

School of Life Sciences

# **Centre for Freshwater Ecosystems**

**Publications 2019** 

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#### **Refereed Journal Articles**

- Abecia JED, Luiz OJ, **King AJ** (2018). Intraspecific morphological and reproductive trait variation in mouth almighty *Glossamia aprion* (Apogonidae) across different flow environments. *Journal of Fish Biology*. 93(5), 961-971. https://doi.org/10.1111/jfb.13821
- Artetxe-Arrate, I, Fraile I, **Crook D**, Zudaire I, Arrizabalaga H, Greig A, Murua H (2019). Otolith microchemistry: a useful tool for investigating stock structure of yellowfin tuna (*Thunnus albacares*) in the Indian Ocean. *Marine and Freshwater Research*. 70, 1708-1721. https://doi.org/10.1071/MF19067
- Barton DP, Taillebois L, Taylor J, **Crook DA**, Saunders T *et al.* (2018) Stock structure of *Lethrinus laticaudis* (Lethrinidae) across northern Australia determined using genetics, otolith microchemistry and parasite assemblage composition. *Marine and Freshwater Research.* 69, 487-501. https://doi.org/10.1071/MF17087
- **Bond N**, Burrows R, Kennard M, Bunn S (2019). Chapter 6 Water Scarcity as a Driver of Multiple Stressor Effects. *Multiple Stressors in River Ecosystems*, Elsevier Inc. 111-129. <a href="https://doi.org/10.1016/B978-0-12-811713-2.00006-6">https://doi.org/10.1016/B978-0-12-811713-2.00006-6</a>
- **Bond N**, Grigg N, Roberts J, Mcginness H, Nielsen D *et al.* (2018). Assessment of environmental flow scenarios using state-and-transition models. *Freshwater Biology. 63*, 804-816. <a href="https://doi.org/10.1111/fwb.13060">https://doi.org/10.1111/fwb.13060</a>
- Buckley KA, **Crook DA**, Pillans RD, Smith L, Kyne PM (2018). Sustainability of threatened species displayed in public aquaria, with a case study of Australian sharks and rays. *Reviews in Fish Biology and Fisheries*. 28, 137-151. <a href="https://doi.org/10.1007/s11160-017-9501-2">https://doi.org/10.1007/s11160-017-9501-2</a>
- Burrows RM, Rutlidge H, Valdez DG, Venarsky M, **Bond N** et al. (2018). Groundwater Supports Intermittent-Stream Food Webs. *Freshwater Science*. 37(1), 42-53. DOI: 10.1086/696533
- Campbell D, Humphries P, McCasker N, Nielsen D (2018). Subfossil chironomid head capsules reveal assemblage differences in permanent and temporary wetlands of south-eastern Australia. *Hydrobiologia: the international journal on limnology and marine sciences*. 809, 91-110. <a href="https://doi.org/10.1007/s10750-017-3451-5">https://doi.org/10.1007/s10750-017-3451-5</a>
- Carpenter-Bundhoo L, Butler G, Espinoza T, **Bond N**, Bunn S, Kennard MJ (2019). Reservoir to river: Quantifying fine-scale fish movements after translocation. *Ecology of Freshwater Fish*. 29(1), 89-102. <a href="https://doi.org/10.1111/eff.12490">https://doi.org/10.1111/eff.12490</a>
- **Crook D**, Buckle D, Morrongiello J, Allsop Q, Baldwin W, Saunders T, Douglas M (2019). Tracking the resource pulse: Movement responses of fish to dynamic floodplain habitat in a tropical river. *Journal of Animal Ecology*. Accepted Author Manuscript. <a href="https://doi.org/10.1111/1365-2656.13146">https://doi.org/10.1111/1365-2656.13146</a>
- Crook D, Adair BJ, Grubert MA, Saunders TM, Morrongiello JR et al. (2018). Muddy waters: An assessment of the suitability of zygocardiac ossicles for direct age estimation in the Giant mud crab Scylla serrata. Limnology and Oceanography: Methods. 16(12), 895-905. https://doi.org/10.1002/lom3.10291

- **Crook D**, Adair BJ, Hetherington LJ, (2018). Low-cost device for retrieval of moorings deployed with underwater remote release systems. *Marine and Freshwater Research*. 69(3), 473-476. <a href="https://doi.org/10.1071/MF17189">https://doi.org/10.1071/MF17189</a>
- Datry T, Foulquier A, Corti Rvon Schiller D, Tockner K *et al.* (2018). A global analysis of terrestrial plant litter dynamics in non-perennial waterways. *Nature Geoscience*. 11, 497-505. <a href="https://doi.org/10.1038/s41561-018-0134-4">https://doi.org/10.1038/s41561-018-0134-4</a>
- Davies P, Lawrence S, Turnbull J, Rutherfurd I, Grove J, *et al.* (2019). Mining modification of river systems: A case study from the Australian gold rush. *Geoarchaeology: an international journal*. Early view. <a href="https://doi.org/10.1002/gea.21775">https://doi.org/10.1002/gea.21775</a>
- de Oliveira AG, Bailly D, Cassemiro FAS, do Couto EV, **Bond N**, et al. (2019). Coupling environment and physiology to predict effects of climate change on the taxonomic and functional diversity of fish assemblages in the Murray-Darling Basin, Australia. *PLoS ONE*.14. https://doi.org/10.1371/journal.pone.0225128
- de Oliveira GF, Bertone E, Stewart RA, Awad J, **Holland A** *et al.* (2018). Multi-Parameter Compensation Method for Accurate *In Situ*Fluorescent Dissolved Organic Matter Monitoring and Properties Characterization. *Water: an open access journal.* 10(9), 1-20.
  <a href="https://doi.org/10.3390/w10091146">https://doi.org/10.3390/w10091146</a>
- Dessent J, Lawler S, Nielsen D (2019). The impact of increased temperatures on germination patterns of semi-aquatic plants. *Seed Science Research.* 29(3), 204-209. https://doi.org/10.1017/S0960258519000187
- Dwyer G, Stoffels R, **Silvester E**, Rees G (2019). Prey amino acid composition affects rates of protein synthesis and N-wastage of a freshwater carnivore. *Marine and Freshwater Research*. 71(2) 229-237. https://doi.org/10.1071/MF18410
- Dwyer G, Stoffels R, Rees GN, Shackleton ME, Silvester E (2018). A predicted change in the amino acid landscapes available to freshwater carnivores. *Freshwater Science*. 37(1), 108-120. DOI: 10.1086/696128
- Every S, Fulton C, Pethybridge H, Kyne P **Crook D** (2019). A Seasonally Dynamic Estuarine Ecosystem Provides a Diverse Prey Base for Elasmobranchs. *Estuaries and Coasts*. 42(2), 580-595. https://doi.org/10.1007/s12237-018-0458-8
- Fallon S, McDougall A, Espinoza T, Roberts D, Brooks S, Kind P, Kennard M, **Bond N**, Marshall S, Schmidt D, Hughes J (2019). Age structure of the Australian lungfish (*Neceratodus forsteri*). *PLOS One. 14*(1), e0210168. <a href="https://doi.org/10.1371/journal.pone.0210168">https://doi.org/10.1371/journal.pone.0210168</a>
- Grove J, Turnbull J, Lawrence S, Davies P, Rutherfurd I, **Silvester E**, Colombi F Macklin M (2019). Mining to mud: a multidisciplinary approach to understanding Victoria's riverine landscape as a product of historical gold mining. *Preview.* 200, 44-56. https://doi.org/10.1080/14432471.2019.1625123
- Gwinn D, Todd C, **Brown P**, Hunt T, Butler G, Kitchingman A, Koehn J, Ingram B (2019). Assessing a Threatened Fish Species under Budgetary Constraints: Evaluating the Use of Existing Monitoring Data. *North American Journal of Fisheries Management*. 39(2), 315-327. <a href="https://doi.org/10.1002/nafm.10271">https://doi.org/10.1002/nafm.10271</a>
- **Harris CW**, Rees GN, Stoffels RJ, Pengelly J, Barlow K *et al.* (2018). Longitudinal trends in concentration and composition of dissolved organic nitrogen (DON) in a largely unregulated river system. *Biogeochemistry: an international journal*. 139, 139-153. https://doi.org/10.1007/s10533-018-0462-x
- Holland A, McInerney P, Shackleton M, Rees R, Bond N, Silvester E (2019). Dissolved organic matter and metabolic dynamics in dryland lowland rivers. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy. 229, 117871. https://doi.org/10.1016/j.saa.2019.117871
- Horne AC, Nathan R, Poff NL, **Bond N**, Webb JA, *et al.* (2019). Modelling flow-ecology responses in the anthropocene: challenges for sustainable riverine management. *Bioscience*. 69(10), 789-799. <a href="https://doi.org/10.1093/biosci/biz087">https://doi.org/10.1093/biosci/biz087</a>
- Horne AC, Szemis JM, Webb JA, Kaur S, Stewardson MJ *et al.* (2018). Informing environmental water management decisions: Using conditional probability networks to address the information needs of planning and implementation cycles. *Environmental Management (New York): an international journal for decision-makers, scientists and environmental auditors. 61, 347-357. <a href="https://doi.org/10.1007/s00267-017-0874-8">https://doi.org/10.1007/s00267-017-0874-8</a>*
- Humphries P, **King AJ**, McCasker N, Kopf KR, **Stoffels R**, Zampatti BP, **Price A** (2019). Riverscape recruitment: a conceptual synthesis of drivers of fish recruitment in rivers. *Canadian Journal of Fisheries and Aquatic Sciences*. 77(2), 213-225. https://doi.org/10.1139/cjfas-2018-0138
- Islam MR-USchmidt DJ, **Crook DA**, Hughes JM, (2018). Patterns of genetic structuring at the northern limits of the Australian smelt (*Retropinna semoni*) cryptic species complex. *PeerJ.* 6, e4654. https://doi.org/10.7717/peerj.4654

- Keller K, Allsop Q, Box JB, Buckle D, **Crook DA**, Douglas MM, Jackson S, Kennard MJ, Luiz OJ, Pusey BJ, Townsend SA, **King AJ**, (2019). Dry season habitat use of fishes in an Australian tropical river. *Scientific reports*. 9(1), 5677. <a href="https://doi.org/10.1038/s41598-019-41287-x">https://doi.org/10.1038/s41598-019-41287-x</a>
- Kelly E, Martin PAJ, Gibson-Kueh S, Morgan DL, Ebner BC, et al. (2018). First detection of *Edwardsiella ictaluri* (Proteobacteria: Enterobacteriaceae) in wild Australian catfish. *Journal of Fish Diseases*. 41(2), 199-208. https://doi.org/10.1111/jfd.12696
- **King A**, Doidge C, Buckle D, Tyler KJ (2019). Preliminary evidence of spawning phenologies of freshwater fish in a wet-dry tropical river: the importance of both wet and dry seasons. *Marine and Freshwater Research*. 71(2), 202-212 <a href="https://doi.org/10.1071/MF18458">https://doi.org/10.1071/MF18458</a>
- **King A**, George A, Buckle DJ, Novak PA, Fulton CJ (2018). Efficacy of remote underwater video cameras for monitoring tropical wetland fishes. *Hydrobiologia: the international journal on limnology and marine sciences*. 807, 145-164. <a href="https://doi.org/10.1007/s10750-017-3390-1">https://doi.org/10.1007/s10750-017-3390-1</a>
- Kopf K, Boutier M, Finlayson C, Hodges K, Humphries P, *et al.* (2019). Biocontrol in Australia: Can a carp herpesvirus (CyHV-3) deliver safe and effective ecological restoration? *Biological Invasions*. 21(6), 1857-1870. doi.org/10.1007/s10530-019-01967-1.
- Kopf K, Humphries P, **Bond N**, Sims N, Watts R, **et al.** (2018). Macroecology of fish community biomass-size structure: effects of invasive species and river regulation. *Canadian Journal of Fisheries and Aquatic Sciences*. 76(1), 109-122. <u>doi.org/10.1139/cjfas-2017-0544</u>.
- Koster WM, **Crook DA**, Dawson DR, Gaskill S, Morrongiello JR (2018.) Predicting the Influence of Streamflow on Migration and Spawning of a Threatened Diadromous Fish, the Australian Grayling *Prototroctes maraena*. *Environmental Management (New York): an international journal for decision-makers, scientists and environmental auditors*. 61, 443-453. <a href="https://doi.org/10.1007/s00267-017-0853-0">https://doi.org/10.1007/s00267-017-0853-0</a>
- Laco Portinho J, Nielsen DL, Daré L, Henry R, Oliveira RC, et al. (2018). Mixture of commercial herbicides based on 2,4-D and glyphosate mixture can suppress the emergence of zooplankton from sediments. *Chemosphere*. 203, 151-159. <a href="https://doi.org/10.1016/j.chemosphere.2018.03.156">https://doi.org/10.1016/j.chemosphere.2018.03.156</a>
- Lennox R, **Crook D**, Moyle P, Struthers D Cooke S, (2019). Toward a better understanding of freshwater fish responses to an increasingly drought-stricken world. *Reviews in Fish Biology and Fisheries*. 29(2), 71-92. <a href="https://doi.org/10.1007/s11160-018-09545-9">https://doi.org/10.1007/s11160-018-09545-9</a>
- Long M, **Holland A**, Planquette H, Santana DG, Whitby H, Soudant P, Sarthou G, Hegaret H, Jolley D (2019). Effects of copper on the dinoflagellate *Alexandrium minutum* and its allelochemical potency. *Aquatic Toxicology*. 210, 251-261. doi.org/10.1016/j.aquatox.2019.03.006.
- Luiz O, **Crook D**, Kennard M, Olden J, Saunders T, Douglas M, Wedd D, **King A**, (2019). Does a bigger mouth make you fatter? Linking intraspecific gape variability to body condition of a tropical predatory fish. *Oecologia*. 191(3), 579-585. <a href="https://doi.org/10.1007/s00442-019-04522-w">https://doi.org/10.1007/s00442-019-04522-w</a>
- Macoustra G, **Holland A**, Staunber J, Jolley D (2019). The effect of various natural dissolved organic carbon on copper lability and toxicity to the tropical freshwater microalga, *Chlorella* sp. *Environmental Science & Technology*. 53, 2768-2777 <a href="https://doi.org/10.1021/acs.est.8b04737">https://doi.org/10.1021/acs.est.8b04737</a>
- McGinness H, Paton A, Gawne B, **King A**, Kopf R, Mac Nally R, **McInerney P**, (2019). Effects of fish kills on fish consumers and other water-dependent fauna: exploring the potential effect of mass mortality of carp in Australia. *Marine and Freshwater Research* 71(2) 156-169. <a href="https://doi.org/10.1071/MF19035">https://doi.org/10.1071/MF19035</a>
- McInerney P, Shackleton M, Rees G, Frechette J, Ham S, Hor L (2019). Release of critically endangered crocodiles: Development and application of a food web approach to determine suitability of release habitat. *Aquatic Conservation: Marine and Freshwater Ecosystems*. 29(11), 1849-1862. https://doi.org/10.1002/aqc.3159
- **Nguyen T, Lawler S**, Goldoftas B, **Le C** (2019). Biodiversity conservation or indigenous people's welfare: A dilemma for forest management in Vietnam's Bu Gia Map National Park. *Community Development Journal*. 50(4), 406-421. <a href="https://doi.org/10.1080/15575330.2019.1642927">https://doi.org/10.1080/15575330.2019.1642927</a>
- **Nguyen T, Lawler S, Paul W,** (2019). Socioeconomic and indigeneity determinants of the consumption of non-timber forest products in Vietnam's Bu Gia Map National Park. *International journal of sustainable development and world ecology.* 26(7), 646-656 <a href="https://doi.org/10.1080/13504509.2019.1649314">https://doi.org/10.1080/13504509.2019.1649314</a>

- Nichols SJ, Kefford BJ, Campbell CD, Bylemans J, Chandler E, **et al.** (2019). Towards routine DNA metabarcoding of macroinvertebrates using bulk samples for freshwater bioassessment: Effects of debris and storage conditions on the recovery of target taxa. *Freshwater Biology.* 65(4), 1-14. <a href="https://doi.org/10.1111/fwb.13443">https://doi.org/10.1111/fwb.13443</a>
- **Nielsen D**, Campbell CJ, **Rees G**, Durant RA, Littler RF et al. (2018). Seed bank dynamics in wetland complexes associated with a lowland river. Aquatic Sciences: research across boundaries. 80, 23. <a href="https://doi.org/10.1007/s00027-018-0574-3">https://doi.org/10.1007/s00027-018-0574-3</a>
- Rakeb-UI Islam M, Schmidt D, **Crook D**, Hughes J (2019). Non-diadromous life history and limited movement in northern lineages of Australian smelt: Evidence from otolith chemistry analysis. *Ecology of Freshwater Fish*. 28, 229-240, <a href="https://doi.org/10.1111/eff.12446">https://doi.org/10.1111/eff.12446</a>
- Rees G, Shackleton M, Watson G, Dwyer G, Stoffels R (2019). Metabarcoding demonstrates dietary niche partitioning in two coexisting blackfish species. *Marine and Freshwater Research*. Early view <a href="https://doi.org/10.1071/MF18491">https://doi.org/10.1071/MF18491</a>
- Roberts B, Morrongiello J, **King A**, Morgan D, Saunders T, Woodhead J, **Crook D** (2019). Migration to freshwater increases growth rates in a facultatively catadromous tropical fish. *Oecologia*. 191(2), 253-260. https://doi.org/10.1007/s00442-019-04460-7
- **Shackleton M, Holland A**, Stitz L, **McInerney P** (2019). Macroinvertebrate responses to conductivity in different bioregions of Victoria, Australia. *Environmental Toxicology and Chemistry*. *38*(6), 1334-1342. <a href="https://doi.org/10.1002/etc.4400">https://doi.org/10.1002/etc.4400</a>
- Shackleton M, Rees G, Watson G, Campbell C, Nielsen D (2019). Environmental DNA reveals landscape mosaic of wetland plant communities. *Global Ecology and Conservation*. 19, e00689. <a href="https://doi.org/10.1016/j.gecco.2019.e00689">https://doi.org/10.1016/j.gecco.2019.e00689</a>
- Shumilova O, Zak D, Datry T, von Schiller D, Corti R *et al.* (2019). Simulating rewetting events in intermittent rivers and ephemeral streams: a global analysis of leached nutrients and organic matter. *Global Change Biology*. 25(5), 1591-1611. doi.org/10.1111/qcb.14537.
- Silvester E, Klein A, Whitworth K, Puskar L, Tobin M (2018). Synchrotron infrared microspectroscopy reveals the response of Sphagnum cell wall material to its aqueous chemical environment. *Environmental Chemistry*. *15*(8), 513-521 <u>doi.org/10.1071/EN18120</u>.
- Sylvain F, **Holland A**, Audet-Gilbert E, Val A, Derome N (2019). Amazon fish bacterial communities show structural convergence along widespread hydrochemical gradients. *Molecular Ecology.* 28(15), 3612-3626. https://doi.org/10.1111/mec.15184
- Theischinger G, **Mynott JH** (2019). A new species of *Dinotoperla Tillyard*, 1921 from the Shoalhaven Catchment, New South Wales, Australia (Plecoptera: Gripopterygidae). *Zootaxa*. 4550(3), 423-427. doi.org/10.11646/zootaxa.4550.3.9.
- Thompson R, **Bond N**, Poff N, Byron N (2019). Towards a systems approach for river basin management— Lessons from Australia's largest river. *River Research and Applications*. 35(5), 466-475. <a href="https://doi.org/10.1002/rra.3242">https://doi.org/10.1002/rra.3242</a>
- Thompson RM, **King AJ**, Kingsford RM, MacNally R, Poff NL (2018). Legacies, lags and long-term trends: Effective flow restoration in a changed and changing world. *Freshwater Biology*. 63(8), 986-995. <a href="https://doi.org/10.1111/fwb.13029">https://doi.org/10.1111/fwb.13029</a>
- Tonkin J, Poff L, **Bond N**, Horne A, Merritt D, Reynolds L, Olden J, Ruhi A, Lytle D (2019). Prepare river ecosystems for an uncertain future. *Nature*. *570*, 301-303. DOI: 10.1038/d41586-019-01877-1
- Tonkin Z, Sharley J, Fanson, B, Raymond S, Ayres R, Lyon J, Balcolmbe S, **Bond N** (2019). Climate variability regulates population dynamics of a threatened freshwater fish. *Endangered Species Research*. 40, 257-270. <a href="https://doi.org/10.3354/esr00998">https://doi.org/10.3354/esr00998</a>
- Turschwell M, Stewart-Koster B, Pusey B, Douglas M, **King A, Crook D**, Boone E, Allsop Q, Kennard M (2019). Flow-mediated predator-prey dynamics influences fish populations in a tropical river. *Freshwater Biology*. *64*,1453-1466. https://doi.org/10.1111/fwb.13318
- von Schiller D, Datry T, Corti R, Foulquier A, Tockner K, Marcé R, **Bond N**, *et al.* (2019). Sediment respiration pulses in intermittent rivers and ephemeral streams. *Global Biogeochemical Cycles*. 33, 1251-1263. <a href="https://doi.org/10.1029/2019GB006276">https://doi.org/10.1029/2019GB006276</a>
- Williams SE, Hobday AJ, Falconi L, Hero JM, Holbrook NJ, et al. (2019). Research priorities for natural ecosystems in a changing global climate. *Global Change Biology*. 26(2), 410-416. https://doi.org/10.1111/gcb.14856
- Yu S, **Bond N**, Bunn S, Kennard M (2019). Development and application of predictive models of surface water extent to identify aquatic refuges in eastern Australian intermittent stream networks. *Water Resources Research*. 55(11), 9639-9655. <a href="https://doi.org/10.1029/2019WR025216">https://doi.org/10.1029/2019WR025216</a>

# Scientific, Technical and Consultancy Reports

- **Bond N, Thurgate N** (2019). Long Term Monitoring Project Annual Forum: Outcomes 2019. Report prepared for the Commonwealth Environmental Water Office by La Trobe University. *Centre for Freshwater Ecosystems*. CFE Publication 239/2019, August, 16pp.
- **Bond N, Thurgate N** (2019). LTIM Progress Report #19 Milestone reference 19.08. Prepared for the Commonwealth Environment Water Office. 7pp
- **Bond N, Thurgate N** (2019). LTIM Progresss Report #20 Milestone reference 19.13. Prepared for the Commonwealth Environment Water Office. 7pp
- **Bond, N., Silvester, E** (2019). What is the functional importance of tributary inflows in achieving productivity outcomes from environmental watering in the Murray-Darling Basin? Department of Industry, CFE Publication 244, November 2019, 9pp.
- Brooks S (2019). 2017–18 Basin-scale evaluation of Commonwealth environmental water Ecosystem Diversity. Final Report prepared for the Commonwealth Environmental Water Office by La Trobe University. Publication 234/2019, September, 44pp.
- **Brown P** Wisniewski C, Gilligan D (2019). The role of commercial fishing in control of invasive freshwater fish species. Common carp, can we fish them out through overfishing? Final Report prepared for Fisheries Research & Development Corporation. July 55pp.
- **Brown P, Wood D, Dunne C, McKillop T** (2019). Fish Movement. Final Report prepared for the Murray–Darling Basin Authority by The Centre for Freshwater Ecosystems. *Centre for Freshwater Ecosystems*. CFE Publication 221/2019, May, 10pp.
- Campbell C, Capon S, Gehrig S, James C, Morris K, Nicol J, Nielsen D, Thomas R (2019). Murray–Darling Basin Environmental Water Knowledge and Research Project Vegetation Theme Research Report. Report prepared for the Department of the Environment and Energy, Commonwealth Environmental Water Office by La Trobe University. Centre for Freshwater Ecosystems (formerly Murray–Darling Freshwater Research Centre), CFE Publication 226, May 2019, 27pp. [Appendices] 516p.].
- Capon S, **Campbell C** (2019). 2017–18 Basin-scale evaluation of Commonwealth environmental water Vegetation Diversity. Final Report prepared for the Commonwealth Environmental Water Office by La Trobe University. CFE Publication 235/2019, September, 96pp.
- **CFE** (2019). Murray-Darling Basin Environmental Water Knowledge and Research Project Research Site Report. Report prepared for the Department of the Environment and Energy, Commonwealth Environmental Water Office by La Trobe University. *Centre for Freshwater Ecosystems* (formerly Murray-Darling Freshwater Research Centre), CFE Publication 229, May 2019 46pp.
- Duncan L, Sandercock P, Mason B, **Bond N**, **Rees G, Nielsen D, Shackleton M** and Serena M (2018). Lower Broken Creek Flows Study. Revision 5. Final report by Jacobs for Goulburn Broken Catchment Management Authority, 85pp.
- Grace M (2018). Long Term Intervention Monitoring Basin Matter Stream Metabolism and Water Quality foundation report- revision 2018. Final Report prepared for the Commonwealth Environmental Water Office by The Murray-Darling Freshwater Research Centre. La Trobe publication 209/2018, 11pp.
- Grace M (2019). 2017–18 Basin scale evaluation of Commonwealth environmental water Stream Metabolism and Water Quality. Final Report prepared for the Commonwealth Environmental Water Office by La Trobe University. CFE Publication 233/2019, September, 80pp plus annexes
- **Haby N, Romanin L, Nielsen DL** (2019). How can we better mitigate against weed (aquatic and terrestrial) invasions through tailoring flow events in the Murray–Darling Basin? Draft Report prepared for the Murray–Darling Basin Authority by The Centre for Freshwater Ecosystems. CFE Publication 214/2019, March, 19pp.
- Hale J (2019). 2017–18 Basin-scale evaluation of Commonwealth environmental water Biodiversity. Final report prepared for the Commonwealth Environmental Water Office by La Trobe University. Publication 237/2019, September, 64pp.
- Hale J, **Bond N**, Brooks S, Campbell C, Capon S, **et al.** (2019). 2017–18 Basin-scale evaluation of Commonwealth environmental water Synthesis Report. Final report prepared for the Commonwealth Environmental Water Office by La Trobe University. Publication 238/2019, September, 43 pp.
- **King A** (2019). Long Term Intervention Monitoring Basin Matter Fish foundation report. Final Report prepared for the Commonwealth Environmental Water Office by The Centre for Freshwater Ecosystems. CFE Publication 210, 7pp.

- **King A, McPhan L, Thurgate NY, Bond N** (2019). 2017–18 Basin-scale evaluation of Commonwealth environmental water Fish. Report prepared for the Commonwealth Environmental Water Office by La Trobe University. Publication 236/2019, November, pp 73.
- McGinness HM, Brandis K, Robinson F, Piper M, O'Brien L, et al. (2019). Murray—Darling Basin Environmental Water Knowledge and Research Project Waterbird Theme Research Report. Report prepared for the Department of the Environment and Energy, Commonwealth Environmental Water Office by CSIRO and La Trobe University, Centre for Freshwater Ecosystems, CFE Publication 225 June 2019 44p. [Appendices 422p] https://doi.org/10.26181/5d2eb0ed77159
- **McInerney P** (2019). Complementary research and monitoring activities planned to occur during the Murray River Southern Spring Flow 2019. Final report for the Murray-Darling Basin Authority prepared by Centre for Freshwater Ecosystems. CFE Publication 240, 17pp.
- **McInerney P, Bond N** (2019) Sampling design options for post carp virus release monitoring. Final report for the Murray-Darling Basin Authority prepared by Centre for Freshwater Ecosystems. CFE Publication No. 216 May 2019. 32pp.
- McInerney P, Bond N, Kopf K, Lester R, Ryder D et al. (2019). Murray–Darling Basin Environmental Water Knowledge and Research Project Food Webs Theme Research Report. Report prepared for the Department of the Environment and Energy, Commonwealth Environmental Water Office by La Trobe University. Centre for Freshwater Ecosystems. CFE Publication 224 June 2019 28p. [Appendices 119p.] https://doi.org/10.26181/5d2ebbb7afa48
- McInerney P, Shackleton M, Rees G, Holland A, Davey C, Petrie P (2019). MMCP Collaboration Final report 2019 Biofilm succession patterns and ecosystem dynamics in the Edward-Wakool River system. Final Report prepared for the Murray-Darling Basin Authority by The Centre for Freshwater Ecosystems. CFE Publication 219/2019, June, 42pp.
- Mynott JH, Shackleton M, Furlan E, Rees G, Gleeson N, Bond N (2019). eDNA: review of applicability for monitoring and detecting biotic populations of the MDB. Draft Report prepared for the Murray-Darling Basin Authority by The Centre for Freshwater Ecosystems, CFE Publication 213/2019, February, 18pp.
- **Nielsen D, Durant R** (2019). MMCP Collaboration Final report 2019 Vegetation Dispersal. Final Report prepared for the Murray–Darling Basin Authority by The Centre for Freshwater Ecosystems. CFE Publication 218/2019, June, 31pp.
- Nielsen D, Rees G, Brown P, Stoffels R, McInerney P, Durant R (2019). MMCP Collaboration Final report 2019 Report prepared for the Murray Darling Basin Authority by The Centre for Freshwater Ecosystems. CFE Publication 217/2019, June, 57pp
- **Petrie R, Durant R, Nielsen** D (2019). Moira Grass thatch propagation trial. Final Report prepared for the Goulburn Broken Catchment Management Authority by The Centre for Freshwater Ecosystems. CFE Publication 215/2019, March, 5pp.
- **Price A**, Balcombe S, Humphries P, **King A**, Zampatti B, (2019). Murray–Darling Basin Environmental Water Knowledge and Research Project Fish Theme Research Report. Report prepared for the Department of the Environment and Energy, Commonwealth Environmental Water Office by La Trobe University. *Centre for Freshwater*. CFE Publication 223 June 2019 41p. [Appendices 203p.] https://doi.org/10.26181/5d2ec539a0639
- Rees G, McInerney P, Stoffels R, Shackleton M, Nielsen D, Dwyer G, Baldwin D, Silvester E (2019). MMCP Collaboration Final report 2019 Understanding the ecological consequences of macroinvertebrate community-structure change. Final Report prepared for the Murray–Darling Basin Authority by The Centre for Freshwater Ecosystems. CFE Publication 220/2019, June, 28pp.
- **Shackleton M, Bond N, Crook DA** (2019). Review and synthesis of drought refuge habitat knowledge and management. Report for the Victorian Environmental Water Holder prepared by Centre for Freshwater Ecosystems.
- Shackleton M, McInerney P, Mynott J, Murphy N, Bond N (2019). Status of DNA technologies for freshwater bio-surveillance in Victoria.

  Draft report for the Department of Environment, Land, Water and Planning prepared by Centre for Freshwater Ecosystems.

  160pp.
- Shackleton ME, McInerney P, Mynott JH, Murphy PN, Bond NR (2019). Status of DNA technologies for freshwater bio-surveillance in Victoria. Draft report for the Department of Environment, Land, Water and Planning prepared by Centre for Freshwater Ecosystems, pp72.
- **Shackleton ME, Bond N, Crook D** (2019). Review and synthesis of drought refuge habitat knowledge and management. Report for the Victorian Environmental Water Holder prepared by Centre for Freshwater Ecosystems.
- Silvester E, Holland A, Petrie R, Bond N (2019). Allochthonous carbon loads and potential organic carbon concentrations on Lindsay and Mulcra Island Floodplains during environmental watering. Final Report prepared for the Mallee Catchment Management Authority by the Centre for Freshwater Ecosystems. CFE Publication 228, July 2019, 30pp.

- Smith L, Thurgate N, Bond N (2019) Murray-Darling Basin Environmental Water Knowledge and Research Project Final Project Report.

  Report prepared for the Department of the Environment and Energy, Commonwealth Environmental Water Office by La Trobe
  University. Centre for Freshwater Ecosystems. CFE Publication 231 July 2019 29pp.
- Smith L, Thurgate N, Price A, McInerney P, McGinness H, Campbell C, Bond N (2018). Murray—Darling Basin Environmental Water Knowledge and Research Project Mid-year progress report for July December 2018. Report prepared for the Department of the Environment and Energy, Commonwealth Environmental Water Office by La Trobe University. *Centre for Freshwater Ecosystems*. CFE Publication 212, February 2019, 35pp.
- Stewardson MJ, Guarino F (2019). 2017–18 Basin scale evaluation of Commonwealth environmental water Hydrology. Final Report prepared for the Commonwealth Environmental Water Office by La Trobe University. Publication 232/2019, October, 49pp.
- Stewardson MJ, Guarino F (2019). 2017–87 Basin-scale evaluation of Commonwealth environmental water Hydrology: Annex A Valley Report Cards. Final Report prepared for the Commonwealth Environmental Water Office by La Trobe University. Publication 242/2019, September, 243pp.
- Stoffels R, **Bond N, Weatherman K**, Thiem J, Butler G *et al.* (2019). MMCP Collaboration Final report 2019 Effects of river flows and temperature on the growth dynamics of Murray cod and golden perch. Final report for the Murray-Darling Basin Authority by the Centre for Freshwater Ecosystems. CFE Publication 222/2019, July, 48pp.
- Thurgate N, Mynott J, Smith L, Bond N (2019). Murray-Darling Basin Environmental Water Knowledge and Research Project Synthesis Report. Report prepared for the Department of the Environment and Energy, Commonwealth Environmental Water Office by La Trobe University, Centre for Freshwater Ecosystems, CFE Publication 230 August 2019 41p. https://doi.org/10.26181/5d5ce6b3e1a8b
- Vertessy, R, Barma D, Baumgartner L, Mitrovic S, Sheldon F, **Bond N** (2019). Final report of the Independent Assessment of the 2018-19 fish deaths in the lower Darling, Australian Government. <a href="https://www.mdba.gov.au/sites/default/files/pubs/Final-Report-Independent-Panel-fish-deaths-lower%20Darling\_4.pdf">https://www.mdba.gov.au/sites/default/files/pubs/Final-Report-Independent-Panel-fish-deaths-lower%20Darling\_4.pdf</a>.

### **Conference, Seminar and Other Presentations**

- Bond N (2019) River ecology. Murray-Darling Basin Seminar Series. Canberra, ACT, 22 March.
- **Bond N, King A, Mynott J, Thurgate N,** Stoffels R, Brooks S (2019). Monitoring fish population responses to environmental water delivery in the Murray-Darling Basin lessons and observations at the basin scale five years in. Australian Society for Fish Biology Conference. 14-17 October.
- **Bond N,** Yen J, Thomson J, Kopf K, **Nielsen D**, et al. (2019). Quantifying the effects of altered hydrology and food-web structure on ecosystem carrying capacity in a floodplain River. Society for Freshwater Science Annual Meeting. Salt Lake City, Utah, USA, 20 May.
- **Brewer M** (2019). How Murray cod and Golden perch larvae survive and grow at different food and temperature regimes. Student Cadetship Seminar. La Trobe University, Wodonga, Victoria, 21 February.
- **Calipari T** (2019). Adverse effects of microplastics observed on the growth rate and health of freshwater alga *Chlorella* sp12. Final Honours Seminar presentation. La Trobe University, Wodonga, Victoria, 11 January.
- **Colombi F** (2019). Legacy effects of historical gold mining on floodplains of Victorian rivers. 18th Biennial Australian & New Zealand Geomorphology Group. Inverloch, Victoria, 4-8 February.
- **Colombi F** (2019) Legacy effects of historical gold mining on floodplains of Victorian rivers: Arsenic. Poster Presentation. Society of Environmental Toxicology and Chemistry Australasian Chapter Conference (SETAC). Darwin, Northern Territory, 7-11 July.
- **Colombi F, Silvester E,** Baldwin D, Lawrence S, Davies P, *et al.* (2018). Legacy effects of historical gold mining on floodplains of Victorian rivers. PhD Confirmation Seminar. La Trobe University, Wodonga, Victoria, 29 March.
- **Colombi F, Silvester E**, Baldwin D, Lawrence S, Davies P, et al. (2019). Legacy effects of historical gold mining on floodplains of Victorian rivers. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.
- **Crook D**, Wedd D, Adair B, Mooney T, Humphrey C, Harford A, **King A** (2019). Integrating acoustic telemetry with high resolution sonar to elucidate population-level effects of fish movement in a northern Australian stream. Australian Society for Fish Biology Conference, 14-17 October.

- **Crook D** (2019). Using dry season fish habitat preferences to inform water decision making in a tropical river. Australian Freshwater Sciences Society and New Zealand Freshwater Sciences Society Joint Conference. Waurn Ponds, Victoria, 1-4 December.
- Grace M, Tsoi I, Ryder D, Wolkfenden B, Thompson R, et al. (2019). Stream metabolism in environmental flow management: The Long-Term Intervention Monitoring project in Australia. Society for Freshwater Annual Meeting. Salt Lake City, Utah, USA, 24 May.
- **Holland A** (2019). Dissolved organic matter and metabolic dynamics in dryland lowland rivers. Australian Freshwater Sciences Society and New Zealand Freshwater Sciences Society Joint Conference. Waurn Ponds, Victoria, 1 4 December.
- **Holland A** (2019). Current status of metal research in Australasia. Metal Interest Group, Society of Environmental Toxicology and Chemistry (SETAC) North America 40th annual meeting conference, Toronto, 3-7 November.
- **Holland A**, Macoustra G, Stauber J, Jolley D (2019). The ever-changing nature of DOC possible implications for metals research. Society of Environmental Toxicology and Chemistry Australasian Chapter Conference (SETAC). Darwin, Northern Territory, 7-11 July.
- **Holland A**, Stauber J, Macoustra G, Jolley D (2019). The ever-changing nature of DOC possible implications for metal research. Society of Environmental Toxicology and Chemistry (SETAC) North America 40th annual meeting conference. Toronto, 3-7 November.
- **J Mynott** (2019). The detection of threatened alpine stoneflies. Australian Freshwater Sciences Society and New Zealand Freshwater Sciences Society Joint Conference. Waurn Ponds, Victoria, 1-4 December.
- **King AJ**, Allsop Q, Buckle D, **Crook D**, Douglas M, et al. (2019). Lessons from fish kills outside of the Murray-Darling Basin: Tracking recovery of the Katherine River fish assemblage after the 2012 hypoxic blackwater event. Australian Society for Fish Biology Conference. 14-17 October.
- Lawrence S, Grove J, **Silvester E**, Rutherfurd I (2019). Rivers of Gold: the legacy of historical mining on our rivers. NRM on the Border Seminar Series. La Trobe University, Wodonga, Victoria, 2 May.
- **Lei TUC** (2019). Using causal modelling principles for integrating long-term macroinvertebrate monitoring data for the Murray River and a hydroclimatology-salinity model for the Murray-Darling Basin to predict the ecohydrological effects of future climate scenarios. PhD Submission Seminar. La Trobe University, Wodonga Victoria.14 February.
- **Judd M** (2019). Photo point monitoring: a special role in environmental flow management, Australian Freshwater Sciences Society and New Zealand Freshwater Sciences Society Joint Conference. Waurn Ponds, Victoria, 1-4 December.
- **Shackleton M** (2019). Are we ready for DNA based bio-monitoring? Australian Freshwater Sciences Society and New Zealand Freshwater Sciences Society Joint Conference. Waurn Ponds, Victoria, 1-4 December.
- **McInerney P** (2019). Identifying critical basal resources for fish recruitment. Ovens River Research Symposium. Wangaratta, Victoria, 7 March.
- McInerney P, Shackleton M, Rees G, Holland A, Davey C, Petrie R (2019). Biofilm succession patterns and ecosystem dynamics in the Edward-Wakool River system. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.
- **McInerney**, **P** (2019). Basal resource quality and energy flow in a lowland river food web, R6th Biennial Symposium of the International Society for River Science. Vienna, Austria, 10 September.
- **McInerney P** (2019). EWKR Food web Theme, Australian Freshwater Sciences Society and New Zealand Freshwater Sciences Society Joint Conference. Waurn Ponds, Victoria, 1 4 December.
- Morais L, **Holland A,** Stauber J, **Silvester E,** Genderen EV, Jolley D (2019). The influence of water chemistry on zinc bioavailability and toxicity in Australian freshwater. Poster Presentation. Society of Environmental Toxicology and Chemistry Australasian Chapter Conference (SETAC). Darwin, Northern Territory, 7-11 July.
- **Bond N** (2019). Mapping wetland dynamics using remote sensing approaches to assist long-term planning in a rapidly urbanising landscape. Australian Freshwater Sciences Society and New Zealand Freshwater Sciences Society Joint Conference. Waurn Ponds, Victoria, 1 4 December.
- **Nielsen D** (2019). Vegetation Dispersal. A joint MMCP Collaboration and MDB Environmental Water Knowledge & Research Project Seminar. The Cube, Wodonga, Victoria. 14 March
- Nielsen D, Durant R (2019). Vegetation Dispersal. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.

- **Nogueira L** (2019). Water infra-structures and challenges for fish conservation: Larval trait-based analysis to foresee fish recruitment in regulated rivers. PhD Seminar. La Trobe University, Wodonga Victoria. 15 January.
- Nogueira L, Price A, Humphries P, Baumgartner L, Lawler S (2019). Use of swimming behaviour to assess dispersal patterns of Freshwater fish larvae. 24th Encontro Brasileiro de Ictiologia (EBI) Brazilian Conference of Ichthyology. Balém-Pará, Brazil, 27 31 January.
- **Nogueira L, Price A**, Humphries P, Baumgartner L, Lawler S (2019). Water infrastructure and challenges for fish conservation: A trait-based analysis to foresee fish recruitment in regulated rivers. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.
- **O'Dwyer J** (2019). Understanding and promoting genetic diversity in Australia's native fish species. PhD Commencement Seminar. La Trobe University, Bundoora, Victoria, 14 February.
- **O'Dwyer J,** Murphy N, Harrisson K, Tonkin Z (2019). Flows for fish: Using water flow to promote connectivity, recruitment and genetic diversity for Australian fish species. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.
- Panarelli E, *Nielsen D* and **Holland A** (2019). Cladocera resistance egg banks in temporary and permanent ponds. XVII Brazilian Limnology Congress and 2nd Ibero-American Limnology Congress. Florianopolis, Santa Caterina, 4 August.
- Petrie, R (2019). Ecology of Freshwater Microfauna. Floodplain Ecology Course. 16 October.
- **Price A** (2019). Flood production and energy flows in the Lower Ovens aquatic ecosystems. Ovens River Research Symposium. Wangaratta, Victoria, 7 March.
- **Price A** (2019). Freshwater Fish Recruitment: New science for water and wetland managers. A joint MMCP Collaboration and MDB Environmental Water Knowledge & Research Project Seminar. The Cube, Wodonga Victoria, 14 March.
- Price A, Stauber J, **Holland A**, Van Generen E, Jolley D (2019). The influence of water chemistry on zinc toxicity: Back to basics. Society of Environmental Toxicology and Chemistry Australasian Chapter Conference (SETAC). Darwin, Northern Territory, 7-11 July. Furthermore, postgraduate Gwilym Price (supervisor Holland A.), presented at this conference and was awarded "Best student poster presentation".
- **Rees G** (2019). Using food web ecology to improve environmental flows. A joint MMCP Collaboration and MDB Environmental Water Knowledge & Research Project Seminar. The Cube, Wodonga, Victoria, 14 March.
- **Rees G, McInerney P, Shackleton M**, Stoffels R, **Silvester E**, Dwyer G (2019). Understanding the ecological consequences of macroinvertebrate community structure change. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.
- **Shackleton M** (2019). Aquatic invertebrates of Australia National Database. University of Canberra DNA barcoding workshop. Canberra, ACT, 30 January.
- Shakya M, **Holland A**, Rees G, **Silvester E** (2019). Impact of copper on protein content and amino acid composition of Purple spotted Gudeon sac-fry. Poster Presentation. Society of Environmental Toxicology and Chemistry Australasian Chapter Conference (SETAC). Darwin, Northern Territory, 7-11 July.
- **Shakya M, Holland A,** Rees GR, **Silvester E** (2019). Impact of environmental stress on the protein and amino acid composition of freshwater organisms. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.
- Silvester E (2019). Education and Communication. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.
- **Silvester E, Holland A** (2019). Allochthonous Carbon Accumulation. Presentation to Mallee Catchment Management Authority. Mildura, Victoria, 29 May.
- Sparrow A, **Bond N**, Witteveen S, Chan T (2019). A proposed method and case study for detection of change in waterway health due to flow [online]. In: Hydrology and Water Resources Symposium (HWRS 2018): Water and Communities. Melbourne: Engineers Australia, 2018: 149-157 ISBN: 9781925627183

  https://search.informit.com.au/documentSummary;dn=121455411477534;res=IELENG.
- Stoffels R, **Weatherman K**, Theim J, Butler G, Morrongiello J, Bond N, Koster W, Kopf K, McCasker N, Ye Q, Zampatti B, Broadhurst B (2019). Impact of hydrology and climate on the growth dynamics of Murray cod and Golden perch. MMCP Collaboration Project Research Forum. Canberra, ACT, 11 June.
- **Thurgate N** (2019). Waterbird recruitment and movement thorughout the MDB. A joint MMCP Collaboration and MDB Environmental Water Knowledge & Research Project Seminar. The Cube, Wodonga, Victoria, 14 March.

**Thurgate, N** (2019). Managing environmental flows in Australia: how do we leap from science to management? 6th Biennial Symposium of the International Society for River Science. Vienna, Austria, 10 September.

Yu S, **Bond N**, Bunn S, Kennard M (2019). Development and application of predictive models for surface after extent to identify aquatic refugia in Eastern Australia. Society for Freshwater Annual Meeting. Salt Lake City, Utah, USA, 21 May.

## **Other Publications**

La Trobe University DEME History Project Supplement December 2018 - Emeritus Scholar Conferment - John Hill and Phil Suter

<a href="https://latrobe.figshare.com/articles/The\_Life\_and\_Times\_of\_La\_Trobe\_s\_Department\_of\_Environmental\_Management\_and\_Ecology\_A\_Reflective\_Review/5623930">https://latrobe.figshare.com/articles/The\_Life\_and\_Times\_of\_La\_Trobe\_s\_Department\_of\_Environmental\_Management\_and\_Ecology\_A\_Reflective\_Review/5623930</a>