



EVALUATING THE SAFETY OF NEW ANTIFOULING AGENTS

Principal researcher: Susan Duda

The Marine and Freshwater Resources Institute (MAFRI) has received \$111,500 from the Natural Heritage Trust for a new project to investigate the safety of new antifouling products to Australian native marine organisms.

Antifouling agents are products that prevent the growth of marine organisms on ship hulls. This is essential for not only to protecting the ship and maintaining its performance, but also for preventing the unintentional transport of exotic marine species between ports.

In recent years there has been a call for a global ban on one of these antifouling products, tributyltin (TBT). TBT is probably one of the most toxic substances that has ever been introduced to the marine environment in recent times as it causes many detrimental effects to marine organisms including death, growth, behavioural and sexual abnormalities, reproductive failure and nervous system disorders.

Australia has long been committed to the development of suitable alternatives to TBT for use as antifouling products. For example, the use of TBT-based paints on vessels smaller than 25 metres long was banned in Victoria in 1989.

At present, we do not have much information about the risks of exposing different antifouling products to Australia's marine environment, and authorities are relying heavily on data obtained from overseas. These results may not be appropriate in Australian waters as we have our own unique and diverse ecosystems, which may respond differently.

The new MAFRI study will address this issue by evaluating the safety of new and currently used antifouling alternatives to TBT using local Australian temperate marine organisms.

Susan Duda, ecotoxicologist at MAFRI who will be supervising the project says, "we will aim to provide a ranking of the relative safety of several antifouling products in comparison to TBT".

With a worldwide total ban on the use of TBT expected within a few years, there is an urgent need for the identification of the safest antifouling product that could be used in Australian waters.

"The outcomes of this project will directly assist government, industry and community in choosing new, safer antifouling alternatives, which will in turn, help to eradicate the use of dangerous antifouling agents, and ultimately ensure that our unique marine environment is adequately protected", said Susan.

For more information about this project, please contact Susan Duda at MAFRI, email: susan.duda@nre.vic.gov.au