations, Ecology and Management 18th Annual Research Symposium. Vancouver, Canada. Feb. 2024.
- *For some, a good run while it lasted: variation in thermal tolerance among Chinook salmon.* **Van Wert JC**, Hendriks BJ, Ekström A, Patterson DA, Cooke SJ, Hinch SG, Eliason EJ. Ecology, Evolution and Marine Biology Graduate Student Symposium. Virtual. Feb. 2021.
- *Population-specific variability in the thermal performance of Fraser River Chinook salmon.* **Van Wert JC**, Hendriks BJ, Ekström A, Patterson DA, Cooke SJ, Hinch SG, Eliason EJ. Society for Integrative and Comparative Biology Annual Conference. Virtual. Jan. 2021.
- *Population-specific vulnerability to warming temperatures in Fraser River Chinook Salmon.* **Van Wert JC**, Hendriks BJ, Ekström A, Patterson DA, Cooke SJ, Hinch SG, Eliason EJ. The American Fisheries Society Annual Conference. Best Student Presentation Finalist. Virtual. Sep. 2020.
- *The effect of self-generated movement on lateral line sensitivity in the toadfish, Opsanus tau.* **Van Wert JC**, Rogers LS, Mensinger AF. Society for Integrative and Comparative Biology Annual Conference. San Francisco, CA. Jan. 2018.
- *Metabolic responses of photosynthetic sea slugs to a changing environment.* **Van Wert JC**. University of California, Berkeley Research Symposium. Berkeley, CA. Dec. 2016.
- *The effects of temperature, intraspecific, and environmental noise on oyster toadfish (Opsanus tau) mating calls.* **Van Wert JC**, Mensinger AF. Marine Biological Laboratory Undergraduate Symposium. Woods Hole, MA. Aug. 2015.
- *Characterizing the parasite community in local raccoons (Procyon lotor).* **Van Wert JC**, Weinstein SB, Kuris AM. University of California, Santa Barbara Undergraduate Summer Symposium. Santa Barbara, CA. Aug. 2014.

Poster

- *Jamming avoidance response in oyster toadfish, Opsanus tau.* **Van Wert JC**, Mensinger AF. Society for Integrative and Comparative Biology Annual Conference. New Orleans, LA. Jan. 2017.
- *Chronically implanted micromanipulator for recording neural activity from free-swimming fish.* Mensinger AF, Rogers LJ, **Van Wert JC**. Society for Integrative and Comparative Biology Annual Conference. New Orleans, LA. Jan. 2017.
- *The effects of temperature, intraspecific, and environmental noise on oyster toadfish (Opsanus tau) mating calls.* **Van Wert JC**, Mensinger AF. Society for Integrative and Comparative Biology Annual Conference. Portland, OR. Jan. 2016.

Contributed

- *Physiological and genomic evidence of differential thermal performance in Kokanee salmon.* Mayer N, Elmer LK, **Van Wert JC**, Dressler T, Birnie-Gauvin K, Hendriks BJ, Li S, Miller KM, Hinch SG, Eliason EJ, Russello M. American Fisheries Society. Honolulu, HI. Sep 2024.
- *Physiological and genomic evidence of differential thermal performance in kokanee salmon.* Mayer N, Elmer LK, **Van Wert JC**, Dressler T, Birnie-Gauvin K, Hendriks BJ, Li S, Miller KM, Hinch SG, Eliason EJ, Russello M. International Congress on the Biology of Fish. Ann Arbor, MI. Jun 2024.
- *Exploring the heart of migration: Comparative analyses of cardiac health on migration outcomes in sockeye salmon.* Feenstra M, **Van Wert JC**, Eliason EJ. Undergraduate Research Symposium. Santa Barbara, CA. Apr 2024.
- *Hypoxia lowers cardiac thermal limits in a marine teleost (Girella nigricans).* Schwieterman G, Hardison E, Cox G, **Van Wert JC**, Birnie-Gauvin K, Eliason EJ. Society for Experimental Biology. Montpellier, France. Jul 2022.

- *Impairing cardiac oxygen supply in swimming coho salmon compromises their heart function and thermal tolerance to acute warming.* Ekström A, **Van Wert JC**, Hendriks B, Gilbert M, Cooke S, Farrell A, Hinch S, Eliason EJ. International Congress on the Biology of Fish. Montpellier, France. Jul 2022.
- *Rapid acclimation capacity at the tissue level in a salmonid.* Birnie-Gauvin K, **Van Wert JC**, Mayer N, Hendriks B, Hinch S, Eliason E. International Congress on the Biology of Fish. Montpellier, France. Jul 2022.
- *Life stage- and sex-specific differences in the upper thermal tolerance of Kokanee salmon (*Oncorhynchus nerka*).* Mayer N, **Van Wert JC**, Birnie-Gauvin K, Hendriks B, Hinch S, Eliason E. Canadian Conference for Fisheries Research. Vancouver, BC, Canada. Feb 2022.
- *Diet alters thermal performance traits in a marine omnivorous fish (*Girella nigricans*).* The Society for Experimental Biology. Hardison E, Kraskura K., **Van Wert JC**, Ngyuen T, Eliason EJ. Virtual. 2021.
- *Coprophagy by herbivorous fishes in the Caribbean: Quantifying species-specific rates and nutritional drivers.* International Coral Reef Symposium. Siebert A, Rempel H, **Van Wert JC**, Ruttenberg B. Virtual. 2020.
- *Multimodal sensory integration of the utricle in freely swimming toadfish, *Opsanus tau*.* Rogers LS, **Van Wert JC**, Mensinger AF. Society for integrative and Comparative Biology Annual Conference. Austin, TX. Jan. 2020.
- *Long term PAM to investigate temporal and anthropogenic effects on oyster toadfish, *Opsanus tau* mating vocalizations.* Mensinger AF, Putland RL, **Van Wert JC**, Mackiewicz AG. Acoustical Society of America. San Diego, CA. Dec. 2019.
- *Infection at an ecotone: Cross-system foraging increases satellite parasites, but decreases core parasites in a coastal raccoon population.* Weinstein S, **Van Wert JC**, Kinsella M, Tkach V, Lafferty KD. American Society of Parasitologists. Rochester, NY. Jul. 2019.
- *Lateral line activity during self-generated movement in free swimming toadfish, *Opsanus tau*.* Mensinger AR, **Van Wert JC**, Rogers LS. J.B. Johnston Club for Evolutionary Neuroscience Annual Meeting. San Diego, CA. Nov. 2018.
- *The Effect of Self-Generated Movement on Lateral Line Sensitivity in the Toadfish, *Opsanus tau*.* Rogers LS, **Van Wert JC**, Mensinger AF. American Fisheries Society, Atlantic City, NJ. Aug. 2018.
- *The effect of self-generated movement on lateral line sensitivity in the toadfish, *Opsanus tau*.* Rogers LS, **Van Wert JC**, Mensinger AF. MN Chapter of the American Fisheries Society, St. Cloud, MN. 2018.
- *Complex acoustic signaling in the toadfish, *Opsanus tau*.* Mensinger AF, **Van Wert JC**. Acoustical Society of America. Boston, MA. June 2017.

COLLABORATIONS AND RESEARCH EXPEDITIONS	University of British Columbia – Bamfield, Vancouver Island, BC, Canada	2023
	<ul style="list-style-type: none"> • Measured the metabolic recovery of ocean-phase Chinook salmon after angling using novel boatside respirometry • Collaborators: S. Hinch, E. Eliason 	
	NOAA Pacific Islands Fisheries Science Center– Honolulu, HI	2023
	<ul style="list-style-type: none"> • Assessed the effect of economic exclusion zones on bycatch of protected species using random forest models • Collaborators: T. Todd Jones, R. Ahrens, Z. Siders 	
	University of British Columbia – Kootenays, BC, Canada	2021-2022
	<ul style="list-style-type: none"> • Measured the thermal tolerance and metabolic performance of Kokanee salmon throughout BC, Canada using streamside respirometry • Collaborators: S. Hinch, Freshwater Fisheries Society 	
	Simon Fraser University – Fraser River, BC, Canada	2022
	<ul style="list-style-type: none"> • Deployed radiotags on Pacific Salmon along the Fraser River • Collaborators: D. Patterson, K. Birnie-Gauvin, Department of Fisheries and Oceans Canada 	
	Carleton University – Ontario, Canada	2021
	<ul style="list-style-type: none"> • Measured cardiac performance in migrating Pacific salmon • Collaborators: A. Ekström, S. Cooke, W. Twardek 	
	University of British Columbia – Cultus Lake Laboratory, BC, Canada	2019
	<ul style="list-style-type: none"> • Assessed the function of the heart during warming in coho salmon • Collaborators: A. Ekström, D. Patterson, S. Hinch, S. Cooke, M. Gilbert 	
	University of California – Mo’orea, French Polynesia	2017, 2019

	<ul style="list-style-type: none"> Investigated fecal nutrient input across functional groups of coral reef fish Collaborators: N. Schiettekatte, D. Burkepile 	
	Marine Biological Laboratory of Woods Hole – MA, USA	2015 – 2018
	<ul style="list-style-type: none"> Investigated fish sensory systems and behavior using neuroscience and bioacoustics Collaborators: A. Mensinger 	
AWARDS AND HONORS	Best student oral presentation. International Congress on the Biology of Fish.	2024
	Canadian Society of Zoology Travel Award	2024
	Annabelle B. Bush Memorial Scholar	2023
	P.E.O. Scholar Award	2023
	Folds of Honor Scholarship	2022
	Umihiko Hoshijima Graduate Award for Ocean Conservation	2022
	American Fisheries Society J. Frances Allen Scholarship Award	2022
	American Fisheries Society Eugene Maughan Graduate Student Scholarship	2022
	SICB Charlotte Magnum Student Support Award	2021
	SICB Public Affairs Committee Student Intern	2021
	Finalist in American Fisheries Society Best Student Presentation Competition	2021
	NSF REU at the Marine Biological Laboratory, Woods Hole	2015
	Santa Barbara City College Highest Honors	2015
	Biological Sciences Outstanding Student of the Year, Santa Barbara City College	2015
	Center for Science and Engineering Partnerships Summer Internship, UCSB	2014
	Plant Biology Student of the Year, Santa Barbara City College	2014
INVITED TALKS	Monthly Meeting, P.E.O.	2023
	Neural Systems and Behavior, University of Minnesota, Duluth	2023
	Kokanee GeneSolve Annual Meeting, University of British Columbia	2022
	Pacific Salmon Ecology and Conservation Lab, University of British Columbia	2021
	Diving Club, Santa Barbara City College	2021
	SciTrek Eliason Lab Research, UCSB	2020
	Animal Physiology EEMB 157B, Digestion, UCSB	2020
FELLOWSHIPS AND GRANTS	NSF INTERN Supplemental Funding- \$38,000	2023
	Individualized Professional Skills Grant, UCSB- \$1000	2023
	Schmidt Mentorship Fellowship - \$9000	2023
	Society of Experimental Biology Company of Biologists Travel Grant- \$1000	2022
	Graduate Student Association Travel Grant, UCSB- \$200	2020, 2022
	Technology Grant- \$1200	2022
	Individualized Professional Skills Grant, UCSB- \$800	2019
	Nejat B. Ezal Fellowship- \$2500	2019
	NSF Graduate Research Fellowship- \$138,000	2018
	UCSB Chancellor's Fellowship- \$72,000	2018
	Biology Travel Grant, NSF- \$1000	2017
	REU Student-Mentor Travel Scholarship, NSF- \$1500	2016
	William Olivarius Scholarship, Santa Barbara City College- \$1000	2015
	Joe W. Dobbs Scholarship, Santa Barbara City College- \$250	2014
REVIEWED JOURNALS	Fish Physiology Book Chapter (1), Journal of Thermal Biology (2), Animal Behaviour (1), ICES Journal of Marine Science (1), Physiological and Biochemical Zoology (1), Conservation Physiology (2), Canadian Journal of Fisheries and Aquatic Sciences (1)	
PROFESSIONAL MEMBERSHIPS	Diversity, Equity, Inclusion and Wellness at UCSB	2020 – current
	Fisheries Society of the British Isles	2022 – current
	Society for Experimental Biology	2021 – current
	American Fisheries Society	2018 – current
	Sigma Xi	2021 – current

WORKSHOPS AND MEETINGS	<u>Hosted:</u>	
	<ul style="list-style-type: none"> • Estuarine Fish Ecology with Santa Barbara City College 2022 • Scientific Illustration Workshop at UCSB 2019 	
	<u>Attended:</u>	
	<ul style="list-style-type: none"> • Bycatch Summit, Pacific Islands Fisheries Science Center 2023 • Western Pacific Regional Fishery Management Council 2023 • Microaggressions 2022 • Professional Training on Mutual Respect 2021 • UC Fieldwork Toolkit Leadership Training Series 2021 • Building a Better Fieldwork Future: Preventing and Managing Sexual Harassment in the Field 2021 • COMPASS science communication workshop 2021 • Schmidt Ocean Institute science communications workshop 2019 • Field respirometry workshop for government scientists, stakeholders, and academics 2018, 2019 	
TEACHING AND MENTORSHIP	<u>Instruction</u>	
	<ul style="list-style-type: none"> • Teaching assistant, Transfer Seminar Course, UCSB 2021 • Teaching assistant, Methods in Field Biology, Santa Barbara City College 2015, 2019 • Marine Science Naturalist, Camp SEA Lab, Monterey, CA 2018 • Laboratory Teaching Assistant, Santa Barbara City College 2015 	
	<u>Instructional Development</u>	
	<ul style="list-style-type: none"> • Center for Innovative Teaching, Research, and Learning Seminar Series 2020 • Mentor Training: Learning Across Identities, Experiences, and Cultures 2020 	
	<u>Undergraduate Mentorship</u>	
	Hollis Kinnard (now M.S. student at University of British Columbia), Gretchen MacNaughton, Madison Feenstra, Yvette Gaytan, Maya Gorgas (now M.S. from Georgetown), Haley Glassman (now Ph.D. candidate at Florida International University), Claire Anderson (now M.S. student at University of California Santa Barbara), Robert Beard, Chandler Campbell, Fatima Verduzco-Uribe	
LEADERSHIP	<ul style="list-style-type: none"> • AFS J. Frances Allen Award Committee Chair 2023 • Science Advisor for Whale Tale Grant, San Jose, CA 2020 - Current • CURIE-osity Girls Inc. Site organizer and leader 2019 - 2022 • American Fisheries Society Climate Ambassador 2021-2022 	
COMMUNITY ENGAGEMENT	<ul style="list-style-type: none"> • Science by the pint speaker 2024 • SBCC Biology Club guest speaker 2024 • SciTrek Salmon guest speaker 2023 • Graduate student panel- UCSB Aquatic Biology • School for Scientific Thought lab tour 2023 • AFS Hutton Pen Pal 2022 • Point person for UCSB EEMB Undergraduate Open House 2022 • Invited student speaker EEMB 502 Teaching Techniques 2022 • Science as a Career Outreach Project Experiment (SCOPE), Ventura, CA (5 high school visits) 2020 - Current • Science-Line Scientist 2019 - 2022 • Invited student speaker EEMB 508 Seminar 2021 • SACNAS Statement of Purpose Feedback Session 2021 • American Fisheries Society Graduate Student Panel Speaker 2021 • Invited graduate student speaker (SBCC Biology Club, UCSB Freshman Seminar, University of Minnesota Duluth) 2019 • Ocean Day Volunteer, Santa Barbara, CA 2019 	

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- Puna Reo Elementary site visit volunteer, Mo'orea, French Polynesia 2019
 - Family Ultimate Science Exploration (FUSE) volunteer 2017
 - California Coastal Commission education intern 2017
 - Ocean Society of UC Berkeley, Secretary 2017

CERTIFICATIONS CPR and First Aid, Wilderness First Aid, EPI-pen, California Boater's License, AAUS SCUBA, NAUI Search and Rescue, PADI Advanced Open Water, 70 logged dives.

SCIENCE
COMMUNICATION

4. The marvel-ous world of science. 2022. <https://www.newswise.com/articles/the-marvel-ous-world-of-science>
3. Who's dam busy? 2021. <https://sicb.org/whos-dam-busy/>
2. Subtle changes beneath the terrain: An interview with Dr. Morgan Kelly. 2021. <https://integrativeandcomparativebiology.wordpress.com/sicb-icb-mangum-student-volunteers-sci-comm/>
1. Elephant seals: A conservation success story in your backyard. Published blog post for California Coastal Commission. 2017. <https://thecacoast.tumblr.com/post/157913187162/elephant-seals-a-conservation-success-story-in>