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Biography

Grant is an aquatic ecologist and ecotoxicologist. His research examines the response of groundwater ecosystems, invertebrate and microbial communities to environmental change, and develops tools for assessing change in ecosystem health and condition. Hose and his team undertake field surveys and laboratory manipulative experiments, to identify correlative and causal links to community change. His team has expertise in groundwater invertebrate taxonomy and using environmental DNA (eDNA) to characterise the composition and function of groundwater ecosystems, and through this work has established an international reputation in groundwater ecology research. His current research focuses on the ecology of groundwater ecosystems and assessment of ecosystem health, ecological risk assessments and ecotoxicology for groundwater biota and the roles of stygofauna in providing ecosystem services.

Research outputs

Australian non-perennial rivers: global lessons and research opportunities

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Saqira, S., Chariton, A. & Hose, G. C., 15 Apr 2024, In: *Environmental Pollution*. 347, p. 1-11 11 p., 123680.

Monitoring groundwater health using citizen scientists in semi-arid regional Australia

Korbel, K. L. & Hose, G. C., 4 Apr 2024, (E-pub ahead of print) In: *Groundwater*.

STYGOTOX: A quality-assessed database of (eco)toxicological data on stygofauna and other aquatic subterranean organisms

Groote-Woortmann, W., Korbel, K. & Hose, G. C., 29 Mar 2024, (E-pub ahead of print) In: *Environmental Toxicology and Chemistry*.

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Nelson, T., Hose, G. C., Dabovic, J. & Korbel, K. L., 8 Jan 2024, In: *Marine and Freshwater Research*. 75, 1, p. 1-16 16 p., MF23014.

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Anthropogenic petroleum signatures and biodegradation in subantarctic Macquarie Island soils

Houlahan, S. B., Errington, I., Hose, G. C., King, C. K. & George, S. C., Jun 2023, In: *Chemosphere*. 325, p. 1-12 12 p., 138395.

Assessing groundwater ecosystem health, status, and services

Hose, G. C., Di Lorenzo, T., Fillinger, L., Galassi, D. M. P., Griebler, C., Hahn, H. J., Handley, K. M., Korb, K., Reboleira, A. S., Siemensmeyer, T., Spengler, C., Weaver, L. & Weigand, A., 2023, *Groundwater Ecology and Evolution*. Malard, F., Griebler, C. & Rétaux, S. (eds.). 2nd ed. London: Elsevier, p. 501-524 24 p.

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Pollitt, L., Korb, K., Dabovic, J., Chariton, A. & Hose, G. C., 2023, In: *Marine and Freshwater Research*. 74, 5, p. 423-431 9 p.

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Legal frameworks for the conservation and sustainable management of groundwater ecosystems

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Microbial co-occurrence networks as a biomonitoring tool for aquatic environments: a review

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Invertebrate traits, diversity and the vulnerability of groundwater ecosystems

Hose, G. C., Chariton, A. A., Daam, M. A., Di Lorenzo, T., Galassi, D. M. P., Halse, S. A., Reboleira, A. S. P. S., Robertson, A. L., Schmidt, S. I. & Korb, K. L., Sept 2022, In: *Functional Ecology*. 36, 9, p. 2200-2214 15 p.

Bacteria-plant interactions synergistically enhance biodegradation of diesel fuel hydrocarbons

Eze, M. O., Thiel, V., Hose, G. C., George, S. C. & Daniel, R., 29 Aug 2022, In: *Communications Earth and Environment*. 3, 1, p. 1-10 10 p., 192.

Spatial and temporal variation in macrophyte litter decomposition in a rare chain-of-ponds, an intermittent stream and wetland system

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Eze, M. O., Hose, G., George, S. C. & Daniel, R., 14 Jun 2021, In: *AMB Express*. 11, p. 1-12 12 p., 89.

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