



Elizabeth LAMAN TRIP

Marine Biologist

CONTACT DETAILS



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Languages

- French (mother tongue)
- English (bilingual)

WORK HISTORY AND EXPERIENCE

- 2023 – **Founder of HalieuMer**, Consultancy firm, Fish Biology Services, Arzon, France
- 2015-2023 **Lecturer, Nelson Marlborough Institute of Technology (NMIT)**, Nelson, New Zealand. Department of Aquaculture et Marine Conservation. *Permanent position*
- 2011-2014 **Lecturer, Massey University**, Auckland, New Zealand. Department of Natural Sciences.
- 2010-2011 **Post-doctoral researcher, King Abdullah University of Science and Technology (KAUST)**, Saudi Arabia. Red Sea Research Center
- 2005-2010 **Teaching assistant, Auckland University**, Auckland, New Zealand
- 2007-2008 **Research Assistant, National Institute for Water and Atmospheric research (NIWA)**, Auckland, New Zealand.
- 2001-2002 **Research Assistant, James Cook University (JCU)**, Townsville, Australia.

ACADEMIC QUALIFICATIONS

- 2005-2010 **PhD**, Biological Sciences, The University of Auckland, New Zealand
- 2001-2004 **MSc (by research)**, Biological Sciences, James Cook University, Townsville, Australia
- 1996-2000 **BSc Honours**, Population biology and marine ecosystems biology, European University Institute for the Sea, University of Western Brittany (Brest, France), University of Rennes I (Rennes, France) and University of Southern Brittany (Vannes, France)

AREAS OF EXPERTISE AND RESEARCH

- **Otolith processing and age estimation** in fish from **marine** (Gulf of Gascogne, Indian Ocean, Pacific Ocean, Red Sea) and **freshwater** (Pacific salmon, trout, perch, eel) environments
- **Age validation** techniques (species worked on include: F. Labridae, Scarinae, Sparidae, Acanthuridae, Chaetodontidae, Serranidae, Monacanthidae, Salmonidae, Percidae, Anguillidae, ...)
- Relationship between **size, age, and sexual maturity**, analysis of **growth, and growth models**
- **Environmental impacts** (temperature, fishing, abundance, nutritional ecology, ...) on life history traits including age, size, growth rate, timing of sexual maturity, life span, mortality
- Analysis of intra- and inter-specific **geographical variation** in growth rate, sexual maturity, life span
- Species **reproductive biology** and **diagnosis** of sexual maturation, gonad ontogeny, sex change, ...
- Otolith crystallisation analysis and presence of vaterite in otoliths as a marker of stress in farmed fish (Pacific salmon, trout)

FIELD EXPERIENCE, DATA COLLECTION AND ANALYSIS

Field experience :

- Offshore sampling (south Pacific, Red Sea, Great Barrier Reef, fjords, New Zealand)
- Spear fishing freediving and on scuba
- Inshore sampling (estuaries, seagrass beds, coastal reefs, coral reefs)

Data collection and sampling :

- Sex id, measurements, dissection of otoliths, gonads, stomach contents
- Species abundance, id : quadrants, ...
- Collection of environmental data (temperature, salinity, oxygen levels, ...)

Data analysis :

- Sclerochronology (otoliths, age, ...)
- Modelling of growth
- Histology (gonads, reproduction, sexual maturity, sex change)
- Environmental impacts and geographical variation of life history traits

Tools used :

- Statistical analysis : Visual Basic for Excel, Statistica, Primer-E, R
- Database management : Microsoft Access
- Analyse d'images : ImageJ

Rédaction and results writing :

- Publication of results
- Technical reports writing

<http://goo.gl/tyiLBU> ; <https://www.researchgate.net/profile/Elizabeth-Trip>

Publications in peer-reviewed scientific journals (13)

- (1) DiBattista, J.D., Taylor, B.M., Hobbs, J-P.,A., Sinclair-Taylor, T.H., Coker, D.J., **Trip, E.D.L.**, Choat, J.H., Lozano-Cortés, D., Kandler, N.M., Berumen, M.L. (2021) Growth patterns of specialized reef fishes distributed across the Red Sea to Gulf of Aden. **Environmental Biology Fishes** 104: 967-976
- (2) Visconti, V., **Trip, E.D.L.**, Griffiths, M.H., Clements, K.D. (2020) Geographic variation in life-history traits of the long-lived monacanthid *Meuschenia scaber* (Monacanthidae). **Marine Biology** 167: 18-31
- (3) Visconti, V., **Trip, E.D.L.**, Griffiths, M.H., Clements, K.D. (2018) Life-history traits of the leatherjacket *Meuschenia scaber*, a long-lived monacanthid. **Journal of Fish Biology** 92: 470-486
- (4) Visconti, V., **Trip, E.D.L.**, Griffiths, M.H., Clements, K.D. (2017) Reproductive biology of the leatherjacket, *Meuschenia scaber* (Monacanthidae) (Forster 1801) in the Hauraki Gulf, New Zealand. **New Zealand Journal of Marine and Freshwater Research**, 52(1): 82-99
- (5) **Trip, E.D.L.**, Clements, K.D., Raubenheimer, D., Choat, J.H. (2016) Temperate marine herbivorous fishes will likely do worse, not better, as waters warm up. **Marine Biology** 163(2): 1-8
- (6) Sabetian, A., **Trip, E.D.L.**, Wheeler, P., Sands, L., Wakefield, S., Visconti, V., Banda, F. (2015) Biological plasticity of non-native European Perch (*Perca fluviatilis*) populations and the implications for management. **New Zealand Journal of Marine and Freshwater Research**, 49(1): 119-131
- (7) **Trip, E.D.L.**, Craig, P., Green, A., Choat, J.H. (2014) Recruitment dynamics and first year growth of the coral reef surgeonfish *Ctenochaetus striatus*, with implications for acanthurid growth models. **Coral Reefs**, 33: 879-889
- (8) **Trip, E.D.L.**, Clements, K.D., Raubenheimer, D., Choat, J.H. (2013) Temperature-related variation in growth rate, size, maturation, and lifespan in a marine herbivorous fish over a latitudinal gradient. **Journal of Animal Ecology**, 83: 866-875
- (9) Berumen, M.L., **Trip, E.D.L.**, Pratchett, M.S., Choat, J.H. (2012) Differences in demographic traits of four butterflyfish species between two reefs of the Great Barrier Reef separated by 1,200 km. **Coral Reefs**, 31: 169-177
- (10) **Trip, E.D.L.**, Clements, K.D., Raubenheimer, D., Choat, J.H. (2011) Reproductive biology of an odacine labrid, *Odax pullus*. **Journal of Fish Biology**, 78: 741-761
- (11) **Trip, E.D.L.**, Raubenheimer, D., Clements, K.D., Choat, J.H. (2011) Reproductive demography of a temperate protogynous and herbivorous fish, *Odax pullus* (Labridae, Odacini). **Marine and Freshwater Research**, 62: 176-186
- (12) Ochavillo, D., Tofaeonoa, S., Sabatera, M., **Trip, E.L** (2011) Population structure of *Ctenochaetus striatus* (Acanthuridae) in Tutuila, American Samoa: The use of size-at-age data in multi-scale population size surveys. **Fisheries Research**, 107: 14-21
- (13) **Trip, E. L.**, Choat, J.H., Wilson, D.T., Robertson, D.R. (2008) Inter-oceanic analysis of demographic variation in a widely distributed Indo-Pacific coral reef fish. **Marine Ecology-Progress Series**, 373: 97-109

Book chapters (1)

- (1) Taylor, B.M., **Trip, E.D.L.**, Choat, J.H. (2018) Dynamic demography: investigations of life-history variation in the parrotfishes. In: The biology and ecology of parrotfishes. Edited by AS Hoey, and R. Bonaldo. CRC Press, Taylor & Francis Group, Melbourne, Australia

Technical reports (2)

- (1) Ochavillo, D., Tofaeono, S., Sabatera, M., **Trip, E.L** (2008) Demographic analysis of a target reef fish species in Tutuila Island, American Samoa: implications for fishery management, **NOAA Tech. Memo.**, 23-24
- (2) Reed, J., Depree, C., **Trip, E.**, Chappell, P. and Talbot, N. (2008). Sampling receiving environments close to State Highways. **NIWA Client Report** 2008-035

CONFERENCE PRESENTATIONS

International conference presentations (5)

- (1) **International Symposium on Fish Otolith Research and Application (2004), Townsville, Australia.** *Can we identify predictable patterns in life-history in a widely distributed coral reef fish?* **E.D.L Trip**, J.H. Choat.
- (2) **Indo-Pacific Fish Conference (2009), Perth, Australia.** *Latitudinal variation in life history traits of the marine temperate herbivorous fish Odax pullus (Labridae) across New Zealand.* **E.D.L Trip**, J.H. Choat, K.D. Clements, D. Raubenheimer
- (3) **International Society for Reef Studies (2010), Wageningen, The Netherlands.** *Large scale variation in demographic traits of four butterflyfishes (Chaetodontidae) on the Great Barrier Reef, Australia.* M.L Berumen, **Trip E.D.L.**, M. Pratchett M, J.H. Choat
- (4) **Indo-Pacific Fish Conference (2013), Okinawa, Japan.** *Demographic variation in a coral reef fish across ocean basins: from the Pacific Ocean to the Red Sea.* **E.D.L. Trip**, J.H. Choat, D.E. Raitso, T.J. Alpermann, S. Mutz, M.L. Berumen
- (5) **Evolutionary Demography Society conference (2013), Odense, Denmark.** *Latitudinal variation in lifespan within an ectothermic species is associated with differences in the rate of aging.* **E.D.L Trip**, J.H. Choat, K.D. Clements, D. Raubenheimer

Other conference presentations (3)

- (1) **New Zealand Marine Science Society Conference (2007), Hamilton, New Zealand.** *Latitudinal variation in the demography of a marine herbivorous fish: the New Zealand butterflyfish* *Odax pullus*. **E.D.L. Trip**, J.H. Choat, D. Raubenheimer, K.D. Clements
- (2) **New Zealand Marine Science Society Conference (2009), Auckland, New Zealand.** *Latitudinal effects on the life history of a temperate marine herbivorous fish, Odax pullus (Labridae)*. **E.D.L. Trip**, J.H. Choat, D. Raubenheimer, K.D. Clements
- (3) **New Zealand Marine Science Society Conference (2015), Auckland, New Zealand.** *Temperate marine herbivorous fishes will likely do worse, not better, as waters warm up*. **E.D.L. Trip**, J.H. Choat, D. Raubenheimer, K.D. Clements

Invitation to contribute to Working Groups (1)

- (1) **Invitation to present to the Group « Southern Inshore Stock Assessment Working Group », New Zealand Ministry of Fisheries, Wellington (2010).** *Age and growth of butterflyfish* *Odax pullus* *across New Zealand*. **E.L. Trip**, J.H. Choat, D. Raubenheimer, K.C. Clements

Plenary invitation at international conference (1)

- (1) **Invitation to present as plenary speaker at the Evolutionary Demography Society conference in Odense, Denmark (2013)** *Latitudinal variation in lifespan within an ectothermic species is associated with differences in the rate of aging*. **E.D.L. Trip**, J.H. Choat, K.D. Clements, D. Raubenheimer

Posters at international conferences avec comité de lecture (1)

International Symposium on Fish Otolith Research and Application (2004). *Sexual size dimorphism in* *Ctenochaetus striatus: an age-based analysis across the Indo-Pacific region*. **E.D.L. Trip**, J.H. Choat, D.R. Robertson, D.T. Wilson

COMMUNITY SERVICES

- **Reviewer for scientific journals** including :
Aquaculture Fish and Fisheries, Aquatic Biology, Cahiers de Biologie Marine, Coral Reefs, Deep Sea Research part II, Ecology, Environmental Biology of Fishes, Fisheries Management and Ecology, Fisheries Research, Functional Ecology, Journal Animal Ecology, Journal Fish Biology, Marine Freshwater Research, Marine Ecology Progress Series, Nature Scientific Reports, PLoS One, Transactions American Fisheries Society
- **Animal ethics committee member**, NMIT, Nelson, New Zealand 2015 - 2021
- **Board member** of PhD student confirmation panels, Institute of Natural and Mathematical Sciences, Massey University, and **external reviewer** for MSc theses
- **Member** of the NZ Marine Science Society, Evolutionary Demography Society, Fisheries Society of the British Isles
- **Coordination of team meetings**, NMIT, New Zealand; **member of the organizing committee** of the weekly INMS seminar series, Massey University (NZ)
- **Course coordinator** and **course development** for the marine conservation biology courses, NMIT Nelson
- **PhD supervisor** (2) and **MSc supervisor** (2)
- **Supervision** of undergraduate and postgraduate research projects
- **On-line teaching** and development of on-line course material (Moodle, Stream)
- **Development of otolith laboratories** and **mentoring** of postgraduate students and research staff on laboratory techniques for estimating age in fish, analytical techniques to model growth in fish, and analysis of gonad histology.