CO2-rich seas can scramble behavior of fish

Brain

High levels of CO2 can alter a fish's sense of smell, hearing and sight — even its decision making. That leads tropical reef fish to die young more often. Here's what happens:

GABA is a neurotransmitter, one of the most common chemical messengers in the brain; it helps regulate the central nervous system

Normal function

GABA attaches to a GABA-A receptor and prevents the neuron from sending out unintended signals to other nerve cells

Abnormal function

Water high in CO₂ causes GABA-A receptors to malfunction, which stimulates rather than inhibits nerve signals, causing abnormal behavior

