**Damian Thomson - Experimental Scientist CSIRO**



**Tertiary Qualifications**

**1991 – 1995** Bachelor of Science Degree (Hons) 1995

JAMES COOK UNIVERSITY, TOWNSVILLE QLD

**Employment History**

**2007 – Cur.** Commonwealth Scientific and Industrial Research Organisation

Research Projects / Experimental Scientist

**2003 – 2007** AUSTRALIAN INSTITUTE OF MARINE SCIENCE

Project Officer within the Ecological Responses and Reef Water Quality Marine Monitoring programs.

**2001** AUSTRALIAN INSTITUTE OF MARINE SCIENCE

Dive Officer (6 month secondment from JCU)

**1998- 2003** JAMES COOK UNIVERSITY, TOWNSVILLE QLD

Technical Officer within the School of Biological Sciences.

**1995 – 1998** JAMES COOK UNIVERSITY, TOWNSVILLE QLD

 Research assistant within the School of Biological Sciences.

**Research experience and skills**

* 20 years research experience in the taxonomic identification of tropical marine benthos and researching the dynamics of benthic assemblages.
* Experience in writing and producing scientific publications for international journals and presenting scientific results at national level conferences.
* Experience in the planning, conduct and processing of data derived from traditional (diver, towed video) and novel (multibeam, stereo imagery, AUV) survey techniques.
* Experience in the processing and visualization of mutibeam (Caris HIPS and SIPS), towed video and stereo imagery (ESRI ArcMap 10.0)
* Extensive experience coordinating at-sea research independently or as part of a team, involving over 1000 days at sea on 60 research voyages up to 25 days in length.

**Students supervised**

* Kirsty Brooks, Honours 2011. High-latitude coral, *Cyphastrea serailia*: a paleoclimate archive. Supervisors: Malcolm McCulloch (UWA), John Keesing (CSIRO), **Damian Thomson** (CSIRO)
* Kaija Antipas, Honours 2012. An investigation into the echanisms influencing the growth and survival of juvenile hard corals at Hall bank, Perth, WA. Supervisors Mike Van Keulen (Murdoch University) and **Damian Thomson (CSIRO)**
* Pia Bessell-Browne, Honours 2013. Phenotypic and genotypic characterisation of *Coscinaraea marshae* coral colonies following a severe heating event:investigating potential survival mechanisms. Supervisors Peta Clode (UWA), Michael Stat (UWA Oceans Institute), **Damian Thomson (CSIRO)**
* Crystal Cooper, Masters 2014. Identification of an unknown *Acoel* flatworm from Rottnest Island, Western Australia. Supervisors Peta Clode (UWA), Michael Stat (UWA Oceans Institute), **Damian Thomson (CSIRO)**
* Mariah Lumley, Honours 2015. Growth and population dynamics of the coral *Plesiastrea versipora* along a temperature gradient, University of Western Australia. Supervisors Thomas Wernberg and Thibaut de Bettignies (UWA Oceans Institute) **Damian Thomson (CSIRO)**

**Publications**

**1. Thomson, D.P.**,Babcock, R.C., Vanderklift, M.A., Symonds, G., Gunson, J.R., (2012). Evidence for persistent patch structure on temperate reefs and multiple hypotheses for their creation and maintenance. Estuarine, Coastal and Shelf Science 96, 105-113. Times cited = 3

**2. Thomson D.P**., Bearham D., Graham F., Eagle J.V. (2011) High latitude, deeper water coral bleaching at Rottnest Island, Western Australia. Coral Reefs (DOI) 10.1007/s00338-011-0811 Times cited = 8

**3. Thomson, D.P**., Frisch, A.J., (2010) Extraordinarily high coral cover on a near shore, high-latitude reef in southwest Australia. Coral Reefs 29, 923-927. Times cited = 11

**4. Thomson D.P.** (2010) Range extension of the hard coral *Goniopora norfolkensis* (Veron & Pichon 1982) to the south-east Indian Ocean. Journal of the Royal Society of Western Australia 93:115-117 Times cited = not available

**5.** Bessell-Browne P,Stat M, **Thomson D,** Clode PL (2014) *Coscinaraea marshae* corals that have survived prolonged bleaching exhibit signs of increased heterotrophic feeding. Coral Reefs 33:795-804 Times cited = 0

**6.** Cooper C., Clode P., **Thomson D.P.**, Stat M (2015) A flatworm from the genus *Waminoa* (Acoela: Convolutidae) associated with bleached corals in Western Australia. Zoological Science (in press) Times cited = 0

**7.** Pillans RD, Bearham D, Boomer A, Downie R, Patterson TA, **Thomson D.P.**, Babcock RC (2014) Multi Year Observations Reveal Variability in Residence of a Tropical Demersal Fish, *Lethrinus nebulosus*: Implications for Spatial Management. PLoS ONE 9:e105507-e105507 Times cited = 0

**8.** Downie RA, Babcock RC, **Thomson D.P.**, Vanderklift MA (2013) Density of herbivorous fish and intensity of herbivory are influenced by proximity to coral reefs. Marine Ecology Progress Series 482:217-225 Times cited = 7

**9.** Speed CW, Babcock RC, Bancroft KP, Beckley LE, Bellchambers LM, Depczynski M, Field SN, Friedman KJ, Gilmour JP, Hobbs J-PA, Kobryn HT, Moore JAY, Nutt CD, Shedrawi G, **Thomson DP**, Wilson SK (2013) Dynamic Stability of Coral Reefs on the West Australian Coast. Plos One Times cited = 2

**10**. Keesing JK, Strzelecki J, Fromont J, **Thomson D.P.** (2013) Sponges as important sources of nitrate on an oligotrophic continental shelf. Limnology and Oceanography 58:1947-1958 Times cited = 0

**11.** Wilson S.K., Babcock R.C., Fisher R., Thomas H., Holmes T., Moore J.A.Y.,**Thomson D.P.** (2012) Relative and combined effects of habitat and fishing on reef fish communities across a limited fishing gradient at Ningaloo. Marine Environmental Research 1-11 Times cited = 4

**12.** Smale D.A., Kendrick G.A., Harvey E.S., Langlois T.J., Hovey R.K., Van Niel K., Waddington K.I., Bellchambers L.M., Pember M.B., Babcock R.C., Vanderklift M.A., **Thomson D.P.**, Jakuba M.V., Pizarro O., Williams S.B. (2012) Regional-scale benthic monitoring for ecosystem-based fisheries management (EBFM) using an autonomous underwater vehicle (AUV). Ices Journal of Marine Science 69 (6):1108-1118. doi:10.1093/icesjms/fss082 Times cited = 3

**13.** Depczynski M., Gilmour J.P.,Ridgway T., Barnes H., Heyward A.J., Holmes T.H., Moore J.A.Y., Radford B.T., **Thomson D.P.**, Tinkler P., Wilson S.K. (2012) Mass coral mortality on a West Australian fringing reef. Coral Reefs Times cited = 8

**14.** Moore J.A.Y., Bellchambers L.M., Depczynski M.R., Evans R.D., Evans S.N., Field S.N., Friedman K.J., Gilmour J.P., Holmes T.H., Middlebrook R., Radford B.T., Ridgway T., Shedrawi G., Taylor H., **Thomson D.P.**, Wilson S.K. (2012) Unprecedented Mass Bleaching and Loss of Coral across 12° of Latitude in Western Australia in 2010–11. Plos One 7 (12):e51807. doi:10.1371/journal.pone.0051807 Times cited = 11

**15.** Keesing J.K., Irvine T.R., Alderslade P., Clapin G., Fromont J., Hosie A.M., Huisman J.M., Phillips J.C., Naughton K.M., Marsh L.M., Slack-Smith S.M., **Thomson D.P.**, Watson J.E. (2011) Marine benthic flora and fauna of Gourdon Bay and the Dampier Peninsula in the Kimberley region of north-western Australia. Journal of the Royal Society of Western Australia 94:285-301 Times cited = not available

**16.** Beger M., Babcock R., Booth D.J., Bucher D., Condie S.A., Creese B., Cvitanovic C., Dalton S.J., Harrison P., Hoey A., Jordan A., Loder J., Malcolm H., Purcell S., Roelfsma C., Sachs P., Smith S., Sommer B., Stuart‐Smith R., **Thomson D.P.**, Wallace C., Zann M., Pandolfi J. (2011) Research challenges to improve the management and conservation of subtropical reefs to tackle climate change threats Ecological Management & Restoration, 12 (1), e7-e10

**Invitations accepted**

**2013 Invited speaker** at the 3rd Biennial South West Marine Conference, 9 May 2013, Bunker Bay, Dunsborough WA. Presentation title “Bleaching susceptibility and mortality in high-latitude, deeper water corals; how resilient are corals in south-western Australia?”

**2012 Invited speaker** at workshop entitled Management, conservation, and scientific Challenges on Subtropical Reefs under Climate Change. Australian Coral Reef Society (ACRS) conference, Coffs Harbour NSW. 10 September 2010. “Kelp Patch dynamics; patch size, wave exposure, herbivores and patch age”

**2011 Invited conference session chair** “Ningaloo – the benefits of a multi-disciplinary approach” at the 48th Annual Australian Marine Sciences Association Conference (AMSA), Fremantle, WA. 3-7 July 2011

**Recognition awards**

**2014** **CSIRO Marine and Atmospheric Research Recognition Award** for developing new business relationships with industry

**2012 CSIRO Marine and Atmospheric Research Capability Development Fund** Financial support to attend and present at the 12th International Coral Reef symposia in Cairns, Nth Queensland 2012. Value $3200

**2010 Marine and Atmospheric Research Recognition Award** for high levels of project dedication and professionalism in planning and executing IMOS, AUV deployments.

**Memberships and professional associations**

Member of the Australian Coral Reef Society

Member of the Australian Marine Sciences Association

**Scientific reports**

* Haywood M, **Thomson D**, Dennis D, Pillans R. (2013) Ongoing assessment of shallow reef communities – investigating the impacts of waste disposal on the shallow water reef-fish and benthic communities near the Lihir gold mine, PNG. (2013) CSIRO report 125 p
* Campbell N, **Thomson D**, Collings S, Harrison L, Keesing J, and Keith G. A comparison of EM3002 multibeam backscatter and LiDAR reflectivity for separating seabed classes (2013) CSIRO Report p 12
* Babcock R, Haywood M, Vanderklift M, Murphy N, Clapin G, Limbourn A, Kozak D, **Thomson D**, McCleod I, Milton T, Skewes T, Dennis D. (2009) *Lagoon Invertebrates Final Report and Monitoring Recommendations*. Final Report on WAMSI Project 3.2.2. CSIRO 39 p.
* Babcock R, Vanderklift M, Murphy N, Clapin G, Limbourn A, Phillips J, Haywood M, Kozak D, **Thomson D**, Cook K, Verges A*.* (2009) *Experimental assessment of potential for indirect effects of fishing on lagoonal and shallow water ecosystems*. Data report submitted to the Western Australian Marine Science Institute Board 19 p.
* Babcock R, Vanderklift M, **Thomson D**, Clapin G, Kozak D. (2009) *Experimental assessment of potential for indirect effects of fishing on lagoonal and shallow water ecosystems*. Data Report submitted to the WAMSI Board. 17 p.
* **Thomson D,** Babcock R. (2009) Summary of benthic cover data from 21 sites with the Ningaloo Lagoon. Submitted to Department of Environment and Conservation DEC. 14p.

**Recent conference presentations**

* **ThomsonD.P**, Radford B., Stat M., Babcock R. Bleaching susceptibility and mortality in high-latitude, deeper water corals; how resilient are corals in south-western Australia? 3rd Biennial South West Marine Conference, 9 May 2013, Bunker Bay, Dunsborough WA.
* **ThomsonD.P**, Radford B., Stat M., Babcock R. Bleaching susceptibility in high-latitude, deeper water corals – observations after an extreme summer in Western Australia.12th International Coral Reef Symposia, Cairns, Qld, Australia. 9 – 13 July 2012
* **Thomson D.P.,** Babcock R, Vanderklift M.V. Kelp Patch dynamics; patch size, wave exposure, herbivores and patch age. Invited speaker at workshop entitled Management, conservation, and scientific Challenges on Subtropical Reefs under Climate Change. Australian Coral Reef Society (ACRS) conference, Coffs Harbour NSW. 10 September 2010.
* **Thomson D.P.,** Babcock R, Vanderklift M.V. Kelp Patch dynamics; patch size, wave exposure, herbivores and patch age. Australasian Society for Phycology and Aquatic Botany. Rottnest Island, Western Australia, November 2010.
* **Thomson D.P.,** Babcock R, Downie R, Vanderklift MV Halo’s at Ningaloo reef; biomass and diversity of herbivores is influenced by distance from patch reefs. Australian Coral Reef Society (ACRS) conference, Darwin NT. September 2009.
* Campbell N, Collings S, Harrison L, Keesing J, **Thomson** **D.P.** and Keith G (CSIRO); Kennedy P, Lejtman D, Parker H and Penley (Fugro) (2013) A comparison of EM3002 multibeam backscatter and LiDAR reflectivity for separating seabed classes*.* Forum for Exchange of Mutual Multibeam Experiences (Femme) Conference, April 2013*,* New Hampshire.

**Recent media**

* **2015 ABC WA and ABC News 24** Evening news story on Crown of Thorns Starfish outbreak 1min 20 sec. Estimated national audience of 326000 people (Media watch ABC WA and ABC News 24)
* **2015 Channel 9** Feature story on Crown of thorns Starfish outbreak. 3min 40 sec Estimated West Australian audience 110000 people(Media watch) <https://www.youtube.com/watch?v=KuToGv8jd38>.
* **2015 Australian Geographic** Feature article on Crown of Thorns Outbreak in the Pilbara WA. Estimated readership = 694000 (<http://www.bauer-media.com.au/brands/australian-geographic/>)
* **2012 ABC** Catalyst program “Taking Australia’s temperature” 2012 <http://www.abc.net.au/catalyst/stories/3633447.htm>

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