

Under the sea

If life in the oceans is to be preserved, people must get to know the wonders of the deep.

It was World Oceans Day last week, and the annual event highlighted once again just how poorly studied two-thirds of our planet's surface is. But this year's tag line, "Healthy Oceans, Healthy Planet", should remind us that we do know some things about the sea — notably, how much people depend on it.

Millions of people rely directly on food taken from ocean waters, and millions more depend on money from fishing, tourism and other marine activities. But across the world, these relationships are often undermined.

Nowhere is this more apparent right now than at the world's coral reefs. Bathed in warming waters, reefs everywhere are bleaching as the corals on them sicken and turn white. Many will die, and so will animals that live on them.

The outlook for corals is bleak, but it is not yet hopeless. Online this week, we publish one approach that could point to ways to rescue them from the brink (J. E. Cinner *et al.* *Nature* <http://dx.doi.org/10.1038/nature18607>; 2016). A huge analysis of data on fish found at more than 2,500 reefs identifies 15 'bright spots' — reefs in a better state than models suggest they should be — and then digs into the factors that might be responsible. Bright spots include unpopulated, unfished regions such as the Chagos islands, and areas that are close to towns and are fished, such as Kiribati and the Solomon Islands. The study also pinpoints 35 'dark spots' where conditions were surprisingly poor, such as Montego Bay in Jamaica and Lord Howe Island in the Tasman Sea between Australia and New Zealand.

The researchers used information on a reef's habitat, depth, nearby human population and amount of fishing to model how many fish could live at each site.

Such insights can help to steer conservation efforts. And conservation of coral reefs is a popular cause. More difficult is the protection and preservation of what lies deeper.

Although there is a huge public appetite for documentaries that detail the wonders found under the surface of our seas, to many people the oceans are a mysterious, even threatening, place. This feeling is reflected in — and doubtless enhanced by — the approach of storytellers. From storms and sharks to mystery and other-worldliness, the oceans are made to seem an unknown and unknowable place: it is never safe to go back in the water.

What we do know about life beneath the waves does sometimes make its way into the public consciousness. The 2003 animated film *Finding Nemo*, for example, delighted not just the public but also marine biologists, many of whom were impressed that the ocean they knew had been represented with such fidelity in how the animals moved and interacted (talking fish notwithstanding).

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On page 325, we interview one of the people responsible for that accuracy: Adam Summers of the University of Washington in Friday Harbor. (He also worked on the sequel, *Finding Dory*, which lands this week.) Summers rightly points out that although filmmakers often need to bend or even break the truth to tell stories, facts can add something, too.

As a biomechanist, his contribution was both to supply general fish facts, such as insights about the whale-shark character, and to give precise feedback on how the animals could move realistically even when they were doing things that no marine animal could actually do. If you watch and are amazed by the octopus sequences in the film, you will see the result of imbuing teams of highly talented animators with the knowledge of professional scientists.

There are many marine researchers who reach out to the public and inspire a love of the sea by discussing their work. This should be applauded. But there are also many who only really talk to other ocean scientists about their work (a problem far from unique to the field).

If more landlubbers are to engage with the oceans, and understand and appreciate them as researchers do, then all involved must do more to emphasize more widely the wonders of the depths and the threats that face them.

Finding Nemo and *Finding Dory* may please scientists with their accuracy, but it would be a tragedy and a disaster if future generations had to watch them to find out what a coral reef looked like. ■

Nature distilled

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specialisms — and specialists.

We know that most of you are specialists, and that you don't read most of what we present to you. You're busy people. It is hard enough to follow the literature that you need to read. Even the titles of research papers in an unfamiliar field can look incomprehensible. But if you're anything like us, one reason you got into science in the first place was curiosity about the world — and not just the tiny piece of it that you now focus on. Wouldn't it be useful and interesting to keep better track of the rest? Or at least, the rest that is published in *Nature*, and therefore already judged to be important?

We think so, and this week we begin an experiment to see how many of you agree. We have revisited 15 recently published *Nature* papers and asked the authors to produce two-page summaries of each. The summaries remain technical — these are not articles suitable for the popular press — but they try to communicate both the research advance and why it matters. The authors of these papers have been enthusiastic — they want the broadest possible readership — and we thank them for their cooperation. Now we want to know what you think. The first three summaries are published online this week (see go.nature.com/1uhcy3x). The rest will be released in the coming weeks. Please take a look. Be brave — pick a topic that you expect to struggle with — and then fill in the online survey to let us know what you think. ■