

ANNA M. STURROCK *(née Lewis)*

EDUCATION

- 2022 Fellow of the Higher Education Academy (AdvanceHE)
- 2008-2012 PhD in Ocean and Earth Science. National Oceanography Centre, Southampton (NOCS), University of Southampton, and Centre for the Environment, Fisheries & Aquaculture Science (Cefas). Thesis: *Environmental and physiological influences on otolith chemistry in a marine fish*. Supervisors: Drs Clive Trueman and Ewan Hunter.
- 2006-2008 MSc in Marine Science (Distinction). University of Otago. Thesis: *Connectivity of sea perch (Helicolenus percooides) populations in southern New Zealand*. Supervisor: Professor Steve Wing.
- 2001-2004 BSc in Biological Sciences (First Class Honours in Zoology). University of Edinburgh. Thesis: *The current incidence of imposex in grouped populations of dogwhelks (Nucella lapillus) in the Firth of Forth, UK*. Supervisor: Dr Chris Inchley
- 1996-2000 Dane Court Grammar School. 5As at A-level (Biology, Chemistry, Music, English, General Studies).

PROFESSIONAL EMPLOYMENT & WORK EXPERIENCE

- 2022- **UKRI Future Leaders Fellow** - University of Essex, School of Life Sciences.
- 2021- **Consultant** for the Public Policy Institute of California (Think Tank: *Storing Water for the Environment: Operating Reservoirs to Improve California's Freshwater Ecosystems*)
- 2020- **Lecturer (Assistant Professor)** - University of Essex, School of Life Sciences
- 2017-2020 **Senior Researcher and PI** – University of California Davis, Centre for Watershed Sciences.
- 2019-2020 **Consultant** for the Delta Stewardship Council (reviewing their *Ecosystem Amendment Performance Measures*).
- 2015-2017 ----- *Two periods of maternity leave* -----
- 2016-2017 **Postdoctoral scholar and PI** - University of California Davis, Centre for Watershed Sciences.
- 2016 **Postdoctoral scholar** - University of California Berkeley with Dr Stephanie Carlson. *Managing natural resources for adaptive capacity: The Central Valley Chinook salmon portfolio*.
- 2014-2016 **Delta Science Postdoctoral Fellow and PI** - University of California Berkeley with Drs Stephanie Carlson and Rachel Johnson. *Scaling of the portfolio effect in California Central Valley Chinook salmon: trends and implications*.
- 2012-2014 **Postdoctoral scholar and NOAA affiliate** - University of California Santa Cruz/NOAA with Dr Rachel Johnson.
- 2007 **Scientific diver** - University of Otago and New Zealand Department of Conservation, PI: Prof. Stephen Wing.
- 2005 **Production assistant** - BBC Natural History Unit.
- 2004 **Behavioural ecologist** - Humpback whale Acoustic Research Collaboration (HARC). Collaborators: University of Queensland (UQ), Scripps and Woods Hole Oceanographic Institutions. PI: Dr Mike Noad (UQ).
- 2004 **Science officer** – University of Edinburgh expedition to study geographic dialect in the Great Call of agile gibbons (*Hylobates agilis*) in Borneo, Indonesia.
- 2003 **EUCARE expedition leader** to survey coral reefs in Madagascar with the Edinburgh University students and the Université de Toliara.

ESTEEMED ROLES AND AWARDS

- 2022- **Plenary speaker** for the International Otolith Symposium (Chile - 2023), the World Fisheries Congress Meeting, (Australia - 2022) and the International Workshop of PhDs and Post-doctoral Fellows on Anadromous Salmonids (France - 2022)
- 2023 **University of Essex Public Voice Scholar**
- 2023 **Convener of the FSBI Symposium *Fish Habitat Ecology in a Changing Climate*** at the University of Essex in July 2023 (<https://fsbi.org.uk/symposium-2023/>)
- 2023 **Steering committee and session convener of ICES conference *Human Impacts on Marine Functional Connectivity*** meeting in Portugal in May 2023 (<https://www.ices.dk/events/symposia/ImpactsMFC/Pages/default.aspx>)
- 2023- **Editorial Board of Fish and Fisheries**, Wiley Publishing.
- 2023 **PhD internal examiner**. *Howard Freeman, University of Essex*
- 2022- **Member of the UKRI Peer Review College** providing expert review for Future Leaders Fellowship applications.
- 2022 **Winner of the University of Essex's Research and Impact Outstanding Early Career Researcher Award 2022**
- 2022- **Invited speaker** for the Scottish Fisheries Coordination Centre, Marine Scotland, the University of Oxford's Ecology & Conservation section, the Centre for Ecological and Evolutionary Synthesis, University of Oslo, ICES Working Group on the History of Fish and Fisheries (WGHIST) and the UK National Oceanography Centre.
- 2022- University of Essex School of Life Sciences **Deputy Director of Impact**
- 2022 **Expert reviewer** for the European Commission's Horizon-funded European Doctoral Program in Energy And Environment / Marie Skłodowska Curie Actions
- 2022- **Supervisory Panel Chair** – Patrick Keith (PhD – 2021-), Russell Connelly (MSD – 2021/22) - University of Essex.
- 2021 **PhD external examiner**. *Josh Barrow, University of Melbourne, Australia*
- 2021 **PhD external examiner**. *Stina Kolodzey, University of Otago, New Zealand*.
- 2020- **Convener of the University of Essex Life Sciences Seminar Series**
- 2019 **PhD external examiner**. *Jasmin Martinho, University of Adelaide, Australia*.

TEACHING & MENTORSHIP

- 2022- **PhD supervisor** (2022 - Peter Betts; 2023 - Marion Lefebvre du Prey and Lucy Smith).
- 2022- **MSD supervisor** (2022 - Felix Astejada)
- 2022- **Module lead.** University of Essex. BS258 – Virtual Field Course.
- 2020- **Lecturer.** University of Essex. BS251 - Marine Biodiversity, BS254 - Marine Vertebrates, BS354 - Fisheries Ecology; BS832 – Research Project in Life Sciences, BS782: Research Project - MSc in Tropical Marine Biology
- 2021- **MSc supervisor** (2020 – Luke Harrison; 2021 – Lorna McKellar)
- 2019 **Lecturer.** UC Davis Environmental Policy and Management MSc program; ENV 297 - Professional Development Seminar; ENV 200A - Analysis of Environmental Policy.
- 2019 **Lecturer.** UC Davis Department of Wildlife, Fish, and Conservation Biology BSc program; WFCB 10 - Wildlife Ecology and Conservation; WFCB 120 - Biology and Conservation of Fishes.
- 2019 **Lecturer.** UC Berkeley Environmental Science, Policy & Management Fish Ecology BSc program/ Wildlife, Fisheries, and Conservation Biology Seminar.
- 2016-20 **Mentor/supervisor.** UC Davis Hired/mentored 11 Student Assistants, 3 Junior Specialists, 1 post-doc
- 2016 **Lecturer.** University of Alaska Fairbanks, College of Fisheries and Ocean Sciences. FISH 493 - Salmon & Society.
- 2008-2012 **Teaching assistant.** University of Southampton BSc program; SOES 2006 - Phytoplankton & Primary Production.
- 2006-2008 **Educator.** New Zealand Marine Studies Centre & on the Gifted & Talented Education Program - Otago, New Zealand.
- 2005-2008 **Private tutor.** Osborne Cawkwell Tuition, London. GCSE (all sciences), A-level biology & chemistry.

SELECTED REPORTS & PUBLICATIONS

1. Morissette, O, Trueman, C.T., Sturrock, A.M., et al. Limited evidence for species-specific influence on temperature-dependent sensitivity of oxygen stable isotope fractionation in biominerals: a meta-analysis *Methods in Ecology and Evolution* (in press)
2. Harrison, L., Engelhard, G., Thurston, R., Sturrock, A.M. Widening mismatch between UK seafood production and consumer demand: A 120-year perspective. *Reviews in Fish Biology and Fisheries* (in press)
3. Null, S., Mount, J., Gray, B., Dybala, K., Sencan, G., Sturrock, A.M., Thompson, H., Zeff, H. (2022) Policy Brief: Storing Water for the Environment. <https://www.ppic.org/wp-content/uploads/policy-brief-storing-water-for-the-environment.pdf>
4. Reis-Santos, P., Gillanders, B.M., Sturrock, A.M., et al. (2022) Reading the biomineralized book of life: Expanding otolith biogeochemical research and applications for fisheries and ecosystem-based management. *Reviews in Fish Biology and Fisheries*
5. Sturrock, A.M., Ogaz, M., Neal, K., Peek, R., Corline, N., Levinson, M., Myers, D., Schlupe, S., Johnson, R.C., Jeffres, C (2022) Floodplain trophic subsidies support juvenile salmon in a highly altered river network. *Landscape Ecology*. 37, 2991–3009 (2022).
6. Keeley, A.T.H., Fremier, A.K., Goertler, P.A.L, Huber, P.R., Sturrock, A.M. et al. (2022) Governing ecological connectivity in cross-scale dependent systems. *BioScience* 72(4) p.372-386
7. Cordoleani, F., Phillis, C.C., Sturrock, A.M., Whitman, G., Johnson, M., Johnson, R.C. (2021) Threatened salmon rely on a rare life history strategy in a warming landscape *Nature Climate Change* 11, p.982-988.
8. Hüsey, K., Limburg, K.E., Pontual, H., Thomas, O.R.B., Cook, P.K., Heimbrand, Y., Blass, M., Sturrock, A.M. (2020) Trace element patterns in otoliths: The role of biomineralization, *Reviews in Fisheries Science & Aquaculture* <https://doi.org/10.1080/23308249.2020.1760204>
9. Sturrock, A.M., Carlson, S.M., Wikert, J.D., Heyne, T., Nusslé, S., Merz, J, Sturrock, H., Johnson, R.C. (2020) Unnatural selection of salmon life histories in a modified riverscape. *Global Change Biology* 26 (3), 1235-1247. <https://doi.org/10.1111/gcb.14896>.
10. Phillis, C.C., Sturrock, A.M., Johnson, R.C., Weber, P.K. (2018) Endangered winter-run Chinook salmon rely on diverse rearing habitats in a highly altered landscape. *Biological Conservation* 217, 358-362.
11. Darnaude, A.M., Sturrock, A.M., Trueman, C.T., EIMF, Mouillot, D, Campana, S.E., Hunter, E. (2014). Listening in on the past: what can otolith $\delta^{18}\text{O}$ really tell us about the environmental history of fishes? *PLoS ONE* 9(10): e108539
12. Sturrock, A.M., Trueman, C.T., Milton J.A., Waring, C.P., Cooper, M., Hunter, E. (2014). Physiological influences can outweigh environmental signals in otolith microchemistry research. *Marine Ecology Progress Series* 500, 245-64

SELECTED GRANTS

- 2022-24 Developing a bass tissue bank for the study of connectivity between European coastal nursery habitats.** PI: Michelle Taylor; Co-I with Dr Tom Cameron. Fisheries Industry Science Partnership/DEFRA (£246k).
- 2022-26 From Ions to Ecosystems: A Novel Framework for the Biomonitoring and Management of Vulnerable and Commercial Fishes.** PI - UKRI Future Leaders Fellowship (£1.7m)
- 2020-24 COST Action CA19107 - Unifying Approaches to Marine Connectivity for improved Resource Management for the Seas – SEA-UNICORN.** Core member and leader of Working Group 1. PI = Dr Audrey Darnaude (CNRS). (COST €500k).
- 2020-22 Synthesis of juvenile salmon growth, condition and Delta habitat use among extreme hydrologic conditions.** Co-PI with Dr. Rachel Johnson. Delta Science Program (\$372k).
- 2019-22 Juvenile salmon distribution, abundance, and growth in restored & relict Delta marsh habitats.** Co-PI with Drs Brett Harvey (DWR); Lenny Grimaldo, Jason Hassrick (ICF); Rachel Johnson, Steve Lindley, Correigh Greene (NOAA); Carson Jeffres (UC Davis). Department of Water Resources (\$2.1m).
- 2019-21 Eyes and ears: Using lens & otolith isotopes to quantify critical rearing habitats for salmon viability.** Co-PI with Drs Carson Jeffres & Rachel Johnson. California Department of Fish & Wildlife (CDFW) (\$838k).
- 2016-19 Reconstructing juvenile salmon growth, condition and delta habitat use in the 2014-15 drought & beyond.** PI mentored by Drs Rachel Johnson & Michael Miller (UC Davis). CDFW (\$800k).
- 2014-16 Scaling of the portfolio effect in California Central Valley Chinook salmon: trends and implications.** PI mentored by Drs Rachel Johnson (NOAA) and Stephanie Carlson (UCB). Delta Science Fellowship Program & California Sea Grant (\$145k).