

# CHAIRPERSON'S INTRODUCTION

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Sustainability has become a buzz word for the 1990's, especially in the context of ecologically sustainable development, but what does it mean in the context of sustaining both the fishing industry and fish habitat? My dictionary informs me that to sustain an object or activity is to keep it from failing, to endure without giving way, or to support by giving aid. So sustenance means actually doing something to achieve longevity. Sustaining a fishery, then, ensures that the fishery is able to continue into the future, and fisheries management, regulation and research all contribute to the attainment of that goal. We are here to discuss how we might sustain fisheries through sustaining fish habitat, which begs the question of what we mean by sustaining fish habitat and how we might actually go about it.

It is naive to conduct a fishery in a pristine habitat and hope the habitat will remain unchanged in any way. When additional pressures from other human activities are imposed upon fish habitats, subtle and not-so-subtle habitat changes become apparent. To borrow an analogy from military field hospital terminology, habitats can be categorised on a triage basis with respect to the severity of their injuries: (i) Pristine, undamaged habitats are nature's crown jewels which only need sustenance in the form of protection to ensure they are not damaged; (ii) Walking-wounded habitats are those that have been damaged in some way, yet still support a component of their original fish communities. These are the habitats which stand to

gain most in fisheries production from active sustenance on a cost-benefit basis; (iii) Irreversibly-wounded habitats, on the other hand, are beyond all hope of economical rehabilitation to support fish communities, although social pressures to restore the habitat may prevail. These habitats do not need sustenance, they need to be rebuilt.

So then, to sustain the habitats upon which Australia's fisheries are based, we do not seek to restore modified habitats to their pristine condition. Nor are we concerned with the irretrievably and perhaps repeatedly damaged habitats which presumably no longer support viable fisheries. We are concerned with protecting nature's family jewels, many of which have some natural protection of their own due to their isolation. Mostly though, we are concerned with sustaining the walking-wounded habitats, to prevent further damage and where possible, to improve their condition.

The interactions between organisms and their environment are complex, and vary both among species and among habitat types. The case studies we will examine in this session come from shallow coastal habitats, estuaries, rivers and lakes, and focus on changes caused by natural disasters, impoundment of waterways, eutrophication and real estate development. While each of these changes undoubtedly impacts upon fisheries, each also has a positive component which ameliorates the destructive

aspects and even provides clear opportunities to recover damaged habitat. The important message shared by these cases is that all activities which change habitats exact a cost in fisheries production, but with attention to details, such as buffering processes and reconstruction, the cost can be reduced and even turned into a profit. The challenge for us as researchers and managers is to devise and implement strategies which not only sustain natural habitats, but which in turn sustain our fisheries.