

## Tuna fishing policy 'misguided'

**A study of Atlantic bluefin tuna has shown that tighter fishing restrictions are needed to protect the animal, Nature magazine reports this week.**

At the moment, there are two separate fishing quotas for western and eastern Atlantic tuna, because experts believe the two populations do not mix.

But a new tagging study has suggested this is not the case and in fact tuna move freely between the zones.

A new fishing policy is needed to keep tuna numbers stable, scientists say.

"Our science doesn't support maintenance of a management system that assumes tuna from the eastern Atlantic remain in the eastern Atlantic, and tuna from the western Atlantic remain in the west," said chief researcher Barbara Block, of Stanford University, US.

**We cannot conserve the western Atlantic population without protecting these fish in the central Atlantic**  
Barbara Block, study co-author

"We believe it's time... to introduce management measures that recognise the fact that there is a complex spatial and temporal mixing of the two populations in both the west and east Atlantic, except on spawning grounds."

The Atlantic bluefin tuna ( *Thunnus thynnus* ) is a bulky marine predator, which can weigh up to 650kg (1,430lbs). It is highly prized for its flesh the world over. In Japan, a single fish can fetch up to US\$100,000.

In recent years, an international scramble to net as many bluefin as possible has left populations pretty battered.

According to the International Commission for the Conservation of Atlantic Tunas (ICCAT), the western population has fallen by more than 80% since the 1970s and the eastern population has also declined, so appropriate fishing restrictions are essential.

### Long migrations

For the past 10 years, a team of researchers led by Dr Block has carried out an unprecedented study of bluefin tuna migrations.

The scientists fastened tags on to wild fish, which tracked their movements as they travelled thousands of kilometres across the sea, to depths below 910m (3,000ft), in search of food and mates.

Dr Block and her colleagues analysed the data over a nine-year period and discovered that bluefin have a complex migratory life-cycle that varies depending on the season, as well as the age and body size of the fish.

The study confirmed that the North Atlantic is home to at least two populations of bluefin - a western stock that spawns primarily in the Gulf of Mexico and an eastern stock that breeds in the Mediterranean Sea.

The tagging data also revealed that, contrary to popular belief, western bluefin from the Gulf routinely

swim with their eastern cousins who spawned in the Mediterranean.

"It appears that some adolescents from the east feed and frolic in the western Atlantic until they're old enough to become breeders, at which point they go back to the Mediterranean spawning grounds and are unlikely to return to North America," said Dr Block.

### **New controls**

However, according to ICCAT, the populations rarely mix - and current fishing policy is based on this assumption.

Because western tuna have suffered such a major decline over the last 35 years, they receive more protection. Fishermen are only allowed to catch 3,000 tonnes in the western Atlantic, whereas a 32,000-tonne catch is permitted in the east.

But according Dr Block's team, this strict control might not do the fragile western population much good, if they are regularly venturing into the east where fishing is intense.

"Right now, any western tuna that swims to the east of the 45 meridian can end up as part of the vastly larger eastern catch," said study co-author Steven Teo, of Stanford University.

"What we're suggesting is that ICCAT establish a new central Atlantic management zone with an extremely low quota. That way we can reduce the mortality of giant western tuna that regularly forage there."

Dr Block added: "We cannot conserve the western Atlantic population without protecting these fish in the central Atlantic. Or put another way, eastern fishers, particularly high-seas longliners, may be impacting on western recovery."

An ICCAT spokesman told the BBC News website that they were aware of the research, and the commission would consider changing fishing policy to reflect it.

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