

EXMOUTH RESEARCH LAB: EXPRESSIONS OF INTEREST



Minderoo Foundation invites researchers to apply to conduct high-impact research, conservation, and educational projects at the Exmouth Research Lab.

Please ensure you read through the relevant information below when you apply:

- Be aware of the support provided
- Ensure your project meets the eligibility and project criteria
- Understand the project evaluation criteria
- Ensure your project is aligned to the research priorities
- Ensure your project can demonstrate impact
- [Download and fill out the EOI form](#)
- Return the completed EOI form to merl@minderoo.org

Support Provided & Costs

Successful applicants will have access to the Exmouth Research Lab facilities, equipment and support services on terms to be agreed between the applicant and Minderoo Foundation. This may include:

- Use of the laboratory facilities
- Use of research vehicles
- Use of the research vessel with skipper
- Accommodation
- Assistance from laboratory staff

Minderoo Foundation support will not extend to specific project costs including consumables (including lab reagents), equipment, travel costs, salary costs, food, provisioning or freight. Research permits and licensing costs are also the responsibility of the successful applicant.

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Eligibility & Project Criteria

Eligibility

Applicants who will be conducting bona fide scientific research are eligible to use the Exmouth Research Lab facilities and equipment.

Applicants must provide sufficient detail about their proposed project to satisfy Minderoo Foundation that the research is genuine. Applicants must have the capacity to contribute towards a scientific publication or a postgraduate thesis, or it must be a requirement of an undergraduate course. Applicants will generally have a university or research institute affiliation.

Eligibility

- Projects must align to Minderoo Foundation's research priorities.
- Projects must demonstrate a clear path to impact.
- Project proposals must be well developed, concise and high quality and researchers must have a good track record.
- Minderoo Foundation will view favourably projects that (1) leverage multiple sources of funding/support; (2) are collaborative, for example, projects that include researchers from more than one institution and collaborate across multiple disciplines; (3) meaningfully add value to other Minderoo Foundation initiatives; (4) develop future capacity, new technology or methods; and (5) demonstrate research impact to the Ningaloo Coast region and the Indian Ocean.
- Projects must ensure that destructive sampling is avoided wherever possible.

Ethics approvals & permits

Any ethics approvals and permits required are the responsibility of the applicant and must be in place before the project commences.

Research reporting and & metrics

Successful applicants will be required to provide Minderoo Foundation with progress reports and a final report on the project and the findings.

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Communication & promotion

By submitting an application, applicants consent to being contacted by Minderoo Foundation for (but not limited to) operational feedback, public relations opportunities (such as commentary and interviews) and for inclusion on websites, social media, media releases and mentions in Minderoo Foundation announcements.

Communication of research findings through media, social media, conferences, forums and communication with Minderoo Foundation staff is expected in connection with all research carried out with Minderoo Foundation support. Wherever possible, academic journal publications of research findings should be on an open access basis.

Data use & sharing

Minderoo Foundation is committed to openly sharing data collected through collaborative projects run from our facilities. Nevertheless, we recognise that there may be legitimate concerns surrounding the publication and potential misuse of some types of data. Minderoo Foundation aims to balance the key objectives of obtaining maximum scientific benefits from open access to data against the unintended consequences of sensitive ecological information falling into the wrong hands.

Minderoo Foundation:

- Expects data to be shared between researchers and institutions participating in the project and on open access data platforms where possible.
- Aims to foster collaboration between projects and researchers are expected to share data with participating institutions and identify further areas of research and analysis.
- Expects that data is made fully open access within one year of the end of the project.
- Expects applicants to published a high impact journal article within two years of the end of the project.
- Expects that all papers prepared in connection with the project be published in open access form.

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Evaluation Criteria

The research project must:

- Align to one or more of the research priorities [20%]
- Be highly likely to create impact or influence the research topic and issue [20%]
- Deliver the proposed outcome (includes quality and clarity of the proposal; suitability of methods/approach; proponent's track record and capacity, etc) [30%]
- Involve strategic partnerships and collaborations, with other disciplines, institutions or countries) [10%]
- Link to other Minderoo Foundation initiatives [10%]
- Develop future capacity, new technology or methods [10%]

Research Priorities

Priority theme 1: Expand Marine Protected Areas

Issues:

- Determining the optimum size and configurations (networks) of MPAs to achieve long term biodiversity outcomes at different scales (oceans, in EEZs, in bioregions, and in state or coastal waters).
- Documenting the ecological, social, and economic benefits of sanctuary or no-take zones.
- Planning for MPAs in the high seas and to protect populations of pelagic and migratory species.
- Planning for MPA networks to protect critically endangered marine species (species listed as critically endangered will have priority of those listed as endangered or threatened).
- Evaluating the performance of MPAs.
- Examining the pros and cons of 'other effective area-based management conservation measures'.

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Priority theme 2: Plastic Pollution and Health

Issues:

- Measuring, mapping and identifying sources of ocean plastic pollution.
- Assessing impacts of ocean plastics to wildlife, economies and human health.
- Developing solutions for mitigating impacts of ocean plastic pollution.
- Developing alternatives to plastics or ways to phase out use of plastics.
- Developing ways to safely dispose of plastic waste.

Priority theme 3: Climate Change

Issues:

- Understanding and predicting biological and ecological responses to rapid climate change.
- Describing oceanographic changes because of climate change and consequences to coastal and open ocean ecosystems.
- Reef restoration and adaptation.
- Developing management strategies for rapidly changing ecosystems under a full range of climate change scenarios.
- Understanding and predicting the impact of climate change to the blue economy.
- Understanding the influence of climate change on carbon sequestration in the oceans.

Priority theme 4: Healthy Fisheries

Issues:

- Fish distribution, abundance, population structure and movements to directly inform stock management.
- Mechanism for improving fisheries governance and management: both nationally and in the high seas.
- Understanding impacts of fishing on populations of target and by-catch species.
- Developing options for rebuilding overfished populations.
- Mechanisms and policies to sustainably fish pelagic species.
- Methods for improving stock assessments of pelagic and migratory species.
- Evaluate the effectiveness of locally managed marine areas on sustainable fisheries.
- Evaluating the effectiveness of management of fisheries and by-catch in Australia's EEZ.

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Priority theme 5: Deep Sea Research

Issues:

- Mapping the ocean floor and habitats.
- Improving taxonomic and ecological understanding of deep-sea fauna.
- Identifying deep sea fauna hotspots.
- Understand connectivity between the hadal depths and surface and coastal waters.
- Improving understanding of deep-sea habitats to better predict environmental change associated with climate change.
- Documenting new bio-products that could be used in medicines.

Priority theme 6: Oceanomics

Issues:

- Using eDNA to identify areas for protection (spatial prioritisation plans), especially in pelagic environments.
- To establish baselines and document change in biodiversity from human actions.
- Detect low abundance species, especially threatened and endangered species.
- Application in stock assessment.
- Using eDNA to define ecosystem functionality and to determine which species are the major drivers of ecosystem function.
- Potential of eDNA to target the full species assemblage, and to facilitate the use of ecological network analysis. Network analyses can help identify sensitive groups that should be targeted in management or biomonitoring.
- Using eDNA to understand trophic functioning of protected versus unprotected areas.
- Using eDNA of stomach content to better understand trophic interactions.
- Using eDNA to document connectivity among populations.

Priority theme 7: Education

Issues:

- Raising community awareness of the importance of protecting the oceans and their wildlife.
- Fostering climate change literacy.
- Fostering plastic waste literacy.
- Communicating the ecological, educational, social, and economic importance of sanctuary zones to the public.
- Raising awareness of Australia's endemic and iconic marine fish species, and the need to protect these species for future generations.

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Demonstrating impact

Research impact is the contribution that research makes to the economy, society, environment or culture, beyond the contribution to academic research.

Applicants are strongly advised to ensure the project has a clear and well-articulated impact with respect to the following:

- **Management:** Management-based outcomes and results that will meaningfully contribute to understanding of the research priorities
- **Environment:** Have direct implications for improved management, conservation, and potentially restoration in the region
- **Research:** Use cutting edge technology, or lead to technological advances
- **Community:** Contribute positively to the community through direct or indirect impacts, as marine resources play a vital role for multiple sectors of the community in the local area