



## Site Description of Timor-Leste MR AP Sites

Source: A Rapid Marine Biological Assessment of Timor-Leste: 151

Published By: Conservation International

URL: <https://doi.org/10.1896/054.066.0105>

---

BioOne Complete ([complete.BioOne.org](https://complete.BioOne.org)) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](https://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.



---

*chapter*

---

**03**

---

# *Site Description of Timor-Leste MRAP Sites*



### 1. Hera West

Date: 14 August 2012. Time: 15:30 hours, dive duration 70 minutes, depth range 1-20m; visibility 10m; slight current; moderate strong wave energy; relatively turbid. *Site description:* Fringing reef with lagoonal character; we dived on the protected lagoonal side, with reef starting at 7m and going down to 20m. Mix of hard coral tapering into sand and halimeda and various ahermatypic corals, live coral cover only reaching 30%. One large bluefin trevally and a school of batfish.

### 2. Com (Vailovaia)

Date: 15 August 2012. Time: 09:00 hours, dive duration 124 minutes, depth range 1-46m; visibility 15m; slight current; moderate strong wave energy; clear water deeper. *Site description:* Fringing reef that showed signs of previous damage, with lots of rubble and only perhaps 15-20% live coral cover - though there were several very large (3-5m diameter) Porites heads. Relatively steep slope with not much coral below 20m depth, turning to sponge and halimeda beds with occasional soft corals. High densities of snappers including big schools of *Lutjanus fulvus* and a number of large *L. bohar* and *L. rivulatus* and *Variola* groupers.

### 3. Com (Koho Vari)

Date: 15 August 2012. Time: 15:30 hours, dive duration 75 minutes, depth range 1-45m; visibility 10m; moderately strong current; strong wave energy; relatively turbid. *Site description:* Fringing reef with extremely steep sand/coral slope. Corals in shallow reaching 20% live coral cover, quickly transitioning to mostly sand by 12m. Large schools of juvenile snappers and a few large *Variola* grouper.

#### 4. Loikere

Date: 16 August 2012. Time: 0900 hours, dive duration 140 minutes, depth range 1-66m; visibility 20m; mild current; moderate wave energy; generally clear water. *Site description:* Fringing reef with moderate to excellent live hard coral cover; reef flat approximately 60m wide, sloping gradually from shore to 9m before steeply descending to 80m+. Some large damaged swaths, but alternating with excellent live hard coral cover. One large spanish mackerel and a number of larger snapper observed.

#### 5. East Loikere (Big Rock)

Date: 16 August 2012. Time: 1630 hours, dive duration 84 minutes, depth range 1-50m; visibility 20m; moderate to strong current; moderate wave energy. *Site description:* Fringing reef off NE tip of Timor-Leste; reef flat approximately 80m wide with gradual slope from 0-8m, then steep slope to 70m+. Excellent live hard coral cover on the reef flat, reaching up to 80-90% live cover; down the slope the hard coral rapidly disappears, with rubble/*Halimeda*/soft coral/sponge slope below 25m. One large bluefin trevally and a number of decent-sized snappers nearby. One large green turtle observed.

#### 6. NW Jako Island (Vata)

Date: 17 August 2012. Time: 1100 hours, dive duration 83 minutes, depth range 1-40m; visibility 20m; moderate current; moderate wave energy. *Site description:* Fringing reef off uplifted karst island. Spur and groove zone in shallows, with shallows a mix of live and dead hard coral. From 3-10m, good live hard coral cover, including quite a bit of *Heliopora*. Steep slope from 10-25m, grading out into current-swept hard bottom with scattered sponges and low coral growth. One white tip shark, a big school of rainbow runners and a number of large jacks observed.

#### 7. SW Jako Island (Perevenu)

Date: 17 August 2012. Time: 1530 hours, dive duration 90 minutes, depth range 1-26m; visibility 10m; slight current; moderate to strong wave energy. *Site description:* Fringing reef exposed to moderately strong wave energy. Spectacular coral cover reaching 100% live hard cover in the shallows (1-4m), grading slowly into much larger *Porites* bommies that attenuate by about 15m depth, at which point reef grades mostly into sand and rubble with scattered sponges and soft corals and coraloliths. Four Napoleon wrasse observed (one larger male), large schools of *Naso* surgeons and numerous jacks and rainbow runners - very fishy.

#### 8. Hilapuna

Date: 18 August 2012. Time: 0800 hours, dive duration 67 minutes, depth range 1-20m; visibility 8m; moderately strong current; moderate wave energy, high turbidity. *Site description:* Very gradually sloping fringing reef off southeast coast of Timor-Leste, just west of Jako Island channel. Some spur and groove zone development, scattered large bommies and coral outcrops with mostly rubble on bottom. Gradual slope eventually increases in steepness at about 14m, continuing down to perhaps 30m, with *Halimeda* and *Acropora russelli* on sand and rubble. Large school of unicorn fish but otherwise not many commercially-important fishes. Note: tide pools along shore at low tide - collected fishes with clove oil there.

### 9. West Jako Island (channel)

Date: 18 August 2012. Time: 1100 hours, dive duration 84 minutes, depth range 1-35m; visibility 20m; moderate to strong current; moderate wave energy. *Site description:* Fringing reef off west coast of Jako island, at mouth of narrow current-swept strait. Beautiful *Acropora palifera* and *Heliopora*-dominated shallows that serve as shelter for massive schools of snapper, sweetlips and fusiliers. Gradual slope to 40m, mostly sand with some rubble and scattered large coral bommies. Overall very fish site, with one blacktip shark and 2 whitetip reef sharks observed, as well as huge schools of snapper and fusiliers and unicornfish and a deep colony of *Gorgasia maculata* garden eels that numbered in the thousands.

### 10. Djonu Twin Rocks

Date: 18, 19 August 2012. Time: 1600 hours, dive duration 145 minutes, depth range 1-65m; visibility 20m; slight current; moderate wave energy. *Site description:* Fringing reef off east tip of Timor-Leste; wave-pounded boulders in the shallows drop down to a high coral cover reef flat that slopes to about 12m before then sharply descending into a sheer wall that drops to about 55m before becoming a steep sand and rubble slope. Fishy site in the afternoon, with one large 100kg+ Queensland Giant Groper (*Epinephelus lanceolatus*), large Napoleon wrasse, huge Spanish mackerel, numerous jacks and snappers, and a single green turtle observed.

### 11. Ete Asa Lepek

Date: 17, 20 August 2012. Time: 0900 hours, dive duration 193 minutes, depth range 1-65m; visibility 15m; slight current; moderate wave energy; medium turbidity. *Site description:* Fringing reef in a partially protected embayment with moderate turbidity. Very gradual slope with extensive hard coral gardens from 2-30m (reef dips to 13m, levels out, then rises back up to 9m before descending again), after which it becomes a rubble slope to at least 65m. Slightly to the east there is extensive bomb damage. Good small fish life, with some larger fish around, including one manta ray and one hawksbill turtle observed.

### 12. Com Harbor Seagrass (Fish Only)

Date: 17, 18 August 2012. Time: 1530 hours, dive duration 205 minutes, depth range 1-35m; visibility 10m; slight current; slight wave energy; medium turbidity. *Site description:* Seagrass bed in shallows that becomes soft bottom gradual slope from 5-35m, with occasional hard substrate bommies. Very interesting macro site with large numbers of new fish records (mostly gobies) and a range of interesting invertebrates (fire urchins, crabs, nudibranchs). One green turtle observed.

### 13. Com Deep Caves (Fish Only)

Date: 18 August 2012. Time: 0930 hours, dive duration 72 minutes, depth range 1-40m; visibility 15m; moderate current; moderate wave energy. *Site description:* Fringing reef to east of Com with very wide reef flat and gradual sand/rubble slope to 50m+. Between 30-40m there are two large caves. Quite fishy site with 3 different sharks observed (one each grey reef shark, nurse shark, and whitetip reef shark) and a large reef ray and two green turtles observed.

#### 14. Djonue East (Coral Only)

Date: 19 August 2012. Time: 0920 hours, dive duration 115 minutes, depth range 1-30m; visibility 15m; moderate current; moderate wave energy. *Site description:* Fringing reef off Tutuala coastline, with shoreline a tiny embayment with white sand beach. Moderately steep reef slope to 50m+, mostly sand and rubble with scattered coral heads. No large fish observed.

#### 15. Tutuala 3 Terraces

Date: 19 August 2012. Time: 1400 hours, dive duration 82 minutes, depth range 1-55m; visibility 20m; moderate to strong current; moderate wave energy. *Site description:* Narrow fringing reef off eastern tip of Timor-Leste; large wave-pounded boulders in the shallows drop off immediately to 2m and then reef slopes to about 8m (mostly bare calcium carbonate “bench” substrate with scattered live coral), where the reef crest has high coral cover. Reef then slopes sharply to about 50m, with mostly rubble and sand slope and some hard coral ridges. Several large jacks and emperors observed, along with one small hawksbill turtle - but generally not that many fish.

#### 16. Tenu (Japanese Bunker)

Date: 20 August 2012. Time: 1530 hours, dive duration 91 minutes, depth range 1-52m; visibility 10m; strong current; moderately high wave energy; high turbidity. *Site description:* Fringing reef off a current-swept point. Shallow reef mostly dead with soft coral coverage and large expanses of sand; sloping down relatively sharply to at least 55m. Mostly coral bench with very little rugosity; cover mostly sea whips and sponges and soft corals. Further to the west very slightly was a series of terraces/ledges going down that proved to be very good fish habitat. A number of larger fish observed here in the current, including a large school of bumphead parrotfish, a Napoleon wrass, and a large school of jacks.

#### 17. Lamsana Inlet East

Date: 21 August 2012. Time: 0900 hours, dive duration 135 minutes, depth range 1-45m; visibility 5m; strong current; moderate wave energy. *Site description:* Silted fringing coastal reef (near mangrove-lined river outlet) with wide (75m) intertidal reef flat with gradual slope; 10-15% live coral cover from 2m down to about 20m, where reef levelled off and cover increased to about 30%. Reef eventually sloped down again tapered into sand at 25m, though with scattered coral outcrops down to 45m. No large fish observed. Numerous COTS observed in shallows.

#### 18. Lamsana Inlet West

Date: 21 August 2012. Time: 1530 hours, dive duration 94 minutes, depth range 1-40m; visibility 5m; moderate current; moderate wave energy. *Site description:* As with previous site, highly sediment-covered fringing coastal reef with lots of sponges and filter feeding organisms. Wide intertidal reef flat, then relatively gradual reef slope from 2-10m with approximately 20% live coral cover and large stretches of sand. Reef slope increasingly steep from 10-40m with scattered reef outcrops and mostly sponges, at most 10% live coral cover. One green turtle and numerous COTS observed in shallows.

**19. Pulau Atauro Belio Outer Barrier Reef (ferry channel marker)**

Date: 22 August 2012. Time: 0830 hours, dive duration 155 minutes, depth range 1-70m; visibility 30m; moderate current; slight wave energy; low turbidity. *Site description:* Barrier reef just off Pulau Atauro east side where ferry terminal/harbor is situated. Site was located at the southern tip of the barrier reef, with outside a steep slope/dropoff to 100m+, and inside a steep sand slope, with top of reef coming up to intertidal range but only perhaps 30m wide. Reef top with excellent (60-75%) live hard coral cover including many small Acroporid table colonies; slope with alternating hard coral and sand/rubble areas. High fish diversity, and high biomass of planktivores feeding in current, but not many large fish. One hawksbill turtle and one large Napoleon wrasse observed.

**20. Pulau Atauro Belio “Saddle” Patch Reef**

Date: 22 August 2012. Time: 1530 hours, dive duration 95 minutes, depth range 1-52m; visibility 20m; strong current; moderate wave energy. *Site description:* Northern section of Atauro's eastern barrier reef. Top of reef at 6m with relatively good coral cover (30-40% live) though lots of old dead and broken coral underneath. Steep, relatively barren and current-swept slope with sponges and low growing corals. Large numbers of big snappers (*Lutjanus bohar*) aggregating at top of slope.

**21. Pulau Atauro Lagoon**

Date: 23 August 2012. Time: 0800 hours, dive duration 91 minutes, depth range 1-62m; visibility 20m; moderate current; moderate wave energy. *Site description:* Lagoon site just south of Belio Harbor. Excellent hard coral cover within lagoon (up to 75% live cover) and on top of reef flat before reef descends steeply to 100m+. Numerous new fish records in lagoon, and a new coral species as well. Not many large fish seen - a few large emperors only, as well as a single hawksbill turtle.

**22. Pulau Ataruo Belio Harbor (corals only)**

Date: 23 August 2012. Time: 1130 hours, dive duration 75 minutes, depth range 1-32m; visibility 15m; moderate current; minimal wave energy. *Site description:* Across the channel from Site 20. Moderately steep reef slope into sand/rubble bottom. Live hard coral cover averaging only 25-30%.







**CORAL TRIANGLE  
INITIATIVE**  
ON CORAL REEFS, FISHERIES AND FOOD SECURITY

