

## Questions for Chapter 15

- 1) Coral reefs are filled with organisms that vary in their vulnerability to extinction. Some rely on corals while others actually thrive in their absence. In this sense is it useful to look at the whole ecosystem or at specific species?
- 2) Should more time be spent learning about the taxonomy of species that inhabit coral reefs or should this time be spent in preventing major environmental changes impacting coral reefs?
- 3) Both local and global threats are impacting coral reefs heavily, Bruno and Selig predict as much as 40% of reefs globally have been destroyed in the past three decades. Locally pollution, destructive fishing (use of cyanide and dynamite), etc.; and globally ocean warming, acidification and sea level rise. Do you think that it is more effective to take action on local or global threats?
- 4) On page 277, the author lists characteristics of coral reef species that would make them vulnerable to extinction. The list includes: obligatory dietary requirement, commitment to settlement, cover for predators, and close spacing of coral habitat to access mates. Can you think of any other characteristics that may need to be added to list when considering coral reefs species? Can this list be applied to other biomes/ecosystems?
- 5) This chapter is lacking in discussion of potential solutions to protecting coral reefs. What ideas would you provide to protect coral reefs outside of marine protected areas?
- 6) In Anthony et al 2008, the authors attribute bleaching to be majorly caused by an increase in CO<sub>2</sub>, acting synergistically with increasing temperatures. In addition, acidification had more of an impact on bleaching than calcification. This being said, would it be useful to look at bleaching and calcification as two individual problems or combine them together in order to prevent the extinction of coral reefs?