参考译文

Researchers Use Sounds to Call Fish Back to Dead Coral

研究人员利用声音召回鱼类死亡珊瑚礁

A team of scientists says that playing sounds underwater can get fish to return to areas with severely damaged **coral reefs**.

一组科学家表示，在水下播放声音可以让鱼类回到珊瑚礁严重受损的地区。

In an experiment, they found fish returned after hearing recordings of the sounds of a healthy ocean reef.

在一项实验中，他们发现鱼在听到健康的海洋暗礁的声音后又回来了。

The international team included scientists from the British universities of Exeter and Bristol, as well as Australia's James Cook University. The research results were reported in the publication *Nature Communications*.

这个国际团队包括来自英国埃克塞特和布里斯托尔大学以及澳大利亚詹姆斯库克大学的科学家。研究结果发表在《自然通讯》杂志上。

The scientists placed underwater speakers in areas where coral had been [dying](https://m.51voa.com/a/in-greece-s-aegean-sea-divers-find-gulf-of-plastic-corals-/5025274.html) in Australia's northern Great Barrier Reef. They played the sounds over a period of about a six weeks in 2017 and studied the results. The team reported that twice as many fish arrived in areas where the sounds of healthy coral were played.

科学家们将水下扬声器放置在澳大利亚北部大堡礁珊瑚死亡的区域。他们在2017年用了大约六周的时间播放这些声音，并研究了结果。研究小组报告说，有两倍多的鱼到达了播放健康珊瑚声音的区域。

The sounds also led to a 50 percent increase in the number of **species** present in the area, the researchers found. Among the arriving fish were species that feed on all major food sources.

研究人员发现，这些声音还导致该地区的物种数量增加了50%。在到达的鱼类中有以所有主要食物来源为食的种类。

The researchers noted the importance of having many different kinds of fish return to the area. Different species of fish perform many activities that support the ocean environment and sea life. "Damaged reefs have a higher chance of recovery if they have healthy fish populations," the scientists wrote in the report.

研究人员注意到让许多不同种类的鱼返回该地区的重要性。不同种类的鱼类进行许多活动，以支持海洋环境和海洋生物。科学家们在报告中写道:“如果有健康的鱼群，受损的珊瑚礁有更高的恢复机会。”

Steve Simpson is a professor at the University of Exeter who helped lead the research. He [said in a statement](http://www.exeter.ac.uk/news/featurednews/title_768084_en.html) that "healthy coral reefs are **remarkably** noisy places." They contain the sounds of many kinds of shrimp, fish and other sea creatures. Young fish listen for these sounds when they are looking for a place to settle, Simpson said.

史蒂夫·辛普森是埃克塞特大学的教授，他帮助领导了这项研究。他在一份声明中说，“健康的珊瑚礁是非常嘈杂的地方。”它们包含许多种虾、鱼和其他海洋生物的声音。辛普森说，年轻的鱼在寻找安身之处时，会倾听这些声音。

He added that reefs "become **ghostly** quiet" when they suffer destruction that is usually related to human-caused pollution. [Coral damage](https://m.51voa.com/a/palau-to-ban-sunscreen-to-try-to-save-its-coral-reefs/4646961.html) can cause unappealing smells and sounds that drive shrimp and fish away. But the experiment suggested that the use of underwater loudspeakers was an effective way to get young fish to come back.

他补充说，当珊瑚礁遭受破坏时，通常与人类造成的污染有关，它们就会变得“鬼魅般的安静”。珊瑚的破坏会产生难闻的气味和声音，把虾和鱼赶走。但实验表明，使用水下扬声器是一种让幼鱼回来的有效方法。

Mark Meekan is a fish biologist with the Australian Institute of Marine Science. He said in a statement that the return of these fish is the first step to seeing major improvements in reef health. "Recovery is **underpinned** by fish that clean the reef and create space for corals to regrow," he said.

马克·米坎是澳大利亚海洋科学研究所的鱼类生物学家。他在一份声明中说，这些鱼的回归是看到珊瑚礁健康状况重大改善的第一步。他说:“鱼类清洁了珊瑚礁，为珊瑚的再生创造了空间，这为珊瑚的复苏提供了支持。”

Tim Gordon was another member of the research team from the University of Exeter. He says he believes sound can be used to bring back [dead coral](https://m.51voa.com/a/oceans-face-serious-threats/4235309.html)in areas suffering major destruction in oceans across the world.

蒂姆·戈登是埃克塞特大学研究小组的另一名成员。他说，他相信，在世界各地的海洋遭受重大破坏的地区，声音可以用来把死去的珊瑚带回来。

"Boosting fish populations in this way could help to **kick-start** natural recovery processes, counteracting the damage we're seeing on many coral reefs around the world," Gordon said.

戈登说:“以这种方式增加鱼类数量有助于启动自然恢复进程，抵消我们在世界各地许多珊瑚礁上看到的破坏。”

University of Bristol professor Andy Radford said the underwater sounds are a promising way [to fight coral reef damage](https://m.51voa.com/a/first-lab-reproduction-of-coral-offers-new-hope-for-threatened-sea-life/5100203.html) at the local community level. But he noted that other threats need to be reduced as well. These include [climate change](https://m.51voa.com/a/scientists-declare-climate-emergency-/5158108.html), pollution and [overfishing](https://m.51voa.com/a/overfishing-risks-collapsing-global-fishing-industry/3849591.html).

布里斯托尔大学的安迪·雷德福教授说，水下声音是在当地社区对抗珊瑚礁破坏的一个很有前途的方法。但他指出，还需要减少其他威胁。其中包括气候变化、污染和过度捕捞。

Gordon added, "From local management **innovations** to international political action, we need meaningful progress at all levels to paint a better future for reefs worldwide."

戈登补充说:“从地方管理创新到国际政治行动，我们需要在各个层面取得有意义的进展，为全世界的珊瑚礁描绘一个更美好的未来。”

I'm Bryan Lynn.

我是布莱恩·林恩。

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**Words in This Story**

**coral reef**– *n.* underwater structures made up of stony corals

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**ghostly**– *adj.* like a ghost in appearance; unnatural

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**kick-start**– *v.* to make something start to happen

**innovation**– *n.* a new idea or method of doing something

听力原文

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The international team included scientists from the British universities of Exeter and Bristol, as well as Australia's James Cook University. The research results were [reported](https://www.nature.com/articles/s41467-019-13186-2) in the publication *Nature Communications*.

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