



IF SEA TEMPERATURE INCREASES, FISH FEEL IT FIRST — THEY CAN'T JUST TURN ON AC



Warming oceans change everything for fish — and for the people who depend on them.



1 THEY MOVE OR DIE

Fish are “cold-blooded”, so their body temperature = water temperature.



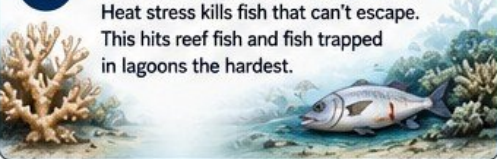
They move to find cooler water

Tropical fish move deeper or toward poles to find cooler water. We're already seeing tuna, mackerel, and reef fish shifting ranges in the Pacific.



Fish that can't move fast enough die

Heat stress kills fish that can't escape. This hits reef fish and fish trapped in lagoons the hardest.



2 BREEDING + GROWTH PROBLEMS



Spawning gets messed up

Many fish time reproduction to water temperature. If it's off, eggs hatch at the wrong time when food isn't available.



Smaller adults

Warmer water makes fish metabolize faster but there's less oxygen. Result = fish grow up smaller. Studies show some species could be 20–30% smaller by 2050.



Fewer babies survive

Warm water holds less oxygen and more disease, so larvae have a harder time.

3 FOOD CHAIN BREAKS



Plankton changes

Warm water favors different plankton. That's the base of the food web. If the wrong plankton bloom, fish that depend on it starve.



Coral reef fish lose homes

Bleached and dead reefs mean less shelter and food for 1/4 of all marine species that depend on reefs.



Healthy reef = life

Dead reef = less life

4 MORE DISEASE + LOW OXYGEN



Warm water holds less dissolved oxygen.

Fish have to work harder to breathe.



It also fuels bacteria and parasites → more fish kills and disease outbreaks.



WHAT IT MEANS FOR US IN THE PACIFIC



Tuna and other migratory fish may move east, away from some island nations' waters → less catch + revenue.



Reef fish for local food decline as reefs degrade.



Ciguatera poisoning can increase because warmer reefs grow more of the algae that cause it.



This puts pressure on food security, culture, and livelihoods for Pacific Island communities.

NOT ALL BAD NEWS



Some fast-growing, warm-water species might do better.



But overall biodiversity drops and fisheries become less predictable.



BOTTOM LINE

MORE HEAT



FISH MOVE



FISH SHRINK



BREEDING LESS



SOME DIE



DIRECTLY HITS FOOD SECURITY AND LIVELIHOODS for people who depend on the ocean.

WHAT CAN HELP?



Cut greenhouse gas emissions to keep oceans cooler.



Protect reefs and marine habitats.



Reduce pollution and runoff.



Support sustainable fishing.



Support communities and traditional knowledge.



HEALTHY OCEANS. HEALTHY FISH. HEALTHY PACIFIC.