

NTU scientists lead global research team on project to demystify oceans

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SINGAPORE - The ocean makes up more than 70 per cent of the Earth's surface, but few know what lies beneath the deep blue sea.

Now, a team of nine researchers from around the world - led by scientists from the Nanyang Technological University's (NTU) Singapore Centre on Environmental Life Sciences Engineering - hopes to change that.

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Microorganisms form the basis of all marine food chains and food webs, and so are clear indicators of the health of the sea. A project to detail the genetic sequence of such creatures has never been done before, and will therefore help fill a "data chasm".

The project will be carried out with the help of owners of sea vessels around the world, in a first-of-its-kind citizen science project tapping on sailors plying the more than 1,000 established sailing routes.

Oceanographic data is collected by an ice-box sized device installed on the deck of vessels. It will have a hose-like arm that stretches from the deck into the ocean - much like a fishing line trailing from the back of a boat.

This project was detailed in a scientific journal PLOS (Public Library of Science) on Sept 9. It is still in a preliminary phase, with the prototype being developed, but is expected to take off with about 20 vessels volunteering to take on the device in mid-2015.

The data collected will be uploaded on a digital platform, and will be freely accessible online.

For sea vessel owners, there will be no cost to join the project. The US\$10,000 cost of the device will be paid for by the research team.