

AIMS is Australia's tropical marine research agency and a world leader in marine science. One of our specialities is tropical marine ecotoxicology and environmental risk assessment, providing reliable and relevant information to guide decision making for sustainable development.

Marine ecotoxicology is the study of the effects of pollutants on marine organisms, populations and communities. Population growth, urbanisation and industrialisation in coastal regions can lead to marine contamination. Unlike temperate ecosystems, the effects of pollutants on tropical ecosystems are poorly understood. To fill this knowledge gap, AIMS' expert scientists use our dedicated testing facilities to investigate the effects of pollutants on tropical marine species. This information allows proponents to better predict and manage the consequences of their activities and allows regulators to develop policy positions, guidelines and regulatory frameworks.



# **Tropical toxicity tests**

AIMS has developed a suite of standardised, chronic tropical toxicity tests over a range of taxonomic groups including adult and juvenile corals, sponges, urchins, crustaceans, molluscs and a range of microalgal species. The suite allows construction of species sensitivity distributions to derive safe limits of chemical concentrations in water according to National Water Quality Framework guidelines.



### **Contaminants assessed**

Oils and condensates, oil dispersants, produced water, industrial discharges, chlorinated cooling water, insecticides and herbicides, metals and sediments from dredging.



### End-to-end risk assessment

AIMS specialises in: hazard identification and characterisation, assessing and modelling contaminant distribution and concentration coupled with ecotoxicology, conducting environmental risk assessments.



## **Contaminants of interest**

Sunscreens and antifouling paint formulations, corrosion inhibitors and production chemicals from gas and condensate extraction, pesticides pharmaceuticals and personal care products.



# **Research and development**

Ongoing interests include developing additional tropical species assays with new/novel endpoints, further developing appropriate statistical methods for deriving threshold and guideline values, and developing mechanistic toxicity modelling for complex mixtures such as hydrocarbons.







Australian Government OF MARINE SCIENCE AIMS: Australia's tropical marine research agency.

Contact our Business Development Team to discuss how we can work together. Email: business@aims.gov.au

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