Research team leader Federico Lauro and wife Rachelle Jensen, who is part of the team, with what the prototype device to collect oceanographic data could potentially look like. The information will be uploaded onto an online platform. ST PHOTO: NG SOR LUAN

Checking up on oceans' health – at a bargain price

S'pore-led research team to tap yachts already on sailing routes

By AUDREY TAN

A RESEARCH team led by scientists from Singapore is embarking on an ambitious project to find out more about the Earth's oceans – on the cheap.

Instead of sending out scientific vessels on expensive voyages, the team of 23 is hoping to collect oceanographic data by tapping a network of travellers who are already plying the more than 15 major sailing routes worldwide.

The aim of the project is to find out more about the health of the oceans, said Nanyang Technological University (NTU) Associate Professor Federico Lauro, who is leading the effort.

"Some of the things we can do include assessing the environmental impact of ships in the shipping lanes, how climate change affects the ocean, and how bacteria and viruses get transported from one part of the world to another," added Prof Lauro, a microbiologist from the Singapore Centre on Environmental Life Sciences Engineering.

He and his team estimate that compared to the US$300 million (S$378 million) cost of sending out 20 scientific vessels, it will cost them only about US$200,000 by using crowd-sourcing to get information such as water temperature and dissolved oxygen levels, and to collect seawater samples containing microorganisms.

With the data already collected for them, scientists can devote more time to data analysis, said Prof Lauro.

Researchers and funds are also freed up to send scientific vessels out to less popular parts of the ocean – typically near the poles, where waters are choppier and colder.

The project, which was outlined in international scientific journal Public Library of Science Biology on Tuesday, is still at a preliminary stage.

For instance, researchers are in the midst of developing a prototype device equipped with sensors that can be installed on the decks of vessels such as sailboats and yachts to collect samples and data. This is expected to be ready by mid-2015.

Prof Lauro said he hopes the project will be an ongoing one, with the potential to tap the 5,000 yachts that sail annually on popular routes.

Data collected will be uploaded onto an online platform and will be freely accessible.

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