

Postdoctoral Research Associate - Sea-ice Microbial Ecology

College/Division	College of Sciences and Engineering
School/Section	Institute for Marine and Antarctic Studies – Ecology and Biodiversity
Location	Hobart – Salamanca
Classification	Academic Level A/B
Reporting line	Reports to Professor IMAS

Position Summary

The University of Tasmania (UTAS) is building a vision of a place-based University with a mission to enhance the intellectual, economic, social and cultural future of Tasmania, and from Tasmania, contribute to the world in areas of distinctive advantage. The University recognises that achieving this vision is dependent on the people we employ as well as creating a people-centred University that is values-based, relational, diverse, and development-focused.

The Postdoctoral fellow will focus on sea-ice microbial processes with an emphasis on how alterations in climate-relevant factors influence microbial loop dynamics and the consequent effects on under-ice ecology and biogeochemistry. This position is part of the ARC Australian Centre for Excellence in Antarctic Science (ACEAS), a national-scale, University-led, international centre focused on helping the world community prepare for climate risks emerging from East Antarctica and the Southern Ocean by integrating knowledge of the ocean, atmosphere, cryosphere and ecosystems, and their interplay. ACEAS will grow to support the activities of around 150 researchers, administrative staff, and students, with exciting opportunities to collaborate across disciplinary and institutional boundaries. Further information on ACEAS is available at <http://antarctic.org.au/>.

The successful candidate will contribute primarily to ACEAS Program 2. This Program addresses the overarching question: “What are the causal linkages between atmosphere, ocean, cryosphere, and their consequent effects on open water and under ice biogeochemistry and ecology in East Antarctica for past, present and future conditions?” Specifically, the successful candidate will contribute to: a) Understanding how changes in contemporary abiotic inputs (iron, light, pH, temperature) will influence ice-associated microbial dynamics and b) “Assess the consequent effects on under ice ecology, biogeochemistry and carbon export for both contemporary and future conditions.” This is an exciting project that utilises new technologies to capture current sea ice microbial processes from both in-situ and laboratory-based experiments to address questions with climate-level significance. While not a field-based position the successful candidate will participate in planned fieldwork as part of the larger ACEAS activities including research voyages to the Marginal Ice Zone (Spring of 2023).

We are an inclusive workplace committed to ‘working from the strength that diversity brings’ reflected in our Statement of Values. We are dedicated to attracting, retaining and developing our people and are committed to inclusive principles. We celebrate the range of diverse assets that gender identity, ethnicity, sexual orientation, disability, age and life course bring. Applications are encouraged from all sectors of the community. Tell us how we can make this job work for you.



What You'll Do

- Determine the impact of contemporary and future changes in abiotic co-stressors (temperature, light, iron, pH) on ice-associated microbial dynamics including viruses.
- Determine how these changes will impact under-ice biogeochemistry, ecology and carbon export.
- Assess how alterations in contemporary conditions impact sea ice microbes at a cellular level.
- Maintain a strong focus on communicating research findings by publishing in highly ranked journals and presenting to peers at local, national and global conferences.
- Work collaboratively in an interdisciplinary research team to achieve collective as well as individual outcomes.
- Take on leadership opportunities that arise and contribute to the collegiate life of ACEAS/IMAS such as contributing to PhD supervision, committee membership, leading workshops, etc.
- Undertake other duties as assigned by the supervisor.

What We're Looking For (success criteria)

- A PhD and equivalent postdoctoral experience, in a relevant area (e.g. sea ice microbial ecology, marine microbiology, or similar) as demonstrated by a record of quality publications.
- A good record of, and continuing commitment to, research that attracts international recognition in the field of polar microbial ecology.
- Expertise in 'omics' research, either proteomics or genomics with a functional knowledge of bioinformatic data analysis.
- Experience in microbiological laboratory culturing techniques including the isolation, maintenance and identification of bacterial, microalgae and viruses. Preferably with organisms located in extreme ecosystems.
- Demonstrated ability to work efficiently with minimal supervision, with a capacity to set and prioritize strategic research directions, and to design and complete collaborative research programs to achieve scientific goals.
- Demonstrated ability to work collaboratively in a research team covering multiple disciplines and achieve collective as well as individual outcomes.
- Experience in Southern Ocean research with particular emphasis on ice-associated habitats.

What We're Looking For (success criteria)

- Experience with fieldwork on sea-ice and within polar regions.
- Ability to effectively communicate results to a variety of audiences and stakeholders.

University of Tasmania

The University of Tasmania is an institution with an enduring commitment to our state and community, and a strong global outlook. We are committed to enhancing the intellectual, economic, social and cultural future of Tasmania. Our [Strategic Direction](#) strongly reflects the University community's voice that our University must be place based but globally connected as well as regionally networked and designed to deliver quality access to higher education for the whole State.

We believe that from our unique position here in Tasmania we can impact the world through the contributions of our staff, students and graduates. We recognise that achieving this vision is dependent on the people we employ, as well as creating a university that is values-based, relational, diverse, and development-focused.

Check out more here: <https://www.utas.edu.au/jobs>

The intention of this position description is to highlight the most important aspects, rather than to limit the scope or accountabilities of this role. Duties above may be altered in accordance with the changing requirements of the position.

