COLOR PLATES

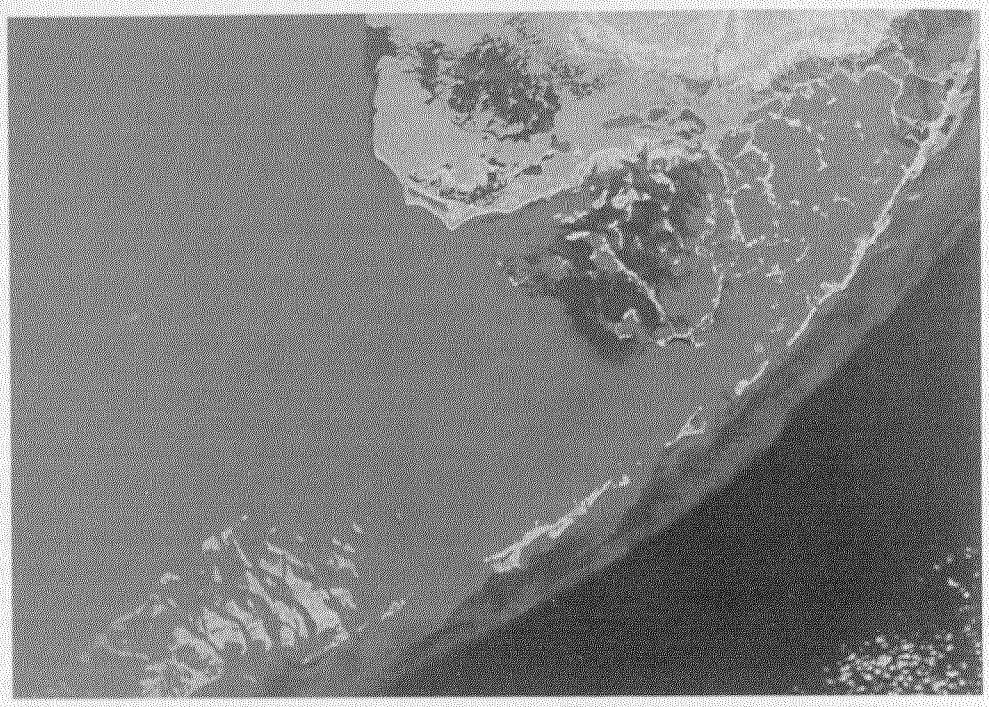

Plate 1a. Satellite photograph of southeast Florida. Note large passes between islands in the middle Keys. Florida Bay lies between the mainland and the Keys.

Plate 1b. French Reef off Key Largo. Waves breaking on the reef flat; dive boats anchored on the deeper spur and groove zone.

Plate 2a. Looe Key National Marine Sanctuary viewed from seaward to landward. The western area has deep reef development. Photo: Bill Becker, Newfound Harbor Marine Institute.

Plate 2b. Looe Key spur and groove zone; boats are between 20 and 30 ft long. White area (mid left of photograph) is where the M/V *Lola* was aground. Photo: Bill Becker, Newfound Harbor Marine Institute.

Plate 3a. Grecian Rocks Reef, Key Largo National Marine Sanctuary. The dense cover of coral is mostly *Acropora* spp. (brown color).

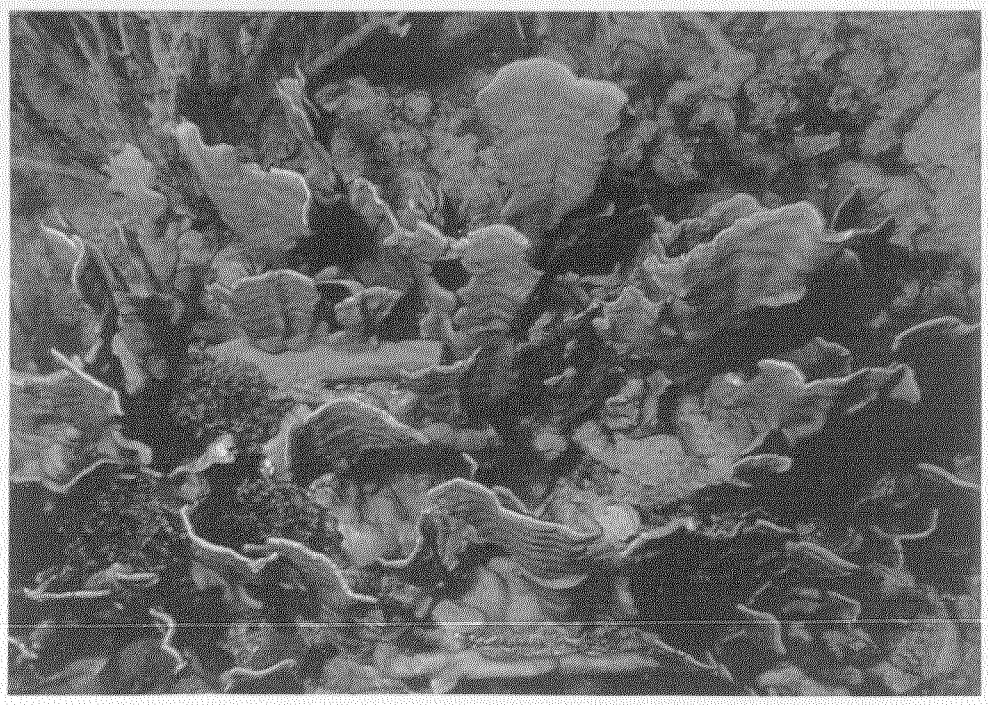

Plate 3b. Fire coral *Millepora complanata* Middle Sambo Reef.

Plate 4a. Octocoral *Pseudopterogorgia acerosa* hardgrounds off Soldier Key.

Plate 4b. Staghorn coral (*Acropora cervicornis*) Eastern Sambo Reef.

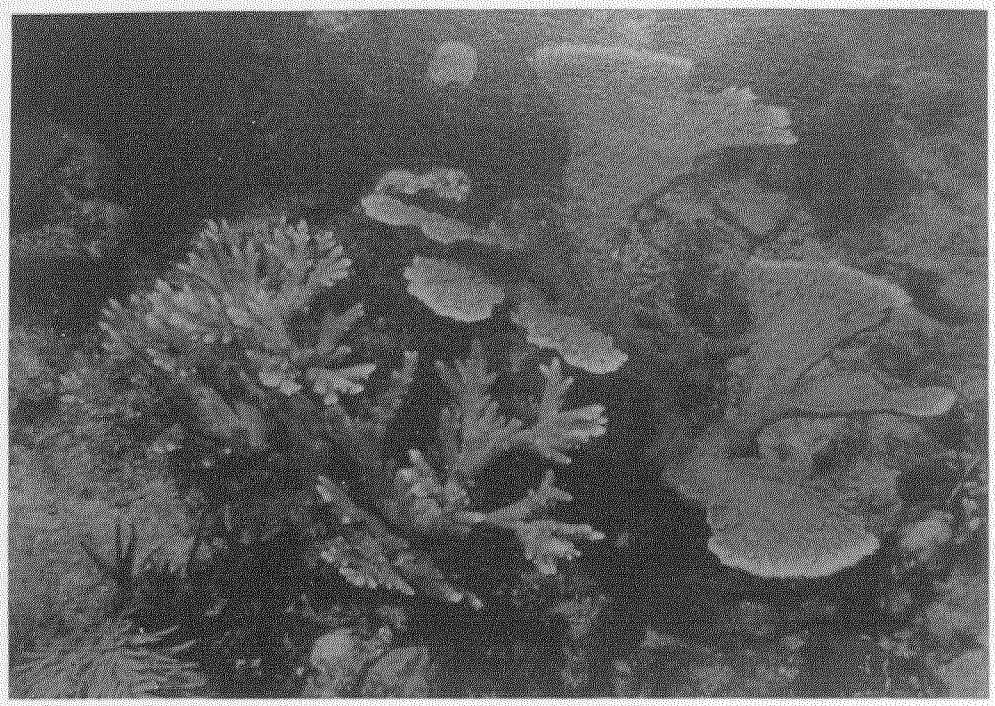

Plate 5a. Elkhorn or moosehorn coral (*Acropora palmata*) (heavy blades) and fused staghorn coral (*A. prolifera*) (right).

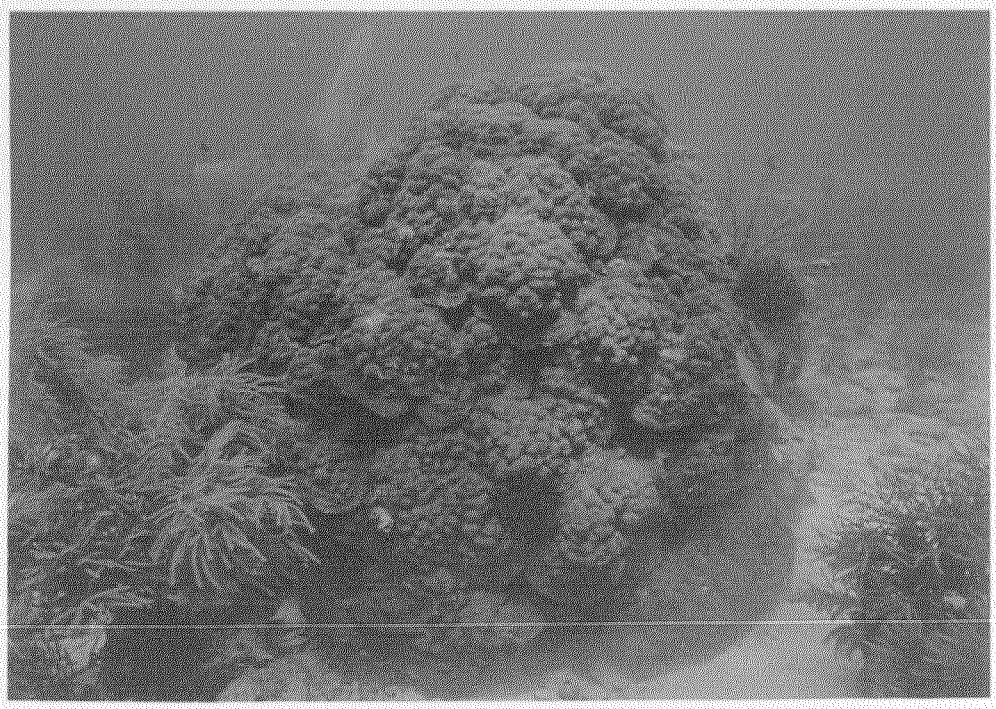

Plate 5b. Star coral *Montastraea annularis* at Elkhorn Reef, Biscayne National Park.

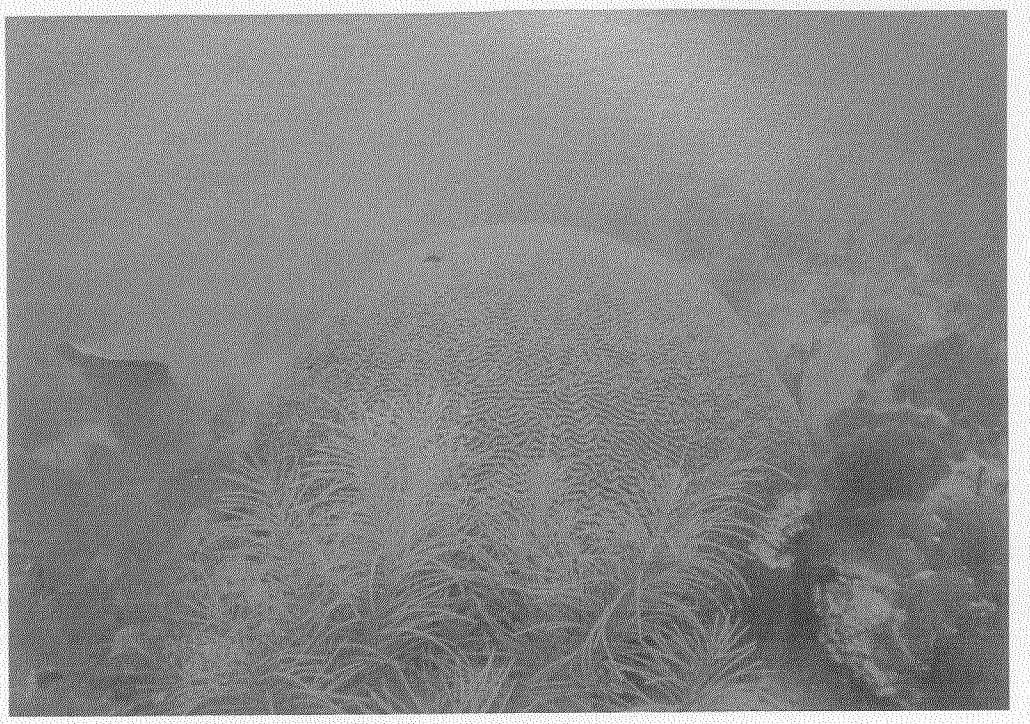

Plate 6a. Brain coral *Diploria strigosa* on Elkhorn Reef.

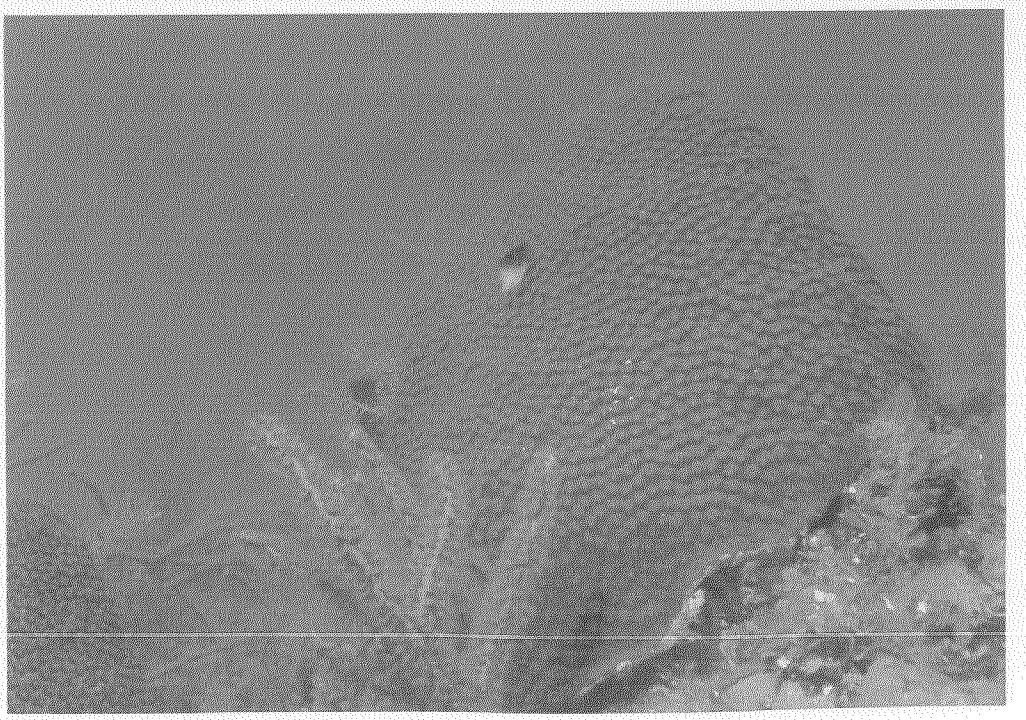

Plate 6b. Large star coral *Montastraea cavernosa*.

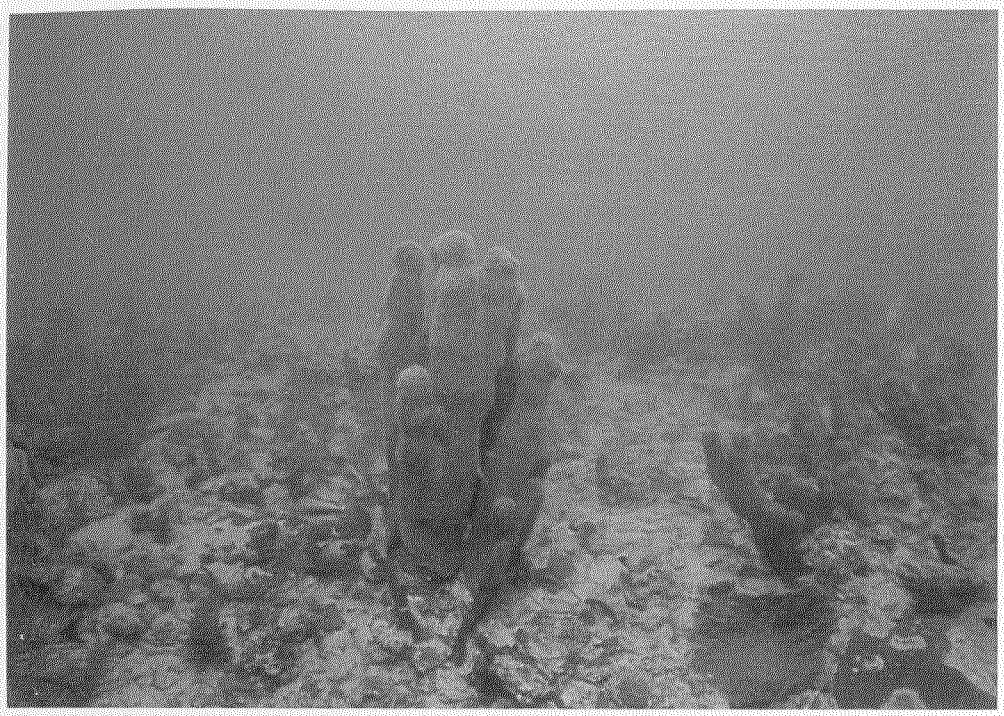

Plate 7a. Pillar coral (*Dendrogyra cylindrus*) off Key Largo.

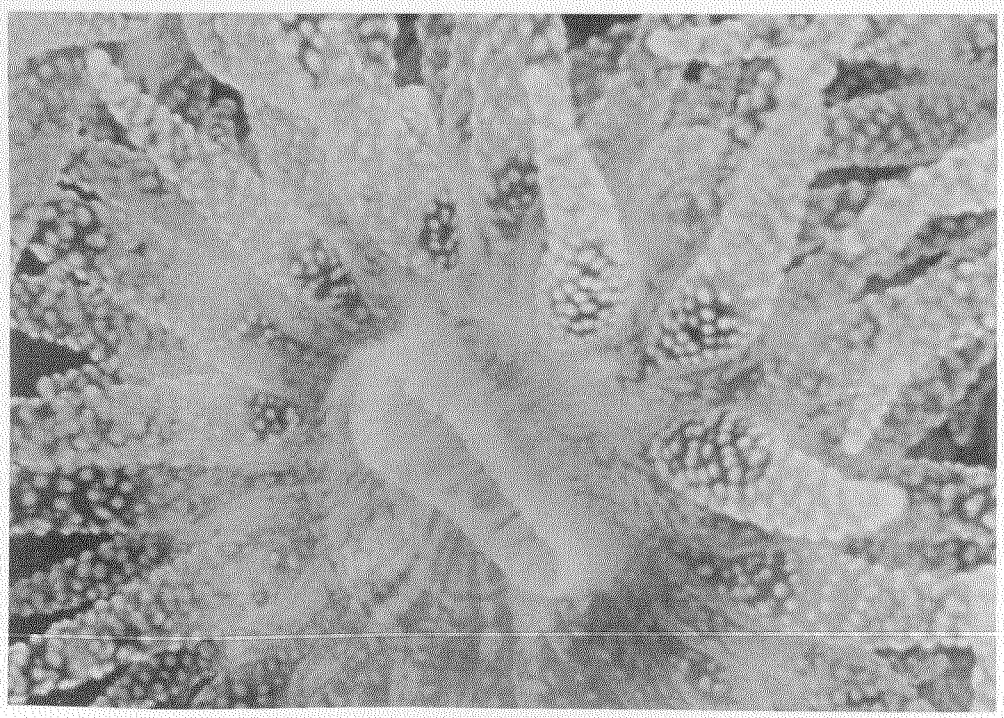

Plate 7b. Coral polyp, central mouth, ring of tentacles; small knobs on the tentacles are the nematocysts, color from algal symbionts, zooxanthellae.

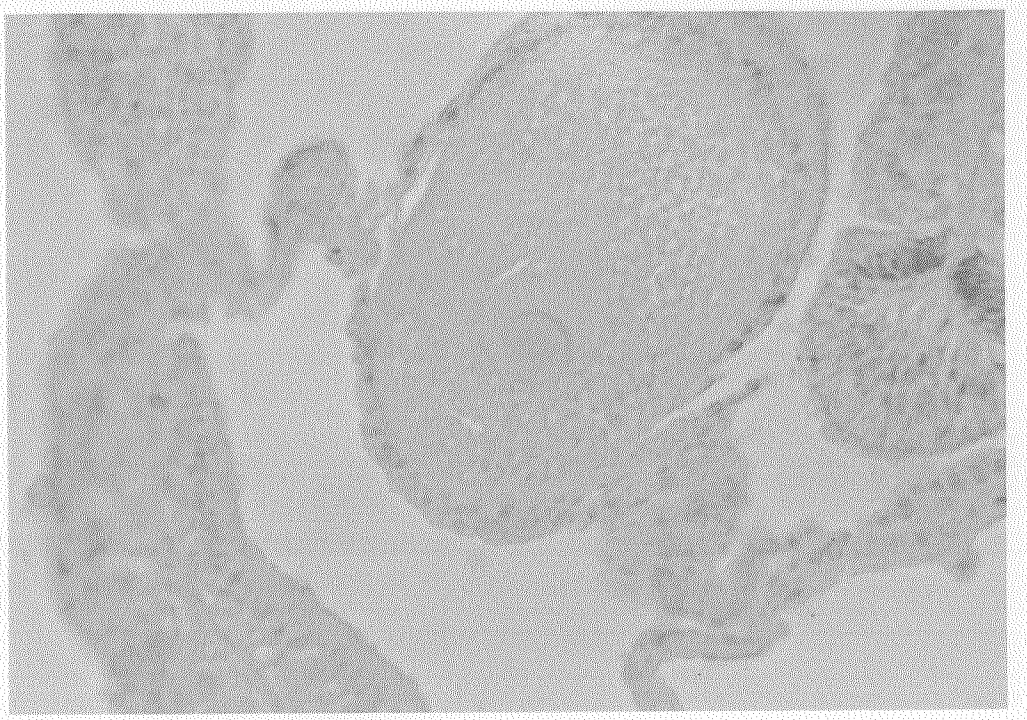

Plate 8a. *Acropora palmata* ovary with an unfertilized egg.

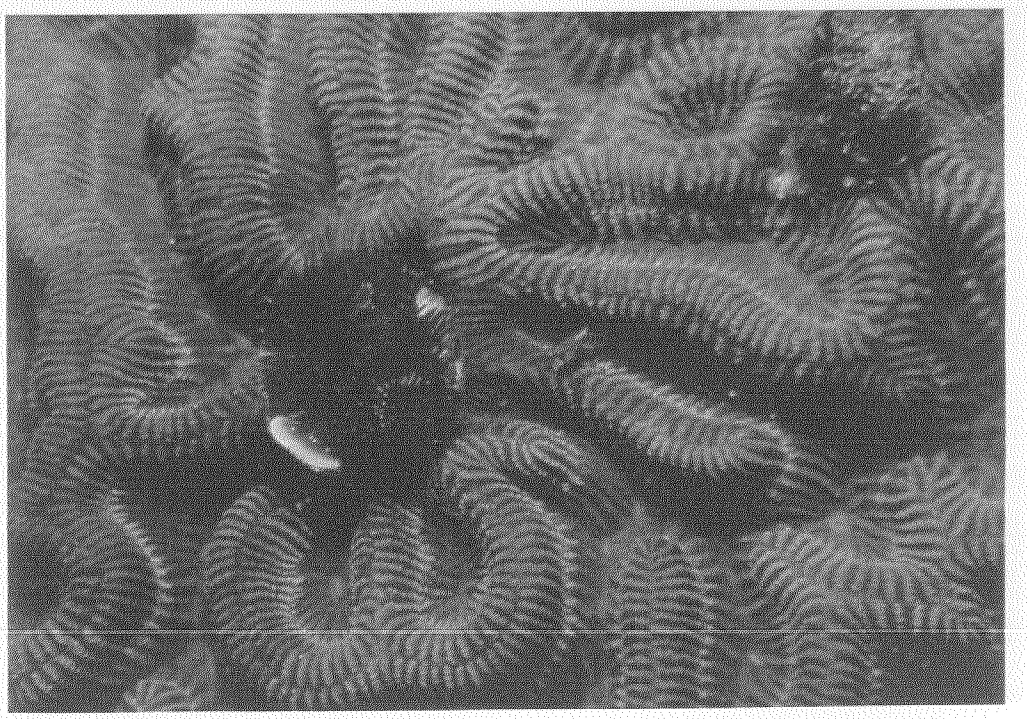

Plate 8b. Closeup photograph of the brain coral *Colpophyllia natans* with two feather duster worms (*Spirobranchus giganteus*) at French Reef.

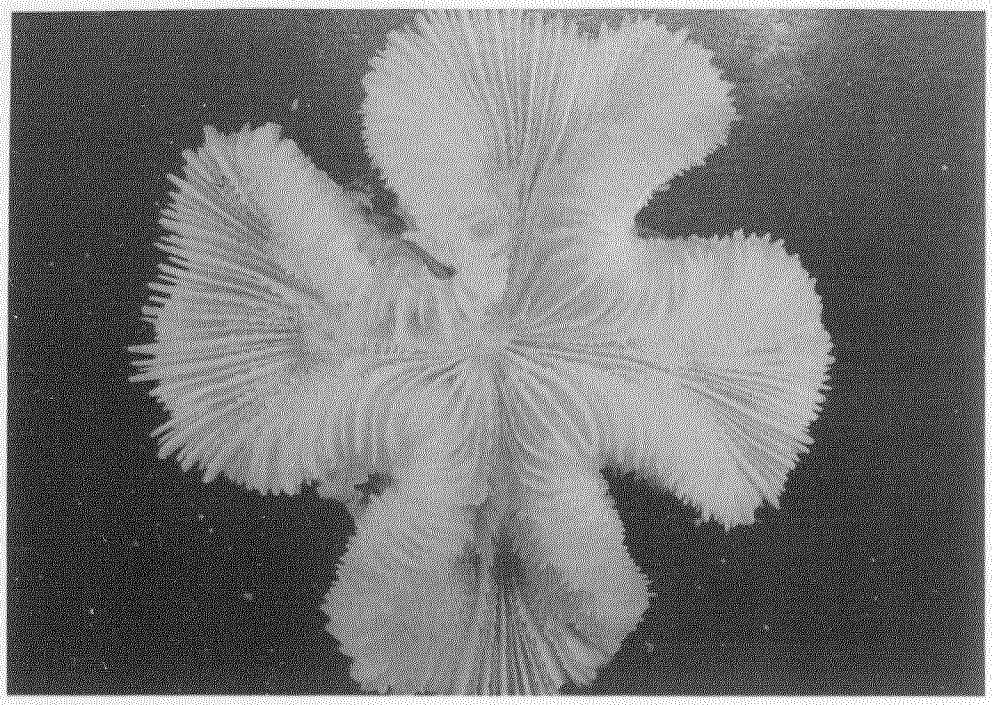

Plate 9a. Stony coral skeleton of *Scolymia lacera*, Florida Middle Ground.

Plate 9b. Large tub sponge *Xestospongia muta*.

Plate 10a. A large colony of elkhorn coral (*Acropora palmata*) turned over during a winter storm at Elkhorn Reef. New branches are developing from the former base area.

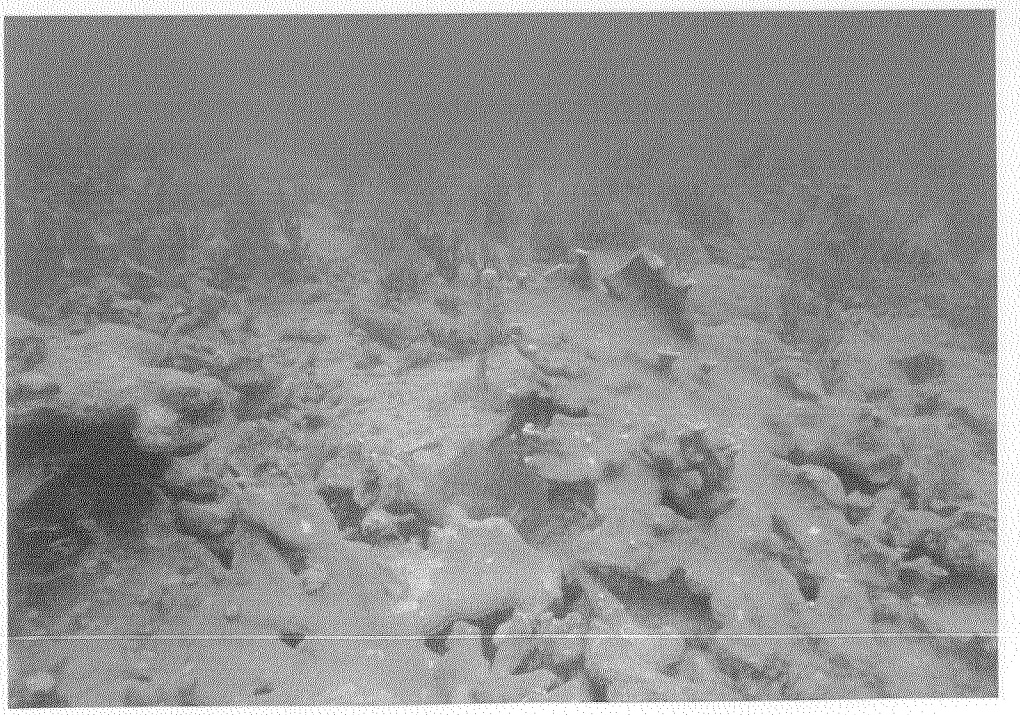

Plate 10b. Vegetative recruitment from branch fragments of *Acropora palmata*.

Plate 11a. Patch reefs, aerial view, John Pennekamp Coral Reef State Park; halos surround the reef.

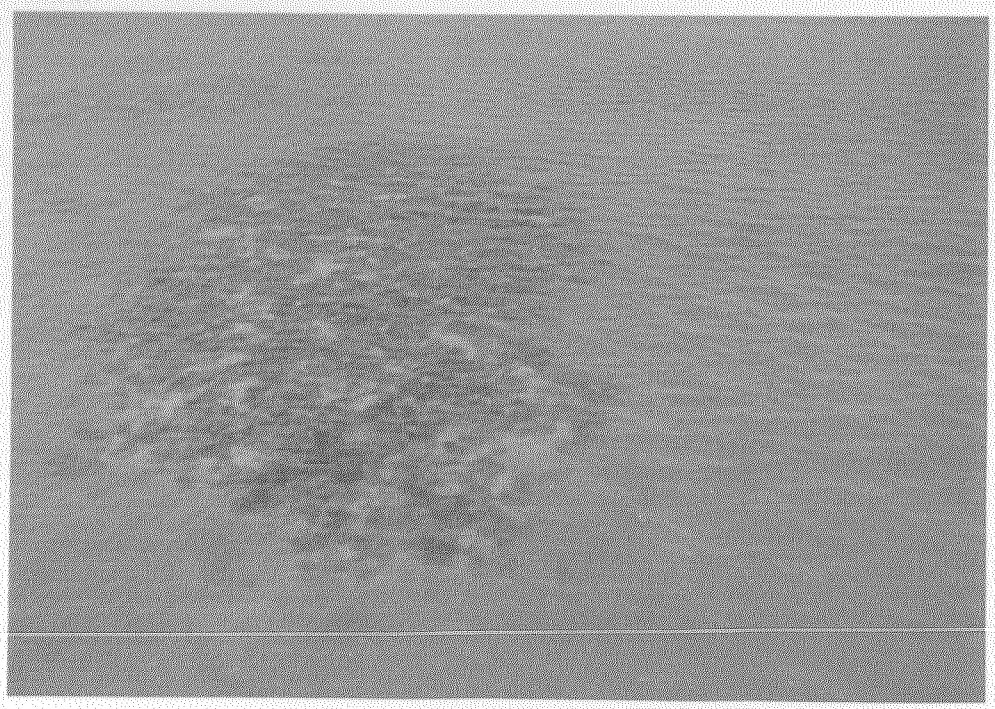

Plate 11b. Patch reef, aerial closeup, John Pennekamp Coral Reef State Park.

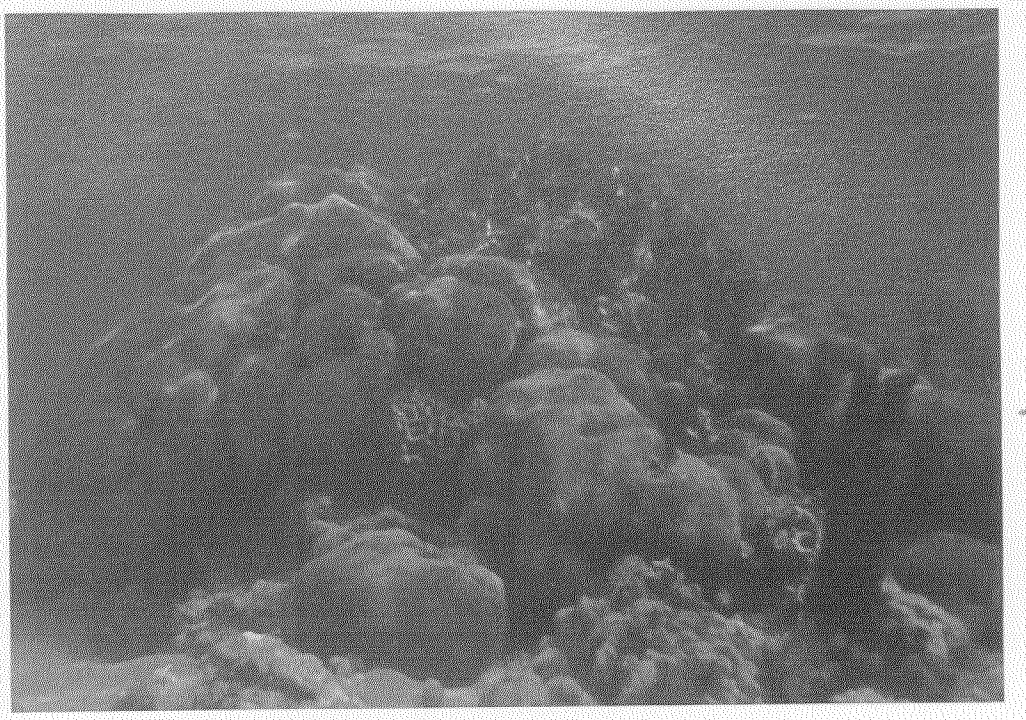

Plate 12a. Small patch reef, *Montastraea* and *Diploria spp.*

Plate 12b. Seagrass *Thalassia testudinum*, adjacent to patch reefs.

Plate 13a. Patch reef community; note the many juvenile fish.

Plate 13b. A *Siderastrea siderea* star coral with protruding sponge ostia, octocorals, and a young *Haemulon* sp.

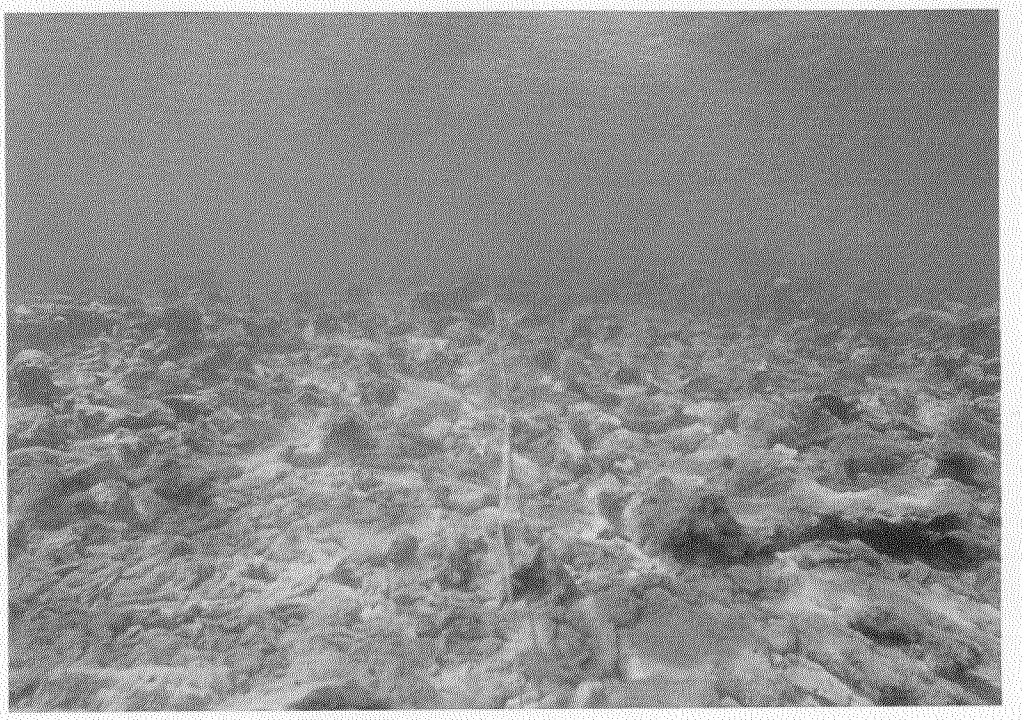

Plate 14a. Bank reef, reef flat zone, barren except for encrusting algae.

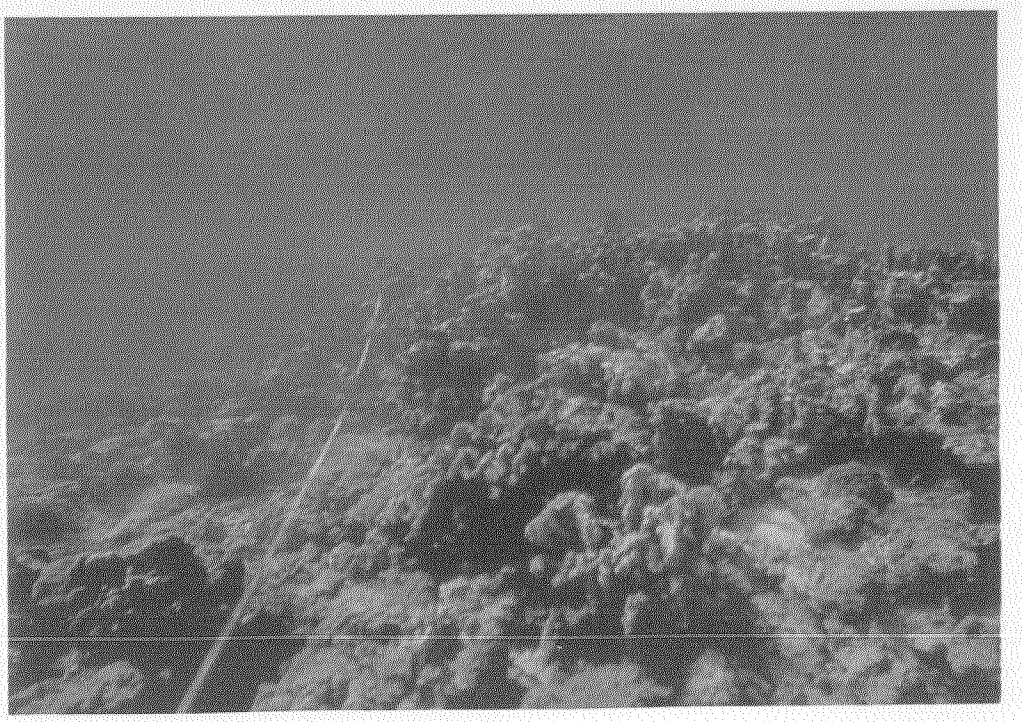

Plate 14b. Bank reef, shallow spur and groove zone; fire corals and *Palythoa* are the conspicuous organisms.

Plate 15a. Bank reef, shallow spur and groove zone; fire coral and juvenile bluehead wrasse (*Thalassoma bifasciatum*).

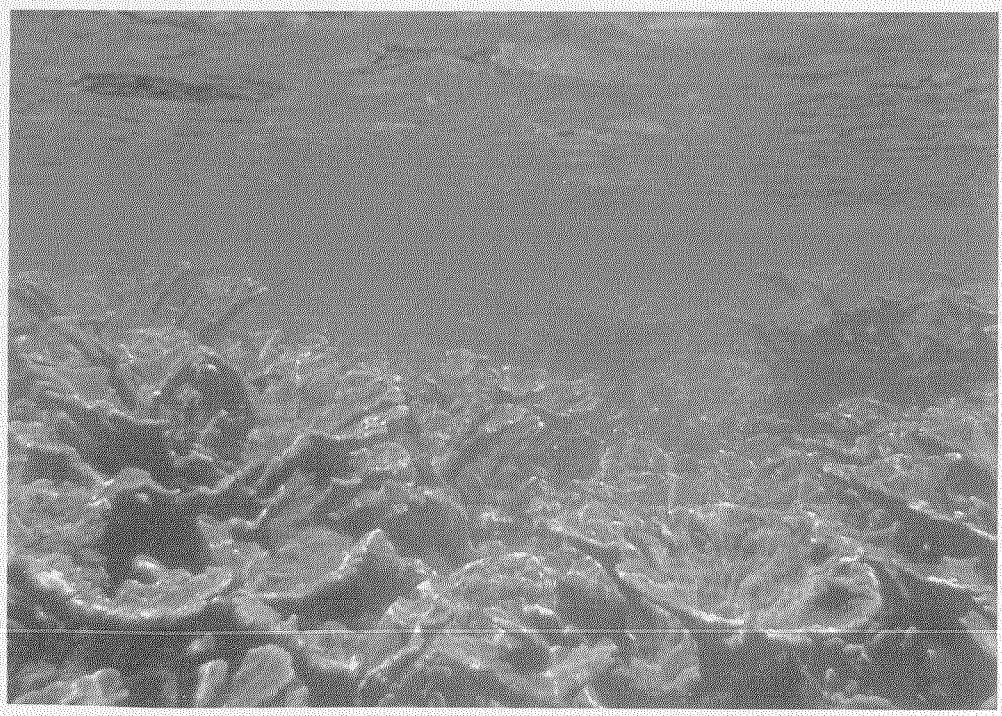

Plate 15b. Bank reef, deep spur and groove zone, elkhorn coral (*Acropora palmata*).

Plate 16a. Deep spur and groove zone, elkhorn coral (*Acropora palmata*) with resident schoolmaster snapper (*Lutjanus apodus*).

Plate 16b. Bank reef, forereef zone.

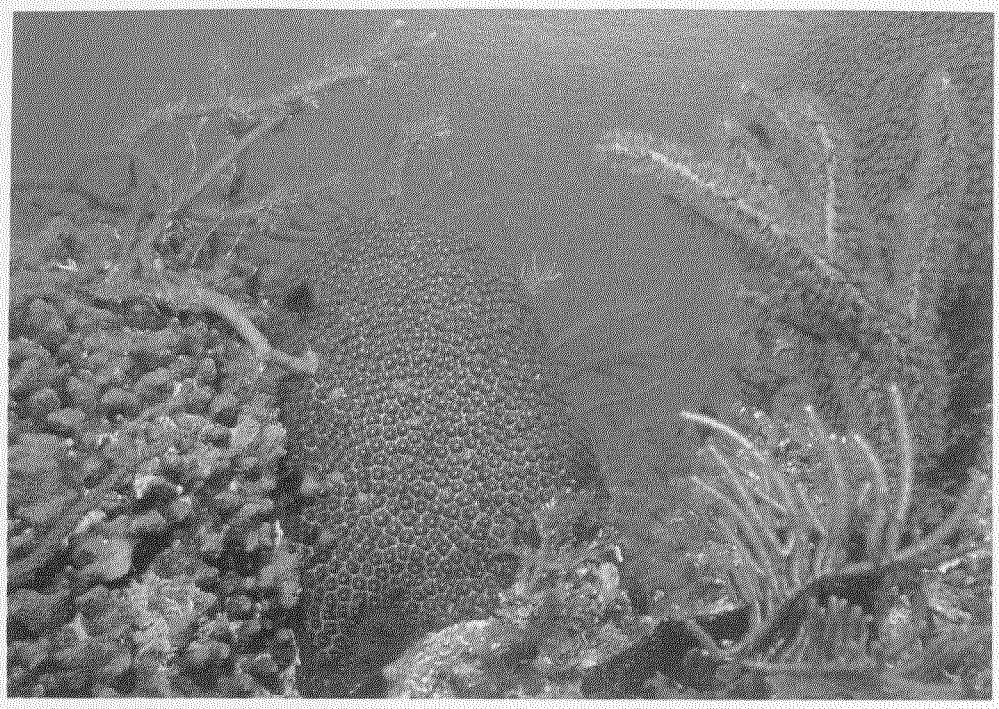

Plate 17a. Bank reef, forereef zone; note extreme competition for space.

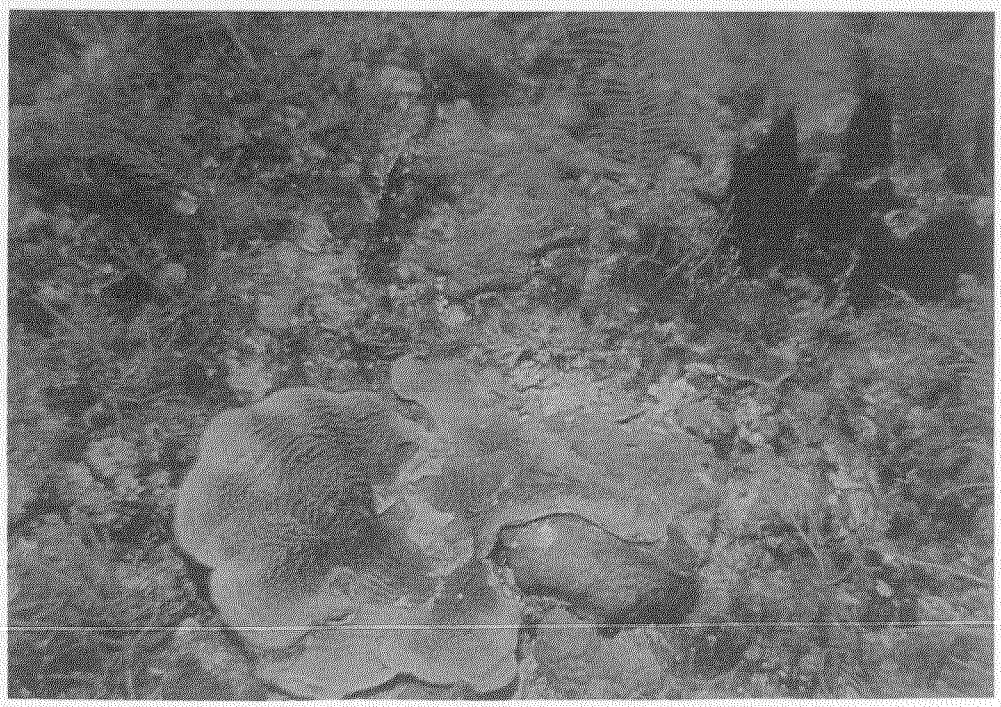

Plate 17b. Bank reef, deep reef zone, platy lettuce coral (*Agaricia lamarcki*), French Reef, Key Largo National Marine Sanctuary.

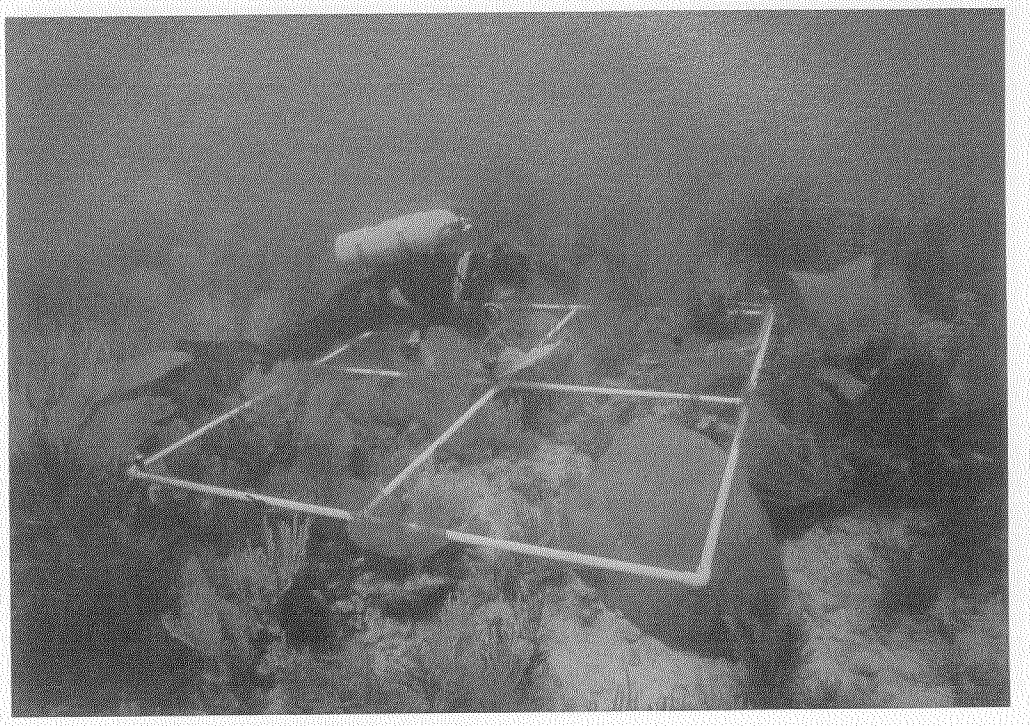

Plate 18a. Censusing coral at Elkhorn Reef, Biscayne National Park.

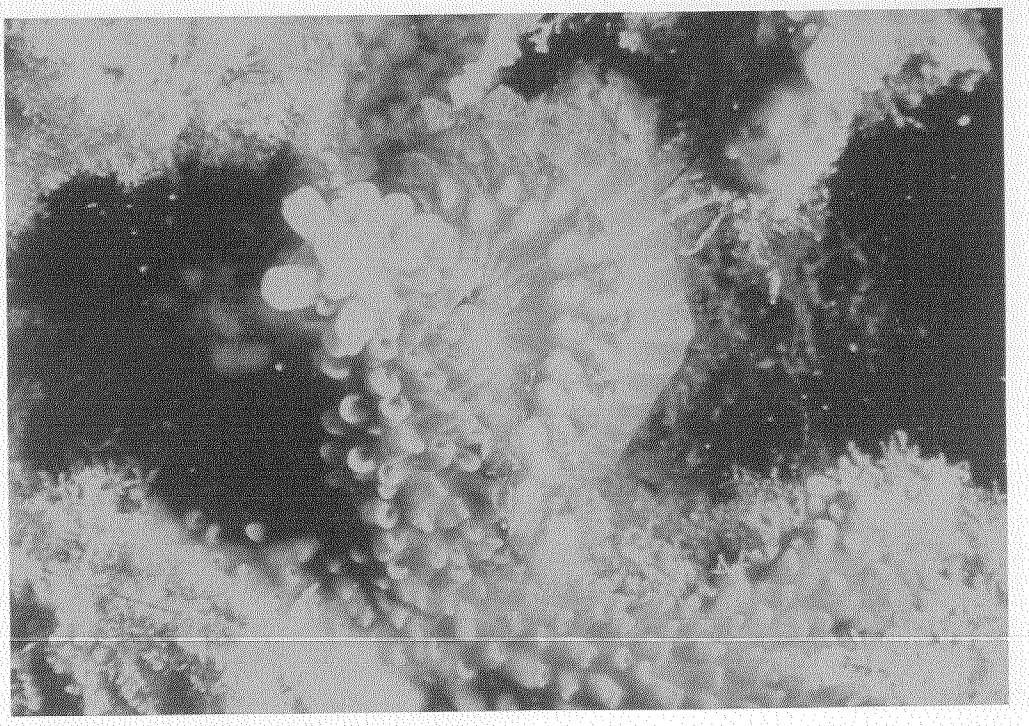

Plate 18b. Fireworm (*Hermodice carunculata*), a coral-eating marine worm seen here feeding on staghorn coral (*Acropora cervicornis*).

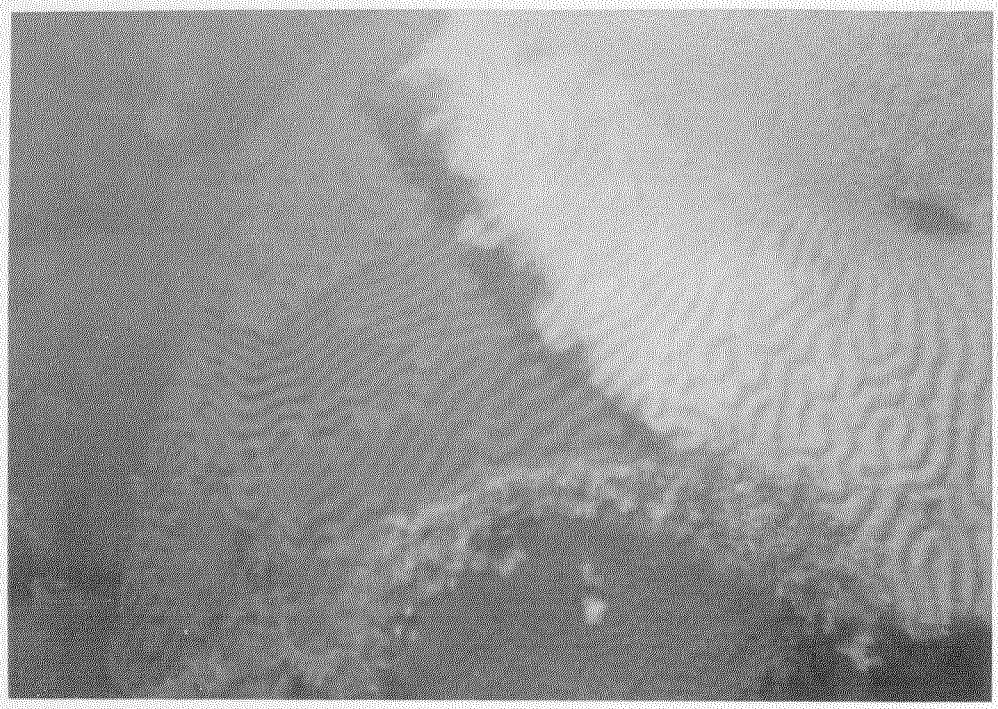

Plate 19a. *Diploria strigosa* infected by black ring disease caused by the blue-green algae *Oscillitoria* on Hens and Chickens Reef.

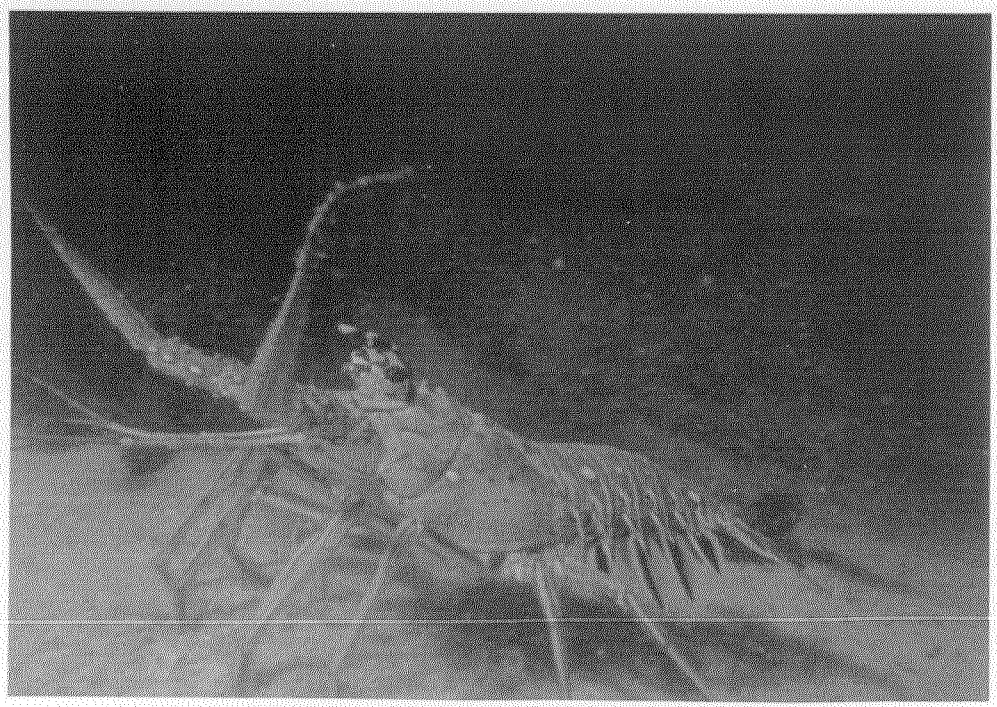

Plate 19b. Spiny lobster (*Panuliris argus*), patch reef off Key Largo.

Plate 20a. Grecian Rocks, Key Largo National Marine Sanctuary; elkhorn coral with schools of sergeant major fish (*Abudefduf saxatilis*).

Plate 20b. Schools of fish at an unnamed reef off Islamorada.

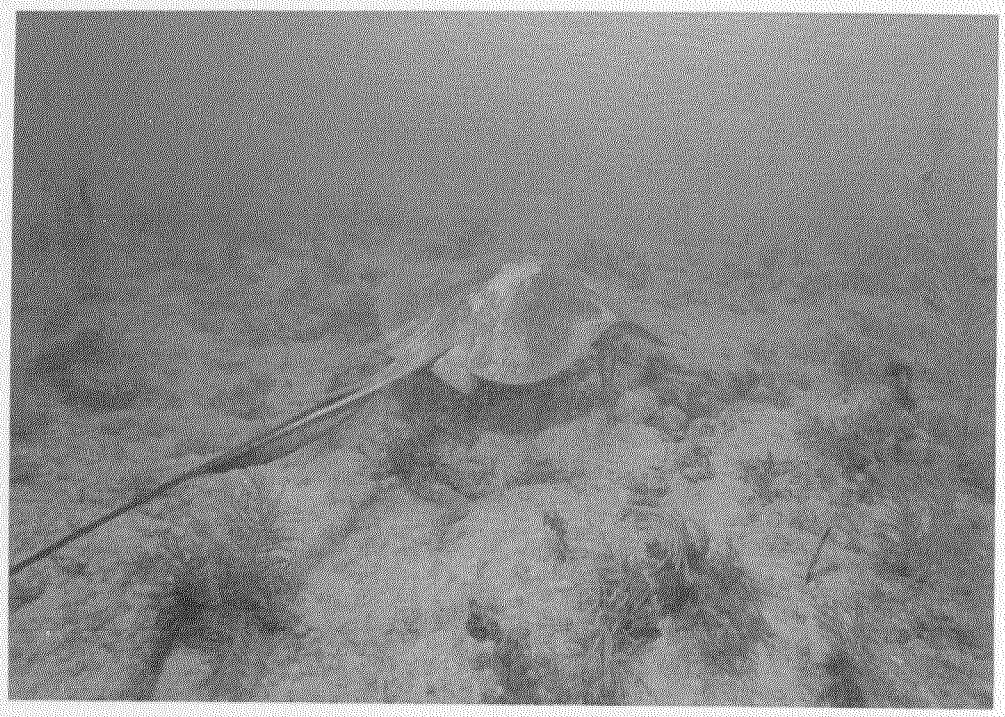

Plate 21a. Southern stingray (*Dasyatis americana*) near the Benwood wreck, Key Largo National Marine Sanctuary.

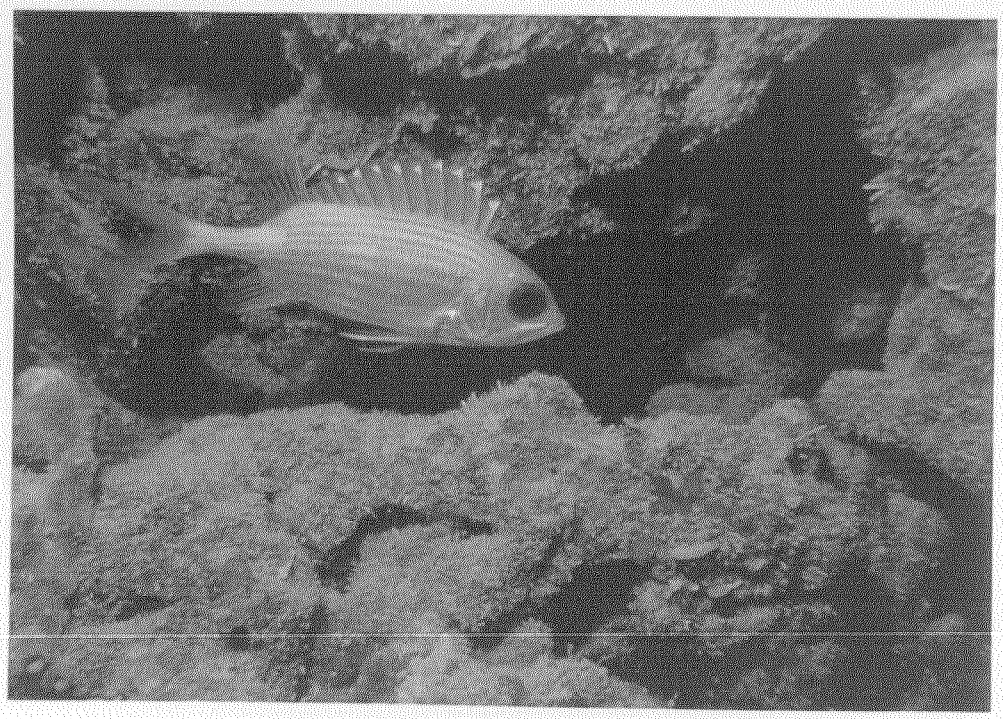

Plate 21b. Longjaw squirrelfish (*Holocentrus ascensionis*), Molasses Reef, Key Largo National Marine Sanctuary.

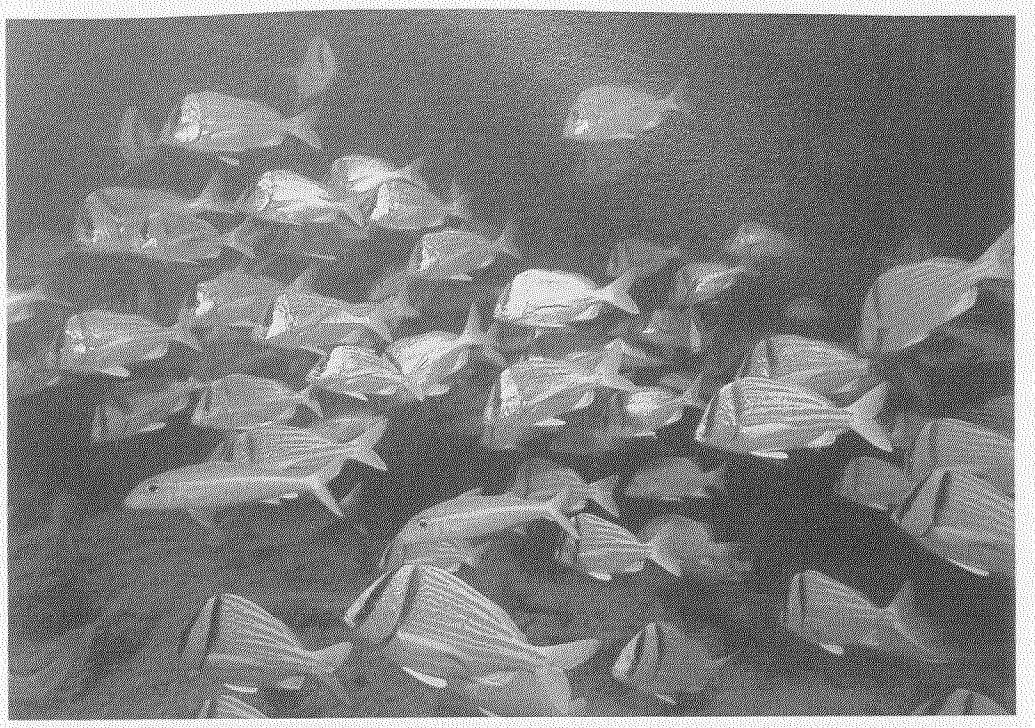

Plate 22a. Porkfish (*Anisotremus virginicus*) and yellow goatfish (*Mulloidichthys martinicus*), Molasses Reef, Key Largo National Marine Sanctuary.

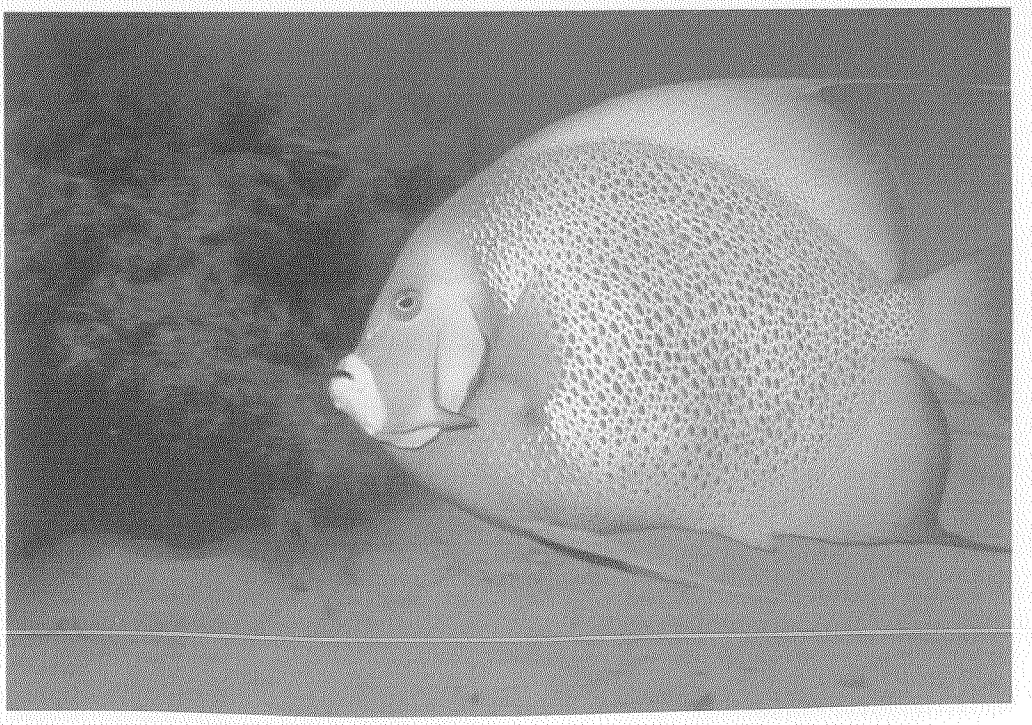

Plate 22b. Gray angelfish (*Pomacanthus arcuatus*), Eastern Sambo Reef.

Plate 23a. French angelfish (*Pomacanthus paru*), unnamed reef off Islamorada.

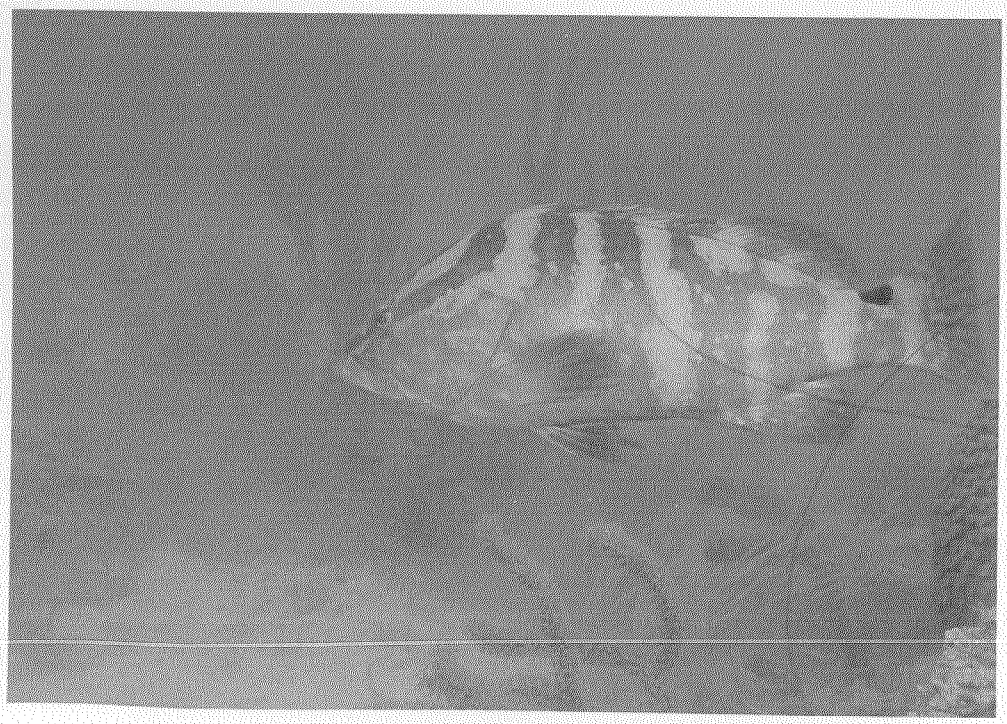

Plate 23b. Nassau grouper (*Epinephelus striatus*), Sand Key Reef.

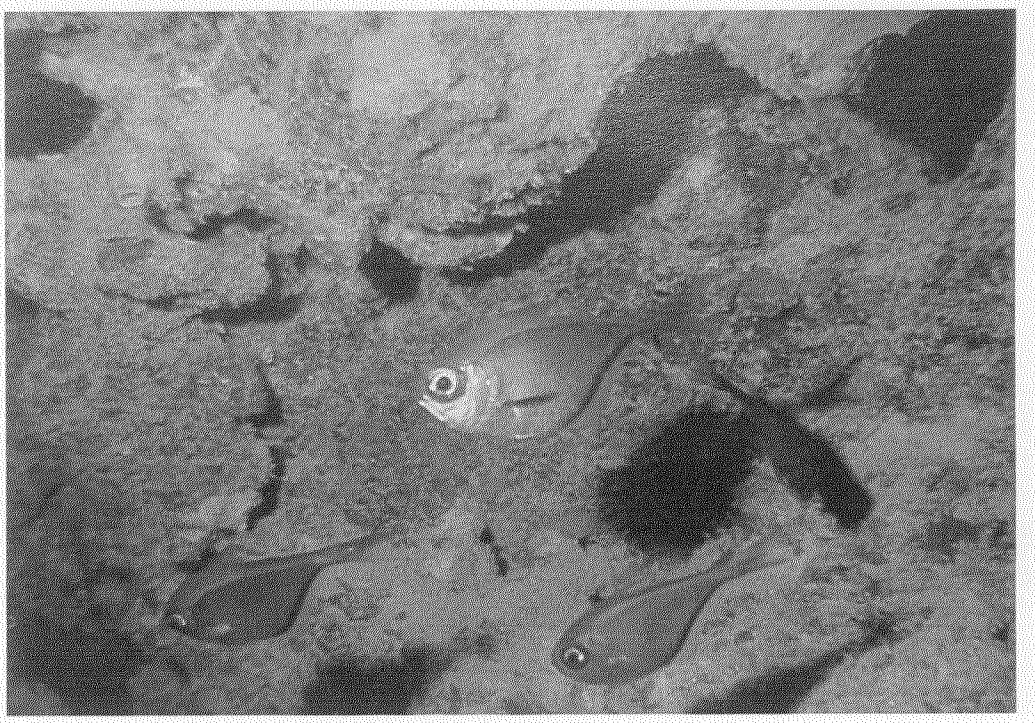

Plate 24a. Glassy sweeper (*Pempheris schomburgki*), French Reef, Key Largo National Marine Sanctuary.

Plate 24b. Fire coral, *Millepora complanata*, following heat stress; zooxanthellae expulsion caused bleached appearance.

Plate 25a. Unknown pathogenic condition (white) in *Acropora palmata*.

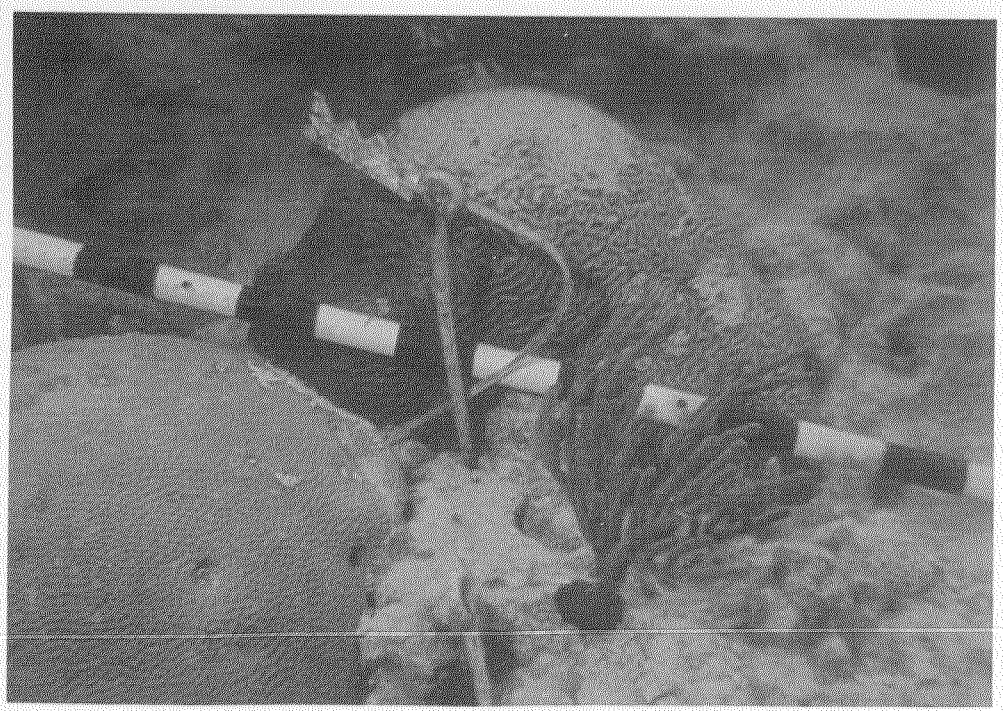

Plate 25b. Mobidity-mortality in *Diploria strigosa* caused by fish-collecting poison (rotenone and organic carrier).

Plate 26a. Shipwrecked *Captain Allen* on Middle Sambo Reef, 1973.

Plate 26b. Motor Vessel *Lola* and salvage barge on Looe Key Reef, 1976.

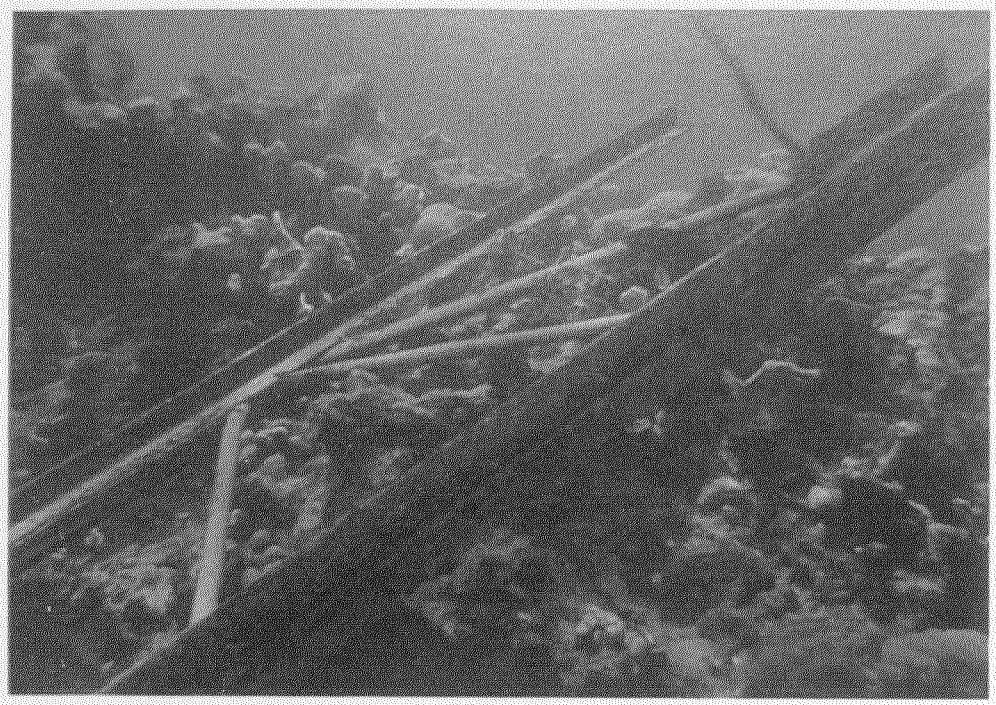

Plate 27a. Discarded steel from the *Lola* in the spur and groove tract.

Plate 27b. Anchor on coral.

Plate 28a. Boats tied up to anchor buoys at Molasses Reef, Key Largo National Marine Sanctuary.

Plate 28b. Eyebolt securing anchor buoys to the reef platform at French Reef, Key Largo National Marine Sanctuary.

Plate 29a. Scars on elkhorn coral (*Acropora palmata*) caused by a boat propeller, Elkhorn Reef, Biscayne National Park.

Plate 29b. Fish trap without a buoy line (ghost trap) on unnamed reef off Islamorada.

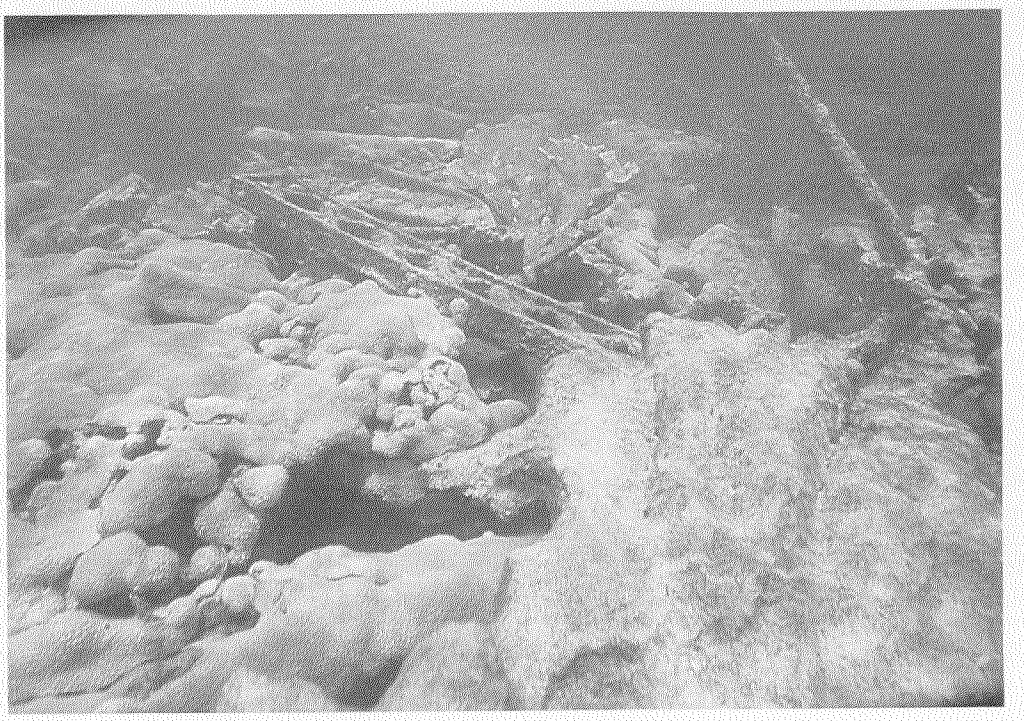

Plate 30a. Steel junk from Carysfort lighthouse on the reef flat.

Plate 30b. Accumulated batteries from Carysfort lighthouse on the reef flat. Batteries are used in the lighthouse operation.

Plate 31a. Lobster trap buoy line tangled in elkhorn coral (*Acropora palmata*) at Sand Key Reef, September 1983.

Plate 31b. Zooxanthellae expulsion, Eastern Sambo Reef, August-September 1983.