

# Should we “reef” obsolete oil platforms?

Claisse et al. (1) show that not only do oil platforms produce fish, but they do so at a rate far greater than our most productive marine habitats, such as coral reefs and mangroves. Because this information may be used to justify increased “reefing” of obsolete oil infrastructure worldwide, we offer some caveats.

Although Claisse et al.’s (1) production estimates further our understanding of the habitat value of oil platforms, they bring us little closer to deciding the fate of these structures worldwide. It has been known for more than a decade that platforms are capable of providing valuable habitat for fish, yet habitat value appears to vary greatly among platforms, even among those located in similar ecological settings (2). This conclusion is supported by the total production values in figure 3 of Claisse et al. (1), with some platforms off California producing nearly nine times more fish biomass than others. Productivity data for one platform therefore cannot be used to infer the productivity of other platforms. Crucially, this means that the productivity values obtained by Claisse et al. (1) should not be used to inform “rigs-to-reefs” decisions for the remaining 11 platforms off California, nor should they be used to inform rigs-to-reefs policies in other regions of the world.

Given that even the least productive platform off California was more productive than surrounding natural reefs (1), why not just convert all platforms into artificial reefs? Because habitat value is only one of

many factors that must be considered when making rigs-to-reefs decisions. Other factors include biodiversity value besides fish, potential contamination, and impacts on soft-bottom communities, as well as stakeholder impacts (e.g., loss of trawling grounds) and financial costs (including those to the taxpayer) (3). These factors and many others must be weighed against each other to determine the net best decommissioning solution, which may not be a rigs-to-reefs conversion if the habitat benefits are outweighed by other negative impacts (4).

We argue that a holistic approach should be taken to decommissioning decisions for oil platforms. Research to date has been overly focused on a small number of factors relating to the decision, such as fish production. More effort is required to identify the full range of factors that need to be considered and to integrate these into the decision process. Formal decision frameworks will be essential in this regard. Multicriteria decision frameworks are capable of handling the complex tradeoffs generated by multiple competing factors and have already been used for decades to solve similar decision problems in the fields of forestry and waste management (5). These frameworks also reduce bias and increase transparency of the decision process, which is particularly important for offshore decommissioning decisions due to the involvement of strongly conflicting stakeholder groups (e.g., commercial fishers and recreational anglers) (2, 4). If a holistic

approach is not adopted, decommissioning options for platforms will likely remain highly regulated, and rigs-to-reefs will be viewed as little more than a controversial cost-saving stunt by the oil and gas industry.

**Ashley M. Fowler<sup>a,1</sup>, Peter I. Macreadie<sup>b,c</sup>, and David J. Booth<sup>a</sup>**

<sup>a</sup>Centre of Environmental Sustainability (CENS), School of the Environment, and

<sup>b</sup>Plant Functional Biology and Climate

Change Cluster (C3), University of

Technology, Sydney, NSW 2007, Australia;

and <sup>c</sup>Centre for Integrative Ecology, School of Life and Environmental Sciences, Deakin University, Burwood, VIC 3125, Australia

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<sup>1</sup>To whom correspondence should be addressed. Email: ashley.fowler@uts.edu.au.