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*David Jeffrey Welch*

## PRESENT POST

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### **Director & Senior Scientist**

C<sub>2</sub>O Pacific & C<sub>2</sub>O Fisheries, Port Vila, Vanuatu

### **Adjunct Principal Research Fellow**

Centre for Sustainable Tropical Fisheries and Aquaculture, James Cook University, Australia

## SKILLS AND EXPERIENCE

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- Research funding proposal development
- Fisheries management plan development
- Project management
- Data and information synthesis
- Workshop organization and facilitation
- Community and stakeholder engagement
- Fishery sectoral engagement (communication, education, socio-economic surveys)
- Effects of climate change on fisheries
- Development and implementation of marine training programs (monitoring, management plans, etc.)
- Pacific and Indian Ocean fisheries development (training and planning)
- Coastal resource management capacity building in Pacific communities
- Community-based marine monitoring approaches
- Alternative livelihoods as fisheries management options
- Leadership and partnership development

## QUALIFICATIONS

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<b>1998-2001</b>	<b>Master of Science – Fisheries Biology</b> James Cook University, Department of Marine Biology, Townsville, Australia
<b>1995-1997</b>	<b>Masters Qualifying</b> James Cook University, Department of Marine Biology, Townsville, Australia
<b>1988-1992</b>	<b>Bachelor of Science</b> Marine Biology and Zoology, James Cook University, Townsville, Australia
<b>1995</b>	<b>ADAS Commercial Diver (2815 Level 1)</b>

## EMPLOYMENT HISTORY

<b>2003-2011</b>	<b>Senior Fisheries Biologist</b> Primary Industries & Fisheries, Queensland Department of Employment, Economic Development and Innovation @ Centre for Sustainable Tropical Fisheries and Aquaculture, James Cook University, Townsville
<b>2002-2003</b>	<b>Research Officer</b> School of Marine Biology and Aquaculture, James Cook University, Townsville
<b>2002</b>	<b>Fisheries Biologist</b> Northern Fisheries Centre, Queensland Primary Industries & Fisheries, Cairns
<b>2000-2001</b>	<b>Experimental Scientist</b> Australian Institute of Marine Science, Townsville
<b>2000</b>	<b>Aquarist</b> Great Barrier Reef Marine Park Authority, ReefHQ, Townsville
<b>1999</b>	<b>Fisheries Scientist (consultancy)</b> Australian Institute of Marine Science, Townsville
<b>1995-1999</b>	<b>Senior Research Assistant</b> Effects of Line Fishing Project, CRC Reef Research Centre, Townsville
<b>Pre 1995</b>	<b>Fisheries tutor</b> James Cook University, Townsville  <b>Aquaculture technician</b> Zoology Department, James Cook University, Townsville  <b>Research Assistant</b> Mariculture facility, Australian Institute of Marine Science, Townsville  <b>Research Assistant</b> Effects of Fishing Program, Great Barrier Reef Marine Park Authority, Townsville

## PROFESSIONAL COMMITTEES

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- **Community marine monitoring coordinator**  
North Efate Marine Champions, 2018-2020
- **Inshore Fisheries Working Group**  
Queensland Department of Agriculture and Fisheries, 2017-2020
- **Cairns Local Marine Advisory Committee**  
Great Barrier Reef Marine Park Authority, Cairns, 2015-2018
- **Scientific Advisor**  
Queensland east coast shark and grey mackerel offshore net fishery, 2007-2010
- **Scientific Advisory Group**  
Queensland Inshore Finfish Management Advisory Committee, 2007-2010
- **Risk Assessment Advisory Committee**  
Northern Australian (Northern Territory) Offshore Fishery (shark and grey mackerel), 2009
- **Other:** Great Australian Shark Watch Project Co-Leader and steering committee member, 2007-2009; Australian Coral Reef Society Conference Organizing Committee, September 2003; Townsville Local Marine Advisory Committee, December 1999 to July 2001; 'Bridging the Gap: Linking student research with Great Barrier Reef Line fishery stakeholders', Workshop Organising Committee, 2001; CRC Reef Postgraduate Research Conference Steering Committee, 1997 and 1999; CRC Technical Advisory Group, Postgraduate Representative, 1998; Bramble Reef Advisory Committee, 1995-1997

## SELECTED GRANTS AND CONSULTANCIES

See <http://www.c2ofisheries.net.au/> for further project information

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- 2018 World Wildlife Fund/MCC Environmental**
- Part of a team for the Evaluation of the Community-Based Sustainable Development through Coastal Fisheries and Financial Inclusion in Solomon Islands and Papua New Guinea Projects. I performed a site visit to Madang, PNG to interview staff, government and non-government partners, and community members to assess progress in achieving: sustainable coastal fisheries, financial inclusion mechanisms (alternative livelihoods) and community-based monitoring.
- 2016-2018 James Cook University, Australian Institute of Marine Science, CSIRO, University of Queensland; Funded by the Australian National Environmental Science Programme**
- Contribute to the mapping of values in the northeast Australian seascape and adjacent Pacific waters, and characterise the processes and attributes that influence these values and their connectivity at a regional scale. The project delivers a resource that can inform cross-jurisdictional planning and management.
- 2014-2020 Reef & Rainforest Research Centre & InLoc Group; funded by the Australian Department of Foreign Affairs and Trade**
- Deliver community-based sustainable resource management using an innovative ranger platform that can drive local actions for water and food security, health promotion, environmental sustainability, enhanced livelihoods, and healthy ecosystems.
- 2017 Secretariat of the Pacific Community**
- Australia-Pacific Coastal Resource Management Study Tour
- 2016-2018 Secretariat of the Pacific Community**
- Resilience of Ecosystems and Societies to Climate Change (RESCCUE) project: Vanuatu - As part of an international team of consultants I delivered fisheries components of this larger project aimed at increasing the resilience of Pacific Island Countries and Territories (PICTs), with a focus on the North Efate region of Vanuatu, in the context of global changes. The RESCCUE project aims at supporting adaptation to climate change through integrated coastal management. I worked directly in partnership with local community members and the Vanuatu Fisheries Department, and led: the assessment of local no fishing (tabu) areas in terms of their benefit to local communities, finfish surveys (Procfish method), development of a community-based marine monitoring toolkit, capacity building in resource management, development and training for the 'Marine Champion' program and development of tabu area guides. I also developed and led a Coastal Resource Management study program hosting 4 fisheries managers from PICTs (Vanuatu, Marshall Islands and Tonga) to Australia.
- 2016-2017 GIZ (BMZ-funded Global Programme on Risk Assessment and Management for Adaptation to Climate Change)**
- Review of the management of climate change-induced loss and damage in artisanal fisheries and aquaculture in the Pacific region to inform strategic planning for future work in the region.
- 2016 James Cook University**
- Review of current management and MCS measures in relation to sharks in the WCPF to inform CITES NDF assessments - Review and document the current fisheries management measures adopted by the Western Central Pacific Fishery Commission, as well as Monitoring, Control and Surveillance, that will inform CITES Non-Detriment Findings assessments. This was to inform NDF framework and training development activities in the Pacific in relation to sharks listed in Appendix II of CITES, particularly hammerhead and manta ray species recently added to CITES listing.
- 2015-2016 Australian Recreational Fishing Foundation**
- Revitalisation of the National Recreational Fishing Code of Practice – Conduct literature searches and stakeholder consultations to review the current Australian national recreational fishing Code of Practice

(COP). In this project C2O Fisheries partners with Reef Ecologic and Ryan Donnelly Consulting, to identify key areas that the current COP can be improved and, through a stakeholder workshop and wider consultation, develop a range of COP products that are contemporary, innovative and effective in meeting the objectives of the COP.

**2015-2016      Secretariat of the Pacific Community**

Description of a suitable SSV registration system for Pacific Island Countries and Territories - Based on extensive consultation among Pacific Island Countries and Territories (PICTs), including travel to four PICTs (Fiji, Solomon Islands, Western Samoa and Kiribati), provide guidance on a small-scale vessel registration system that would be suitable for implementation in the Pacific.

**2015              James Cook University/Wildlife Conservation Society**

Global Sharks and Rays Initiative (GSRI) – Global Conservation Strategy: Development of a white paper and sub-strategy to support and inform the long-term approach to improving global conservation and fisheries management of sharks and rays.

**2014-2015      United Nations Development Programme/Global Environment Facility/Government of Seychelles**

Development of Monitoring, Control and Surveillance protocols to support the Mahe plateau demersal fishery management plan, Seychelles (Project leader).

**2014-2015      United Nations Development Programme/Global Environment Facility/Government of Seychelles**

To support the formulation of an operational fishery management plan for the plateau fishery for demersal fisheries, Seychelles (Project leader). Led the development of the first fishery management plan for the Mahe plateau demersal artisanal fishery including extensive in-country consultations with all stakeholders involving many workshops.

**2014              Fishwell Consulting**

Design of surveys for beche de mer on the Great Barrier Reef for relative abundance estimation

**2014              Fishwell Consulting**

Review of Marine Stewardship Council certification pre-assessments for New Zealand orange roughy fisheries

**2013-2016      Fisheries Research & Development Corporation/Northern Territory Fisheries**

Optimising the management of tropical reef fish through the development of indigenous scientific capability

**2013              Australian Fisheries Management Authority**

Vulnerability of Torres Strait fisheries and supporting habitats to climate change (Project leader)

**2012-2013      Australian Tropical Marine Alliance**

Strengthening in-country tropical marine resources management training capacity in Papua New Guinea and the Solomon Islands

**2011-2012      Fisheries Research & Development Corporation**

Scoping Current and Future Genetic Tools, Their Limitations and Their Applications for Fisheries Management

**2011-2015      Fisheries Research & Development Corporation**

Assessment of novel gear designs to reduce interactions between species of conservation interest and commercial fishing nets (Project leader)

**2011-2014      Fisheries Research & Development Corporation/Department of Climate Change & Energy**

## Efficiency

Management implications of climate change impacts on fisheries resources of tropical Australia (Project leader)

**2011-2013     Fisheries Research & Development Corporation/ Department of Climate Change & Energy Efficiency**

Identification of climate-driven species shifts and adaptation options for recreational fishers: learning general lessons from a data rich case

**2009-2011     Australian Research Council**

Spatial ecology of inshore predators in tropical marine systems and implications of marine protection zones

**2008-2015     James Cook University**

Biology and population structure of the dogtooth tuna, *Gymnosarda unicolor* (Project leader)

**2008-2010     Fisheries Research & Development Corporation**

Adapting to change: minimising uncertainty about the effects of rapidly-changing environmental conditions on the Queensland Coral Reef Fin Fish Fishery

**2007            Great Barrier Reef Marine Park Authority**

Compilation of information on the status of reef sharks on the Great Barrier Reef

**2007-2010     Fisheries Research & Development Corporation**

Stock structure of sharks on the northeast Australian coast (Project leader)

**2007-2010     Fisheries Research & Development Corporation**

Stock structure of threadfins across northern Australia (Project leader)

**2007            Queensland Primary Industries & Fisheries**

Determination of management units for grey mackerel fisheries across northern Australia II (Project leader)

**2006            Fisheries Research & Development Corporation**

Determination of management units for grey mackerel fisheries across northern Australia I (Project leader)

**2003            CRC Reef Research Centre / Alaska Sea Grant Program International Conference**

International Conference Travel: Fisheries assessment & management in data limited circumstances

## SELECTED PUBLICATIONS

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### Published peer-reviewed literature

1. Johnson JE, Monnereau I, **Welch DJ**, McConney P, Szuster B, Gasalla MA (2018) Climate change adaptation: Vulnerability and challenges facing small-scale fisheries in small islands. FishAdapt Conference Proceedings, Food and Agriculture Organization of the United Nations, FAO Fisheries and Aquaculture Proceedings, Rome, FAO.
2. Johnson, J., Bertram, I., Chin, A, Moore, B.R., Pratchett, M, **Welch, D.J.**, Williams, A., Bell, J. and Govan, H. (2018) Effects of Climate Change on Fish and Shellfish Relevant to Pacific Islands, and the Coastal Fisheries they Support. PACIFIC MARINE CLIMATE CHANGE REPORT CARD Science Review 2018: pp 74-98.

3. Barton Diane P., Taillebois Laura, Taylor Jonathan, Crook David A., Saunders Thor, Hearnden Mark, Greig Alan, **Welch David J.**, Newman Stephen J., Travers Michael J., Saunders Richard J., Errity Chris, Maher Safia, Dudgeon Christine, Ovenden Jennifer (2018) Stock structure of *Lethrinus laticaudis* (Lethrinidae) across northern Australia determined using genetics, otolith microchemistry and parasite assemblage composition. *Marine and Freshwater Research*. <https://doi.org/10.1071/MF17087>
4. Phillips, B. F. and **Welch, D. J.** (2017) Impacts of Climate Change on Eastern Australia Fisheries, in *Climate Change Impacts on Fisheries and Aquaculture: A Global Analysis* (eds B. F. Phillips and M. Pérez-Ramírez), John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781119154051.ch7
5. Taillebois, Laura, Barton, Diane P., Crook, David A., Saunders, Thor, Taylor, Jonathan, Hearnden, Mark, Saunders, Richard J., Newman, Stephen J., Travers, Michael J., **Welch, David J.**, Greig, Alan, Dudgeon, Christine, Maher, Safia and Ovenden, Jennifer R. (2017) Strong population structure deduced from genetics, otolith chemistry and parasite abundances explains vulnerability to localized fishery collapse in a large Sciaenid fish, *Protonibea diacanthus*. *Evolutionary Applications*, 10 10: 978-993. doi:10.1111/eva.12499
6. Dulvy, N.K., Colin A. Simpfendorfer, Lindsay N.K. Davidson, Sonja V. Fordham, Amie Brautigam, Glenn Sant, and **David J. Welch** (2017) Challenges and Priorities in Shark and Ray Conservation. *Current Biology*, 27, R565–R572. <http://dx.doi.org/10.1016/j.cub.2017.04.038>
7. Moore, B.R., Stapley, J.M., Williams, A.J. and **Welch, D.J.** (2017) Overexploitation causes profound demographic changes to the protandrous hermaphrodite king threadfin (*Polydactylus macrochir*) in Queensland's Gulf of Carpentaria, Australia. *Fisheries Research*, 187: 199-208. <http://dx.doi.org/10.1016/j.fishres.2016.11.014>
8. Pratchett, M.S., Cameron, D.S., Donelson, J., Evans, L., Frisch, A., Hobday, A.J., Hoey, A.S., Marshall, N.A., Messmer, V., Munday, P.L., Pears, R., Pecl, G., Reynolds, A., Scott, M., Tobin, A., Tobin, R., **Welch, D.J.** and Williamson, D.H. (2017) Effects of climate change on coral grouper (*Plectropomus* spp.) and possible adaptation options. *Reviews in Fish Biology and Fisheries*. DOI 10.1007/s11160-016-9455-9
9. Johnson J.E., **Welch, D.J.**, Maynard, J.A., Bell, J.D., Pecl, G., Robins, J. and Saunders, T. (2016) Assessing and reducing vulnerability to climate change: Moving from theory to practical decision-support. *Marine Policy*, 74: 220-229.
10. Taillebois, L., Dudgeon, C., Maher, S., Crook, D.A., Saunders, T.M., Barton, D.P., Taylor, J.A., **Welch, D.J.**, Newman, S.J., Travers, M.J., Saunders, R.J. and Ovenden, J. (2016) Characterization, development and multiplexing of microsatellite markers in three commercially exploited reef fish and their application for stock identification. *PeerJ*. DOI 10.7717/peerj.2418.
11. Frisch, A.J., Cameron, D.S., Pratchett, M.S., Williamson, D.H., Williams, A.J., Reynolds, A.D., Hoey, A.S., Rizzari, J.R., Evans, L., Kerrigan, B., Muldoon, G.M., **Welch, D.J.** and Hobbs, J-P.H. (2016) Key aspects of the biology, fisheries and management of coral grouper. *Rev. Fish Biol. Fisheries*, DOI 10.1007/s11160-016-9427-0.
12. Johnson, J. and **Welch, D.J.** (2016) Climate change implications for Torres Strait fisheries: assessing vulnerability to inform adaptation. *Climatic Change*, 135: 611-624. DOI 10.1007/s10584-015-1583-z.
13. **Welch, D.J.**, Newman, S.J., Buckworth, R.C., Ovenden, J.R., Broderick, D., Lester, R.J.G., Gribble, N.A., Ballagh, A.C., Charters, R.A., Stapley, J., Street, R., Garrett, R.N. and Begg, G.A. (2015) Integrating different approaches in the definition of biological stocks: a northern Australian multi-jurisdictional fisheries example using grey mackerel. *Marine Policy*, 55: 73-80.
14. Ovenden, J.R., Berry, O., **Welch, D.J.**, Buckworth, R.C. and Dichmont, C. (2015) Ocean's eleven: a critical evaluation of the role of population, evolutionary and molecular genetics in the management of wild fisheries. *Fish and Fisheries*, 16: 125-159, doi: 10.1111/faf.12052.
15. Gledhill, D.C., Hobday, A.J., **Welch, D.J.**, Sutton, S., Lansdell, M., Koopman, M., Jeloudev, A., Smith, A. and Last, P. (2014) Collaborative approaches to accessing and utilising historical citizen science data: a case study with spearfishers from eastern Australia. *Marine and Freshwater Research*, 65: 1-7. <http://dx.doi.org/10.1071/MF14071>

16. Bentley, B.P., Harvey, E.S., Newman, S.J., **Welch, D.J.**, Smith, A.K. and Kennington, W.J. (2014) Local genetic patchiness, but no regional differences between Indo-West Pacific populations of the dogtooth tuna, *Gymnosarda unicolor*. Marine Ecology Progress Series, 506: 267-277.
17. Morgan, J.A.T., Macbeth, M., Broderick, D., Whatmore, P., Street, R., **Welch, D.J.** and Ovenden, J.R. (2013) Hybridisation, paternal leakage and mitochondrial DNA linearization in three anomalous fish (Scombridae). Mitochondrion, 13: 852-861.
18. Bentley, B.P., Harvey, E.S., Newman, S.J., **Welch, D.J.**, Smith, A.K. and Kennington, W.J. (2013) Characterization of 13 polymorphic microsatellite loci for the dogtooth tuna *Gymnosarda unicolor*. Conservation Genetics Resources, 5: 693-695, DOI 10.1007/s12686-013-9884-x.
19. Currey, LM, Williams, AJ, Mapstone, BD, Davies, CR, Carlos, G, **Welch, DJ**, Simpfendorfer, CA, Ballagh, AC, Penny, AL, Grandcourt, EM, Mapleston, A, Weibken, A, and Bean, K (2013). Comparative biology of *Lethrinus* species: should the same management strategies be applied across species? Journal of Fish Biology, 82: 764-788.
20. Moore, B.R., **Welch, D.J.**, Newman, S.J. and Lester, R.J.G. (2012) Parasites as indicators of movement and population connectivity of a non-diadromous, tropical estuarine teleost: king threadfin *Polydactylus macrochir*. Journal of Fish Biology, 81: 230-252.
21. Moore, B.R., Simpfendorfer, C.A., Newman, S.J., Stapley, J.M., Allsop, Q, Sellin, M.J. and **Welch, D.J.** (2012) Spatial variation in life history reveals insight into connectivity and geographic population structure of a tropical estuarine teleost: king threadfin, *Polydactylus macrochir*. Fisheries Research, 125-126: 214-224.
22. Harry, AV, Morgan, JAT, Ovenden, JR, Tobin, AJ, **Welch, DJ** and Simpfendorfer, CA (2012) Comparison of the reproductive ecology of two sympatric blacktip sharks (*Carcharhinus limbatus* and *C. tilstoni*) off north-eastern Australia inferred from vertebral counts. Journal of Fish Biology. doi:10.1111/j.1095-8649.2012.03400.x
23. Horne, JB, Momigliano, P, **Welch, DJ**, Newman, SJ and van Herwerden, L (2012) Searching for common threads in threadfins: phylogeography of Australian polynemids in space and time. Marine Ecology Progress Series, 449: 263-276.
24. Ballagh, AC, **Welch, DJ**, Newman, SJ, Allsop, Q and Stapley, JM. (2012) Stock structure of the blue threadfin (*Eleutheronema tetradactylum*) across northern Australia derived from life-history characteristics. Fisheries Research, 121-122: 63-72.
25. Morgan, Jess; Harry, Alastair; **Welch, David, J.**; Street, Raewyn; White, Jimmy; Geraghty, Pascal; Macbeth, William; Tobin, Andrew; Simpfendorfer, Colin; Ovenden, Jennifer. (2011) Detection of interspecies hybridisation in Chondrichthyes: hybrids and hybrid offspring between Australian (*Carcharhinus tilstoni*) and common (*C. limbatus*) blacktip shark found in the Australian fishery. Conservation Genetics, DOI 10.1007/s10592-011-0298-6.
26. Moore, B.R., **Welch, D.J.**, and Simpfendorfer, C.A. (2011) Spatial patterns in the demography of a large estuarine teleost: king threadfin, *Polydactylus macrochir*. Marine and Freshwater Research, 62(8): 937-951.
27. Ovenden, J., Morgan, J.A.T., Street, R., Tobin, A., Simpfendorfer, C.A., MacBeth, W., and **Welch, D.J.** (2011) No evidence for regional genetic population structure for two shark species (*Rhizoprionodon acutus*, Rüppell, 1837 and *Sphyrna lewini*, Griffith & Smith, 1834) with contrasting biology. Marine Biology, 158: 1497-1509.
28. Morgan, Jess, **Welch, David**, Harry, Alastair, Street, Raewyn, Broderick, Damien, and Ovenden, Jennifer (2011) A mitochondrial species identification assay for Australian blacktip sharks (*Carcharhinus tilstoni*, *C. limbatus* and *C. amblyrhynchoides*) using real-time PCR and high-resolution melt analysis. Molecular Ecology Resources, doi: 10.1111/j.1755-0998.2011.03023.x
29. Horne, John B., Paolo Momigliano, **David J. Welch**, Stephen J. Newman, Lynne van Herwerden (2011). Limited ecological population connectivity suggests low demands on self recruitment in a tropical inshore marine fish (*Eleutheronema tetradactylum*: Polynemidae). Molecular Ecology, 20: 2291-2306.

30. Harry, A.V., Tobin, A.J., Simpfendorfer, C.A., **Welch, D.J.**, Mapleston, A., White, J., Williams, A.J., Davies, J., Stapley, J. (2011) Evaluating catch and mitigating risk in a multispecies, tropical, inshore shark fishery within the Great Barrier Reef World Heritage Area. *Marine and Freshwater Research*, 62: 710-721.
31. Moore, B.R., J. Stapley, Q. Allsop, S.J. Newman, A. Ballagh, **D.J. Welch** & R.J.G. Lester (2011) Stock structure of blue threadfin, *Eleutheronema tetradactylum*, across northern Australia as indicated by parasites. *Journal of Fish Biology*, 78: 923-936.
32. Broderick, D., Ovenden, J. R., Buckworth, R. C., Newman, S. J., Lester, R. J. G., and **Welch, D. J.** (2011). Genetic population structure of grey mackerel *Scomberomorus semifasciatus* in northern Australia. *Journal of Fish Biology*, 79: 633-661.
33. Newman, SJ, Allsop, Q, Ballagh, AC, Garrett, RN, Gribble, NA, Meeuwig, JJ, Mitsopoulos, GEA, Moore, BR, Pember, MB, Rome, BM, Saunders, T, Skepper, CL, Stapley, J, van Herwerden, L, and **Welch, DJ.** (2011) Variation in stable isotope ( $\delta^{18}\text{O}$  and  $\delta^{13}\text{C}$ ) signatures in the sagittal otolith carbonate of blue threadfin, *Eleutheronema tetradactylum*, across northern Australia reveals multifaceted stock structure. *Fisheries Management and Ecology*, 18: 246-257.
34. Ballagh, AC, **Welch, DJ**, Williams, AJ, Mapleston, A, Tobin, A, and Marton, N. (2011) Integrating methods for determining length-at-age to improve growth estimates for two large scombrids. *Fisheries Bulletin*, 109: 90-100.
35. Newman, SJ, Allsop, Q, Ballagh, AC, Garrett, RN, Gribble, NA, Meeuwig, JJ, Mitsopoulos, GEA, Moore, BR, Pember, MB, Rome, BM, Saunders, T, Skepper, CL, Stapley, J, van Herwerden, L, and **Welch, DJ.** (2010) Variation in stable isotope ( $\delta^{18}\text{O}$  and  $\delta^{13}\text{C}$ ) signatures in the sagittal otolith carbonate of King threadfin, *Polydactylus macrochir* across northern Australia reveals multifaceted stock structure. *Journal of Experimental Marine Biology and Ecology*, 396: 53-60.
36. Heupel, MR, Williams, AJ, **Welch, DJ**, Davies, CR, Penny, A, Kritzer, J, Marriott, RJ and Mapstone, BD. (2010). Demographic characteristics of exploited tropical lutjanids: a comparative analysis. *Fishery Bulletin*, 108: 420-432.
37. Newman, Stephen J., Ian W. Wright, Ben M. Rome, Michael C. Mackie, Paul D. Lewis, Rik C. Buckworth, Aaron C. Ballagh, Rod N. Garrett, Jason Stapley, Damien Broderick, Jennifer R. Ovenden and **David J. Welch.** (2010). Stock structure of grey mackerel, *Scomberomorus semifasciatus* (Pisces: Scombridae) across northern Australia, based on otolith isotope chemistry. *Environmental Biology of Fishes*. 89: 357-367.
38. **Welch, DJ**, Mapstone, BD, Davies, CR and Russ, GR. (2010). Spatial and fishing effects on sampling gear biases in a tropical reef line fishery. *Marine and Freshwater Research*, 61: 1134-1146.
39. Sumpton, WD, Brown, IW, Mayer, D, McLennan, MF, Mapleston, A, Butcher, AR, **Welch, DJ**, Kirkwood, J, Sawynok, B and Begg, GA (2010). Assessing the effects of line capture and barotrauma relief procedures on post-release survival of key tropical reef fish species in Australia using recreational tagging clubs. *Fisheries Management and Ecology*, 17: 77-88.
40. Brown, W. Sumpton, M. McLennan, D. Mayer, M. Campbell, J. Kirkwood, A. Butcher, I. Halliday, A. Mapleston, **D. Welch**, G. Begg and B. Sawynok. (2010). An improved technique for estimating short-term survival of released line-caught fish, and an application comparing barotrauma-relief methods in red emperor (*Lutjanus sebae* Cuvier 1816). *Journal of Experimental Marine Biology and Ecology*, 385: 1-7.
41. Heupel, MR, Williams, AJ, **Welch, DJ**, Davies, CR, Adams, S, Carlos, G and Mapstone, BD. (2010). Demography of a large exploited grouper, *Plectropomus laevis*: Implications for fisheries management. *Marine and Freshwater Research*, 61: 184-195.
42. Johnson, JE and **Welch, DJ.** (2010). Marine fisheries management in a changing climate: a review of vulnerability and future options. *Reviews in Fisheries Science*, 18(1): 106-124.
43. Charters, RA, Lester, RJG, Buckworth, RC, Newman, SJ, Ovenden, JR, Broderick, D, Kravchuk, O, Ballagh, A and **Welch DJ.** (2010). The stock structure of grey mackerel *Scomberomorus semifasciatus* in Australia as inferred from its parasite fauna. *Fisheries Research*, 101: 94-99.



44. Williams, AJ, Davies, CR, Mapstone, BD, Currey, LM, **Welch, DJ**, Begg, GA, Ballagh, AC, Choat, JH, Murchie, CD and Simpfendorfer, CA. (2009). Age-based demography of humpback grouper *Cromileptes altivelis*: implications for fisheries management and conservation. *Endangered Species Research*, 9: 67-79.
45. Zischke, MT, Cribb, TH, **Welch, DJ**, Sawynok and Lester RJG (2009). Stock structure of blue threadfin on the Queensland east coast as determined by parasites and conventional tagging. *Journal of Fish Biology*, 75: 156-171.
46. Heupel, MR, Williams, AJ, **Welch, DJ**, Ballagh, A, Mapstone, BD, Carlos, G, Davies, C and Simpfendorfer, CA (2009). Effects of fishing on tropical reef associated shark populations on the Great Barrier Reef. *Fisheries Research*, 95: 350-361.
47. **Welch, D.J.**, Begg, G., and Mapstone, B.D. (2008). Discard rates and the effects of management in the commercial reef line fishery, Great Barrier Reef, Australia. *Fisheries Research*, 90: 247-260.
48. Mapleston, A, **Welch, DJ**, Begg, GA, McLennan, M, Mayer D and Brown I. (2008). Effect of changes in hook pattern and size on catch rate, hooking location, injury and bleeding for a number of tropical reef fish species. *Fisheries Research*, 91: 203-211.
49. Kingsford MJ and **Welch DJ**, (2007). Chapter 18: Vulnerability of pelagic systems of the Great Barrier Reef to climate change, In *Climate Change and the Great Barrier Reef*, eds. Johnson JE and Marshall PA, Great Barrier Reef Marine Park Authority and Australian Greenhouse Office, Australia, p555-592.
50. **Welch, DJ**, Garret, RN, and Gribble, NA. (2005). Fisheries uncertainty: A tropical Australian data-poor fishery. In: 'Fisheries assessment and management in data-limited situations', Alaska Sea Grant College Program, p533-552.
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### **Selected grey literature**

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