

# Curriculum Vitae – Dr Richard (Rick) van Dam

## Current address

17 West St  
Torrensville SA 5031 AUSTRALIA  
Mobile 0429 153 151  
E-mail: [rick.vandam@wgadvice.com.au](mailto:rick.vandam@wgadvice.com.au) web: [www.wgadvice.com.au](http://www.wgadvice.com.au)

## Tertiary qualifications

Bachelor of Science – Honours (H1) in Marine Ecology, University of Adelaide, 1986 – 1990 (Thesis title: *Comparative effects of toxic and non-toxic antifouling paints on the succession of sessile marine invertebrate communities*; Supervisor: Professor Alan Butler)

Doctor of Philosophy in Aquatic Toxicology, Royal Melbourne Institute of Technology (RMIT) University, 1992 - 1996 (Thesis title: *Sub-lethal effects of the chelating agent, diethylenetriamine pentaacetic acid (DTPA), on Australian freshwater organisms*; Supervisors: Professors Doug Holdway and Jorma Ahokas)

## Career overview

I have been continuously involved in applied science related to water quality and aquatic ecosystem protection since my Honours research in 1990.

At present, I operate an independent consulting business that undertakes water quality related projects for government and the private sector, and also participates in strategic research and development projects.

From December 2012 to May 2019, I was the Director and a Senior Principal Research Scientist of the Environmental Research Institute of the Supervising Scientist (ERISS), leading a multidisciplinary research program of over 25 staff with an annual operating budget of approximately \$4 million. The research institute undertakes government-funded research on the impacts of uranium mining activities in the Alligator Rivers Region of northern Australia, with most focus on the politically sensitive Ranger uranium mine. Most recently, this has involved developing and implementing a research program to ensure the successful rehabilitation and closure of the Ranger mine and ongoing protection of the off-site environment. This was done via a comprehensive 'screening level' ecological risk assessment and systematic identification of the key knowledge requirements for rehabilitation. From 2015 to 2018, I acted at the SES Band 1 level for a total of 20 weeks.

Between 1996 to 2001 and again from 2003 to 2012, I held several research team leader positions at ERISS, progressing from Research Scientist to Principal Research Scientist before being appointed as Director.

From 2001 to 2003, I was the Director of the Sinclair Knight Merz ecotoxicology laboratory in Sydney, managing ecotoxicological-related activities for the commercial sector, as well as industry-focused R&D in ecotoxicology.

I have extensive experience in applied environmental research, with a focus on a number of key areas, including: metals bioavailability and toxicity (particularly uranium and magnesium); impacts of mine waste waters, including acidic and saline waters; development of toxicity test methods; derivation of water quality guideline values; and ecological risk assessment of chemical, biological and physical threats to aquatic ecosystems. I also have direct experience providing advice on other significant water quality issues, including coal seam gas hydraulic fracturing activities and poly-fluoralkyl substances (PFAS). I have used my knowledge and experience to produce and publish national and international guidance on water quality related issues. To date, my track record includes 90 peer-reviewed publications (see Appendix A).

Amongst the above work roles, I have also been significantly involved in the development and revision of the ANZECC & ARMCANZ (2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*. For the 1996-2000 revision, I was a co-author of the Toxicants chapters, including the development of guidance for the application of whole effluent toxicity testing/direct toxicity assessment. For the most recent revision (2009-2018), I am one of two technical coordinators, and have been a member on various working groups and committees, including Chair of the Technical Working Group Chairs group (2009-2011) and Chair of the Project Coordination Group (2012-2018), which has been managing the overall package of revisions. I have either drafted, reviewed or edited much of the revised content for the revised Guidelines web site.

## Key attributes and skills

- ❑ Extensive background in applied research on the impacts and risks of contaminants to aquatic environments
- ❑ Extensive network across multiple sectors, including the mining industry, Commonwealth and State/Territory governments, and other scientists across numerous disciplines and institutions/companies
- ❑ Ability to conceptualise and understand issues, and tailor fit-for-purpose solutions
- ❑ Ability to identify multidisciplinary approaches to addressing environmental problems
- ❑ 20 years of management and leadership experience
- ❑ Strong track record of delivery (including publications)
- ❑ Excellent communication skills
- ❑ Extensive knowledge on (inter)national guidance for the management and assessment of water quality
- ❑ Excellent knowledge of key water quality issues across Australia

## Employment

### September 2018 – present

#### Independent environmental consultant, sole trader

- ❑ Undertake water quality related projects for government and the private sector
- ❑ Participate in strategically-focused research and development projects related to water quality

### December 2012 – May 2019

#### Acting Director (Dec 2012-2014) and Director (2015-2018), and Senior Principal Research Scientist *Environmental Research Institute of the Supervising Scientist (ERISS), Department of the Environment & Energy (Darwin)*

- ❑ Lead the development, implementation and delivery of the ERISS research and biological monitoring program (including necessary stakeholder liaison)
- ❑ Manage the human resources, facilities and budget of ERISS
- ❑ Provide technical and scientific advice to the Department and the Minister as requested, including technical coordination of the revision of the ANZECC/ARMCANZ Water Quality Guidelines
- ❑ Maintain and further develop international scientific standing

### August 2003 – November 2012

#### Principal Research Scientist & Program Leader (July 2010 – November 2012)

#### Senior Research Scientist & Program Leader (Aug 2003 – June 2010)

*Ecotoxicology Program, ERISS, Department of Sustainability, Environment, Water, Population and Communities (Darwin)*

- ❑ Management of an ecotoxicology research program investigating effects and ecological risks of contaminants, mostly mining-related, relevant to tropical aquatic ecosystems of Australia
- ❑ Technical coordination for, and other responsibilities associated with, the current revision of the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*
- ❑ Provision of advice to the Department on water quality issues, as necessary

### September 2001 – February 2003

#### Ecotoxicology Laboratory Director

*Sinclair Knight Merz (Sydney)*

- ❑ Management of a commercial ecotoxicology laboratory with capabilities for freshwater and marine toxicity testing and toxicity identification evaluations
- ❑ Development of the ecotoxicology business within the company
- ❑ Ensuring the laboratory is actively engaged in strategic internal and external research and development

**June 2000 – September 2001****Senior Research Scientist***Ecological Risk Assessment Program, ERISS (Jabiru)*

- ❑ Management of an ecotoxicology research program investigating effects of contaminants, mostly mining-related, relevant to tropical aquatic ecosystems of Australia and south-east Asia (eg. heavy metals, pesticides)
- ❑ Management of an ecological risk assessment program investigating risks of threats, both chemical and non-chemical, to wetlands in tropical Australia and south-east Asia

**November 1996 – June 2000****Research Scientist***Wetland Ecology & Conservation Program, ERISS (Jabiru)***Adjunct appointments**

- ❑ January 2016-present – Adjunct Associate Professor of RMIT University
- ❑ 2010-present – Honorary Fellow of Charles Darwin University
- ❑ 2008-2015 – Adjunct Associate of RMIT University

**Major projects (led, overseen or been a major contributor)**

- ❑ Independent technical review (Lead of panel of four reviewers) of the Sydney Water Sewage Treatment Systems Impact Monitoring Program (STSIMP), Nov 2021 – present (to July 2022)
- ❑ Technical manager, ANZG (2018) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, 2018 – present
- ❑ Water quality assessment & ecotoxicology review and advice for Queensland Alumina Limited, Dec 2019 – present
- ❑ Refining species sensitivity distribution approaches and tools for deriving water quality guidelines. Research collaboration, Nov 2019 – present.
- ❑ Technical coordinator and presenter, SETAC Australasia national workshops on the ANZG (2018) Guidelines, 2019 – present
- ❑ Independent technical review (Chair of panel of three reviewers) of the Port Curtis Integrated Monitoring Program (PCIMP), May – Sept 2021
- ❑ Development of a site-specific guideline value for Pilbara high hardness waters (for Rio Tinto), Sept – Dec 2020
- ❑ Peer review panel for the Sydney Water Upper South Creek Advanced Water Recycling Centre EIS, Feb 2020 – Sept 2021
- ❑ Water quality advice for Snowy 2.0 construction team, including development of a surface water monitoring program for the construction phase, Sept 2019 – Jan 2021
- ❑ Co-technical coordination for the 2009-18 revision of the ANZECC & ARMCANZ (2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*
- ❑ Development of the Supervising Scientist's Key Knowledge Needs for the rehabilitation of Ranger uranium mine (<http://www.environment.gov.au/science/supervising-scientist/publications/ssr/key-knowledge-needs-2017>)
- ❑ Development of the Supervising Scientist's rehabilitation standards for the Ranger uranium mine
- ❑ Screening level ecological risk assessment for the rehabilitation of the Ranger uranium mine
- ❑ Multiple lines of evidence assessment of the impacts of magnesium on a tropical freshwater ecosystem
- ❑ Assessment of uranium toxicity to benthic microbial, micro-zoobenthic and macroinvertebrate communities using traditional and ecogenomic techniques
- ❑ Development of tropical marine toxicity test methods for northern Australia

- ❑ Guidance and recommendations for Direct Toxicity Assessment for the ANZECC & ARMCANZ (2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*
- ❑ Tropical Rivers Inventory & Assessment Project (TRIAP; funded by LWA/NHT2; [www.environment.gov.au/ssd/tropical-rivers/index.html](http://www.environment.gov.au/ssd/tropical-rivers/index.html))
- ❑ Uranium toxicity to Australian tropical freshwater species and the derivation of a site-specific freshwater quality guideline trigger value for uranium downstream of Ranger Uranium Mine
- ❑ Magnesium toxicity to Australian tropical freshwater species and the derivation of a site-specific freshwater quality guideline trigger value for uranium downstream of Ranger Uranium Mine
- ❑ Review of the status of tropical marine ecotoxicology in Australia
- ❑ Aquatic toxicity of aluminium at low pH and the influence of silica
- ❑ Toxicity assessment of various mining waste waters and contaminated receiving waters of the Northern Territory, Australia
- ❑ Speciation and toxicity of copper in estuarine water
- ❑ Development of toxicity bioassays using the duckweed, *Lemna aequinoctialis*, the black-striped rainbowfish, *Melanotaenia nigrans*, the northern-trout gudgeon, *Mogurnda mogurnda*, and the snail, *Amerianna cumingi*
- ❑ Probabilistic ecological risk assessment of the herbicide Tebuthiuron in northern Australian wetlands
- ❑ Assessment of hydrocarbon contamination in water and sediment at Yellow Waters, Kakadu National Park
- ❑ Ecological risk assessment of the wetland weed, *Mimosa pigra*, in northern Australian wetlands
- ❑ Ecological risk assessment of the cane toad, *Bufo marinus*, in Kakadu National Park
- ❑ Development of a wetland risk assessment framework for the Ramsar Convention for Wetlands of International Importance
- ❑ Vulnerability assessment of two major wetlands in the Asia-Pacific to climate change and sea level rise
- ❑ Toxicity and hazard assessment of crude oil and gas condensate to freshwater organisms
- ❑ Toxicity of Waste Water Treatment Plant effluents to freshwater and marine organisms
- ❑ Toxicity of sediments and dredge spoil elutriates to marine organisms
- ❑ Review of the status and future directions of the ERISS Ecotoxicology Laboratory

### Student projects supervised

- ❑ Development of a rapid toxicity bioassay based on feeding rate of the cladoceran, *Moinodaphnia macleayi* (Honours – H1; RMIT; 1998)
- ❑ Validation and application of the *Moinodaphnia macleayi* feeding rate bioassay to complex mixtures (Honours – H1; RMIT; 1999)
- ❑ Inter-population variation in the response of *Moinodaphnia macleayi* to uranium and cadmium (Honours – 2A; RMIT; 2000)
- ❑ Effects of physico-chemical parameters on the aquatic toxicity of uranium & copper (MSc; CDU; 1999-2001)
- ❑ Toxicity of MgSO<sub>4</sub> to tropical freshwater organisms (PhD; CDU; 1999-2003)
- ❑ Development of a 28-d larval growth toxicity test for the purple-spotted gudgeon, *Mogurnda mogurnda* (Honours – High 2A; CDU; 2006)
- ❑ Influence of dissolved organic matter on the bioavailability and toxicity of key metals to tropical freshwater biota (PhD – completed; UQ; 2008-11)
- ❑ Identifying the cause of aquatic toxicity associated with a saline mine water (Honours – High 2A; Curtin University; 2011)
- ❑ Influence of multiple pulse exposures of magnesium to *Hydra viridissima* (Honours – H1; RMIT; 2013)
- ❑ Development of toxicity test methods for the freshwater mussel, *Velesunio angasi*, and their application for assessing ammonia toxicity (PhD, RMIT, 2015 – 2020)

## External grants

- ❑ Developing new ecotoxicological methods to protect Australian tropical marine ecosystems (*Principal Investigator* – \$620,000; Rio Tinto Alumina, NAMRA, NTRIB; 2012-2015)
- ❑ Influence of dissolved organic matter on the bioavailability and toxicity of key metals to tropical freshwater biota (*Partner Investigator* – \$111,000; UQ; Australian Research Council, 2006-2010)
- ❑ Review of the status of ecotoxicology in tropical Australia (*Principal Investigator* – \$75,000; Rio Tinto Alcan Gove; 2005-2006)
- ❑ Australia's Tropical Rivers - an integrated data analysis and assessment (*Principal Investigator* – \$630,000; LWA & NHT2, 2004 - 2008)
- ❑ Promoting best practice in mine environmental monitoring and regulation in Indonesia (*Project Leader* – \$270,000; AusAID Public Sector Linkage Programme, 2004-07)
- ❑ Impacts of endocrine disrupting compounds (EDCs) in treated sewage effluent on aquatic biota (*Partner Investigator* – \$333,000; UTS; Australian Research Council, 2002-2005)
- ❑ Ecotoxicological and metal speciation assessment of waste water from Mt Todd Gold Mine (*Principal Investigator* – \$21,000; NT DBIRD, 2004)
- ❑ Ecological risk assessment of the cane toad, *Bufo marinus*, in Kakadu National Park, Australia (*Principal Investigator* – \$19,000; Environment Australia, 2000)

## Professional affiliations

- ❑ Australasian Society for Ecotoxicology (ASE): Vice President, 2002 – Feb 2003
- ❑ Society of Environmental Toxicology & Chemistry (SETAC): SETAC Globe Co-editor, Asia-Pacific Region, 2002, 2006 – present

## Awards and other career highlights

- ❑ 2016-2021 – Adjunct Associate Professor of the Department of Environmental Biology and Biotechnology at the Royal Melbourne Institute of Technology (RMIT), Melbourne, Australia
- ❑ 2016 – Led the development of the Supervising Scientist's Key Knowledge Needs for the rehabilitation of Ranger uranium mine
- ❑ 2016 - Invited speaker at the 2<sup>nd</sup> International Conference on Environmental Quality Standards for the Protection of the Aquatic Environment (EQSPA) in Hong Kong, 18-20 June 2016
- ❑ 2009–present – Playing a major role in the current revision of the ANZECC & ARM CANZ (2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*
- ❑ 2014 – Awarded an *Australian Government Department of the Environment Australia Day Achievement Award* for the development of a site-specific duration-based water quality objective for magnesium for the Ranger uranium mine (Ecotoxicology team award)
- ❑ 2011 – Co-Chair, EnviroTox 2011 conference, joint conference of the Royal Australian Chemical Institute and the Society for Environmental Toxicology and Chemistry – Australasian Chapter
- ❑ 2008 – Guest Editor for Special Issue of the Australasian Journal of Ecotoxicology, titled “Tropical Ecotoxicology in Australasia”
- ❑ 2006 – Awarded an *Australian Government Department of the Environment and Water Resources Australia Day Achievement Award* for outstanding leadership of the AusAID-funded Public Sector Linkage Programme for Promoting Best Practice in Mine Environmental Regulation in Indonesia.
- ❑ 2001 – Invited speaker at the 9<sup>th</sup> International Congress of Toxicology, hosted by the International Union of Toxicology (IUTOX) in Brisbane, Australia
- ❑ 2000 – Awarded a *Centenary of Federation Award for a Significant and Sustained Contribution to the Commonwealth Public Service*
- ❑ 1998 – Invited to provide advice to the Scientific and Technical Review Panel of the Ramsar Convention of Wetlands of International Importance (Geneva, Switzerland) on the use of ecological risk assessment and early warning indicators of wetland degradation

- ❑ 1996-2000 – Played a major role in the development of the ANZECC & ARMCANZ (2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*

### Committees and related engagement

- ❑ Chair, Project Coordination Group – Phase 2 revision of the 2000 ANZECC/ARMCANZ Guidelines for Fresh and Marine Water Quality, February 2012 – 2018
- ❑ Chair, Working Group Chairs Group – Phase 1 revision of the 2000 ANZECC/ARMCANZ Guidelines for Fresh and Marine Water Quality, 2010 – 2011
- ❑ Technical Working Groups 1 (*Technical coordination*) and 4 (*Toxicants and sediments*) – Phase 1 revision of the 2000 ANZECC/ARMCANZ Guidelines for Fresh and Marine Water Quality, 2009 – 2011
- ❑ Ranger Uranium Mine Closure Criteria Working Group, 2013 – 2016
- ❑ Rum Jungle Working Group, 2013 – 2016
- ❑ Multiple presentations to, and discussions with, stakeholders as contributions to biannual meetings of the Alligator Rivers Region Technical Committee and the Alligator Rivers Region Advisory Committee, 2003 – present
- ❑ Invited expert advisor on Ecotoxicology for the Interim Expert Panel for Coal Seam Gas Development in the Surat Basin (on behalf of the Department of Environment's Environmental Assessments and Compliance Division), 2012-2013
- ❑ Ecological Working Group advising the Northern Australian Water Futures Assessment (NAWFA), 2008 – 2010
- ❑ Ecosystem Research Group advising the Darwin Harbour Advisory Committee, 2004 – 2008
- ❑ OECD Panel of Australian Experts for Toxicity Testing, 1999 – present
- ❑ Australian Government National Focal Point (NFP) for the Ramsar STRP, 2004 – 2006
- ❑ Great Barrier Reef Water Quality Protection Plan Biomarkers and Bioaccumulation Monitoring Program Expert Panel, 2004 – 2005
- ❑ ANZECC/ARMCANZ (2000) Water Quality Guidelines Project Committee, 1997 – 1999

### Journal Review Panels

Integrated Environmental Assessment and Management (and on Editorial Board); Environmental Toxicology and Chemistry; Chemosphere; Science of the Total Environment

### Certificates & courses

SCUBA diver (FAUI), 1989; South Australian motor boat operator's licence, 1989; Aboriginal Cross Cultural Training, 1997; Media Skills Course, 1997; TL3 boat handling course, 1997; Business Development, 2002; Project Management Level 1, 2002; Defensive Driving Skills, 2007; Senior First Aid Certificate, 2008; Leadership and Performance Management, 2009-present; Four Wheel Drive Operation and Recovery, 2010.

### Special interests

Most sports: – Member of Australian U/19 Lacrosse team at the 1988 World Championships  
 – Club captain of Melbourne Cricket Club (MCC) Lacrosse Section, 1994 – 1995

Cooking, eating, walking, travelling, exercising

## Referees

### **Dr Jenny Stauber**

CSIRO Land and Water  
New Illawarra Road  
Lucas Heights NSW 2234  
Australia  
Tel (02) 9710 6808  
Fax (02) 9710 6837  
Email jenny.stauber@csiro.au

### **Professor Douglas A. Holdway**

Professor of Ecotoxicology  
Faculty of Science, University of Ontario Institute  
of Technology (UOIT)  
2000 Simcoe Street North  
Oshawa, Ontario L1H 7K4  
Canada  
Tel +1 905 721-3111 Ext. 2606  
Fax +1 905 721-3140  
Email douglas.holdway@uoit.ca

### **Professor Max Finlayson**

Professor of Ecology and Biodiversity  
Charles Sturt University, Albury-Wodonga Campus  
Albury NSW 2640  
Australia  
Tel (02) 6051 9779  
Mobile 0458 271 580  
Email mfinlayson@csu.edu.au

### **Dr David Jones**

Director  
Dr Jones Environmental Excellence  
Mobile 0418 835 239  
Email drdrjjones@gmail.com

## Appendix A - Publications

### Peer-reviewed publications

#### ~100 peer-reviewed publications since 1995

1. Barry MJ, Logan DC, **van Dam RA**, Ahokas JT & Holdway DA 1995. Effect of age and weight specific respiration rate on toxicity of esfenvalerate pulse exposure to the Australian Crimson-spotted rainbow fish (*Melanotaenia fluviatilis*). *Aquat. Toxicol.* 32, 115-126.
2. **van Dam RA**, Barry MJ, Ahokas JT & Holdway DA 1995. Toxicity of DTPA to *Daphnia carinata* as modified by oxygen stress and food limitation. *Ecotoxicol. Environ. Safety* 31, 117-126.
3. **van Dam RA**, Barry MJ, Ahokas JT & Holdway DA 1996. Comparative acute and chronic toxicity of diethylenetriamine pentaacetic acid (DTPA) and ferric-complexed DTPA to *Daphnia carinata*. *Arch. Environ. Contam. Toxicol.* 31(4), 433-443.
4. Camilleri C, **van Dam RA**, Markich SJ & Pfeifle V 1998. Toxicity of the herbicide Tebuthiuron to Australian tropical freshwater organisms: towards an ecological risk assessment. Supervising Scientist Report 131, Supervising Scientist, Canberra, ACT, 39 pp.
5. **van Dam RA**, Barry MJ, Ahokas JT & Holdway DA 1998. Effects of water-borne iron and calcium on the toxicity of DTPA to *Daphnia carinata*. *Aquat. Toxicol.* 42(1), 49-66.
6. **van Dam RA**, Camilleri C & Finlayson CM 1998. The potential of rapid assessment techniques as early warning indicators of wetland degradation: A review. *Environ. Toxicol. Water Qual.* 13(4), 297-312.
7. Humphrey C, Thurtell L, Pidgeon R, **van Dam R** & Finlayson M 1999. A model for assessing the health of Kakadu's streams. *Australian Biologist* 12(1), 33-42.
8. **van Dam RA** 1999. Ecological risk assessment and management. In: *A compendium of information for managing and monitoring wetlands in tropical Australia* (Eds CM Finlayson & AG Spiers). Supervising Scientist Report 148, Supervising Scientist, Canberra, ACT, pp. 239-256.
9. **van Dam RA**, Ahokas JT & Holdway DA 1999. Chronic toxicity of DTPA to crimson-spotted rainbowfish (*Melanotaenia fluviatilis*): Effects on reproduction, condition and EROD activity. *Ecotoxicol. Environ. Safety* 43, 74-82.
10. **van Dam RA**, Barry MJ, Ahokas JT & Holdway DA 1999. Investigating mechanisms of DTPA toxicity to the cladoceran, *Daphnia carinata*. *Aquat. Toxicol.* 46, 191-210.
11. **van Dam RA**, Camilleri C & Turley CJ 1999. Preliminary assessment of petroleum hydrocarbons in water and sediment at Yellow Water, Kakadu National Park. *Australasian J. Ecotox.* 4(1), 61-68.
12. **van Dam RA**, Finlayson CM & Humphrey CL 1999. Wetland risk assessment: a framework and methods for predicting and assessing change in ecological character. In: *Techniques for Enhanced Wetland Inventory, Assessment and Monitoring* (Eds CM Finlayson & AG Spiers). Supervising Scientist Report 147, Supervising Scientist, Canberra, ACT, pp. 83-118.
13. **van Dam RA**, Porter NA, Ahokas JT & Holdway DA 1999. Stability of DTPA and Fe(III)-DTPA under laboratory ecotoxicological conditions. *Wat. Res.* 33(5), 1320-1324.
14. **van Dam RA**, Finlayson CM & Watkins D (Eds) 1999. Vulnerability assessment of two major wetlands in the Asia-Pacific region to climate change and sea level rise. Supervising Scientist Report 149, Supervising Scientist, Darwin, NT, 161 pp.
15. Riethmuller N, Markich S, Parry D & **van Dam R** 2000. The effect of true water hardness and alkalinity on the toxicity of Cu and U to two tropical Australian freshwater organisms. Supervising Scientist Report 155, Supervising Scientist, Canberra, ACT, 62 pp.



16. Begg GW, **van Dam RA**, Lowry JB, Finlayson CM & Walden DJ 2001. Inventory and risk assessment of water-dependent ecosystems in the Daly basin, Northern Territory, Australia. Supervising Scientist Report 162, Supervising Scientist, Darwin, NT, 107 pp.
17. Eriksen R, Nowak B & **van Dam R** 2001. Copper speciation and toxicity in estuarine environments. Supervising Scientist Report 150, Supervising Scientist, Darwin, NT, 29 pp.
18. Eriksen RS, Nowak B, Mackey DJ & **van Dam RA** 2001. Relationship between copper speciation and toxicity in marine algae. *Marine Chemistry* 74, 99-113.
19. Finlayson M, **van Dam R**, Walden D & Storrs M 2001. Risk assessment for managing the tropical weed, *Mimosa pigra*. In *Assessment and management of alien species that threaten ecosystems, habitats and species*. CBD Technical Paper 1, Secretariat of the Convention on Biological Diversity, Montreal, Canada, pp. 17-19.
20. Riethmuller N, Markich SJ, **van Dam RA** & Parry D 2001. Effects of water hardness and alkalinity on the toxicity of uranium to a tropical freshwater hydra (*Hydra viridissima*). *Biomarkers* 6(1), 45-51.
21. Semaan M, Holdway DA & **van Dam RA** 2001. Comparative sensitivity of three populations of the cladoceran *Moinodaphnia macleayi* to acute and chronic uranium exposure. *Environmental Toxicology* 16, 365-376.
22. **van Dam RA** & Chapman JC 2001. Direct toxicity assessment (DTA) for water quality guidelines in Australia and New Zealand. *Australasian Journal of Ecotoxicology* 7(2), 175-198.
23. **van Dam R**, Walden D & Begg G 2001. Preliminary risk assessment of cane toads in Kakadu National Park. Supervising Scientist Report 164, Supervising Scientist, Darwin, NT, 92 pp.
24. **van Dam RA** 2002. Derivation of a site-specific water quality trigger value for uranium in Magela Creek. In: *Supervising Scientist Research Summary 1995-2000* (Eds J Rovis-Hermann, KG Evans, AL Webb & RWJ Pidgeon). Supervising Scientist Report 166, Darwin, NT, pp. 171-176.
25. Orchard SJ, Holdway DA, Barata C & **van Dam RA** 2002. A rapid response toxicity bioassay based on the feeding rate of the tropical cladoceran *Moinodaphnia macleayi*. *Ecotoxicol. Environ. Safety* 53, 12-19.
26. **van Dam RA**, Humphrey CL & Martin P 2002. Mining in the Alligator Rivers Region, northern Australia: Assessing potential and actual impacts on ecosystem and human health. *Toxicology* 181/182, 505-515.
27. Camilleri C, Markich SJ, Noller BN, Turley CJ, Parker G & **van Dam RA** 2003. Silica reduces the toxicity of aluminium to a tropical freshwater fish (*Mogurnda mogurnda*). *Chemosphere* 50(3), 355-364.
28. Riethmuller N, Camilleri C, Franklin N, Hogan AC, King A, Koch A, Markich SJ, Turley C & **van Dam R** 2003. *Ecotoxicological testing protocols for Australian tropical freshwater ecosystems*. Supervising Scientist Report 173, Supervising Scientist, Darwin NT.
29. **van Dam RA** 2004. A review of the *eriss* Ecotoxicology Program. Supervising Scientist Report 182. Supervising Scientist, Darwin, NT, 101 pp.
30. **van Dam RA**, Camilleri C, Bayliss P & Markich SJ 2004. Ecological risk assessment of tebuthiuron following application on tropical Australian wetlands. *Human and Ecological Risk Assessment* 10, 1069-1097.
31. **van Dam RA**, Camilleri C, Turley C, Binet M & Stauber J 2004. Chronic toxicity of the herbicide tebuthiuron to the tropical green alga *Chlorella* sp. and the duckweed *Lemna aequinoctialis*. *Australasian Journal of Ecotoxicology*. 10, 97-104.
32. Walden D, **van Dam RA**, Storrs M, Lowry J, Kriticos D & Finlayson M 2004. Risk assessment of *Mimosa pigra* in northern Australia. Supervising Scientist Report 177, Supervising Scientist, Darwin, NT.
33. Hogan A, Peck M, **van Dam R** & Kennett R 2005. Screening for endocrine disrupting activity in surface waters of Kakadu National Park. *Ecological Management and Restoration* 6, 219-221.

34. Hogan A, **van Dam RA**, Markich SJ & Camilleri C 2005. Chronic toxicity of uranium to a tropical green alga (*Chlorella* sp.) in natural waters and the influence of dissolved organic carbon. *Aquatic Toxicology* 75, 343-353.
35. Finlayson CM, Gitay H, Bellio MG, **van Dam RA** & Taylor I 2006. Climate variability and change and other pressures on wetlands and waterbirds: impacts and adaptation. *Waterbirds around the world*. Eds. GC Boere, CA Galbraith & DA Stroud. The Stationery Office, Edinburgh, UK. pp. 88-97.
36. Bellio MG, Bayliss P, Williams AJ, **van Dam R**, Fox GJ & Moulden JH 2007. A preliminary ecological risk assessment of the impact of tropical fire ants (*Solenopsis geminata*) on colonies of seabirds at Ashmore Reef. Supervising Scientist Report 190, Supervising Scientist, Darwin NT.
37. McCullough CD, Hogan AC, Humphrey CL, **van Dam RA** & Douglas MM 2008. Failure of *Hydra* populations to develop tolerance indicates absence of toxicity from a mining whole-effluent. *Verh. Internat. Verein. Limnol.* 30(2), 223–226.
38. Bartolo R, Bayliss P & **van Dam R** 2008. Ecological risk assessment for Australia's northern tropical rivers. Sub-project 2 of Australia's Tropical Rivers – an integrated data assessment and analysis (DET18). A report to Land & Water Australia. Environmental Research Institute of the Supervising Scientist, National Centre for Tropical Wetland Research, Darwin NT, 446 pp.
39. Hogan A, **van Dam R**, Houston M & Lee N 2008. *Toxicity of Ranger mine RP2 and Pit 3 waters to native freshwater species: 2007 wet season*. Supervising Scientist Report 197, Supervising Scientist, Darwin NT.
40. Houston M, Ng J, Noller B, Markich SJ & **van Dam R** 2008. The influence of Suwannee River fulvic acid on the speciation and toxicity of uranium to Australian tropical freshwater species. In *From molecular understanding to innovative applications of humic substances. Proceedings of the 14<sup>th</sup> meeting of International Humic Substances Society*. Moscow, 13–19 September 2008, eds IV Perminova & NA Kulikova, 421–424.
41. **van Dam RA**, Hogan AC, Harford AJ & Markich SJ 2008. Toxicity and metal speciation characterisation of waste water from an abandoned gold mine in tropical northern Australia. *Chemosphere*. 73, 305-313.
42. **van Dam RA**, Harford AJ, Houston MA, Hogan AC & Negri A 2008. Tropical marine toxicity testing in Australia: A review and recommendations *Australasian Journal of Ecotoxicology* 14(2/3), 55-88.
43. Warne M & **van Dam R** 2008. NOEC and LOEC data should no longer be generated or used. *Australasian Journal of Ecotoxicology* 14(1), 1-5.
44. Cheng KL, Parry DL, Hogan AC, Markich SJ, Harford AJ & **van Dam RA** 2010. Uranium toxicity and speciation during chronic exposure to the tropical freshwater fish, *Mogurnda mogurnda*. *Chemosphere* 79(5), 547-554.
45. Hogan AC, **van Dam RA**, Harford AJ, Houston MA & Nou S 2010. Uranium exposure to the tropical duckweed, *Lemna aequinoctialis*, and pulmonate snail, *Amerianna cumingi*: fate and toxicity. *Archives of Environmental Contamination and Toxicology* 59, 204-215.
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