Research output

Can SPEcies At Risk of pesticides (SPEAR) indices detect effects of target stressors amongst multiple interacting stressors?

Towards routine DNA metabarcoding of macroinvertebrates using bulk samples for freshwater bioassessment: Effects of debris and storage conditions on the recovery of target taxa

Stressor dominance and sensitivity-dependent antagonism: Disentangling the freshwater effects of an insecticide among co-occurring agricultural stressors

Is metal flocculation from mining activities a previously overlooked mechanism for impairing freshwater ecosystems?

Biological interactions mediate context and species-specific sensitivities to salinity

Using Systematic Review and Evidence Banking to Increase Uptake and Use of Aquatic Science in Decision-Making

Timely delivery of scientific knowledge for environmental management: a Freshwater Science initiative

Cutting through the complexity to aid evidence synthesis. A response to Haddaway and Dicks

Creating institutional flexibility for adaptive water management: insights from two management agencies

Simplifying the selection of evidence synthesis methods to inform environmental decisions: A guide for decision makers and scientists
Weaving common threads in environmental causal assessment methods: Toward an ideal method for rapid evidence synthesis

A DNA barcode database of Australia’s freshwater macroinvertebrate fauna

An Objective Method to Prioritize Socio-Environmental Water Management Tradeoffs Using Multi-Criteria Decision Analysis

An evidence-based approach for integrating ecological, hydrological and consumptive models to optimize flow management: a proof of concept

Challenges for evidence-based environmental management: What is acceptable and sufficient evidence of causation?

The imperative need for nationally coordinated bioassessment of rivers and streams

Big data opportunities and challenges for assessing multiple stressors across scales in aquatic ecosystems

An online database and desktop assessment software to simplify systematic reviews in environmental science

Evaluating AUSRIVAS predictive model performance for detecting simulated eutrophication effects on invertebrate assemblages

Waterwatch data quality: an opportunity to augment professionally collected data sets

Contribution of national bioassessment approaches for assessing ecological water security: An AUSRIVAS case study

Imagining the future

Optimising flow management for ecological response and consumptive use
Systematic causal inference and knowledge transfer between science and policy: Eco Evidence in water management

Analyzing cause and effect in environmental assessments: using weighted evidence from the literature

Eco Evidence for systematic causal inference and knowledge transfer between science and policy

More for less: a study of environmental flows during drought in two Australian rivers

Eco Evidence: Using the scientific literature to inform evidence-based decision making in environmental management: MODSIM 2011 - 19th International Congress on Modelling and Simulation - Sustaining Our Future: Understanding and Living with Uncertainty

Eco Evidence: using the scientific literature to inform evidence-based decision making in environmental management.

Ecological Responses to Flow Alteration: Assessing Causal Relationships with Eco Evidence

Environmental flows: achieving ecological outcomes in variable environments

The influence of extreme climatic events and human disturbance on macroinvertebrate community patterns of a Mediterranean stream over 15 y

Using the reference condition maintains the integrity of a bioassessment program in a changing climate

Water Quality Assessment of Portuguese Streams: Regional or National Predictive Models?

Ecological effects of serial impoundment on the Cotter River, Australia

Local stream habitat variables predicted from catchment scale characteristics are useful for predicting fish distribution
Multiple Lines and Levels of Evidence for Detecting Ecological Responses to Management Intervention

Using Taxon-Environment Relationships for Defining Macroinvertebrate Reference Communities in Disturbed Areas

Press / Media
Carp virus: PR push will be needed to avoid tourism downturn, NCCP says
Susan J Nichols
7/10/19
1 item of Media coverage

New DNA Research Allows Scientists To Genetically Test For Healthy Waterways
Susan J Nichols & Peter UNMACK
22/12/15
1 Media contribution

Awards
Water quality assessment of ACT Rivers
Broadhurst, B., Nichols, S. & Dyer, F.
5/04/20 → 31/03/21

Prizes
Australian Water Association Postgraduate Water Prize
Nichols, Sue (Recipient), 2010

Eric Best Memorial Prize for best overall performance at undergraduate level in Resource and Environmental Science
Nichols, Sue (Recipient), 1997

Faculty of Applied Science early career academic Teaching and Learning Award
Nichols, Sue (Recipient), 2008

Institute for Applied Ecology Early Career Researcher
Nichols, Sue (Recipient), 2010

Team award for Vice- Chancellor’s Award for Engagement Excellence (team member)
Nichols, Sue (Recipient), 2010

Projects
2010 - 2012 Continued provision of research support services for maintenance and updating of the AURIVAS website
Nichols, S.
Department of Environment, Water, Heritage and the Arts
1/07/10 → 1/05/13

A review of Waterwatch and Catchment Health Indicator Program
Dyer, F., Gruber, B., Harrison, E. & Nichols, S.
ACT Department of Environment and Sustainable Development-Heritage Council
1/04/13 → 30/06/13

A review of the ACT’s Environmental Flow Guidelines and develop revised Guidelines
Broadhurst, B., Nichols, S. & Dyer, F.
Below Dams monitoring Program
Thompson, R., Broadhurst, B. & Nichols, S.
Icon Water
5/04/17 → 31/03/20

Biological Assessment of Fry's Creek and Myall River
Broadhurst, B., Harrison, E. & Nichols, S.
MidCoast Water
1/11/11 → 31/03/16

Biological assessment of the Thredbo River (2013 to 2016) - Project 2 under 2013000216
Broadhurst, B., Harrison, E., Nichols, S. & Thompson, R.
Kosciuszko Thredbo Pty Ltd
1/09/13 → 11/1/16

Biomonitoring of pesticides in rivers and streams vis-a-vis ecological services and functions
Kefford, B., Abhik Gupta, A., Muller, J., Nichols, S. & Susmita, G.
Department of Industry, Innovation and Science
1/01/15 → 31/01/18

DNA-based identification for routine aquatic bioassessment
Nichols, S., Furlan, E., Gleason, D., Kefford, B., Butterfield, B., Rees, G. & Scanes, P.
NSW Environmental Trust
1/02/16 → 31/01/19

Diagnosing river health using invertebrate traits and DNA barcodes
Kefford, B., Chessman, B., Goonan, P., Hoffman, A., Mac Nally, R., Metzeling, L., Nichols, S., Ramos, M. J. G. & Warne, M.
Australian Research Council, Environment Protection Authority Victoria, Office of Environment and Heritage (New South Wales), E-Water CRC, Department of Land Resource Management, Department of Primary Industries, Department of Water (Western Australia), ACT Environment and Planning Directorate, Kosciuszko Thredbo Pty Ltd, Department of Science Information Technology and Innovation, Environment Protection Authority, Icon Water
15/12/16 → 15/12/19

How much salt is too much for Australian Alpine streams?
Kefford, B., Harrison, E. & Nichols, S.
Parks Victoria, ACT Environment and Planning Directorate
9/02/16 → 31/01/19

LCC restoration evaluation: applying the NWQMS as a monitoring and evaluation framework
Nichols, S., Broadhurst, B., MAHER, B., Thompson, R. & Flapper, T.
11/01/18 → 31/12/18

LCC restoration evaluation: applying the NWQMS as a monitoring and evaluation framework
Nichols, S., Broadhurst, B., Maher, B., Thompson, R. & Flapper, T.
10/01/18 → 30/06/18

National Carp Control Plan project: the likely medium- to long-term ecological outcomes of major carp population reductions
Nichols, S., Lintermans, M., Richards, R., Brewer, T., Gawne, B. & Thompson, R.
13/04/18 → 12/12/18
National Carp Control Plan project: the likely medium- to long-term ecological outcomes of major carp population reductions
Nichols, S., Lintermans, M., Richards, R., Brewer, T., Gawne, B. & Thompson, R.
Fisheries Research Development Corporation
13/04/18 → 12/12/18

Provision Research Services for Assessing Water Quality of ACT Rivers
Broadhurst, B., Harrison, E., NORRIS, R., Dyer, F. & Nichols, S.
ACT Government
11/03/10 → 31/08/17

Provision of an information classification method to support the review of environmental water requirement in northern basin
Nichols, S., Harrison, E., Schirmer, J. & Thompson, R.
15/05/15 → 16/10/15

The provision of water management services (technical) under a panel arrangement.
Dyer, F., Briggs, S., Broadhurst, B., Downey, P., Georges, A., Gruber, B., Harrison, E., Lintermans, M., MOORE, L., Nichols, S., Osborne, W., Osborne, W., Reynoldson, T., White, D., Williams, D. & Williams, D.
Department of Sustainability Environment Water Population and Communities
17/10/12 → 31/08/16

Water Quality monitoring Campbell 5 Project 2
Broadhurst, B., Dyer, F., Harrison, E. & Nichols, S.
ACT Government Economic Development Directorate
11/11/15 → 31/12/19

Water quality monitoring-Amaroo
Broadhurst, B., Dyer, F., Harrison, E. & Nichols, S.
ACT Government Economic Development Directorate
1/08/14 → 30/06/16