

CORAL REEF ECOLOGY

Suggested/Possible Paper Topics

Coral reef origins and distributions. Rates of growth of various corals. Deep-water corals.

Coral bleaching; the effects of high temperatures, pollution or other stresses on reef forming corals

The contributions of non corals to coral reef formations, *e.g.* coralline algae

The effect of major storms on coral reef communities. Diurnal plankton migrations.

Color pattern adaptations in fish - *e.g.*: diurnal changes, juvenile-to-adult changes, differences between the sexes, why bright colors are adaptive

Sex changes among reef fishes - *e.g.*: groupers, anemone fish, parrotfishes, wrasses (*Labroides dimidiatus*), *etc.*

The positive and negative effects of studying confined dolphins in coral reef communities

The behavior of:

- stonefish, angling frogfish, reef sharks, octopuses, or hermit crabs

- predatory snails (cone shells, oyster drills, triton trumpets, *etc.*)

- feeding in some reef organism - *e.g.*, starfish

- aggressive corals and succession in a coral community

- schooling fishes

- territorial reef organisms such as damselfish, triggerfish and barracuda

- pipefishes and seahorses with respect to their reproductive processes

- organisms utilizing toxins such as sea wasps, cone snails, sea urchins, and scorpionfishes

Symbiotic associations such as:

- corals (or sponges or bivalves) and zooxanthellae (photo synthesizers)

- anemones and anemone fish (clownfish) or anemone shrimps or crabs

- decorator crabs and hermit crabs and their decorations

- blind shrimps and gobies

- sea cucumbers and pearlfish

- cleaning stations and cleaner organisms

- jellyfishes and various symbionts

- sharks/rays and pilotfish/remoras

Misc.: bioluminescence, flying fishes, nudibranchs, Christmas tree worms (*Spirobranchus gigantgeous*), crab galls, reef parasites (isopods), the diversity of sea stars, right-eyed *vs.* left-eyed flounders, *etc.*

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