

Researchers find oil platforms among the most productive fish habitats in the world

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Oil platform P-51 (Brazil). Credit: Wikipedia

A team of researchers in California has found that oil and natural gas platforms that exist off the coast of that state provide one of the most productive fish habitats in the world. In their paper published in *Proceedings of the National Academy of Sciences*, the team describes their study conducted over a several year period and what it could mean for the future of such platforms.



Oil and natural gas platforms don't have the best reputation right now, leaks such as the massive one in the Gulf of Mexico back in 2010 have earth scientists and the public alike concerned about the damage they can cause. But now, in this new effort, the researchers have found that offshore platforms can also actually enhance an ecosystem.

The study by the team consisted of monitoring seven natural reefs off the coast of California and sixteen platforms, over the course of five years (and some for as long as fifteen years) performing visual surveys of fish. Anecdotal evidence had suggested that fish tended to congregate around such platforms and the team wanted to know if they were just passing by, or if they were using the platforms as a place to live.

The researchers counted the number of fish they saw, and noted their size and location (to determine if they were actually living there). That allowed for converting ocean floor area to a number that described the productivity of that area. They found that productivity on and around the platforms ranged from 105 to 887 grams of fish per square meter of seabed per year. That number, the team found was on average 27 times bigger than the numbers for the natural reefs they monitored. Comparison with similar studies for other reefs around the world showed that productivity around the platforms was higher than for any known natural structure. The results weren't really a surprise, of course, because unlike natural reefs, the platforms cover the entire distance from seabed to surface, offering far more surface area.

Because of the high productivity it would seem that the platforms are an economical benefit, which has led some to suggest that perhaps the platforms should be topped off rather than removed once the oil or gas below has been depleted. Further study will have to be done of course, as there might be other issues at stake, such as whether leaving platforms in place poses a risk of oil or gas leaks or if the mounds of sludge and debris that pile up at their base outweigh the potential benefits.



More information:

www.pnas.org/content/early/2014/10/08/1411477111

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