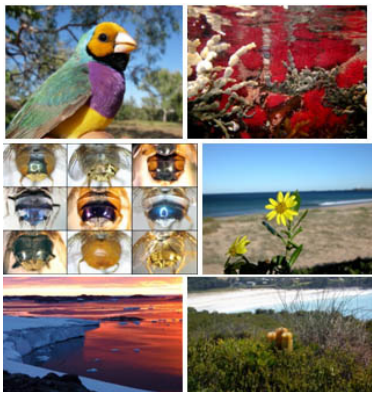
Institute for Conservation Biology and Environmental Management (ICBEM)

uow.edu.au/science/biol/icb



Overview
Formed in 2001, ICBEM is one of the University's major research strengths. It is unique in combining expertise in Conservation Law and Policy with strong research in Evolutionary and Environmental Biology.

ICBEM Aims
• To conduct world-class research concerning the biology, conservation and management of Australia's native biota.
• To train research students to be highly competent researchers in this area.
• To foster interdisciplinary research and research training, linking science with law, policy and management
• To interact with other scientists as well as managers and policy personnel to achieve effective conservation of the Australian biota.

ICBEM Research Areas

Environmental Biology
Within ICBEM our interests in Environmental Biology range across the disciplines of ecology, physiology genetics and behaviour.

Major conservation themes include:
• potential impacts of climate change on plants and animals in both marine and terrestrial environments,
• anthropogenic environmental impacts on the Australian biota.

Applied topics include:
• fire management
• impacts of invasive species
• indigenous hunting
• fisheries biology
• the effects of habitat fragmentation and built environments
• urban garden design and bird Biodiversity
• the importance of endogenous heat production in forensic entomology

Many projects also include direct input into policy and management strategies.

Evolutionary Biology
Our research into the evolutionary biology of both plants and animals occurs within several research programs and involves many ICBEM members. Research spans fundamental investigations in areas including:
• sexual selection and mate choice
• phylogeography of intertidal invertebrates
• population genetics
• endogenous heat production in flowering plants
• adaptation to elevated UV levels in Antarctic mosses and intertidal invertebrates
• phylogenetics of carrion feeding blowflies
Applied topics include:
• aspects of conservation genetics and genetic rescue in reptiles and plants
• use of population genetics to evaluate and design marine and terrestrial reserves

Conservation, Law & Policy
Within the Conservation Law and Policy research area we aim to apply the results of our core biological research to better inform the decisions of policy makers both within Australia and overseas. This is achieved through direct involvement of our biological researchers on policy bodies and also through our collaborations with academics in Law to inform future policy.

ICBEM Centres
• Janet Cosh Herbarium
Documenting local flora and aiding botanical research and teaching in the University
• Centre for Environmental Risk Management of Bushfires
Modern bushfire management requires the assessment, measurement and mitigation of risks.

CONNECT:
UOW RESEARCH

UOW Research Themes

Environmental Sustainability Past, Present and Future

Innovative Materials, Engineering and Manufacturing

Health and Medical Research

Information and Mathematical Sciences

Society, Policy and Culture

UOW Research Strengths

- Australian Health Services Research Institute
- Centre for Archaeological Sciences
- Centre for Health Initiatives
- Centre for Medical Bioscience
- Centre for Medical Radiation Physics
- Centre for Medicinal Chemistry
- Centre for Statistical & Survey Methodology
- Engineering Manufacturing
- Engineering Materials Institute
- GeoQuEST Research Centre
- Information & Communication Technology Research Institute
- Institute for Conservation Biology & Environmental Management
- Institute for Innovation in Business & Social Research
- Institute for Mathematics & its Applications
- Institute for Social Transformation Research
- Institute for Superconducting & Electronic Materials
- Institute for Transnational & Maritime Security
- Intelligent Polymer Research Institute / COE for Electromaterials Science
- Interdisciplinary Educational Research Institute

UNIVERSITY OF WOLLONGONG
RESEARCH