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Crown of Thorns Sea Star – facts and suggestions

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The Crown of Thorns Sea Star (COTS) is known locally in Fiji as “Bula”.

It is a large, spiky star with up to 15 legs, which feeds on the live coral animals, leaving white, dead coral skeletons behind it. These quickly grow over with fuzzy algae, leaving a dead, unattractive piece of reef.

On a natural reef there are animals which would feed on this sea star and keep it in check, but in Fiji many of these animals have been removed by over-fishing or to sell for the tourist trade.

Main natural predators of COTS are;

- Humphead Wrasse
- Triggerfish
- Triton’s Trumpet Shell (Davui)
- Giant Clams may feed on the larvae when the COTS breed.

COTS feed mostly at night, so you may not see many during the day. Looking for COTS scars (round white patches on corals, or round patches of dead coral on a coral that is alive elsewhere – see photos), will give you a better idea of how many there are, rather than counting actual COTS. However, if you see more than 10 during a 30 minute snorkel, you can assume that they have reached problem levels.

On a reef where there are a lot of scars, look UNDER overhanging corals – that is where they usually hide during the day. They prefer table and branching corals, but will eat boulders too.

COTS CAN DESTROY YOUR REEF – once they are about 30cm across they start to breed and can quickly eat an entire dive or snorkel site. In 1996 / 97 the Mamanucas lost nearly all the branching and table coral to COTS and a new wave is starting now.

RECOMMENDED REMOVAL PROGRAMME:

Remove every COTS seen – do not chop them up and leave them in the water as they can re-grow. I personally do not recommend poisons, as these are difficult to use, expensive, and can also poison the fish. Removal is the best way. Paying a bounty on each one taken out by the community is a very effective way to do it.

One way to remove them is using spears – this works but if the COTS is ready to spawn, she may release up to 10,000 eggs when she is speared.

Recommended – THICK work gloves (leather if possible), LONG barbecue tongs, a rice sack bag for use in the water, and a solid plastic tub to collect them on the boat.

Pry them off the reef using tongs, drop them in the bag, put into the plastic tub and bring to land. Take them INLAND, away from the beach (they can turn over and crawl back into the sea), tip them out and let them dry up. Burn them or mash for compost.

TAKE CARE WHEN HANDLING (USE THICK GLOVES AND TONGS) – stings should be treated by immersing hand or foot in very hot water for 20-30 minutes and then using antibiotic paste.

Keep the removal programme going until no more are seen – every week if possible, once a month if not. This may take 1 - 2 YEARS.

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1. Crown of Thorns Sea Star (COTS) eating branching coral



2. COTS eating table coral



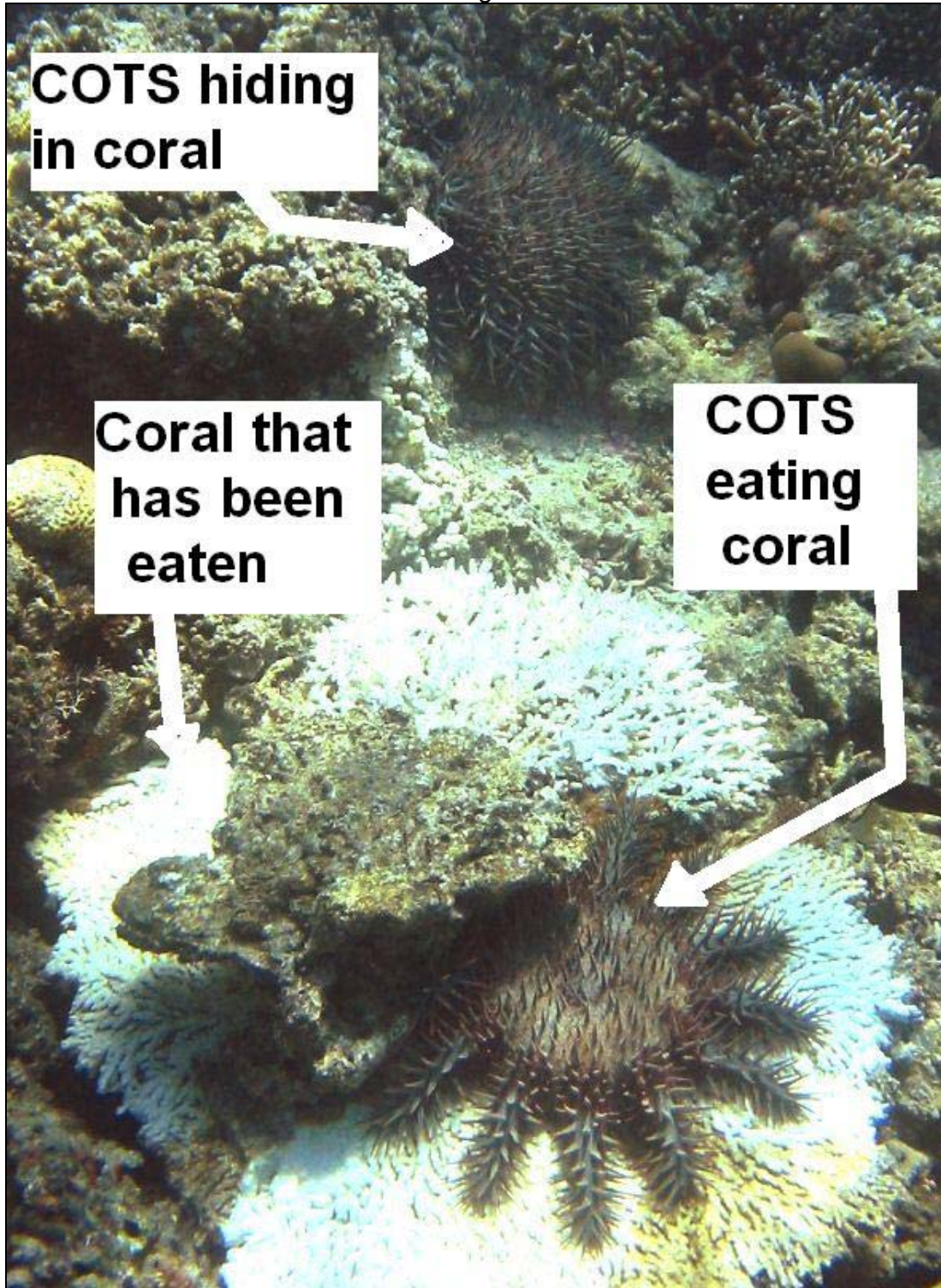
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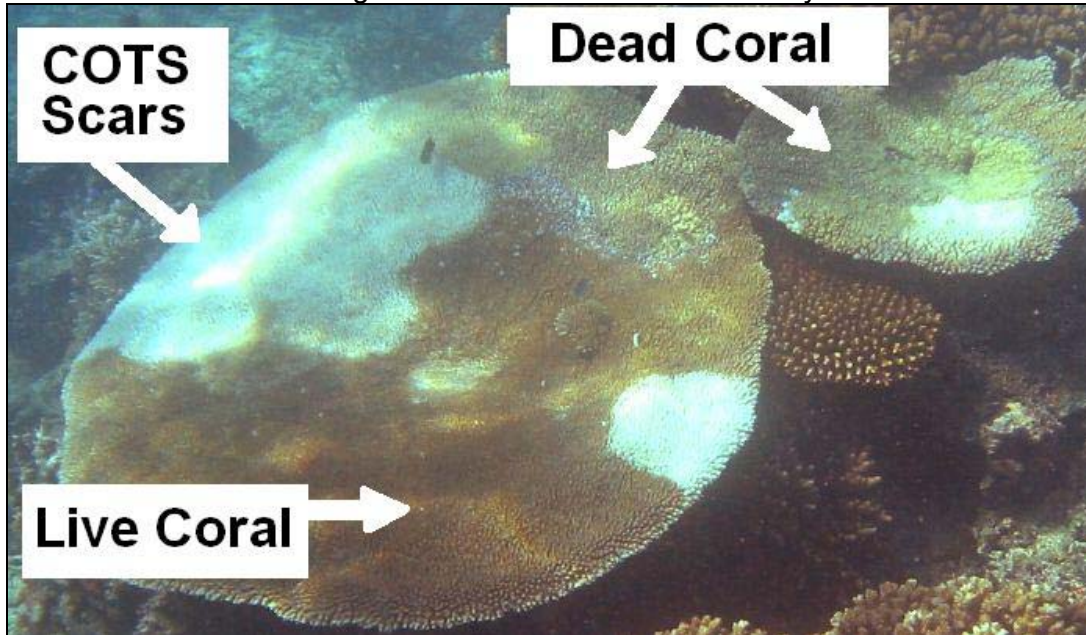
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3. Two Crown of Thorns Sea Stars feeding on the reef

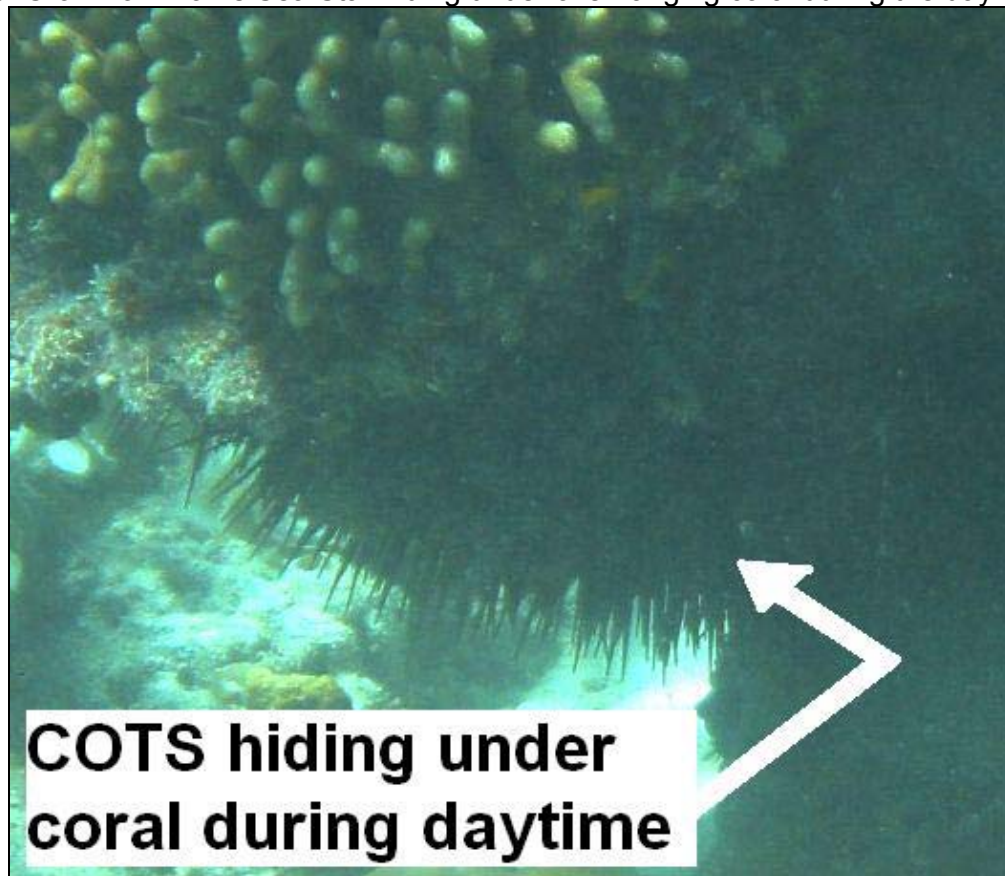


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4. Crown of Thorns feeding scars and dead corals caused by COTS



5. Crown of Thorns Sea Star hiding under overhanging coral during the day



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