D'Arcy Webber

EXPERIENCE

Quantifish Limited, Tauranga — *Director*

MARCH 2012 - PRESENT

I began Quantifish in 2012 to provide quantitative fisheries science consulting services. I registered the company Quantifish Ltd in 2017. I have successfully completed contracts for the Ministry for Primary Industries (MPI), the National Oceanic and Atmospheric Administration (NOAA), the National Institute for Water and Atmospheric Research (NIWA), the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), and more. Contracts have included several rock lobster stock assessments with management procedure evaluations, development of length structured stock assessment models, seabird and marine mammal risk assessments (including the Hectors and Maui dolphin threat management plan), reviewing shellfish Working Groups, supporting the scientific process for CCSBT as the independent consultant, and more.

University of Washington, Seattle — *Postdoctoral Fellow*

FEBRUARY 2016 - JUNE 2017

The development of assessment models for Alaskan Crab stocks. These assessments and associated code are freely available online on GitHub (https://github.com/seacode/gmacs).

Ministry for Primary Industries (MPI), Wellington — *Science Officer*

JANUARY 2011 - FEBRUARY 2012

At MPI I provided technical support to further the development of advice on sustainability measures and worked to refine the overall fisheries management framework. I helped produce the annual plenary documents, and supported the annual fisheries science working group process.

EDUCATION

Victoria University of Wellington, Wellington — *PhD Statistics*

2012 - 2015

Thesis: Complexity in Fisheries Stock Assessment. My thesis includes the development of age-structured state-space stock assessment models, the development of new methods for analysing PSAT data, and research on

SUMMARY

I have a passion for the ocean, especially fish. If I am not out fishing, you will likely find me talking about fish, or modelling fish populations. I have a unique set of skills with a background in biology, ecology, statistics, and modelling.

CONTACT DETAILS

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Hairini
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New Zealand

021 0233 0163

KEY SKILLS

Highly motivated, focused and willing to learn. Capable and keen to learn complex analytical skills and can do so quickly and independently

Can work well independently or as part of a team and possess good leadership skills

Excellent project management, and written and oral communication skills

Ninja programming skills, particularly R, C++, Stan, ADMB, LaTeX, Rmd, and more

A Bayesian inference wizard

Bayesian emulation and Bayesian inference.

Canterbury University, Christchurch — *MSc with First Class Honours in Ecology*

2008 - 2010

Thesis: Demography and Population Projections of the invasive tunicate Styela clava in Southern New Zealand.

Canterbury University, Christchurch — *BSc Biological Sciences*

2005 - 2007

PRIMARY PUBLICATIONS

Arimitsu M.L., Hobson K.A., **Webber D.N.**, Piatt J.F., Hood E.W., Fellman J.B. (2018). Tracing biogeochemical subsidies from glacier runoff into Alaska's coastal marine food webs. *Global Change Biology*, 24: 387-398. https://doi.org/10.1111/gcb.13875

Breen P.A., Branson A.R., Bentley N., Haist V., Lawson M., Starr P.J., Sykes D.R., **Webber D.N.** (2016). Stakeholder management of the New Zealand red rock lobster (*Jasus edwardsii*) fishery. *Fisheries Research, 183: 530-538.*

Webber D.N., Thorson J.T. (2015). Variation in growth among individuals and over time: A case study and simulation experiment involving tagged Antarctic toothfish. *Fisheries Research, 180: 67-76.*

Webber D.N., Parker S. (2012). Estimating unaccounted fishing mortality in the Ross Sea region and Amundsen Sea (CCAMLR Subareas 88.1 and 88.2) bottom longline fisheries targeting Antarctic toothfish. *CCAMLR Science, 19: 17-30.*

SELECTED TECHNICAL REPORTS

Webber D.N., Starr P.J., Haist V., Rudd M., Edwards C.T.T. (2018). The 2017 stock assessment and management procedure evaluation for rock lobsters (*Jasus edwardsii*) in CRA 2. *New Zealand Fisheries Assessment Report, 2018/17, 87 p.*

Breen P.A., Starr P.J., Haist V., Edwards C.T.T. & **Webber D.N.** (2017). The 2016 stock assessment and management procedure review for rock lobsters (*Jasus edwardsii*) in CRA 4. *New Zealand Fisheries Assessment Report, 2017/29, 88 p.*

Webber D.N. & Starr P.J. (2015). The 2014 stock assessment of rock lobsters (*Jasus edwardsii*) in CRA 1 and development of management procedures. *New Zealand Fisheries Assessment Report, 2015/38, 103 p.*

Webber D.N. & McKinlay J. (2011). PlotImpact - software for producing image plots of spatially referenced impact assessments. *WG-FSA-11/51 (CCAMLR Fisheries Stock Assessment Working Group).*

SCHOLARSHIPS

Ministry of Fisheries Postgraduate Scholarship in Quantitative Fisheries Science 2012-2014

Victoria Doctoral Scholarship from Victoria University of Wellington 2012-2014

Bikerton-Widdowson Scholarship for Academic Excellence from Hagley Community College 2005-2007

AWARDS

New Zealand Statistical Association prize for top student oral presentation 2012

Ministry of Fisheries Prize for Student Oral Paper Making the Best Use of Quantitative Methodology, New Zealand Marine Sciences Society Conference 2010, 2012 and 2014

PROFESSIONAL AFFILIATIONS

Member of the following Ministry for Primary Industries Working Groups: Antarctic, Aquatic Environment, Deepwater, Rock Lobster, Stock Assessment Methods