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# Can an underwater artificial intelligence bot detect IUU fishing?

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By Responsible Seafood Advocate

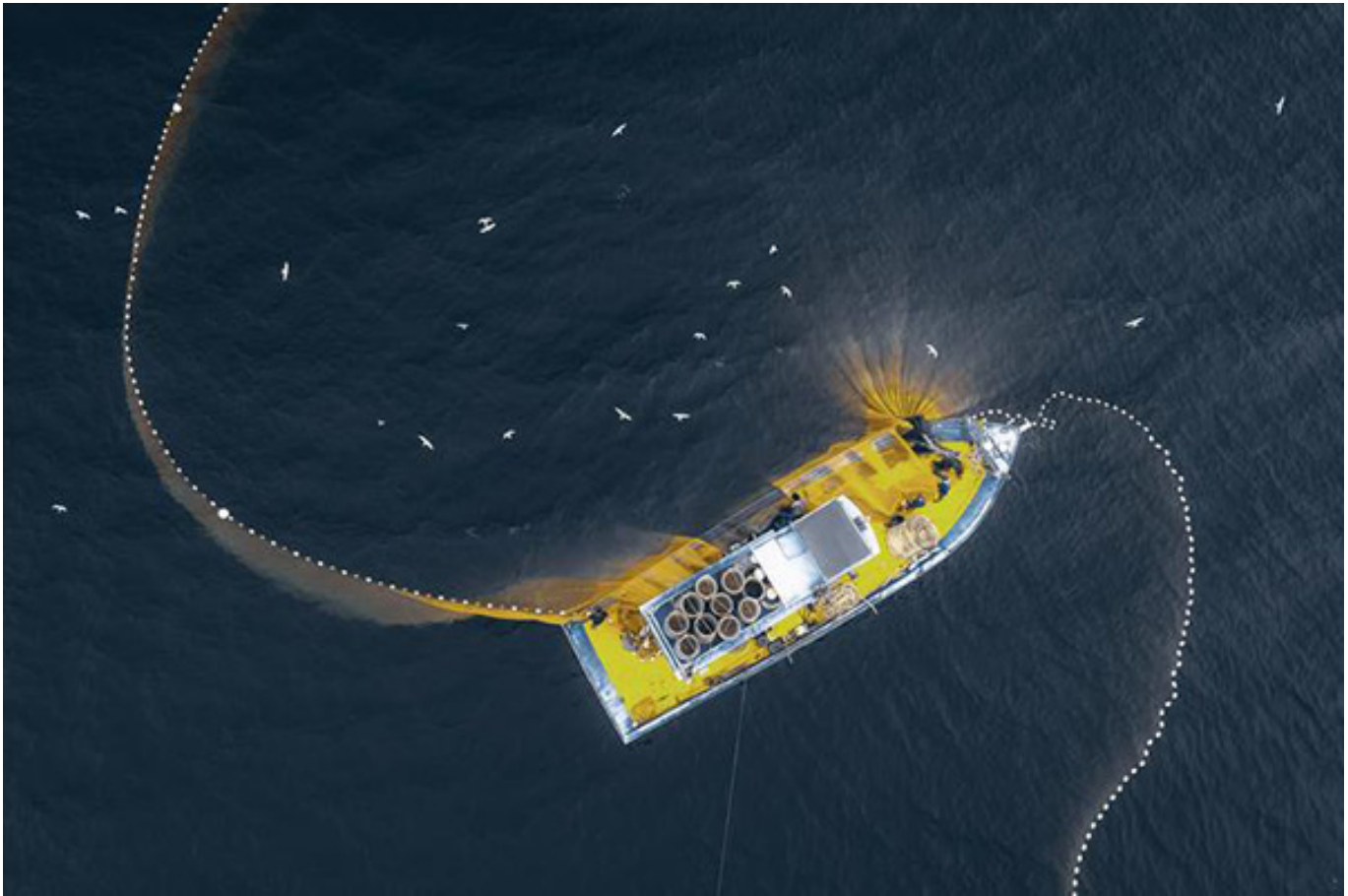
## Underwater artificial intelligence bot could 'revolutionize' ocean monitoring and IUU fishing identification, scientists say

Scientists have started work on a new underwater artificial intelligence (AI) bot that can detect activities that harm the ocean environment. The technology, which is being developed by the University of Southampton with ocean science experts RS Aqua, will be used to spot IUU fishing (illegal, unreported and unregulated fishing) and protect marine mammals during offshore wind farm construction.

"Using the power of artificial intelligence to monitor sound in the underwater world, combined with the ability to rapidly relay information ashore, will enable us to provide tools to protect fragile marine ecosystems and detect a range of illegal activities," said Paul White, professor of Statistical Signal Processing at the University of Southampton.

More than £700,000 (U.S. \$900,000) was awarded by Innovate UK for the AI system, codenamed **MARLIN**, which uses underwater sensors to remotely monitor animal, human and environmental activity anywhere in the ocean before transmitting data back in real-time.

"MARLIN will get that data to the internet in real-time, and its implications are huge," said Ryan Mowat,



Scientists unveil plans for new underwater AI bot which can detect illegal fishing. Photo credit: University of Southampton.

research director at RS Aqua. “It will help ensure that offshore construction is sensitive to marine mammal activity and will enable the monitoring of marine protected areas through the real-time recognition of illegal fishing activity.”

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Large vessels are typically used for ocean monitoring missions – but the new MARLIN system could reduce the time ships are at sea, potentially cutting carbon dioxide emissions by up to 75 percent.

“This technology will revolutionize how we scientifically monitor our ocean environment,” said Mowat. “Currently, we leave instruments underwater for months at a time and recover them before accessing their data.”

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