



Science in a changing climate

While global climate models predict that ocean temperatures are increasing everywhere, actual data collected at Maria Island shows that waters off the east coast of Tasmania are increasing in temperature at four times the global average. This is due to the 'double whammy' of the underlying ocean warming and the additional impact of the East Australian Current, which is penetrating further, and for longer each summer, down the east coast. As the conditions off the coast change, marine species start moving, leading to many species undergoing shifts and/or expansions in their usual range.

Off the east coast of Tasmania we have already seen examples of plankton, fish and molluscs that have shifted their distribution further south into our waters. How do we react to climate change and provide sufficient monitoring if changes are happening at such a rapid rate?

The answer may just be **citizen science**. By appealing to the Tasmanian community to collect and disseminate information on behalf of science, there is an opportunity to obtain much greater quantities of information than is currently possible.



The Tasmanian Aquaculture and Fisheries Institute (TAFI) was recently awarded a grant from the Tasmanian Community Fund to develop a website aimed at collecting data specifically about the changes occurring in the Tasmanian marine environment as our coasts warm up. The **Range Expansion Database and Mapping Project (REDMAP)** will be an interactive website where members of the public submit data on catches or observations of species that may be undergoing range shifts.

REDMAP is particularly interested in engaging with Tasmanian schools about how climate change is affecting Tasmanian marine ecosystems by providing information such as local temperature predictions, past temperature patterns, scientific data for use in classes, and detailed information on our species, habitats and ecosystems.

The website (currently under construction) can be found at www.redmap.org.au.

If you are interested in contacting the REDMAP team for further information on REDMAP and how your school can participate, contact Rebecca Brown at TAFI (email r.a.brown@utas.edu.au or phone 6227 7257).