



Government of Western Australia
Department of Fisheries

THE ABROLHOS ISLANDS

INFORMATION GUIDE



YOUR LICENCE FEES AT WORK

MARCH 2015

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ABOUT THE ABROLHOS

Pristine waters, a rich biodiversity of marine and other wildlife, historic shipwrecks and their attendant tales of triumph over adversity, and a modern, thriving rock lobster industry are all part of the magic that is the Houtman Abrolhos Islands, as they are officially named.

Commonly referred to as 'The Abrolhos', the islands are named after Dutch Commander Frederik de Houtman, who came across several of the low-lying, coral reef-fringed islands in June 1619.

Photo: Bill Bachman © Department of Fisheries



Aerial photograph of Pelsaert group, Abrolhos

The 122 islands lie 60 kilometres west of Geraldton on Western Australia's mid-west coast. They are clustered into three main groups – Wallabi, Easter and Pelsaert – and spread from north to south across 100 kilometres of ocean. The islands and their surrounding reef communities are a meeting place for tropical and temperate sea life, forming one of the State's unique marine areas.

The Houtman Abrolhos Islands are an A-Class Reserve managed by the Department of Fisheries for the conservation of flora and fauna, for tourism, and for purposes associated with fishing and aquaculture industries. The waters surrounding the islands have special status as a Fish Habitat Protection Area for the conservation of fish, fish breeding areas and associated aquatic ecosystem, and are popular for aquatic tourism and recreational activities.

The Abrolhos lie in the stream of the southward-flowing Leeuwin Current, which funnels warm, low-nutrient, tropical water along the edge of the continental shelf, from the north of the State down the Western Australian coast. The current carries a cargo of larvae, eggs and juveniles of many species of corals and other marine life far south of their usual range. Water temperatures in the current are maintained throughout the winter at around 20 to 22 °C, enabling corals and tropical species of fish and invertebrates to thrive in latitudes where they normally wouldn't survive.

The Abrolhos Islands' marine and terrestrial environments are fragile and it is important that visitors and the fishers who temporarily reside there protect them. These natural resources are part of the aquatic heritage of all Australians and are listed on the Register of the National Estate. Visitors are asked to ensure their activities have minimal impact on the islands' natural environment (see 'Code of Conduct' on page 20 in this brochure).

Wildlife and vegetation

The Abrolhos Islands are among Australia's most important sites for breeding seabirds. Schools of pelagic (fish that live in the surface or middle depths of the ocean) baitfish provide a ready source of food for significant colonies of noddies, shearwaters and terns, which breed and roost in the islands' mangroves, sand dunes and foreshores.

Over two million birds from 35 species breed on the 192 islands, islets and small rocky atolls – a sanctuary free of introduced predators. Capitalising on this bounty of smaller seabirds is the white-breasted or white-bellied sea eagle, a natural predator that occurs here in unusually large numbers. Interestingly, some of these birds, including shearwaters and petrels, nest underground, burrowing into the soft sand to make a cool, protected haven for their young.

The islands also mark the northern-most habitat of the Australian sea lion (*Neophoca cinerea*). Once abundant, the Australian sea lion is now classified as a 'vulnerable species'.

Photo: Department of Fisheries © Shannon Conway



Australian sea lions at the Abrolhos

The Abrolhos Islands are home to an array of protected flora and fauna that have adapted uniquely to the diverse range of island ecosystems and are among Australia's most important sites for breeding seabirds. These include a subspecies of the lesser noddy that has its only breeding colony in the Abrolhos, which is a protected haven for their young.

Around 19 species of land and shore birds are also present at the Abrolhos, with the Abrolhos Islands painted button-quail being notable as it is endemic (found nowhere else) to the Abrolhos.

A total of 26 terrestrial species of reptiles, many of which are endemic to the Abrolhos, occur on the islands: 11 species of skink (including the Houtman Abrolhos spiny-tailed skink), seven species of geckos, four species of legless lizard, one species of dragon (the Abrolhos dwarf bearded dragon), one species of elapid (front fanged snake), one species of python and the marine green turtle.

Photo: Department of Fisheries © Shannon Conway



Green turtle

Two terrestrial mammal species are found on the Abrolhos Islands: The Tammar wallaby occurs on East and West Wallabi and was introduced to North Island; while the bush rat occurs on West and East Wallabi. Many of the above fauna have special status with either State, or Commonwealth recognition. Scientific interest in these species and their habitats is high and research is undertaken into many aspects of the islands' wildlife. More information is available from the Maritime Museum of WA in Geraldton.

There are over 140 species of native flora at the Abrolhos Islands and all are classified as protected. Some of these are recognised as being of a 'priority species' that have very high conservation values. Some of the vegetation communities (groups of plants) inhabiting the islands are coastal and dune heath, dwarf shrubland, saltlakes and low saltbush flats, mangals (patches of mangrove forest) and eucalypt mallee. Some of these communities are highly sensitive to disturbance and have slow rates of regeneration.

Shipwrecks

The Dutch East India Company's vessels, *Batavia* and *Zeewijk*, are probably the best known of the Abrolhos wrecks. The *Batavia* hit Morning Reef, near Beacon Island in the Wallabi Group in 1629, while the *Zeewijk* was wrecked on Half-Moon Reef in the Pelsaert Group in 1727. Eighteen other historic wrecks have been discovered in Abrolhos waters and many remain undiscovered. Historic wrecks at the Abrolhos are protected under State and Commonwealth law.

Geological history

The islands of the Abrolhos are geologically diverse, with North Island, the Wallabis', Rat Island and Gun Island being classified as 'mainland remnant' type islands made up of limestone, siltstone, and marls of continental origin that have been isolated by rising sea levels over the last 8,000 - 10,000 years. In contrast, the newly created adjacent islands, such as Long, Suomi and Pelsaert, consist of coral rubble of more recent origin.

Island industries

The Arolhos Islands' abundant bird and marine life provided the basis for the guano mining and fishing industries that emerged during Australia's colonial period. Guano, a fertiliser derived from bird excreta, was mined on a commercial scale from the 1880s to the 1920s, and again in the mid-1940s. Reminders of this industry include stone guano jetties on Pelsaert, Gun and Rat islands, and the foundations of the small gauge railway on Rat and Pelsaert. Mounds of limestone tailings are cast into unusual shapes on Rat and Gun islands.

Commercial fishing for trepang (sea cucumber) or beche de mer (*Holothuria* spp.) was conducted on a small scale at the Arolhos for a period from the mid-1800s.

The Arolhos Islands were noted as a potential commercial western rock lobster fishing site by the WA Government as early as 1904. Today, the western rock lobster (*Panulirus cygnus*) is the State's most valuable commercial fishery. The waters around the Arolhos are an important lobster-breeding site. Hence, careful management and conservation of the Arolhos lobster breeding stocks and their habitat are of vital importance to the sustainability of the entire fishery.

Around 120 licensed fishers, their families and deckhands take up temporary residence on 22 designated islands to fish commercially for western rock lobster.

Pearl farming is another Arolhos industry. The highly-prized black pearl is produced from hatchery-raised black lipped pearl oysters at eight aquaculture sites in the archipelago. There are also licensed commercial finfish and scallop fisheries at the Arolhos.

Access to the Abrolhos Fish Habitat Protection Area (FHPA) by boat

The person in command (master) of a boat must notify the Department of Fisheries prior to entering the waters of the Abrolhos Islands FHPA.

This notification can be made by completing the notification form, available from the Geraldton Regional Office and at www.fish.wa.gov.au. The form must be lodged with the Geraldton Office either by email, fax, post or in person. Full contact details are provided on the form.

Other approved notification methods are available for owners of Abrolhos Island camps, aquaculture operators and commercial fishers operating inside the Abrolhos Islands FHPA. Please refer to the Department of Fisheries website for more information.

Notifying the Department of Fisheries that you are visiting the Abrolhos Islands FHPA allows us to more effectively manage, conserve and protect this important area. The details in the notification also allow us to contact you, or your friends or family, in the event of an emergency.

Failure to give notice may result in the master of a boat receiving a \$500 penalty.

Private property

The residences, jetties and rainwater tanks designated for the use of commercial fishers on the 22 islands are private property and should be respected as such. You may not use the facilities unless you have written permission from the owner. A copy of this written permission must be provided to the Department of Fisheries' Geraldton office prior to using the fishers' facilities. You may not stay in fishers' residences unless the operator responsible for that facility is present

Preparing for your visit

There is no public accommodation on the islands at present and all recreational visitors need to be well equipped and self-sufficient. Visitors by boat must carry enough food, fresh water and fuel to last the length of the intended visit. Boats must be fitted with communication devices and waste-disposal storage and equipment.

Visitors should prepare for their visit by being fully informed of the visitors' Code of Conduct (see page 20), minimal impact practices, and general water safety and jetty access rules. All visitors play an important role in ensuring that other fishers' facilities and the island environment are protected and safe for all.

Domestic pets are prohibited from the Abrolhos Islands and you should ensure that none are carried aboard your vessels or landed at the Abrolhos.

Emergency services and medical assistance

Calls for emergency and medical services and assistance at the Abrolhos Islands can be made by marine radio. Marine radio channels and frequencies are listed in *The Official Western Australian Boating Guide*, a free publication available from regional and metropolitan offices of the Department of Transport. There is limited Next G mobile telephone coverage, but it should not be relied upon in emergency situations.

During the commercial rock lobster season only, emergency medical contact can be made with the Abrolhos Silver Chain nurse on VHF channel 16. The Silver Chain nurse is based at Rat Island (Easter Group).

Getting about

Unauthorised access to rock lobster fisher camps, jetties and moorings is not permitted. There is a public jetty at East Wallabi Island and the East Wallabi airstrip is available for private aircraft use. The uninhabited islands can be reached by dinghy and small watercraft, but visitors are reminded that lighting fires, camping and the use of firearms are not permitted.

Under State and federal law, native wildlife is protected on all of the Abrolhos Islands. Please take extra care not to disturb nesting birds when coming ashore. Walk along the shoreline and keep to rocky areas rather than walking across an island or through sandy sections. This way you will avoid destroying nesting bird burrows or scaring birds from their nests at times that may be critical for the survival of chicks or eggs.

Keep to tracks and boardwalks where they exist, particularly in sensitive environments such as sand dunes and mangrove areas, and heed any advice given on signs marking natural and historic features.

Please be considerate

Activities associated with aquaculture and charter tourism occur year-round at the Abrolhos, as does fishing activity and maintenance work at the island camps. Please respect the interests of other users.

Airstrips

There are air strips suitable for light aircraft on each of the following islands: North, East Wallabi and Rat. East Wallabi Airstrip is the only airstrip that may be used by general aviators. Geraldton Air charter companies have access to all three strips.

Recreational use

Marine habitats

The extensive coral reef and macroalgae communities at the Abrolhos offer visitors an array of snorkelling and diving sites and experiences. The diversity of marine life includes colourful fish, anemone communities, brain coral lumps, mixed algal and coral reefs, seagrass meadows and sandy areas where shoaling fish congregate.

Diving at the Abrolhos Islands

The dive trails in the Abrolhos offer self-guided dives in an area of outstanding marine life. Day-use public moorings are available, though their availability can vary, due to maintenance requirements. In conditions of low swell and wind, it is possible to dive on the wrecks of the *Batavia* (1629) in the Wallabi Group, and on the nearby wreck of the *Hadda*, which sank in 1877. A public mooring is provided off the Beacon Island jetty. For further information, contact the Department of Fisheries or refer to the dive trail information within this publication.

Significant sites

The *Batavia* (1629) shipwreck and its associated land sites in the Wallabi Group, Abrolhos Islands are listed on the National Heritage List.

On East Wallabi, a track leads to the beaches of Turtle Bay and Fish Point, where coral lumps are within swimming distance of the shore.

In the Easter Group, Wooded, Morley and Leo islands offer beautiful lagoons and sandy beaches. The lesser noddy breeds in the mangrove areas of these islands, though access to the mangroves is not recommended because of possible damage to the environment or disruption to the breeding birds.

The Pelsaert Group of islands has a rich maritime history, as well as abundant bird life. On Gun Island, survivors of the wreck of the *Zeewijk* in 1727 made camp and built a boat in which to escape the deserted island. The relics of guano mining operations can be seen on the southern end of Pelsaert Island.

Navigating around the Abrolhos Islands

The latest versions of nautical charts WA999 (Wallabi Group), WA998 (Easter Group) and WA997 (Pelsaert Group) should be consulted for depth soundings and other features. Basic navigation aids are provided in some areas to mark channels and hazardous reefs. Locations of public moorings, cardinal markers and navigation lights should be marked on the charts currently available.

As the Abrolhos reefs are notoriously treacherous, skippers should allow a wide safety margin, particularly if unfamiliar with the island waters. Avoid boating at times of low light and poor visibility, such as steering into late-afternoon sunlight, as reefs and shallows are difficult to detect in these conditions. Boating at the Abrolhos without current versions of charts is not advised.

Public moorings

As a service to the public and to protect coral and seagrass from anchor damage, a limited number of identified public moorings are provided at some anchorages. ***Please use them.*** The locations of these moorings are shown in the table at the end of this section.

It is important to note the following:

- Public moorings for overnight use are designed for vessels up to 25 metres in length and up to 40 tonnes in weight. However, ratings and condition of moorings cannot be guaranteed.
- Care should be taken to ensure that a vessel's fairlead does not damage the header ropes of these moorings. It is recommended that a hessian bag be wrapped around these ropes by those who are mooring a vessel, in order to reduce chafing.

- Public moorings are not secure in all weather conditions – they are provided as a courtesy and skippers use them at their own risk.
- Check moorings for conditions of use – certain moorings are set for certain wind conditions and for day use only.
- There is no reservation system for public moorings – please do not rely on moorings being available.
- An unmanned dinghy left tied to a mooring is not a legitimate means of securing that mooring for the particular use of an individual.

! **Note:** *While the Department of Fisheries regularly maintains these public moorings, incidents do occur where they become accidentally damaged by users. It is important for skippers to check the condition of the mooring prior to securing their vessel.*

Anchorage

If no public moorings are available, assess the prevailing weather conditions before deciding on an anchorage.

Coral reefs and seagrass beds are important fish habitats. They are easily damaged by boat anchors and anchor chains, and are very slow to regenerate. Take care not to drop your anchor on top of coral reefs – sand and mud will provide the best holding bottom.

Abrolhos Islands Public Mooring Locations (Datum GDA 94)

Mooring number	Latitude	Longitude	Depth (metres)	Location
Easter Group				
AI - 9	28°41.943' S	113°46.796' E	14 m	Sandy Island – eastern
AI - 10	28°41.987' S	113°46.777' E	13.5 m	Sandy Island – second from the east
AI - 11	28°40.937' S	113°51.698' E	7.1 m	Leo Island
AI - 17	28°42.166' S	113°46.537' E	7.2 m	Sandy Island – furthest west
AI - 18	28°42.136' S	113°46.607' E	7.2 m	Sandy Island – second from the west

Mooring number	Latitude	Longitude	Depth (metres)	Location
<i>AI - 19</i>	28°44.646' S	113°48.809' E	4.2 m	Morley Island – western mooring
<i>AI - 20</i>	28°44.566' S	113°48.896' E	9.8 m	Morley Island – eastern mooring
<i>AI - 21</i>	28°41.556' S	113°50.089' E	6.8 m	Eagles Nest Passage
<i>Anemone Lump</i>	28°40.306' S	113°50.616' E	4.9 m	Anemone Lump
<i>AI - 32</i>	28°42.192' S	113°49.767' E	14 m	Roo-Tail Coral
<i>AI - 33</i>	28°40.859' S	113°51.806' E	18.5 m	Leo Island
<i>AI - 34</i>	28°44.511' S	113°48.927' E	17.4 m	Morley Island
North Island				
<i>AI - 14</i>	28°19.719' S	113°36.308' E	12 m	Zig Zag Channel
<i>AI - 15</i>	28°18.481' S	113°36.354' E	4.6 m	North Island Anchorage
Pelsaert Group				
Coral Patches	28°51.228' S	114°00.668' E	16 m	Coral Patches
<i>AI - 22</i>	28°58.704' S	113°57.185' E	5.3 m	Pelsaert Island
<i>AI - 23</i>	28°58.650' S	113°57.166' E	5.0 m	Pelsaert Island
<i>AI - 24</i>	28°58.594' S	113°57.136' E	3.8 m	Pelsaert Island
<i>AI - 25</i>	28°58.531' S	113°57.105' E	3.4 m	Pelsaert Island
<i>AI - 26</i>	28°58.002' S	113°57.243' E	13 m	Pelsaert Island
<i>AI - 27</i>	28°58.044' S	113°57.195' E	17.8 m	Pelsaert Island
<i>AI - 28</i>	28°54.231' S	113°54.601' E	5.3 m	Middle Island
<i>AI - 29</i>	28°54.166' S	113°54.603' E	5.7 m	Middle Island
Wallabi Group				
<i>AI - 1</i>	28°25.832' S	113°44.192' E	4.3 m	Turtle Bay
<i>AI - 2</i>	28°25.870' S	113°44.241' E	3.8 m	Turtle Bay
<i>AI - 3</i>	28°25.872' S	113°44.303' E	3.7 m	Turtle Bay
<i>AI - 4</i>	28°25.869' S	113°44.344' E	3.8 m	Turtle Bay
<i>AI - 5</i>	28°25.445' S	113°44.657' E	13 m	Fish Point – east
<i>AI - 6</i>	28°25.430' S	113°44.615' E	13 m	Fish Point – west
<i>AI - 7</i>	28°27.593' S	113°46.280' E	5.6 m	Long Island – north
<i>AI - 8</i>	28°27.654' S	113°46.272' E	4.8 m	Long Island – south
<i>AI - 12</i>	28°25.804' S	113°44.253' E	4.8 m	Turtle Bay
<i>AI - 13</i>	28°25.810' S	113°44.310' E	4.5 m	Turtle Bay
<i>AI - 16</i>	28°28.154' S	113°47.282' E	6.5 m	Beacon Island
<i>AI - 30</i>	28°29.769' S	113°47.282' E	11 m	Third Sister Island
<i>AI - 31</i>	28°29.638' S	113°44.618' E	12 m	Third Sister Island
<i>AI - 35</i>	28°29.903' S	113°41.314' E	4.8 m	West Wallabi Island
<i>AI - 36</i>	28°26.903' S	113°41.170' E	3.6 m	West Wallabi Island

Weather conditions

The Abrolhos Islands are first in the path of any weather moving in from the west or north-west towards the mainland and offer little protection from the wind. Weather conditions can be highly changeable, with cold and warm fronts often reaching the islands 24 or more hours ahead of weather bureau forecasts for the mainland. The islands are unaffected by mainland sea breezes. Be prepared for a prevailing westerly or south-westerly swell, which may reach several metres in unprotected waters.

The Abrolhos are subject to cyclones. In the event of the Bureau of Meteorology issuing a 'Blue Alert' or 'Tropical Cyclone Watch' warning for the Abrolhos, visitors and those not directly engaged in fishing industries should immediately return to the mainland. At the 'Yellow Alert' phase, commercial fishers must cease operations and return to the mainland.

Weather forecasts and warnings are available for marine areas by fax, radio and online. Geraldton Volunteer Sea Rescue broadcasts frequent weather schedules on VHF channel 73. Contact the Bureau of Meteorology for details.

More favourable weather conditions for boating usually occur between February and June, and in September/October.

Sea safety

The Abrolhos Islands are classified as 'offshore or open sea' (over 30 miles offshore). All vessels should have survival and safety gear on board in line with marine safety regulations for open sea, including life jackets, flares and a distress beacon (EPIRB). Full details are available in the Department of Transport's free publication, *The Official Western Australian Boating Guide*.

Vessels travelling to the Abrolhos need to be self-sufficient, as there is no capacity on the islands to purchase fuel, water or other supplies.

FISHING AT THE ABROLHOS

Conserving island fish stocks

Research is shedding increasing light on the importance of the Abrolhos Islands as a marine conservation area. The marine ecology of the islands is unique, thanks to their remoteness and the low level of recreational and commercial fishing pressure. Significant resident reef species include baldchin groper (*Choerodon rubescens*), coral trout (*Plectropomus* spp.) and West Australian dhufish (*Glaucosoma hebraicum*).

The Abrolhos play a vital role as a major habitat for the spawning stock of western rock lobster (*Panulirus cygnus*). Eggs and larvae from the Abrolhos and the deepwater refuges further north along Big Bank are thought to be distributed by ocean currents along the west coast, replenishing many areas of reef where the stocks of mature spawning lobsters have been depleted by intensive fishing.

Reef Observation Areas

Within the Abrolhos Islands' Fish Habitat Protection Area, special places have been set aside as Reef Observation Areas for the conservation and observation of marine life and habitats. The four Reef Observation Areas in the Abrolhos are:

- North Island Reef Observation Area;
- Beacon Island Reef Observation Area (Wallabi Group);
- Leo Island Reef Observation Area (Easter Group); and
- Coral Patches Reef Observation Area (Pelsaert Group).

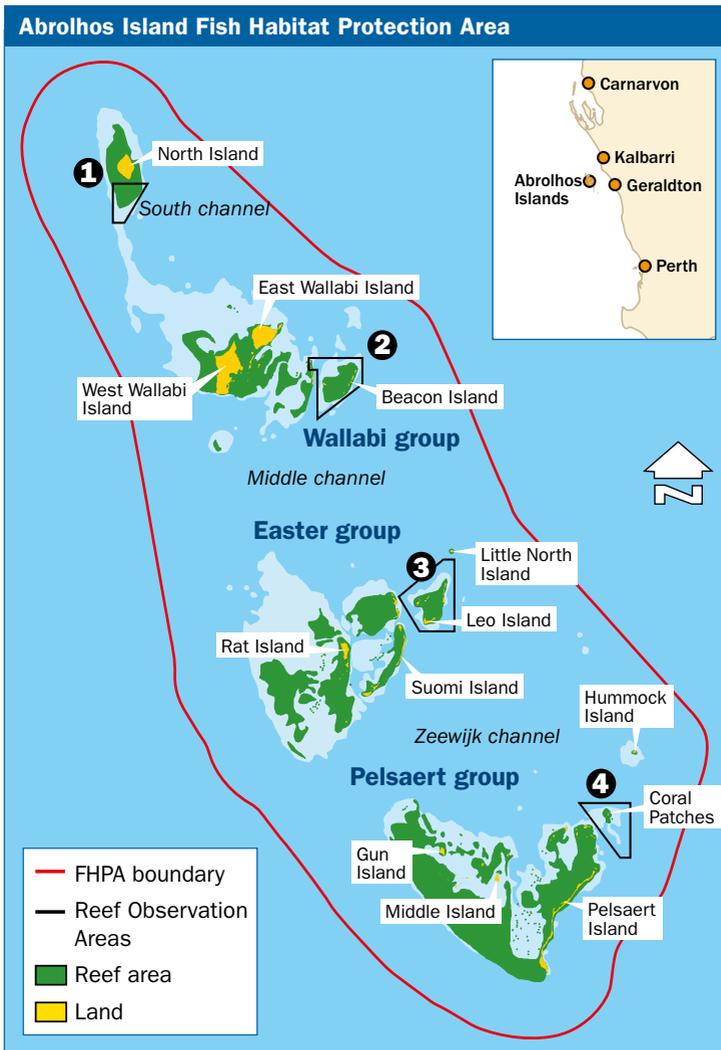
Catching fish by line, spear or any other method is not permitted in these areas; however, lobster pots may be used in accordance with licence conditions.

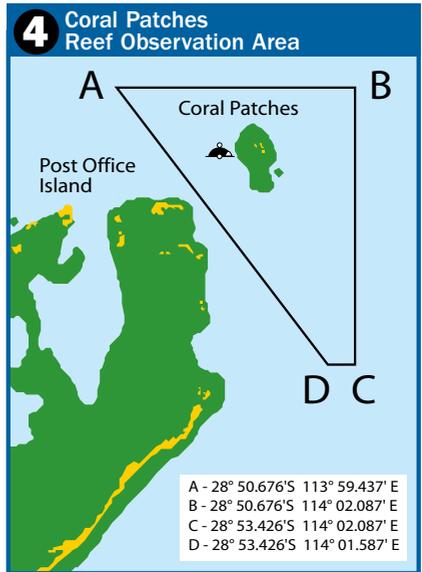
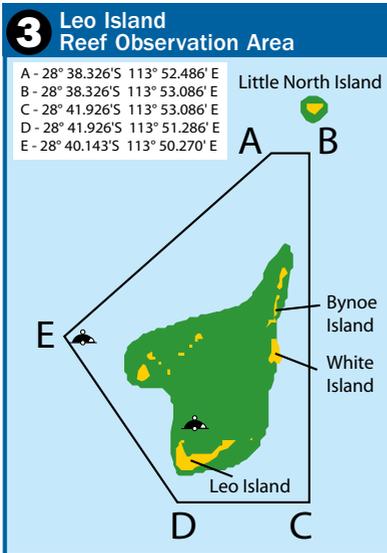
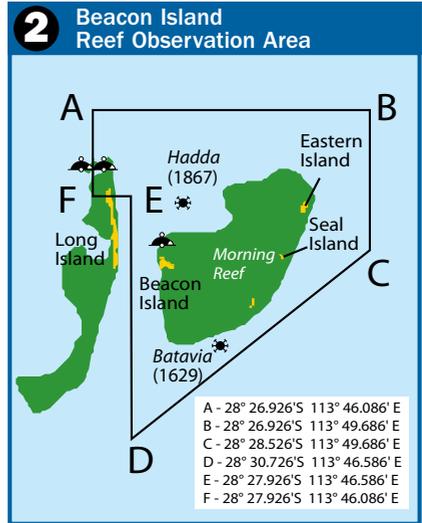
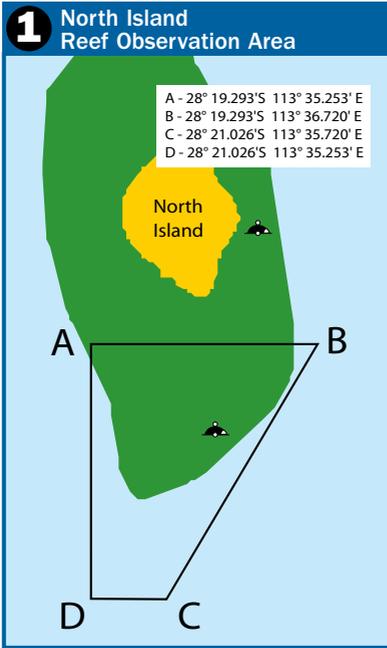
The Reef Observation Areas are intended to:

- conserve and protect fish, fish breeding areas, fish fossils and the aquatic ecosystems;

- provide sites for the appreciation and observation of fish in their natural habitat; and
- boost populations of reef fish in areas adjacent to the Reef Observation Areas.

! Note: Under the Fish Resources Management Act 1994, the definition of “fish” can include a range of organisms such as finfish, crustaceans, molluscs, corals, seagrasses and algae at all stages of their life cycles.





Historic wreck	Reef area	Reef observation areas
Mooring buoy	Land	

Geocentric Datum of Australia (GDA 94)

ABROLHOS RECREATIONAL FISHING REGULATIONS

The daily bag limits, minimum legal sizes and other recreational fishing regulations that apply across the West Coast Bioregion also apply in Abrolhos Islands waters. Full details are contained in the *Recreational Fishing Guide*, which is available at www.fish.wa.gov.au, from Department of Fisheries offices and most tackle shops.

However, there are a number of fishing regulations specific to the Abrolhos Islands. These include:

- The maximum quantity of finfish that a person may be in possession of at the Abrolhos Islands is 10 kilogram of finfish fillets, or one day's bag limit of whole fish or fish trunks.

Photo: Department of Fisheries © Shannon Conway



Baldchin groper

- A closure to fishing for baldchin groper (*Choerodon rubescens*) applies from 1 November to 31 January. It coincides with the time that baldchin groper gather together to spawn in the Abrolhos and is aimed at protecting breeding stock.
- Western rock lobster (*Panulirus cygnus*) may be taken in the Abrolhos Islands. The rock lobster fishing season opens on 15 October and closes on 30 June for recreational fishers, and a licence is required if you wish to catch them. Sea lion exclusion devices are required on rock lobster pots operated within the Southern and Easter groups of the islands. Full details are provided in the *Sea Lion Exclusion Devices* brochure, available at www.fish.wa.gov.au, from Department of Fisheries offices and most tackle shops.
- Visitors are not permitted to take samson fish (*Seriola hippos*) or yellowtail kingfish (*Seriola lalandi*) that reside in the anchorage areas of inhabited islands.
- Unauthorised netting is not permitted.
- All corals have full protection at the Abrolhos.

Photo: Department of Fisheries © Shannon Conway



Coral at the Abrolhos

CODE OF CONDUCT – PROTECTING THE ENVIRONMENT OF THE ABROLHOS

Seabird breeding islands

- Many species of seabirds breed at the Abrolhos Islands throughout the year. Be aware of seasonal bird breeding times and areas, and avoid visiting such sites.
- Particular care should be taken in sandy areas, lagoons and mangroves, as these are seabird-breeding sites. Avoid walking through these areas.
- Take particular care on seabird islands at the following sensitive times: late afternoon, early evening and during the hottest part of the day, during wet and/or cold weather, on moonlit nights, and when nests contain eggs and chicks.

Bird watching with care

- Allow seabirds to nest and roost undisturbed. Stressed birds desert their nests, leaving eggs and chicks exposed and unprotected.
- Keep at least 50 metres from seabird colonies and occupied nests, taking care not to touch or crush eggs, chicks and nests. Stop approaching if birds show signs of distress, such as raucous calling or swooping.
- Keep loud noises, sudden movements and the use of lights at night to a minimum near bird colonies.

Wildlife – “look, but do not touch”

- View wildlife from a distance (especially sea lions and seabirds), preferably from a boat. Hand feeding and direct contact with the unique wildlife populations of the Abrolhos can be harmful, and cause distress and changes in behavior.
- Always leave a clear unobstructed route between sea lions and the water when approaching resting sea lions on land.

- Leave all wildlife where it is found, including live or dead shells, fossils and corals. Collecting damages the health of the islands' ecosystems and is prohibited without a licence.
- Avoid handling or touching sea creatures as many fish, molluscs, urchins and anemones have venomous spines or stinging nematocysts that can cause symptoms ranging from minor irritation to paralysis and heart failure.

Report injured wildlife sightings

- Be cautious when approaching the animal. Gather information on the severity, location and type of injury.
- Contact the Department of Environment and Conservation's or the Department of Fisheries Mid-West offices – see the rear of this brochure for its location and telephone number.

Preserve island habitats

- No camping, fires, firearms or pets are allowed at the Arolhos Islands.
- Take all your rubbish away with you.
- Keep to existing tracks, and to beaches and rocky shorelines, to avoid damaging vegetation and bird-breeding areas.
- Check for seeds and spores on shoes before landing to prevent the introduction of exotic plants.

Minimise boat impacts to marine habitats

- Use public moorings where available to avoid the use of anchors and chains, which can damage coral reefs and seagrass beds.
- When moorings are not available, anchor in areas of sand and mud bottom and avoid reefs and seagrass areas.
- Know your vessel's draught and your limits in the shallows. Use current charts and navigational aids, where available, to prevent impact and propeller damage to reefs.
- Keep the waters clean. Sullage tanks should be emptied at sea a kilometre or more from land, including islands.

- Remove and store all waste and dispose of it appropriately at your nearest port.

Fish responsibly and ‘fish for the future’

- Take no more fish than for your immediate needs, as fish has a short freezer life. Return unneeded and undersized fish to the water, quickly and with care.
- Know and keep to recreational fishing seasonal, bag, size and possession limits and cease fishing once bag limits are achieved.
- Be aware of the boundaries and fishing restrictions that apply within the Reef Observation Areas (see maps in ‘Fishing at the Abrolhos’ section of this brochure).
- Do not feed fish. Observe the fish of the Abrolhos without disturbing their feeding patterns.
- Dispose of waste from fish cleaning outside anchorage areas. The processing of fish on islands is prohibited and offal dumped off jetties and moored boats encourages yellowtail king fish and samson fish to feed and can trigger unwanted changes in their behavior.

Other users of the Abrolhos Islands

Fishing industries

- Be aware of fishing industry activities and sites. Avoid contact with pots, lines and aquaculture farms. Report any equipment damaged to the Department of Fisheries’ Geraldton District Office.
- Remove fish hooks from ropes if they become entangled, or mark entangled ropes or floats to avoid creating a safety hazard.
- Take care when diving. Always fly the dive flag so it is easily visible to others and, where possible, avoid diving near fishing and aquaculture equipment.

Inhabited islands

- There is private property on inhabited islands and this should be respected as such.

- Respect fishers' property and privacy.
- Do not intrude upon private camps, jetties and facilities, and commercial moorings.

Historic sites and relics

Moor or anchor your boat responsibly

- Moor or anchor to avoid damage to nearby reefs and the wrecks themselves.

Protect and report historic sites and relics

- Preserve the rich heritage and history of the Arolhos Islands by leaving sites as you find them. Interfering with and physically damaging wrecks and historic sites, and unauthorized salvaging of artefacts, is prohibited.
- Report the location of any finds to the Western Australian Museum – see phone number on the back of this brochure.

Photo: Department of Fisheries © Shannon Conway



Old ship's anchor at the Arolhos

DIVING AT THE ABROLHOS

At a latitude of 28 to 29° S, the Abrolhos Islands are the southernmost coral reefs in the Indian Ocean. Over 180 species of coral have been recorded in the Abrolhos. Not only are the corals diverse but they provide habitats for many hundreds of tropical invertebrate species, including shellfish, crabs and sea stars. A range of fish species lives among – or hovers just above – the coral, darting between clumps when danger threatens.

Some species in the Abrolhos, such as western rock lobster, occur only in Western Australia. A variety of wrasses are seen on all of the seven dive trails currently installed by the Department of Fisheries, as are many other fish.

Despite the low latitude, there are also many temperate species of plants and animals, particularly large algae, living at the Abrolhos.

The huge diversity of life along the dive trails can be treated equally well on SCUBA or snorkel. The corals that are found on the trails are very fragile and easily broken – ***please be careful when you swim near them.***

The Department of Fisheries hopes you will enjoy the unique experience of the Abrolhos dive trails, on which information follows. Please read and follow our ‘Dive Without Damage’ section (page 42) and ‘Code of Safety’ (page 43).

Long Island Dive Trail

Long Island Dive Trail is the first of the self-guided dive trails installed by the Department of Fisheries at the Abrolhos Islands and was put in place in 1997. It is located just inside the Beacon Island Reef Observation Area, in the Wallabi group of islands.

The north end of the trail commences just north of the large prominent *Porites* coral, where each dive station is marked by a plinth with a mounted plaque. Each plaque contains a colourful illustration by Western Australian artist Kellie Merritt.

The Abrolhos Islands mark the overlap of tropical and temperate waters, with the result that plants and animals of both worlds live here. Tropical fish, such as parrot fish, butterfly fish and coral trout, swim alongside temperate fish, such as buffalo bream, western rock lobster and baldchin groper. One of the aims of the Long Island Dive Trail is to highlight this unique 'zone of overlap'.

Also found in the area of the dive trail are fascinating tropical water features, such as 'bombies' and staghorn coral. Bombies are massive spherical boulders of *Porites* spp. coral – the shape ensuring a maximum surface area for coral polyps to filter food from the water. This coral grows very slowly – a three metre-high bombie will be about 1,000 years old!

Photo: Department of Fisheries © Shannon Conway



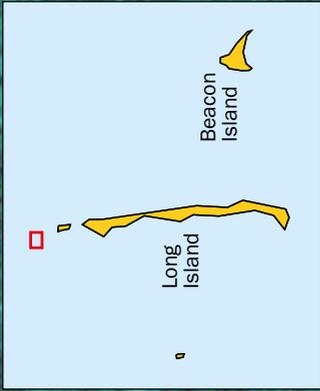
Diving amongst staghorn coral

In contrast, tropical staghorns are fragile, but grow quickly – about 15 centimetres per year. Unlike other places where staghorns are found, staghorn coral polyps at the Abrolhos are extended during the day. When staghorns spawn, they produce pink egg bundles.

Sandy areas can also be seen in the vicinity of the dive trail. These sandy patches are very important for some fish – the goatfish uses its sensitive whiskers to probe the sand for worms and shrimps, while other fish like some wrasses and rays bury themselves in the sand for protection from predators.

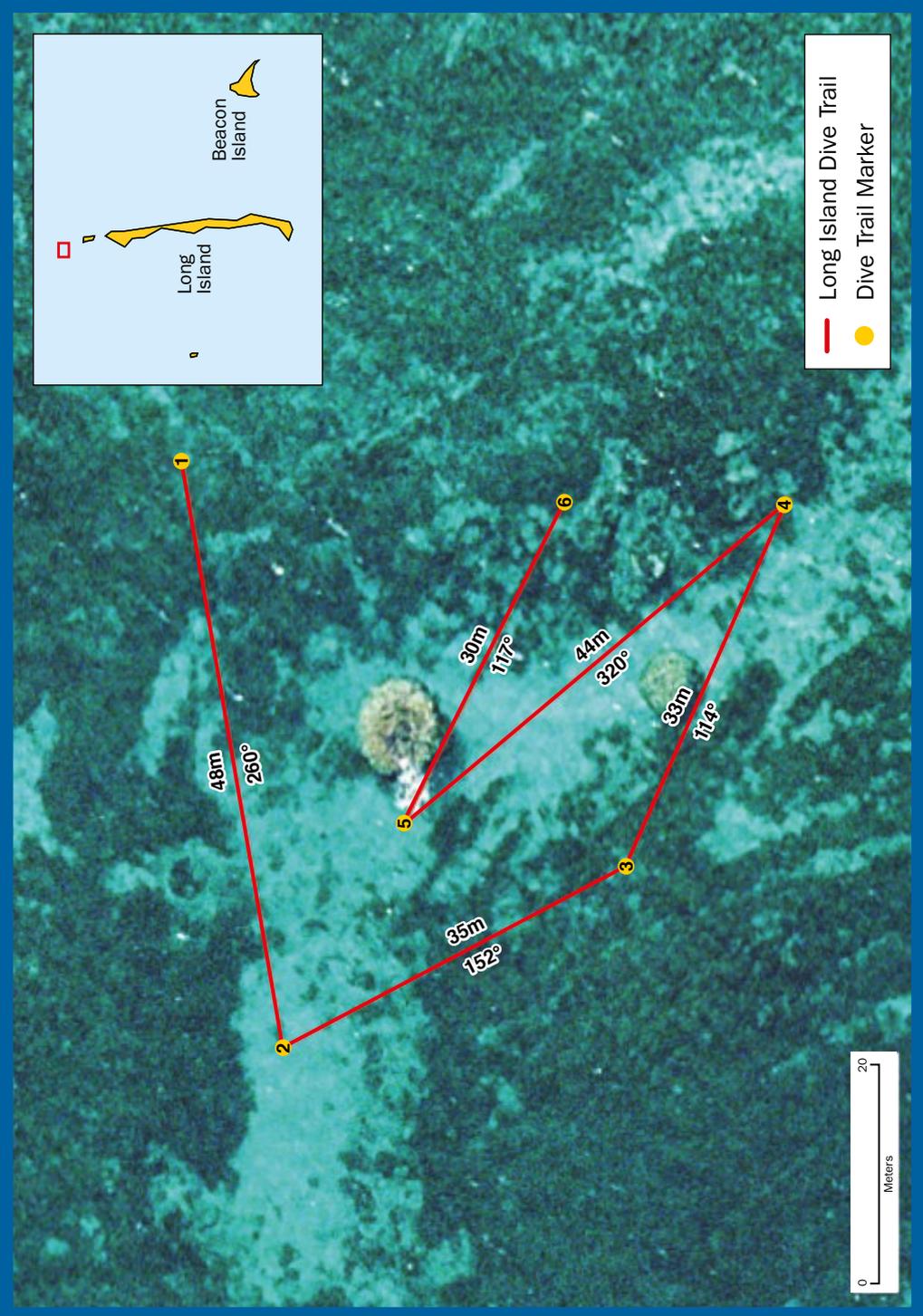
A day-use public mooring for up to two vessels is available at Long Island Dive Trail, subject to maintenance. In conditions of low swell and wind, it is possible to dive on the wrecks of the *Batavia* (1629) and on the nearby wreck of the *Hadda* (1867). Another public mooring is provided off the Beacon Island jetty.

Dive Trail Marker Locations		
	Latitude	Longitude
1.	28° 27.603' S	113° 46.354' E
2.	28° 27.608' S	113° 46.325' E
3.	28° 27.625' S	113° 46.334' E
4.	28° 27.633' S	113° 46.352' E
5.	28° 27.614' S	113° 46.336' E
6.	28° 27.622' S	113° 46.352' E



— Long Island Dive Trail

● Dive Trail Marker



Beacon Island Dive Trail

Beacon Island Dive Trail runs along the fringing reef on the western side of Beacon Island, where corals extend from the lower intertidal region down the entire slope into Goss Passage. The bottom of the passage, at about 32 metres, is open sand.

The first marker on the trail is a mixture of living corals, coral rubble and sand. If you swim early in the morning, you may see the trails of snails that crawled over the surface of the sand during the night. Macro-algae grow attached to the dead corals.

The second marker on the trail is dominated by finger corals. Further along the reef, plate corals become more numerous and the two types of coral occur together. As you swim along the front of the reef, a wide variety of invertebrates, including shellfish, crabs and seastars, live under dead coral plates in the shallow water on your left.

Underneath the reef, you will see a mixture of large plate corals and finger corals that cover most of the bottom. These corals extend down the slope on your right as far as you can see.

Fish are abundant in the shallows, and coral trout and sergeant major can often be seen. Look under the plate corals for the protruding antennae of rock lobster. Schools of squid can regularly be seen swimming above the reef.

Dive Trail Marker Locations

	Latitude	Longitude
1.	28° 28.542' S	113° 47.065' E
2.	28° 28.513' S	113° 47.055' E
3.	28° 28.472' S	113° 47.048' E
4.	28° 28.454' S	113° 47.055' E
5.	28° 28.424' S	113° 47.052' E
6.	28° 28.375' S	113° 47.072' E
7.	28° 28.355' S	113° 47.077' E
8.	28° 28.313' S	113° 47.082' E
9.	28° 28.293' S	113° 47.095' E



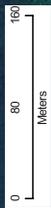
Hadda



-  Beacon Island Dive Trail
-  Dive Trail Marker
-  Public Mooring
-  Ship Wreck



Beacon Island



Turtle Bay Dive Trail

Turtle Bay is located on the north-eastern corner of East Wallabi Island, off the western edge of Fish Point. As you swim from shore to the Turtle Bay Dive Trail, you pass over one of the best seagrass beds in the Abrolhos. These are temperate seagrass species that provide habitat for numerous invertebrates.

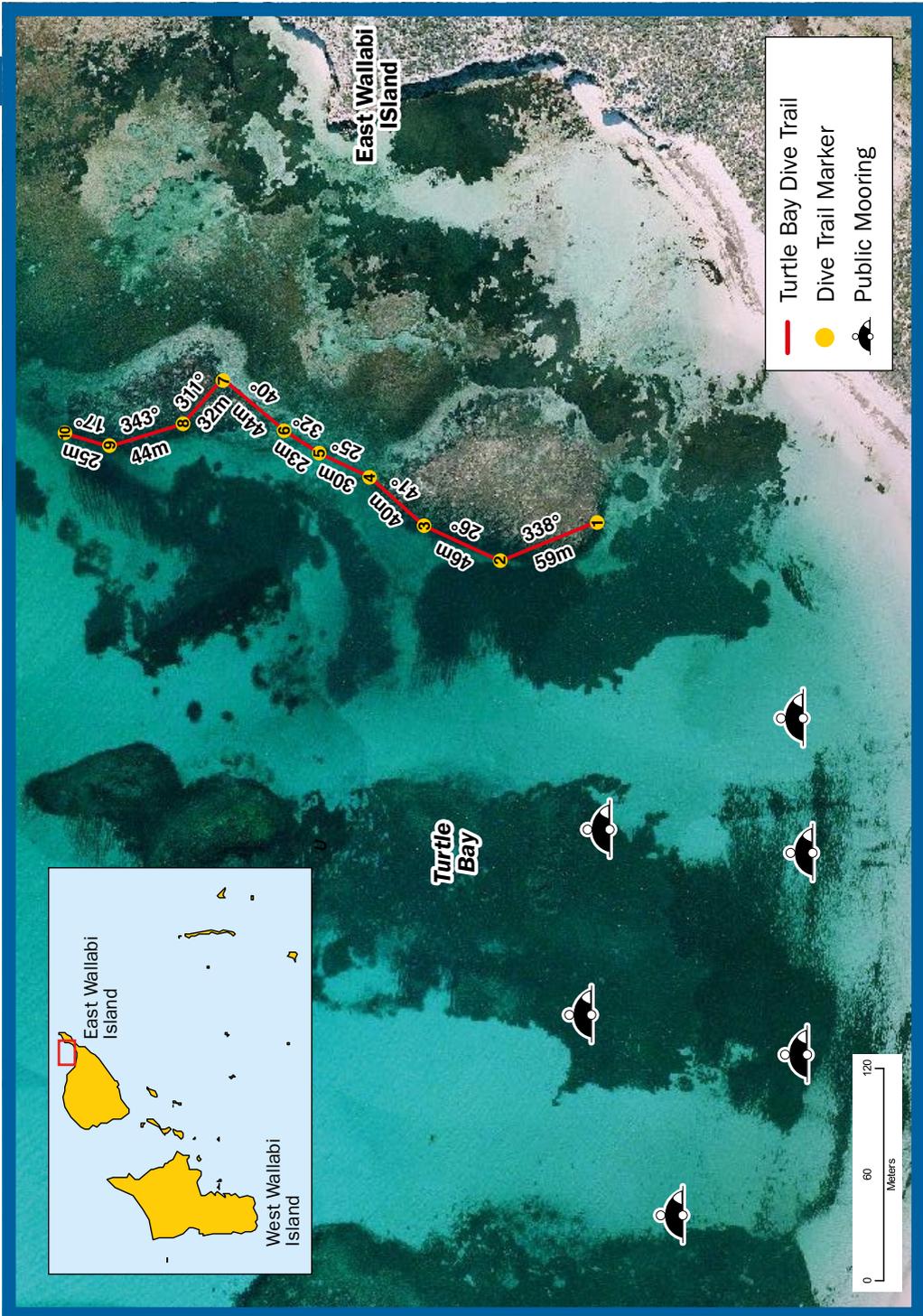
The dive trail passes around a small patch of reef located in water only a few metres deep. The reef is a mixture of living plate and finger corals, and occasional small brain corals, interspersed with dead coral rubble. Look under the living coral plates to see if there is a rock lobster or perhaps a cuttlefish hiding there.

A variety of invertebrates (shellfish, crabs and brittlestars) hide under the dead coral slabs, and some species of macro-algae can also be seen.

Fish are abundant on the patch reef. The 30 centimetre-long silver fish are buffalo bream, while the smaller fish with blue and yellow vertical stripes are sergeant major. With their horizontal black and yellow stripes, the well-named stripeys often add considerable colour to the reef. Turban shells are also plentiful on the patch reef.

Dive Trail Marker Locations

	Latitude	Longitude
1.	28° 25.809' S	113° 44.404' E
2.	28° 25.779' S	113° 44.392' E
3.	28° 25.756' S	113° 44.403' E
4.	28° 25.739' S	113° 44.418' E
5.	28° 25.724' S	113° 44.425' E
6.	28° 25.713' S	113° 44.432' E
7.	28° 25.694' S	113° 44.448' E
8.	28° 25.682' S	113° 44.434' E
9.	28° 25.659' S	113° 44.427' E
10.	28° 25.646' S	113° 44.431' E



Anemone Lump Dive Trail

Located in the Easter Group of islands, Anemone Lump, rising almost vertically from 38 metres, is one of the premier dive sites in the Abrolhos Islands. The dive trail is on the top of the lump, where the shallowest depths are three to five metres, but much of the lump is deeper.

The sides of the lump are virtually walls of anemones. In some places they can be found on the top of the lump.

Look down the slopes at the anemones and the brightly-coloured anemonefish darting among the stinging tentacles. The anemonefish are totally unaffected by the tentacles, but a predator following them would be stung.

In the depths, tiger sharks can often be found patrolling the lump.

A wide variety of fish can be seen on the lump. Thousands of silvery minnow shimmer above the reef. Nearer the bottom, coral trout, baldchin groper, snappers, sergeant major and butterflyfishes are among the constantly-changing fish species that pass by.

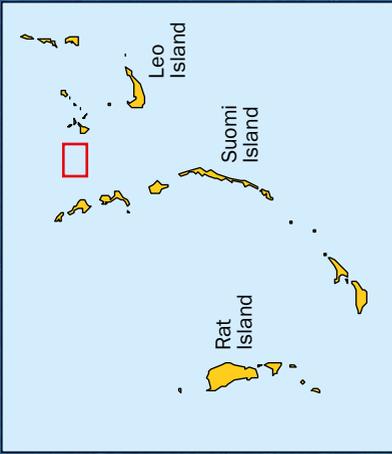
Large plate coral completely cover the bottom in some areas; some are white. If you look closely, they may have been eaten by *Drupella* snails. Look under the plate corals for the protruding antennae of rock lobster.

In some areas the bottom is littered with dead corals, with some algae growing. Turban shells may be found on the surface. Many species of shellfish, crabs and worms hide under the dead coral plates.

Caution should be taken when entering the water at this dive site. Due to its location, regular strong current movement can be experienced. It is recommended that a line be tethered from the rear of your vessel for dive safety.

Dive Trail Marker Locations

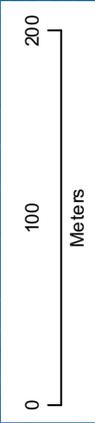
	Latitude	Longitude
1.	28° 40.426' S	113° 50.592' E
2.	28° 40.387' S	113° 50.626' E
3.	28° 40.380' S	113° 50.599' E
4.	28° 40.270' S	113° 50.539' E
5.	28° 40.262' S	113° 50.590' E
6.	28° 40.269' S	113° 50.600' E
7.	28° 40.267' S	113° 50.643' E
8.	28° 40.294' S	113° 50.649' E
9.	28° 40.348' S	113° 50.634' E
10.	28° 40.328' S	113° 50.640' E



Eastern Passage

- Anemone Lump Dive Trail
- Dive Trail Marker
- Public Mooring

Williams Anchorage



Coral Patches Dive Trail

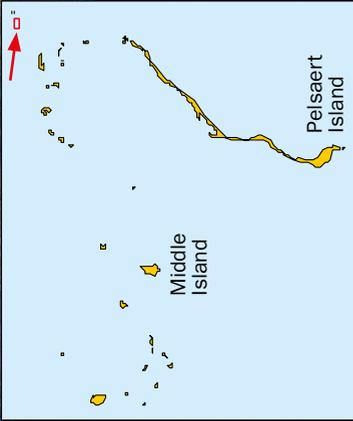
Coral Patches Dive Trail runs along the western margin of a fringing reef in the Southern Group of the Abrolhos Islands, at a depth of two to five metres. On your right, the top of the reef has spectacular growths of very fragile finger coral with brightly-coloured tips. In some places, the living coral has entrapped pieces of the large alga *Ecklonia radiata*, while in others dead coral rubble has smaller algae growing attached to its surface.

On the left, the reef slopes steeply to depths of 14 to 17 metres. In some areas, finger corals are abundant; in others, extensive plate corals dominate the scenery.

Look under the plate corals for the protruding antennae of rock lobster or perhaps a cuttlefish hiding there. Schools of squid can often be seen swimming above the reef.

Fish are abundant in the shallows just above the reef, including sergeant major, colourful wrasses and buffalo bream. Other fish may include baldchin groper, parrotfish and coral trout. Look for larger fish swimming near the bottom.

Dive Trail Marker Locations		
	Latitude	Longitude
1.	28° 51.198' S	114° 00.671' E
2.	28° 51.237' S	114° 00.700' E
3.	28° 51.216' S	114° 00.681' E
4.	28° 51.208' S	114° 00.685' E
5.	28° 51.192' S	114° 00.701' E
6.	28° 51.183' S	114° 00.719' E
7.	28° 51.152' S	114° 00.742' E
8.	28° 51.150' S	114° 00.758' E
9.	28° 51.230' S	114° 00.796' E
10.	28° 51.254' S	114° 00.785' E



-  Coral Patches Dive Trail
-  Dive Trail Marker
-  Public Mooring



Morley Island Dive Trail

Morley Island Dive Trail extends north-west along the margin of the fringing reef north of Morley Island, in the Easter Group of the Abrolhos. The water on your left is very shallow, and the trail itself is only two to five metres underwater, but on the right the reef drops rapidly away to about 25 metres in depth.

At the beginning of the trail are large patches of very fragile finger coral with brightly-coloured tips. The coral is mixed in with areas of shallow sand. If you swim early in the morning, you may see the trails of snails that crawled over the surface of the sand during the night. The sand is also home to small worms and other animals.

Further along the trail, the entire sea bottom is completely covered with finger corals. There are also low cliffs, with corals along the sides. Schools of minnow shimmer above the corals, but dissipate as you approach. The occasional small baldchin groper can be seen darting off in the distance. Sergeant major, with their yellow and blue vertical stripes, and brightly-coloured wrasses patrol just above the corals.

Dive Trail Marker Locations

	Latitude	Longitude
1.	28° 44.527' S	113° 48.645' E
2.	28° 44.556' S	113° 48.680' E
3.	28° 44.576' S	113° 48.708' E
4.	28° 44.607' S	113° 48.732' E
5.	28° 44.636' S	113° 48.758' E



Rootail Coral Dive Trail

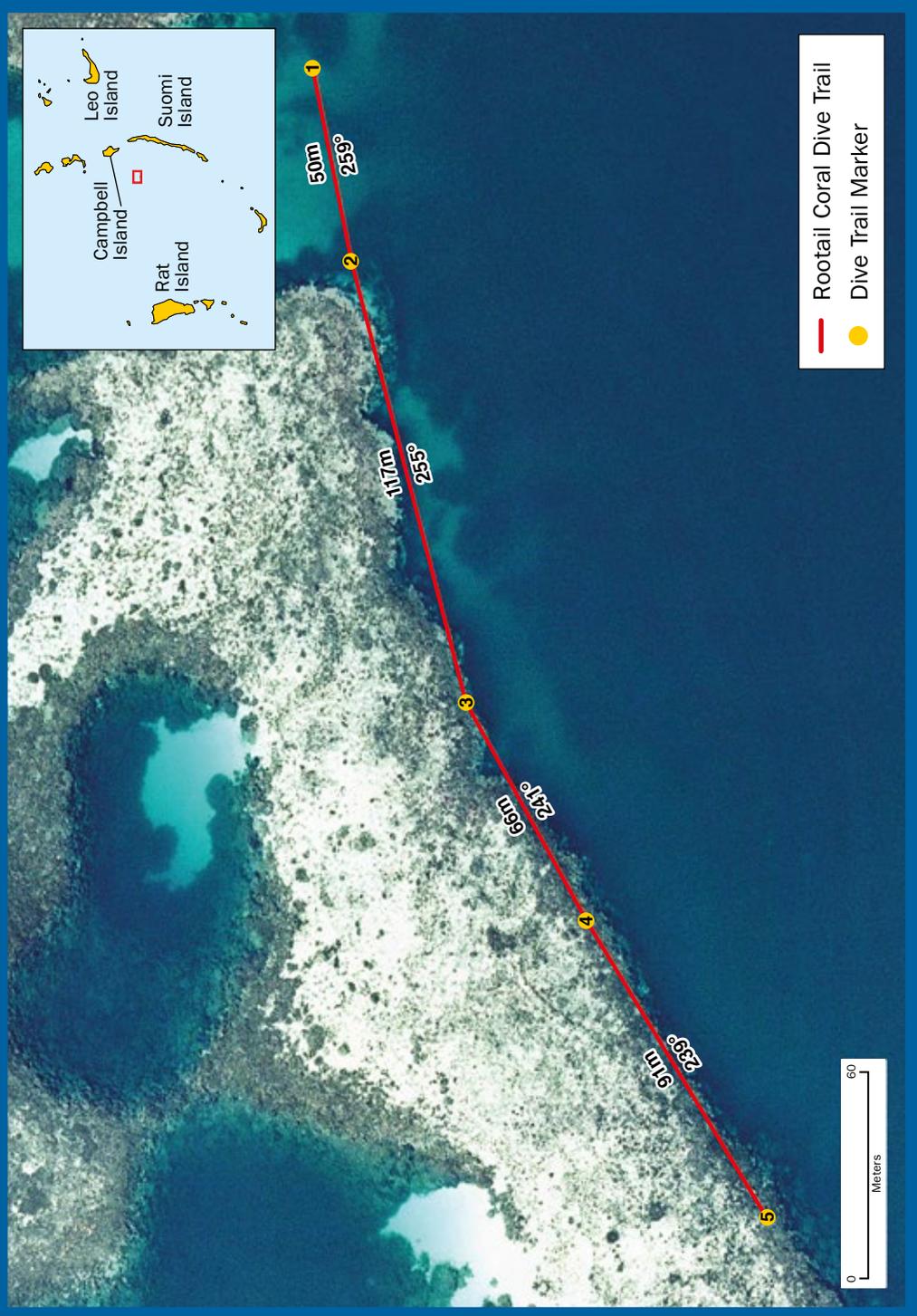
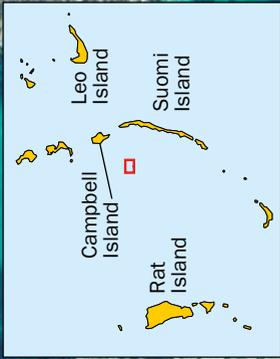
The Rootail Coral Dive Trail extends westerly along the southern margin of the fringing reef lying south of the Eagle Nest Passage across from Suomi Island to Rat Island. The water on your right is very shallow and the trail itself is only two to seven metres deep, but on the left the reef drops rapidly away to about 15 metres.

At the beginning of the trail is a large coral pinnacle of very fragile finger and plate coral with white growth tips. Coral is mixed with areas of sandy bottom, while the pinnacle is inhabited by large schools of racoon butterflyfish (*Chaetodon lunila*).

Further along the trail, the entire sea bottom is completely covered with a mixture of staghorn and plate corals. Colonies of clown fish can be found along the reef drop-off. The occasional small baldchin groper can be seen darting off in the distance. Moorish idol (*Zanclus cornutus*), with their long white pectoral fins, patrol just above the corals and into crevices.

Dive Trail Marker Locations

	Latitude	Longitude
1.	28° 42.201' S	113° 49.776' E
2.	28° 42.207' S	113° 49.746' E
3.	28° 42.225' S	113° 49.677' E
4.	28° 42.244' S	113° 49.643' E
5.	28° 42.272' S	113° 49.597' E



- Rootail Coral Dive Trail
- Dive Trail Marker

DIVE WITHOUT DAMAGE – ENJOY THE LIFE OF THE REEF

- Observe the reefs without impact. Do not rest or stand on corals and fragile marine life.
- Control your buoyancy to prevent contact and damage to corals and marine life.
- Be aware of your fins to prevent careless kicks from breaking corals and stirring-up sediment.
- Secure loose dive equipment to prevent this from dragging across corals.
- Leave shells, reef fish and animals as they are. Learn as much as possible about the underwater environment so that you can better appreciate it.

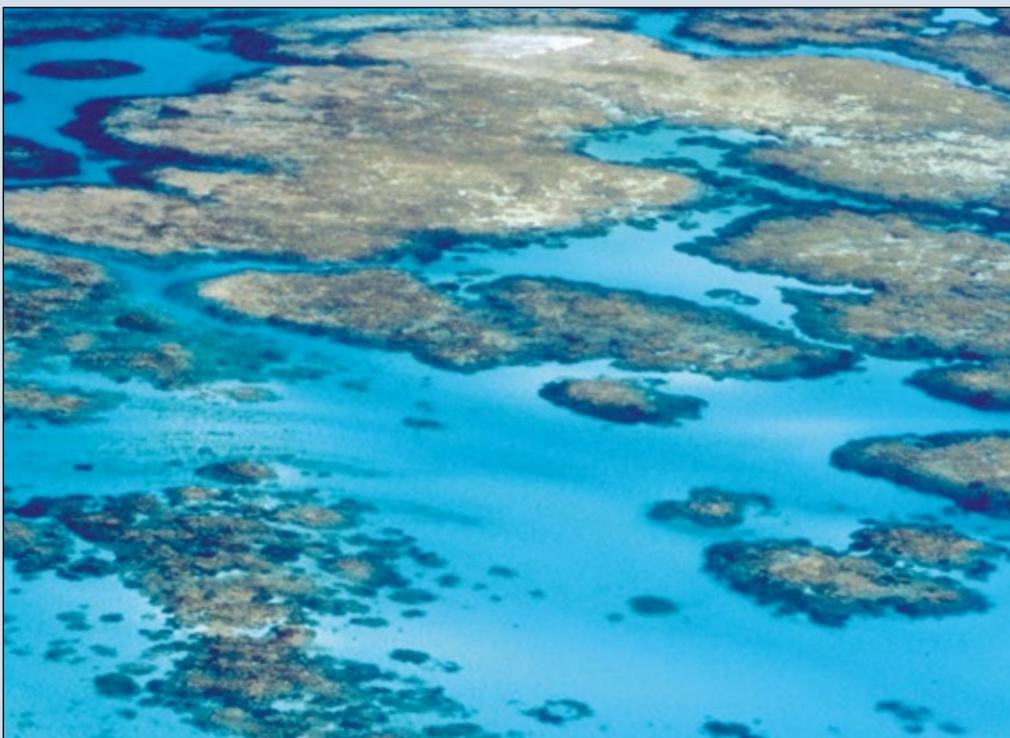
CODE OF SAFETY

Take care – Enjoy your dive, but please take care. Your safety is our concern but your responsibility.

Be aware – Sharks live in the waters around the Abrolhos. Be aware of currents, tides and weather before you dive.

Be safe – Always fly the dive flag when diving or snorkelling.





Reef and sandy beach on Pelsaert Island.

FURTHER INFORMATION

Visit the Department of Fisheries website at www.fish.wa.gov.au or contact:

**DEPARTMENT OF FISHERIES –
MIDWEST REGIONAL AND
GERALDTON DISTRICT OFFICE**

69-75 Connell Road,
Geraldton WA 6530
Ph: (08) 9921 6800

**DEPARTMENT OF TRANSPORT –
MARINE SECTION**

1 Essex Street,
Fremantle WA 6160
Ph: (08) 9216 8999

**DEPARTMENT OF PARKS
AND WILDLIFE – MIDWEST
REGIONAL OFFICE**

1st Floor, The Foreshore Centre
201 Foreshore Drive,
Geraldton WA 6531
Ph: (08) 9921 5955

**BUREAU OF METEOROLOGY –
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**WESTERN AUSTRALIAN
MUSEUM – GERALDTON**

1 Museum Place,
Batavia Close Marina
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