Carbon cycling in intermittent streams

Approximately 75% of Australia’s waterways run dry for part of the year. However, without water to sample, these dry phases are treated as effectively ‘zero’ in our understanding of stream carbon cycling in Australia. We are currently seeking a PhD student to help redress this knowledge gap for sub-tropical Australian streams. The candidates will focus on methane and carbon dioxide cycling in intermittent streams. This work will involve combining techniques from terrestrial and aquatic sciences, with the option to use both high-frequency field instruments and stable isotope techniques.

The PhD scholarship is funded by an Australian Research Council Linkage grant (‘Untangling metabolism and greenhouse gas production in intermittent streams’) in collaboration with GeoLINK environmental consulting. The candidate will be based in the Centre for Coastal Biogeochemistry (https://twitter.com/biogeochemSCU, https://www.scu.edu.au/centre-for-coastal-biogeochemistry/) at Southern Cross University (Australia). Southern Cross University received the highest rank of 5.0 in the most recent national research excellence assessment. Candidates will work on a team lead by SCU researchers Prof Bradley Eyre, Dr Judith Rosentreter, Dr Naomi Wells, and Dr Alberto Borges (University of Liège, Belgium). There is a possibility of exchange visits with the University of Liège.

Applicants must have an Honours or Master degree, undertaken in English, in a related field such as biogeochemistry, environmental chemistry, limnology, or closely related. The project will involve periods of intensive field measurements, laboratory work, and data processing. Experience with either large data sets or stable isotopes is preferred.

Scholarships provide a tax-free annual stipend of $28,000 for 3 years (with a possible six-month extension), and a tuition fee waiver for international students. Interested applicants should send a CV and short (< 1 page) statement highlighting their research background and interests, with respect to the criteria above, to Naomi Wells (naomi.wells@scu.edu.au) and Prof Bradley Eyre (bradley.eyre@scu.edu.au). Only short-listed applicants will be notified. Closing date for applications is 10 July 2020. Starting date is January 2021.

Southern Cross University is based in Lismore, northern NSW, Australia. The region is a great place to live with a sub-tropical climate, some the best beaches and surfing in the world, plus great fishing, scuba diving and wilderness areas. The quality of life is high and the cost of living relatively low.