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Deep-sea corals protection call

By Jonathan Amos

BBC News Online science staff, in Seattle

More than 1,100 marine scientists have signed a statement calling on the UN and world governments to stop the destruction of deep-sea corals.

The researchers want a moratorium on the use of the heavy trawling gear that gouges coral and sponges from the ocean bottom in search of valuable fish.

Some of the coral fields will contain thousands of species and are sometimes called the "rainforests of the deep".

"Bottom trawling is like fishing with bulldozers," said expert Elliot Norse.

"It's devastatingly efficient in one sense; it's a way to get fish relatively easily and painlessly, if you don't mind killing all of the life on the bottom to catch them," the president of the US Marine Conservation Biology Institute told the BBC.

The gear is huge. Nets are armed with steel weights or heavy rollers and destroy everything in their path. At the cold depths of one to two kilometres, the growth rates of all organisms are incredibly slow and the coral fields have little chance to re-establish themselves.

Some of the corals resemble trees - they can be up to 10 metres tall - and some specimens have been found to be almost 2,000 years old.

Slow speed

"They are sources of future medicines, they are recorders of global climate change because they live so long, and they provide habitat for many other species including some really important commercial fish," says Dr Norse. "They are also exquisitely beautiful organisms."



The seafloor off Northwest Australia before (top) and after (bottom) the trawlers have passed through

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Coral call

Scientists demand a moratorium on heavy trawling gear that destroys ocean floors.

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It is the big and valuable species - cod, orange roughy, armorhead, grenadier and Chilean seabass - that live among the coral that draw the trawlers. But these fish species, too, cannot sustain heavy losses.

The orange roughy, for example, can live to more than a hundred years but takes decades to reach sexual maturity.

Scientists have long known about corals and sponges in shallow tropical waters, and discovered deep-sea corals in the 1800s.



Scientists want to see a move to long lining

But until recently, they did not know that coral forests and sponge reefs are widespread in certain cold and deep ocean habitats, many centred along the edges of continental shelves.

Scientists have now discovered deep coral fields in Japan, Tasmania, New Zealand, Alaska, British Columbia, California, Nova Scotia, Maine, North Carolina, Florida, Colombia, Brazil, Norway, Sweden, UK, Ireland and Mauritania.

It is clear there are more species of corals in cold and deep ocean waters than in tropical shallows.

Different approach

"Deep-sea corals and sponges are crucial habitat elements for seafloor species," said Dr Daniel Pauly, of the University of British Columbia, in Vancouver, Canada.

"Allowing trawling in coral forests is the worst thing we are doing in the ocean today. It should be stopped immediately until scientists can determine whether trawling in the deep-sea can be justified anywhere."



Deep corals: Beautiful but very slow growing

"Nothing could be dumber than destroying the habitats that depleted fish populations need to recover. Governments must stop pussyfooting around and do something useful."

Marine scientists want to see the current gear substituted with anchored longlines.

These lines, which would be of the length of several hundred metres, would float above the reefs. Their downside is that they could snag corals as they are recovered, but the researchers say this would be infinitely preferable than the current methods employed.

Dr Martin Willison, of Dalhousie University, also in Canada, said many fishermen he had spoken to recognised the need to move away from bottom trawling.

"The social conditions are such that fishermen can't voluntarily stop doing what they are doing because if they do in the absence of regulation, they will be beaten by those who go out and continue to destroy the reefs.

"We need new regulations now. The fishermen are onside but it's time for policymakers to get behind this bandwagon."

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