

MOVING BEYOND TRANSITION
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ABSTRACT

EIA in aquatic environments: do we need to take a step back to take many steps forward?

The 1980s and 1990s saw important innovations on how to provide scientifically objective information regarding environmental change – and predictions of future change - due to human activities. The last two decades have seen many advances on how we can describe aquatic ecosystems, for example remote sensing techniques and greater availability of information for environmental practitioners and regulators. These advances should enable us to make better predictions of environmental impacts and to verify (that is, test) these predictions. This presentation highlights key lessons from the design, project planning, interpretation and predictions of impacts that form the basis of the ecological assessments of projects. Here I describe key requirements for assessing impacts on aquatic ecosystems that can be used to improve the process of environmental impact assessment.

Key takeaways

1. There are important techniques that have been developed for EIA that are often not used now, when they should be
2. These techniques (often referred to as experimental design) can be used to better predict and measure the ecological effects of human activities

SPEAKER BIOGRAPHY

Dr Marcus Paul Lincoln Smith is a specialist aquatic ecologist with over 40 years' experience. He is a certified CENVP in Ecology (since 2016) and a long-standing member of the original EIA, now the EIANZ. I hold an Adjunct position at Macquarie University and assist with lectures for 3rd year science students. I have practiced as a professional aquatic ecologist - originally through The Ecology Lab P/L, then through Cardno and Stantec, and now through Ecology Matters P/L. I have prepared specialist aquatic ecology studies for projects in all Australian state and the NT and ACT and have been an author or co-author on numerous scientific journals.