

Coral Reefs: A Very Short Introduction

By Charles Sheppard

Questions for Thought and Discussion

Science questions

1. How do coral reefs maintain their high biodiversity and productivity in nutrient-poor waters?
2. Where is the main plant base of the coral reef ecosystem?
3. How do you measure the health of a coral reef?
4. Why was coral reef science rather slow to develop?
5. What are the main reasons why coral reefs contain the highest diversity ecosystem in the oceans?
6. How are coral islands formed and are they really coral islands?
7. What are the main benefits of coral reefs (other than food provision)?
8. What controls the distribution of coral reefs in the world's oceans?
9. What percentage of the world's fish species can be found on coral reefs?
10. Why is Southeast Asia's 'coral triangle' the centre of reef biodiversity?
11. Do soft corals (which do not lay down limestone) help or hinder the growth of the reef made by stony corals?
12. Reefs are said to be the most biodiversity-rich marine ecosystems of all. Given a diver might see only a hundred coral species and a very few hundred fish species, where is the huge diversity that is said to exist?
13. Are areas with low coral and fish biodiversity any less valuable than high diversity areas, and if so, why?

Conservation and ethical questions

14. One third of coral reefs are already dead. What can people do to arrest (or reverse) their further decline?
15. Should we keep aside specific, large areas for strict protection, given that they will develop rich and productive fish stocks that are required by hungry people in the region?
16. We know that too much is being taken from reef systems by too many people for them to continue to survive intact. What are the ethical considerations in restricting usage, or restricting human populations that use reefs for food?
17. Would you agree that that 'saving' coral reefs is no longer a question of science, but of leadership and politics, and perhaps drastic measures?
18. Coral reefs and their rich resources are mostly in poor, tropical countries. Are they therefore 'theirs'?

19. Coral reefs supply much of pharmaceutical value; most pharmaceuticals are used in the 'West'. If hungry masses in the tropics want or need to over-exploit them in order to try and feed, who should get the priority?
20. Is 'conservation' of reefs a rich world luxury and indulgence, of value perhaps only because of foreign earning from tourism?

Other books by Charles Sheppard

The Biology of Coral Reefs by Sheppard, Charles R.C., Davy, Simon K., and Pilling, Graham M. (Oxford University Press 2009)

Coral Reefs of the Indian Ocean: Their Ecology and Conservation (Oxford University Press 2000)

Further Reading

Please refer to the further reading section at the back of *Coral Reefs: A Very Short Introduction* for more titles.