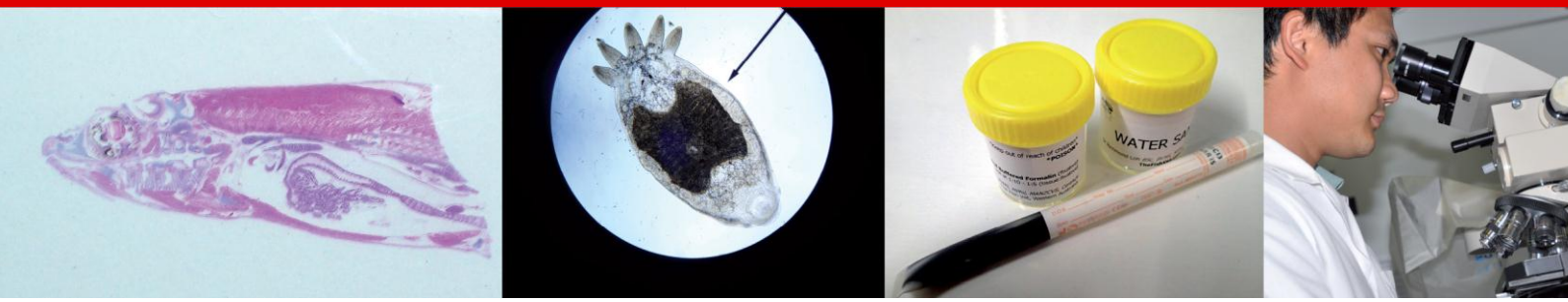
The Fish Vet **Services and Fees 2016**



The Fish Vet

In the event of any enquiries with respect to this material, please contact:
Dr Richmond Loh, The Fish Vet • **Tel:** +61 (0)421 822 383 • **Email:** thefishvet@gmail.com

BACKGROUND TO THE SCOPE OF WORKS

The Fish Vet offers a comprehensive aquatic veterinary service. A one-stop-shop, so there is no duplication of work, and no loss of time or information between management and consultant.

The Fish Vet provides training in all aspects of fish health and disease to farmers, hobbyists, university students, veterinarians and government agencies; locally and internationally.

The Fish Vet tries to ensure all testing is conducted at NATA accredited laboratories. If a non-NATA accredited laboratory is used, The Fish Vet will source the next best service provider.

Results from testing for endemic diseases remain confidential to the submitter. If there is suspicion and/or confirmation of reportable disease, we are required (by law or regulatory policies) to notify appropriate authorities.

By submitting to The Fish Vet, you acknowledge the terms and conditions as set out above.
If you suspect a notifiable disease, you must report it by calling the Emergency Disease Hotline 1800 675 888.

Please call ahead prior to collection and dispatch of samples. This will allow The Fish Vet to offer advice, and better plan and prioritise.

Label samples with your name, address, telephone number and identity of specimen.

POA: Price on Application.

THE FISH VET TEAM

Dr Richmond Loh - Perth

BSc, BVMS, MPhil, MANZCVS (Aquatics & Pathobiology), *CertAqV.*

Dr Richmond Loh is an aquatic veterinarian, and a veterinary pathologist. He provides veterinary services for a range of clients including pet fish, display aquaria, retailers and fish farmers (ornamental and food fish). He has been admitted to the Australian and New Zealand College of Veterinary Scientists by examinations in the subjects of Pathobiology and Aquatic Animal Health. He is a Certified Aquatic Veterinarian and has been awarded the George Alexander International Fellowship by the International Specialised Skills Institute. He is a Past-President of the World Aquatic Veterinary Medical Association, and is an adjunct lecturer at Murdoch University.

He has published practical manuals and instructional videos to help fellow veterinarians and fish owners, for the betterment of fish health and welfare globally:

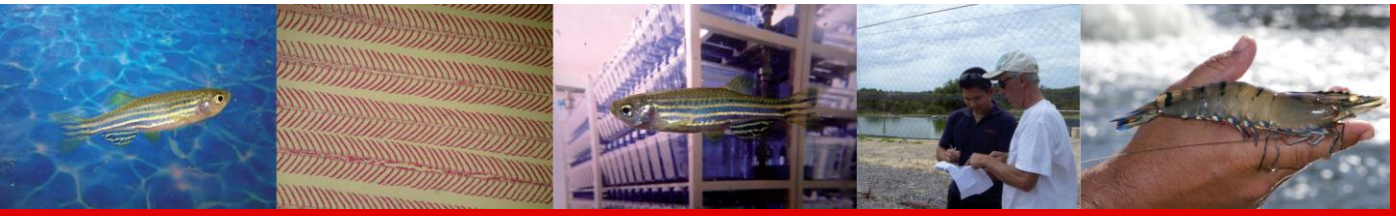
- “Fish Vetting Essentials” (book)
- “Fish Vetting Medicines – Formulary of Fish Treatments” (book)
- “Fish Vetting Techniques & Practical Tips” (DVD).

University-based qualifications:

- Master of Philosophy (Veterinary Pathology) - Murdoch University (2006).
- Bachelor of Veterinary Medicine & Surgery - Murdoch University (2001).
- Bachelor of Science - Murdoch University (1999).

Other qualifications:

- Certified Aquatic Veterinarian by the World Aquatic Veterinary Medical Association (2013).
- Awarded the George Alexander International Fellowship by the International Specialised Skills Institute (2012).
- Adjunct Lecturer for Murdoch University, School of Veterinary Science (2009).
- Examined Member Australian & New Zealand College of Veterinary Scientists (Veterinary Pathobiology) (2009).
- Examined Member Australian & New Zealand College of Veterinary Scientists (Aquatic Animal Health) (2006).
- Founding Member of the World Aquatic Veterinary Medical Association (2007).
- Diploma in Project Management – TAFE, Tasmania (2007).
- Certificate in Companion Animal Services – Aquatics, Level 3 – Nelson Marlborough Institute of Technology (2009).
- CMAVA (Chartered Member of the Australian Veterinary Association) (2006).



Giana Bastos Gomes - Townsville

BVM, MVM, CertAqV.

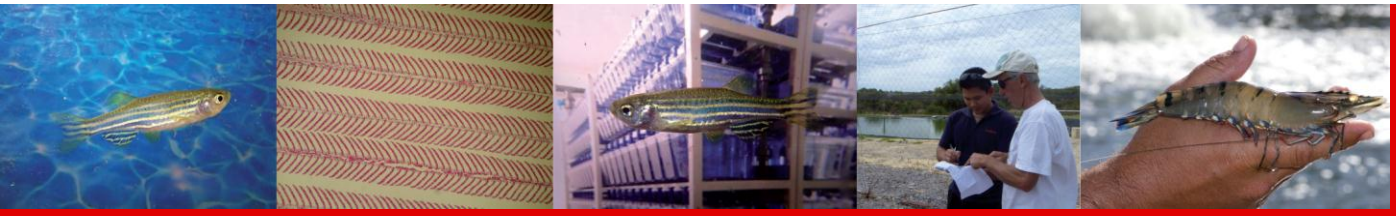
Giana Gomes is the aquatic animal health specialist from The Fish Vet team. Giana studied veterinary medicine in Brazil where she graduated in 2003. Giana has a strong R & D background in aquaculture Currently Giana is undertaking a PhD on developing new tools for early detection of ciliate parasites in farmed barramundi from tropical Australia, at James Cook University. Giana was the veterinarian responsible for the largest prawn hatchery in Brazil (Aquatec) for 2 years. After leaving the Brazilian prawn company Giana did her masters on prawn diseases caused by intracellular bacteria (NHPB). In 2008 she migrated to Australia and began her PhD on barramundi diseases. Before starting her PhD, Giana worked for various renowned research institutions in Queensland including James Cook University, DEEDI-DPI QLD and Australian Institute of Marine Science (AIMS). Recently, Giana won the “2016 Science and Innovation Awards” and the “2016 Minister’s Award” which recognises the best emerging young talent in rural Australian industries.

University-based qualifications:

- Doctor of Philosophy candidate – Aquaculture, James Cook University (2013-present).
- Master of Philosophy – Veterinary Science, Federal Rural de Pernambuco University, Brazil (2008).
- Bachelor of Veterinary Medicine - Federal Rural de Pernambuco University, Brazil (2003).

Publications:

- De Santis C, Gomes GB, Jerry,DR (2012) Abundance of myostatin gene transcripts and their correlation with muscle hypertrophy during the development of barramundi, *Lates calcarifer*. Comparative Biochemistry and Physiology- Part B. 163:101-107.
- Tziouveli V, Gomes GB, Bellwood O (2011) Functional morphology of mouthparts and digestive system during larval development of the cleaner shrimp *Lysmata amboinensis* (de Man, 1888). Journal of Morphology. 272(9):1080-9.
- Gomes GB, Domingos JA, Oliveira KKC, De Paula Mendes P, Arns Da Silva V, Mendes ES (2010) Diagnosis of Necrotizing Hepatopancreatitis in Pacific White Shrimp, *Litopenaeus vannamei*, through Wet Mount, Histopathology and PCR Techniques. Journal of the World Aquaculture Society. 41(5):816-822.
- Gomes GB, Domingos JA, Arns Da Silva V, Mendes ES, De Paula Mendes P (2011) Wet mount technique excellent for health shrimp monitoring, but not NHP diagnosis in http://www.gaalliance.org/mag/2011/Nov-Dec/index.html.
- Gomes GB, Arns Da Silva V, Mendes ES (2007) Hepatopancreatite Necrosante (NHP) em camarão marinho: Revisão de Literatura. Ciência Veterinária nos Trópicos 10: 17-19.
- Gomes GB, Mendes ES (2007) Hepatopancreatite Necrosante causada por Ricketsia em camarão marinho cultivado.Revista Aquicultura e Pesca 29: 14-16.



Orachun Hayakijkosol - Townsville

BVSc, MSc, PhD, CertAqV

Dr Orachun Hayakijkosol is an aquatic animal specialist who has a strong molecular background in aquatic animal diseases diagnostics. He has had experience in aquatic species including fish, crustaceans, freshwater turtles and sea turtles. Dr Hayakijkosol completed his Master degree and PhD in viral infectious diseases in crustacean species. He is a member of the World Aquatic Veterinary Medical Association and is currently a lecturer within the Discipline of Veterinary Science at James Cook University.

University-based qualifications:

- Doctor of Philosophy– James Cook University, Australia (2012).
- Master Degree of Tropical Veterinary Science – James Cook University , Australia (2008).
- Bachelor of Veterinary Science – Mahidol University, Bangkok, Thailand (2006).

Other qualifications:

- Certified Aquatic Veterinarian by the World Aquatic Veterinary Medical Association (2015).

Publications:

- Hayakijkosol, O. and Owens, L. (2013), Non-permissive C6/36 cell culture for the Australian isolate of *Macrobrachium rosenbergii* nodavirus, Journal of Fish Diseases 36, 401-409.

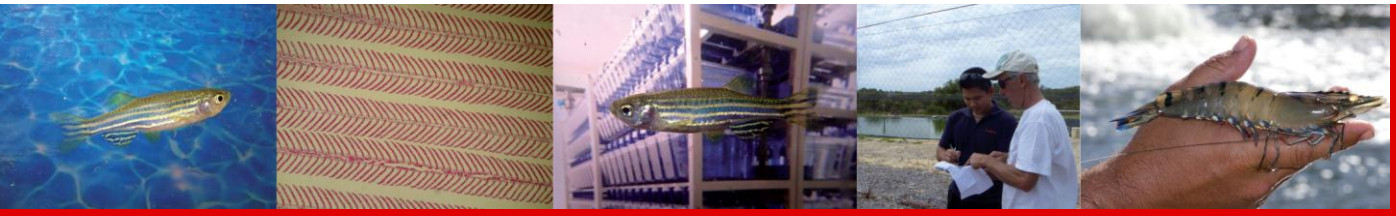
- Hayakijkosol, O., Burgess, G., La Fauce, K. and Owens L. (2012), The complete sequence of the Australia recognizate of *Macrobrachium rosenbergii* nodavirus which causes white tail disease, Aquaculture 366-367, 98 – 104.

- Hayakijkosol, O. and Owens, L. (2012), B2 or not B2: RNA interference reduces *Macrobrachium rosenbergii* nodavirus replication in redclaw crayfish (Cherax quadricarinatus), Aquaculture 326-329, 40-45.

- Hayakijkosol, O., LaFauce, K. and Owens, L. (2011), Experimental Infection of Redclaw Crayfish (Cherax quadricarinatus) with Macrobrachium rosenbergii Nodavirus, the Aetiological Agent of White Tail Disease, Aquaculture 319, 25-29.

- Hayakijkosol, O. and Owens, L. (2011), Investigation into the Pathogenicity of Reovirus to Juvenile Cherax quadricarinatus, Aquaculture 316, 1 – 5.

- Owens, L., LaFauce, K., Juntenen, K., Hayadijkosol, O. and Zeng, C. (2009), Macrobrachium rosenbergii nodavirus Disease (White Tail Disease) in Australia, Diseases of Aquatic Organisms 85, 175 – 180



Dr Alistair Brown - Melbourne

BSc, BVMS, CertFHP, MANZCVS (Aquatic Animal Health).

Dr Alistair Brown is an aquatic veterinarian and began his career in the aquatics field in 1991 when he began working for Marine Harvest Scotland (producers of Atlantic salmon). Since then, he has worked with a range of commercial species including Australian native fish, salmonids and abalone.

University-based qualifications:

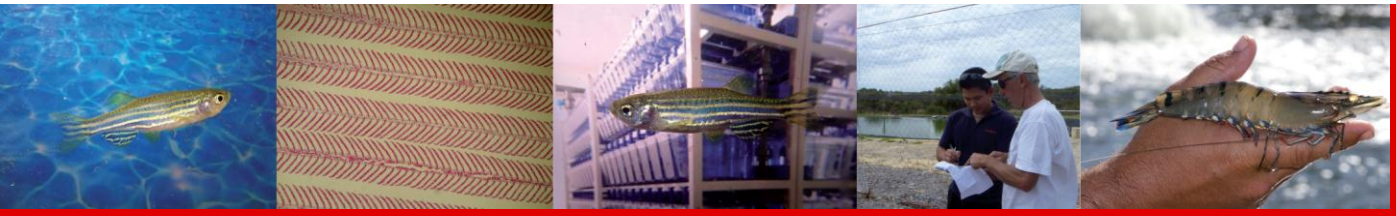
- Bachelor of Veterinary Medicine and Surgery - Murdoch University (1987)
- Bachelor of Science - Murdoch University (1985)

Other qualifications:

- Examined Member Australian and New Zealand College of Veterinary Scientists (Aquatic Animal Health) (1999)
- Certificate in Fish Health and Production (Royal College of Veterinary Surgeons) (1995)

Publications:

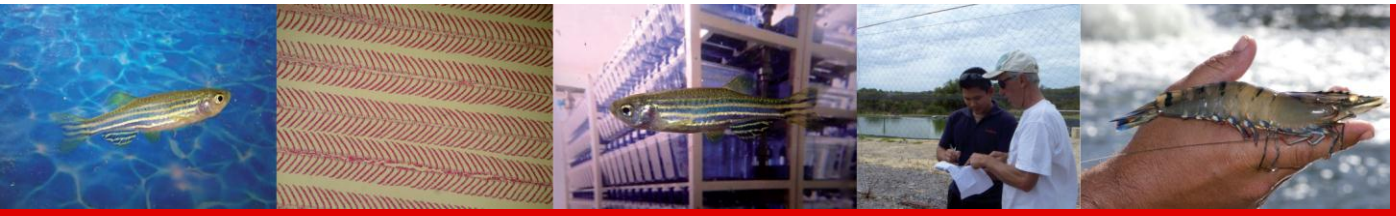
- Use of amoxycillin by injection in Atlantic salmon broodstock.
- Veterinary Record (1992) 131,237. A.G. Brown & A.N. Grant
- Clinical efficacy of injectable amoxycillin against furunculosis in Atlantic salmon broodstock
- Veterinary Record (1993) 133, 373. A.G. Brown & A.N. Grant
- Plasma lipase concentration as an aid to the early detection of pancreas disease in farmed Atlantic salmon.
- Veterinary Record (1994) 135, 107-108. A.N. Grant, A.G. Brown & L.A. Laidler
- Investigation into the use of potentiated sulphonamide in Atlantic salmon.
- Fish Veterinary Journal (1996) 1, 14–20. A.G. Brown
- Rickettsia-like organism in farmed salmon.
- Veterinary Record (1996) 138, 423 –424. A.N. Grant, A.G. Brown, D.I. Cox, T.H. Birkbeck & A.A. Griffen
- Treatment of Trichodina infestations of the greenback flounder using freshwater.
- Bulletin of the European Association Fish Pathologists (1998) 18(6), 1-2. A.G. Brown & J. Markus



SERVICES AND RATES

Services	Fee	Unit	Notes
Consultation - Private	$198.00	per hour	
Consultation - Commercial	$300.00	per hour	
Consultation - Commercial	$1,800.00	per day	
Local travel	$1.80	per km	
Interstate/overseas travel	POA		Costs of return airfares, airport transfers and accommodation are normally borne by the client. Payment needs to be received prior to work.
Health Certification	POA		
Prescription/medicines	POA		
Surgery/anaesthesia	POA		
Research	POA		
Audits	POA		
Training	POA		
Laboratory Testing	**Fee**	**Unit**	**Notes**
General			
Laboratory submission fee	$20.00	per submission	
P&H	POA		courier fees passed to client
Priority Loading	$90.00	per case	
External laboratory testing	POA		fees passed to client
Algology			
Cyanobacteria identification	$35.00	per sample	
Bacteriology			
Culture			Use Amies charcoal tpt swab
Freshwater finfish	$95.00	per sample	
Marine finfish	$95.00	per sample	
Crustacea/mollusc	$90.00	per sample	

Laboratory Testing	Fee	Unit	Notes
Specific culture			
Streptococcus iniae	$95.00	per sample	
Smear bacterial examination			
Acid-fast	$30.00	per slide	
Gram	$30.00	per slide	
Anaerobic culture	$135.00	per sample	
Antibiotic sensitivity	$35.00	per isolate	
Total bacterial count (TBC expressed as colony forming units {CFUs])	$65.00	per sample	
Total Vibrio count (when done with TBC).	POA		
Preservation of microbial isolates	POA	per isolate	
Clinical Chemistry			
Amino acids profile in tissues or feeds	$150.00	per sample	
Biochemistry Panel (GLDH, GGT, bilirubin [total & direct], urea, creatinine, cholesterol, CK, ALT, protein, aqlbumin, AG ratio, BHB, haptoglobin, Ca, Mg, P, Fe).	$45.00	per sample	Collect into LiHep
Haematology (manual, qualitative assessment)	$68.00	per slide	Air-dried prep.
Vitamins A and E in plasma	POA		Collect into LiHep
Vitamins A and E in liver or feeds	POA		
Molecular Diagnostics			Collect into ETOH
Aphanomyces invadans (epizootic ulcerative syndrome)	$97.50	per test	
Aphanomyces astaci (crayfish plague)	$97.50	per test	
Chytrid	$97.50	per test	
AHPND/EMS (*Vibrio parahaemolyticus*)	$97.50	per test	
Iridovirus (e.g. megalocytivirus)	$97.50	per test	
Ranavirus (amphibia)	$97.50	per test	
Shrimp viruses			
WSSV	$97.50	per test	
YHV (+-GAV)	$97.50	per test	
VNN (nodavirus)	$97.50	per test	
Sequencing	$100.00	per sample	



Laboratory Testing	Fee	Unit	Notes
Mycology			
Aphanomyces astaci (crayfish plague) specific culture	$120.00	per sample	
Aphanomyces invadans (epizootic ulcerative syndrome) specific culture	$120.00	per sample	
Chytrid (see Molecular Diagnostics)			
Fungal culture general			
Parasitology			
Perkinsus culture	POA		
Parasite identification	POA		
Pathology			
Cytology	$58.00	per slide	Air-dried prep
Electron microscopy	POA		
Histology - first slide			Collect into 10%NBF
First slide	$129.00	per slide	
Additional slides (HE, Gram, ZN, Giemsa)	$69.50	per slide	
Special histological stains (Luna, silver stains, etc.)	POA	per slide	
Immunohistochemistry	POA		
Necropsy	POA	per hour	
Toxicology			
Copper in feed or tissues	POA		
Water biochemistry (ammonia, nitrite, nitrate, pH, alkalinity, general hardness, salinity)	$35.00	per sample	Send chilled
Water chemistry (elements panel by ICP)	POA		
Pollutants	POA		
Virology			
See "Molecular Diagnostics"			

To help us help you, please discuss cases prior to sampling & dispatch:

Contact: Dr Richmond Loh
Phone: 0421 822 383 or
Email: thefishvet@gmail.com

Send samples to:

Dr Richmond Loh
The Fish Vet
PO Box 520
Como WA 6952