

Welcome to the Anthropocene

Although the uniformitarian theory of extinction lasted for more than a century, what caused the “paradigm shift” to a new theory?

What is neocatastrophism?

What do we learn from Dobb’s Linn? How old are the rocks Zalasiewicz introduces Kolbert to there? Why are they significant? What were Gondwana, Avalonia, Iapetus?

What does this mnemonic tell us: “Camels Often Sit Down Carefully; Perhaps Their Joints Creak”?

What was the first of the Big Five extinctions? What are graptolites? What do they tell us about stratigraphy?

What is the current theory about the end-Ordovician extinction? What about the end-Permian extinction?

What does *Anthropocene* mean? What is it?

The Sea around Us

What happens when carbon dioxide dissolves in water? How much carbon dioxide will the oceans absorb this year?

What happens to sea creatures such as *emiliana huxleyi* when the sea loses its pH balance?

Ocean acidification played a role in which previous Big extinctions? And what other major events?

Dropping Acid

What and where is One Tree Island? What happens to coral reefs when acid rises? How large is the Great Barrier Reef? How much has it diminished in the past 30 years? Why?

About how many species depend, for at least part of their lives, on coral reefs?

Why do scientists believe the great reefs will not last out the Anthropocene?
Besides ocean acidification, what are the chief threats to reefs?

What did scientists learn from Biosphere 2?

How do corals reproduce? What is “budding”? What is mass spawning, and when does it occur?