

6.5 Marine Habitats

Main Objectives & Key Actions:

- 1) **Maintain, improve and expand priority marine habitats and species.**
 - Halt any decline in seagrass populations resulting from human impacts by 2008.
 - Maintain the extent and quality of Honeycomb reefs by 2012.
- 2) **Increase research and monitoring of distribution, ecology and threats to marine habitats and species.**
 - Establish a monitoring programme for seagrass beds by 2008 and Honeycomb reefs by 2012.
- 3) **Create zones to protect sensitive habitats and species from disturbance and seek further protection.**
 - Restrict damaging fishing and boating activities over known seagrass beds by 2008.
 - Establish a voluntary code of conduct for the Bay by 2008.
- 4) **Ensure EIAs are carried out before marine/coastal development and are taken into account in planning applications.**
 - Ongoing.
- 5) **Establish partnerships to integrate effort and deliver actions.**
- 6) **Increase awareness of marine wildlife and associated threats.**
 - Set up an awareness campaign for seagrass by 2008 and Honeycomb reefs by 2009.

6.5.1 Background & Current Status

This habitat action plan will focus on seagrass beds, marine caves and sublittoral and littoral rock and sediment habitats. The marine wildlife in Torbay has been described as the jewel in South Devon's crown and for a more in depth description please refer to the Torbay Marine Biodiversity Action Plan.

Torbay, from high-water mark out to the boundary of the Harbour limit, is one of 28 Sensitive Marine Areas in England. Approximately 70% of the coastline adjoining the sea is designated as a protected wildlife site (these include the National Nature Reserve and Special Area of Conservation at Berry Head to Sharkham Point, 6 coastal Sites of Special Scientific Interest, several County Wildlife Sites and, at Saltern Cove, an underwater Local Nature Reserve).

Littoral Rock and Sediment (including Honeycomb Worm reefs)

The inter-tidal zone is rich with life including reefs of the UK HAP species honeycomb worm, *Sabellaria alveolata* and *Sabellaria spinulosa*. Honeycomb worm reefs have been included within the Intertidal Habitat Action Plan, however at a later stage they may warrant their own action plan due to their UK BAP status. The intertidal areas in Torbay are generally of a high quality in regional terms and are subject to above average pressures. Some of Torbay's rocky

foreshore is protected by site designation (e.g. Saltern Cove SSSI and LNR; Meadfoot Beach SSSI).

Inshore Sublittoral Rock and Sediment

The majority of the Bay consists of soft muddy areas with rocky outcrops. The muddier areas hold moderately rich communities characterised by the heart urchin and brittlestars, whilst the cleaner sands closer inshore hold dense populations of the razor shell, heart urchins and eelgrass. The most striking communities are on the limestone rock particularly from Sharkham Point to Churston Cove and Princess Pier to Petit Tor Point and have communities of sea squirts, piddocks, anemones and sponges. Species to highlight include burrowing anemones (*Cerianthus lloydii*, *Peachia cylindrical*, *Edwardsia claparedii*), starfish (*Astropecten irregularis*, *Ophiura ophiura*, *Amphiura brachiata*) heart urchins (*Echinocardium cordatum*), sea cucumber (*Labidoplax digitata*), rare cup corals (*Caryophyllia inornata*, *Hoplangia durotrix*) and the pink sea fingers (*Alyconium hibernicum*).

Seagrass beds (*Zostera* sp)

Seagrasses are the only flowering plants able to grow fully submerged in British seas. They occur on sheltered intertidal and shallow subtidal sands and muds where they can produce extensive beds. Within Torbay there are five major *Zostera* bed systems (pers comm. Flint, 2007; Proctor, 1999), the most extensive being that from Torre Abby Sands to beyond Livermead Head and the large bed at Elberry Cove. In addition there are numerous small beds and *Zostera* patches dotted around the Bay and north of Hopes Nose (Proctor, 1999; Black & Kochanowska, 2004). All of Torbay's seagrass beds are subtidal and grow from the low water mark to five meters below chart datum (pers comm. Flint, 2007). They are comprised of the species *Zostera marina*, although *Zostera marina* var. *angustifolia* has been reported. The beds support extensive and varied assemblages of species and function as breeding and nursery grounds for many commercially fished species. Seagrass beds are of national and international importance and are listed as a UK Priority Biodiversity Habitat.

Marine Caves

Marine cave faunas in Torbay are exceptionally diverse and certainly of national importance. Berry Head has a unique and extensive solutional limestone cave system that extends well beyond daylight and the influence of wave action. Brackish lagoons, muddy tidal pools and surge gullies create a diverse range of habitats and although investigations are in their early days the marine life identified so far has been outstanding. Caves that have been noted for their rare species so far are: Garfish Cave, Berry Head; Corbridge Cave, Berry Head; Berry Head Quarry, Hope's Nose, Petit Tor and Anemone Cave at Shag Cliff. Species identified so far include the carpet coral (*Hoplangia durotrix*), pink sea fingers (*Alyconium hibernicum*), devonshire cup coral (*Caryophyllia smithii*), sponge (*Dercitus bucklandi*), anthozoans (*Edwardsiella carnea* and *Epizoanthus*

couchi), burrowing anemones (*Cerianthus lloydii* and *Edwardsia claparedii*) and the squat lobster (*Galathea nexa*) (pers comm. Proctor, 2006).

Torbay's sheltered aspect, unusual geology and warm climate mean that underwater, just as on land, the area is host to an exceptionally diverse range of habitats and species.

6.5.2 The Current Problems/Threats to these Habitats:

Littoral Rock and Sediment (including Honeycomb worm reefs)

- The use of bleach on tourism beach steps, harbours and yacht clubs.
- Litter – associated with beach users, boat users, lack of bins.
- Lack of monitoring of clearance of seaweeds from tourist beaches – important habitat and potential damage to benthic fauna.
- Hand gathering of mussels/winkles – disrupt natural balance of rocky shore as key species.
- Cumulative recreation – trampling on fragile habitats such as honeycomb worm reefs, disturbance from dogs.
- Development pressures (Beacon Cove, Brixham Harbour, Paignton Harbour).
- Lack of knowledge.
- Use of antifouling paints, detergents, sewage, waste oil and fuel – high levels in harbours and marinas.
- Angling weights, hooks and lines especially around angling hotspots such as Babbacombe.
- Alien species – introduced species from abroad that are now interfering with the natural ecosystem e.g. Sargassum.
- Trampling especially over honeycomb worm reefs.

Sublittoral Rock and Sediment

- Unsustainable fishing practices.
- Collection of cuttlefish – cuttlefish eggs left in pots often out of water.
- Trawling – particularly over areas of seagrass beds
- Occasional scalloping disturbing the seabed.
- Pollution from sewage and marine litter.
- Use of antifouling paints, detergents, sewage, waste oil and fuel – high levels in harbours and marinas.
- Construction of sea defences and pipe and cable laying.
- Fishing line and tackle
- Recreational Pressures – propeller damage, oil pollution
- Alien species – introduced species from abroad that are now interfering with the natural ecosystem e.g. Sargassum.

Seagrass

- Physical disturbance by trampling, dredging, mooring/anchor drag and use of mobile bottom fishing gear, land claim and adjacent coastal development through the construction of sea defences and potential for changes in the hydrological regime.
- Lack of awareness of significance of eelgrass as a habitat.
- Lack of up to date surveys – last one completed in 1997/98
- Pollution – eelgrass is known to accumulate metals and organic pollutants.

Marine Caves

- Lack of knowledge and awareness.
- Pollution – dumped waste, organic, litter, oil etc.
- Disturbance – trampling by visitors damage, collecting.

Table 7: Marine Action Plan. Actions shaded in grey indicate further funding is required. **High priority actions** are proposed for completion within the next 3 years (to end of 2009). **Medium priority actions** are proposed for completion within the next 6 years (to end of 2012). **Low priority actions** are proposed for completion within the next 10 years (to end 2016)

Actions for Marine Priority Action Plan	Priority (High, Medium and Low)	Objective	Partners	Ongoing Action
LITTORAL ROCK & SEDIMENT				
Policy & Legislation				
M1 - Enforce winkle minimum landing size (MLS).	L	6	DSFC	✓
Site Management				
M2 - Establish core volunteers to warden rockpooling hotspots during Summer months and promote good rockpooling practice and the seashore code.	M	6	TCCT	
M3 - Improve litter disposal sites at Harbour and promote awareness of problems associated with marine litter.	M	1,6	TC, Harbour Authority, TCCT, Living Coasts	✓
M4 - Work with dive clubs to establish a group of volunteer divers to conduct underwater litter picks in key areas e.g. fishing line.	H	1,2,6	TCCT, Dive clubs, SHT	
Communication & Publicity				
M5 - Increase awareness of	L	6	TCCT, TC,	✓

impacts of winkle collecting among collectors and improve communication between TCCT, TC (beach managers) and DSFC so that collectors can be reported.			DSFC	
M6 - Raise awareness of the problems for marine biodiversity with the use of chemical cleaners for boats and hard substrate.	H	6	TCCT, TC, NE Harbour Authority	✓
M7 – TCCT Seashore Centre to continue to expand and develop marine education work through events programme and work with schools.	H	6	TCCT	✓
M8 - Increase awareness with anglers and at angling clubs about the impact discarded fishing line and tackle has on marine life e.g. fishing magazines.	H	6	TCCT, TC, Anglers	
Advisory				
M9 - Advise Harbour authority on environmental good practices in Harbours e.g. litter disposal and anti-fouling paints.	H	6	NE	
M10 - Advise the Harbour authority, Yacht clubs and Torbay Council in the use of more environmentally friendly cleaning products.	M	6	TCCT, NE, Harbour Authority	✓
Research & Monitoring				
M10 - Develop co-ordinated surveying programme and input into Marine Recorder. Set up exchange agreements with DBRC.	M	2	TCCT, dive groups, NE, SHT	
M11 - Reappraisal of species in Torbay Marine BAP.	H	2	TCCT, NE	
M12 - Research into more environmentally friendly mechanisms to clean boats, steps etc for Torbay Council, Harbours and Yacht clubs.	M	5, 2	TC, TCCT, Harbour Authority and Yacht Clubs	
M13 - Identify 3-4 key areas where fishing line is a problem and promote angling good practice in these areas e.g. advise on seabed type.	M	2	TCCT, NE, Anglers	
SUBLITTORAL ROCK & SEDIMENT				

Policy & Legislation				
M14 - Investigate the implementation of a voluntary scheme implementing more sustainable fishing practices for cuttlefish e.g. problems associated with leaving pots out of the water with eggs in.	H	3	NE, SHT, DSFC	
Site Management				
M15 - Map out all legal discharge points in the Bay and improve litter disposal sites.	H	2	TC, SW Water, TCCT	
Communication & Publicity				
M16 - Publish and promote an integrated Code of Conduct for all users of the Bay.	H	6	TCCT	
M17 - Improve communications between Devon Sea Fisheries, TCCT and NE.	H	5	TCCT, NE, DSFC	✓
Advisory				
M18 - Advise sea front shops on the use of more environmentally friendly packaging and problems associated with plastics e.t.c.	L	6	TC	
Research & Monitoring				
M19 - Monitor trends in trawling in the Bay.	L	1, 2, 5	DSFC, NE	✓
M20 - Seek funding for MCS Seasearch surveys – knowledge currently very poor.	H	2,6	TCCT, MCS, Living Coasts	
M21 - Map out the areas in the Bay where scalloping occurs and flag up sensitive areas.	L	2	DSFC, TCCT, NE	✓
SEAGRASS BEDS				
Policy & Legislation				
M22 - Restrict mobile fishing gear within and around the seagrass beds where necessary.	H	1,3	DSFC, NE	
Site Management				
M23 – Investigate changes to zoning and launch arrangements for water-ski lanes in Elberry Cove and Livermead Sands.	M	1,3	TCCT Harbour Authority	
M24 – Investigate restricting anchorage within seagrass beds	M	1,3	TCCT Harbour	

			Authority	
Communication & Publicity				
M25 - Provide Devon Sea Fisheries and fishermen with information on what and where the seagrass is and why it is important to commercial fisheries.	H	5,6	TCCT, NE	
M26 - Inform boat operators of the effects of anchoring and propeller damage to seagrass beds. Provide information, code of conduct and advice on good practice.	H	3,6	TCCT, NE, Harbour Authority	
M27 – Produce information on the impacts of mobile fishing gear over seagrass beds and raise awareness with boat operators and Devon Sea Fisheries.	H	6	TCCT, NE	
M28 – Raise awareness with residents and visitors of the location, importance and vulnerability of the seagrass beds	M	6	TCCT, NE, Harbour Authority, Living Coasts	✓
Research & Monitoring				
M29 – Complete mapping audit of distribution and quality of seagrass beds in the Bay.	H	2	TCCT, NE,	
M30 – Put in place a three yearly research plan to monitor changes in seagrass beds area, health and human use.	H	2	TCCT, NE, SHT, Seasearch	✓ (3 yearly intervals)
MARINE CAVES				
M31 - Seek protection of sensitive species rich marine caves.	H	1	NE	
M32 - Increase the amount research and monitoring of Torbay's marine caves.	H	2	TCCT	
M33 - Work with volunteer divers and increase communication between conservation groups.	M		TCCT, dive clubs	

Abbreviations: Torbay Coast & Countryside (TCCT), Torbay Council (TC), Natural England (NE), Devon Sea Fisheries (DSFC), Seahorse Trust (SHT), Marine Conservation Society (MCS).