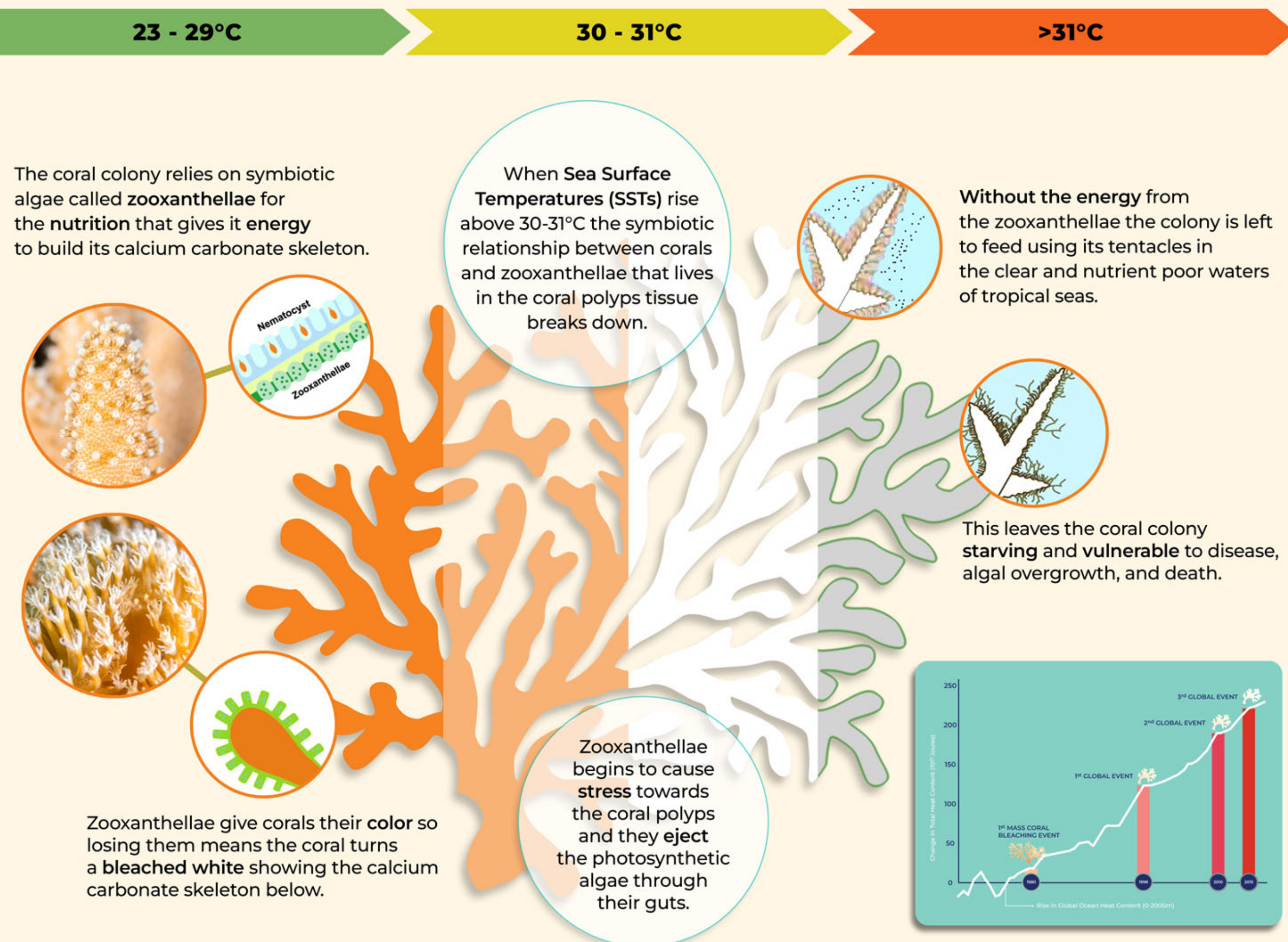


ONE TWO PUNCH OF CLIMATE CHANGE

OCEAN WARMING

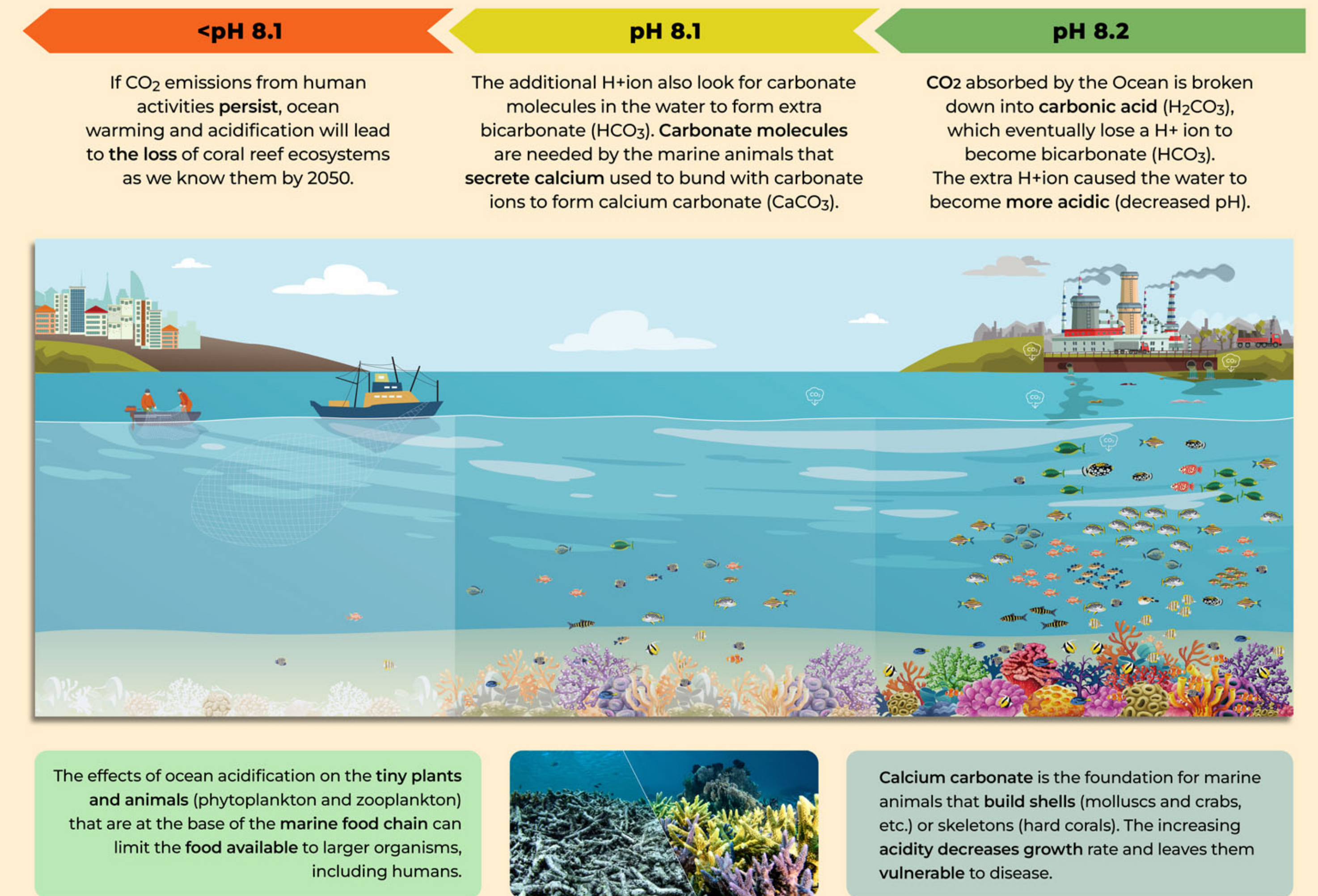
Climate change is causing mass coral bleaching. The first global mass coral bleaching event was recorded in 1998, and now they are happening more frequently, especially during El Niño weather patterns. El Niño is characterized by unusually warm ocean temperatures in the Equatorial Pacific.



Symbiosis is the interaction between two living organisms. Corals have a mutualistic symbiotic relationship with a single celled algae known as zooxanthellae. Without this relationship, hard coral would not grow upward toward the sun and build the calcium carbonate reef framework known as a coral reef.

OCEAN ACIDIFICATION

Ocean acidification is caused by burning fossil fuels like coal, oil and natural gas, which releases carbon dioxide (CO₂) into the atmosphere. The excess CO₂ doesn't just stay in the air. Our Ocean absorbs the CO₂ from the atmosphere, even the extra amounts produced by industry. The Ocean is now 26% more acidic than it was in 18th century, when the steam engine was invented.



Corals secrete a calcium carbonate skeleton which creates the framework of modern day coral reefs. Like other marine organisms with a calcium carbonate skeleton, coral reefs are severely threatened by decrease in the pH of the Ocean.