

CURRICULUM VITAE

Full name: Benjamin Keith Diggles
Position: Managing Director, DigsFish Services Pty Ltd.
Address: Brisbane, QLD, AUSTRALIA, ben@digsfish.com
Academic qualifications: PhD. B.Sci (Hons. 1st class)

Patents: 4

Professional positions held:

Dec. 2003 - present

Managing Director, DigsFish Services Pty Ltd. <http://www.digsfish.com/>

Job description: Provision of an independent aquatic animal health consulting service for the fisheries and aquaculture industries in New Zealand, Australia, Asia and the South Pacific. Core business includes import risk analysis, biosecurity risk analysis, environmental risk assessments and environmental management systems, aquatic animal welfare, disease diagnosis in a wide range of aquatic animals, development of feeding attractants for aquaculture, and development of medicated feeds for aquacultured finfish.

Sept. 1997 – Nov. 2003

Marine pathologist/parasitologist, Fish Health Unit, National Institute of Water and Atmospheric Research, Wellington, New Zealand. <http://www.niwa.co.nz/>

Job description: Provision of a pathology and disease diagnostic service for the New Zealand aquaculture industry, including commercial consulting work as well as government and industry funded research. Clients included private citizens, aquaculture and fishing companies, Regional Councils and the Governments of New Zealand, South Australia, and the Cook Islands. A significant proportion of my time was spent designing experiments, research programmes, and disease surveys, as well as providing disease related advice for FRDC and FRST funded research projects. In this job I was required to perform all aspects of basic and applied science related to the prevention, diagnosis, epidemiology and control of diseases of aquatic organisms including fish (marine and freshwater species), lobsters, *Macrobrachium*, rock oysters, flat oysters, pearl oysters, mussels, abalone, scallops and sea urchins.

Sept. 1996 - Sept. 1997

Manager, Recreational Fisheries, Primary Industries South Australia, Fisheries Department, Adelaide, South Australia. <http://www.pir.sa.gov.au/fisheries>

Job description: I was responsible for the preparation and formulation of fisheries resource management policies and options for ecologically sustainable development of recreational fishing opportunities in South Australia. I was required to attend national recreational fisheries management meetings and coordinate my work with other State fisheries managers. I also produced discussion papers on the management, development and funding of recreational fishing in South Australia; established a consultative process between government and the recreational fishing sector; managed a recreational

fishing fund; and reported to the Director of Fisheries and the Minister for Primary Industries on issues related to recreational fishing legislation.

Jan. 1993-Sept. 1996

Ph.D candidate, Department of Parasitology, The University of Queensland. <http://www.uq.edu.au/> Studies of the biology, ecology, taxonomy and control of *Cryptocaryon irritans* (Ciliata), the cause of whitespot disease in cultured marine fishes.

Job description: I was responsible for production of a PhD dissertation on the biology and control of *C. irritans*, an important pathogen of marine fish. The project required extensive fieldwork utilising linefishing, anaesthetics, cast nets, drag nets, and inshore trawlers for collecting various species of fish and shellfish from sites in impoundments, enclosed ponds, estuarine, coastal bar and coral reef environments in Queensland. Laboratory skills required included molecular biology (sequencing, PCR), electron microscopy (SEM, TEM), microscopy, and parasitological dissection. Awarded Doctor of Philosophy 25/2/97.

Jan. 1992-Dec. 1992

B. Sci. Honours candidate, Department of Parasitology, The University of Queensland. <http://www.uq.edu.au/> Studies of the development and chemotherapy of *Polylabroides multispinosus* (Monogenea), a gill parasite of cultured Yellowfin Bream, *Acanthopagrus australis*.

Job description: I was responsible for production of an Honours dissertation on the development and chemotherapy of *P. multispinosus*, an monogenean parasite of bream. The project required fieldwork and collaboration with the Port of Brisbane Authority and Seaworld on the Gold Coast, where sea cage experiments were carried out. Laboratory skills required included microscopy and parasitological dissection. First class honours awarded 18/12/92.

B. Sci. (1991).

University of Queensland, Brisbane, Queensland, Australia. <http://www.uq.edu.au/> Majors in Zoology, Environmental Science, Marine Biology, Aquaculture and Parasitology. Final year grade point average 6.1 (out of 7). Awarded Bachelor of Science 17/12/91.

Keynote presentations

June 2008. Pathogen risk analysis: experiences from 9 case studies – applications and limitations

Conference: Diseases in Asian Aquaculture 7 **Venue:** Taipei.

In 2008 I presented a keynote address on risk analysis in relation to national and international movements of aquatic animals and their related products. The presentation drew upon experience obtained from several biosecurity risk analyses conducted by Dr Ben Diggles and DigsFish Services Pty Ltd over the previous 8 years.

Further Education

May-June 2014. AQUAVET II, Roger Williams University, Bristol Rhode Island. This intensive 2 week course covered many aspects of the comparative pathology of aquatic animals and was specifically designed to teach aquatic animal medicine to veterinarians. It was sponsored by The University of Pennsylvania, School of Veterinary medicine, and the College of Veterinary Medicine at Cornell University.

November-December 2002. Asia-Pacific Regional Program on Molluscan Health Management Phase II. University of Queensland. Training workshop on diseases of molluscs in the Asia-Pacific region. Lecturers included Dr Mike Hine, Dr Judith Handlinger, Dr Brian Jones, Dr Bob Lester, Dr Sarah Kleeman and Dr Franck Berthe.

July - August 2000. Shrimp Pathology Short Course, The University of Arizona. An intensive 2 week shrimp aquaculture pathology short course run by Prof. Donald Lightner. The course outlined the history of disease in shrimp farming, the diseases, and contained practical diagnostic sessions covering histology, bacteriology, antibody assays (Fluorescent antibody tests, ELISA, Immunoblot, immunohistochemistry) and molecular diagnostic techniques (PCR, RT-PCR, ISH).
<http://microvet.arizona.edu/research/aquapath/index.htm>

June 2000. Mollusc Histopathology Workshop, University of Tasmania. A 1 day intensive workshop focusing on histopathology of molluscan organs and tissues. Lecturer Dr Judith Handlinger.

June 2000. Crustacean Histopathology Workshop, University of Tasmania. A 1 day intensive workshop focusing on histopathology of crustacean organs and tissues. Lecturers included Dr Danielle Johnston and Dr Barbara Nowak.

May 2000. Fish Histopathology Workshop, University of Tasmania. A 2 day intensive workshop focusing on histopathology of fish organs and tissues. Lecturers included Dr Judith Handlinger, Dr Barry Munday, Dr Barbara Nowak, Dr Tish Pankhurst and Dr Mark Powell.

Other relevant qualifications and skills

- QLD Driver's licence, advanced and defensive driving training and over 25 years motorsport experience
- Restricted coxwains certificate and QLD speedboat drivers license with over 25 years on-water experience including 20 years research experience from smooth waters to high seas (including 45-50°S, Southern Ocean trawl surveys)
- Australian Maritime College Marine Radio Operators Certificate of Proficiency (MROCP)
- First aid -oxygen administration certificate
- Recreational diver
- Computer skills include Microsoft Word, Excel, Photoshop, Power Point, Internet, GIS
- Registered scientific user of animals in Queensland, Registration number 247 (for DigsFish Services)

Scientific Referee

Dr Diggles conducts regular scientific peer reviews for a number of scientific journals, including *Diseases of Aquatic Organisms*, *Journal of Aquatic Animal Health*, and *Aquaculture*, as well as occasional reviews for several other journals and scientific publications.

Books, chapters in books, management papers, workshops, IRAs:

Diggles BK (2017). Northern Australia Biosecurity Initiative – Marine Pest and Disease Risk Assessment. DigsFish Services Report DF17-02. 194 pgs.

Gilles C, Creighton C, McLeod I (eds). (2015). Shellfish reef habitats: a synopsis to underpin the repair and conservation of Australia's environmental, social and economically important bays and estuaries. A report for the national Environmental Science Programme: Marine Biodiversity Hub,

Tropwater report No. 15/60. <https://research.jcu.edu.au/tropwater/research-programs/coastal-estuarine-ecology/shellfish-reef-protection-and-repair/ShellfishreefhabitatsFinalVersion.pdf>

- Diggles BK (2015). Protection and repair of Australia's shellfish reefs – Southern Queensland Report. DigsFish Services Client Report DF15-01. September 2015. 27 pgs. <http://restorepumicestonepassage.org/wp-content/uploads/2014/04/NESP-Project-Southern-Queensland-Report-DigsFish.pdf>
- Diggles BK, Barnes L (2015). Surveillance of fish and shellfish health in Darwin Harbour, Northern Territory. Presented at the third FRDC Australasian Aquatic Animal Health Scientific Conference, Cairns, 6-10 July, 2015. <http://digsfish.com/DigglesBarnes2015ProcCairnsConference.pdf>
- Department of Agriculture (2015). Disease Strategy: Crayfish Plague (Version 2.0). In: *Australian Aquatic Veterinary Emergency Plan (AQUAVETPLAN)*. 60 pgs. A revision conducted by DigsFish Services for the Australian Government Department of Agriculture, Canberra, ACT.
- Diggles BK (2014). Infection of wild queenfish with sealice (*Lepeophtheirus spinifer* and *Caligus* spp.) in Australia, with observations of skin rashes in fish from Gladstone Harbour, Queensland. Prepared for the second FRDC Australasian Aquatic Animal Health Scientific Conference, Cairns, 8-12 July, 2013, and presented to Project Neptune Webinar Series 31 March 2014. <http://digsfish.com/ProjectNeptuneWebinar31Mar2014.pdf>
- Diggles BK, Macbeth WG, Barnes L, Dyrting K (2013). Detection of a new rickettsia-like organism in wild caught sand crabs (*Portunus pelagicus*) from Darwin and Bynoe Harbours. Second FRDC Australasian Aquatic Animal Health Scientific Conference 8-12 July, 2013, Cairns Australia.
- Diggles BK (2013). Updated risk assessment for translocation of Pacific oyster (*Crassostrea gigas*) seed from Shellfish Culture Ltd (Tasmania) into NSW. DigsFish Services Client Report DF13-02. March 2013. 52 pgs.
- Diggles BK, Landos M (2012). Biosecurity Workshop. Diseases of Crustaceans in Brunei Darussalam. Training course prepared for the Government of Brunei Darussalam. May 2012.
- Diggles BK (2012). Literature Review: Best practice in humane dispatch of finfish caught by recreational fishers. DigsFish Services Client Report DF12-01. Prepared for the Commonwealth of Australia, Department of Agriculture, Fisheries and Forestry, February 2012. 20 pgs.
- Gordon DP, Diggles BK, Meisterfeld R, Hollis CJ, Buchanan PK (2012). Chapter 15. Phylum Cercozoa. Cercomonads, filose testate amoebae, Phaeodaria, plasmodiophoras, Gromia, haplosporidians, and kin. Pgs 233-241. In: Gordon DP (Ed). *New Zealand Inventory of Biodiversity. Volume 3. Kingdoms Bacteria, Protozoa, Chromista, Plantae, Fungi*. Canterbury University Press. 616 pgs.
- Diggles BK, Sawynok W, Olyott LJH (2011). Development of an environmental standard for recreational fishing tournaments. In: Beard TD et al. (2011). *The angler in the environment. Proceedings of the 5th World Recreational Fishing Conference. American Fisheries Society Symposium 75: 251-261.*
- Diggles BK, Landos M (2011). *Revision of National Water Quality Management Strategy Document 4: Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Task 2: Assessment of how aquatic guidelines (section 9.4) are used by resource managers and the aquaculture industry and investigate microbiological criteria for management of pathogens in*

waters for aquaculture. DigsFish Services Client Report DF11-01. Prepared for the NEPC Service Corporation May 2011. 92 pgs.

Diggles BK (2011). Risk Analysis. Aquatic animal diseases associated with domestic bait translocation. Final report prepared for the Australian Government Department of Agriculture, Fisheries and Forestry, Canberra, FRDC Project No. 2009/072. 296 pgs.
<http://www.digsfish.com/2009-072final.pdf>

Diggles BK (2010). Draft Risk Analysis. Hazard identification – aquatic animal diseases associated with domestic bait translocation. Draft prepared for the Australian Government Department of Agriculture, Fisheries and Forestry, Canberra, FRDC Project No. 2009/072. 119 pgs.

Aquavetplan (2010). Australian Aquatic Veterinary Emergency Plan. Viral Haemorrhagic Septicaemia. Version 2.0, 2010. 71 pgs. A revision conducted by DigsFish Services for the Office of the Chief Veterinary Officer, Australian Government Department of Agriculture, Fisheries and Forestry, Canberra.

Landos M, Diggles BK, Landos J (2010). Crustacean and disease identification and sampling manual for Brunei Darussalam. DigsFish Services Client Report DF09-10a. Prepared for the Government of Brunei Darussalam. February 2010. 116 pgs.

Reece, KS, Moss, J, Scott, GP, Burreson, EM, Dungan, CF, Sheppard, BJ, Coleman, J, Liggins, G, Diggles, BK, Casas, S, La Peyre, JF, Villalba, A, and Upston, J (2009). Molecular identification and discrimination of *Perkinsus* Species: Implications for developing management strategies and assessing introduction risks. NSA 101st Annual Meeting, March 22-26, 2009, Savannah. *J. Shellfish Res.* 724

Diggles BK, Landos J, Landos M (2009). Import Risk Analysis – Shrimp and Other Crustacean Products. DigsFish Services Client Report DF09-10. Prepared for the Government of Brunei Darussalam December 2009. 155 pgs.

Diggles BK, Olyott L (2009). Implementation of the NEATFish environmental standard for fishing tournaments. Report published by DigsFish Services Pty Ltd, September 2009, for FRDC project no. 2008/215. 25 pgs.

Aquavetplan (2009). Australian Aquatic Veterinary Emergency Plan. Enterprise Manual. Version 2.0, 2009. 170 pgs. A revision conducted by DigsFish Services for the Office of the Chief Veterinary Officer, Australian Government Department of Agriculture, Fisheries and Forestry, Canberra.

Diggles BK, Landos J, Landos M (2009). Assessment of Aquatic Animal Biosecurity Capacity in Brunei Darussalam - March 2009. DigsFish Services Client Report DF09-01. March 2009. 26 pgs.

Aquavetplan (2008). Australian Aquatic Veterinary Emergency Plan. Operations Procedures Manual: Disposal. Version 2.0, 2008. 50 pgs. A revision conducted by DigsFish Services for the Office of the Chief Veterinary Officer, Australian Government Department of Agriculture, Fisheries and Forestry, Canberra.

Diggles BK (2008). Risk assessment for translocation of Pacific oyster (*Crassostrea gigas*) seed from Shellfish Culture Ltd (Tasmania) into NSW. DigsFish Services Client Report DF07-09. June 2008. 35 pgs.

- Sawynok W, Diggles BK, Harrison J (2008). Development of a national environmental management and accreditation system for business/public recreational fishing competitions . Report published by Recfish Australia , March 2008, for FRDC project no. 2006/057.
- Tubbs L, Lee P, Diggles B, Jones JB, Sheppard M, Sim-Smith C (2007). A review of aquatic diseases of significance to New Zealand. Biosecurity New Zealand Technical Paper. Project ZBS2005-17, 461 pp.
- Corfield J, Diggles BK, Jubb C, McDowall RM, Moore A, Richards A, Rowe DK (2007). Draft final report for public comment to the Australian government Department of the Environment and Water Resources. Review of the impacts of introduced aquarium fish species that have established wild populations in Australia. NIWA Client Report: HAM2006-082; NIWA Project: NAU05917 <http://www.environment.gov.au/biodiversity/invasive/publications/wild-aquarium-fish.html>
- Diggles B. K., Hine P.M. and Carson J (2007). The Cook Islands Experience. Pearl oyster health investigations. In: Bondad-Reantaso MG. et al. Pearl Oyster Health Management: A manual. FAO Fisheries Technical Paper 503. FAO, Rome 2007. pgs 71-85.
- Sawynok W., Diggles B., Harrison J. (2006). A national environmental management and accreditation system for recreational fishing tournaments: Concept Development. Report published by Recfish Australia , February 2006, for FRDC project no. 2005/235.
- Biosecurity NZ (2006). Import Risk Analysis: Freshwater Prawns *Macrobrachium rosenbergii* from Hawaii. Biosecurity NZ, Ministry of Agriculture and Forestry. 63 pgs. IRA prepared by Ben Diggles for NZ Government. <http://www.biosecurity.govt.nz/pests-diseases/animals/risk/prawns-ra.htm>
- Biosecurity NZ (2005). Import Risk Analysis: Ornamental fish. Biosecurity NZ, Ministry of Agriculture and Forestry. 264 pgs. IRA prepared by Ben Diggles for NZ Government.
- Diggles, B. K. (2002). Import Risk Assessment: Juvenile yellowtail kingfish (*Seriola lalandi*) from Spencer Gulf Aquaculture, South Australia. NIWA Client report WLG 2001/03, July 2002. Prepared for Island Aquafarms Ltd. 54 p. <http://www.maf.govt.nz/biosecurity/pests-diseases/animals/risk/yellowtail-kingfish-ra.pdf>
- Diggles, B. K., Hine, P. M., Handley, S. and Boustead, N. C. (2002). A handbook of diseases of importance to aquaculture in New Zealand. NIWA Science and Technology Series No. 49, ISSN 1173-0382. 200 pages. <http://docs.niwa.co.nz/library/public/NIWAsts49.pdf>
- Hine, P. M., Jones, J. B. and Diggles, B. K. (2000). A checklist of the parasites of New Zealand fishes, including previously unpublished records. NIWA Technical Report 75. ISSN 1174-2631. 94 pages. <http://www.niwa.co.nz/pubs/tr/>
- Diggles, B.K. (2000). Diseases of spiny lobsters in New Zealand. Proceedings of the International Symposium on Lobster Health Management, L. Evans (ed.). Curtin University of Technology. <http://www.curtin.edu.au/curtin/muresk/publica/others/lhm/>
- Diggles, B. K. and Simpson, D. (1998). A discussion paper on the regulation of recreational fishing in South Australia. South Australian Fisheries Management Series, Paper No. 33 (May 1998). Outcomes summarised at <http://www.fishresearch.sa.gov.au/download/rrr.pdf>

Diggles, B. K. and Hall, D. (1997). A discussion paper on the management and development of recreational fishing in South Australia. South Australian Fisheries Management Series, Paper No. 23 (May 1997). Outcomes summarized at <http://www.fishresearch.sa.gov.au/download/rrr.pdf>

Dr Diggles also writes monthly educational columns on fish biology for the Australian Anglers Fishing World Magazine www.yaffa.com.au/fw/index.htm (since 1995) and contributes to a fish identification column in the USA Sport Fishing Magazine www.sportfishingmag.com/index.jsp (since March 2003).

Number of peer reviewed scientific papers: 50

- 50 Diggles BK (2017). Annual pattern of settlement of Sydney rock oyster (*Saccostrea glomerata*) spat in Pumicestone Passage, Moreton Bay. *Proceedings of the Royal Society of Queensland*, 122: 17-33.
- 49 Diggles BK, Arlinghaus R, Browman HI, Cooke SJ, Cowx IG, Kasumayan AO, Key B, Rose JD, Sawynok W, Schwab A, Skiftesvik AB, Stevens ED, Watson CA, Wynne CDL (2017). Responses of larval zebrafish to low pH immersion assay. Comment on Lopez-Luna et al. (2017). *Journal of Experimental Biology* 220: 3191-3192. <http://jeb.biologists.org/content/220/17/3191> .
- 48 Key B, Arlinghaus R, Browman HI, Cooke CJ, Cowx IG, Diggles BK, Rose JD, Sawynok W, Schwab A, Skiftesvik AB, Stevens ED, Watson CA. (2017). Problems with equating thermal preference with “emotional fever” and sentience. Comment on Rey et al. (2015) Fish can show emotional fever: stress-induced hyperthermia in zebrafish. *Proceedings of the Royal Society of London B*. 284: 20160681.
- 47 Dennis MM, Diggles BK, Faulder R, Olyott L, Pyecroft SB, Gilbert GE, Landos M (2016). Pathology of finfish and mud crabs *Scylla serrata* during a mortality event associated with a harbour development project in Port Curtis, Australia. *Diseases of Aquatic Organisms* 121: 173–188.
- 46 Cutmore SC, Diggles BK, Cribb TH (2016). *Transversotrema* Witenberg, 1944 (Trematoda: Transversotrematidae) from inshore fishes of Australia: description of a new species and significant range extensions for three congeners. *Systematic Parasitology* 93: 639–652.
- 45 Stevens ED, Arlinghaus R, Browman HI, Cooke SJ, Cowx IG, Diggles BK, Key B, Rose JD, Sawynok W, Schwab A, Skiftesvik, AB, Watson CA, and Wynne CDL (2016). Stress is not pain. Comment on Elwood and Adams (2015) Electric shock causes physiological stress responses in shore crabs, consistent with prediction of pain. *Biology Letters* 12(4):DOI:10.1098/rsbl.2015.1006. <http://rsbl.royalsocietypublishing.org/content/12/4/20151006.full>
- 44 Gilles CL and 22 other co-authors (2015). Scaling up marine restoration efforts in Australia. *Ecological Management and Restoration* 16(2): 84-85.
- 43 Moravec F, Diggles BK (2015). A new gonad-infecting species of *Philometra*, *P. barnesi* sp. n. (Nematoda: Philometridae), from the marine fish *Pomadasyys argenteus* (Haemulidae) off the northern coast of Australia. *Parasitology Research* 114: 4121-4126.

- 42 Diggles BK (2015). Development of resources to promote best practice in the humane dispatch of finfish caught by recreational fishers. *Fisheries Management and Ecology*
DOI: 10.1111/fme.12127. <http://onlinelibrary.wiley.com/doi/10.1111/fme.12127/abstract>
- 41 Kritsky DC, Diggles BK (2015). *Acanthocercodes* gen. n. (Monogenoidea: Diplectanidae) for species parasitizing threadfins (Perciformes: Polynemidae), with description of *Acanthocercodes bullardi* sp. n. from *Polydactylus octonemus* (Girard) and reassignment of three species of *Diplectanum* Monticelli, 1903 from threadfins of the Indo-Pacific Ocean. *Systematic Parasitology*: 91: 191-201.
- 40 Moravec F, Diggles BK (2015). *Philometra mirabilis* sp. n. (Nematoda: Philometridae), a new gonad-infecting parasite from the freshwater fish *Cichla miriana* (Cichlidae) in the Brazilian Amazon. *Parasitology Research* 114: 1929-1932.
- 39 Diggles BK (2015). Reply to Pollock (2014) Comments on 'Saddleback deformities in yellowfin bream *Acanthopagrus australis* (Gunther) from South east Queensland' by Diggles (2013). *Journal of Fish Diseases* 38: 331-333.
- 38 Dennis MM, Diggles BK (2015). Multicentric orocutaneous fibrosarcoma in a fork-tailed catfish (*Hemiarus dioctes*). *Journal of Fish Diseases* DOI: 10.1111/jfd.12349
- 37 Moravec F, Diggles BK (2014b). Two new gonad-infecting species of *Philometra* (Nematoda: Philometridae) from marine fishes off the northern coast of Australia. *Systematic Parasitology* 89: 33-44.
- 36 Moravec F, Diggles BK, Barnes L, MacBeth W (2014). *Buckleyella ornata* sp. n. (Nematoda: Philometridae) from the abdominal cavity of the talang queenfish *Scomberoides commersonianus* (Perciformes: Carangidae) off the northern coast of Australia. *Helminthologia* 51, 3: 230-235.
- 35 Kritsky DC, Diggles BK (2014). Dactylogyrids (Monogenoidea: Polyonchoinea) parasitizing the gills of snappers (Perciformes: Lutjanidae): Species of *Euryhaliotrema* Kritsky & Boeger, 2002 from the golden snapper *Lutjanus johnii* (Bloch) off northern Australia, with a redescription of *Euryhaliotrema johni* (Tripathi, 1959) and descriptions of two new species. *Systematic Parasitology* 87: 73-82.
- 34 Moravec F, Diggles BK (2014a). Philometrid nematodes (Philometridae) from marine fishes off the northern coast of Australia, including three new species. *Folia Parasitologica* 61: 37-54.
- 33 Rose JD, Arlinghaus R, Cooke SJ, Diggles BK, Sawynok W, Stevens ED, Wynne CDL (2014). Can fish really feel pain? *Fish and Fisheries* 15: 97-133.
<http://onlinelibrary.wiley.com/doi/10.1111/faf.12010/pdf>
- 32 Diggles BK (2013). Historical epidemiology indicates water quality decline drives loss of oyster (*Saccostrea glomerata*) reefs in Moreton Bay, Australia. *New Zealand Journal of Marine and Freshwater Research* 47: 561-581.
- 31 Diggles BK (2013). Saddleback deformities in yellowfin bream *Acanthopagrus australis* (Gunther) from South east Queensland. *Journal of Fish Diseases* 36: 521-527.
- 30 Diggles BK, Sawynok W, Olyott LJH (2011). Development of an environmental standard for recreational fishing tournaments. In: Beard TD et al. (2011). The angler in the environment.

Proceedings of the 5th World Recreational Fishing Conference. American Fisheries Society Symposium 75: 251-261.

- 29 Diggles BK, Cooke SJ, Rose JD, Sawynok W (2011b). Response to Torgersen et al. (2011): Reply to Diggles et al. (2011): Ecology and Welfare of aquatic animals in wild capture fisheries. *Reviews in Fish Biology and Fisheries* 22(1): 367-369.
- 28 Diggles BK, Cooke SJ, Rose JD, Sawynok W (2011a). Ecology and welfare of aquatic animals in wild capture fisheries. *Reviews in Fish Biology and Fisheries* 21(4): 739-765.
- 27 Dungan CF, Reece KS, Moss JA, Hamilton RM, Diggles BK (2007). *Perkinsus olseni* in vitro isolates from the New Zealand clam *Austrovenus stutchburyi*. *Journal of Eukaryotic Microbiology* 54: 263-270.
- 26 Corbeil S., Arzul I., Diggles B.K., Heasman M., Chollet B., Berthe FCJ., Crane MJ. (2006). Development of a TaqMan PCR assay for the detection of *Bonamia* species. *Diseases of Aquatic Organisms* 71: 75-80.
<http://www.int-res.com/articles/dao2006/71/d071p075.pdf>
- 25 Whipps C.M., Diggles B.K. (2006). *Kudoa alliaris* in flesh of Argentine hoki, *Macruronus magellanicus* (Gadiformes: Merlucciidae). *Diseases of Aquatic Organisms* 69: 259-263.
<http://www.int-res.com/articles/dao2006/69/d069p259.pdf>
- 24 Diggles B.K., Oliver, M. (2005). Diseases of cultured paua (*Haliotis iris*) in New Zealand. Proceedings of the 5th Symposium on Diseases in Asian Aquaculture. Fish Health Section, Asian Fisheries Society, Quezon City, Philippines.
- 23 Tubbs L.A., Poortenaar, C.W., Sewell M.A., Diggles B.K. (2005). Effects of temperature on fecundity in vitro, egg hatching and reproductive development of *Benedenia seriola* and *Zeuxapta seriola* (Monogenea) parasitic on yellowtail kingfish *Seriola lalandi*. *International Journal for Parasitology* 35 315-327.
- 22 Sharp, N. J., Diggles, B. K., Poortenaar, C. W and Willis T. J. (2004). Efficacy of Aqu-S, formalin and praziquantel against the monogeneans, *Benedenia seriola* and *Zeuxapta seriola*, infecting yellowtail kingfish, *Seriola lalandi lalandi*, in New Zealand. *Aquaculture* 236: 67-83.
http://www.elsevier.com/wps/find/journaldescription.cws_home/503302/description-description
- 21 Diggles B.K. (2003). Some pathological abnormalities of New Zealand Fishes. *New Zealand Journal of Marine and Freshwater Research* 37: 705-713.
<http://www.tandfonline.com/doi/pdf/10.1080/00288330.2003.9517200>
- 20 Sharp, N. J., Poortenaar, C. W., Diggles, B. K. and Willis T. J. (2003). Metazoan parasites of yellowtail kingfish, *Seriola lalandi lalandi*, in New Zealand. Prevalence, intensity and site specificity. *New Zealand Journal of Marine and Freshwater Research* 37: 273-282.
<http://www.tandfonline.com/doi/pdf/10.1080/00288330.2003.9517165>
- 19 Diggles, B.K., Cochenec-Laureau, N., Hine, P.M. (2003). Comparison of diagnostic techniques for *Bonamia exitiosus* from flat oysters *Ostrea chilensis* in New Zealand. *Aquaculture*: 220: 145-156.
http://www.elsevier.com/wps/find/journaldescription.cws_home/503302/description-description
- 18 Diggles, B.K., Nichol, J., Hine, P.M., Wakefield, S., Cochenec-Laureau, N., Roberts, R.D., Friedman, C.S. (2002): Pathology of cultured paua (*Haliotis iris* Martyn, 1784) infected by a novel

- haplosporidian parasite, with some observations on the course of disease. *Diseases of Aquatic Organisms* 50: 219-231.
<http://www.int-res.com/articles/dao2002/50/d050p219.pdf>
- 17 Hine, P.M., Diggles, B.K., Parsons, M.J.D., Pringles, A., Bull B. (2002). The effects of stressors on the dynamics of *Bonamia exitiosus* Hine, Cochenec-Laureau & Berthe, infections in flat oysters *Ostrea chilensis* (Philippi). *Journal of Fish Diseases* 25: 545-554.
<http://www.blackwell-synergy.com/rd.asp?code=JFD&goto=journal>
- 16 Hine, P.M., Diggles, B.K. (2002). The distribution of *Perkinsus olseni* in New Zealand bivalve molluscs. *Surveillance* 29: 8-11.
<http://www.maf.govt.nz/biosecurity/publications/surveillance/surveillance-29-1.pdf>
- 15 Hine, P.M., Diggles, B.K. (2002). Prokaryote infections in the New Zealand scallops *Pecten novaezelandiae* and *Chlamys delicatula*. *Diseases of Aquatic Organisms* 50: 137-144.
<http://www.int-res.com/articles/dao2002/50/d050p137.pdf>
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