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## 10 Notes on Current Protection and Management within **Recommended Areas**

## 10.1 Nuyts Archipelago, St Francis Isles and Coastal Embayments (Murat Bioregion)

- A considerable number of coastal conservation parks in the region include intertidal components (Ashman, 1996). See also descriptions in Part 1 of this table, in section titled National and/or International Importance, for more information about the reasons for declaration, and features recognised under the Register of the National Estate.
- Isles of St. Francis Conservation Park: Covers 1,315 hectares (Australian Heritage Commission, undated) and includes islands such as Egg, Smooth, Freeling, Dog, St. Francis, Masillon, and Fenelon. The park was proclaimed to "conserve island populations" and habitat for threatened species" (Ashman, 1996). The boundary of the park extends to mean low water mark (DENR 1995, cited by Ashman, 1996).
- Nuyts Archipelago Conservation Park: The park covers 9881 hectares (NPWSA, 2002a) and comprises 22 islands and reefs, such as Purdie Islands, Lounds Island, Lacv Islands, Evans Island, Goat Island, St. Peters Island, Eyre Island and Franklin Islands. The park was proclaimed to "conserve the island biogeography, biodiversity and rare and endangered wildlife populations" (Ashman, 1996). The boundary of the park extends to mean low water mark. St Peter Island was held as a pastoral lease until 1987 when it was purchased by the National Parks and Wildlife Service and proclaimed a Conservation Park.
- **Eba Island Conservation Park**: Covers around 141ha (NPWSA, 2002a), and is situated in southern Streaky Bay. Proclaimed to protect breeding / roosting and feeding habitat for several seabird species.
- Pigface Island Conservation Park: Covers around 13ha (NPWSA, 2002a), and is situated in southern Streaky Bay. Proclaimed to protect breeding areas for cormorants and gulls, and roosting and feeding habitats for other seabirds (Australian Heritage Commission, undated).
- Acraman Creek Conservation Park: The park was proclaimed in 1991 and covers 3999 ha (NPWSA, 2002a). It was proclaimed to "conserve a mangrove estuarine system and associated samphire (and saltmarsh) community" (Ashman, 1996).
- Laura Bay Conservation Park: Covers 275 hectares (NPWSA, 2002a) and was proclaimed to "conserve remnant mallee vegetation and coastal associations" (Ashman. 1996) The coastal mallee in the area previously covered a much larger portion of northern Eyre Peninsula. Laura Bay Conservation Park also serves to formally protect the mangrove habitat in that area. The park was described by the Australian Heritage Commission (undated) as being "generally in a disturbed natural condition, with some mangroves (that are) relatively undisturbed".
- Wittelbee Conservation Park: Covers 155 hectares (NPWSA, 2002a) and was proclaimed to "conserve a sheltered coastal environment including mallee and dune associations". The boundary of the park extends to mean low water mark (DENR 1995. cited by Ashman, 1996).

- According to Morelli and de Jong (1995), a coastal reserve exists around "most of the perimeter" of Tourville Bay, and a "small section" of Davenport Creek is classified as a "Water Reserve".
- During the late 1990s, the Coastal Management Branch of DEH assessed 7 parcels of coastal land in S.A. that had been nominated for protection, by various agencies. The Gibson Peninsula was one of these areas, nominated as a Coastal Reserve, for "coastal dune and mangrove protection, and recreational rationalisation" (Coastal Protection Board 1998).
- **Netting Closures:** Denial and Smoky Bays: all waters east of a line from Point Brown to Point James. Streaky Bay: all waters east of a line from Point de Mole to Cape Bauer.

## 10.2 Baird Bay to Cape Bauer (including nearshore islands) (Murat/Eyre Bioregions Boundary)

- The **Point Labatt Aquatic Reserve** was designated in 1986 under the *Fisheries Act 1982*, for the protection of the small mainland breeding colony of the Australian sea lion, and no access is permitted into the reserve area, within 1 nautical mile (PIRSA 1999a).
- All waters of **Baird Bay** are closed to netting, landward of a line between the two most seaward headland points on the east and west of the Bay entrance (PIRSA, 1999a).
- Baird Bay Islands Conservation Park, 24ha (NPWSA, 2002a), is managed by DEH.
- Point Labatt Conservation Park, 34 ha (NPWSA, 2002a), is managed by DEH, and adjoins the Point Labatt Aquatic Reserve.
- Management plans have previously been prepared by government (DEH, formerly DELM and DEP), for Baird Bay (Bond, 1988), and Point Labatt Conservation Park (DELM, 1993).
- At the time of writing, a **Conservation Park** was in the process of being established, that includes both coast and waters in the vicinity of **Nicholas Baudin Island**, the newly named granite outcrop off Cape Blanche.
- Sceale Bay Conservation Reserve: is a coastal reserve of 525ha (NPWSA, 2002a), on the northern side of Sceale Bay, near Yanerbie.
- Olive Island Conservation Park: 21ha (NPWSA, 2002a), Olive Island is approximately 8km seaward of Cape Bauer, and was proclaimed to "protect habitat for sea birds" (Ashman, 1996), such as the "large" cormorant rookery and habitat for "numerous" other seabird species (Australian Heritage Commission, undated). Also supports a breeding colony of Australian sea lions, which was the other major feature regarding declaration.

## 10.3 Venus Bay and Surrounds (Eyre Bioregion)

Waters of the eastern side of **Venus Bay** are closed to netting (i.e. waters situated east of a straight line extending southerly across Venus Bay from the most westerly corner of Section 72 of Hundred of Wright, to the trigonometrical station on Point Weyland (PIRSA 1999a).

- Venus Bay Conservation Park (1460 ha, according to NPWSA, 2002a), was established in 1976, due to its significance as a breeding and nesting area for several coastal and sea bird species. The park includes the western peninsula (e.g. Point Weyland area), the large internal Germein Island, and smaller internal islands Garden Island, Tank Island, and Islands A, B, and C. Venus Bay Conservation Park is on the Register of the National Estate (see Part 1 of this table). A management plan (NPWSA, 1999) has been prepared for Venus Bay Conservation Park.
- Venus Bay Conservation Reserve (3362 ha, according to NPWSA, 2002a) is situated on the north-western side of Venus Bay, and abuts the estuarine area, according to the S.A. Coast and Marine Atlas (2001).
- Lake Newland Conservation Park (8922ha, according to NPWSA, 2002a) was established following long-term campaigning by the Nature Conservation Society, in light of the outstanding environmental values of the area, that were recognised by survey work during the preceding decade (see DEH, 2001a). For example, Lake Newland wetlands have long been considered by wetland assessors to have exceptional conservation value (Lloyd and Balla, 1986; and see management plan for the area by DEH, 2001) by virtue of the high diversity of flora and the fauna in the area's saline ecosystem. In addition, the area has remained relatively free from the major impacts of land use and from resource use activities such as fishing. It shares the distinction, along with Big Swamp between Port Lincoln and Coffin Bay, of being one of the most important wetlands on Eyre Peninsula for its conservation value (DEH, 2001a). Buckley and Fotheringham, in a survey of the Eyre Peninsula coast for the Coastal Protection Board in 1987, also identified the Lake **Newland** region as a priority area for conservation management. The reasons given were "because of its size, diversity of landform, inaccessibility, and ability to complement Talia Caves on northern boundary and Walkers Rock on southern boundary." Following the proclamation of the Lake Newland Conservation Park, a further 406 ha, Allotment 10 of Deposited Plan 40280, Hundred of Colton, along the southern edge of the park adjacent to Walkers Rock, was proclaimed in 1996 to extend the wildlife habitat, to rationalise the reserve boundary and to assist with the management of public access to Walkers Rock (DEH, 2001a).
- Lake Newland Conservation Reserve (82.5ha).
- There is a 1km marine "buffer" around the coast and islands of the **Venus Bay** Conservation Park (S.A. Coast and Marine Atlas, 2001), but this is not currently recognised or managed as a marine protected area.

# 10.4 Investigator Group of Islands (Eyre Bioregion)

- The Investigator Group Conservation Park excludes **Flinders Island**, and, prior to 2002. also excluded Pearson Island. Flinders Islands is held as a pastoral lease. Pearson Island was previously managed as a Lighthouse Reserve, by the Commonwealth government (Edyvane, 1999b), but was added to the Investigator Group Conservation Park in 2002 (Office of Hon. J. Hill, Media Release, September, 2002). The area of the Conservation Park is now around 370 ha (NPWSA, 2002a), and includes the **Topgallant** Islands, Ward Islands, Pearson Islands, Veteran Isles, and Dorothee Island.
- Waldegrave Islands (and nearby West Island and "The Watchers") constitute the Waldegrave Islands Conservation Park (434ha, according to NPWSA, 2002a).

There is a 1km marine "buffer" around islands in the conservation parks, however these buffers do not currently function as marine protected areas, because no activities are currently prohibited in the areas. However, the conservation value of the Investigator Group has been recognised in PIRSA's exclusion zone from aquaculture leases, for most of the islands in the group (S.A. Coast and Marine Atlas, 2001).

#### 10.5 Thorny Passage (Eyre Bioregion)

- There are 1km marine extensions around Lincoln National Park, and its islands (Williams, Albatross, Smith, Hopkins, Lewis, Little Islet, Owen, and the small islet south of Taylor Island, an unnamed islet that is designated as a Conservation Reserve). However, these existing 1km marine extensions do not function as marine protected areas, because all marine uses and activities, other than aquaculture development, are permitted within the 1km boundary zones.
- The Memory Cove Wilderness Area was declared in 2003 (Environment Minister's Media Release, February, 2003). The original proposal also included the six islands in Thorny Passage, and the surrounding waters (B. Moore, NPWSA, pers. comm., 2000), however the 2003 declaration included only the mainland area in the vicinity of **Memory** Cove, now protected under the Wilderness Protection Act 1992.

## 10.6 Sir Joseph Banks Group and Dangerous Reef (including Tumby Bay) (Eyre Bioregion)

- Tumby Island Conservation Park (35 ha, according to NPWSA, 2002a), 5km south-east of Tumby township, about 600m offshore, is managed by DEH.
- **Lipson Island Conservation Park** is a small island park about 500m offshore from the coast at Lipson Cove.
- The Sir Joseph Banks Group Conservation Park (47,528 ha, including the "buffer" zone, according to NPWSA, 2002a) was declared primarily for the conservation of Cape Barren geese (which had suffered severe population declines during the middle of last century, from hunting), and to protect marine mammal habitat (Australian Heritage Commission, undated; Robinson et al., 1996; PISA Fisheries – Aquaculture Group, 1996). The Conservation Park includes 18 islands, but excludes Seal Rock, Linklater Point, Spilsby Island, the lighthouse on Winceby Island, and the navigation aid stations on Dangerous Reef and other reefs (PISA Fisheries – Aquaculture Group, 1996). The largest islands in the conservation park are Reevesby, Roxby, Stickney and Hareby (Australian Heritage Commission, undated). Spilsby Island is privately owned.
- To minimise disturbance to breeding colonies of sea lions and cormorants, public access is restricted from English Island, Winceby Island, Dangerous Reef, Buffalo Rock, Seal Rock and Smith Rock (SANPWS 1990, cited by Edyvane, 1999b; Robinson et al., 1996; PISA Fisheries – Aquaculture Group, 1996).

- There is a 2NM seaward "buffer" designated by DEH around the Sir Joseph Banks Group. There is also a smaller seaward "buffer" around Dangerous Reef, designated by NPWSA in 1989, mainly to control shark viewing activities around the reef. Both buffers have been declared under the National Parks and Wildlife Act 1972. However, these marine extensions do not function as marine protected areas, because apart from restrictions to aquaculture development within NPSWA buffer zones, and limitations and regulations for shark cage viewing and berleying activities that apply around Dangerous Reef, all other marine uses and activities are apparently permitted within the NPWSA boundary zones.
- Net fishing is prohibited in the **Tumby Bay / Tumby Island** area described as follows (PIRSA 1999a): "All waters within a line drawn from a point on the mainland adjacent to Tumby Island, to the southern tip of Tumby Island, then following the high water mark on the eastern coast to a point on the north eastern side, to a point on the mainland 2.5km north of the jetty; also all waters within a 500m radius of the mouth of Second Creek, south of Tumby Bay".

#### 10.7 Neptune Islands Group (Eyre Bioregion)

- The Neptune Islands Conservation Park includes all the islands in the North and South **Neptunes** to low water mark, with the exception of the southern-most island of the **South Neptunes**. The park was proclaimed in 1967 mainly to conserve the New Zealand Fur Seal breeding colony on the southern island of the **North Neptunes**, which is one of the largest in Australia. Other features that contributed to the declaration include the small breeding population of Australian Sea Lions on the **North Neptune Islands**; Australian Sea Lion haul out areas located on the **South Neptune Islands**; the heritage buildings; and breeding / nesting populations of Cape Barren Goose, White-Bellied Sea Eagle, Osprey and Peregrine Falcons (DENR, 1995, cited by PISA-Fisheries Aquaculture Group, 1996).
- There is a 2 nautical mile marine extension of the **Neptune Islands Conservation Park** (SA Coast and Marine Atlas 2003). This marine extension was declared under the National Parks and Wildlife Act 1972, to regulate and manage shark berleying activities around the **Neptune Islands**. NPWSA has a set of conditions under which tourism operators who berley for sharks must operate. Other than shark berleying regulations, there are no restricted activities and all other marine uses and activities are permitted within the boundaries of the marine extension of the conservation park.

# 10.8 Gambier Islands Group (Eyre Bioregion)

The Gambier Islands Conservation Park (72ha, NPWSA, 2002a) comprises North Island and two Islets (South West Rocks and Peak Rocks), and extends to low water mark around these islands. The park was proclaimed in 1967 to conserve island wildlife habitat and natural features (DENR, 1995, cited by PISA Fisheries - Aquaculture Group, 1996). Such features include breeding and haul out areas for Australian Sea Lions and breeding habitats for Little Penguins and Crested Terns (DENR, 1995, cited by PISA Fisheries - Aquaculture Group, 1996).

- The marine extension currently mapped (in the SA Coast and Marine Atlas, 2001) around the terrestrial Conservation Park is 1km around North Islet, South-west Rock and Peaked Rocks, although this is currently not designated or managed for any specific marine conservation purpose. There is currently no marine extension around Wedge Island, which does not form part of the terrestrial Conservation Park.
- There is a netting closure between Wedge Island and North Islet: waters contained within two lines, from the westernmost point of both islands, to the easternmost points of both islands (PIRSA, 1999a).

## 10.9 Franklin Harbor and Surrounding Waters (Spencer Gulf/North Spencer Gulf Bioregions Boundary)

- Franklin Harbour Conservation Park (managed by DEH) comprises the long narrow sandy peninsula, and four islands inside the bay (total 1334 ha), and was proclaimed in 1976 to conserve coastal and mangrove habitats. Features of significance in the designation of the park include the mangroves, which provide a sheltered fish nursery area, and are considered to be an important habitat for numerous wader and fish-eating bird species (DENR, 1995, cited by Aquaculture Group - PISA Fisheries, 1996). According to Smallridge (1995), the ecological importance of the mangrove and samphire communities at Franklin Harbour was recognised by the proclamation of the Franklin Harbour Conservation Park, and it is "a significant coastal park, and includes Aboriginal fish traps and islands".
- **Netting closure**: All waters inside **Franklin Harbour**, situated north-west of (i.e. enclosed by) a line from Victoria Point to Germein Point (PIRSA, 1999a).
- There is an area of permanent closure to prawn fishing in the shallow coastal waters south of Cowell, which aims to protect small prawns that occur there, and juvenile fish (Aquaculture Group - PISA Fisheries, 1996).
- There is a one kilometre seaward "buffer" around the **Franklin Harbour Conservation** Park. However, all marine uses and activities are permitted within the boundary zone, apart from PIRSA's chosen restriction of aquaculture development in that area due to its conservation value (Aquaculture Group - PISA Fisheries, 1996).

# 10.10 Upper Spencer Gulf (North Spencer Gulf Bioregion)

Blanche Harbour - Douglas Bank Aquatic Reserve (3160ha) and Yatala Harbour Aquatic Reserve (1426 ha) are both within the vicinity of the area described in this table. Both were established during the early 1980s, to protect samphire flats (mainly at Yatala Harbour), intertidal mangroves, intertidal sand and mudflats, and shallow subtidal seagrass and sandy / shelly channel habitats, and the associated fish nursery function of these areas, for commercial species such as King George Whiting, yellow-fin whiting, western king prawn and blue swimmer crab. Boating and public access are permitted in the reserves. Hand-spearing of fish is permitted in the Blanche Harbour - Douglas Bank Aguatic Reserve (PIRSA, 1999a), but the removal or deposit of any organism or material is prohibited in Yatala Harbour Aquatic Reserve (Ivanovici, 1984; Neverauskas and Edyvane, 1993; PIRSA, 1999a).

- Whyalla-Cowleds Landing (3230 ha) Aquatic Reserve was established in 1980 to protect fish stocks and fish nursery areas, including a number of commercially important species (Ivanovici 1984; S.A. Department of Fisheries, 1993). Within this Aquatic Reserve, the taking of fish is prohibited, except for crabbing adjacent to Eight Mile Creek.
- Winninowie Conservation Park (7,897 ha): The conservation values of this area were highlighted by major studies during the 1970s and 1980's, following a proposal to build a petrochemical plant at **Redcliff**. During the early 1980's, interest was expressed in having the area dedicated as a reserve under the National Parks and Wildlife Act 1972 and active management of the site began in December 1985, including road-works and shack removal (Reilly, 1991, cited by DEH, 2000a). Redcliff Point, Yatala Harbour and Chinaman Creek are a part of Winninowie Conservation Park. The reserve adjoins 28km of coastline, including most of the Yatala Harbour Aquatic Reserve. The inter-tidal zone of the Yatala Harbour Aquatic Reserve is an area of joint jurisdiction between Primary Industries and Resources South Australia (PIRSA), and the Department for Environment and Heritage (DEH). The Blanche Harbour Aquatic Reserve extends from the West coast of Spencer Gulf to within two kilometres of Redcliff Point. According to DEH (2000a), the Winninowie Conservation Park conserves ecosystems and wildlife species of State and National significance, and also has high value to the regional community with many residents having a strong sense of local "ownership" and affiliations with the reserve. The site was declared in 1990, and initially comprised 4,318 ha. The reserve area was subsequently increased further to its present 7.897 hectares when the reserve's western boundary was extended from high water mark to low water mark. The park was declared to conserve examples of several coastal and marine systems, some with sub-tropical affinities. The park includes significant stands of the grey mangrove Avicennia marina, as well as samphire salt marsh and seagrass communities, and over 60 kilometres of tidal creeks. The park's large tidal range and extremes of water temperature make this area unique in southern Australia (DEH, 2000a). Much of the area is periodically subject to inundation by sea-water, particularly during very high tides.
- Jarrold Point is a Sanctuary, on private land (Harbison, 1993; Morelli and de Jong, 1995).
- According to DEH (2000a), legislated conservation measures by NPWSA and PIRSA (principally the existence of Winninowie Conservation Park, and Blanche Harbour, Yatala Harbour and Whyalla – Cowleds Landing Aquatic Reserves) together conserve nearly 15% of the coastline and 2.8% of the Northern Spencer Gulf Bioregion (see IMCRA Technical Group 1998 for description and spatial extent of the Bioregion).
- **Netting Closures**: Area closed to netting include: (i) All waters of far northern Spencer Gulf (to Port Augusta), north of a line running east-west through the Douglas Bank beacon; (ii) All waters of Germein Bay (and the Port Pirie estuarine area), within a line from the mouth of Second Creek northwards to a point in Germein Bay, then northwesterly to Ward Spit Light and east north east to Ward Point (PIRSA 1999a).
- There is a **seasonal fishing ban** on the capture of Snapper, in recognition of the importance of protecting a portion of the breeding stock of large Snapper in northern Spencer Gulf, and in response to apparent declines in the fishery, based upon survey data and catch and effort statistics (e.g. see McGlennon and Jones 1997 and Fowler 2000 for stock assessments). In 2001, the Snapper fishing ban was from 1st August - 20th August and from 6th November - 26th November, however a more widespread ban over the entire November period has now replaced the August ban. The ban originated in Spencer Gulf, however more recently (2003), there has been a State-wide ban on Snapper fishing, from the 1<sup>st</sup> November to 30<sup>th</sup> November of each year.

- There is a **seasonal fishing ban** on the capture of commercial and recreationally significant cephalopods in the Whyalla area, designed mainly to protect the unique spawning aggregation of Giant Cuttlefish (PIRSA, 1999a). In recent years (late 1990s to early 2000s), closure dates have been 1st March to 30th September. During that time, it is considered unlawful for any person to take any species of cephalopod (i.e. cuttlefish, squid or octopus) within the areas where spawning is known to take place. This spawning ground includes all waters of the Spencer Gulf enclosed by a line from the lighthouse at **Point Lowly** to the southern end of the **Port Bonython** jetty, then in a south-westerly direction to the southern end of the BHP wall near **Whyalla** (position latitude 33<sup>0</sup> 01.2'S, longitude 137<sup>0</sup> 35.8'E) then following the high water mark along the shoreline in an easterly direction to the point of commencement at the lighthouse (PIRSA, 1999a). The spawning season ban on catching cuttlefish covers all waters of False Bay, the Silt Grounds and much of the Mudbanks. The ban includes both commercial and recreational boat fishers and land-based fishers. During the cephalopod fishing closure period, the stated area remains open to commercial and recreational fishers targeting other fish species.
- Additionally, the following *closed areas and seasons* apply in the northern Spencer Gulf area (PIRSA, 2000a): (i) Western Blue Groper, not to be fished in any waters of Spencer Gulf; (ii) Razorfish, not to be collected in Upper Spencer Gulf between October and January. An area contained within a line commencing on the shore of Spencer Gulf adjacent to beacon No. 8, then due east to that beacon, then generally northerly to beacons 9, 13, 20, 19, 21, 23 and 28, then due west to Curlew Point, is closed during the months of January, February, October, November and December.

#### 10.11 South-Eastern Spencer Gulf (Spencer Gulf Bioregion)

- Bird Islands Conservation Park: The park covers 368ha (NPWSA, 2002a) of the low lying sheltered islands and islets near Warburto Point. The park is a breeding and nesting place for seabirds and waders, and also contains a stand of the mangrove Avicennia marina (Robinson et al., 1996).
- Goose Island Aquatic Reserve (54 ha around the Goose Island Conservation Park). Established in 1971 in recognition of the marine education studies undertaken by Scotch College, and in response to a request by the college that the marine habitats around the island be protected from exploitation. According to Ivanovici (1993), the primary purposes of the reserve were "to provide a conservation area where teaching institutions could conduct classes in marine biology and ecology, and to protect the habitat of the (sea lion) colony at White Rocks". The aquatic reserve is also reported to protect fish stocks (PISA Fisheries - Aquaculture Group, 1996). The removal of any marine organism within the aquatic reserve is prohibited. Goose Island Aquatic Reserve includes all waters within 200m of Goose Island, Little Goose Island, and White Rocks (Ivanovici, 1993).
- According to DENR (1995, cited by Aquaculture Group PISA 1996), the Goose Island **Conservation Park** was proclaimed in 1972 to conserve the offshore breeding and refuge area for sea birds and the Australian sea lion. The conservation park is 24 hectares in total (NPWSA, 2002a), and comprises Goose Island, and a number of small islands (such as Little Goose Island) and islets in the area - around Goose Island; the north-western side of Wardang; off Point Pearce, and off Island Point (S.A. Coast and Marine Atlas, 2003).

- Leven Beach Conservation Park: 502 ha (NPWSA, 2002a) is situated between Corny Point and Point Souttar. There is a 1km NPWSA "marine buffer" around the Leven Beach Conservation Park, but no activities are prohibited or managed within the designated area. According to PISA Fisheries – Aquaculture Group (1996), the legislated boundaries of Leven Beach Conservation Park are to low water mark.
- There is a netting closure in the following area: (i) waters contained within a line from Point Gawler (Port Victoria) to the north-west point on Goose Island, then to Reef Point (PIRSA, 1999).
- According to Aquaculture Group PISA Fisheries (1996), under both the Commonwealth Historic Shipwrecks Act 1976 and the State Historic Shipwrecks Act 1981, it is illegal to interfere with declared wrecks in any way. For this reason, Aquaculture Group - PISA Fisheries (1996) recommended a "buffer zone" (in which aquaculture development would not be permitted) of at least 500 metres from any declared Historic Shipwreck, to protect these sites.

## 10.12 Western Investigator Strait, between the "Toe" of Yorke Peninsula and Northern Kangaroo Island (Eyre/Gulf St Vincent Biregion Boundary)

- Althorpe Islands Conservation Park (128 ha) was declared in 1967, mainly to protect sea bird breeding habitat, and also contains haul out sites for the Australian sea lion.
- There is a 1km NPWSA marine "buffer" around islands comprising the Althorpe Islands **Conservation Park**, although no activities are prohibited in the area. However, the conservation value of the area has been recognised in PIRSA's exclusion of aquaculture leases from islands in the group.
- National Parks and Wildlife S.A. has a management plan for Innes National Park (9322 ha), which includes management arrangements for the beach areas of the park, such as regulation of visitor access and potential impacts, and protection of heritage values.
- North of the north-western boundary of the nominated area, a Rock Lobster Sanctuary (350 ha) was declared at Gleesons Landing in 1982, under the SA Fisheries Act. Removal of Rock Lobster prohibited in all waters from high water mark within the area defined in the proclamation (Ivanovici 1984; PIRSA, 2002d).
- There is a wilderness protection area at **Western River**, proclaimed in 1993. Coastal sections of the park are included for their wilderness value. There are limitations, under the Wilderness Protection Act 1993, to developments and activities that can occur in the coastal zone of a Wilderness Protection Area.
- **Netting closures** exist in the following areas: (i) **Pondalowie Bay**, from **Royston Head**, through the North, Middle and South Islets to the southern shore of Pondalowie Bay: (ii) Browns Beach, waters adjacent to Brown's Beach within 1/4 mile of high tide mark; and (ii) the mouth of the Western River (PIRSA, 1999a).
- Fishing of Blue Groper is prohibited in Spencer Gulf, Gulf St Vincent, Investigator Strait and Backstairs Passage, under S.A. Fisheries Act (1982).

## 10.13 North-Western, Western and South-Western Kangaroo Island (Eyre Region)

- North and South Casuarina Islands (Islets) have been declared Prohibited Areas by DENR (now the Department for Environment and Heritage), due to their significance for New Zealand fur seals and breeding seabirds (Robinson et al., 1996).
- West Bay Islet has been declared a Prohibited Area by DENR (now the Department for Environment and Heritage), to protect the seabird breeding areas on the islet (Robinson et al., 1996).
- Fishing for Western Blue Groper is prohibited along the north, north-east and northwest coast of Kangaroo Island (i.e. north of Vennachar Point) and in Investigator Strait (PIRSA, 2000).
- There are 1km seaward "buffer zones" extending from the coast of **Flinders Chase** National Park, and the Wilderness Protection areas at Cape Torrens, Ravine des Casoars, and Cape Bouguer. Of the area discussed in this table, the only parts which do not have a designated marine buffer comprise a section of coast between Harvey's Return and Cape Torrens on the north-west coast, and Cape Younghusband and part of Hanson Bay on the south-west coast. The seaward buffer zones cannot currently be considered as true Marine Protected Areas, because no activities or impacts are legally restricted in these areas. However, PIRSA considered the location of these protected areas in designating zones for aquaculture, and areas within the vicinity of National Parks and Wilderness Areas were designated as exclusion zones in which no aquaculture would be permitted.

## 10.14 Southern Eyre (Eyre Bioregion)

- In 2003, the **Point Whidbey** area was declared as a Wilderness Zone under the *National* Parks and Wildlife Act 1972 (Media release, February 2003) (N.B. see Chapter 12 below on Other MPA / Marine Reserve Nominations within each Focus Area).
- There are 1km marine buffers around all National and Conservation Parks and associated islands along southern Eyre Peninsula. However, these existing 1km marine buffers do not function as marine protected areas, because all marine uses and activities, other than aquaculture development, are permitted within the 1km boundary zones.
- There is a netting closure in Coffin Bay, south of a line between Point Sir Isaac and Fenchman Bluff (PIRSA, 1999a).

#### 10.15 The "Heel" of Yorke Peninsula (Gulf St Vincent Bioregion)

The **Troubridge Hill Aquatic Reserve** (460ha) was declared in 1983 to protect the benthic biota of the near-shore limestone reef from exploitation by divers (following a request by the Scuba Divers Association in 1977), and to protect the site of the Clan Ranald shipwreck, which is a popular dive site. Line fishing is permitted in the Reserve.

- Troubridge Island Conservation Park was declared during the early 1980s to protect major breeding colonies of several seabird species, and provide protection for an important feeding ground for international migratory waders (refer to species list in section of this table titled National and International Significance). Some of the breeding colonies of seabirds on and around Troubridge Island include Little Penguin, Black-faced Cormorant, Pied Cormorant, Crested Tern, Caspian Tern and Silver Gull. The lighthouse and associated cottages are listed on the State Heritage Register, and their historical significance also contributed to the declaration of the Park.
- Fishing of Western Blue Groper is prohibited in Spencer Gulf, Gulf St Vincent, Investigator Strait and Backstairs Passage, under the S.A. Fisheries Act 1982, however the current level of compliance with this regulation in all parts of the closed area may be questionable (see Section 9.2).
- Netting closures exist at: (i) Edithburgh: All waters south west of a line from Sultana Point to a point on the mainland adjacent to the roadway between sections 185 and 205 Hd Melville. In addition to this total closure, nets are prohibited in waters exceeding 5 metres in depth contained within a line from Sultana Point to Marion Reef buoy, then to Troubridge Island lighthouse and then to a point adjacent to Giles Point (PIRSA, 1999a); (ii) Coobowie waters within a line from the Salt Swamp Creek causeway to the end of the old Coobowie jetty structure and then to Hickies Point; (iii) Stansbury: west of a line form the groyne at Oyster Point, to a point 200m north of the jetty, then south westerly to a point on the mainland 200m (PIRSA, 1999a).
- During the early 2000s, NPWSA planned a marine biological survey and on-going monitoring program, for the Clan Ranald wreck site. There is a management plan for the Clan Ranald site and NPWSA received funding to install moorings in the area (plus other sites), as part of the National Moorings Program, to protect the benthic habitat from anchor damage (T. Arnott, DEH, pers. comm., 2000).

## 10.16 Upper Gulf St Vincent (Gulf St Vincent Bioregion)

• Netting closures exists at Price (within 1.1 nautical mile radius of Will Creek Light Beacon north of Mangrove Point and all waters of Will Creek and its tributaries); Port Wakefield (within 100 metres of the dredged channel extending generally in a south-westerly direction from the mouth of the River Wakefield). A netting closure exists in the Port Adelaide River and Outer Harbour areas. The boundaries are: "Mounds at Outer Harbour, including those enclosed by a line from the north eastern end of the northern revetment mound to the Section Bank pile beacon (Black Pole), to the Middle Ground outer beacon, to Point Grey on the northern tip of Torrens Island, then generally in a southerly direction continuous with the westerly extremity of the mangroves on Torrens Island which includes all the waters of the Port Adelaide River and the North Arm as far as the Grand Trunkway Road Bridge" (PIRSA, 1999a). The Section Bank netting closure serves as a "buffer" for the Barker Inlet and St Kilda - Chapman Creek Aquatic reserves. Chapman Creek is also closed to netting (Wait, verbal submission to Senate Inquiry into Gulf St Vincent, February, 2000).

An Ecologically Representative System of Marine Protected Areas in S.A.

- Clinton Conservation Park (approximately 1922ha, according to NPWSA, 2002a), was designated to protect saltmarsh, mangrove and intertidal mudflat habitat and the associated biota from Port Clinton to south of Port Wakefield. At the time of declaration under legislation, the Clinton Conservation Park extended only to the high water mark on the eastern side of the park. Previously, concern was expressed about the lack of formal protection for the mangrove stands and intertidal area on the eastern side, which are considered to be more substantial than those on the western side (Ivanovici, 1984; Paxinos and Clarke, 1996).
- Port Gawler Conservation Park was designated to protect saltmarsh, mangrove and intertidal mudflat habitat and the associated biota. It covers an approximate area of 419ha (NPWSA, 2002a). The reserve extends from the high water mark to the seaward edge of the mangroves (Paxinos and Clarke, 1996).
- Barker Inlet St Kilda Aquatic Reserve covers 2055 ha, and St Kilda Chapman Creek Aguatic Reserve covers 870 ha (Neverauskas and Edyvane, 1993; Cresswell and Thomas, 1997). Both were designated under the Fisheries Act 1982 to protect the samphire, mangrove and shallow seagrass communities in these areas, particularly their role as fish nursery and feeding areas. St Kilda - Chapman Creek also acts as a buffer between the estuarine mangrove nursery area, and the deeper waters in which commercial fishing of new recruits from the estuary occurs. Recreational fishing by rod and line or handline is permitted in the Barker Inlet Aquatic Reserve. All fishing, bait collecting/digging or removal of any organism is prohibited in the St Kilda Chapman Creek Reserve, other than catching blue swimmer crabs by hand, crab rake or hoop net.
- Torrens Island Conservation Park (approximately 79ha NPWSA, 2002a), is within the Barker Inlet system.
- Zanoni Shipwreck: A Protected Zone was established in May 1983, to prevent interference of the wreck by divers and fishing boat anchors. Under the Historic Shipwrecks Act 1981, the area is protected within a 550m radius of the wreck. Boating, fishing and diving can only occur with a permit. No fishing permits have been issued to date, according to Heritage South Australia (2000a).
- Mangroves are protected in South Australia under the *Fisheries Act* 1982. The legislation makes it a formal offence to remove or interfere with any mangrove without a permit, and provides for restrictions and controls on reclamation, dredging and foreshore development, to protect existing mangrove stands. Interference includes any activity that hinders the successful development or maintenance of mangroves (Edyvane, 1995c). (See section on Issues for Risk and Impact Assessment).
- To date, the saltmarsh, mudflats and shallow seagrass habitats associated with the mangrove ecosystems of upper Gulf St Vincent are not formally protected under legislation, other than those that exist within the boundaries of the two Aquatic Reserves (see above).
- Under the S.A. Fisheries Act 1982, the "deposit or dredging of any benthic or aquatic substance" is ostensibly prohibited in both Aquatic Reserves, yet both Aquatic Reserves in the northern Gulf St Vincent area are continuously subject to numerous pollutants that have degraded both water quality and habitat quality over a long period.
- A project was approved during 1999 under the National Moorings Program, to install moorings at the **Zanoni**, to protect the site from damage due to boat anchors (Environment Australia, 2001).

The **Port Adelaide-Barker Inlet** system has recently been designated as a Dolphin Sanctuary (Government of South Australia, 2002; DEH, 2003c), following calls by researchers (e.g. M. Bossley, Australian Dolphin Research Foundation) and community groups, for increased protection of the Bottlenose Dolphin population in the area. The dolphin sanctuary aims to promote the importance of the area as habitat for the resident and visiting dolphins, and to develop improved management measures for threats to the dolphins and their environment. Examples of threats and impacts for which improved management and control measures are being developed, include poor water quality and other forms of pollution; introduced marine pests; harassment to the dolphin population (boat strikes, stabbings, shootings); entanglements; noise disturbance; non-compliance of existing regulations, and loss of habitat (Government of South Australia, 2002).

## 10.17 Southern Fleurieu / North-East Kangaroo Island / Backstairs Passage / Encounter Bay / Upper Coorong (Gulf St Vincent Bioregion)

#### Southern Fleurieu

- Aldinga Aquatic Reserve (505ha): Declared in 1971, to protect the reef from exploitation (including spearfishing of reef fish, and collecting of intertidal organisms). Removal of any living organism or non-living material is prohibited.
- There are 1km seaward extensions ("buffer") mapped on the SA Coast and Marine Atlas GIS, for the conservation parks at Aldinga Scrub and Deep Creek. These buffers offer no marine protection (i.e. there are currently no management arrangements or impact controls associated with the buffers).
- A Diving Code of Practice has been formulated by community and government for seadragon watching in S.A. (i.e. applies to all areas in the state, and particularly relevant to areas where there is a high level of human use of the area for this purpose – e.g. Rapid Bay, Encounter Bay and North-East Kangaroo Island).
- Western Blue Groper is a protected species in Gulf St Vincent, Investigator Strait and Backstairs Passage.
- There is a ban on spear-fishing in the bay at **Second Valley** (Bryars, 2003).
- There is an area around the *HMAS Hobart* shipwreck that is closed to fishing, designated under the Historic Shipwrecks Act 1981.
- The portion of the waters off the coast of Wirrina Cove (Fleurieu Reef) bounded by a circle of radius 0.5 of a nautical mile centred on a point at latitude 35° 28' 48.90"S and longitude 138<sup>0</sup> 09' 34.85" E (GDA 94), are closed to fishing.

#### North-Eastern Kangaroo Island

American River Aquatic Reserve (1525 ha): Designated in 1971 under the SA Fisheries Act 1971-82, to protect sand and mud flats and shallow seagrasses, and as a sanctuary for juvenile fish/refuge for adult fish (Ivanovici, 1984; Johnson, 1988a). Removal, dredge or deposit of any living or non-living material within the reserve is prohibited. The waters adjacent to the Reserve have also been closed to netting (see below), to provide a buffer to the core reserve area.

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- Pelican Lagoon Conservation Park (379 ha NPWSA, 2002a). The park includes five small islands and part of the shoreline of the bay, but the extensive mudflats, considered to be an important feeding ground for waterbirds, are outside the protection of the Park (Australian Heritage Commission, undated).
- Beatrice Islet Conservation Park: Approximate 103ha (NPWSA, 2002a), a sand islet on a tidal sand spit, declared due to its significance as feeding and roosting habitat for seabirds. Busby Islet: Approximately 17ha and was declared due to significance as feeding and roosting habitat for seabirds. Management plans for **Busby** and **Beatrice Islet Conservation Parks** were prepared in 1987.
- There are 1km national park buffers out from the **Pelican Lagoon Conservation Park**, Nepean Bay Conservation Park, and around the Busby and Beatrice Islets **Conservation Parks** (according to positions in S.A. Coast and Marine Atlas GIS, 2001). There is also a 0.67 km marine extension mapped (in S.A. Coast and Marine Atlas, 2001) seaward into Eastern Cove, from the terrestrial **Dudley Conservation Park**, which does not abut the coast. None of these buffers provides any form of marine protection.
- **Netting Closures** (PIRSA, 1999a): (i) **Kingscote Spit**: waters enclosed by lines from Cape Rouge south to The Bluff, then to Kingscote jetty and then around Kingscote Spit to Point Marsden; (ii) Kingscote Tyre Reef - the use of set nets or set lines within 0.5 nautical miles of the Kingscote artificial tyre reef is prohibited (PIRSA, 1999a); (iii) Bay Of Shoals: seasonal closure, of all waters west of the line from Cape Rouge and The Bluff are closed from 1st January to 31st March every year; (iv) American River / Eastern Cove: all waters south of a line from American Beach to western shore of Eastern Cove (approximately one nautical mile south west of Ballast Head jetty; (v) Kangaroo Island Rivers: Chapman, Harriet, Eleanor, Western and Middle Rivers and all waters within a 50 metre radius of the mouths of those rivers; (vi) Cape Rouge to south to the Bluff, then to Kingscote Jetty then around Kingscote Spit to Point Marsden; (vii) South of a line from American Beach to western shore of Eastern Cove (approximately one nautical mile south west of Ballast Head jetty).
- There are 1km seaward extensions ("buffers") around the conservation parks at **Lashmar** Lagoon and Cape Willoughby (S.A. Coast and Marine Atlas, 2001). These two conservation park buffers offer no formal marine protection (i.e. there are currently no management arrangements or impact controls associated with the buffers).
- Western Blue Groper is a protected species from **Cape Willoughby** to **Investigator** Strait.

#### **Encounter Bay and Coorong**

The West Island Aquatic Reserve was established in the mid 1960s for protection and study of the resident abalone populations of several species (Johnson, 1988a), and for other long term biological and ecological studies. The reserve was extend in 1993 to improve the capacity of the reserve to protect abalone populations which had declined in abundance and density due to a combination of fishing outside the reserve, and oceanographically induced spawning failure. The reserve now encompasses 84 ha. Rod and handline fishing is permitted within an area that extends between 200m of the Kings Beach shore, and 300m of the West Island shore. No fishing is permitted within the 100m buffer around the island that comprises the two other zones of the reserve. Access to the research zone on the north-western side (between Restless Point and Penguin Rock, to 100m seaward) is restricted to researchers only.

- The Newland Head Conservation Park is reported to protect Waitpinga and Parsons beaches. The conservation park includes the beaches; cliffs and rocky headlands; lagoon area at the mouth of Waitpinga Creek; sand dunes; and vegetation behind the dunes (NPWS, undated).
- According to the South Australian Coast and Marine Atlas (2001), there are 1km seaward "buffers" around Newland Head Conservation Park and West, Granite, Seal, Pullen Islands and around the northern end of the Coorong National Park, which includes the Murray Mouth area. None of these designated buffers provide any formal kind of marine protection (i.e. no current management arrangements to regulate activities or control impacts).
- In August 2001, the State and Commonwealth governments jointly purchased a 1081 hectare private property on Hindmarsh Island, at the Murray Mouth, to add to the Coorong National Park system. The area is recognised as a significant breeding and feeding ground for rare, threatened and/or migratory bird species, including Cape Barren goose, and 27 migratory species such as bar-tailed godwit, Caspian tern, and red-necked stint (Environment Australia Media Release, August 2001; ABC Media Release and CCSA Media Release, August 2001).
- Birdlife is protected within the West Island Conservation Park, which includes Seal Island (Baker and Edyvane, 1996).
- The **Coorong lagoons** are a **National Park** (50,804ha in total) (NPWSA, 2002a).
- The islands in the **Mud Island** group (121 ha) are a **Game Reserve**.
- Yalkuri (near Pelican Point) is a Private Sanctuary.
- **Salt Lagoon Islands** are a Conservation Park (75 ha) (NPWSA, 2002a).
- North of the Murray Mouth area, a series of small islands at the mouth of Currency Creek (130 ha) are a Game Reserve.
- Netting Closures (PIRSA, 1999a): (i) Shoreward from a line between **Newland Head** and the headland west of Coolawang Creek (PISA, 1994); (ii) At Parsons, this includes all waters north of a line from the eastern end of the beach to the western end; (iii) The Waitpinga closure includes all waters north of a line from Newland Head to the western end of Waitpinga Beach (PIRSA, 1999a); (iv) Hindmarsh/Inman Rivers within 200 metres of their mouths (Also a spearfishing closure in these areas); (v) Murray Mouth waters within 500 metres of the Murray Mouth, from the south east corner of Younghusband Peninsula to the south west corner of Sir Richard Peninsula; (vi) Goolwa Barrages: Nets prohibited within 150 metres of all barrages; (vii) Goolwa **Channel**: A netting closure exists from A.G.A. light on Mundoo Island across to Hindmarsh Island then upstream to the south east corner of Allotment 109, section 601 Hd. Of Nangkita then across the Murray Mouth to Younghusband Peninsula than back to the A.G.A. light. Also netting is prohibited in the Goolwa channel between midnight Friday and midnight Sunday in the waters between the Goolwa barrage and the area above.
- The use of a mesh net in **Coorong Area 1** is prohibited from 1 November to 31 March inclusive. Area 1 is defined as the waters of the Coorong separated from the Lower Murray and Lake Alexandrina by the Goolwa, Mundoo, Boundary Creek, Ewe Island and Tauwitchere Barrages and by a straight line drawn westerly from Pelican Point to Gnurlung Point and separated from the ocean by the Murray Mouth.
- There are seasonal closures on the taking of Goolwa cockle (pippi) from June 1st to end of October and Murray Cod from1<sup>st</sup> September to end of December.

- Catfish, silver perch and female yabbies carrying eggs are protected species in the Murray Mouth and Coorong area.
- Fishing is not permitted in the main navigable area of the Murray Mouth channel (fishing activity is considered to be a navigation hazard), or in the vicinity of locks and barrages.
- Intertidal harvesting is now banned on all rocky shores in South Australia, from the shoreline out to 2m (PIRSA, 1999a).
- The 1990 management plan for the Coorong National Park included all of the Younghusband Peninsula, the northern end of which is considered as part of this assessment. The entire Coorong National Park is categorised as follows (Coorong National Park Management Plan, cited by Edyvane et al., 1996), incorporating zoned levels of protection: Wilderness Zone (no facilities, no motorised access); Natural Zone (limited facilities, limited motorised access); Day Visitor Zone (simple facilities, motorised access); Development Zone (formal facilities).
- An amendment to the Coorong National Park Management Plan was published in 1995.
- The Coorong and Lower Lakes Ramsar Management Plan also has influence on the management of the Coorong.
- The Coorong National Park Tourism and Recreation Plan (2000a) recommends sensitive visitor use of the Coorong.
- There is a RAMSAR management plan for the **Coorong** (2000), which also incorporates the Murray Lakes (Albert and Alexandrina) See Owen (1999) for one overview of environmental issues relating to area and the plan.
- During the 1990s, there was also a Conservation Zone that includes the **Goolwa** Channel, the Murray Mouth and Mundoo Island in addition to the eastern section and southern shoreline of Hindmarsh Island. Although such tracts of Crown land have been managed for conservation purposes, land-based conservation zoning does not address the impacts or management of water-based activities (Edyvane et al., 1996) or grazing, which occurs on Mundoo, Long, Tauwitchere, Reedy and Ewe Islands (See Threats and Impacts section).
- In the vicinity, there are several Conservation Parks around the rim of the **Lower Lakes**, including Tolderol, Salt Lagoon, and Mud Islands. Many more wetlands fringing the lakes have been listed as having high conservation value (Thompson, 1986, cited by Edyvane et al., 1996).

#### Backstairs Passage and Pages Islands

- There is a 3 nautical mile marine extension of the **Pages Islands Conservation Park**, into Backstairs Passage. Although the marine extension has been gazetted under the National Parks and Wildlife Act 1972, the marine area of The Pages Conservation Park offers no formal protection to the marine environment around the Pages Islands. A permit from NPWSA is required for shark berleying (as part of commercial white shark viewing operations) within the three nautical mile marine extension zone. Commercial operators must be licensed, although no licences had been issued up till 2000 (Twyford, NPWS, pers. comm., 2000). Various conditions apply to commercial operators. Management is reportedly undertaken according to NPW Act and Regulations. Commercial and recreational fishing for all other species are permitted, according to the South Australian Fisheries Act 1982. (Twyford, NPWSA, pers. comm., 2000).
- Great White Shark is a protected species in South Australia, under the Fisheries Act 1982.

- Australian Sea Lion is listed as rare under the National Parks and Wildlife Act 1972. however this offers no formal protection to the species from human-induced impacts.
- There are 1km seaward extension ("buffers") mapped on the SA Coast and Marine Atlas GIS, for the Deep Creek Conservation Park, and the conservation park at Cape **Willoughby**. These buffers offer no marine protection (i.e. there are currently no management arrangements or impact controls associated with these buffers).
- In South Australia, AFMA (2003c) has recommended that the Pages Islands be permanently closed to shark fishing, particularly as a means of protecting School Shark populations. This is one of 2 areas in S.A. proposed for closure, the other being on the far west coast. The closures were proposed to take effect from 2003. The Southern Shark and South East Non-trawl Fisheries Bycatch Action Plan (BAP) also requires stakeholders to consider seasonal or permanent closures to reduce the potential for incidental capture of Sea Lions and Great White Sharks. AFMA's SharkMAC (2002) also considered that areas commonly frequented by protected species may need to be declared as protected marine reserves that exclude all forms of commercial and recreational fishing. Therefore, in addition to reducing the scope for targeting breeding female School and Gummy Sharks, SharkMAC considered that these closures would have the added benefits of: (i) assisting in the recovery of School Shark by protecting the known pupping areas and pregnant females; (ii) protecting breeding Gummy Sharks; (iii) minimising interactions with threatened and protected species such as whales, Fur Seals, Sea Lions and Great White Sharks; (iv) controlling the incidental bycatches of other shark species (Bronze Whaler, Whiskery Shark and Pencil Shark, Wobbegongs etc.); and (v) fulfilling the requirements of the Bycatch Action Plan, particularly in relation to interactions with protected species. The Pages Islands was identified by stakeholders in the previous consultation process (see AFMA, 2002a) as being more significant than previously proposed areas around Kangaroo Island.
- Previously, PIRSA's discussion paper Management of the Great White Shark in South Australia (Presser, 1995) proposed that the boundaries of the Pages Islands Conservation Park be extended seawards for two nautical miles. In that report, Dept of Environment and Natural Resources proposed to exclude berleying for an annual period of five months, during the pupping season, to prevent what was perceived by the Department to be potential for increased mortality of sea lion pups due to increased numbers of sharks, attracted by the berleying operations.

# 10.18 Upper South-East (Coorong / Otway Bioregion Boundary)

- A netting closure exists in all waters of **Guichen Bay**, adjacent to the township of **Robe** (PIRSA, 1999a).
- Butchers Gap and Little Dip Conservation Parks, and Bernouilli Conservation Reserve, were declared partly to conserve the significant area of coastal scrub and dunes that are used as a winter feeding ground for Orange-bellied Parrots. Orange-bellied Parrots have a coastal association, as far seaward as the intertidal area.
- Baudin Rocks (Godfrey Islands) Conservation Park was declared to protect breeding colony of Crested Terns and Little Penguins (Robinson and Rowberry, 1983).

- Cape Jaffa (950 ha) was declared as a Rock Lobster Sanctuary in 1971, under the SA Fisheries Act 1971-1982. Cape Jaffa declared to protect juvenile Rock Lobster. Enforcement area includes all waters within 1km of the high water mark of the defined area.
- Margaret Brock Reef (314 ha) was declared as Rock Lobster Sanctuary 1977 to 1979, and renewed in 1979 for indefinite period. Margaret Brock Reef was declared to protect Rock Lobster. Enforcement area includes all waters within 1km radius of the lighthouse on Margaret Brock Reef (Ivanovici, 1984; PIRSA, 1999a).
- There are 1km marine "buffers" around the islands and coastal conservation parks of the Upper South-East, however these do not serve as Marine Protected Areas because no activities are restricted within the 1km boundaries.

### 10.19 Lower South East (Otway Bioregion)

- Douglas Point Conservation Park (32ha NPWSA, 2002a) was declared mainly to protect a threatened coastal plant species, the Sand Ixodia, the only reserved population of this species in Australia. The park also provides habitat for a number of regionally uncommon coastal plant species, as well as rare and/or vulnerable bird species, including the endangered Orange-bellied Parrot. The park also conserves Aboriginal archaeological sites, and has significance in terms of historic shipwrecks in the nearshore coastal zone (National Parks and Wildlife SA, 2000b). Douglas Point Conservation Park conserves vegetation along part of a continuous stretch of coastal habitat between Blackfellows Caves and Port MacDonnell in the South East and is identified as a Priority Coastal Area (Croft et al., 1999, cited by NPWSA, 2000b). There is a 1km marine extension around the terrestrial **Douglas Point Conservation Park** (S.A. Coast and Marine Atlas, 2001), although this does not function as a marine protected area, because no activities are prohibited or specifically managed within the 1km zone.
- Ewen's Ponds Conservation Park (35ha, according to NPWSA, 2002a) protects a unique spring-fed system of three basin-shaped ponds, connected by shallow channels. The amount of water flowing from the springs is greater than at Piccaninnie Ponds (see below). A number of plant, fish (the most notable being Ewen's Pygmy Perch), and invertebrate species of conservation significance are protected within the park. Management plan were prepared for Ewen's Ponds Conservation Park during the 1980s and early 1990s, and a plan amendment report was produced in 1997 (DENR Natural Resources Group 1997).
- Piccaninnie Ponds Conservation Park (547ha, according to NPWSA, 2002a) was declared to protect the unique wetland community of freshwater springs close to the coast, and associated vegetation. The park includes a low fore-dune system, grading back into the series of freshwater spring ponds (Gilliland, 1996). The gazetted boundary is to the low water mark. There is a 1km marine extension (S.A. Coast and Marine Atlas, 2001) around the terrestrial Piccaninnie Conservation Park, although this is currently not designated or managed for any specific conservation purpose. A management plan was prepared for Piccaninnie Ponds Conservation Park in 1992 (SANPWS, 1992).

- Lower Glenelg National Park (27,300 ha) is situated in the south-western corner of Victoria, north of Discovery Bay. The estuarine mouth of the Glenelg River is several km from the South Australian border. The park protects the lower sections of the Glenelg River which is over 400km long, and starts in the Grampians, flowing through to the estuary at **Nelson**. The park contains over 700 plant species in forest, swamp, river, dune and cliff habitats. It represents an unusual mix of eastern and western Australian plant types. In the lower reaches of the river, features that are protected as part of the park include the 50m deep limestone gorge and associated caves; the surrounding forest, estuarine and riverine habitats; and the estuary itself.
- The **Discovery Bay Coastal Park** (8,530 ha) covers around 50km of the far western Victorian coast, east of the South Australian border, and includes ocean beaches, coastal cliffs, large dune areas, freshwater lakes, swamps / wetlands, volcanic features, and Aboriginal middens. The Park is an important habitat for the endangered Hooded Plover and migratory wading birds listed under international treaties, and contains a number of rare coastal plant species (Parks Victoria, 2002; Wilmap Pty Ltd, 2002).
- The Lower Glenelg River Conservation Park (127ha) was designated by National Parks and Wildlife SA in 1993, and conserves the small portion of the Glenelg River that occurs within South Australia, inland from the coast, the Park is an extension of Victoria's Lower Glenelg National Park, which adjoins it on the eastern boundary. The Glenelg River forms the western boundary. The Park contains an endangered vegetation association (Swamp Gum woodland) and several endangered plant species. The Park provides habitat for a variety of threatened terrestrial bird species and mammals (National Parks and Wildlife South Australia, 2001c).
- The Environment Conservation Council (2000) of Victoria proposed a Marine National Park at **Discovery Bay**, Western Victoria, which has now been established (see Parks Victoria, 2002). There are limited similarities with the Lower South East area of S.A. described in this report, in terms of habitat protected. The Discovery Bay Marine National Park, 20km west of Portland and adjacent to the Discovery Bay Coastal Park (see above), covers 3,050ha, protects dune lakes; shallow *Ecklonia*-covered basalt reefs; 2-3m high basalt "walls"; sea caves; and in deeper waters, interspersed with sand plains, are flatter calcarenite reefs densely covered with sessile invertebrates such as sponges. ascidians, bryozoa, hydroids, and gorgonian corals. The park is part of the largest coastal basalt formation in Western Victoria. The region is well known for whale watching and blue whales regularly pass by the area. Notable flora in the marine park include Bull Kelp, and notable fauna include the southern Australian endemic Red Velvetfish; Australian Fur Seals and other pinnipeds; sharks, and periodic presence of the Southern Right Whale and Blue Whale. Within the boundaries of the park, fishing, netting, spearing, or otherwise taking or killing marine life, are all prohibited (Parks Victoria, 2002).
- Netting Closures: (i) Port MacDonnell which includes "all waters below high water mark with a radius of 0.55 of a nautical mile, from the seaward lead light at the shoreward end of Port MacDonnell jetty, excluding the waters commencing at a point at the high water mark on the shore at the western end of Hammond's Drain, then in a direction of 170°T for 300m, then in an easterly direction, remaining 300m from shore to a point of intersection with the 0.55 nautical mile radial line" (PIRSA, 1999a); and (ii) Brown Bay, from Green **Point** to **Danger Point**, within 300m of the high water mark (PIRSA, 1999a).

# 11 Other MPA / Reserve Nominations within each Recommended **Area**

During the 1990s, individuals from the 30-member South Australian Marine Protected Areas Technical Working Group of scientists, provided recommendations to the former South Australian Department of Fisheries, as part of a Commonwealth-funded process to collate background information on areas of high conservation value that may contribute to a representative system of MPAs in South Australia. These recommendations, supplemented by additional information collated during the South Australian Benthic Surveys Program (1992-1997), and by additional nominations received during a public consultation period, were summarised in Edyvane (1999b), and included the following locations:

BIOREGION	BIOUNIT	NAME
EUC	NULLARBOR	GAB OFFSHORE 1
EUC	WAHGUNYAH	GAB OFFSHORE 2
MUR	FOWLER	NUYTS REEF - DENTRECASTEUX REEF
MUR	FOWLER	FOWLERS BAY - CLARE BAY
MUR	FOWLER	SINCLAIR ISLAND - POINT LE HUNTE
MUR	FOWLER	ROCKY POINT
MUR	STREAKY	TOURVILLE BAY
MUR	STREAKY	DECRES BAY
MUR	STREAKY	LAURA BAY - SMOKY BAY
MUR	STREAKY	ACRAMAN CREEK - STREAKY BAY
MUR	STREAKY	EBA ISLAND
MUR	NUYTS	NUYTS ARCHIPELAGO
MUR	NUYTS	FRANKLIN ISLANDS - EYRE ISLANDS - CAPE MISSIESSY
MUR	NUYTS	OLIVE ISLANDS
EYR	YANERBIE	SCEALE BAY - SMOOTH POOL
EYR	YANERBIE	POINT LABATT - BAIRD BAY
EYR	YANERBIE	VENUS BAY CONSERVATION PARK
EYR	NEWLAND	TALIA CAVES - LAKE NEWLAND CONSERVATION PARK
EYR	NEWLAND	THE WATCHERS - WALDEGRAVE ISLAND CONSERVATION PARK
EYR	SHERINGA	WATERLOO BAY
EYR	SHERINGA	LAKE HAMILTON
EYR	SHERINGA	SHERINGA BEACH AND LAGOON
EYR	SHERINGA	CAP ISLAND CONSERVATION PARK
EYR	SHERINGA	DRUMMOND POINT
EYR	FLINDERS	INVESTIGATOR GROUP
EYR	FLINDERS	FLINDERS ISLAND
EYR	DOUGLAS	ROCKY ISLAND NORTH
EYR	DOUGLAS	COFFIN BAY - PORT DOUGLAS - YANGIE BAY
EYR	WHIDBEY	COFFIN BAY NATIONAL PARK - AVOID BAY - AVOID BAY ISLES
EYR	WHIDBEY	WHIDBEY ISLANDS
EYR	WHIDBEY	GREENLY ISLANDS
EYR	WHIDBEY	ROCKY ISLAND SOUTH
EYR	WHIDBEY	CAPE CARNOT - CAPE WILES - FISHERY BAY
SGF	JUSSIEU	LINCOLN NATIONAL PARK - THORNY PASSAGE
SGF	JUSSIEU	SIR JOSEPH BANKS GROUP - DANGEROUS REEF
SGF	JUSSIEU	PEAKE BAY - POINT BOLINGBROKE
SGF	JUSSIEU	SALT CREEK - TUMBY BAY - TUMBY ISLAND
SGF	JUSSIEU	PROPER BAY - PORTER BAY - SPALDING COVE

SGF	JUSSIEU	TOD ESTUARY - LOUTH BAY
SGF	DUTTON	LIPSON COVE - LIPSON ISLAND
SGF	FRANKLIN	ARNO BAY
SGF	FRANKLIN	MILLS BEACH - FRANKLIN HARBOUR
NSG	YONGA	WHYALLA - COWLEDS LANDING
NSG	YONGA	POINT LOWLY
NSG	YONGA	GERMEIN BAY - PORT DAVIS - FISHERMAN BAY
NSG	WINNINOWIE	FAR NORTHERN SPENCER GULF
SGF	TIPARRA	TIPARRA REEF - TIPARRA BAY - CAPE ELIZABETH
SGF	TIPARRA	MOONTA BAY - BIRD ISLANDS - TIPARRA REEF - TIPARRA BAY
SGF	WARDANG	WARDANG ISLAND - PORT VICTORIA
SGF	WARDANG	POINT TURTON - LEVEN BEACH
SGF	PONDALOWIE	CORNY POINT
SGF	PONDALOWIE	FORMBY BAY - INNES NATIONAL PARK
SGF	GAMBIER	GAMBIER ISLANDS
SGF	GAMBIER	NEPTUNE ISLANDS
SVG	STURT	FORMBY BAY - INNES NATIONAL PARK
SVG	STURT	ALTHORPE ISLANDS
SVG	STURT	POINT DAVENPORT CONSERVATION PARK
SVG	STURT	TROUBRIDGE SHOALS - MARION SHOALS
SVG	ORONTES	SALT CREEK BAY
SVG	ORONTES	OYSTER BAY - PORT VINCENT
SVG	ORONTES	BLACK POINT
SVG	ORONTES	TIDDY WIDDY
SVG	CLINTON	ZANONI SHIPWRECK
SVG	CLINTON	WILLS CREEK - CLINTON CONSERVATION PARK
SVG	CLINTON	LIGHT RIVER - PORT RIVER ESTUARY
SVG	CLINTON	GLENELG SHIPWRECKS
SVG	YANKALILLA	ONKAPARINGA ESTUARY - MOANA
SVG	YANKALILLA	ALDINGA BAY - MYPONGA ESTUARY
SVG	YANKALILLA	YANKALILLA BAY
SVG	ENCOUNTER	DEEP CREEK - NEWLAND HEAD
SVG	ENCOUNTER	ENCOUNTER BAY
SVG		IRONSTONE POINT - ANTECHAMBER BAY
SVG	NEPEAN-BACKSTAIRS	
SVG	NEPEAN-BACKSTAIRS	
SVG		BAY OF SHOALS - WESTERN COVE
EYR	GANTHEAUME	FLINDERS - RAVINE DES CASOARS
EYR	GANTHEAUME	CAPE BOUGUER - KELLY HILL
EYR	GANTHEAUME	CAPE KERSAINT - VIVONNE BAY
EYR	GANTHEAUME	CAPE GANTHEAUME
EYR	GANTHEAUME	DESTREES BAY
EYR	GANTHEAUME	CAPE HART
EYR	GANTHEAUME	SUBMARINE CANYONS AND BASEMENT HIGHS
SVG	CASSINI	CAPE TORRENS - HARVEYS RETURN
SVG	CASSINI	WESTERN RIVER COVE - SNUG COVE
SVG	CASSINI	STOKES BAY
SVG	CASSINI	SMITH BAY
		EMU BAY AND BOXING BAY
SVG	CASSINI	
COR	COORONG	COORONG NATIONAL PARK
COR	COORONG	LACEPEDE BAY - CAPE JAFFA - MARGARET BROCK REEF
OTW	CANUNDA	LACEPEDE BAY - CAPE JAFFA - MARGARET BROCK REEF
OTW	CANUNDA	GUICHEN BAY - BAUDIN ROCKS - CAPE DOMBEY - LITTLE DIP

OTW	CANUNDA	NORA CREINA BAY
OTW	CANUNDA	PENGUIN ISLAND - CAPE MARTIN - BEACHPORT
OTW	CANUNDA	CAPE BANKS - CANUNDA
OTW	NENE	BLACKFELLOWS CAVES - NENE VALLEY
OTW	NENE	BLANCHE BAY - CAPE NORTHUMBERLAND
OTW	PICCANINNIE	EIGHT MILE CREEK - BROWN BAY - GREEN POINT AND OFFSHORE
OTW	PICCANINNIE	ELLARDS CREEK - PICCANINNIE PONDS

Many of the locations in the list above (recommended by various members of the South Australian Marine Protected Areas Technical Working Group - see summary in Edyvane, 1999b), are smaller parts of the larger areas described in this report. Additionally, a number of previous and current nominations for locations within the larger areas discussed here, have been presented to government, or recommended by government, between 1980 and the early 2000s. Some examples are included below:

## 11.1 Nuyts Archipelago, St Francis Isles and Coastal Embayments (Murat Bioregion)

- The lack of marine protected areas on Eyre Peninsula was highlighted as an important issue in a study report of the marine biota of the Eyre Coast (Buckley, AMDL consultancy to Department of Environment and Planning, 1986). In 1986, declaration of marine reserves was considered by Dr B. Lever, Director of SA National Parks and Wildlife Service, to be one of the two most urgent issues for conservation in South Australia. The Buckley report recommended that marine reserves be declared to protect and conserve representative examples of each major subtidal community, and to protect and conserve spawning, nursery and feeding grounds for commercial and other fish and crustaceans (Buckley, 1986).
- Buckley (1986) recommended all mangroves in the Eyre Peninsula region for formal protection. At the time, mangroves and subtidal seagrass at Davenport Creek, Cape Missiessy, and Acraman Creek were highlighted as some of the most valuable areas requiring formal protection as marine reserves. The Buckley report also considered that **Laura Bay** was worthy of immediate protection as a marine reserve.
- Martin (1988) recommended formal protection and preservation under the Aboriginal Heritage Act 1988, of a "representative sample" of the fish-traps on the Eyre Peninsula and West Coast. The proposed protected areas would also include the land (e.g. beach. fore-dune, cliff) surrounding the fish trap, to preserve the "environmental integrity" of the sites. In particular, the **Duckponds Fish Trap** complex was highlighted as a desired area for protection, including the intertidal zone and foreshore bordering Section 197 and 241; the rocky reefs, corners and shell grit beach ridges; the fish traps in tidal pools; at least one of the woven fish trap sites; the tidal channel of Duckponds Creek, and the adjacent samphire and mangrove swamp.
- The Department of Lands Eyre Regional Office (pers. comm., cited by Hames Sharley Australia, 1989), suggested that areas of "natural quality" should be zoned (to protect them from development), and included as prime examples: Laura Bay, Wittelbee Bay, Acraman Creek and the Offshore Islands (Nuyts Archipelago and St Francis Isles).

- In addition to the areas of reported marine conservation significance listed in Edyvane (1999b), the GAB 1000 West Coast Strategy (see Ellis, 1999a) recommended that several areas of remnant coastal vegetation with high conservation value be protected. These areas include Cape Missiessy, Laura Bay, Davenport Creek and Point Gibson. The latter has been considered by the Coast Protection Board for negotiated acquisition in recognition of the need to protect values relating to particular rare and/or threatened habitats, flora and/or fauna. The area under consideration has coastal dune and mangrove species. The broad intertidal sand flat approximately 1 km wide runs from east of Cape Bauer to Point Gibson (Coast Protection Board Minutes)
- Tourville Bay was described in the Murat Bay Aquaculture Management Plan (Bond 1991) as one of the most important coastal wetlands in South Australia. Tourville Bay has been identified as being of high / outstanding conservation significance, due to the relatively pristine nature of the bay and surrounding catchment, according to Bucher and Saenger (1989, cited by Edyvane and Nias undated). PIRSA's aquaculture management plan for the region (Ashman, 1996b) also described the Tourville Bay area as being of high conservation significance. Tourville Bay was one of only three estuarine areas in South Australia to be rated as "near pristine" by participants at a national workshop for the National Land and Water Resources Audit in 1999 (see Part 1 of this table).
- Ellis (1999a), documenting information for the GAB 1000 West Coast Strategy, stated that
  "several sheltered bays and lakes in the region have been recognised as having wetland
  and nursery values of national and international importance to marine fauna and seabirds";
  and that "areas of mangroves on the West Coast are rare, and in some cases unique, in
  South Australia"; and "protection of the ecological functions of these areas is essential".
   Point Gibson (Streaky Bay) and Davenport Creek were listed in the GAB 1000 West
  Coast Strategy (Ellis, 1999a) as being areas of "high conservation significance".
- Members of marine-affiliated conservation groups in South Australia, including the
  Conservation Council of South Australia, Australian Marine Conservation Society,
  Wilderness Society, Australian Conservation Foundation, and Nature Conservation
  Society, jointly submitted to government a nomination for the Nuyts Archipelago, St
  Francis Isles and Franklin Islands to be declared Wilderness Areas under the
  Wilderness Protection Act 1992, due to the marine ecological values of those island
  groups being consistent with international criteria for the proclamation of wilderness
  reserves with strict protection (CCSA/AMCS/Wilderness Society/ACF/NCSSA Media
  Release, December 1998).
- Australian Marine Conservation Society (Tarte, 1999) identified Nuyts Archipelago as being "a long standing commitment for a State water MPA".

# 11.2 Baird Bay to Cape Bauer (including nearshore islands) (Murat/Eyre Bioregions Boundary)

- The 1986 report by Buckley (see above) to S.A. Department of Environment and Planning considered that **Baird Bay** was worthy of immediate protection as a marine reserve.
- In 2003-2004, a protected area was proposed around the Cape Blanche / Nicholas Baudin Island area, in recognition of the outstanding value of the area for breeding of Australian sea lions, and recognition of the potential threats to this colony and its feeding and breeding area. In 2003-2005, local conservation groups in the mid west coast region were engaged in research and campaigning related to more formal protection of the coastal and marine environments of the bays, headlands and around nearshore islands.

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#### 11.3 Venus Bay and Surrounds (Eyre Bioregion)

- The 1986 report by Buckley (see above) to S.A. Department of Environment and Planning considered that **Venus Bay** was worthy of immediate protection as a marine reserve.
- The GAB 1000 West Coast Strategy Draft (1999) reported that (i) ecosystems generically considered to be important include mangrove areas, inverse estuaries, samphire communities, sheltered bays, and seagrass communities; (ii) all major mangrove areas and associated samphires should be protected, and that (iii) Venus Bay is of recognised conservation significance (i.e. in the aforementioned respects).

#### 11.4 Investigator Group of Islands (Eyre Bioregion)

- The lack of marine protected areas on Eyre Peninsula was highlighted as an important issue in a study report of the marine biota of the Eyre Coast (Buckley, 1986). The Buckley report recommended that "marine reserves be declared to protect and conserve representative examples of each major subtidal community, and to protect and conserve spawning, nursery and feeding grounds for commercial and other fish and crustacea" (Buckley, 1986).
- Members of marine-affiliated conservation groups in South Australia, including the Conservation Council of South Australia, Australian Marine Conservation Society, Wilderness Society, Australian Conservation Foundation, and Nature Conservation Society, jointly submitted to government a nomination for the **Islands of the Investigator Group** to be declared Wilderness Areas under the Wilderness Protection Act 1992, due to the marine ecological values of those islands being consistent with international criteria for the proclamation of wilderness reserves with strict protection (CCSA/AMCS/Wilderness Society/ACF/NCSSA Media Release, December, 1998).
- Australian Marine Conservation Society (Tarte, 1999) identified Investigator Group of **Islands** and Flinders Island as being "long standing commitments for State water MPAs".

## 11.5 Thorny Passage (Eyre Bioregion)

- Members of marine-affiliated conservation groups in South Australia, including the Conservation Council of South Australia, Australian Marine Conservation Society, Wilderness Society, Australian Conservation Foundation, and Nature Conservation Society, jointly submitted to government a nomination for the waters surrounding **Lincoln** National Park, Coffin Bay National Park, and Thorny Passage to be declared Wilderness Areas under the Wilderness Protection Act 1992, due to the marine ecological values of those islands being consistent with international criteria for the proclamation of wilderness reserves with strict protection (CCSA / AMCS / Wilderness Society / ACF / NCSSA Media Release, December 1998).
- Australian Marine Conservation Society (Tarte, 1999) identified the **Thorny Passage** area and the waters surrounding Lincoln National Park as being "long standing commitments for State water MPAs".

- The European cultural value of the Lincoln coast was the basis of a "Marine Park" Proposal, in 2001, by the Southern Eyre Encounter 2002 Committee, described in the section on Current Level of Protection and Management. The proposal was for a Marine Park, in name only, to commemorate the loss of one of Matthew Flinder's cutters, and its crew, which included John Thistle, the Captain of Flinder's main ship the Investigator, midshipman William Taylor; and six other crew members, after which the other islands in Thorny Passage are named. The proposal reportedly would seek not to exclude current activities such as commercial abalone fishing, recreational fishing, yachting, and use as a thoroughfare for commercial fishing vessels. The proposal did not mention the existing commercial fishing activity in the area, or a proposal to change the existing arrangements if the marine park proposal is approved. However, the proposal hoped to enforce a prohibition on any visual structures in the area, which could include aquaculture cages. The proposed boundaries of the Park were as follows: North-western: Cape Donington; North-eastern: Dangerous Reef; South-western: West Point / Lighthouse Point; Southeastern: bottom of Thistle Island.
- The lack of marine protected areas on Eyre Peninsula (including western Spencer Gulf) was highlighted as an important issue in a study report of the marine biota of the Eyre Coast (Buckley, 1986). In 1986, Dr B. Lever, Director of SA National Parks and Wildlife Service, considered declaration of marine reserves to be one of the two most urgent issues for conservation in South Australia. The report by Buckley considered that Memory Cove and the marine area adjacent to Port Lincoln National Park were worthy of immediate protection in the form of marine reserves, and were listed as highest priority.
- In 1980, a report to government by two marine researchers, and representatives of the S.A. SCUBA Divers Association and S.A. Underwater Photographic Society (Ottaway et al., 1980), recommended that all offshore islands controlled by National Parks in S.A., should have their reserve boundaries extended seawards, either to the 20m contour, or 600m seaward.

# 11.6 Sir Joseph Banks Group and Dangerous Reef (including Tumby Bay) (Eyre Bioregion)

- Members of marine-affiliated conservation groups in South Australia, including the Conservation Council of South Australia, Australian Marine Conservation Society, Wilderness Society, Australian Conservation Foundation, and Nature Conservation Society, jointly submitted to government a nomination for the waters surrounding the Sir Joseph Banks Group to be declared Wilderness Areas under the Wilderness Protection Act 1992, due to the marine ecological values of those islands being consistent with international criteria for the proclamation of wilderness reserves with strict protection (CCSA/AMCS/Wilderness Society/ACF/NCSSA Media Release, December 1998).
- Australian Marine Conservation Society (Tarte, 1999) identified Sir Joseph Banks Group and Dangerous Reef areas as being "long standing commitments for State water MPAs".
- Note that the marine environment around the Sir Joseph Banks Group, although not formally protected to date, is regularly described as a "marine park" and a "sanctuary area", by dive organisation promotions; Flinders University's Lincoln Science Centre promotion materials for the lower Spencer Gulf; and by Eyre Peninsula regional tourism promotional materials. For example, a recent tourism promotion for the area (see Tumby Bay Telecentre 2000) described the Sir Joseph Banks Group as follows: "These islands are one of the marine wonders of the world and are a marine conservation park".

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#### 11.7 Neptune Islands Group (Eyre Bioregion)

No other recommendations are known for this report, other than that by a member of the South Australian Marine Protected Areas Working Group during the early 1990s (summarised in Edyvane, 1999b), based on the significance of the islands for breeding populations of New Zealand Fur Seal.

#### 11.8 Gambier Islands Group (Eyre Bioregion)

- In 1992, designation of a Wedge Island North Islet Marine Reserve was suggested as a high priority by a senior research officer of the S.A. National Parks and Wildlife Service, due to the perceived biodiversity of this "ecotone" in the Spencer Gulf Marine environment.
- In 1980, a report to government by two marine researchers, and representatives of the S.A. SCUBA Divers Association and S.A. Underwater Photographic Society (Ottaway et al 1980), recommended that all offshore islands controlled by National Parks in S.A., should have their reserve boundaries extended seawards, either to the 20m contour, or 600m seaward.

## 11.9 Franklin Harbor and Surrounding Waters (Spencer Gulf / North Spencer Gulf Bioregions Boundary)

No other recommendations are known for this report, other than that listed by Edyvane (1999b) for the area from Mills Beach to Franklin Harbour.

## 11.10 Upper Spencer Gulf (North Spencer Gulf Bioregion)

- The lack of marine protected areas on Eyre Peninsula (including the western side of Spencer Gulf) was highlighted as an important issue in a study report to government of the marine biota of the Eyre Coast (Buckley, 1986). The Buckley report recommended that marine reserves be declared to protect and conserve representative examples of each major subtidal community, and to protect and conserve spawning, nursery and feeding grounds for commercial and other fish and crustacea (Buckley, 1986).
- In 1994, the Northern Spencer Gulf Resource Processing Strategy Information Paper (Dainis 1994), suggested that: "Recent marine conservation initiatives, both internationally and nationally, have centred on whole ecosystem conservation, with the establishment of large, multiple-use marine parks to protect core, critical areas through the creation of buffer zones. Of particular significance with the establishment of such parks is the integration and co-operation of existing and future uses, and the resolution of user-group conflicts through a multi-use zoning process."

- In recent years, the Whyalla City Council, in conjunction with the Whyalla Sports Divers Club, has been investigating the processes required to have the cuttlefish spawning grounds at Whyalla listed on the World Heritage list (Bramley, 2000). The Whyalla Sports Divers Club submitted a proposal to government in 2000, seeking formal protection of the cuttlefish spawning grounds in the Whyalla region, through the declaration of a marine protected area (see Whyalla Sport Divers Club, 2000). The Whyalla cuttlefish spawning area is being considered as a special conservation zone, in the government's Marine Plan for Spencer Gulf (Media Release, July 2002).
- Australian Marine Conservation Society (Tarte, 1999) identified Upper Spencer Gulf as being "a long standing commitment for State water MPAs".

#### 11.11 South-Eastern Spencer Gulf (Spencer Gulf Bioregion)

- In 1980, the former South Australian Department of Fisheries nominated the reefs at Cape Elizabeth as a conservation reserve.
- The Warooka Development Plan (Planning SA, 1999) recommended that: the coastal strip and sand dunes south of Port Victoria; and the sand dunes and coastal cliffs in the Hardwicke Bay area be "investigated for National or Conservation Parks".
- In 2002, the Narungga Nations Aboriginal Corporation (NNAC), the title holders of a 2000ha coastal property in the Cape Elizabeth / Tiparra area, were considering the possibility of having the property, along with the adjoining coastal reserve, declared an Indigenous Protected Area (IPA), which would aid the NNAC in protecting the cultural and heritage values of the property, and fulfil its land management responsibilities with the ILC (ILC Media Release, April 2002).
- A dive report from the Marine Life Society of South Australia suggested that **Wardang Island** and its surrounding islands should be Heritage Listed or declared a Marine Park, and that the inner **Port Victoria** area should also be formally protected due to the large amount of seagrass in the area, and its role as a fish nursery for a large number of juvenile fish (Bellchambers, 1999).

## 11.12 Western Investigator Strait, between "Toe" of Yorke Peninsula and Northern Kangaroo Island (Eyre / Gulf St Vincent Bioregion Boundary)

- Australian Marine Conservation Society (Tarte, 1999) identified marine extensions to Innes National Park as being "long standing commitments for State water MPAs".
- In 1992, a senior research officer of National Parks and Wildlife Service South Australia considered proclamation of a marine park and reserve network around the Innes National Park area to be a very high priority (Robinson, recommendation to S.A. Department of Fisheries, 1992). Apart from this, and other site-specific recommendations made during the 1990s by members of the SA Marine Protected Areas Working Group (see Edyvane, 1999), previous nominations have included the following:
- A report by Ottway et al (1980) suggested that national parks with sea boundaries, such as Innes, and offshore islands under the jurisdiction of National Parks and Wildlife, should have their reserve boundaries extended seawards, by 600m, or to the 20m depth contour.

- Gleesons Landing to Daly Head was previously nominated (in 1974) by the former S.A.
   Department of Fisheries and Fauna Conservation as a reserve for marine education purposes (Wynne, 1980), but no progress has been made since that time.
- The Althorpe Islands and surrounding waters were previously nominated (in 1974) by the former S.A. Department of Fisheries and Fauna Conservation, as a reserve to protect Blue Groper populations (Wynne, 1980), but no progress has been made since that time.
- Shepherd and Brook (2002) suggested that no-take fishing areas along the southwestern coast of Yorke Peninsula would provide better protection for Blue Groper populations that have been depleted by fishing over several decades, because the prohibition (under the *Fisheries Act 1982*) on fishing Western Blue Groper in Investigator Strait waters appears not to have been effective.
- McGarvey et al. (2000) stated that seasonal closures or area closures should be considered as one of several options for protecting the spawning stock of King George Whiting (N.B. another option included the introduction of a maximum legal length for caught fish).

# 11.13 North-Western, Western and South-Western Kangaroo Island (Eyre Bioregion)

- In 1992, some members of the South Australian Marine Protected Areas Working Group recommended designating the entire region of **Kangaroo Island** as a zoned Marine Park, including high protection areas.
- Either a seasonal closure against marine uses/activities, or a year-round reserve (i.e. marine protected area) has previously been proposed for the entire southern Kangaroo Island, due to seasonal presence of Southern Right Whales on southern Kangaroo Island, sea lions, and New Zealand Fur Seals (Ling, SA Museum, pers. comm. 1992 to South Australian Department of Fisheries).

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The Action Plan for Australian Seals (Shaughnessy, 1999), recommended formal protection of waters around breeding colonies, since the feeding grounds in the waters adjacent breeding colonies are part of the key habitat for pinnipeds, particularly for pups, which do not venture as far out to sea relative to the adults. Specifically, Shaughnessy (1999, page 12) stated "the value of the existing marine protected areas on the Australian coast should be assessed, particularly in relation to foraging behaviour of pups before weaning (to about 18 months for sea-lions and 10 months or even longer for fur-seals) and soon after weaning. Pups spend time in the shallows near their breeding colonies. It would be valuable to document the amount of time they spend there and their activities. At Seal Bay, Kangaroo Island, young sea lions pursue mullet in the shallows close to the colony. If juvenile seals are dependent or even semi-dependent on resources in waters adjacent to their colonies, existing protected areas should be expanded to provide adequate protection for these areas too. Marine protected areas around seal colonies in Australia are managed by nature conservation agencies or by fisheries agencies. Since seals are managed ashore by nature conservation agencies, it is appropriate that they be managed by the same agency when at sea in order to avoid inconsistencies and maintain an adequate level of protection. It is logical therefore that such marine protected areas should be established under nature conservation legislation rather than fisheries legislation". Shaughnessy (1999) also wrote "if there are favoured feeding places, they should be included in marine protected areas. This is especially important because the otariid seals on the coast of mainland Australia and at the Sub-Antarctic islands nurse their pups for many months. Other marine predators would also benefit from the establishment of protected areas at feeding 'hotspots".

#### 11.14 Southern Eyre (Eyre Bioregion)

- In 2002, AFMA's Shark Management Advisory Committee recommended a number of area closures (see AFMA, 2002a), primarily to protect School Shark nurseries and sites for pregnant female School Sharks. The closures were to apply to the Southern Shark and South-East Non-Trawl fisheries (which are now part of the general SESSF fishery see AFMA, 2003). Part of Southern Eyre Peninsula i.e. West Point to Cape Wiles (including Sleaford Bay) was one of the 7 areas initially proposed in SA and Tasmania for permanent closure to School Shark fishing. Following discussions with stakeholders, closure of this area to shark fishing was subsequently rejected (see AFMA, 2003c).
- The Coffin Bay National Park was nominated by the S.A. Government Wilderness Advisory Committee in 1998-1999 as a Wilderness Protection Area, under the 1992 Wilderness Protection Act 1992. Although the exact marine extent of the nominated area is not specified in the Plan, the description of the area for consideration in the Report to the Minister (DEHAA, 1999b) stated that "The extreme southern portion of Eyre Peninsula covered by this report includes Coffin Bay National Park. Several islands are dedicated to the national parks, and these are also considered, along with the marine environment which surrounds them" (DEHAA, 1999b, page 4). (see section above on Current Level of Protection and Management).
- Australian Marine Conservation Society (Tarte, 1999) identified the Coffin Bay National Park, Avoid Bay, Avoid Bay Isles and Whidbey Islands areas as being "long standing commitments for State water MPAs".

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- Members of marine-affiliated conservation groups in South Australia, including the Conservation Council of South Australia, Australian Marine Conservation Society, Wilderness Society, Australian Conservation Foundation, and Nature Conservation Society, jointly submitted to government a nomination for the waters surrounding **Lincoln** National Park and Coffin Bay National Park to be declared Wilderness Areas under the Wilderness Protection Act 1992, due to the marine ecological values of those islands being consistent with international criteria for the proclamation of wilderness reserves with strict protection (CCSA/AMCS/Wilderness Society/ACF/NCSSA Media Release, December 1998).
- The lack of marine protected areas on Eyre Peninsula was highlighted as an important issue in a study report of the marine biota of the Eyre Coast, prepared for the S.A. Department of Environment and Planning (Buckley, 1986). The Buckley report (1986) considered that the small bay near Point Avoid, as well as the marine area adjacent to the entire Coffin Bay National Park, and the Black Springs area were worthy of immediate protection in the form of marine reserves, and were listed as highest priority.

#### 11.15 The "Heel" of Yorke Peninsula (Gulf St Vincent Bioregion)

- In 1974, the S.A. Department of Fisheries proposed a reserve for marine education purposes for the area between Black Hill and Troubridge Point.
- In 1980, the **Edithburgh** jetty was nominated for Marine Reserve status by two marine researchers, and representatives of the S.A. SCUBA Divers Association and S.A. Underwater Photographic Society (Ottaway et al., 1980). Since that time, other discussions of formal protection for the jetty has also occurred, within both community and government (e.g. S.A. Marine Protected Areas Working Group recommendations during 1991-1992).
- Since the declaration of the **Troubridge Hill Aquatic Reserve** in 1983, there have been regular requests to government from dive groups seeking increased protection for the fish fauna in the Troubridge area from all forms of fishing.
- According to National Parks and Wildlife Service (Robinson, 1992, pers. comm. to S.A. Department of Fisheries), there was a lot of discussion in the early 1990s regarding the provision of a marine reserve around **Troubridge Island**.
- In 1991, a State inter-agency workshop on MPAs recommended that waters around **Troubridge Island** be designated as a Marine Protected Area. The list of proposed areas developed in 1992 by the 30-member South Australian MPA Working Group, included the following areas proposed to be declared as MPAs: buffer zone around Troubridge Hill Marine Reserve, incorporating an extension to **Black Hill** and **Troubridge Point**; and waters around Troubridge Island.
- A marine reserve in the **Coobowie** area was suggested in 1992, by some members of the SA Marine Protected Areas Working Group, to help support the marine research work that was conducted in the area. The suggestion was based upon an earlier nomination for protection of the Coobowie area as a marine education reserve, documented in the Yorke Coast Protection District Study Report (Wynne, 1980).
- The region of coastal waters between **Sultana Point** and **Klein Point** has been described as a 'special area' in DENR / EPA's Protecting Gulf St Vincent publication (Harbison, 1997).

- Bergay (1996) described the marine area around **Troubridge** as having "high conservation value" due to its benthic seagrass, sponge and reef communities, and as seabird and wading habitats.
- McGarvey et al. (2000) stated that seasonal closures or area closures should be considered as one of several options for protecting the spawning stock of King George Whiting (N.B. another option included the introduction of a maximum legal length for caught fish).
- For the area described in this table, habitat to at least 10m contains extensive and undamaged examples of a variety of calcareous reefs, with benthic topography and biota that are influenced by the strong shallow water currents and wind wave action of southeastern Yorke Peninsula, in addition to shallow water sponge beds, which are uncommon in the South Australian coastal area. The area to 15m around the "heel" of Yorke Peninsula area encompasses much of the ecologically significant reef types, seagrass and sand environment in south-western Gulf St Vincent, and also includes Troubridge Island and surrounds. Part of the described area contains dense, extensive seagrass beds, in addition to other habitats described in this table. The seagrass beds in this region have not been degraded by coastal effluent discharge over decades, unlike those in other parts of the GSV Bioregion. Some of the habitat types described for this region do not occur in other parts of the Gulf St Vincent Bioregion. It is noted that the assemblages of southeastern Yorke Peninsula, which exemplify the habitat diversity of the western parts of the Gulf St Vincent Bioregion, have not been physically damaged, unlike assemblages in more central parts of the GSV Bioregion, which have been trawled since the middle of last century.

#### 11.16 Upper Gulf St Vincent (Gulf St Vincent Bioregion)

- The Field Naturalists' Society of South Australia provided a submission to government (undated, believed to be during the 1970s) for the protection of this area. The submission provided ecological information to support a proposal for a "large national park (marine) at the head of St Vincent's Gulf".
- Previously, in 1974, the Department of Fisheries advised the Yorke Coast Protection District Board that the supratidal and intertidal area from Price to Port Wakefield should be considered for declaration as an Aquatic Reserve (Wynne, 1980, cited by Edyvane, 1996b).
- Several submissions were received by the Department of Fisheries in 1991, stating that additional "non-fishing areas" should be introduced in the Barker Inlet area, to protect juvenile fish and vulnerable adult fish stocks. Such areas included Angas Inlet, where the habitat (mangroves and tidal banks) was purportedly being degraded by human activity in the area (Rohan et al., 1991).
- The Barker Inlet system has been the subject of several government studies and community proposals during the 1990s, which recommended extensions of the existing Aguatic Reserve, and/or Marine Park designation for the entire system, including the channels and islands. For example, the Environment Division of the Department of Environment and Planning, proposed the Barker Inlet Conservation Park, and developed a proposed management plan in 1992/1993.

- During the mid to late 1990's and early 2000s there were proposals to list the northern and north-eastern Gulf St Vincent region as a Ramsar site, due to its significance for migratory birds (T. Flaherty, verbal submission to Senate Inquiry into Gulf St Vincent, February, 2000; District Council of Mallala Foreshore Advisory Committee and EcoConnect, 2002). A report by District Council of Mallala Foreshore Advisory Committee and EcoConnect (2002) noted in particular the Samphire Coast area of north-eastern Gulf St Vincent, which contains populations of migratory bird species that make the site eligible for listing under the Ramsar convention.
- During the late 1990s, the region from Port Prime, south to, and including Garden Island. and also the St Kilda - Chapmans Creek and Barker Inlet Aquatic Reserves, were the subject of a Multiple-Use Marine Protected area proposal (draft Northern Adelaide Coastal Wetlands Background Paper, cited by Edyvane, 1999b). Various communitybased conservation park proposals for the Port River / Barker Inlet area, including Torrens Island and Garden Island, were also developed during the 1990s.
- There was a recommendation in 1992 for the **Garden Island** waste facility to be closed. the existing levees to be breached (to allow re-colonisation of saltmarsh vegetation), and for remaining saltmarsh in that area to be protected formally (possibly as an extension of the **Torrens Island** Conservation Park), to permit regeneration of damaged saltmarsh habitat in the area (Edyvane, 1992, pers. comm. to PPK). A Garden Island rehabilitation project was initiated by State Government during the mid 1990s. The proposal included closing the dump, treating the leachate, "rehabilitating" the saltmarsh area, and building an interpretive centre. Although this proposal has not been accepted to date, the Garden Island waste facility was due for closure during the mid 2000s.
- Smith (2002) recommended the formal protection and management of habitat from Port **Prime** to south of **Port Gawler**, as being a necessary step to maintain viable populations of Samphire Thornbill, and protect its race *rosinae* from further decline in the area. The species is of conservation concern due to small population numbers, limited available habitat, and recognised threats (see section above on issues for Risk and Impact Assessment).
- A report by the District Council of Mallala Foreshore Advisory Committee and EcoConnect (2002), called for more formal protection of the samphire saltmarsh, mangroves and intertidal / shallow subtidal seagrasses of north-eastern Gulf St Vincent. Of particular note in that report was the **Light River** delta, and its mangroves and associated habitat, which have no formal protection, despite the recognised high conservation value of the area (e.g. Edyvane, 1999b and 2000; Smith, 2002; and the table in this report on **Ecological Values** for the area). The 2002 Foreshore Advisory Committee report recommended that the entire north-eastern coastal area of Gulf St Vincent be declared as a marine and estuarine protected areas, to low tide level, and be co-managed with any protected area or planning area that embraces the nearshore seagrass areas of gulf St Vincent.
- In 2002, the District Council of Mallala Foreshore Advisory Committee and EcoConnect (2002) reported that Penrice Soda Products at Dry Creek was discussing with government the possibility of co-managing and declaring as a sanctuary area, the unused "Northern Leases" of the salt fields in this area, Crown land which Penrice has a licence to occupy. Other land used by private landholders was also recommended for restoration and management as a "buffer area" to the wetlands in the north-eastern GSV area.

The DC Mallala Foreshore Advisory Committee has proposed that a new Conservation Park and Heritage Agreement Area be established in the area that includes Council and Crown lands in the vicinity of Port Prime and Light Beach. A private landholder in the adjoining area (recommended for Heritage Agreement status by the Foreshore Advisory Committee), is reported to be supportive of the proposal (District Council of Mallala Foreshore Advisory Committee and EcoConnect, 2002).

## 11.17 Southern Fleurieu / North-East Kangaroo Island / Backstairs Passage / Encounter Bay / Upper Coorong (Gulf St Vincent Bioregion)

#### Southern Fleurieu

- In 1980, the Rapid Bay jetty was nominated for Marine Reserve status by two marine researchers, and representatives of the S.A. SCUBA Divers Association and S.A. Underwater photographic Society (Ottaway et al., 1980).
- Extension of **Aldinga** Aquatic Reserve recommended by Ottway et al. (1980). Habitats from Rapid Bay to Second Valley were also recommended for increased formal protection by Ottway et al. (1980).
- During 1991 -1992, public submissions were received by government, recommending marine protected areas be established in a number of Southern Fleurieu areas (Lady Bay, Carrickalinga, Second Valley, Deep Creek areas).
- In 1992-93, the area between Port Willunga and Aldinga Bay, was nominated by government agency as a Marine Reserve, and the area between Carrickalinga Head and Cape Jervis was nominated as a Marine Park (to include potential Marine Reserves such as Rapid Head, Carrickalinga, Normanville, Lady Bay, Second Valley, and Cape **Jervis**) according to information supplied by some of the 30-member South Australian Marine Protected Areas Technical Working Group.
- More recent reports by Caton (1997, cited by Brook, 2000) and Brook (2000) recommended increased protection for part of the Southern Fleurieu area, through the use of MPAs, including high-protection zones.

#### North-Eastern Kangaroo Island

- Lloyd and Balla (1986, cited by Edyvane, 1999b) recommended that the estuarine area south of the Cvanet River be given status as a reserve due to its "outstanding environmental value".
- A land-based conservation area as well as a marine reserve was recommended as a method of improving catchment management, due to the importance of the Cygnet River Estuary (A. Robinson, National Parks and Wildlife, pers. comm. to South Australian Department of Fisheries, 992).
- H.B.S Womersley, retired Professor of Botany from Adelaide University, has described the American River Inlet as "a rich biological region well worth preserving and conserving for the future" (see Womersley and Edmonds, 1979).
- The foreshore and coastline at **Kingscote** was nominated by government agency in 1992 as a Marine Reserve (MPA), according to information supplied by some of the 30-member South Australian Marine Protected Areas Technical Working Group. The area was nominated principally on features that were summarised as "biogeographic, social and scientific values", in addition to "practicality".

- The area between **Kangaroo Head** and **Snapper Point** (i.e. including **Christmas Cove**, Penneshaw and Hog Bay) was nominated by government agency in 1992 as a Marine Reserve (MPA), according to information supplied by some of the 30 member South Australian Marine Protected Areas Technical Working Group. The area was nominated principally on features that were summarised as "biogeographic, social and scientific values". Subsequently, the most westerly part of this area (Kangaroo Head, Penneshaw, Hog Bay etc) was not included in the Technical Working Group's list of candidate MPAs summarised in Edyvane (1999b), for unspecified reasons.
- In 1998, some of the major marine and marine-affiliated conservation groups in South Australia (i.e. CCSA, AMCS, ACF, Wilderness Society, NCCSA) jointly nominated the Hog **Bay** area as a potential reserve under the *Wilderness Protection Act*.
- In 1980, the **Penneshaw** jetty was nominated for Marine Reserve status by two marine researchers, and representatives of the S.A. SCUBA Divers Association and S.A. Underwater Photographic Society (Ottaway et al., 1980).
- Australian Marine Conservation Society (Tarte, 1999) identified the Ironstone Point and **Antechamber Bay** areas as being "long standing commitments for State water MPAs".
- The north-eastern Kangaroo Island area (**Dudley Peninsula**) has recently (1999-2003) been the subject of a community-based MPA proposal developed by the Kangaroo Island Branch of the Australian Marine Conservation Society (see KI-AMCS 2000 and 2001), and associated with the on-going Coastcare-funded monitoring project and register of values of the area.
- In 2002, AFMA's Shark Management Advisory Committee recommended a number of area closures (see AFMA, 2002a), primarily to protect School Shark nurseries and sites for pregnant female School Sharks. The closures were to apply to the Southern Shark and South-East Non-Trawl fisheries (which are now part of the general SESSF fishery – see AFMA, 2003). The coastal waters out to 3NM, between Cape Marsden to Cape Coutts (and including the North-Eastern Kangaroo Island Bays), was one of the 7 areas proposed in SA and Tasmania for permanent closure to School Shark fishing. Following discussions with stakeholders, closure of this area to shark fishing was subsequently rejected (see AFMA, 2003c).

#### **Encounter Bay**

Encounter Bay region has regularly been nominated for increased protection / management through the use of MPAs / reserves. Examples include:

- South Australian Piscatorial Council, and Ottway, Oak, Bossley and Gardiner (see Ottway et 1980), who recommended, for listing: Encounter Bay and Port Elliot, including Wright Island and Granite Island:
- Halstead's (1987) study, which illustrated the importance of the Encounter Bay region for aquatic recreation and tourism. The author recommended that the region be zoned as a low impact use reserve so that the social and ecological importance of the Encounter Bay region would not be compromised:

- S.A. Marine Protected Areas Working Group (1992-1993, unpublished), whose recommendation was reported by Baker and Edyvane (1996, report for Victor Harbor Council, via S.A. Department Housing and Urban Development). Some members of the S.A. Marine Protected Areas Working Group recommended that the entire **Encounter Bay** region from Deep Creek Conservation Park to the Murray Mouth be classified as a multiple use Marine Park, due to the outstanding ecological, biophysical and geological significance of the area. The need to protect Encounter Bay during the winter migration of the Southern Right Whales was particularly stressed. The high social importance of the area (especially for recreation and tourism and fisheries) was also considered in the need for improved management and protection against indiscriminant impacts.
- More recent reports by Caton (1997, cited by Brook, 2000) and Brook (2000) recommended increased protection for part of the Southern Fleurieu area, through the use of MPAs, including high-protection zones.
- Australian Marine Conservation Society (Tarte, 1999) identified the **Encounter Bay**, Granite Island, and Wright Island areas as being "long standing commitments for State water MPAs".
- The environmental and social values of **Encounter Bay** were highlighted in the declaration of the area in 2000 as part of the Register of the National Estate (Australian Heritage Commission, 2000).
- In 2002, AFMA's Shark Management Advisory Committee recommended a number of area closures (see AFMA, 2002a), primarily to protect School Shark nurseries and sites for pregnant female School Sharks. The closures were to apply to the Southern Shark and South-East Non-Trawl fisheries (which are now part of the general SESSF fishery – see AFMA, 2003). The coastal waters out to 3NM, from Cape Jervis to Encounter Bay and the **Coorong**, was one of the 7 areas proposed in SA and Tasmania for permanent closure to School Shark fishing. Following discussions with stakeholders, closure of this area to shark fishing was subsequently rejected (see AFMA, 2003c).

#### **Murray Mouth**

The area considered in this report has proposed boundaries identical to those considered by the Murray Mouth Land Use Working Group (1991 Working Group Report, cited by Edyvane et al., 1996), as an are requiring "core management". The management area discussed in the 1991 report was considered in detail in a 1996 report (Edyvane et al., 1996) titled A Biological Resource Assessment of the Murray Mouth Estuary. The management area proposed by The Murray Mouth Land Use Working Group in 1991 is bordered by Mundoo Island (western bank), Point Sturt, Goolwa Barrage, Sir Richard Peninsula and the Coorong National Park boundary. The area includes all land and water limited by the barrages, Sir Richard Peninsula, the Murray Mouth, and part of Younghusband Peninsula up to Pelican Point on its opposite side, and extending no further inland than one metre above the high water. The Murray Mouth Land Use Working Group proposed this area are one requiring improved protection and management due to its high usage, and being considered to support the most significant conservation areas and the most fragile land systems in the region.

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- The need for an integrated management plan that considered the conservation values and managed activities (particularly recreational) over the whole region was highlighted in 1991 by the Murray Mouth Working Group Report. An assessment of the Murray Mouth by Edyvane et al. (1996), recommended an integrated, regional management plan for the Lower Murray estuary and Coorong region, to overcome the managerial problems associated with the current situation, in which various government agencies at several levels manage the system, with jurisdictional boundaries often not taking into account activities, and/or natural and ecological processes which occur across these boundaries. The 1996 report also recommended a zoning framework for areas and activities, to protect critical areas, habitats and species from detrimental human activities. It was recognised that the international status (e.g. RAMSAR, CAMBA, JAMBA) does little to protect the area from the effects of coastal development, grazing and boating which can significantly affect both, wetland habitats and species.
- The assessment by Edyvane et al. (1996) of the Murray Mouth estuarine system, suggested that key areas of conservation value include eastern Hindmarsh Island, Sir Richard Peninsula (recommended for conservation listing in its entirety) and the Barrage Islands (Long, Tauwitchere, Reedy and Ewe). Edyvane et al. (1996) suggested that these areas should be considered for formal conservation reservation, as extensions of the Coorong National Park, in order to protect the key values and manage the entire estuary on the basis of integrated conservation management.
- Multiple-use protected area legislation was recommended for the Murray Mouth area by Edyvane et al. (1996), incorporating core highly protected areas, and areas in which appropriate activities are managed for sustainable use of the area. Edyvane et al. (1996) recommended designation of the Murray Mouth estuary as a Marine Protected Area, and also recommended Regional Reserve status for the surrounding land areas.
- The assessment of the Murray Mouth region by Edyvane et al. (1996) also recommended that additional information be sought to ascertain the status of unprotected wetlands of high conservation value, and to determine threats from coastal development and other human activities in the region, in order to assess priorities for legislative protection. Such areas included the following: the freshwater wetlands fringing Lake Alexandrina, Lake Albert, eastern Hindmarsh Island and barrage islands, the tributary creeks to Lower Lakes (Finniss River, Tookayerta Creek, Black Swamp), and the estuary channels; freshwater soaks in sandhills; hypo-marine to marine Northern Coorong Lagoon and the marine to hyper-marine South Coorong Lagoon; the mudflats and wader habitat; and the coastal dune habitat. The report recommended strategies to prevent further coastal development within the conservation zone on **Hindmarsh Island** and also on other islands surrounding the estuary (i.e. Long, Tauwitchere, Reedy and Ewe Islands).
- Edyvane et al. (1996) recommended further terrestrial and estuarine additions to the existing Coorong National Park, to protect key wetland conservation values and enable the integrated conservation management of the entire estuary.
- Thompson (1986, cited by Edyvane et al., 1996), considered part of **Hindmarsh Island** to be a region of 'high' conservation value, based on its importance for water birds, the abundant growths of submerged macrophytes and other swamp vegetation.

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#### 11.18 Upper South-East (Coorong/Otway Bioregions Boundary)

- In 2002, AFMA's Shark Management Advisory Committee recommended a number of area closures (see AFMA, 2002a), primarily to protect School Shark nurseries and sites for pregnant female School Sharks. The closures were to apply to the Southern Shark and South-East Non-Trawl fisheries (which are now part of the general SESSF fishery – see AFMA, 2003). Part of the upper South-East (Coorong, extending down to the Kingston / Cape Jaffa and Robe area) was one of the 7 areas proposed in SA and Tasmania for permanent closure to School Shark fishing. Following discussions with stakeholders, closure of this area to shark fishing was subsequently rejected (see AFMA, 2003c).
- Lacepede Bay was recommended as a Scientific Reserve by the South East Coastal Protection Board in 1982.
- Due to its diverse and "unique" marine flora and fauna, Margaret Brock Reef was recommended as an Aquatic Reserve by the South East Coast Protection Board in 1982 (UEPG, 1982, cited by Edyvane, 1999b).
- Nora Creina Bay was recommended as an Aquatic Reserve by the South East Coastal Protection Board in 1982 (with provision for recreational line fishing) (UEPG, 1982, cited by Edyvane, 1999b).
- Australian Marine Conservation Society (Tarte, 1999) identified Cape Jaffa, Margaret Brock Reef and Guichen Bay areas as being "long standing commitments for State water MPAs".

### 11.19 Lower South East (Otway Bioregion)

- In 1982, the South East Coast Protection Board nominated Green Point Reef as an Aguatic Reserve, due to its abundance and diversity of flora and fauna; and the Cape Banks area, with consideration being given to prohibiting spear fishing and the taking of lobsters by divers, due to the importance of the area to the Rock Lobster industry (UEPG, 1982, cited by Edyvane, 1999b).
- Eight Mile Creek (Ewens Ponds) was nominated by Lloyd and Balla (1986) as a potential Wetland Reserve, due to its environmental values.
- An aggregation site for blue whales in deeper Commonwealth waters, particularly the shelf break (200m), between Port MacDonnell and Warrnambool, Victoria, was assessed by the Commonwealth in 2002-2003 as a potential Marine Protected Area. Oceanic processes, namely the Bonney upwelling, results in high productivity, with which the blue whales and other species are associated (Environment Australia media release, September, 2001). The conservation values of the Bonney Coast area have been documented by Butler et al. (2002).

# 12 Miscellaneous Information about Conservation and Management within Recommended Areas

#### 12.1 Overview

This section provides additional information about each focus area, such as expert comments on the ecological significance of particular sites, as well a list of the Geological Monuments in the areas recommended for the SARSMPA. Also included in this section are various conservation ratings and impact classifications that have been given to areas, for example, during government audits. Notes on previous development proposals are also included.

#### 12.1.1 Nuyts Archipelago, St Francis Isles and Coastal Embayments (Murat Bioregion)

- In the National Land and Water Resources Audit's assessment of estuaries in South Australia (1999-2001),
   Tourville Bay was one of the few estuarine areas in South Australia to be classified as Near Pristine (GeoScience Australia, 2001).
- The size of the estuaries and the extent and diversity of associated wetlands suggest that **Streaky Bay** contributes significantly to the ecology of the local area (Bucher and Saenger, 1989, cited by Edyvane and Nias, undated).
- In a "conservation index rating" assessment of the conservation value of 113 islands in South Australia, **Franklin Island** received the fourth highest score. Factors considered included island area, distance from mainland, degree of isolation and disturbance, aesthetic value, and number of biological parameters, such as the number of breeding bird and mammal species, and number of rare species (Robinson *et al.*, 1996).
- In 2001, Davenport Creek was identified as a potential Coastal Geomorphological "Icon", by SA government.
- Planning S.A. produces and regularly updates Development Plans for the Streaky Bay and Ceduna areas.
   The plans contain recommendations for coastal land protection and development, including *Principles for Development Control* in the coastal zone, and environmental and industrial guidelines for aquaculture development.
- Guidelines are required for activities such as eco-tourism, in proximity to breeding populations of marine mammals along the **West Coast** (Ellis, 1999a).
- **Geological and Geomorphological Monuments** (see *Geological Monuments in South Australia* volumes 1977-1994, and uncited references in Edyvane and Nias, undated):
- Murat Bay: Petrified wood in the north-east of the bay is of geological significance. Deposits of petrified
  wood in shallow reef areas along the eastern and northern shores of Murat Bay were considered to
  warrant protection, according to the S.A. Department of Mines and Energy (pers. comm., cited by Hames
  Sharley Australia, 1989). Such deposits were also considered to be under threat from souvenir seekers.
- Laura Bay: A Holocene beach ridge system. At Laura Bay a Holocene beach ridge system has prograded 1200m into the bay with considerable variation occurring in the spacing and height of the beach ridges. Although the beach ridge system to some degree reflects the local conditions of the embayment, it also reflects the conditions (whether changes in storminess or sea-level) that have determined the rates and episodes of Holocene sedimentation along the western portion of the Eyre coast.
- Eyre Island: Holocene beach / fore-dune ridge systems. Eyre Island evolved during the Holocene as a series of multiple beach / fore-dune ridges that prograded simultaneously on three fronts with extensive samphire and mangrove flats between the prograding arms. The island represents an island in the making and preserves a rich history of sea-levels and sedimentation during the Holocene.
- Point Brown: Dykes on the wave-cut platform.
- *Point Collinson*: Pleistocene wave-cut platform. At Point Collinson a Pleistocene wave-cut platform 1.0m above MSL is overlain by two small coqioma remnants 0.4-0.6m thick. One of these contains intact bivalves, including *Anadara* spp. The site provides evidence of previous sea-level events.
- Acraman Creek: Stranded tidal creek system. Five kilometres west of Acraman Creek a tidal creek

system has been cut off from the sea by a prograding recurved spit. The stranded creek system is well preserved and readily accessible by vehicle, making it "an excellent research site". The barrier-spit sequence is also well preserved and provides a record of sedimentation over the Holocene period.

### 12.1.2 Baird Bay to Cape Bauer (including nearshore islands) (Murat/Eyre Bioregions Boundary)

- Bond (1994, 1995) described **Baird Bay** as an "enclosed bay of significance" and "a significant fully protected water body", (referring to the protection from oceanic conditions prevalent in the coastal area).
- Potential resource sharing conflicts in the **Baird Bay** area are recognised. For example, Bond (1994) stated that "use of the surrounding, low lying areas for on-shore aquaculture is a possible consideration though not desirable given limited quantities of groundwater in the area, the extent of recreational boating and fishing, and the limited power and poor roads which contribute to the area's remoteness". Existing shack areas were also considered to provide some constraints to aquaculture development. Baird Bay shacks are clustered on the eastern shore opposite the narrow neck to the enclosed bay. It is a recognised urban related zone (the Baird Bay Holiday House Zone). Another small group of shacks exists near the entrance to the bay on the eastern shore. Bond (1994) considered that potential intertidal aquaculture leases south of Baird Bay Holiday House Zone to the entrance of the Bay (eastern side), may conflict with existing recreational boating and fishing in the area.
- An industry Code of Practice for eco-tourism ventures in S. A. involving human interactions with sea lions
  and dolphins was being developed by industry, government and marine mammal experts during the early
  2000s, as an initiative from the operation that occurs in the Baird Bay area.

#### 12.1.3 Venus Bay and Surrounds (Eyre Bioregion)

- DEH (2001) recommended conservation zones within Lake Newland Conservation Park, in parts of the
  park that are highly susceptible to damage from vehicle use. Such areas include the dune system, the beds
  of the saline lakes and the saline samphire flats. In addition, DEH recommended that vehicle movement
  along the (Newland Coast) beach above high tide mark should be restricted to protect beach- nesting birds
  such as hooded plovers.
- In the National and Water Resources Audit's assessment of estuaries in South Australia (1999-2001)
   Venus Bay was classified as Largely Unmodified (in both qualitative and quantitative terms) but "under moderate to high pressure" (GeoScience Australia, 2001). Assessment criteria included catchment natural cover, land use, catchment hydrology, tidal regime, floodplain, estuary use, pests, weeds, and estuary ecology (Barnett, 2001, cited by DEH, 2003a).
- Bond (1994) described the northern part of **Venus Bay** as "a significant marine embayment".
- The landforms in the **Talia Caves** area, including the coastal "caves" (eroded cliff faces) and mobile dune fields are recognised as being amongst the geological / geo-morphological monuments of State significance (Edyvane, 1995a).
- Bond (1994) provided a detailed list of recommendations for avoiding the potential environmental effects of both land-based and marine aquaculture on parts of the West Coast, and encouraging environmentally responsible development in appropriate areas. Recommendations of particular note include the following:
- Aquaculture developments should avoid sensitive ecological areas, creeks and estuaries, and avoid areas that contain significant communities of seagrass and mangroves, as well as samphire wetlands, river mouths and creeks. These areas are ecologically important as they support a wide variety of species, some of which are commercially valuable (e.g. prawn and whiting nurseries). The narrow width of many creeks and estuaries provides little scope to build farming facilities without restricting public access and use. Water quality also varies in these waterways and can interfere with farming"
- Aquaculture should not unduly effect the conservation or significance of certain areas of the coast, or conflict with urban, recreational or other existing coastal orientated commercial activities; and
- Even where information on the environmental capacity is provided which satisfy the principles of ESD, the prohibition on aquaculture farms, cage culture and leases should remain subservient to the strategic reasons for that Exclusion Zone being created (e.g. recreational use etc). It would be preferable to review the Exclusion Zone as a whole rather than encourage exceptions to that Zone.
- Choose a site with enough water current to disperse sediments: It is important that farms are located in areas where the water can flush away sediments or where fallowing can prevent the build up of waste. Adequate flushing protects the environment and also ensures the survival of the species being farmed.
- Choose a site which minimises conflict with other users: There are many groups who traditionally use the same waterways for boating, fishing and swimming. Farms should therefore be located in areas which minimise potential conflicts amongst the different users. Also avoid sites which may be seen from scenic lookouts and areas of high scenic quality.

#### 12.1.4 Investigator Group of Islands (Eyre Bioregion)

• In a "conservation index rating" assessment of the conservation value of 113 islands in South Australia, **Pearson Island** received the second highest score, and **Dorothee Island** the fifth highest. Factors considered included: island area, distance from mainland; degree of isolation and disturbance; aesthetic value; and number of biological parameters, such as the number of breeding bird and mammal species, and number of rare species (Robinson *et al.*, 1996).

### 12.1.5 Sir Joseph Banks Group and Dangerous Reef (including Tumby Bay) (Eyre Bioregion)

- Previously, the 1991 Assessment Report for the **Tumby Bay** marina recommended the area subject to inundation south of the causeway (First Creek to Second Creek and associated intertidal and supratidal samphire and mud flats) under Council ownership be rezoned from Rural Fringe to Conservation Zone. The more recently updated Development Plan now incorporates the coastal estuary into the Coastal Zone. In 1998, a report by government (Minister for Transport and Urban Planning 1998) stated the following: "Given the importance of the wetland system as habitat, a nursery and food source for fishery resources and a recreational asset, it is recommended protection and sustainable management of the area be strengthened. This may be best achieved by a Land Management Agreement between the Council and the Minister for Environment and Heritage".
- In a "conservation index rating" assessment of the conservation value of 113 islands in South Australia, **Roxby Island** received the tenth highest score. Factors considered included island area, distance from mainland, degree of isolation and disturbance, aesthetic value, and number of biological parameters, such as the number of breeding bird and mammal species, and number of rare species (Robinson *et al.*, 1996).
- **Dangerous Reef** was one of S.A.'s earliest proclaimed conservation areas, being designated as a *Bird Protection District* in 1900 (Robinson *et al.*, 1996).
- According to Marchant (1995), a draft management plan for Dangerous Reef was prepared in 1990, which
  opposed berleying for shark in the area due to potential adverse impacts on both shark and sea lion
  populations. It was also alleged that the 1989 extension of Dangerous Reef park boundaries by 2km, was
  declared specifically to ban berleying activities for shark in the area (Marchant, 1995). However, shark
  berleying is currently permitted as part of the shark-viewing tour operations that currently occur in the
  Dangerous Reef area.
- The Australian Heritage Commission's Register of the National Estate description for Dangerous Reef (undated), considered that the adjacent reefs and waters surrounding Dangerous Reef are important for maintaining the integrity of the area.

#### 12.1.6 Neptune Islands Group (Eyre Bioregion)

• In a "conservation index rating" assessment of the conservation value of 113 islands in South Australia, **North Neptune Island** received the *highest score*, and **South Neptune**, the ninth highest of 113 islands. Factors considered included island: area, distance from mainland, degree of isolation and disturbance, aesthetic value, and number of biological parameters, such as the number of breeding bird and mammal species, and number of rare species (Robinson *et al.*, 1996).

#### 12.1.7 Gambier Islands Group (Eyre Bioregion)

Part of the housing subdivision agreement made in the late 1980s between State government and private
developers required the remaining natural vegetation on the eastern end of **Wedge Island** to be delineated
and proclaimed as a Conservation Park (Robinson et al., 1996), however this has not yet occurred.

### 12.1.8 Franklin Harbor and Surrounding Waters (Spencer Gulf/North Spencer Gulf Bioregions Boundary)

- Parts of **Franklin Harbour** that are not included in the Conservation Park (i.e. most of the Harbour, excluding the peninsula and the four islands), are under the control of the Franklin Harbour District Council.
- Foreshore developments at **Franklin Harbour** have included deepening of the boating channel, and construction of an enclosed tidal aquatic area (Eyre Peninsula Tourist Association, 1995).
- A Gulf Link Ferry was proposed in 1992 (Burchill Bate Parker & Partners, 1992). This has not occurred to date (2003), however, If the ferry operation were to be approved in future, it would operate out of Franklin Harbour.
- The area between **Shoalwater Point** and **Germein Point** is considered to be largely inaccessible coast, although public access is available at **Shoalwater Point** and **Lucky Bay**. South of Germein Point, that stretch of coast is also relatively exposed to high energy swells and wind, with few access points to the coast (e.g. mainly limited to **Port Gibbon** and **Poverty Bay**) (Smallridge, 1995).

#### 12.1.9 Upper Spencer Gulf (North Spencer Gulf Bioregion)

- DEH's Management Plan (2000a) for **Winninowie Conservation Park** highlighted the need to: conserve the "unique inter-tidal coastal zone"; reduce and manage impacts and threats to the biological and physical integrity of the reserve; and implement a zoning plan.
- **Winninowie Conservation Park** is reportedly classified as *IUCN IA Strict Nature Reserve* (DEH, 2000a), yet activities such as recreational fishing and crabbing are permitted within the reserve boundaries, which does not accord with the IUCN's conservation and management objectives for an area classified as IA (see IUCN 1994; and Commonwealth of Australia, 2002).
- **Redcliff Point**, a designated place of geological significance, is on the *State Heritage Register* (DEH, 2003f) and the *Register of National Estate*.
- False Bay, Ward Spit, and Cockle Spit and the Port Pirie wetland complex (the latter south of the nominated area) have been identified as areas of "high ecological significance" (Aquaculture Group PISA Fisheries, 1996).
- Geological Monuments in the region include Two Hummocks Point (Beda Volcanics; Backy Point Formation; Roopena Volcanics); Douglas Point (Beda Volcanics; Hiltaba Suite; Backy Point Formation; porphyritic dacite; rhyodacite and rhyolite); Backy Point (Beda Volcanics; Moonabie Formation; Backy Point Formation); and Redcliff Point (Hindmarsh Clay; Mambray Formation, and an example of coastal and marine systems, involving interaction of biological and geological processes in an arid temperate climate) (McBriar and Giles, 1984; McBriar, 1986; McBriar and Mooney, 1988, cited by DEH, 2003a).

#### 12.1.10 South-Eastern Spencer Gulf (Spencer Gulf Bioregion)

- Aquaculture Group PISA Fisheries (1996) considered that the entire Hardwicke Bay area should be excluded from aquaculture development.
- Aquaculture Group PISA Fisheries (1996) identified areas within Spencer Gulf that were considered to be sensitive to changes and development. These include substantial mangrove stands, seagrass beds, and significant breeding sites for commercially fished species, protected birds, and marine mammals. Breeding colonies of marine mammals and roosting areas for sea birds were considered to be particularly sensitive to disturbances associated with aquaculture development. Aquaculture developments have the potential to negatively impact areas of high conservation value, through reduction in scenic amenity, pollution, noise, and disturbance associated with operations (Aquaculture Group PISA Fisheries, 1996). Aquaculture Group PISA Fisheries (1996) recommended that "suitable buffer areas" should be determined for the protection of areas recognised for their conservation value.
- One of the Objectives stated in the Warooka Development Plan (Planning S.A., 1999) was the "retention in a natural state of the environmentally and ecologically significant features within the Warooka council area", including the Hardwicke Bay coastline. The Development Plan considered that the coastal environment in the area is "fragile" and "vulnerable", and requires protection against inappropriate development. The Development Plan recommended that "features of environmental and ecological value associated with the Coastal Zone, that may be identified as being significant, need to be preserved".
- Planning S.A. (e.g. 1998, for Warooka District Council area) has listed some principles of development control for the coastal areas around Yorke Peninsula. Some of these principles include the need to ensure that: (i) development should be designed having regard to natural coastal processes, and should incorporate suitable protective works where applicable; (ii) development should not be undertaken where it will create or aggravate coastal erosion, or if it will require coast protection works that will cause or aggravate coastal erosion; and (iii) development should have no adverse impact on adjacent land or the character and amenity of the zone.
- According to the Warooka Development Plan (Planning S.A., 1999), the Corny Point area is classified as being of special geological and/or geomorphological significance, and the preservation of such areas of scientific, educational and aesthetic value, is "of paramount importance".
- During 1999/2000, a 3-year program of mooring installation was funded by Environment Australia, as part of the National Moorings Program. The third year of the project involves installing public moorings along the Wardang Island Maritime Heritage Trail, to protect the marine habitats associated with declared historic shipwrecks, including popular fishing and diving locations that are considered to be under threat from anchor damage to both the structural habitat, as well as to sensitive biota such as corals (Environment Australia web site, 2000). The South Australian Moorings Program has installed mooring buoys at the following shipwreck locations: the "Australian", Songvaar, Moorara, MacIntyre and Investigator.

#### 12.1.11 North-Western, Western and South-Western Kangaroo Island (Eyre Bioregion)

 There are classified coastal geological monuments at Harvey's Return, West Bay, Cape du Couedic, and Remarkable Rocks (S.A. Museum and Geological Society of Australia, cited by Edyvane, 1999b), and Ravine des Casoars is also considered to be of geological significance (Edwards, 1987, cited by Edyvane, 1999b).

#### 12.1.12 Southern Eyre coastal (Eyre Bioregion)

• In a "conservation index rating" assessment of the conservation value of 113 islands in South Australia, **Greenly Island** received the third highest score, and **Perforated Island** the sixth highest. Factors considered included island area, distance from mainland, degree of isolation and disturbance, aesthetic value, and number of biological parameters, such as the number of breeding bird and mammal species, and number of rare species (Robinson *et al.*, 1996).

#### 12.1.13 The "Heel" of Yorke Peninsula (Gulf St Vincent Bioregion)

- Planning SA (1997) recommended that the native vegetation associated with (coastal) wetland habitats should not be cleared in the south-western Gulf St Vincent area.
- One objective of Planning SA's (2001) Yorke Peninsula Development Plan was the "retention in a natural state and protection of coastal dunes, cliffs, geological features and associated native vegetation within the zone". The coastal areas of eastern Yorke Peninsula (western gulf St Vincent) were also described as being "sensitive to human activity and subject to the impacts of sea level rise and coastal erosion. As such, the Development Plan considered that the zone requires careful and strict management practices.
- During the early 1990s concern was expressed regarding "the potential conflicts with professional and recreational line fishers" in the **Troubridge Island** area (Robinson, National Parks and Wildlife, pers comm. to S.A. Department of Fisheries, 1992).
- The Yorketown Development Plan (Planning SA, 1997) recommended the following as regulations for aquaculture development in the Yorke Peninsula region:
- Marine aquaculture should be located, sited, designed, constructed and managed to be ecologically sustainable, to minimise interference and obstruction to the natural processes of the marine environment, and to allow maintenance of the environmental quality of the foreshore, coastline, ocean and ocean bed.
- Marine aquaculture should be developed and undertaken:
- in areas which will not contaminate the product for human consumption;
- at a suitable distance from pollution sources including country townships, urban and residential areas, established shack areas, industrial development, storm water or other drainage outlets, sewage treatment facilities and outfall:
- at a sufficient height above the sea floor and in a manner to minimise seabed damage, and in areas with adequate water current to disperse sediments to prevent the build up of waste (except where waste can be removed):
- to avoid damage to sensitive ecological areas, creeks, estuaries, wetlands and significant seagrass and mangrove communities;
- to avoid the risk of pollution to and from external sources including any accidental discharge of pollutants;
- to ensure satisfactory removal and disposal of litter, disused material, shells, debris, detritus, faecal matter, and dead animals from the farm to prevent fouling of waters, publicly owned wetlands, or the nearby coastline;
- so as not to involve the discharge of human waste on the site, or any adjacent land, or into nearby waters (if required, sanitary facilities should be provided);
- to avoid adverse impacts to wildlife (marine and terrestrial, plants and animals), and on breeding grounds and habitats of native marine mammals and terrestrial fauna, especially migratory species;
- to minimise harm or destruction of marine predators such as seals, dolphins and birds;
- to facilitate relocation or removal of structures in the case of emergency such as oil spills, algal blooms and altered waterflows;
- at a suitable distance from any tidal creek to ensure that adverse impacts are minimised;
- of a sufficient standard of construction to ensure that structures can withstand normal marine conditions.
- Marine aquaculture and other offshore development should be located at least: 550 metres from a proclaimed shipwreck; and 1000 metres seaward from the boundary of any reserve under the National Parks and Wildlife Act, unless a lesser distance is agreed with the Minister responsible for that Act.
- Racks, floats and other farm structures associated with marine aquaculture or other offshore development should be as visually unobtrusive as possible, apart from those required by the relevant authority for navigational safety. Development should: blend visually with the environment and have a low profile; be constructed of non reflective materials; use uniform, subdued colours throughout a development, suited and in keeping with the local surrounding features; use feed hoppers which are painted in subdued colours, and suspended as low as possible above the water; design and locate structures in relation to surrounding features; position structures to protrude the minimum distance practicable above water; not jeopardise the attainment of visual amenity provisions by incorporating unnecessary shelters and structures above cages and platforms.
- Marine aquaculture and other offshore development should: minimise adverse impacts on the visual

- amenity or natural character of the coast and foreshore, particularly in areas of outstanding beauty or areas of high public use. Adverse impacts on the following should be avoided: National Parks, Conservation Parks and Conservation Reserves; Marine Parks and Reserves; Recreation Reserves; Indigenous, Non-Indigenous and natural heritage sites including shipwrecks; sites of scientific importance including geological monuments and habitats of rare species; mineral reserves; areas valued for their outstanding beauty or amenity.
- Marine aquaculture and other offshore development should: be located to minimise adverse impacts on public access to beaches, public watercourses, or the foreshore; be located to take into account the requirements of traditional fishing grounds; in ocean waters be located a minimum of 100 metres seaward of high water mark; be located not to obstruct nor interfere with navigation channels, access channels, frequently used natural launching sites, safe anchorage areas, known diving areas, commercial shipping movement patterns or activities associated with existing jetties and wharves; be developed to maintain existing rights of way within or adjacent to a site; where possible use existing and established roads, tracks, ramps and paths to or from the sea.
- The Yorketown Development Plan (Planning SA, 1997) also recommended additional measures for marine protection in the Yorke Peninsula region, such as: control of septic seepage into the intertidal zone; preservation of natural drainage patterns, to prevent any significant increase or decrease of water volume flowing into the sea (suggested measures included land-based disposal schemes for stormwater, and retention basins for pollutants); maintenance of water quality associated with any development that confines coastal water in any way; consideration of geomorphological and ecological adjustments over the long term, in response to sea level rise, and the consequent need to not impede inland migration of coastal wetlands, including mangroves and saltmarsh species; the need to ensure that any development in the area does not result in disturbance or devaluation of sites of heritage, cultural, scientific or educational significance; the need to ensure that development which requires protection measures against coastal erosion, sea or stormwater flooding, sand drift or the management of other coastal processes at the time of development, or which may require protection or management measures in the future, should only be undertaken if the measures themselves will not have an adverse effect on coastal ecology, processes, conservation, public access and amenity.

#### 12.1.14 Upper Gulf St Vincent (Gulf St Vincent Bioregion)

- The upper Gulf St Vincent area from Port Price to Sandy Point has been described as a 'Special Area' (in terms of its conservation value) in DENR / EPA's 1997 statement on *Protecting Gulf St Vincent* (Harbison, 1997).
- During the 1990s, formal protection of a number of areas as coastal conservation parks was being investigated. Examples include the Price / Wills Creek area, for which DENR produced a draft management plan with a view to proclaiming the area as a Conservation Park (Morelli and de Jong, 1995), and the Light River area (Thomas, verbal submission to Senate Inquiry into Gulf St Vincent, February 2000). As at 2003, neither of these areas was listed in DEH's list of parks and reserves in South Australia (see NPWSA, 2002a), or the list of parks and reserves in the South Australian Coast and Marine Atlas (DTUP, 2003).
- Since 1992, it has been recognised that there may be conflict between protection of the conservation
  values of tidal mangrove and saltmarsh habitat, with the intensive line fishing, net fishing, and crabbing that
  occurs in the north-eastern GSV area. In 1992, one member of the SA Marine Protected Areas Working
  Group suggested that zoning occur for the area from **Port Clinton**, right around to **Barker Inlet**, but that it
  would be a difficult management problem to designate separate conservation zones, crabbing zones, and
  fishing zones.

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## 12.1.15 Southern Fleurieu/North-East KI/Backstairs Passage/Encounter Bay/Upper Coorong (Gulf St Vincent Bioregion)

- **Geological Monuments** in the region include the following (McBriar, 1977, 1986; McBriar and Giles, 1984; McBriar and Mooney, 1988; Scrymgour and Risely, 1991; McBriar and Hasenhor, 1994, cited by Edyvane, 1999b). Note that the sites below that are listed on the *Register of the National Estate* are described in the section titled **National and / or International Importance** for this focus area.
- Kingscote foreshore: Late Eocene bryozoan limestone exposed in coastal cliffs around foreshore.
   Raised beach deposit of basalt pebbles at Rolls Point.
- Old Government Quarry, Kingscote: Basalt (of probable Jurassic age, according to Edyvane, 1999b, reference uncited), overlying Permian glacigene and fluvial sediments.
- Alex Lookout to Snapper Point. Late Precambrian and early Cambrian meta-sediments.
- Christmas Cove, Penneshaw: Permian glacigene sediments, erratics, and Early Cambrian sediments including conglomerates.
- Cape Willoughby Granite Contact: Late Cambrian granite and meta-sediments of the Kanmantoo Group (Middleton Sandstone).
- Maslin Bay-Aldinga Bay: Tertiary Type sections in the coastal cliffs.
- Sellicks Beach: Willunga Fault.
- Myponga Beach: Sellick Hill Limestone and Fork Tree Limestone. This area is on the State Heritage List.
- Carrickalinga Head: Heatherdale Shale and Type Locality for Carrickalinga Head Formation.
- Normanville Sand Dunes: recent dunes along coast.
- South Yankalilla Beach, Little Gorge Area: Unconformity Precambrian Inlier in Adelaidean beds.
- Second Valley Harbour. Coastal cliffs containing structures in Precambrian marbles and slates. This area is also on the State Heritage List.
- Cape Jervis: type section for Cape Jervis Beds, and Permian glaciation. This area is also on the State Heritage List.
- Deep Creek: part of Kanmantoo Group type section.
- Tunkalilla Beach including old cliff line: part of Kanmantoo Group type section.
- Headland between Waitpinga Beach and Parsons Beach: part of Kanmantoo Group Type section and Balquhidder Formation. The Kanmantoo Group type section continues west from the end of Parsons Beach to Tunk Head and beyond.
- Encounter Bay region (Port Elliot including Commodore Point, Pullen Island, The Sisters Rocks and Freeman Knob): Encounter Bay Granite outcrops. The Encounter Bay Granites are particularly evident at West, Wright and Granite Islands and Rosetta Head. These granites are the only outcrop of this plutonic rock on the Fleurieu Peninsula, since much of the Cambro-Ordovician granite in South Australia is located much further west in the Gawler Ranges.
- Victor Harbor, banks of the railway cutting: Late Pleistocene shell beds.
- Victor Harbor, Granite Island and Seal Island: Encounter Bay Granite and Kanmantoo Group (also includes granite "erratics" on the foreshore in some parts of Encounter Bay, deposited by a moving icesheet during the Permian.
- Rosetta Head/The Bluff, Petrel Cove and Wright Island: Encounter Bay Granite contact with Kanmantoo Group rocks including Petrel Cove Formation Type Section. Also contains Permian fluvio-glacial deposits. Variation of jointing is also well displayed on Rosetta Head. Other geologically significant features include the occurrence of metamorphic minerals, the preservation of sedimentary structures, a contact metamorphic aureole, and evidence of deformation (Bilney et al., 1981). The Encounter Bay Granite contact with the Kanmantoo Group includes the Petrel Cove Formation type section.
- West Island, King Beach and King Point: Encounter Bay Granite and Kanmantoo Group Rocks. The Balquihidder Formation extends West to Newland Head.
- Middleton Beach: part of the Kanmantoo Group and type section of Middleton Sandstone with sedimentary structures.
- Coastal areas considered in 1998 for acquisition (due to their conservation values) by the Coastal Protection Board included parts of Parson's Beach and Goolwa, and parts of Cygnet River and

#### Penneshaw.

- The S.A. government (2001) identified as potential terrestrial "Bio-icons": samphire and pelicans (both of which occur in the north-eastern Kangaroo Island bays area), and Pelican Lagoon and Nepean Bay have been identified as potential "Coastal Geomorphology icons".
- The terrestrial protected area system and wildlife on **Kangaroo Island** are considered to have a very important role in regional economic growth of the Island, to have "strong economic and social relevancy" (Twyford, 2000). There is widespread community support for promoting and expanding the nature-based tourism industry (Twyford, 2000) that include regional biodiversity conservation initiatives connected to a "strong protected areas system". The support for nature-based tourism in general has implications for the development of marine protected areas on Kangaroo Island.
- Previously, the Pages Islands were declared as part of a Bird Protection District, under the Bird Protection Act 1900.
- Reefwatch SA has regularly monitored **Aldinga** reef since the 1990s, and more recently (i.e. early 2000s), reefs at **Carrickalinga**, **Second Valley** and **Encounter Bay** are being monitored.
- Reef in the **Penneshaw** area has been surveyed by the Botany Department at Adelaide University in 1996, and more recently by government personnel and volunteers associated with the Hog Bay Coastcare Project, co-ordinated by KI AMCS.
- Environment Australia recently provided funding for a "best practice" waste reception facilities at Marina St Vincent. The project is reported to address a comprehensive range of waste disposal issues such as the installation of sewage pump-out facilities, waste recycling and the safe management and disposal of oily wastes such as bilge water, engine oil and oil filters.
- In a regulation under the *South Australian National Parks and Wildlife Act 1972*, Encounter Bay has been defined as a restricted area in terms of proximity of vessels to whales. A person who is in control of a vessel must not move it closer than 300 metres to a whale that is in the **Encounter Bay restricted area**, defined as follows: Commencing at longitude 138°34'5" latitude 35°36'23" (being a point at high water about 1.5 kilometres west of Kings Head) then one nautical mile to the south east to longitude 138°35'0" latitude 35°37'0" then to longitude 138°46'25" latitude 35°31'23" (being a point at high water near the Goolwa Beach car park) then to the point of commencement along the high water mark.
- Environment Australia has provided funding for a project at the Hindmarsh Island Marina, to improve
  waste management. The reported aims of the project are to implement a comprehensive range of waste
  management strategies including the expansion of the oily waste facility, separate containers for recycling
  and waste receptacles at the slipway. In addition to this, users of the facility will be informed of "best
  practice" management of the marina through signage, pamphlets, stickers and newsletters (Environment
  Australia, 2001).
- The report by Edyvane *et al.* (1996) provided a detailed set of recommendations for protecting and managing the **Murray Mouth** area, including the overriding need to restore some of the estuarine function to the Mouth, by improving the management of water flow to better reflect the previous natural conditions in the system. Some of the specific recommendations from that report (Edyvane *et al.*, 1996) are outlined below:
- The major nature conservation goal for the Murray Mouth and Lower Murray region was identified as the conservation of overall area, diversity and quality of water types, and aquatic and riparian habitats, through restoration of estuarine function (from an appropriate flow regime) and through "the conservation and management of natural and cultural values and human uses at an ecosystem level".
- There is a need to increase the knowledge of ecosystem components and key requirements of the Lower Murray estuary, to determine appropriate flow management operating rules, to achieve diversity and quality of aquatic and riparian habitats; adequate flows through the Murray Mouth; passage for fish past the barrages; and improvement in water quality. Research should be prioritised to examine key ecosystem components (i.e. habitat), using an 'adaptive management' approach (i.e. research, modelling, monitoring) to determine appropriate flow management regimes. Part of the information requirements include a detailed inventory and survey of the aquatic biota of the Lower Murray, Coorong and estuary region, including species occurrence, and seasonal distributions. The survey should examine the ecological and trophic linkages between the key components of the biota and other aspects of the estuarine ecosystem. There is a need to examine the flow and ecological requirements of key components of the aquatic biota, through specific studies to determine salinity tolerances, physicochemical, and ecological requirements of key faunal species.
- There is a need to initiate and develop an integrated, regional management plan for the Lower Murray, to conserve the natural and cultural values and resources of the region while managing a range of

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- sustainable human uses through identification of key areas for protected areas status; identification and delineation of zones, based on patterns of biodiversity, cultural values and human uses; management of human activities through zoning provisions, strategies and guidelines for sustainable development (for e.g. eco-tourism, recreation, urban development, agriculture, fishing, etc.); consultation with key interest groups and cultural owners; and identification of research and monitoring needs for integrated, ecosystem management.
- To facilitate and implement ecosystem-based management of the estuary, there is a need to organise an administrative policy and management framework, consisting of relevant State and local agencies and user groups, to assist the co-ordinated and ongoing day-to-day management of the Lower Murray region. Lack of data and resources was identified as a major issue hindering the co-ordination of the many interest groups and activities in the development of a integrated regional natural resource management plan for the Lower Murray ecosystem.
- Other issues needing to be addressed included the identification and management of cultural sites of significance, the impacts of sea-level rise on coastal developments, flooding, pollution risks and reduced scenic amenity associated with coastal developments, and integration with 'up-river management' regimes (Edyvane et al., 1996).

#### 12.1.16 Lower Upper South-East (Coorong/Otway Bioregions Boundary)

• Little Dip Conservation Park, including part of Robe Dune Ridge, has been designated a geological monument and is a portion of the only known area in the world with a complete record of late Pleistocene sea-level changes recorded as stranded dune ridges (Australian Heritage Commission, undated).

#### 12.1.17 Lower South East (Otway Bioregion)

• The South East Catchment Water Management Board (SECWMB) has developed a Catchment Water Management Plan for the South East. Much of the Strategy relates to the terrestrial environment, however the SECWMB aims to: determine, by 2006, more than 75% of the key water-dependent ecosystems of the south-east for which environmental needs are defined; and identify, protect and enhance ecosystems that depend on water and their associated biodiversity. Aspirations for the catchment include: (i) an assessment of the quality and quantity needs of water of groundwater and surface water-dependent ecosystems, including lakes, springs and near-shore environs; (ii) ensuring that those needs are met from the surface and groundwater with which they interact; and (iii) ensuring that the "health and diversity" of 75% of key groundwater-dependent ecosystems is stable or improving by 2013 (South East Catchment Water Management Board, 2002c).

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# **Appendix 1: The Commonwealth's National Representative** System of Marine Protected Areas – Goals and Criteria

# Goals

The primary goal of the NRSMPA is (ANZECC, 1999a):

to establish and manage a comprehensive, adequate and representative system of MPAs to contribute to the long-term ecological viability of marine and estuarine systems, to maintain ecological processes and systems, and to protect Australia's biological diversity at all levels.

The following secondary goals are designed to be compatible with the primary goal:

- To promote the development of MPAs within the framework of integrated ecosystem management;
- To provide a formal management framework for a broad spectrum of human activities, including recreation, tourism, shipping and the use or extraction of resources, the impacts of which are compatible with the primary goal:
- To provide scientific reference sites;
- To provide for the special needs of rare, threatened or depleted species and threatened ecological communities;
- To provide for the conservation of special groups of organisms, e.g. species with complex habitat requirements or mobile or migratory species, or species vulnerable to disturbance which may depend on reservation for their conservation;
- To protect areas of high conservation value including those containing high species diversity, natural refugia for flora and fauna and centres of endemism;
- To provide for the recreational, aesthetic and cultural needs of indigenous and nonindigenous people.

# The National Criteria

Criteria for identification and selection of MPAs recommended for the NRSMPA are presented below (ANZECC 1999). For the NRSMPA, physical, ecological and biological (i.e. environmental) criteria are primarily used for the identification of candidate areas. Social, cultural and/or economic criteria are applied in the final selection of MPA sites from the candidate areas.

In practice, jurisdictions may apply some of the selection criteria at an earlier stage during the identification process. Environmental criteria and social, cultural and economic criteria may be used at any stage, as appropriate, in the processes of identification and selection. Vulnerability assessment is part of both the identification and selection processes. In the identification phase, vulnerability due to natural processes may be considered. In the selection phase, vulnerability to human actions and threatening processes should be used to prioritise the selection of sites for MPAs.

The selection and declaration processes are carried out by State, Territory and Commonwealth agencies for their jurisdictions. Some cross-jurisdiction consultation will be required where proposed MPAs cross jurisdiction boundaries. Flexibility of application of the criteria will be required due to the variety of legislative and management frameworks within the States, Northern Territory and the Commonwealth, and the individual circumstances relating to specific sites. A potential MPA site may meet one or many of the listed criteria. Depending on the objectives for the site, one or more criteria may be considered to have greater 'weight' in the consideration process.

The criteria used by the Commonwealth are generally derived from Kelleher and Kenchington (1992) and Thackway (1996).

# Identification

Representativeness

#### Will the area:

- represent one or more ecosystems within an IMCRA bioregion, and to what degree;
- add to the representativeness of the NRSMPA, and to what degree.
- Comprehensiveness

# Does the area:

- add to the coverage of the full range of ecosystems recognised at an appropriate scale within and across each bioregion;
- add to the comprehensiveness of the NRSMPA.
- Ecological Importance

# Does the area:

- contribute to the maintenance of essential ecological processes or life-support systems;
- contain habitat for rare or endangered species;
- preserve genetic diversity i.e. is diverse or abundant in species;
- contain areas on which species or other systems are dependent, e.g. contain nursery or juvenile areas or feeding, breeding or resting areas for migratory species;
- contain one or more areas which are a biologically functional, self-sustaining ecological unit.
- International or National Importance
- Is the area rated, or have the potential to be listed, on the world or a national heritage list or declared as a Biosphere Reserve or subject to an international or national conservation agreement.
- Uniqueness

# Does the area:

- contain unique species, populations, communities or ecosystems;
- contain unique or unusual geographic features.
- Productivity
- Do the species, populations, or communities of the area have a high natural biological productivity.
- Vulnerability Assessment
- Are the ecosystems and/or communities vulnerable to natural processes.
- Biogeographic Importance
- Does the area capture important biogeographic qualities.
- Naturalness
- How much has the area been protected from, or not been subjected to, human induced change.

#### Selection

Economic Interests

#### Does the site:

- make an existing or potential contribution to economic value by virtue of its protection, e.g. for recreation or tourism, or as a refuge or nursery area, or source of supply for economically important species;
- have current or potential use for the extraction of or exploration for resources;
- have importance for shipping and/or trade;
- have usage by traditional users including commercial fishers;
- have value due to its contribution to local or regional employment and economic development.

# Indigenous Interests

# Does the site:

- have traditional usage and/or current economic value;
- contain indigenous cultural values:
- have native title considerations.
- Social Interests
- Does the site have existing or potential value to the local, national or international communities because of its heritage, cultural, traditional aesthetic, educational, recreational, or economic values.
- Scientific Interests
- Does the site have existing or potential value for research or monitoring.
- Practicality / Feasibility

#### Does the site:

- have a degree of insulation from external destructive influences;
- have social and political acceptability, and a degree of community support;
- have access for recreation, tourism, education;
- have compatibility between an MPA declaration generally and existing uses;
- have relative ease of management, and compatibility with existing management regimes.
- Vulnerability Assessment
- Is the site vulnerable and susceptible to human induced changes and threatening processes.
- Replication
- Will the site provide replication of ecosystems within the bioregion.

# **Appendix 2. South Australian Marine Bioregions**

South Australian Bioregions, based on the Interim Marine and Coastal Regionalisation of Australia (IMCRA) classification

Coorong	
Climate	Cool temperate, meso-thermal climate with cool, wet winters and warm, dry summers.
Oceanography	Waters are transitional warm to cold temperate, with mean sea surface temperatures varying from 14°C in winter to 19°C in summer. Offshore gradient decreases from steep to flat resulting in a gradational coastline, from high deepwater wave energies at the Murray Mouth to low energies near Cape Jaffa. Tidal range, microtidal, ~ 0.8 to 1.2 metre range.
Coastal Geology and Geomorphology	Large barrier coast dominated by a gradational nearshore- offshore gradient and bio-clastic carbonate sediments. Coast comprising headlands and cliffs of Precambrian crystalline rock and meta-sediments and also, Pleistocene dune rock cliffs, headlands, shore platforms and reefs, interspersed with Holocene pocket beaches. Southern coast dominated by a large beach-dune barrier lagoon complex comprising the extensive Coorong lagoon and Holocene beach ridge plains of Lacepede Bay. Offshore gradient traversed by the extensive Murray Canyons which extend offshore from the Murray River.
Biota	Marine flora and fauna typical of transitional warm to cold temperate waters (i.e. Flindersian Province). Intertidal and sublittoral fringe dominated by the brown alga, <i>Cystophora intermedia</i> . On rocky limestone shores, subtidal macro-algal communities are dominated by red algal assemblages (particularly <i>Osmundaria</i> and species of <i>Plocamium</i> ), species of <i>Caulerpa</i> (particularly <i>C. flexilis</i> ) and <i>Cystophora</i> (such as <i>C. subfarcinata</i> , <i>C. moniliformis and C. platylobium</i> ) and <i>Ecklonia radiata</i> . Granite boulder coasts are dominated by <i>Scytothalia dorycarpa</i> , <i>Acrocarpia paniculata</i> , <i>Carpoglossum confluens</i> , and <i>Ecklonia radiata</i> on exposed coasts and species of <i>Cystophora</i> in areas of moderate wave energies. Extensive seagrass meadows occur at Kingston (Lacepede Bay). Seagrass meadows dominated by <i>Posidonia australis</i> in shallow areas, and P. <i>angustifolia</i> . Lacepede Bay is the easterly limit of <i>P. sinuosa</i> . Plant species diversity is moderate to low. Coorong Lagoon supports one of the largest concentrations of waterbirds and migratory waders in Australia. Coastal wetlands of national importance in the region include the Coorong Lagoon (including Lake Alexandrina and Lake Albert), and the Tookayerta and Finniss River.
Estuaries	Region dominated by the Murray River and extensive estuarine and ephemeral salt lakes of the Coorong Lagoon.

Eucla (SA section)	
Climate	Semi-arid or "Mediterranean" climate, with hot, dry summers and cool, moist winters.
Oceanography	Waters are transitional warm to cool temperate, with mean sea surface temperatures varying from 14°C in winter to 19°C in summer (increasing to 22°C in summer under the seasonal influence of the warm water Leeuwin Current). Open moderate to high wave energy; mainly south- and south-west-facing coastline. High wave swell environment, 2-4m. Tidal range, microtidal ~ 0.8 to 1.2 metre range.
Coastal Geology and Geomorphology	Rocky cliff coastline, with a shallow offshore gradient, dominated by bio-clastic carbonate sediments. Coastal geology characterised by the sedimentary Eucla Basin and dominated by the Nullarbor Tertiary limestone cliffs, Pleistocene dune rock headlands and reefs, interspersed with Holocene beaches and dune barriers. Narrow intertidal rock platforms are present at the base of the cliffs in some places.
Biota	Marine flora and fauna typical of transitional warm to cool temperate waters (i.e. Flindersian Province). Intertidal and sublittoral fringe dominated by the brown alga, <i>Cystophora intermedia</i> . On the high energy limestone reefs, subtidal macro-algal communities are dominated by Scytothalia dorycarpa and Ecklonia radiata, with species of Cystophora (such as C. platylobium) as subdominants. Few seagrass communities along this high energy coast. Plant species diversity is moderate to low. Significant breeding and calving area of the Southern Right Whale ( <i>Eubalaena australis</i> ) and large number of breeding colonies of the Australian Sea Lion ( <i>Neophoca cinerea</i> ). Distinct tropical element in the fauna and flora of the region (i.e. plankton, fish, echinoderms, hydroids), due to warm water influences, such as the Leeuwin Current.
Estuaries	No true rivers or estuaries in this region.

Eyre	
Climate	Semi-arid or "Mediterranean" climate, with hot, dry summers and cool, moist winters.
Oceanography	Waters are transitional warm to cold temperate, with mean sea surface temperatures varying from 14°C in winter to 19°C in summer (decreasing to 11-12°C under the influence of localised, cold nutrient-rich coastal upwellings). Moderate to high deepwater wave energy coastline. Tidal range, microtidal ~ 0.8 to 1.2 metre range.
Coastal Geology and Geomorphology	Rocky coast with a shallow to moderate offshore gradient, dominated by bio-clastic carbonate sediments, comprising numerous headlands and sheltered, extensive shallow embayments, dominated by seagrasses. Coastal geology on

	exposed rocky coasts comprises Precambrian meta-sediment cliffs and also, Pleistocene dune rock cliffs, headlands and shore platforms, interspersed with Holocene dune barriers beaches and lagoon deposits in sheltered areas. Cainozoic colluvial and fluvial sediments. Numerous offshore islands and seamounts.
Biota	Marine flora and fauna typical of transitional warm to cool temperate waters (i.e. Flindersian Province). Intertidal and sublittoral fringe on rocky shores dominated by the brown alga, <i>Cystophora intermedia</i> . On rocky limestone shores, subtidal macro-algal communities are dominated by red algal assemblages (particularly <i>Osmundaria</i> and species of <i>Plocamium</i> ), species of <i>Caulerpa</i> (e.g. <i>C. flexilis</i> ) and <i>Cystophora</i> (such as <i>C. subfarcinata</i> , <i>C. moniliformis</i> and <i>C. platylobium</i> ) and <i>Ecklonia radiata</i> . In sheltered areas, subtidal seagrass communities dominated by <i>Posidonia australis</i> in shallow waters, and <i>P. sinuosa</i> , <i>P. angustifolia</i> , <i>Amphibolis antarctica</i> and A. griffithii in deeper waters. Plant species diversity is high, particularly among the red algae. Marine fish fauna characterised by the presence of the SA endemic, Crested Threefin ( <i>Trinorfolkia cristata</i> ). Significant breeding colonies of the Australian Sea Lion ( <i>Neophoca cinerea</i> ) and New Zealand Fur Seal ( <i>Arctocephalus forsteri</i> ), particularly on the offshore islands. Coastal wetlands of national importance in the region include, Streaky Bay (Acraman Creek), Point Labatt, Baird Bay, Lake Newland, Lake Hamilton, Coffin Bay, Tod River, Tumby Bay, on the Eyre Peninsula; and D'Estres Bay, Rocky River, Breakneck River, North West River, and South West River on Kangaroo Island.
Estuaries	No true rivers, but several intermittent streams (e.g. Tod River, First Creek on Eyre Peninsula; and Stun'sail Boom, Breakneck, Rocky, Wilson, Eleanor, Harriet, South West Rivers on southern Kangaroo Island) and coastal salt lakes (e.g. Lake Newland, Lake Hamilton).

Murat	
Climate	Semi-arid or "Mediterranean" climate, with hot, dry summers and cool, moist winters.
Oceanography	Waters are transitional warm to cool temperate, with mean sea surface temperatures varying from 14°C in winter to 19°C in summer (increasing to 22°C in summer under the seasonal influence of the warm water Leeuwin Current). Moderate to low wave energy coastline. Tidal range, microtidal ~ 0.8 to 1.2 metre range.
Coastal Geology and Geomorphology	Rocky crenulate coastline, with a shallow offshore gradient, dominated by bio-clastic sediments, and comprising numerous shallow sheltered embayments, dominated by seagrasses.  Coastal geology comprising headlands of Precambrian crystalline rock (usually with a dune rock capping), and Pleistocene dune rock cliffs, reefs and headlands, interspersed with Holocene beaches, dunes and estuarine deposits including intertidal and

	supratidal flats. Numerous offshore islands and seamounts.
Biology	Marine flora and fauna typically warm temperate (i.e. Flindersian). Extensive seagrass communities in embayments and lee of islands. On sandy shores, in sheltered areas, intertidal flats are dominated by the grey mangrove, <i>Avicennia marina</i> , the brown alga, <i>Hormosira banksii</i> , and the seagrasses, <i>Zostera</i> ( <i>Heterozostera</i> ) tasmanica and <i>Zostera muelleri</i> . Subtidal seagrass communities dominated by <i>Posidonia australis</i> in shallow waters, and <i>P. sinuosa</i> , P. angustifolia, <i>Amphibolis antarctica</i> and <i>A. griffithii</i> in deeper waters. On rocky shores, exposed limestone coasts are dominated by <i>Ecklonia radiata</i> and <i>Scytothalia dorycarpa</i> . In calmer areas, macro-algal communities are dominated by <i>Sargassum</i> species and <i>Osmundaria</i> on moderate coasts and
	Scaberia agardhii in low wave energy conditions. Granite boulder reefs are dominated by <i>Scytothalia dorycarpa</i> and species of <i>Cystophora</i> (such as <i>C. moniliformis</i> ). Plant species diversity is moderate to low. Distinct tropical element in the fauna and flora of the region (i.e. plankton, fish, echinoderms, hydroids), due to the Leeuwin Current. Coastal wetlands of national importance in the region include Davenport Creek (Tourville Bay).
Estuaries	No true rivers, but a few intermittent streams and tidal mangrove creeks (e.g. Davenport Creek).

Northern Spencer Gulf	
Climate	Semi-arid or "Mediterranean" climate, with hot, dry summers and cool, moist winters.
Oceanography	Confined inverse estuary, with minimal freshwater water input and higher salinities and temperatures in the upper reaches of the Gulf. Waters are transitional warm to cool temperate, with mean sea surface temperatures varying from 11-24°C at Point Lowly and 13-29°C at Port Augusta. Mean salinity increases from 42.0-44.8% at Point Lowly, to 43.2-48.6% at Port Augusta. Low wave energy coastline. Tidal range, microtidal to mesotidal 1.8 to 3.6 metre range. Tides are typified by a regular period of minimal tidal movement or "dodge tide".
Coastal Geology and Geomorphology	Tidal plain coast comprised of shallow offshore gradients, extensive supratidal and intertidal areas dominated by samphires, mangroves, and seagrasses. Coastal geology comprises Precambrian meta-sediment shore platforms, Holocene sandflats, beach ridges, recurved spits, & extensive intertidal and supratidal flats.
Biota	Marine flora and fauna typical of transitional warm to cool temperate waters (i.e. Flindersian Province), but with a distinct subtropical element, characterised by the presence of tropical species such as the brown algae, Sargassum decurrens and Hormophysa triquetra. In sheltered areas, intertidal flats are

	dominated by extensive areas of the grey mangrove, <i>Avicennia marina</i> , together with the brown alga, <i>Hormosira banksii</i> , and the seagrasses, <i>Zostera</i> (= <i>Heterozostera</i> ) <i>tasmanica</i> and <i>Zostera muelleri</i> . Subtidal areas characterised by extensive sandy substrates and seagrass meadows, dominated by <i>Posidonia australis</i> in shallow areas, <i>P. sinuosa</i> , P. <i>angustifolia</i> and <i>Amphibolis antarctica</i> in deeper waters, and small shore fringing macro-algal communities. Limited rocky areas dominated by macro-algal communities including such species as <i>Scaberia agardhii</i> , <i>Lobophora variegata</i> , <i>Cystophora botryoides</i> and <i>C. expansa</i> , and <i>Caulocystis</i> species. Plant species diversity very low. Sparse to no plant cover in deeper waters (>17 metres), animal dominated. Coastal wetlands of national importance include the upper Spencer Gulf mangroves from Port Augusta, south to Whyalla and Jarrold's Point, Fisherman's Bay & Port Broughton.
Estuaries	No true rivers, but many intermittent streams and tidal mangrove creeks (e.g. Chinaman Creek, First-Seventh Creeks, Port Davis Creek, Fisherman's Creek).

Otway (SA section)	
Climate	Cool temperate, meso-thermal climate with cool, wet winters and warm, dry summers.
Oceanography	Coastline typically high energy, with a high deepwater wave energy, attenuated by a steep offshore-nearshore gradient and offshore reefs which provide for moderate to low energy conditions in some nearshore areas. Waters are cool to cold temperate, with mean sea surface temperatures varying from 14°C in winter to 18°C in summer (decreasing to 11-12° C under the influence of the localised, nutrient rich, coastal upwellings). Tidal range, mainly microtidal ~ 0.8 to 1.2 metres range. Two large unconfined aquifers (in the Gambier Limestone and Dilwyn Formation) discharge freshwater at the coast via beach springs and spring lakes.
Coastal Geology	Narrow, predominantly south-west-facing continental shelf. Small
and Geomorphology	barrier coast dominated by a steeply sloping offshore gradient, dominated by bio-clastic carbonate sediments, and few coastal embayments. Coastal geology comprises headlands of Pliocene - Pleistocene volcanic outcrops, and also (particularly in the SA section of Otway) Pleistocene dune rock cliffs, shore platforms and offshore reefs, which provide coastal protection, and Tertiary sediments. Coastal embayments (i.e. Rivoli Bay, Guichen Bay) characterised by Holocene beach ridge plains, beaches and dunes.
Biota	Marine flora and fauna typically cool to cold temperate (i.e. Maugean element of the Flindersian Province). Intertidal and sublittoral fringe on wave-exposed coasts dominated by the bull kelp, <i>Durvillaea potatorum</i> . Rocky subtidal macro-algal communities are dominated by <i>Macrocystis angustifolia</i> ,

	Phyllospora comosa and other large brown fucoid algae. For many macro-algal communities, this region forms the westward limit of a number of key species. Extensive areas of seagrass occur in the limited sheltered embayments (generally P. ostenfeldii group), with smaller areas in the lee of reefs (P. australis). Subtidal seagrass meadows dominated by Posidonia australis in shallow areas, P. sinuosa, P. angustifolia and Amphibolis antarctica in deeper waters. Rivoli Bay is the easterly limit of P. coriacea and P. denhartogii. Port MacDonnell is the easterly limit of P. angustifolia. Plant species diversity is very high, particularly among the red algae. Coastal wetlands of national importance in the region include Butchers and Salt Lakes, Ewens Ponds, Piccaninnie Ponds and the coastal lakes of Lake Robe, Eliza, George, and St Clair.
Estuaries	No true rivers, but a few groundwater fed creeks (e.g. Eight Mile Creek, Ellards Creek), and coastal salt lakes intermittently connected to the sea (e.g. Lake George).

Spencer Gulf	
Climate	Semi-arid or "Mediterranean" climate, with hot, dry summers and cool, moist winters.
Oceanography	Semi-confined inverse estuary, with minimal freshwater input and higher salinities and temperatures in the upper reaches of the Gulf. Waters are transitional warm to cool temperate, with mean sea surface temperatures varying from 13°C in winter to 18°C in summer, at the entrance of the Gulf, and higher seasonal temperatures towards the upper reaches of the gulf. Low to moderate wave energy coastline. Tidal range, microtidal ~ 1.8 metre range. Tides are typified by a regular period of minimal tidal movement or "dodge tide".
Coastal Geology and Geomorphology	Tidal plain coast with shallow offshore gradients, extensive intertidal and supratidal areas, and relatively few sheltered embayments. Coastal geology comprises headlands of Precambrian crystalline rock forming embayments, Cainozoic outwash sediments forming low cliffs and Holocene beaches, dunes, and estuarine deposits.
Biota	Marine flora and fauna typical of transitional warm to cool temperate waters (i.e. Flindersian Province). In sheltered areas, intertidal flats are dominated by the grey mangrove, <i>Avicennia marina</i> , the brown alga, <i>Hormosira banksii</i> , and the seagrasses, <i>Zostera</i> ( <i>Heterozostera</i> ) tasmanica and <i>Zostera muelleri</i> . Reef and rocky shore algal communities dominated by <i>Scaberia agardhii</i> , <i>Osmundaria</i> , <i>Lobophora</i> and species of <i>Sargassum</i> in low wave energy areas, and species of <i>Cystophora</i> (e.g. <i>C. expansa</i> ) on moderate energy coasts. Subtidal areas characterised by extensive seagrass meadows, dominated by <i>Posidonia australis</i> in shallow areas, <i>P. sinuosa</i> , <i>P. angustifolia</i> and <i>Amphibolis antarctica</i> in deeper waters, and small shore fringing macro-algal communities. Plant species diversity generally low. Distinct South Australian endemic element ( <i>Vanacampus vercoi</i> ) and subtropical

	element (e.g. <i>Filicampus tigris</i> ) in the fish fauna. Coastal wetlands of national importance in the region include Franklin Harbor.
Estuaries	No true rivers, but a few intermittent streams and tidal mangrove creeks (e.g. Franklin Harbor).

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St Vincent Gulf <sup>7</sup>	
Climate	Semi-arid or "Mediterranean" climate, with hot, dry summers and cool, moist winters.
Oceanography	Confined inverse estuary, with higher salinities and temperatures in the upper reaches of the Gulf. Waters are transitional warm to cold temperate, with mean sea surface temperatures varying from 12°C in winter to 25.9°C in summer and mean salinities varying from 35.5-42.0%. Low to moderate wave energy coastline. Tidal range, microtidal to mesotidal ~ 1.2 to 3.3 metre range in the upper Gulf areas. Tides are typified by a regular period of minimal tidal movement or "dodge tide".
Coastal Geology and Geomorphology	Tidal plain coast with a shallow offshore gradient, extensive supratidal and intertidal areas, and few embayments. Coastal geology comprises headlands of Precambrian meta-sediment and Tertiary cliffs and Holocene beaches, sandflats, dunes, beach ridges, and estuarine deposits.
Biota	Marine flora and fauna typically cool temperate (i.e. Flindersian Province). In sheltered areas, extensive intertidal flats are dominated by the grey mangrove, <i>Avicennia marina</i> , the brown alga, Hormosira <i>banksii</i> , and the seagrasses, <i>Zostera muelleri</i> and <i>Zostera</i> (= <i>Heterozostera</i> ) <i>tasmanica</i> . Extensive subtidal seagrass communities occur down to 17 metres water depth (becoming sparsely vegetated at greater depths). Subtidal areas characterised by extensive seagrass meadows, dominated by <i>Posidonia australis</i> in shallow areas (and northern gulf), <i>P. sinuosa</i> , <i>P. angustifolia</i> and <i>Amphibolis antarctica</i> in deeper waters (and mid-gulf and sheltered parts of the lower gulf), and small shore fringing macro-algal communities. Seagrasses in the <i>P. ostenfeldii</i> group form small communities along exposed parts of the lower gulf. Isolated reefs and rocky shore algal communities are dominated by <i>Scaberia agardhii</i> and species of <i>Sargassum</i> in sheltered areas, and <i>Ecklonia radiata</i> , <i>Seirococcus axillaris</i> and species of <i>Cystophora</i> in moderately exposed areas. Plant species diversity generally low. Distinct SA endemic element ( <i>Vanacampus vercoi</i> , <i>Acentronura australe</i> ) and subtropical element ( <i>Campichthys tryoni</i> ) in the fish fauna. Coastal wetlands of national importance in the region include Clinton, Barker Inlet estuary, Wills Creek, Davenport Creek, Port Gawler, and on Kangaroo Island, American River and Cygnet River.
Estuaries	A few true rivers (e.g. Onkaparinga, Port Adelaide, Wakefield, Gawler Rivers), and several intermittent streams and tidal mangrove creeks

<sup>&</sup>lt;sup>7</sup> (see additional information below table, for Backstairs Passage area, an area which is distinctive physically and ecologically, but was not included by IMCRA Technical Group, 1998, in the GSV description).

(e.g. American River, Clinton, Wills Creek, Port Gawler).

# Additional Information, for Backstairs Passage

Oceanography: High tidal flow environment, fast current speeds (125 - 150cm/sec according to Petrusevics *et al* 1998, and 250 cm/sec in the centre, according to Shepherd and Sprigg, 1976). Temperature and salinity (35.5 - 36ppt?) much less variable than upper gulf waters, and not subject to seasonal extremes. Wave energy "moderate to high", with strong swell (e.g. to at least 4m in some areas). Steep bathymetry gradients (e.g. up to 55m near-shore off Fishery Beach, according to *SA Coast and Marine Atlas*); and relatively deep centre (70 - 75m, according to Shepherd and Sprigg, 1976).

Geology and Geomorphology: In Backstairs Passage, benthic geology comprises mainly outcrops and scarps of metamorphic reefs (Kanmantoo Group meta-sediments and Permian shales, according to Shepherd and Sprigg, 1976), overlain with coarse sands and pebbles. Edges of Passage (Dudley Peninsula and bottom of Fleurieu) characterised mainly by steep Kanmantoo metamorphic cliffs and associated reefs. Also present are patches of calcareous platform reef.

Biota: Assemblages in the central tidal race area characterised by large sponges (more than 1m high) and erect bryozoa (Adeona) and high densities of a drifting brachiopod (Anakinetica). Edges of Passage (Dudley Peninsula and bottom of Fleurieu) characterised mainly by steep Kanmantoo metamorphic cliffs and associated reefs (but also present are patches of calcareous platform reef and small seagrass beds (e.g. Antechamber Bay). Benthos at edges of Passage dominated at shallower depths (<15m) by mixed brown canopyforming macroalgae, mixed red macroalgae (including articulated corallines) and sessile invertebrates (sponges, bryozoa, ascidians). At deeper depths (15+m - 50+m), biota characterised by abundant soft corals and gorgonians, large erect sponge species (such as basket sponges), large erect bryozoa, sea pens, echinoderms (crinoids, basket stars, brittle stars) and gastropod molluscs (i.e. fauna characteristic of deeper water, strong current flow conditions, which is uncommon in the near-shore State waters of S.A., making the invertebrate assemblages of biogeographic significance). Specific groups of biogeographic significance include the globally significant numbers of Australian sea lions (at the Pages), and abundance and diversity of stalked crinoids and brachiopods in Backstairs Passage. There are small areas of seagrass (e.g. Antechamber Bay).

# Additional Information, for Investigator Strait

Oceanography: Moderate to fast current speeds/strong tidal flow in places (approx. 100cm/sec at western entrance, and max. approx. 160cm/sec east of Troubridge Shoals, where the Strait meets the gulf, and up to 200cm/sec in some central areas). Depths in middle of strait range from around 65m at the western entrance to around 30m at the eastern (GSV) entrance, with shallow depths and gradients towards the northern Strait (i.e. southern foot of Yorke Peninsula), where waters less than 20m occur up to 10km from shore. Strong influence of wind waves in some areas (e.g. southern heel of Yorke Peninsula). Temperature and salinity less variable than gulf waters, and not subject to seasonal extremes. Subject to sea surface temperature fronts in summer, that influence the Strait as far east as Sturt Bay (causing temperature differences of up to 3 degrees C, compared with average summer temps in the western Strait).

Geology, Geomorphology, and Biota: Variety of benthic types: intertidal and benthic platform reefs (both limestone and granite, at eastern foot of Yorke Peninsula), with mixed seagrass/patch reef/sand bays; metamorphic near-shore reefs (e.g. north-western Kangaroo Island); extensive seagrass beds on broad shallow banks which stretch at least 8km seaward from the coast; (e.g. Sturt Bay - Foul Bay area); broad patches of calcreted shell bed reef (beds of 30km long and up to 30km wide) in waters (20m - 30+m deep) off northern Kangaroo Island and south of the Foul Bay seagrass beds off Yorke Peninsula). Centre of strait (25m - 30m) dominated mainly by sparse Zostera (= Heterozostera) seagrass on sediment beds, with patches of consolidated sand reef and rugose limestone reef. The Investigator Strait portion of the southern heel of Yorke Peninsula dominated by calcareous reef, consolidated sand reefs, and sand beds. North-eastern Kangaroo Island (where the Strait meets Backstairs Passage) contains sessile invertebrate-dominated assemblages in deeper waters, and broad, low energy, seagrass-lined bays in the shallower waters (0m - 20m). Small bays with seagrass (usually seaward of fringing cliff reefs) also occur along the northern coast of KI.

# Appendix 3. Existing MPAs in South Australia

# **History**

South Australia was one of the first Australian States to make laws for creating marine protected areas (MPAs). Six aquatic reserves were established under the Fisheries Act 1971 for a variety of purposes including recreation, education, research, fisheries management and the conservation of particular features. These aquatic reserves are all relatively small, the largest being 36 km<sup>2</sup>, and in most cases have a high level of protection. Eight additional Aguatic Reserves were established over the following 15 years (some under the revised Fisheries Act 1982), and several others have been proposed by various independent groups. During the same period there were a number of areas proclaimed preventing netting, spearfishing or the taking of lobster or abalone.

In the period from 1995 to 1998 there was a shift in emphasis towards larger, multiple use MPAs, with specific management arrangement providing varying levels of protection. The first and only one of these to be established so far is the Great Australian Bight Marine Park. This MPA was established under three different Acts, and covers an area of more than 20,000 km<sup>2</sup>.

Currently SA has less than 4% of its waters within recognised MPAs (i.e. not including marine "buffers" around coastal and island conservation parks, that do not offer formal protection for those areas).

# Types of MPA

The following types of MPA have been established in South Australia.

#### **Marine Parks**

There is currently one Marine Park in South Australia: the Great Australian Bight Marine Park, which extends into Commonwealth waters and comprises three parts declared under different Acts:

The Great Australian Bight Marine National Park, established under the National Parks and Wildlife Act 1972

The Great Australian Bight Whale Sanctuary, established under the Fisheries Act 1982 The Great Australian Bight Marine Park (Commonwealth Waters), established under the National Parks and Wildlife Conservation Act 1975.

# **Aquatic Reserves**

There are 14 Aquatic Reserves in South Australia, established under the Fisheries Act 1982.

#### Terrestrial and Island Parks with a Marine Extension

There are some 94 coastal or island Conservation Parks and National Parks established under the National Parks and Wildlife Act 1972. Some of these Parks have significant marine components, including the Coorong National Park with more than 3000 hectares of estuarine lagoons. Several others offer protection for intertidal habitats (e.g. saltmarsh, mangroves and mudflat areas); and other provide protection for marine species (with notable examples being breeding and haul-out sites for Australian Sea Lions and/or New Zealand Fur Seals, and breeding and roosting areas for rare and/or threatened coastal and sea bird species). A list of the terrestrial and island conservation parks with marine extensions, is provided in one of the tables below.

### Sanctuaries, Closed Areas or Seasons

There are a number of <u>sanctuaries</u>, <u>closed areas or closed seasons</u> established under the *Fisheries Act 1982*:

# • Netting Closures

There are a number of <u>netting closures</u> or restricted use areas, as well as all jetties, piers and wharves, established under the *Fisheries Act 1982*.

# • Historic Shipwreck Protection Zones

The <u>Zanoni</u>, near Ardrossan, is the only Historic Shipwreck Protection Zone established in South Australia under the <u>Historic Shipwrecks Act 1981</u>.

These MPAs have been formally recognised as contributing to the protection of South Australia's marine biodiversity by a number of reports:

An inventory of Declared Marine and Estuarine Protected Areas in Australia (Ivanovici, 1984; updated 1993). This acknowledged the 13 Aquatic Reserves in existence at the time (Pt Labatt was not declared until 1986); four Rock Lobster Sanctuaries; the Clinton, Port Gawler and Seal Bay Conservation Parks; the Coorong National Park and the *Zanoni* Shipwreck Protection Zone, as well as 31 Restricted Use Areas (jetties, piers, wharves and netting closures).

Terrestrial and Marine Protected Areas in Australia (Cresswell and Thomas, 1997), based on the Collaborative Australian Protected Areas Dataset (CAPAD). This acknowledged all 14 Aquatic Reserves; the Great Australian Bight Whale Sanctuary; and listed the Coorong National Park as a terrestrial protected area.

Conserving South Australia's Marine Biodiversity (Edyvane, 1999a). In describing the status of MPAs in South Australia during the late 1990s, this report recognised the 14 Aquatic Reserves, the four Rock Lobster Sanctuaries, the two components of the Great Australian Bight Marine Park, the Coorong National Park and the Zanoni Historic Shipwreck Protection Zone.

Since the time of the latter report there have been marine extensions declared for The Pages, Neptune Island and Sir Joseph Banks Group Conservation Parks, Coffin Bay National Park, and the Seal Bay Conservation Park, as well as one island conservation parks, and several terrestrial conservation parks with coastal components.

The following table of major MPAs in South Australia lists those recognised by Ivanovici (1984 and 1993), Neverauskas and Edyvane (1993), and/or Edyvane (1999a), with the recent addition of the *Hobart* shipwreck site, and the exclusion of the Coorong National Park, which is listed further below, in the table on terrestrial conservation parks with marine or estuarine extensions.

MPA Type / Name	Area (within SA)	Bioregion
Marine Parks		
Great Australian Bight Marine Park	168 000	Eucla
Aquatic Reserves		
West Island Encounter Bay Aquatic Reserve	84	Coorong
Bales Beach Aquatic Reserve	818	Evre

Doint Labott Aquatia Paganya	2340	Euro
Point Labatt Aquatic Reserve		Eyre
Seal Bay Aquatic Reserve	455	Eyre
Blanche Harbour – Douglas Bank Aquatic	3 160	Northern Spencer Gulf
Reserve		
Whyalla - Cowled's Landing Aquatic	3 230	Northern Spencer Gulf
Reserve		·
Yatala Harbour - Upper Spencer Gulf	1 426	Northern Spencer Gulf
Aquatic Reserve		·
Goose Island Aquatic Reserve	54	Spencer Gulf
Aldinga Reef Aquatic Reserve	505	Gulf St Vincent
American River Aquatic Reserve	1 525	Gulf St Vincent
Barker Inlet - St Kilda Aquatic Reserve	2 055	Gulf St Vincent
Port Noarlunga Reef Aquatic Reserve	300	Gulf St Vincent
St Kilda - Chapman Creek Aquatic Reserve	870	Gulf St Vincent
Troubridge Hill Aquatic Reserve	460	Gulf St Vincent
Rock Lobster Sanctuaries		
Cape Jaffa Sanctuary	950	Coorong
Gleesons Landing Sanctuary	350	Coorong
Margaret Brock Reef Sanctuary	314	Coorong
Penguin Island – Rivoli Bay Sanctuary	40	Otway
Protected Shipwrecks		
'Zanoni'	95	Gulf St Vincent
'Hobart'	78	Gulf St Vincent

The following table lists the legislatively declared marine extensions to coastal / island Parks. Although the size of some of these marine extensions is significant, they do not exclude most marine uses and activities. Therefore, these areas cannot be considered true MPAs.

National or Conservation Parks with significant Marine Components in legislation	Area (within SA)	Bioregion
Coorong National Park	3 600	Coorong
The Pages Conservation Park	6 884	Coorong
Neptune Island Conservation Park	13 200	Eyre
Sir Joseph Banks Group Conservation Park	46 150	Eyre
Coffin Bay National Park	650	Eyre

The following table includes the existing restricted use areas that are proclaimed as coastal or offshore island parks / reserves. Most lack a significant marine component, however some have important roles in protecting coastal habitats and/or species. Note that some of these are adjacent to Aquatic Reserves of the same name (Seal Bay, Point Labatt, West Island, and the newly proclaimed Nicholas Baudin Island are some examples).

Conservation Parks and Reserves, National Parks,	Total Area	Bioregion
Wilderness Protection Areas and Recreation Parks with a	(ha)	(N.B. More than one
coastal component	(from NPWSA	Bioregion is listed in
	2002a, with	cases where the park
	additions and	is near a boundary
	amendments)	zone)
Acraman Creek Conservation Park	3,999	MUR
Althorpe Islands Conservation Park	128	GSV / EYR
Avoid Bay Islands Conservation Park	32	EYR

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Baird Bay Islands Conservation Park	24	EYR
Baudin Conservation Park	171	GSV
Baudin Rocks (Godfrey Islands) Conservation Park	14	OTW
Beachport Conservation Park	710	OTW
Beatrice Islet Conservation Park	103	GSV
Bernouilli Conservation Reserve	242	OTW / COR
Bird Islands Conservation Park	368	SGF
Busby Islet Conservation Park	17	GSV
Butcher Gap Conservation Park	179	COR
Canunda Conservation Reserve	1,091	OTW
Canunda National Park	9,312	OTW
Cap Island Conservation Park	9	EYR
Cape Bouguer Wilderness Protection Area	5,530	EYR
Cape Gantheaume Conservation Park	4,222	EYR
Cape Gantheaume Wilderness Protection Area	20,084	EYR
Cape Torrens Conservation Park	35	GSV / EYR
Cape Torrens Wilderness Protection Area	751	GSV / EYR
Cape Willoughby Conservation Park	17	EYR / COR / GSV
Carpenter Rocks Conservation Park	32	OTW
Chadinga Conservation Reserve	8193	MUR
Clinton Conservation Park	1,922	GSV
Coffin Bay National Park (includes Whidbey Wilderness Zone)	31,000	EYR
Coffin Bay Conservation Reserve	40	EYR
Coorong National Park	50,804	COR
Deep Creek Conservation Park	4,554	GSV
Douglas Point Conservation Park	38	OTW
Eba Island Conservation Park	141	MUR
Ewens Ponds Conservation Park	35	OTW
Flinders Chase National Park	32,828	EYR
Fowlers Bay Conservation Reserve	8,456	MUR
Franklin Harbor Conservation Park	1,356	SGF
Gambier Islands Conservation Park	172	EYR
Goose Island Conservation Park	24	SGF
Granite Island Recreation Park	27	GSV / COR
Greenly Island Conservation Park	166	EYR
Guichen Bay Conservation Park	103	OTW
Hallett Cove Conservation Park	50	GSV
Innes National Park	9,322	GSV / EYR
Investigator Group Conservation Park	370.8	EYR
Isles of St. Francis Conservation Park	1,312	MUR
Kellidie Bay Conservation Park	1,780	EYR
Lake Frome Conservation Park (prev. Canunda Cons. Reserve)*	1,091	OTW
Lake Newland Conservation Park	8,922	EYR
Lake Newland Conservation Reserve	82.5	EYR
Lashmar Conservation Park	191	GSV
Laura Bay Conservation Park	275.5	MUR
Laura Bay Conservation Reserve	11	MUR
Lesueur (previously Cape Hart) Conservation Park	1,335	EYR / COR / GSV
Leven Beach Conservation Park	502	SGF
Lincoln National Park	31,510	EYR
Lincoln - 2 Conservation Reserve	308	EYR
Lipson Island Conservation Park	5.8	SGF
·		OTW
Little Dip Conservation Park  Memory Coyo Wilderness Protection Area	2,138	
Memory Cove Wilderness Protection Area		EYR

Moana Sands Conservation Park	21	GSV
Mount Dutton Bay Conservation Park	12	EYR
Munyaroo Conservation Park	12,392	NSG
Munyaroo Conservation Reserve	7,810	NSG
Nepean Bay Conservation Park	33	GSV
Nene Valley Conservation Park	389	OTW
Neptune Islands Conservation Park	14,472	EYR
Newland Head Conservation Park	1,036	GSV / COR
Nicholas Baudin Island Conservation Park	94	EYR
Nullarbor National Park	591,600	EUC
Nuyts Archipelago Conservation Park	9,881	MUR
Nuyts Reef Conservation Park	47	MUR / EUC
Olive Island Conservation Park	21	MUR
Onkaparinga River Recreation Park	284	GSV
Pelican Lagoon Conservation Park	379	GSV
Penguin Island Conservation Park	7	OTW
Piccaninnie Ponds Conservation Park	547	OTW
Pigface Island Conservation Park	13.6	MUR
Point Bell Conservation Reserve	562	MUR
Point Davenport Conservation Park	239	GSV
Point Labatt Conservation Park	34	EYR
Port Gawler Conservation Park	419	GSV
Pullen Island Conservation Park	3	COR / GSV
Ravine Des Casoars Wilderness Protection Area	41,330	EYR
Rocky Island (North) Conservation Park	13	EYR
	21.5	EYR
Rocky Island (South) Conservation Park	75	
Salt Lagoon Islands Conservation Park	525	COR
Sceale Bay Conservation Reserve		EYR EYR
Seal Bay Conservation Park	4,949	
Sinclair Island Conservation Park	1 47 500	MUR
Sir Joseph Banks Conservation Park	47, 528	EYR
Sleaford Mere Conservation Park	699	EYR
The Pages Conservation Park	7,013	GSV / COR
Torrens Island Conservation Park	79	GSV
Troubridge Island Conservation Park	260	GSV
Tumby Island Conservation Park	35	EYR
Venus Bay Conservation Park	1,460	EYR
Venus Bay Conservation Reserve	3,362	EYR
Vivonne Bay Conservation Park	1,588	EYR
Wahgunyah Conservation Park / Regional Reserve	39,906	EUC
Waitpinga Conservation Park	2.5	GSV / COR
Waldegrave Islands Conservation Park	434	EYR
West Island Conservation Park	18	GSV / COR
Western River Conservation Park	167	GSV / EYR
Western River Wilderness Protection Area	2,374	GSV / EYR
Whidbey Isles Conservation Park	245	EYR
Winninowie Conservation Park	7,897	NSG
Wittelbee Conservation Park  ** (The size of the newly declared Memory Cove Wilderness Area	155	MUR

<sup>\*\* (</sup>The size of the newly declared Memory Cove Wilderness Area was not available at the time of writing)

The following table provides examples of the contribution of some of the coastal and island Conservation Parks and Reserves, to the conservation of marine species or habitats. Compiled from sources including Australian Heritage Commission (undated); Morelli and de Jong (1995); Robinson *et al.* (1996); S.A. Coast and Marine Atlas data sets (2001); Shaughnessy, (2002); Shaughnessy and Dennis (2002); Shaughnessy and McKeown (2002); DEH (2003e); and National Parks and Wildlife South Australia visitor guides and park notes – e.g. National Parks and Wildlife Service (undated); NPWSA (2002e); NPWSA (undated a, c, d, e, f, g, h, i, j, k, l).

Bioregion	Conservation Park / Reserve	Species/ Habitat Conserved
		(N.B. Terrestrial coastal vegetation not included)
Eucla	Wahgunyah Conservation Park	Sand dunes; long, wave-exposed beaches. Feeding, roosting and/or breeding areas for coastal birds and sea birds (including threatened species).
Eucla	Nullarbor National Park and Regional Reserve	Globally significant semi-arid coastal karst (cave) system; cliffs; Breeding and haul-out sites for Australian Sea Lions
Murat	Laura Bay Conservation Park and Conservation Reserve	Saltmarsh; tidal flats with associated mangroves; sand dunes; sand beaches; rocky headland; intertidal platform / rock pool habitat. Feeding and/or roosting sites for sea birds, shore birds and wading birds.
Murat	Nuyts Archipelago Conservation Park	Granite based, calcarenite-capped islands (around 20 in the group); intertidal reefs; sand dunes; saltbush / samphire; tidal sand flats / mudflats; mangroves; beaches; shallow subtidal sand and seagrass.  Nursery function for fish and invertebrates.  Breeding sites and haul-out sites for Australian Sea Lion.  Breeding and feeding area for Great Sticknest Rat (a threatened species, which has a coastal association).  Feeding, roosting and breeding sites for wetland / wading birds, coastal birds and sea birds (including rare species, threatened species and migratory species).
Murat	Acraman Creek Conservation Park	Dunes; mangroves and associated creek habitat; samphire / saltmarsh habitats. Sites for coastal birds / wading birds
Murat	Chadinga Conservation Reserve	Sand dunes; surf beach; intertidal reef (south-eastern edge of park) Feeding, roosting and/or breeding areas for coastal birds and sea birds (including threatened species).
Murat	Eba Island Conservation Park	Limestone island; sand bar.

		Feeding and roosting are for sea birds
		(including one or more migratory species).
Murat	Fowlers Bay Conservation Reserve	Rocky headlands; cliffs; intertidal platform / boulder / rubble reef; sand dunes; sand beach. Feeding, roosting and/or breeding areas for coastal birds and sea birds (including rare species and threatened species).
Murat	Isles of St. Francis Conservation Park	Nine of the eleven granite-based, calcarenite-capped islands; intertidal reef (boulders, platforms etc); sand beaches. Breeding and haul-out sites for Australian Sea Lions. Haul-out sites for New Zealand Fur Seals. Feeding, roosting and/or breeding areas for coastal birds and sea birds (including rare species, threatened species and migratory species).
Murat	Nuyts Reef Conservation Park	Five small granite reefs surrounded by deep water. Minor breeding site for Australian Sea Lion. Feeding and/or roosting areas for seabirds.
Murat	Olive Island Conservation Park	Wave-exposed granite reef. Breeding and haul-out site for Australian Sea Lion Haul-out site for New Zealand Fur Seal Breeding / roosting areas for coastal birds and sea birds, including rare species and threatened species.
Murat	Pigface Island Conservation Park	Small sand and limestone island; Sea bird breeding, roosting and/or feeding habitat
Murat	Point Bell Conservation Reserve	Coastal dunes; beaches; limestone peninsula; granite headland; sea bird habitat
Murat	Sinclair Island Conservation Park	Small granite island. Haul-out site for Australian Sea Lion. Minor breeding / roosting site for sea birds.
Murat	Wittelbee Conservation Park	Samphire swamp; dunes; sand beaches; low rocky headland
Eyre	Avoid Bay Islands Conservation Park	Five small islets (mainly limestone). Haul-out site for Australian Sea Lions. Feeding, roosting and/or breeding areas for coastal birds and sea birds.
Eyre	Baird Bay Islands Conservation Park	Two calcareous rock and sand islands and surrounding intertidal / shallow subtidal habitat. Breeding and haul-out site for Australian Sea Lion. Roosting sites for coastal birds and sea birds (including rare species, threatened species and migratory species).
Eyre	Cap Island Conservation Park	Island with granite base; rocky intertidal habitat. Haul-out sites for Australian Sea Lion and New Zealand Fur Seal Breeding, roosting and/or feeding sites for coastal birds (including a rare species) and

		sea birds.
Eyre	Cape Bouguer Wilderness Protection Area	Cliffs; coastal streams (that empty to sea); beach habitat. Minor breeding area and haul-out site for Australian Sea Lion. Minor breeding and haul-out site for New Zealand Fur Seal. Haul-out site for Australian Fur Seal.
Eyre	Cape Gantheaume Wilderness Protection Area, and adjoining Conservation Park	Limestone cliffs with underlying granite; beach boulders; dunes; sand beach. Australian Sea Lion and New Zealand Fur Seal breeding and haul-out sites. Australian Fur Seal haul-out sites.
Eyre	Coffin Bay National Park (including adjoining Whidbey Wilderness Zone)	Sand dunes; limestone cliffs; rocky shore platforms and headlands; exposed and sheltered sand beaches; internal bays; samphire / saltmarsh. Feeding, breeding and/or roosting areas for sea birds, coastal shore birds (including rare species and threatened species), wading birds and waterfowl. Haul-out sites for Australian Sea Lions Haul-out sites for New Zealand Fur Seals
Eyre	Flinders Chase National Park	Coastal cliffs; nearshore islands and islets; intertidal reef platforms and boulders; coastal caves; sand dunes; estuaries; beaches.  Breeding and haul-out sites for New Zealand Fur Seals and Australian Sea Lions.  Haul-out sites for Australian Fur Seal Feeding, roosting and/or breeding sites for wetland birds / wading birds, waterfowl, coastal birds and sea birds (including rare species, threatened species and migratory species).
Eyre	Kellidie Bay Conservation Park	Coastal limestone ridges and sand shoreline within sheltered bay. Roosting and feeding area for coastal birds and sea birds (including rare species and threatened species).
Eyre	Gambier Islands Conservation Park	Granite and calcareous rock islands; reef outcrops; island cliffs and caves; intertidal platforms, ledges and boulders / blocks; Minor beaches; minor samphire / saltmarsh. Breeding and haul-out sites for Australian Sea Lions. Haul-out sites for New Zealand Fur Seals. Breeding, roosting and/or feeding areas for coastal birds and sea birds (including rare species and threatened species).
Eyre	Greenly Island Conservation Park	Granite island habitat, including intertidal cliffs and boulders; Breeding area and haul-out sites for New Zealand Fur Seal Haul-out site for Australian Sea Lion

Eyre Investigator Group Conservation Park Investing pacies).  Eyre Investigator Group Conservation Park Investing pacies in the pacies of the			Feeding and roosting areas for sea birds,
Eyre Investigator Group Conservation Park			
Park   Doulder reefs; aintertidal calcareous block / rubble reefs; and beaches. Breeding and haul-out sites for Australian Sea Lions. Breeding and haul-out sites for New Zealand Fur Seal. Feeding, roosting, and/or breeding areas for coastal bird and sea birds, including rare species. The returned species and migratory species).   Ever   Lake Newland Conservation Park   Extensive sand dune system; large coastal saline lake; freshwater springs; samphire flats; swamp paperbark habitat. Habitat for lakeside vegetation (e.g. sedges), aquatic plants (e.g. Chara and Ruppia), invertebrates and small fish. Breeding, roosting and/or feeding areas for wetland / wading birds, waterfowl, coastal birds and sea birds (including rare species, threatened species and migratory species).   Cliffs; coastal plateau with boulder beach; Haul-out site for Australian Sea Lions.   Dunes; limestone cliffs; granite headlands; sand beaches; Feeding, breeding and/or roosting sites for sea birds (including rare species).   Six small, low-lying, limestone and sand islands inside Coffin Bay. Breeding, roosting and feeding grounds for sea birds, shore birds and wading birds (including rare species).   Granite inselbergs, with nearshore boulder reef.   Largest breeding and/or breeding grounds for sea birds, shore birds and wading birds (including rare species).   Granite inselbergs, with nearshore boulder reef.   Largest breeding and haul-out site for Australian Sea Lions   Peeding, roosting and/or breeding sites for coastal birds and sea birds (including rare species).   Granite inselbergs, with nearshore boulder reef.   Largest breeding and/or breeding sites for coastal birds and sea birds (including rare species).   Granite platform and intertidal boulder reef.   Largest breeding and haul-out site for Australian Sea Lions   Peeding, roosting and feeding sites for coastal birds and sea birds (including rare species).   Granite platform and intertidal boulder reef.   Breeding, roosting and haul-out site for Australian Sea Lions   Largest bree			
sedges), aquatic plants (e.g. Chara and Ruppia), invertebrates and small fish.  Breeding, roosting and/or feeding areas for wetland / wading birds, waterfowl, coastal birds and sea birds (including rare species, threatened species and migratory species).  Eyre Lesueur (Cape Hart) Conservation Park  Eyre Lincoln National Park, Memory Cove Wilderness Area, and Lincoln-2 Conservation Reserve  Eyre Mount Dutton Bay Conservation Park  Eyre Mount Dutton Bay Conservation Park  Eyre Neptune Islands Conservation Park  Eyre Reding, roosting and feeding grounds for sea birds, shore birds and wading birds (including rare species) and threatened species).  Eyre Neptune Islands Conservation Park  Eyre Reding, roosting and feeding grounds for sea birds, shore birds and wading birds (including rare species) and threatened species).  Eyre Reding, roosting and feeding grounds for sea birds, shore birds and wading birds (including rare species and threatened species).  Eyre Reding, roosting and haul-out site for New Zealand Fur Seals in S.A.  Minor breeding and haul-out site for Australian Sea Lions  Feeding, roosting and/or breeding sites for coastal birds and sea birds (including rare species).  Nicholas Baudin Island Conservation Park Granite platform and intertidal boulder reef. Breeding and haul-out site for Australian Sea Lions  Minor haul-out site for New Zealand for Seals  Minor haul-out site for New Zealand for Seals		Park	boulder reefs; intertidal calcareous block / rubble reef; sand beaches. Breeding and haul-out sites for Australian Sea Lions. Breeding and haul-out sites for New Zealand Fur Seal. Feeding, roosting, and/or breeding areas for coastal bird and sea birds, including rare species, threatened species and migratory species).  Extensive sand dune system; large coastal saline lake; freshwater springs; samphire flats; swamp paperbark habitat.
Eyre Lincoln National Park, Memory Cove Wilderness Area, and Lincoln-2 Conservation Reserve Eyre Mount Dutton Bay Conservation Park Bay Conservation Park Park Park Park Park Park Park Park			sedges), aquatic plants (e.g. <i>Chara</i> and <i>Ruppia</i> ), invertebrates and small fish. Breeding, roosting and/or feeding areas for wetland / wading birds, waterfowl, coastal birds and sea birds (including rare species, threatened species and migratory species).
Memory Cove Wilderness Area, and Lincoln-2 Conservation Reserve  Sand beaches; Feeding, breeding and/or roosting sites for sea birds (including rare species).  Eyre  Mount Dutton Bay Conservation Park  Six small, low-lying, limestone and sand islands inside Coffin Bay. Breeding, roosting and feeding grounds for sea birds, shore birds and wading birds (including rare species and threatened species).  Eyre  Neptune Islands Conservation Park  Regeling, roosting and feeding grounds for sea birds, shore birds and wading birds (including rare species and threatened species).  Granite inselbergs, with nearshore boulder reef. Largest breeding site for New Zealand Fur Seals in S.A. Minor breeding and haul-out site for Australian Sea Lions Feeding, roosting and/or breeding sites for coastal birds and sea birds (including rare species and threatened species).  Nicholas Baudin Island Conservation Park  Granite platform and intertidal boulder reef. Breeding and haul-out site for Australian Sea Lions Minor haul-out site for New Zealand for Seals  Eyre  Point Labatt Conservation Park  Limestone cliffs; granite platform; sand beach.	Eyre	Park	Haul-out site and minor breeding area for New Zealand Fur Seals;
Park  islands inside Coffin Bay. Breeding, roosting and feeding grounds for sea birds, shore birds and wading birds (including rare species and threatened species).  Eyre  Neptune Islands Conservation Park  Granite inselbergs, with nearshore boulder reef. Largest breeding site for New Zealand Fur Seals in S.A. Minor breeding and haul-out site for Australian Sea Lions Feeding, roosting and/or breeding sites for coastal birds and sea birds (including rare species and threatened species).  Nicholas Baudin Island Conservation Park  Granite platform and intertidal boulder reef. Breeding and haul-out site for Australian Sea Lions Minor haul-out site for New Zealand for Seals  Eyre  Point Labatt Conservation Park  Limestone cliffs; granite platform; sand beach.	Eyre	Memory Cove Wilderness Area, and	sand beaches; Feeding, breeding and/or roosting sites for sea birds (including rare species,
reef. Largest breeding site for New Zealand Fur Seals in S.A. Minor breeding and haul-out site for Australian Sea Lions Feeding, roosting and/or breeding sites for coastal birds and sea birds (including rare species and threatened species).  Nicholas Baudin Island Conservation Park  Granite platform and intertidal boulder reef. Breeding and haul-out site for Australian Sea Lions Minor haul-out site for New Zealand for Seals  Eyre  Point Labatt Conservation Park  Limestone cliffs; granite platform; sand beach.	Eyre	•	islands inside Coffin Bay. Breeding, roosting and feeding grounds for sea birds, shore birds and wading birds (including rare species and threatened
Park Breeding and haul-out site for Australian Sea Lions Minor haul-out site for New Zealand for Seals  Eyre Point Labatt Conservation Park Limestone cliffs; granite platform; sand beach.	Eyre	Neptune Islands Conservation Park	Granite inselbergs, with nearshore boulder reef. Largest breeding site for New Zealand Fur Seals in S.A. Minor breeding and haul-out site for Australian Sea Lions Feeding, roosting and/or breeding sites for coastal birds and sea birds (including rare
beach.			Breeding and haul-out site for Australian Sea Lions Minor haul-out site for New Zealand for Seals
	Eyre	Point Labatt Conservation Park	· · · · · · · · · · · · · · · · · · ·

		Australian Sea Lion
Eyre	Ravine des Casoars Wilderness Protection Area	Metamorphic rock cliffs; coastal cave; sandy estuarine area; exposed sand beach. Feeding, roosting and/or breeding areas for coastal birds and sea birds (including rare species and threatened species).
Eyre	Rocky Island (North) Conservation Park	Small granite island. Breeding and haul-out site for Australian Sea Lions Haul-out site for New Zealand Fur Seals Breeding / roosting areas for sea birds, including a rare species (Flesh-footed Shearwater).
Eyre	Rocky Island (South) Conservation Park	Small granite island; Breeding and haul-out site for New Zealand Fur Seals Haul-out site for Australian Sea Lions. Roosting area for sea birds.
Eyre	Sceale Bay Conservation Reserve	Sand dunes; beach. Habitat for coastal birds.
Eyre	Seal Bay (and Bales Bay) Conservation Park	Dune habitat; cliff habitat; beach habitat; Third largest colony of Australian Sea Lions; Feeding areas for coastal birds and sea birds (including threatened species and migratory species)
Eyre	Sir Joseph Banks Conservation Park and Dangerous Reef	Eighteen of twenty granite and limestone islands, some capped with calcarenite; dunes; intertidal reefs (platforms / boulders / blocks / rubble etc); sand and boulder / cobble beaches; sand bars / spits.  Breeding and feeding area for a reintroduced colony of Great Stick-nest Rat (a threatened species, which has a coastal association).  The most important breeding site for Cape Barren Goose in South Australia.  Feeding, roosting and/or breeding areas for other coastal birds and sea birds (including rare species, threatened species and migratory species).  Breeding and haul-out sites for Australian Sea Lion (including one of the 3 most important breeding sites for this species, at Dangerous Reef).  (N.B. Although there is a marine extension around the Sir Joseph Banks Group, activities such as fishing are not restricted in the area, hence the island group is not considered to provide protection for marine biota, and therefore the subtidal habitats and biota will not be listed here).

Eyre	Sleaford Mere Conservation Park	Coastal saline lake with small internal
		islands; Stromatolite mounds (rare);
		Feeding habitat for wader birds;
		Breeding area for waterfowl;
		Refuge for saline lake fauna (e.g. fish, skates).
Eyre	Tumby Island Conservation Park	Sand and limestone island; sand spit.
		Feeding and/or breeding and roosting
Eyre	Venus Bay Conservation Park	habitats for sea birds and waterfowl.  Limestone peninsula / cliff; bay habitat; 7
Lyie	venus day Conservation Faik	islands (including a mangrove-fringed
		island; limestone islands; and an island
		tombolo); mangroves; tea tree swamp; sand
		dunes; shellgrit / sand beaches.
		Breeding, roosting and/or feeding sites for
		sea birds, coastal birds and wetland birds
		(including rare species, threatened species
		and migratory species).
Eyre	Venus Bay Conservation Reserve	Intertidal sandflats / beach.
	(mainly terrestrial, except for southern edge)	Feeding area for coastal birds and sea birds.
Eyre	Vivonne Bay Conservation Park	Cliffs; dunes; beach habitat.
	,	Breeding and/or feeding area for coastal
		birds.
Eyre	Waldegrave Islands Conservation	Two granite-based, calcareous-topped
	Park	islands with cliffs, arches and coastal caves;
		shallow subtidal reef; sand beach.
		Breeding and haul-out site for Australian Sea Lions.
		Feeding, roosting and breeding areas for
		coastal birds and sea birds (including rare
		species and threatened species )
Eyre	Whidbey Isles Conservation Park	Limestone islands with cliffed coastlines;
		granite and metamorphic rock islands with
		nearshore boulders and platforms. Breeding, roosting and/or feeding sites for
		sea birds (including rare species,
		threatened species and migratory species);
		Breeding and haul-out sites for Australian
		Sea Lions
		Breeding and haul-out sites for New Zealand Fur Seals.
Spencer Gulf	Bird Islands Conservation Park	Islands and islets; mangroves; saltmarsh;
		intertidal sand / mudflats; small reef
		outcrops.
		Feeding, breeding / nesting site for place for seabirds and waders.
Spencer Gulf	Franklin Harbour Conservation Park	Narrow sandy peninsula; four internal
		islands of a shallow embayment; sand
		dunes; tidal sand flats / mud flats; samphire;
		mangroves. Feeding, roosting, and/or breeding areas for
		sea birds, coastal birds, wading birds /
		waterbirds and/or waterfowl (including
		threatened species and migratory species).

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Spencer Gulf	Goose Island Conservation Park	Six small metamorphic rock islands, with surrounding reef platforms and boulders; rock spit; scattered calcareous reef; sandbars / sand spit; small sand beaches. Haul out site for Australian Sea Lion. Feeding, roosting / and/or breeding sites for coastal birds and sea birds (including threatened species, and one or more migratory species).
Spencer Gulf	Leven Beach Conservation Park	Tidal sand/ mud flats and beach. Feeding areas for coastal birds and sea birds.
Spencer Gulf	Lipson Island Conservation Park	Small sand and granite islet; semi- submerged intertidal reef; tidal sand bar. Breeding, roosting and feeding habitats for sea birds and shore birds (including a vulnerable species).
Northern	Munyaroo Conservation Park and	Mangroves; samphire; small coastal salt
Spencer Gulf	Munyaroo Conservation Reserve	lakes; beaches. Feeding and roosting areas for coastal birds and sea birds.
Northern Spencer Gulf	Winninowie Conservation Park	Samphire / salt marsh; playa lakes; mangroves with associated tidal creeks; supratidal and intertidal sandflats and mudflats; shallow subtidal sand and seagrasses.  Nursery area for fish and invertebrates. Feeding, roosting and/or breeding sites for coastal birds and wetland / wading birds (including threatened species and migratory species).
Gulf St Vincent / Eyre	Althorpe Islands Conservation Park	Three granite-based islands with calcarenite capping, and several small islets; cliffs; intertidal platform, boulder and rubble reef; sandy bay. Haul-out sites for Australian Sea Lion. Feeding, roosting and/or breeding areas for coastal birds and sea birds (including threatened species and migratory species).
Gulf St Vincent	Deep Creek Conservation Park	Coastal rock cliffs; small rocky and sandy
0.1(0)	0 7 100	beach coves.
Gulf St Vincent /	Cape Torrens Wilderness Protection	Coastal rock cliffs; beach;
Eyre	Area and Conservation Park	Sea bird breeding site
Gulf St Vincent	Baudin Conservation Park	Cliffs; rocky and sandy beach habitats; Roosting areas for sea bird (Little Penguin)
Gulf St Vincent	Beatrice Islet Conservation Park	Sand and mud islet; large tidal sand / mud spit; habitat for bivalves (including cockle beds). Feeding and/or roosting areas for wading birds, coastal birds and/or sea birds (including threatened species and migratory species).
Gulf St Vincent	Busby Islet Conservation Park	Sand and shellgrit islet; samphires; large tidal sand / mud spit Feeding and/or roosting areas for wading birds, coastal birds and/or sea birds

		(including threatened species and migratory species).
Gulf St Vincent	Clinton Conservation Park	Estuarine area with freshwater drainage channel; samphires; mangroves with associated tidal channels; tidal sand / mud flats; shallow subtidal sand and seagrasses. Nursery area for fish and invertebrates. Feeding, roosting and breeding areas for coastal birds, wetland / wading birds, and sea birds (including rare species, threatened species and migratory species).
Gulf St Vincent	Hallett Cove Conservation Park	Cliffs; rocky shore platform habitat; rock / pebble / sand beach habitat; Sites for sea birds and wading birds.
Gulf St Vincent	Innes National Park	Cliffs and rocky headlands; wavecut rock platforms; exposed and sheltered sand beaches; salt lakes; living stromatolites (rare).  Feeding and/or nesting areas for sea birds and shore birds (including rare species, threatened species and migratory species).
Gulf St Vincent	Moana Sands Conservation Park	Dunes; beach habitat; Site for shore birds
Gulf St Vincent	Nepean Bay Conservation Park	Swamp paperbark, dunes, sand beach. Feeding and/or roosting areas for coastal birds.
Gulf St Vincent	Newland Head Conservation Park	Cliffs and rocky headlands; beaches; creek mouth and lagoon; Feeding and / or nesting areas for shore birds (including threatened Hooded Plover)
Gulf St Vincent	Onkaparinga River Recreation Park (adjoining Onkaparinga National Park)	Estuarine habitat; samphire; mudbanks; feeding and/or breeding areas for various estuarine fish species; Feeding and/or breeding areas for wading birds and waterfowl.
Gulf St Vincent	Pelican Lagoon Conservation Park	Coastal lagoon habitat within American River, with shallow subtidal seagrasses, sand, and mud habitat; 5 internal islands; bay shore habitat (in part); samphire mudflats; tea tree swamp.  Refuge for several uncommon small, benthic fish species and other fauna associated with the lagoons; Feeding area and refuge for shore birds and wetland birds (including rare species, threatened species and migratory species).
Gulf St Vincent	Western River Conservation Park	Coastal rock cliffs; rock and sand cove / beach; Sites for sea birds.
Gulf St Vincent	Point Davenport Conservation Park	Dunes; samphire; swamp paperbark; semi- stranded coastal lagoon (rare on Yorke Peninsula) with associated tidal inlet and sand spit. Feeding and/or roosting habitat for shore birds, wading birds / wetland birds and waterfowl, including rare species,

		threatened species and migratory species.
Gulf St Vincent	Port Gawler Conservation Park	Estuarine habitat; samphires (including
		threatened species); large area of tidal flats,
		mangroves and associated tidal channels;
		shallow subtidal seagrass habitat.
		Nursery area for fish and crustaceans
		(including commercially and recreationally
		significant species).
		Feeding, breeding and/or roosting sites for
		sea birds, shore birds, wading birds, and
		waterfowl (including vulnerable species,
		rare species and migratory species).
		Buffer area for adjacent Buckland Park, a
		large ephemeral freshwater lake which is a
		significant feeding, breeding and roosting
		area for shore birds, wetland birds and
		waterfowl (including rare species,
		threatened species and migratory species),
		and also provides habitat for species of
		freshwater fish, frogs, and a tortoise
		species.
Gulf St Vincent	Torrens Island Conservation Park	Saltmarsh; mangroves; sand flats /
		mudflats.
		Feeding, roosting, and/or breeding areas for
		coastal birds, sea birds, wading birds /
		wetland birds (including threatened species
Gulf St Vincent	Troubridge Island Conservation Park	and migratory species).  Island habitat; beaches; feeding and /or
Guil St Villcent	Troubilidge Island Conservation Park	roosting areas for sea birds, shore birds and
		wading birds (including threatened species
		and migratory species).
		and migratory species).
Gulf St Vincent /	West Island Conservation Park	Island habitats (West and Seal Islands),
Coorong		including supratidal and intertidal boulders;
		Feeding, breeding and/or roosting areas for
		sea birds and coastal birds (also including
		threatened species, and Little Penguin);
		Haul-out site for New Zealand Fur Seals.
Gulf St Vincent /	Granite Island Recreation Park	Intertidal boulder habitat; sand beaches;
Coorong		Breeding / roosting areas for sea birds
		(including Little Penguin colony); haul-out
		site for Australian Sea Lion and New
0 1/ 0/ ) //	7. 5. 0 5	Zealand Fur Seal
Gulf St Vincent /	The Pages Conservation Park	Intertidal rock platform and boulder habitat;
Coorong		subtidal reef; subtidal sand habitats;
		Globally and nationally significant colony of
		Australian Sea Lion;
		Haul-out sites for New Zealand Fur Seals; Breeding and roosting sites for sea birds.
Coorong	Butcher Gap Conservation Park	Dunes; beach habitat; wetland area (with
		saline lakes); samphire habitat;
		Feeding and refuge areas for coastal birds
		(including endangered Orange-bellied
		Parrot) and wetland birds / waterfowl
		(including migratory species).
Coorong	Pullen Island Conservation Park	Island with supratidal and intertidal granite
		boulders.

		Feeding, roosting and/or breeding areas for sea birds (including Little Penguin).
Coorong	Coorong National Park	Coastal barrier dune system; beaches; salt lakes; lagoons; freshwater and estuarine wetland habitats. Breeding, roosting and/or feeding areas for sea birds, coastal birds, wetland birds (including threatened species and migratory species), and waterfowl; Breeding and feeding areas for estuarine fish and invertebrates
Otway	Baudin Rocks Conservation Park	Breeding / roosting sites for seabirds (including rare species); haul-out site for pinnipeds
Otway	Beachport Conservation Park	Limestone cliffs; sand dunes; beaches; sea bird roosting sites; lake habitat with shore- fringing tea tree; saltwater lagoons; waterbird habitat.
Otway	Carpenter Rocks Conservation Park	Sand / rock beach habitat; Feeding and roosting areas for coastal birds and sea birds
Otway	Canunda National Park*	Low limestone cliffs and headlands; intertidal reefs and sea stacks; dune ridges; sand dunes; wetland areas; sand beaches. Breeding, roosting and/or feeding sites for sea birds, water birds / wading birds (including migratory species), waterfowl and coastal birds (including the endangered Orange-bellied Parrot, and a number of other threatened species and rare species).
Otway	Douglas Point Conservation Park	Limestone cliffs; sand beaches.
Otway	Ewens Ponds Conservation Park	Water-filled, subterranean caverns fed by freshwater springs; reed swamps / sedgelands. Habitat for freshwater fish and invertebrates (ponds) and estuarine fish and invertebrate species (creeks). Habitat for coastal birds, and wading / wetland birds (including rare species, threatened species).
Otway	Guichen Bay Conservation Park	Sand dunes; sand beach. Feeding, roosting and/or breeding areas for coastal birds (including threatened species), wading birds (including migratory species) and sea birds.
Otway	Little Dip Conservation Park	Dunes; limestone cliffs; shore platforms, intertidal reefs and islets; samphires; freshwater and saline lake habitats; feeding and roosting habitat for shore birds (including threatened Hooded Plover and endangered Orange-bellied Parrot), sea birds, wading birds and waterfowl (including rare species).
Otway	Piccaninnie Ponds Conservation Park	Coastal freshwater swamp; water-filled, subterranean caverns fed by freshwater

		springs; reed swamps / sedgelands. Habitat for freshwater fish and invertebrates (ponds) and estuarine fish and invertebrate species (creeks). Habitat for coastal birds, and wading / wetland birds (including rare species, threatened species).
Otway	Penguin Island Conservation Park	Three calcareous islands surrounded by cliffs; wavecut platform; rocky spit. Haul-out site for Australian Fur Seal Breeding sites (e.g. for Little Penguin and other species), and roosting and feeding sites for sea birds. Previously, one of the few known sites in S.A. where Eastern Reef Heron may have been breeding.

<sup>\* (</sup>N.B. Lake Frome Conservation Park, a significant wetland area, adjoins the Canunda National Park, but is not included in this table because it is situated inland, and does not abut the coast).

# **Netting Closures and Other Restricted Use Areas**

#### **West Coast**

Fowlers Bay: all waters west of a line from First Point to a point 200 metres north east of the end of the jetty and then generally westward to a point on the mainland 200 metres north of the jetty.

Denial & Smoky Bays: all waters east of a line from Point Brown to Point James

Streaky Bay: all waters east of a line from Point de Mole to Cape Bauer.

Baird Bay: all waters of Baird Bay

Venus Bay: all waters of the eastern section of Venus Bay situated east of a straight line extending southerly across Venus Bay from the most westerly corner of section 72 Hundred of Wright to the Trigonometrical Station on Point Weyland.

Waterloo Bay: all of the waters inside of Waterloo Bay (Elliston) situated north east of a line from Wellington Point to Salmon Point.

Coffin Bay: all waters south of a line from Point Sir Isaac to Frenchman Bluff.

#### Spencer Gulf

Port Lincoln: all waters west of a line from Point Bollingbroke to Cape Donington. Tod River: all waters of the Tod River and Spencer Gulf within a radius of 200 metres of mouth.

Tumby Bay: waters within a line drawn from a point on the mainland adjacent to Tumby Island to the southern tip of Tumby Island then following the high water mark on the eastern coast to a point on the north eastern side to a point on the mainland 2.5 km north of the jetty, also all waters within a 500 metre radius of the mouth of Second Creek, south of Tumby Bay.

Port Neill: waters within a line from Cape Burr to a point on the mainland 1.5 km north of the jetty.

Arno Bay: all waters west of a line from the land 200 metres north of the end of the jetty due south to a point known as South Point on Cape Driver.

Cowell: all of the waters of Franklin Harbour situated north west of a Franklin Harbour of a line from Victoria Point to Germein Point.

Douglas Bank: all waters of Spencer Gulf north of a line east west through the Douglas Bank beacon.

Germein Bay: all waters of Germein Bay within a line from the mouth of Second Creek northwards to a point in the bay, then north westerly to Ward Spit light and east north east to Ward Point.

Fisherman Bay: all waters of Fisherman Bay and Spencer Gulf east of a line from the northern point of Fisherman Bay to Shag Island then south to Webling Point.

Port Victoria: in those waters exceeding 5 metres in depth contained within a line from Point Gawler to the north west point on Goose Island, then to Reef Point.

Browns Beach: waters adjacent to Browns Beach within ¼ mile offshore of high water mark. Pondalowie Bay: waters contained within a line from Royston Head through the North, Middle and South Islets to southern shore of Pondalowie Bay.

Wedge Island: waters between Wedge Island and North Islet contained by two lines; one from the western point of Wedge Island to the western point of North Islet and the other line from the eastern tips of both islands.

### **Gulf St Vincent**

Edithburgh: all waters south west of a line from Sultana Point to a point on the mainland adjacent to the roadway between sections 185 and 205 Hd Melville. In addition to this total closure, nets are prohibited in waters exceeding 5 metres in depth contained within a line from Sultana Point to Marion Reef buoy, then to Troubridge Island lighthouse and then to a point adjacent to Giles Point.

Coobowie: waters within a line from the Salt Swamp Creek causeway to the end of the old Coobowie jetty structure and then to Hickies Point.

Stansbury waters: west of a line from the groyne at Oyster Point to a point 200 metres north of the jetty and then south westerly to a point on the mainland 200 metres.

Price: within 1.1 nautical mile radius of Will Creek Light Beacon north of Mangrove Point and all waters of Will Creek and its tributaries.

Port Wakefield: within 100 metres of the dredged channel extending generally in a southwesterly direction from the mouth of the River Wakefield.

Outer Harbour / Port Adelaide River: mounds at Outer Harbour including those enclosed by a line from the north eastern end of the northern revetment mound to the Section Bank pile beacon (Black Pole), to the Middle Ground outer beacon, to Point Grey on the northern tip of Torrens Island, then generally in a southerly direction continuous with the westerly extremity of the mangroves on Torrens Island which includes all the waters of the Port Adelaide River and the North Arm as far as the Grand Trunkway Road Bridge.

Metropolitan Beaches: all waters of Gulf St Vincent within 600 metres of high water mark between the seaward end of the southern most Outer Harbour breakwater and the southern boundary of the Aldinga Aquatic Reserve.

Patawalonga Lake: all waters of the lake.

Onkaparinga River: all waters of the River.

Wirrina: the portion of the waters off the coast of Wirrina Cove (Fleurieu Reef) bounded by a circle of radius 0.5 of a nautical mile centred on a point at latitude 35<sup>0</sup> 28' 48.90"S and longitude 138<sup>0</sup> 09' 34.85" E (GDA 94).

#### **South Coast**

Parsons Beach: north of a line from eastern end of beach to western end.

Waitpinga Beach: north of a line from Newland Head to western end of Waitpinga Beach. Hindmarsh/Inman Rivers and the waters of Hindmarsh and Inman Rivers within 200 metres of their mouths.

Murray Mouth: waters of the sea within 500 metres of the Murray Mouth, from the south east corner of Younghusband Peninsula to the south west corner of Sir Richard Peninsula.

Goolwa: within 150 metres of all barrages.

Guichen Bay: the waters of Guichen Bay adjacent to the township of Robe.

Lake George: all the waters of Lake George, with a net having a mesh of less than 7cm.

Robe Lakes: all inland waters in Hundred of Waterhouse (excluding Lake George)

Rivoli Bay: all inland waters of Rivoli Bay and the drainage channel connecting it with Lake George.

Beachport- Salmon Hole: the waters contained landwards of a line from Cape Martin to Post Office Rock.

Admella Dunes: all waters within 300 metres of the high water mark adjacent to the Admella Dunes from Cape Banks south for the length of the dunes.

Port MacDonnell: all waters below high water mark with a radius of 0.55 of a nautical mile from the seaward lead light at the shoreward end of the Port MacDonnell jetty, excluding the waters commencing at a point at the high water mark on the shore at the western edge of Hammond's Drain then in a direction of 170°T for 300 metres, then in an easterly direction, remaining 300 metres from shore to a point of intersection with the 0.55 nautical mile radial line.

Brown Bay: from Green Point to Danger Point, within 300 metres of high water mark.

### Kangaroo Island

*Kingscote Spit:* waters enclosed by lines from Cape Rouge south to The Bluff then to Kingscote jetty and then around Kingscote Spit to Point Marsden.

Bay Of Shoals: all waters west of the line from Cape Rouge and The Bluff are closed from 1 January to 31 March every year.

American River / Eastern Cove: all waters south of a line from American Beach to western shore of Eastern Cove (approximately 1 (one) nautical mile south west of Ballast Head jetty). Kangaroo Island Rivers: Chapmans, Harriet, Eleanor, Western and Middle Rivers and all waters within a 50 metre radius of the mouths of those rivers.

# Appendix 4: Examples of Species Biodiversity in South Australian Continental Shelf Waters

The following lists are examples of the species diversity of marine vertebrates and invertebrates in South Australian continental shelf waters (i.e. 0m - 200m). Other than some of the whales, species found only in continental slope waters are not included. The species diversity of a number of invertebrate groups in S.A.'s continental shelf waters are also included (sponges, ascidians, molluscs, echinoderms, brachiopods). Conservation status at international, Commonwealth and State levels is coded, as specified below.

## International

- CITES2 = Listed under Appendix 2 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (as of May 15th, 2004).
- IUCN = World Conservation Union Red List (1996, 2000, 2001, 2002, 2003 versions): CR = Critically Endangered; En = Endangered; Vul = Vulnerable; LR/NT = Lower Risk but Near Threatened (revised as NT = Near Threatened, from 2002 onwards); LR/CD = Lower Risk but Conservation Dependent (1996 and 2000 versions only; not used from 2002 onwards); LR/LC = Lower Risk and Least Concern; DD = Data Deficient (not used from 2002 onwards).

#### **National**

- EPBC = Commonwealth Environment Protection and Biodiversity Conservation Act 1999:
   CR = Critically Endangered; En = Endangered; Vul = Vulnerable; Mar = Listed Marine
   Species under Section 248; Mig = Listed Migratory Species; Cet = Listed Cetacean
   Species
- Pog = listed in Pogonoski, J., Pollard, D. and Paxton, J. (2002). Conservation Overview and Action Plan for Australian Threatened and Potentially Threatened Marine and Estuarine Fishes (Environment Australia, Canberra): CR = Critically Endangered; En = Endangered; Vul = Vulnerable; LR/NT = Lower Risk but Near Threatened; LR/CD = Lower Risk but Conservation Dependent; LR/LC = Lower Risk and Least Concern; DD = Data Deficient
- ASFB = Australian Society for Fish Biology's 2001 List of Australian Threatened Fishes: CR = Critically Endangered; En = Endangered; Vul = Vulnerable; LR/NT = Lower Risk but Near Threatened; LR/CD = Lower Risk but Conservation Dependent; LR/LC = Lower Risk and Least Concern; DD = Data Deficient

#### State

- NPW = South Australian National Parks and Wildlife Act 1972: En = Endangered (Schedule 7); Vul = Vulnerable (Schedule 8); Rare = (Schedule 9).
- SA-Prot = Protected from capture, under the South Australian Fisheries Act 1982
- TAS1 = Listed under the Tasmanian *Threatened Species Protection Act 1995*
- TAS2 = Protected under the *Tasmanian Living Marine Resources Management Act 1995*
- TAS3 = Protected in Tasmania under the Fisheries Regulation 1996
- VIC1 = Listed under Schedule 2 of the Victorian Flora and Fauna Guarantee Act 1988
- VIC2 = Listed as Protected Aquatic Biota under the Victorian Fisheries Act 1995
- NSW = Protected Species in N.S.W., under the Fisheries Management Act 1994
- WA = Totally Protected Fish Status in Western Australian waters

# **Bony Fish**

Gomon et al., (1994); Kuiter (1996b); Inland Fisheries Service of Tasmania (2000); Hutchins and Swainston (2001); Pogonoski et al. (2002); Hammer (2002); Pollard and Morris (2002); IUCN (2003); W.A. Museum (2003); National Parks and Wildlife Council and Department for Environment and Heritage (2003); Froese and Pauly (2003); Brown et al. (in prep., cited by Brown, 2004), Gomon (2004).

Common Name	Scientific Name	Conservation Status
Western Wirrah	Acanthistius serratus	
Spiny-tailed	Acanthaluteres brownii	
Leatherjacket		
Spinytail Leatherjacket		
Bridled Leatherjacket	Acanthaluteres	
	spilomelanurus	
Toothbrush Leatherjacket	Acanthaluteres vittiger	
Western Wirrah	Acanthistius serratus	
Black Bream	Acanthopagrus	
Bream	butcheri	
Western Blue Groper	Achoerodus gouldii	SA-Prot (partial) <sup>+</sup>
Blue Groper	_	Pog-LR/CD
		ASFB-LR/CD
Warty Prowfish	Aetapcus maculatus	
Common Shore-Eel	Alabes dorsalis	
Dwarf Shore-Eel	Alabes hoesei	
Pygmy Shore-Eel	Alabes parvulus	
Yellow-eye Mullet	Aldrichetta forsteri	
Yelloweye Mullet		
Glauert's Anglerfish	Allenichthys glauerti	
Australian Burrfish	Allomycterus pilatus	
Porcupine Fish		
Short-fin Flounder	Ammotretis brevipinnis	
Shortfin Flounder		
Elongate Flounder	Ammotretis elongatus	
Spotted Flounder	Ammotretis lituratus	
Dotted Sole		
Large-scale Flounder	Ammotretis macrolepis	
Largescale Flounder		
Long-snout Flounder	Ammotretis rostratus	
Longsnout Flounder		
Long-snouted Flounder		
Bay Flounder		
Short-finned Eel	Anguilla australis	The National Parks and Wildlife Council
Shortfin Eel		and Department for Environment and
		Heritage (2003) has recommended that
		the species be listed as Rare, under a
		schedule of the National Parks and
Mostorn Crossth Dayfish	Anonlogonros	Wildlife Act 1972.
Western Smooth Boxfish	Anoplocapros	

Blue Boxfish	amygdaloides	
Robust Boxfish	arriygualolues	
Humpback Boxfish	Anonlocanros	
White-barred Boxfish	Anoplocapros lenticularis	
Humpty Dumpty	leriticularis	
Velvetfish	Aploactisoma milesii	
	,	
Southern Sea Carp Southern Seacarp	Aplodactylus arctidens	
Marblefish		
Marble Fish		
Western Sea Carp	Aplodactylus westralis	
Western Seacarp	Apiodactylus Westralis	
Western Australian		
Seacarp		
Western Australian Sea		
Carp		
Three-spine Cardinalfish	Apogonops anomalus	
Three-spine Cardinalish	Apogoriops ariomaius	
Shaw's Cowfish	Aracana aurita	
Striped Cowfish	, irabana aanta	
Ornate Cowfish	Aracana ornata	
Bridled Goby	Arenigobius bifrenatus	
Silverside	Argentina australiae	
Mulloway	Argyrosomus	
Butterfish	japonicus	
Bass Strait Flounder	Arnoglossus bassensis	
Mueller's Flounder	Arnoglossus muelleri	
Flimsy Flounder	Arnoglossus sp.	
	(in Gomon et al., 1994)	
Starry Toadfish	Arothron firmamentum	
Starry Toado		
Australian Herring	Arripis georgianus	
Tommy Ruff	( = Arripis georgiana)	
Australian Salmon	Arripis truttaceus	
Western Australian	( = Arripis truttacea)	
Salmon	,	
West Australian Salmon		
Southern Sole	Aseraggodes	
Southern Textile Sole	haackeanus	
Smooth-Snout Clingfish	Aspasmogaster	
	liorhyncha	
Tasmanian Clingfish	Aspasmogaster	
	tasmaniensis	
Pike-headed Hardyhead	Atherinason esox	
Deepwater Hardyhead	Atherinason	
Danevig's Hardyhead	hepsetoides	
Ogilby's Hardyhead	Atherinomorus ogilbyi	
Elongate Hardyhead	Atherinosoma elongata	
Small-mouthed	Atherinosoma	
Hardyhead	microstoma	
Sergeant Baker	Aulopus purpurissatus	

Black-spotted Wrasse	Austrolabrus	
Blackspotted Wrasse	maculatus	
Frigate Mackerel	Auxis thazard	
Frayed-Fin Goby	Bathygobius kreffti	
Frayedfin Goby	(= Bathygobius krefftii)	
Krefft's Goby	(= Batriygobius Kreittii)	
	Dotrochomoous	
Pinkhead Frogfish	Batrachomoeus	
Pink-headed Frogfish	rubricephalus	
Southern Longfin	Beliops xanthokrossos	
Western Foxfish	Bodianus frenchii	
Foxfish		
Dragonet	Bovichtus angustifrons	
Thornfish		
Southern Pygmy	Brachaluteres	
Leatherjacket	jacksonianus	
Pygmy Leatherjacket		
Australian Handfish	Brachionichthys sp.	Pog-LR/LC
Common Handfish		ASFB-LR/LC
Weedy Threefin	Brachynectes fasciatus	
Southern Barred Triplefin		
Southern Barred Threefin		
Atlantic Pomfret	Brama brama	Highly migratory species, listed under
Ray's Bream		Annex I of the 1982 Convention on the
		Law of the Sea.
Southern Whiptail	Caelorinchus australis	
Javelin		
Gargoyle Fish	Caelorinchus mirus	
Butterfly Perch	Caesioperca	
	lepidoptera	
Barber Perch	Caesioperca rasor	
Splendid Perch	Callanthias australis	
Flathead Goby	Callogobius depressus	
Sculptured Goby	Callogobius mucosus	
Gales Pipefish	Campichthys galei	EPBC-Mar
Gales Pipelisti	Campicinity's galer	EPDC-IVIdI
		All average athirds are subject to the average
		All syngnathids are subject to the export controls of the <i>Commonwealth Wildlife</i>
		Protection (Regulation of Exports and
To a de Direction H	0	Imports) Act 1982
Tryon's Pipefish**	Campichthys tryoni <sup>++</sup>	EPBC-Mar
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 1982.
Smooth-spine	Cantheschenia	
Leatherjacket	longipinnis	
Smoothspine		
Leatherjacket		
Rigid Boxfish	Caprichthys gymnura	
Spiny Boxfish	Capropygia unistriata	

Black-banded Pygmy		
Boxfish		
Banded Bellowfish	Centriscops	
	humerosus	
Yellow-eyed Red	Centroberyx australis	
Snapper Yellow-eye		
Nannygai Yelloweye		
Redfish		
Red Snapper	Centroberyx gerrardi	
Redfish		
Bight Redfish		
Small-eyed Redfish	Centroberyx sp.	
Smalleye Redfish		
Swallowtail	Centroberyx lineatus	
Western Fortescue	Centropogon latifrons	
Bandfish	Cepola australis	
Magpie Perch	Cheilodactylus nigripes	
Black-striped Morwong		
Red-lipped Morwong	Cheilodactylus	
Redlip Morwong	rubrolabiatus	
Banded Morwong	Cheilodactylus	
	spectabilis	
Southern Flying Fish**	Cheilopogon sp.	
Tallfin Flying Fish**	Cheilopogon	
Dod Current	pinnatibarbatus	
Red Gurnard	Chelidonichthys kumu	
Flying Gurnard Talma	Chalmanana auriagua	
Western Talma	Chelmonops curiosus	
Squareback Butterflyfish		
Truncate Coralfish		
Western Kelpfish	Chironemus	
Tasselled Kelpfish	georgianus	
Southern Kelpfish	goorgianao	
Estuary Catfish	Cnidoglanis	
Cobbler	macrocephalus	
Southern Cobbler	,	
Broad-headed Clingfish	Cochleoceps	
Broad-head Clingfish	bassensis	
Broadhead Clingfish		
Western Cleaner-	Cochleoceps bicolor	
Clingfish		
Western Cleaner		
Clingfish		
Spade-nosed Clingfish	Cochleoceps spatula	
Spade-nose Clingfish		
Southern Conger Eel	Conger verreauxi	
Southern Conger	0	
Short-finned Conger Eel	Conger wilsoni	
Short-finned Conger	Continue to the second	
Prickly Toadfish	Contusus brevicaudus	

Barred Toadfish Prickly Toadfish Dolphin Fish Mahi Mahi Slender Sand-diver Creedia haswelli Cardinal Clingfish Broad Clingfish Southern Crested Weedfish Creocele cardinalis Weedfish Crested Weedfish Southern Tongue Sole Broadhurst's Tongue Sole Broadhurst's Tongue Sole Broadhurst's Tongue Sole Proadhurst's Tongue Sole Broadhurst's Tongue Broadbardiae Dusky Morwong Butterfish Daratopsis multiradiatus Darnevigia tusca Darnevigia tusca Darnevigia tusca Dinolestes lewini Globe Fish Dinolestes lewini Globe Fish Diodon nicthemerus Porcupine Fish Dodon nicthemerus Porcupine Fish Castelnau's Wrasse Pretty Polly Prickly Anglerfish Echinophryne crassispina Echinophryne crassispina Echinophryne crassispina Echinophryne crassispina Echinophryne reynoldsi Finetooth Beardie Eeyorius hutchinisi Glosth Herring (N.B. A tropical species, araely recorded in S.A.) Reedbait Empleichthys nitidus Australis United Broad Sand-diver Did Wife Enoplosus armatus Enigmapercis reducta Broad Sand-diver Old Wife Enoplosus armatus Painted Stinkfish Painted Dragonet Deepwater Lancelet Epigonichthys australis EPBC (Nominated, 2003-2004)		1 2	T
Dolphinfish	Barred Toadfish Prickly Toadfish	Contusus richei	
Dolphin Fish Mahi Mahi Slender Sand-diver Cardinal Clingfish Sroad Clingfish Southern Crested Weedfish Crested Weedfish Crested Weedfish Crested Sole Carp European Carp Silver Dory Silver Dory Cyttus australis  Dusky Morwong Butterfish Australian Tusk Dannevigia tusca Slender Blindfish Dermatopsis multiradiatus Long-finned Pike Cistenpinyne Crestes lewini Globe Fish Porcupine Fish Castelnau's Wrasse Pretty Polly Prickly Anglerfish Echinophryne crassispina Sponge Anglerfish Echinophryne reynoldsi Finetooth Beardie Giant Herring (N.B. A tropical species, rarely recorded in S.A.) Redbait Redbait Response Respon	•	Coryphaena hippurus	
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Slender Sand-diver Cardinal Clingfish Broad Clingfish Southern Crested Weedfish Crested Weedfish Crested Weedfish Crongue Sole Broadhurst's Tongue Sole Carp Curpean Carp Silver Dory Silver Dory Cyttus australis Cyprinus carpio Cyttus australis Dusky Morwong Butterfish Australian Tusk Dannevigia tusca Slender Blindfish Dermatopsis multiradiatus Long-finned Pike Dinolestes lewini Globe Fish Castelnau's Wrasse Pretty Polly Prickly Anglerfish Sponge Anglerfish Echinophryne reynoldsi Finetooth Beardie Giant Herring Gina Herr			
Cardinal Clingfish Broad Clingfish Broad Clingfish Southern Crested Weedfish Crested Weedfish Crested Weedfish Crosure Sole Cynoglossus Broadhursti Sole Carp Cyprinus carpio (Introduced)  European Carp Silver Dory Wew Zealand Leach Weedfish Dermatopsis multiradiatus Dermatopsis multiradiatus Dermatopsis multiradiatus Dermatopsis multiradiatus Dorantopsis multiradiatus Dora		Croodio hoowelli	
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Broadhurst's Tongue Sole Carp Curp Cyprinus carpio (Introduced) European Carp Silver Dory Cyttus australis New Zealand Dory Cyttus novaezealandiae Dusky Morwong Butterfish Australian Tusk Dannevigia tusca Slender Blindfish Dermatopsis multiradiatus Long-finned Pike Dinolestes lewini Globe Fish Porcupine Fish Castelnau's Wrasse Pretty Polly Prickly Anglerfish Echinophryne crassispina Sponge Anglerfish Echinophryne reynoldsi Finetooth Beardie Giant Herring (N.B. A tropical species, rarely recorded in S.A.) Redbait Australian Anchovy Engraulis australis White-barred (Blackhead) Triplefin (= Threefin) species Broad Sandfish Broad Sand-diver Old Wife Painted Dragonet Deepwater Lancelet Epigonichthys australis Epigonichthys bassanum	Weedfish Crested Weedfish	,	
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New Zealand Dory  Cyttus novaezealandiae  Dusky Morwong Butterfish  Australian Tusk  Slender Blindfish  Long-finned Pike  Dinolestes lewini  Globe Fish Porcupine Fish  Castelnau's Wrasse Pretty Polly  Prickly Anglerfish  Sponge Anglerfish  Echinophryne resynoldsi  Finetooth Beardie  Giant Herring (N.B. A tropical species, ararely recorded in S.A.)  Redbait  Australian Anchovy  White-barred (Blackhead) Triplefin (= Threefin) species  Broad Sand-diver  Old Wife  Painted Dinolestes lewini  Dotalabrus aurantiacus  Portupine Technophryne crassispina  Echinophryne resynoldsi  Eliops hawaiensis  Eliops hawaiensis  Enmelichthys nitidus  Enmeapterygius sp.  Enigmapercis reducta  Broad Sandfish Broad Sand-diver  Old Wife  Enoplosus armatus  Painted Dragonet  Deepwater Lancelet  Epigonichthys australis  Epigonichthys bassanum	Silver Dory	Cyttus australis	
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bassanum	•		
Black Rockcod Epinephelus daemelii EPBC (Nominated, 2003-2004)		, , ,	
	Black Rockcod	Epinephelus daemelii	EPBC (Nominated, 2003-2004)

Saddled Rockcod Black Cod		NSW-Vul & Prot Pog-Vul ASFB-Vul  Listed under section 15 of the Commonwealth Fisheries Management Act 1991, making its take in fishing operations under that Act illegal unless covered by a scientific permit (Pogonoski, 2000)  Totally Protected Species in the
		Kermadec Islands Marine Reserve (New Zealand)
Longfin Hagfish	Eptatretus longipinnis	
Maray	Etrumeus teres	
Black Reef Leatherjacket	Eubalichthys bucephalus	
Blue-tailed Leatherjacket Bluetail Leatherjacket	Eubalichthys cyanoura	
Gunn's Leatherjacket Velvet Leatherjacket	Eubalichthys gunnii	
Mosaic Leatherjacket	Eubalichthys mosaicus	
Four-spine Leatherjacket	Eubalichthys	
Fourspine Leatherjacket	quadrispinis	
Snakeskin Wrasse	Eupetrichthys angustipes	
Twospot Fringedfin Goby Two-spot Fringed-fin Goby Twospot Goby	Eviota bimaculata	
Longfin Goby Long-finned Goby Spotted Goby	Favonigobius lateralis	
Tamar River Goby Tamar Goby	Favonigobius tamarensis ( = Afurcagobius tamarensis)	
Tiger Pipefish	Filicampus tigris	EPBC-Mar
		All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Rough Flutemouth Flutemouth	Fistularia petimba	
Common Stinkfish	Foetorepus calauropomus	
Bight Stinkfish Long-rayed Stinkfish	Foetorepus phasis	
River Blackfish	Gadopsis marmoratus	SA-Prot

Climbing Colovice	Galavias bravininnis	The National Parks and Wildlife Council
Climbing Galaxias	Galaxias brevipinnis	and Department for Environment and Heritage (2003) has recommended that the species be listed as Vulnerable, under a schedule of the National Parks and Wildlife Act 1972.
Common Galaxias Common Jollytail Jollytail Minnow	Galaxias maculatus	
Mountain Galaxias	Galaxias olidus	The National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that the species be listed as Rare, under a schedule of the <i>National Parks and Wildlife Act 1972</i> .
Dwarf Galaxias	Galaxiella pusilla	EPBC-Vul
		The National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that the species be listed as Vulnerable, under a schedule of the National Parks and Wildlife Act 1972.
Spotted Galaxias Trout Galaxias Spotted Mountain Trout Trout Minnow	Galaxias truttaceus	The National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that the species be listed as Rare, under a schedule of the National Parks and Wildlife Act 1972.
Butterfly Mackerel	Gasterochisma melampus	
Spiny Clingfish	Genus A, sp.1 (in Gomon et al., 1994)	
Brown-spotted Spiny Clingfish Kelp Clingfish	Genus A, sp. 2 (in Gomon et al., 1994) Genus 2, sp. 1 (in Kuiter, 1996b)	
Rat Clingfish	Genus B sp. (in Gomon et al., 1994)	
Grass Clingfish, Slender Clingfish and other seagrass-dwelling gobiesocids	(undescribed – e.g. species in Genus C / Genus 1, amongst others – see Gomon et al., 1994; Kuiter, 1996b; W.A. Museum, 2003)	
Pink Ling	Genypterus blacodes	
Rock Ling	Genypterus tigerinus	
Wide-mouthed Lamprey	Geotria australis	The National Parks and Wildlife Council

Pouched Lamprey		and Department for Environment and Heritage (2003) has recommended that the species be listed as Endangered, under a schedule of the <i>National Parks</i> and <i>Wildlife Act 1972</i> .
Luderick	Girella tricuspidata	
Zebra Fish	Girella zebra	
Goblin Fish	Glyptauchen	
	panduratus	
Red Velvetfish	Gnathanacanthus	
	goetzeei	
Little Conger-Eel	Gnathophis habenatus	
Silver Conger		
Little Conger		
Umbrella Conger-Eel	Gnathophis	
Umbrella Conger	umbrellabia	
	(or G. umbrellabius)	
Glass Goby	Gobiopterus	
	semivestitus	
Beaked Salmon	Gonorynchus greyi	
	(= Gonorhynchus	
	greyi)	
Cobbler	Gymnapistes	
South Australian Cobbler	marmoratus	
Soldierfish		
Green Moray	Gymnothorax prasinus	
Yellow Moray	,	
Weedy Whiting	Haletta semifasciata	
Blue Weed Whiting		
Blue Rock Whiting		
Yellowback Triplefin	Helcogramma	
Yellowback Threefin	decurrens	
Black-throated Triplefin		
Black-throated Threefin		
Red Gurnard Perch	Helicolenus barathri	
Ocean Perch		
Reef Ocean Perch	Helicolenus percoides	
Ocean Perch		
Red Ocean Perch		
Western Upside-down	Heraldia sp. 1	EPBC-Mar
Pipefish		VIC2-Prot; TAS2-Prot
Western Upside Down		
Pipefish		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and Imports) Act 1982.
Adelaide's Weedfish	Heteroclinus adelaidae	, ,
Kelp Weedfish	Heteroclinus eckloniae	
Seven-Bar Weedfish	Heteroclinus	
Sevenbar Weedfish	heptaeolus	
Johnston's Weedfish	Heteroclinus johnstoni	
Broad-Headed Weedfish	-	

Taggallad Waadfigh	Hotoroolinus	
Tasselled Weedfish	Heteroclinus	
Large-Eye Weedfish	macrophthalmus	
Common Weedfish	Heteroclinus	
Spot-shoulder Weedfish	perspicillatus	
Spotshoulder Weedfish		
Little Weedfish	Heteroclinus puellarum	
The Girls' Weedfish		
Girls' Weedfish		
Rosy Weedfish	Heteroclinus roseus	
Forster's Weedfish	Heteroclinus tristis	
Long-Snouted Weedfish		
Sharp-Nose Weedfish		
Longnose Weedfish		
Wilson's Weedfish	Heteroclinus wilsoni	
Whitley's Weedfish	Heteroclinus sp. 2 (in	
William 3 Weedingin	Gomon et al., 1994).	
	Heteroclinus sp. 4 (in	
Coleman's Weedfish	Kuiter, 1996b).	
Coleman's Weedish	Heteroclinus sp. 4	
	(in Gomon et al.,	
	1994)	
	Heteroclinus sp. 1	
	(in Kuiter, 1996b)	
Fewray Weedfish	Heteroclinus sp. 5	
	(in Gomon et al., 1994)	
Milward's Weedfish	Heteroclinus sp. 6	
	(in Gomon et al., 1994)	
Brigg's Crested Pipefish	Histiogamphelus	EPBC-Mar
	briggsii	VIC2-Prot; TAS2-Prot
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 198
Macleay's Crested	Histiogamphelus	EPBC-Mar
Pipefish	cristatus	VIC2-Prot; TAS2-Prot
Rhino Pipefish		
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 1982
Southern Potbelly	Hippocampus bleekeri	IUCN2002-Vul <sup>*</sup> ; EPBC-Mar;
Seahorse	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	TAS2-Prot
Pot-bellied Seahorse		VIC2-Prot
		Pog-LR/CD
		ASFB-LR/CD
		CITES-2 (from May 2004)
		011 20 2 (110111 Way 2007)
		All species in the Syngnathidae are also
		subject to the export controls of the
		Commonwealth Wildlife Protection
		(Regulation of Exports and Imports) Act

		1982.
Short-headed Seahorse Short-snouted Seahorse	Hippocampus breviceps	IUCN2000-DD; IUCN2002-DD; EPBC-Mar; TAS2-Prot; VIC2-Prot Pog-DD; ASFB-DD; CITES-2 (from May 2004)  All species in the Syngnathidae are also subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Rondelet's Flying Fish (globally distributed, and occasionally seen in southern Australian waters, including S.A.)	Hirundichthys rondeletii	
Bougainville's Anglerfish	Histiophryne	
Smooth Anglerfish	bougainvilli	
Rodless Anglerfish Cryptic Anglerfish	Histiophryne cryptacanthus	
Cryptic Anglemsn	(or H. cryptacantha)	
	(or rr. cryptacantna)	
Sandy Sprat	Hyperlophus vittatus	
Blue-eye Trevalla	Hyperoglyphe	
Blue-eyed Trevalla	antarctica	
Deep Sea Trevalla		
Deepsea Trevalla		
Sea Garfish	Hyporhamphus	
Southern Sea Garfish River Garfish	melanochir Hyporhamphus	
River Gamsii	regularis ardelio	
	(eastern form)	
	(odotom romn)	
	H. regularis regularis	
Die als hers de d'Oran and	(western form)	
Black-banded Seaperch	Hypoplectrodes pigrorubor	
Banded Seaperch Prickly Pipefish	nigroruber Hypselognathus	EPBC-Mar
Shaggy Pipefish	horridus	Pog-DD
		ASFB-DD
		Possibly endemic to S.A.
		,
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 1982

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Knife-snout Pipefish	rostratus	VIC2-Prot; TAS2-Prot
Knifesnout Pipefish		All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Fringed Stargazer	Ichthyoscopus barbatus	
Southern Little Pipehorse Southern Pygmy Pipehorse	Idiotropiscis (= Acentronura) australe	All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Deep Velvetfish	Kanekonia	,
0 11 10	queenslandica	
Speckled Stargazer Yellow Stargazer Western Stargazer	Kathetostoma canaster	
Common Stargazer Eastern Stargazer	Kathetostoma laeve	
Deepwater Stargazer	Kathetostoma nigrofasciatum	
Skipjack Tuna Striped Tuna Bonito Striped Bonito	Katsuwonus pelamis	
Deep-body Pipefish Deep-bodied Pipefish Deepbody Pipefish	Kaupus costatus	EPBC-Mar VIC2-Prot; TAS2-Prot  All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Short-snout Hardyhead Shortsnout Hardyhead	Kestratherina brevirostris	
Pikehead Hardyhead Pike-head Hardyhead	Kestratherina esox	
Bass Strait Pipefish Trawl Pipefish	Kimblaeus bassensis	EPBC-Mar VIC2-Prot; TAS2-Prot
		All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Rough Anglerfish	Kuiterichthys furcipilis	
Silver Drummer Southern Silver Drummer	Kyphosus sydneyanus	
Ocean Puffer	Lagocephalus	
Oceanic Pufferfish	lagocephalus	
Giant Toado	Lagocephalus	

Silver Toadfish	sceleratus	
Spotted Moonfish	Lampris guttatus	
Opah	Zampno gattatao	
Bastard Trumpeter	Latridopsis forsteri	
Striped Trumpeter	Latris lineata	
Striped Trumpeter Stripey Trumpeter	Latins iii leata	
Tasmanian Trumpeter		
-	Lonidobloppius	
Jumping Blenny	Lepidoblennius	
Western Orange Darch	marmoratus	
Western Orange Perch	Lepidoperca filamenta	
Slender Orange Perch	Lepidoperca	
F (C . )	occidentalis	
Frostfish	Lepidopus caudatus	
Southern Frostfish		
Ribbonfish		
Toothed Whiptail	Lepidorhynchus	
Thorntooth Grenadier	denticulatus	
Minor Gurnard	Lepidotrigla modesta	
Spiny Gurnard	Lepidotrigla papilio	
Southern Shortfin	Lepidotrigla spinosa	
Gurnard		
Butterfly Gurnard	Lepidotrigla vanessa	
Silver Fish	Leptatherina	
	presbyteroides	
Brushtail Pipefish	Leptoichthys fistularius	EPBC-Mar VIC2-Prot; TAS2-Prot
		All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Flathead Sandfish	Lesueurina	
Flathead Pygmy	platycephala	
Stargazer	piatyoopiiaia	
Long-head Flathead	Leviprora inops	
Longhead Flathead		
Smooth Pipefish	Lissocampus caudalis	EPBC-Mar
Cinical in ipolicit	Liocodampao daddano	VIC2-Prot; TAS2-Prot
		All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Javelin Pipefish	Lissocampus runa	EPBC-Mar VIC2-Prot; TAS2-Prot
		All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
		1

Flat to I Modern	T	
Flat-tail Mullet		
Flattail Mullet Crested Flounder	Lophonectes gallus	
Beardie	Lotella rhacina	
	Lotella Macina	
Large-tooth Beardie	Magazilla adla pagli	EPBC-Vul
Murray River Cod	Maccullocella peeli	EPBC-Vui
	peeli	The National Parks and Wildlife Council
		and Department for Environment and
		Heritage (2003) has recommended that
		Murray Cod be listed as <i>Rare</i> , under a
		schedule of the <i>National Parks and</i>
		Wildlife Act 1972.
Golden Perch	Macquaria ambigua	Triamo fiet 1872
Callop	masquama amaigua	
Estuary Perch	Macquaria colonorum	The National Parks and Wildlife Council
	,	and Department for Environment and
		Heritage (2003) has recommended that
		the species be listed as <i>Endangered</i> ,
		under a schedule of the National Parks
		and Wildlife Act 1972.
Common Snipefish	Macroramphosus	
	scolopax	
	(= Macrorhamphosus	
	scolopax)	
Blue Grenadier	Macruronus	
Die als Mareline	novaezelandiae	
Black Marlin	Makaira indica	
(N.B. rarely recorded in S.A.)		
	Marauhra paraarrata	EPBC-Mar
Sawtooth Pipefish	Maroubra perserrata	VIC2-Prot; TAS2-Prot
		VICZ-FIOI, TAGZ-FIOI
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 1982.
		' '
Sharp-tailed Sunfish	Masturus lanceolaus	
Sharptail Sunfish		
Point-tailed Sunfish		
Little Scorpionfish	Maxillicosta scabriceps	
Whitley's Scorpionfish	Maxillicosta whitleyi	
Veilfin	Metavelifer	
	multiradiatus	
Brown-striped	Meuschenia australis	
Leatherjacket		
Brownstriped		
Leatherjacket		
Donovan's Leatherjacket		
Yellow-striped	Meuschenia	
Leatherjacket	flavolineata	

37.11	T	1
Yellowstriped		
Leatherjacket		
Yellow-tail Leatherjacket		
Six-spine Leatherjacket	Meuschenia freycineti	
Sixspine Leatherjacket		
Six-spined Leatherjacket		
Blue-lined Leatherjacket	Meuschenia galii	
Bluelined Leatherjacket		
Horseshoe Leatherjacket	Meuschenia	
	hippocrepis	
Velvet Leatherjacket	Meuschenia scaber	
Cosmopolitan	Wedgereria geaser	
Leatherjacket		
-	Meuschenia venusta	
Stars and Stripes	Weuscheriia veriusta	
Leatherjacket		
Stars-and-Stripes		
Leatherjacket		
Southern Ocean Sunfish	Mola ramsayi	
Short Sunfish		
Short-headed Lamprey	Mordacia mordax	The National Parks and Wildlife Council
Shorthead Lamprey		and Department for Environment and
		Heritage (2003) has recommended that
		the species be listed as Endangered,
		under a schedule of the National Parks
		and Wildlife Act 1972.
Sea Mullet	Mugil cephalus	
Pale Mangrove Goby	Mugilogobius paludis	
T ale Mangrove Goby	I Madii Odobido baladio	
Short-finned Worm-eel	Muraenichthys	
Short-finned Worm-eel	Muraenichthys australis	
Short-finned Worm-eel Short-headed Worm-eel	Muraenichthys australis Muraenichthys	
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel	Muraenichthys australis Muraenichthys breviceps	
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch	Muraenichthys australis Muraenichthys breviceps	SA-Prot (south-eastern sub-species)
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	SA-Prot (south-eastern sub-species)
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	SA-Prot (south-eastern sub-species) In South Australia, the National Parks
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> ,
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> ,
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks and Wildlife Act 1972
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks and Wildlife Act 1972  In New South Wales, the Southern
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks and Wildlife Act 1972  In New South Wales, the Southern Pygmy Perch has been identified as one
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks and Wildlife Act 1972  In New South Wales, the Southern Pygmy Perch has been identified as one of the most threatened species
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks and Wildlife Act 1972  In New South Wales, the Southern Pygmy Perch has been identified as one of the most threatened species inhabiting coastal streams in that state,
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks and Wildlife Act 1972  In New South Wales, the Southern Pygmy Perch has been identified as one of the most threatened species inhabiting coastal streams in that state, and in the inland waters of the Murray-
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks and Wildlife Act 1972  In New South Wales, the Southern Pygmy Perch has been identified as one of the most threatened species inhabiting coastal streams in that state, and in the inland waters of the Murray-Darling Basin (Pollard and Morris,
Short-finned Worm-eel Short-headed Worm-eel Long-finned Worm-eel Sand Mullet Southern Pygmy Perch (South-eastern sub-	Muraenichthys australis Muraenichthys breviceps Myxus elongatus	In South Australia, the National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that (i) the Murray-Darling Basin population of the species be listed as <i>Endangered</i> , and that the South East population be listed as <i>Rare</i> , under schedules of the National Parks and Wildlife Act 1972  In New South Wales, the Southern Pygmy Perch has been identified as one of the most threatened species inhabiting coastal streams in that state, and in the inland waters of the Murray-

Yarra Pygmy Perch	Nannoperca obscura	IUCN1996-Vul EPBC-Vul SA-Prot  The National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that the species be listed as <i>Endangered</i> , under a schedule of the <i>National Parks</i> and Wildlife Act 1972.
Ewen's Pygmy Perch Variegated Pygmy Perch	Nannoperca variegata	IUCN1996-Vul EPBC-Vul SA-Prot  The National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that the species be listed as Endangered, under a schedule of the National Parks and Wildlife Act 1972.
Western Footballer Footballer Sweep	Neatypus obliquus	
Ocean Leatherjacket	Nelusetta ayraudi	
Ocean Jacket Chinaman Leatherjacket	rveiusella ayradur	
Jackass Morwong	Nemadactylus	
Jackass Fish	macropterus	
Blue Morwong Southern Blue Morwong Queen Snapper	Nemadactylus valenciennesi	
Threefin Velvetfish	Neoaploactis tridorsalis	
Little Weed Whiting	Neoodax balteatus	
Little Rock Whiting	Managara	
Whiskered Prowfish	Neopataecus waterhousii	
Toothy Flathead	Neoplatycephalus aurimaculatus	
Deepwater Flathead	Neoplatycephalus conatus	
Gulf Gurnard Perch	Neosebastes bougainvillii	
Black-spotted Gurnard	Neosebastes	
Perch	nigropunctatus	
Blackspotted Gurnard Perch		
Gurnard Perch	Neosebastes pandus	
Common Gurnard Perch	Neosebastes	
Ruddy Gurnard Perch	scorpaenoides	
Thetis Fish	Neosebastes thetidis	

Sailfin Goby	Nesogobius pulchellus	
Castelnau's Goby		
Girdled Goby	Nesogobius sp.1	
	(in Gomon et al., 1994)	
Threadfin Sand Goby	Nesogobius sp. 2	
Threadfin Sandgoby	(in Gomon et al., 1994	
Twisher Cohy	and Kuiter, 1996b)	
Twinbar Goby	Nesogobius sp. 3 (in Gomon et al., 1994)	
	Nesogobius sp. 6 (in	
	Kuiter, 1996b)	
Groove-cheek Goby	Nesogobius sp. 4	
Grooved-cheek Goby	(in Gomon et al., 1994)	
Groovecheek Goby	Nesogobius sp. 7	
Groovecheeked Goby	(in Kuiter, 1996b; and	
	Australian Museum,	
0:11 (: 0 : 10 :	2003c)	
Sicklefin Sand Goby	Nesogobius sp. 5	
Sickefin Sandgoby	(in Gomon et al., 1994)	
	Nesogobius sp. 3 (in Kuiter, 1996b)	
Red Pipefish	Notiocampus ruber	EPBC-Mar
red i ipelisii	TVOIIOCATTIPAS TABOT	TAS2-Prot
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 1982.
Durnlo Wrocco	Notolabrus fucicola	
Purple Wrasse Saddled Wrasse	Notolabrus fucicola	
Kelpie		
Orange-spotted Wrasse	Notolabrus parilus	
Brown-spotted Wrasse	r totolabrao parmao	
Blue-throated Wrasse	Notolabrus tetricus	
Blue-throat Wrasse		
Bluethroat Wrasse		
Crested Bellowsfish	Notopogon lilliei	
Rainbow Cale	Odax acroptilus	
Rainbowfish	Oders	
Herring Cale	Odax cyanomelas	
Southern Pygmy Blindfish Ringed Toadfish	Ogilbia sp. Omegophora armilla	
Ringed Toadfish Blue-spotted Pufferfish	Omegophora	
Blue-spotted Funerish  Blue-spotted Toadfish	cyanopunctata	
Oyster Blenny	Omobranchus anolius	
Rainbow Trout	Oncorhynchus mykiss	(Introduced)
	(also known,	
	irrcorrectly, as Salmo	
	gairdneri)	
Spotted Snake-Blenny	Ophiclinops pardalis	Possibly endemic to S.A.
Spotted Snakeblenny		

Variageted Chake Planny	Onhiolinana varius	
Variegated Snake-Blenny	Ophiclinops varius	
Variegated Snakeblenny	Onhiolinus antorotious	
Adelaide Blenny	Ophiclinus antarcticus	
Adelaide Snake-Blenny		
Adelaide Snakeblenny	On highing the provincianis	
Short-finned Snake-	Ophiclinus brevipinnis	
Blenny		
Shortfin Snakeblenny		
Gabriel's Snake-Blenny	Ophiclinus gabrieli	
Frosted Snake-Blenny		
Frosted Snakeblenny		
Black-Backed Snake-	Ophiclinus gracilis	
Blenny		
Blackback Snake-Blenny		
Blackback Snakeblenny		
Variable Snake-Blenny	Ophiclinus ningulus	
Variable Snakeblenny		
Serpent Eel	Ophisurus serpens	
Giant Snake Eel		
Snake Eel		
Maori Wrasse	Ophthalmolepis	
	lineolata	
Knifejaw	Oplegnathus	
Conway	woodwardi	
Western Roughy	Optivus agrammus	
Oyster Blenny	Osmobranchus anolius	
Harlequin Fish	Othos dentex	
Snapper	Pagrus auratus	
Tasmanian Blenny	Parablennius	
	tasmanianus	
Barred Grubfish	Parapercis allporti	
Wavy Grubfish	Parapercis haackei	
Spotted Grubfish	Parapercis ramsayi	
Alison's Blue Devil	Paraplesiops alisonae	
Western Blue Devil /	Paraplesiops	
Devilfish	meleagris	
Slender Bullseye	Parapriacanthus	
	elongatus	
Sandpaper Fish	Paratrachichthys sp. 1	
Golden Roughy	Paratrachichthys	Possibly endemic to S.A.
	pulsator	
	(= Aulotrachichthys	
	pulsator)	
Cucumber Fish	Paraulopus nigripinnis	
Greeneyes	(previously	
	Chlorophthalmus	
	nigripinnis)	
Short Boarfish	Parazanclistius	
Hutchin's Boarfish	hutchinsi	
Southern Silverbelly	Parequula	
Coddicit Oliverbelly	r areguula	<u>J</u>

Silverbelly	melbournensis	
Melbourne Silverbelly		
Melbourne Silver Biddy		
Yellow-spotted Boarfish	Paristiopterus	
Brown-spotted Boarfish	gallipava	
Giant Boarfish	Paristiopterus labiosus	
Victorian Scalyfin	Parma victoriae	
Scalyfin		
Smallfin Clingfish Little Clingfish	Parvicrepis parvipinnis	
Long-Snout Clingfish	Parvicrepis sp. 1 (in Gomon et al., 1994 and Kuiter, 1996b)	
Obscure Clingfish	Parvicrepis sp. 2	
Obscure Little Clingfish	(in Gomon et al., 1994)	
Red Indianfish	Pataecus fronto	
Sculptured Seamoth	Pegasus lancifer	IUCN2000-DD
Sculptured Sea Moth		IUCN2002-DD
·		Pog-LR/LC
		ASFB-LR/LC
Striped Perch	Pelates octolineatus	
Striped Trumpeter		
Shitty		
Sea Trumpeter	Pelsartia humeralis	
Rough Bullseye	Pempheris klunzingeri	
Common Bullseye	Pempheris multiradiata	
Orange-lined Bullseye	Pempheris ornata	
Long-snouted Boarfish	Pentaceropsis	
Long-snout Boarfish	recurvirostris	
Bigspine Boarfish	Pentaceros	
Big-spine Boarfish	decacanthus	
Redfin Perch	Perca fluviatilis	(Introduced)
Eelblenny	Peronedys anguillaris	Pog-DD
Eel-blenny		ASFB-DD
White-nose Pigfish	Perryena	
Whitenose Pigfish	leucometopon	
Leafy Seadragon	Phycodurus eques	IUCN1996-DD
	,	(N.B. IUCN listing has not been
		updated,and DD status is current, as at
		2004)
		EPBC-Mar
		SA-Prot*; VIC2-Prot; WA-Prot
		Pog-LR/CD
		ASFB-LR/CD
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 1982.

Flathead Gudgeon	Philypnodon	
Flat-head Gudgeon	grandiceps	
Flat-headed Gudgeon		
Big-headed Gudgeon		
Yarra Gudgeon		
Dwarf Flathead Gudgeon	Philypnodon sp.	The National Parks and Wildlife Council
	(in Gomon et al., 1994)	and Department for Environment and
		Heritage (2003) has recommended that
		the species be listed as Rare, under a schedule of the National Parks and
		Wildlife Act 1972.
White-spotted Anglerfish	Phyllophryne scortea	Whalle Act 1912.
Smooth Anglerfish	i ilynopinyilo ddoildd	
Weedy Seadragon	Phyllopteryx	IUCN1996-DD
,	taeniolatus	(N.B. IUCN listing has not been
		updated,and DD status is current, as at
		2004)
		EPBC-Mar
		NSW-Prot
		TAS2-Prot; VIC2-Prot
		Pog-LR/CD
		ASFB-LR/CD
		All syngnathids are subject to the export
		controls of the <i>Commonwealth Wildlife</i>
		Protection (Regulation of Exports and
		Imports) Act 1982.
Senator Wrasse	Pictilabrus laticlavius	
Rubyfish	Plagiogeneion	
O LEIGHT L	macrolepis	
Sand Flathead Southern Sand Flathead	Platycephalus bassensis	
Grassy Flathead	Platycephalus	
Rock Flathead	laevigatus	
Long-spined Flathead	Platycephalus	
	longispinis	
Tiger Flathead	Platycephalus	
	richardsoni	
Yank Flathead	Platycephalus	
Southern Blue-spotted	speculator	
Flathead	Dolumian conservation	
Hapuku Hapuka	Polyprion oxygeneios	
Orange-barred Pufferfish	Polyspina piosae	
Orangebarred Pufferfish	ι σιγοριπα μισοασ	
Tailor	Pomatomus saltatrix	
(a small species of	Posidonichthys	
clingfish, found in	hutchinsi	
		,

seagrasses)		
Australian Grayling Cucumber Fish	Prototroctes maraena	IUCN2002-Vul; EPBC-Vul TAS1-Vul; VIC1-Vul; NSW-Prot; ASFB-Vul  The National Parks and Wildlife Council
		and Department for Environment and Heritage (2003) has recommended that the species be listed as Endangered, under a schedule of the <i>National Parks and Wildlife Act 1972</i> , and considered the species to be critically endangered in South Australia.
Silver Trevally White Trevally	Pseudocaranx dentex	
Skipjack Trevally Sand Trevally Skipjack Trevally	Pseudocaranx wrighti	
Blue-spot Goby Swan River Goby	Pseudogobius olorum	
Rosy Wrasse	Pseudolabrus psittaculus	
Congolli Tupong Sandy	Pseudaphritis urvillii	The National Parks and Wildlife Council and Department for Environment and Heritage (2003) has recommended that the species be listed as <i>Rare</i> , under a schedule of the <i>National Parks and Wildlife Act 1972</i> .  In Tasmania, Congolli may not be taken
		without a permit, unless captured by the use of a bush pole (Inland Fisheries Service of Tasmania, 2000).
Swan River Goby Blue-spot Goby Bluespot Goby	Pseudogobius olorum (= Pseudogobius sp. 9)	
Red Cod	Pseudophycis bachus	
Bearded Cod Bearded Rock Cod	Pseudophycis barbata	
Bastard Red Cod	Pseudophycis breviuscula	
Large-tooth Flounder Large-toothed Flounder	Pseudorhombus arsius	
Small-tooth Flounder Smalltooth Flounder Small-toothed Flounder	Pseudorhombus jenynsii	
Painted Latchet	Pterygotrigla picta	
Sharp-beaked Gurnard Latchet	Pterygotrigla polyommata	

Pug-nose Pipefish Pugnose Pipefish	Pugnaso curtirostris	EPBC-Mar VIC2-Prot; TAS2-Prot  All syngnathids are subject to the export controls of the <i>Commonwealth Wildlife</i>
		Protection (Regulation of Exports and Imports) Act 1982.
Slender Sunfish Oblong Sunfish	Ranzania laevis	
Large-mouth Goby	Redigobius	
Largemouth Goby	macrostoma	
Oarfish (N.B. a cosmopolitan oceanic species, rarely recorded in S.A.)	Regalecus glesne	
Short Suckerfish Remora	Remora remora	
Spotted Stinkfish	Repomucenus calcaratus	
Australian Smelt	Retropinna semoni	
Eastern Gemfish Gemfish	Rexea solandri	EPBC-Nominated (2003-2004) Pog-LR/CD or Vul (Eastern Stock) Pog-DD (Western Stock) ASFB-LR/CD
Greenback Flounder Melbourne Flounder Southern Flounder	Rhombosolea tapirina	
Tasselled Anglerfish	Rhycherus filamentosus	
Glover's Anglerfish	Rhycherus gloveri	
Oilfish Caster Oil Fish	Ruvettus pretiosus	
Escolar		
Atlantic Salmon	Salmo salar	(Introduced)
Brown Trout	Salmo trutta	(Introduced)
Australian Pilchard	Sardinops sagax ( = Sardinops neopilchardus)	
Crocodile Fish	Satyrichthys lingi	
Large-scale Saury^^ Largescale Saury Large-scaled Grinner	Saurida undosquamis^^	
Ladder Eel	Scalanago lateralis	
Woodward's Pomfret	Schuettea woodwardi	
Rough Leatherjacket	Scobinichthys	
	granulatus	
Blue Mackerel Common Mackerel	Scomber australasicus	
Saury	Scomberesox saurus	
Meads Wearyfish	Scopelosaurus meadi	
Southern Red Scorpion-	Scorpaena papillosus	

cod	(= Scorpaena	
Common Red Rock Cod	papillosa)	
Common Red Rockcod		
Red Rock Cod		
Western Red	Scorpaena sumptuosa	
Scorpioncod		
Western Red Scorpion-		
cod		
Western Scorpionfish		
Sea Sweep	Scorpis aequipinnis	
Banded Sweep	Scorpis georgianus	
·	(= Scorpis georgiana)	
Silver Sweep	Scorpis lineolatus	
·	(= Scorpis lineolata)	
Samson Fish	Seriola hippos	
Yellowtail Kingfish	Seriola lalandi	
Blue Warehou	Seriolella brama	
Silver Warehou	Seriolella punctata	
Spotted Trevalla	General panetata	
Blue Bass		
Sawtooth Eel	Serrivomer sp.	
King George Whiting	·	
Silver Whiting	Sillaginodes punctata Sillago bassensis	
_	Siliago basserisis	
Sand Whiting		
Southern School Whiting		
School Whiting	Cillago ochomburgicii	
Yellowfin Whiting	Sillago schomburgkii	
Yellow-finned Whiting	Cinhaamia aanhalataa	
Wood's Siphonfish	Siphaemia cephalotes	
Tubemouth	Siphonognathus	
Olamatan Maari Mikitina	argyrophanes	
Slender Weed Whiting	Siphonognathus	
Describates 1300 in	attenuatus	
Pencil Weed Whiting	Siphonognathus	
	beddomei	
Sharp-nosed Weed	Siphonognathus	
Whiting	caninus	
Sharpnose Weed Whiting	Ointenance (I	
Long-rayed Weed	Siphonognathus	
Whiting	radiatus	
Long-rayed Rock Whiting		
Longray Rock Whiting		
Long-tailed Weed	Siphonognathus	
Whiting	tanyourus	
Long-tail Weed Whiting		
Longtail Weed Whiting		
Günther's Pipehorse	Solegnathus lettiensis	IUCN2002-Vul; EPBC-Mar;
		ASFB-DD
Robust Pipehorse	Solegnathus robustus	IUCN2000-Vul; IUCN2002-Vul;
		EPBC-Mar;
		VIC2-Prot; TAS2-Prot

		Pog-DD ASFB-DD All syngnathids are also subject to the export controls of the Commonwealth Wildlife Protection (Regulation of
Australian Spiny Pipehorse <sup>#</sup>	Solegnathus spinossimus <sup>#</sup>	Exports and Imports) Act 1982.  EPBC-Mar; ASFB-DD
Little Pineapplefish	Sorosichthys ananassa	ASI B-DD
Australian Sprat	Sprattus novaehollandiae	
Blue Sprat	Spratelloides robustus	
Snook Short-finned Seapike Shortfin Seapike	Sphyraena novaehollandiae	
Striped Seapike Obtuse Barracuda	Sphyraena obtusata	
Dusky Crawler	Sticharium clarkae	
Sand Crawler	Sticharium dorsale	
Gulf Pipefish	Stigmatopora nov. sp. 1	EPBC-Mar Possibly endemic to S.A.
	(Stigmatopora nasospatulata)	All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Venus Bay Pipefish	Stigmatopora venusensis	Possibly endemic to S.A.  All syngnathids are subject to the export
		controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Spotted Pipefish	Stigmatopora argus	EPBC-Mar VIC2-Prot; TAS2-Prot
		All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Wide-bodied Pipefish Wide-body Pipefish Widebody Pipefish	Stigmatopora nigra	EPBC-Mar VIC2-Prot; TAS2-Prot
, ,		All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Ring-backed Pipefish Ring-back Pipefish	Stipecampus cristatus	EPBC-Mar VIC2-Prot; TAS2-Prot
		All syngnathids are subject to the export controls of the Commonwealth Wildlife

		Protection (Regulation of Exports and Imports) Act 1982.	
Striped Trawl Wrasse	Suezichthys bifurcatus		
Warty Handfish	Sympterichthys	Pog-DD	
Verrucose Handfish	(= Brachionichthys)	ASFB-DD	
	verrucosus		
Derwent Flounder	Taratretis		
	derwentensis		
Marine Goby	Tasmanogobius		
_	gloveri		
Lagoon Goby	Tasmanogobius lasti		
Smooth Toadfish	Tetractenos glaber		
Degen's Leatherjacket	Thamnaconus degeni		
Blue-finned Leatherjacket			
Dusky Marine Gudgeon	Thalasseleotris adela		
Silver Spot	Threpterius maculosus		
Albacore	Thunnus alalunga	IUCN1996-DD	
		IUCN1996-Vul (North Atlantic)	
		IUCN1996-CR (South Atlantic)	
Yellowfin Tuna	Thunnus albacares	IUCN1996-LR/LC	
Southern Bluefin Tuna	Thunnus maccoyii	IUCN1996-CR (with Marine Caveat C);	
Bluefin Tuna		(N.B. 1996 status has not been re-	
		assessed by IUCN, and CR listing is still	
		current, in 2004)	
		Pog-LR/NT	
		ASFB-LR/NT	
		Note, from Pogonoski et al. (2002): This	
		species was submitted to both the	
		Commonwealth Endangered Species	
		Scientific Sub-Committee (twice) and	
		the N.S.W. Fisheries Scientific	
		Committee, but was rejected by both. It	
		has also been submitted to the Victorian	
		and Tasmanian Endangered Species	
		Scientific Sub-Committees, as	
		threatened species nominations.	
		'	
Barracouta	Thyrsites atun		
Rock Flathead	Thysanophrys		
Tassel-snouted Flathead	cirronasus		
Moonlighter	Tilodon sexfasciatum		
Six-banded Coralfish			
Six-banded Coral Fish			
Weeping Toado	Torquigener		
Banded Toadfish	pleurogramma		
Roughy	Trachichthys australis		
Southern Hulafish	Trachinops		
Blotch-tailed Trachinops	caudimaculatus		
Yellow-headed /	Trachinops noarlungae		
Noarlunga Hulafish			

Jack Mackerel	Trachurus declivis	
Cowanyoung		
Horse Mackerel		
Yellowtail Scad	Trachurus	
Yellowtail Horse	novaezelandiae	
Mackerel		
Bighead Triplefin	Trianectes bucephalus	
Bighead Threefin		
Bullhead Triplefin		
Bullhead Threefin		
Large-head Hairtail	Trichiurus lepturus	
Largehead Hairtail		
Australian Hairtail		
Common Triplefin	Trinorfolkia	
Common Threefin	(=Norfolkia) clarkei	
Clarke's Triplefin		
Clarke's Threefin	T: 6 11:	IK a section of a later to the control of
Crested Threefin	Trinorfolkia	Known almost exclusively from S.A.
Crested Triplefin	(=Norfolkia) cristata	
Notched Threefin	Trinorfolkia	
Notched Triplefin	(=Norfolkia) incisa	
Red Mullet	Upeneichthys vlamingii	
Blue-spotted Goatfish	Openeichtrys viarningii	
Southern Goatfish		
Hairy Pipefish	Urocampus	EPBC-Mar
riany riponon	carinirostris	VIC2-Prot; TAS2-Prot
		7.020., .7.020.
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 1982
Mother-of-Pearl Pipefish	Vanacampus	EPBC-Mar
	margaritifer	VIC2-Prot
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and
		Imports) Act 1982
D ( D) ()	1 111 1	EDDO M
Port Phillip Pipefish	Vanacampus phillipi	EPBC-Mar
		VIC2-Prot; TAS2-Prot
		All synapathids are subject to the expert
		All syngnathids are subject to the export controls of the Commonwealth <i>Wildlife</i>
		Protection (Regulation of Exports and
		Imports) Act 1982
Long-snout Pipefish	Vanacampus	EPBC-Mar
Long onout i ponen	poecilolaemus	VIC2-Prot; TAS2-Prot
	, , , , , , , , , , , , , , , , , , , ,	1.52
		All syngnathids are subject to the export
		controls of the Commonwealth Wildlife
		Protection (Regulation of Exports and

		Imports) Act 1982.
Verco's Pipefish	Vanacampus vercoi	EPBC-Mar VIC2-Prot; TAS2-Prot Pog-LR/NT ASFB-LR/NT Possibly endemic to S.A.  All syngnathids are subject to the export controls of the Commonwealth Wildlife Protection (Regulation of Exports and Imports) Act 1982.
Scarlet Cardinalfish	Vincentia badia	
Southern Cardinalfish Gobbleguts	Vincentia conspersa	
Smooth Cardinalfish	Vincentia macrocauda	
Orange Cardinalfish	Vincentia punctata	
Broadbill Swordfish Australian Swordfish Swordfish	Xiphias gladius	IUCN1996-DD IUCN1996-En (North Atlantic) Pog-DD ASFB-DD
Longfin Boarfish Long-fin Boarfish Black-spotted Boarfish	Zanclistius elevatus	
Duskybanded Sole Dusky-banded Sole	Zebrias penescalaris	
Mirror Dory	Zenopsis nebulosus	
John Dory	Zeus faber	

- + (The Western Blue Groper is protected under the Fisheries Act 1982 from capture in the waters of Gulf St Vincent, Spencer Gulf and Investigator Strait).
- \* (In South Australia, Leafy Seadragon is a protected species under the Fisheries Act 1982, although a limited number of permits have been issued by Primary Industries and Resources South Australia for the collection of Leafy Seadragons in SA)
- \*\* (the two Cheilopogon species are globally distributed, and occasionally seen in southern Australian waters, including S.A.)
- # Solegnathus spinosissimus occurs in south-eastern Australia along the coasts of New South Wales, Victoria and Tasmania, and also in New Zealand. This species has also been recorded from off Brisbane (Queensland), and in South Australian waters, but the South Australian identifications need to be confirmed (Gomon et al., 1994, cited by Pogonoski et al., 2002).
- ^ (Hippocampus bleekeri is listed in the IUCN Red List under its previous name, H. abdominalis, which is now used only for the population New South Wales - see Kuiter, 2001)
- ++ (Campichthys tryoni is included here provisionally, on the basis of a record from Gulf St Vincent. Further information is required to ascertain the current presence or absence of this species in South Australian waters).
- ^^ (Saurida undosquamis a tropical and globally distributed species, rarely found in S.A., but has been recorded from Venus Bay)

### Sharks, Rays, Stingrays, Stingarees, Skates, and Chimaeras

Last et al. (1999); Shark Specialist Group (2000); Stevens (2000a, 2000b); Simpfendorfer (2000a; 2000b; 2003; in prep. a; in prep. b); Simpfendorfer and Compagno (2000); Pogonoski et al. (2002); Duffy and Paul (2003); Goldman, and members of the Shark Specialist Group (2001); Cavanagh and Lisney (2003); Cavanagh *et al.* (2003); Fordham (2003); Heupel (2003); IUCN (2003); Kyne and Bennett (2003a, 2003b); Lisney (2003); Lisney and Cavanagh (2003); Paul (2003); Paul and Fowler (2003); Pogonoski and Pollard (2003a, 2003b); Pollard et al. (2003); Reardon (2003); Simpfendorfer and Heupel (2003); Simpfendorfer and McAuley (2003); Walker (2003a; 2003b); Walker and Simpfendorfer (2003); White (2003)

#### Notes:

- IUCN status is global unless otherwise stated.
- Species found only the continental slope are not included.

Common Name	Latin Name	Conservation Status
Bigeye Thresher	Alopias superciliosus	
Thresher Shark	Alopias vulpinus	IUCN2001-DD
Common Thresher		(N.B. not re-assessed in
		2002 or 2003)
Southern Shovelnose Ray	Aptychotrema vincentiana	IUCN Shark Specialist
Western Shovelnose Ray		Group assessment 2003:
		Least Concern (McAuley,
		in Cavanagh et al., 2003)
Western Spotted Catshark	Asymbolus occiduus	IUCN2003-LC
Gulf Catshark	Asymbolus vincenti	IUCN2003-LC
Elephant Fish	Callorhinchus milii	IUCN2003-LC
Elephantfish	Callorhynchus milii	
Elephant Shark		
Bronze Whaler Shark	Carcharhinus brachyurus	IUCN2003-NT (Global)
Copper Shark		IUCN2003-Vul (East Asia)
Oceanic Whitetip Shark	Carcharhinus longimanus	IUCN2000-LR/NT
		(N.B. not re-assessed in 2002 or 2003)
Black Whaler Shark	Carcharhinus obscurus	IUCN2000-LR/NT (Global,
Dusky Shark		including Australia)
		IUCN2000-Vul (NW
		Atlantic, and Gulf of
		Mexico)
		(N.B. not re-assessed in
		2002 or 2003)
		Pog-LR/NT
		ASFB-LR/NT

Grey Nurse Shark*	Carcharias taurus*	EPBC-CR (east Australia) EPBC-Vul (west Australia) IUCN2000-Vul (Global) IUCN2003-CR (N.S.W.) IUCN2003-NT (W.A.) ASFB-Endg
Great White Shark White Shark White Pointer	Carcharodon carcharias	CITES2 (nominated, 2004) IUCN2000-Vul (N.B. not re-assessed in 2002 or 2003) SA-Prot; EPBC-Vul; EPBC-Mig
Australian Swellshark Spotted Swellshark Draughtboard Shark	Cephaloscyllium laticeps	IUCN2003-LC
Endeavour Dogfish	Centrophorus moluccensis	IUCN2003-DD (Global) IUCN2003-EN (Australia) EPBC-Nominated
Southern Dogfish	Centrophorus uyato	IUCN2003-DD (Global) IUCN2003-CR (Australia) EPBC-Nominated ASFB-Vul
Basking Shark	Cetorhinus maximus	CITES2 IUCN1996, 2000 & 2002- Vul (Global); IUCN1996, 2000 & 2002- En (North Pacific and North-East Atlantic); TAS3-Prot Pog-DD ASFB-DD  Protected in the U.K under Schedule 5 of the Wildlife and Countryside Act 1981.  Protected species within the territorial waters of the Isle of Man, Guernsey, and
		the Irish Sea (DEFRA and JNCC, 2001; Pogonoski et al., 2002).
		Protected in the Mediterranean under the Bern Convention (with EU reservation) and Barcelona Convention (unratified) (DEFRA and JNCC, 2001).
		American Fisheries Society listing:

	Vulnerable (eastern Pacific)  Protected in US Atlantic waters (DEFRA and JNCC, 2001).
Dasyatis brevicaudata	IUCN2003-LC
Dasyatis thetidis	
Dasyatis violacea	
Pteroplatytrygon violacea	
Dipturus (Subgenus A) cerva (in Last and Yearsley, 2002)	
Dipturus gudgeri	
Dipturus (Dentiraja) sp. M (in Last and Yearsley, 2002)	
Dipturus (Dentiraja) Iemprieri	
Dipturus (Raja) whitleyi	
Dipturus (Spiniraja) whitleyi	
Dipturus sp A. (in Last and Yearsley, 2002)	
Echinorhinus cookei	IUCN2003-NT
Furgaleus macki	IUCN2000 & 2002-LR/CD IUCN2003-LC Pog-LR/CD ASFB-LR/CD
Galeus boardmani	IUCN2003-LC
Galeocerdo cuvier	IUCN2000-LR/NT (N.B. not re-assessed in 2002 or 2003)
Galeorhinus galeus	IUCN2000-Vul (Global) IUCN2000-LR/CD (Australasian)  IUCN Shark Assessment Group (Cavanagh et al., 2003) recommendation: Vulnerable for Australia;
	Dasyatis violacea Dasyatis guileri Pteroplatytrygon violacea  Dipturus (Subgenus A) cerva (in Last and Yearsley, 2002) Dipturus gudgeri Dipturus (Dentiraja) sp. M (in Last and Yearsley, 2002) Dipturus (Dentiraja) lemprieri Dipturus (Raja) whitleyi  Dipturus (Spiniraja) whitleyi  Dipturus sp A. (in Last and Yearsley, 2002) Echinorhinus cookei Furgaleus macki  Galeus boardmani Galeocerdo cuvier

		Zealand
		Pog-LR/CD ASFB-LR/CD
Sharpnose Sevengill Shark	Heptranchias perlo	IUCN2003-NT
Port Jackson Shark	Heterodontus portusjacksoni	IUCN2000-LR/LC (N.B. not re-assessed in 2002 or 2003)
Bluntnose Sixgill Shark	Hexanchus griseus	IUCN2000-LR/NT (N.B. not re-assessed in 2002 or 2003) Pog-DD ASFB-DD
Bight Ghostshark	Hydrolagus lemures	
Ogilby's Ghostshark Ogilby's Spookfish	Hydrolagus ogilbyi	
Australian Numbfish Coffin Ray Cramp Fish	Hypnos monopterygium (= H. monopterygius)	IUCN2003-LC
Pencil Shark Blacktip Topeshark	Hypogaleus hyugaensis	IUCN2000-LR/NT (N.B. not re-assessed in 2002 or 2003)
Round Skate Southern Round Skate	Irolita waitii	
Shortfin Mako Blue Pointer	Isurus oxyrinchus	IUCN2000-LR/NT (N.B. not re-assessed in 2002 or 2003) Pog-LR/LC (preliminary)
Porbeagle	Lamna nasus	IUCN2000-LR/NT (Global) IUCN2000-Vul (North-east Atlantic) IUCN2000-LR/CD (North- west Atlantic) (N.B. not re-assessed in 2002 or 2003) Pog-LR/LC (preliminary)
Gummy Shark	Mustelus antarcticus	IUCN2002-LR/CD IUCN2003-LC Pog-LR/LC (preliminary)
Southern Eagle Ray	Myliobatis australis	
Tasmanian Numbfish	Narcine tasmaniensis	
Broadnose Sevengill Shark	Notorynchus cepedianus	IUCN2000-DD (Global) IUCN2000-LR/NT (East Pacific) (N.B. not re-assessed in 2002 or 2003) Pog-DD ASFB-DD

Spotted Wobbegong	Orectolobus maculatus	IUCN2003-NT Pog-DD ASFB-DD
Ornate Wobbegong Banded Wobbegong	Orectolobus ornatus	IUCN2003-NT Pog-DD ASFB-DD
Rusty Cat Shark Rusty Catshark Rusty Carpet Shark	Parascyllium ferrugineum	IUCN2003-LC
Varied Cat Shark Varied Catshark	Parascyllium variolatum	IUCN2003-LC
Peacock Skate	Pavoraja (Raja) nitida	
Sandy Skate	Pavoraja sp. C	
Blue Whaler Shark Blue Shark	Prionace glauca	IUCN2000-LR/NT (N.B. not re-assessed in 2002 or 2003) Pog-LR/LC (preliminary)
Common Saw Shark Common Sawshark	Pristiophorus cirratus	IUCN2002-LR/NT IUCN2003-LC Pog-LR/CD ASFB-LR/CD
Southern Saw Shark Southern Sawshark	Pristiophorus nudipinnis	IUCN2003-LC
Smooth Hammerhead	Sphyrna zygaena	IUCN2000-LR/NT Pog-LR/LC (preliminary)  2003 IUCN Shark Assessment Group (Stevens et al., in Cavanagh et al., 2003) recommendation: Lower Risk – Least Concern for Australian and New Zealand populations
Spiny Dogfish White-spotted Dogfish White-spotted Spurdog Piked Dogfish	Squalus acanthias	IUCN2000-LR/NT (Global) IUCN2003-En (North-east Atlantic) IUCN2003-Vul (North-west Atlantic) Pog-LR/LC ASFB-LR/LC
Spiky Dogfish Piked Spurdog Piked Dogfish Dogshark	Squalus megalops	IUCN2003-DD
Greeneye Dogfish	Squalus mitsukurii	IUCN2003-DD (Global) IUCN2003-En (Australia)

Australian Angel Shark	Squatina australis	IUCN2003-LC
Ornate Angel Shark	Squatina tergocellata	IUCN2003-LC
Cobbler Carpetshark	Sutorectus tentaculatus	IUCN2003-LC
Short-tail Torpedo Ray	Torpedo macneilli	
Electric Ray		
Bight Stingaree	Trygonoptera ovalis	
Striped Stingaree		
Western Stingaree	Trygonoptera mucosa	
Western Shovelnose Stingaree		
Common Stingaree	Trygonoptera testacea	
Magpie Fiddler Ray	Trygonorrhina melaleuca	
Southern Fiddler Ray	Trygonorrhina fasciata	IUCN2003-LC
Banjo Ray		
Sandyback Stingaree	Urolophus bucculentus	
Banded Stingaree	Urolophus cruciatus	
Crossback Stingaree		
Wide Stingaree	Urolophus expansus	
Spotted Stingaree	Urolophus gigas	
Coastal Stingaree	Urolophus orarius	
Sparsely-spotted Stingray	Urolophus paucimaculatus	
Dixon's Stingray		

<sup>\* (</sup>*Carcharias taurus* is not found in S.A. waters, however it is noted that S.A. is included in most published works on the distribution of this species)

### Marine Mammals

South Australian National Parks and Wildlife Act 1972; Commonwealth Department of the Environment and Heritage web site (2002, 2003); Reeves et al. (2003); IUCN (2003)

Notes:

All mammals: SA-Prot; NPW-Prot

All cetaceans EPBC-Cet

IUCN 1996 status: Where IUCN status is specified for the year 1996 in the table below, the

1996 status is current to 2004, and has not been updated by IUCN.

Common Name	Latin Name	Conservation Status
New Zealand Fur Seal	Arctocephalus forsteri	IUCN1996-LR/LC
		IUCN2000-LR/CD*;
		EPBC-Mar
		TAS1-Rare
Australian Fur Seal	Arctocephalus pusillus	NPW-Rare; EPBC-Mar
	doriferus	
Sub-Antarctic Fur Seal	Arctocephalus tropicalis	EPBC-Vul; EPBC-Mar
Minke Whale	Balaenoptera acutorostrata	IUCN1996-LR/NT
		NPW-Rare
Sei Whale	Balaenoptera borealis	IUCN1996-En
	-	EPBC-Vul; EPBC-Mig
Bryde's Whale	Balaenoptera edeni	IUCN1996-DD
-	-	EPBC-Mig

Blue Whale	Balaenoptera musculus	IUCN1996-En NPW-En; TAS1-En
		EPBC-En; EPBC-Mig
Pygmy Blue Whale	Balaenoptera musculus brevicauda	IUCN1996-DD
Fin Whale	Balaenoptera physalus	IUCN1996-En NPW-Vul; TAS1-Vul EPBC-Vul; EPBC-Mig
Arnoux's Beaked Whale	Berardius arnuxii	IUCN1996-LR/CD NPW-Rare
Pygmy Right Whale	Caperea marginata	IUCN1996-LR/LC NPW-Rare; EPBC-Mig
Common Dolphin	Delphinus delphis	IUCN1996-LR/LC
Southern Right Whale	Eubalaena australis	IUCN1996-LR/CD NPW-Vul; TAS1-En; EPBC-En
Pygmy Killer Whale	Feresa attenuata	IUCN1996-DD
Short-finned Pilot Whale	Globicephala macrorhynchus	IUCN1996-LR/CD NPW-Rare
Long-finned Pilot Whale	Globicephala melas	IUCN1996-LR/LC
Risso's Dolphin	Grampus griseus	IUCN1996-DD NPW-Rare
Southern Bottlenose Whale	Hyperoodon planifrons	IUCN1996-LR/CD NPW-Rare
Pygmy Sperm Whale	Kogia breviceps	IUCN1996-LR/LC NPW-Rare
Dwarf Sperm Whale	Kogia simus	IUCN1996-LR/LC NPW-Rare
Leopard Seal	Hydrurga leptonyx	NPW-Rare; EPBC-Mar
Dusky Dolphin	Lagenorhynchus obscurus	IUCN1996-DD NPW-Rare; EPBC-Mig
Weddell Seal	Leptonychotes weddellii	EPBC-Mar
Southern Right Whale Dolphin	Lissodelphis peronii	IUCN1996-DD
Crab-eater Seal	Lobodon carcinophagus	IUCN1996-LR/LC EPBC-Mar
Humpback Whale	Megaptera novaeangliae	IUCN1996-Vul NPW-Vul; TAS1-En EPBC-Vul; EPBC-Mig
Andrew's Beaked Whale	Mesoplodon bowdoini	IUCN1996-DD NPW-Rare
Gray's Beaked Whale Scamperdown Whale	Mesoplodon grayi	IUCN1996-DD NPW-Rare
Hector's Beaked Whale	Mesoplodon hectori	IUCN1996-DD NPW-Rare
Straptooth Whale Strap-toothed Whale	Mesoplodon layardii	IUCN1996-DD
Southern Elephant Seal	Mirounga leonina	NPW-Rare; EPBC-Vul; EPBC-Mar

Australian Sea Lion	Neophoca cinerea	NPW-Rare; EPBC-Mar
Ross Seal	Ommatophoca rossii	IUCN1996-LR/LC
		EPBC-Mar
Killer Whale	Orcinus orca	IUCN1996-LR/CD
		EPBC=Mig;
Sperm Whale	Physeter catodon	IUCN1996-Vul
	Physeter macrocephalus	NPW-Rare; EPBC-Mig
False Killer Whale	Pseudorca crassidens	IUCN1996-LR/LC
		NPW-Rare
Shepherd's Beaked	Tasmacetus shepherdi	IUCN1996-DD
Whale		NPW-Rare
Inshore / Long-beaked	Tursiops aduncus	IUCN1996-DD
Bottlenose Dolphin	Tursiops trunctatus aduncus	
Offshore	Tursiops truncatus	IUCN1996-DD
Bottlenose Dolphin	Tursiops truncatus truncatus	
Cuvier's Beaked Whale	Ziphius cavirostris	IUCN1996-DD
		NPW-Rare

<sup>\* (</sup>New Zealand Fur Seal was included in the IUCN Red List 1996 and 2000, but not in the IUCN Red List 2002)

## Marine Reptiles

South Australian National Parks and Wildlife Act 1972; Commonwealth Department of the Environment and Heritage web site (2002, 2003); IUCN (2003)

Common Name	Latin Name	Conservation Status
Leathery Turtle	Dermochelys coriacea	IUCN2000-CR
Leatherback Turtle		(N.B. IUCN status not updated since
		2000, and current in 2004) NPW-Vul
		EPBC-Vul; EPBC-Mig;
		EPBC-Mar
Green Turtle	Chelonia mydas	IUCN1996-En
		(N.B. 1996 IUCN status current in 2004)
		NPW-Vul;
		EPBC-Vul; EPBC-Mig;
Language and Toutla	0	EPBC-Mar;
Loggerhead Turtle	Caretta caretta	IUCN1996-En
		(N.B. IUCN status not updated since
		2000, and current in 2004) NPW-Vul:
		EPBC-Endg; EPBC-Mig; EPBC-Mar
Hawksbill Turtle	Eretmochelys	IUCN1996-CR
TIAWKSDIII TUTUE	imbricata	(N.B. 1996 IUCN status current in 2004)
	IIIIDIIGAIA	EPBC-Vul; EPBC-Mig; EPBC-Mar

## Coastal and Marine Birds

South Australian National Parks and Wildlife Act 1972; Gärdenfors et al. (1999); Bryant and Jackson (1999); Garnett and Crowley (2000); Commonwealth Department of the Environment and Heritage web site (2002, 2003); IUCN (2003); BirdLife International (2000); BirdLife International (in prep.).

Common Name	Latin Name	Conservation Status
Slender-billed Thornbill	Acanthiza iredalei	NPW-Vul
Samphire Thornbill	rosinae	
Brown Goshawk	Accipter fasciatus	EPBC-Mar
Common Sandpiper	Actitis hypoleucos	EPBC-Mar
Azure Kingfisher	Alcedo azurea	NPW-En
Chestnut Teal	Anas castanea	
Northern Shoveler	Anas clypeata	EPBC-Mig; EPBC-Mar
Grey Teal	Anas gracilis	
Mallard	Anas platyrhynchos	
Garganey	Anas querquedula	EPBC-Mig; EPBC-Mar
Australasian Shoveller /	Anas rhynchotis	NPW-Rare
Shoveler	-	
Pacific Black Duck	Anas superciliosa	
Magpie Goose	Anseranas	NPW-En; EPBC-Mar
	semipalmata	
Great Egret	Ardea (Egretta) alba	EPBC-Mig; EPBC-Mar
Large Egret		
Cattle Egret	Ardea (Ardeola) ibis	EPBC-Mig; EPBC-Mar
Intermediate / Plumed	Ardea intermedia	NPW-Rare; EPBC-Mar
Egret		
Eastern Reef Egret	Ardea (= Egretta) sacra	NPW-Rare; EPBC-Mig; EPBC-
Eastern Reef Heron		Mar
Ruddy Turnstone	Arenaria interpres	EPBC-Mig; EPBC-Mar
Hardhead	Aythya australis	
Musk Duck	Biziura lobata	NPW-Rare; EPBC-Mar
Australasian Bittern	Botaurus poiciloptilus	IUCN2002-Vul; NPW-Vul
Sharp-tailed Sandpiper	Calidris acuminata	EPBC-Mig; EPBC-Mar
Sanderling	Calidris alba	EPBC-Mig; EPBC-Mar
Red Knot	Calidris canutus	EPBC-Mig; EPBC-Mar
Curlew Sandpiper	Calidris ferruginea	EPBC-Mig; EPBC-Mar
Pectoral Sandpiper	Calidris melanotos	EPBC-Mig; EPBC-Mar
Little Stint	Calidris minuta	EPBC-Mar
Red-necked Stint	Calidris ruficollis	EPBC-Mig; EPBC-Mar
Long-toed Stint	Calidris subminuta	EPBC-Mig; EPBC-Mar
Great Knot	Calidris tenuirostris	EPBC-Mig; EPBC-Mar
Latham's Snipe	Capella (Gallinago)	NPW-Vul; EPBC-Mig; EPBC-Mar
Japanese Snipe	hardwickii	
Cape Barren Goose	Cereopsis	NPW-Rare; EPBC-Mar
D 11 1 1 1 2	novaehollandiae	EDDO M
Double-banded Plover	Charadrius bicinctus	EPBC-Mar
Ringed Plover	Charadrius hiaticula	EPBC-Mig; EPBC-Mar

Greater Sand Plover	Charadrius leschenaultii	EPBC-Mig; EPBC-Mar
Lesser Sand Plover	Charadrius mongolus	EPBC-Mig; EPBC-Mar
Mongolian Plover	Charachias mongolas	Er Bo Wig, Er Bo War
Red-capped Plover	Charadrius ruficapillus	EPBC-Mar
Oriental Plover	Charadrius veredus	EPBC-Mig; EPBC-Mar
Australian Wood Duck	Chenonetta jubata	2. 20 mg, 2. 20 ma.
Maned Duck	Chononata jazata	
Whiskered Tern	Chlidonias hybridus	EPBC-Mar
White-winged Black Tern	Chlidonias leucopterus	EPBC-Mar; EPBC-Mig
White-winged Tern		
Swamp Harrier	Circus approximans	EPBC-Mar
Golden-headed Cisticola	Cisticola exilis	NPW-Rare
Banded Stilt	Cladorhynchus	
	leucocephalus	
Black Swan	Cygnus atratus	
Cape Petrel	Daption capense	EPBC-Mar
Plumed Whistling-Duck	Dendrocygna eytoni	
Plumed Whistling Duck		
Antipodean Albatross	Diomedea antipodensis	IUCN2002 & IUCN2003-Vul;
·	Diomedea exulans	EPBC-Vul; (EPBC-Mig, as <i>D.</i>
	antipodensis	exulans); EPBC-Mar
Southern Royal Albatross	Diomedea epomophora	IUCN2002 & IUCN2003-Vul;
		NPW-Vul; EPBC-Vul; EPBC-Mig;
		EPBC-Mar
Wandering Albatross	Diomedea exulans	IUCN2002 & IUCN2003-Vul;
		NPW-Vul; TAS1-En;
		EPBC-Vul; EPBC-Mig; EPBC-
		Mar
Gibson's Albatross	Diomedea gibsoni	EPBC-Vul;
	Diomedea exulans	(EPBC-Mig, as <i>D. exulans</i> );
	gibsoni	EPBC-Mar
Northern Royal Albatross	Diomedea sanfordi	IUCN2002 & IUCN2003-En;
		NPW-En; EPBC-En; EPBC-Mar
Little Egret	Egretta garzetta	EPBC-Mar
White-faced Heron	Egretta	
	novaehollandiae	
Black-fronted Dotterel /	Elseyornis melanops	
Black-fronted Plover		
Red-kneed Dotterel	Erythrogonys cinctus	500014
Little Penguin	Eudyptula minor	EPBC-Mar
Fairy Penguin	<u> </u>	
Brown Falcon	Falco berigora	EDDO M
Nankeen Kestrel	Falco cenchroides	EPBC-Mar
Australian Kestrel	Falsa law win a week	
Australian Hobby	Falco longipennis	
Little Falcon	Foloo no re surire : -	NDW Dave
Peregrine Falcon	Falco peregrinus	NPW-Rare
Black-bellied Storm-Petrel	Fregetta tropica	EPBC-Mar
Southern Fulmar	Fulmarus glacialoides	EPBC-Mar
Latham's Snipe	Gallinago (Capella)	NPW-Vul; EPBC-Mig; EPBC-Mar
Japanese Snipe	hardwickii	

Dusky Moorhen	Gallinula tenebrosa	
Black-tailed Native-hen	Gallinula ventralis	
Grey-backed Storm-Petrel	Garrodia (Oceanites)	EPBC-Mar
•	nereis	
Oriental Pratincole	Glareola maldivarum	EPBC-Mig; EPBC-Mar;
Brolga	Grus rubicunda	NPW-Vul;
Sooty Oystercatcher	Haematopus fuliginosus	
Pied Oystercatcher	Haematopus	
	longirostris	
White-bellied Sea-eagle	Haliaeetus leucogaster	NPW-Vul; EPBC-Mig; EPBC-Mar
White-bellied Sea Eagle		
Brahminy Kite	Haliastur indus	EPBC-Mar
Whistling Kite	Haliastur sphenurus	EPBC-Mar
Blue Petrel	Halobaena caerulea	NPW-Vul; TAS1-Vul
		EPBC-Vul; EPBC-Mar
Grey-tailed Tattler	Heteroscelus (= Tringa)	EPBC-Mig; EPBC-Mar
	brevipes	
Black-winged Stilt	Himantopus	EPBC-Mar
Pied Stilt	himantopus	
Caspian Tern	Hydroprogne (Sterna)	EPBC-Mar; EPBC-Mig
	caspia	
Little Bittern	Ixobrychus minutus	NPW-Rare;
Kelp Gull	Larus dominicanus	EPBC-Mar
Silver Gull	Larus novaehollandiae	EPBC-Mar
Pacific Gull	Larus pacificus	EPBC-Mar
Broad-billed Sandpiper	Limicola falcinellus	EPBC-Mig; EPBC-Mar
Bar-tailed Godwit	Limosa lapponica	EPBC-Mig; EPBC-Mar
Black-tailed Godwit	Limosa limosa	EPBC-Mig; EPBC-Mar
Kerguelen Petrel	Lugensa brevirostris	EPBC-Mar
Southern Giant-petrel	Macronectes giganteus	IUCN2000-Vul
Southern Giant Petrel		(N.B. IUCN status not updated
		since 2000, and current in 2004)
N. d. C. d. d. L.		EPBC-En; EPBC-Mig; EPBC-Mar
Northern Giant-petrel	Macronectes halli	IUCN2000-LR/NT
Northern Giant Petrel		(N.B. IUCN status not updated
		since 2000, and current in 2004)
		EPBC-Vul; EPBC-Mig; EPBC-
Pink-eared Duck	Malacarhunahua	Mar
FILIK-EATED DUCK	Malacorhynchus membranaceus	
Australasian Gannet	Morus serrator	EPBC-Mar
Australian Gannet	IVIUIUS SEITALUI	LF DO-IVIAI
Orange-bellied Parrot	Neophema	IUCN2000-CR
Orange-beined ranot	chrysogaster	(N.B. IUCN status not updated
	on youguster	since 2000, and current in 2004)
		NPW-En; EPBC-En
		EPBC-Mar; EPBC-Mig
		L. Do Mai, Li Do Mig
Rock Parrot	Neophema petrophila	NPW-Rare; EPBC-Mar
Eastern Curlew	Numenius	IUCN2000-LR/NT

	madagascariensis	(N.B. IUCN status not updated
	madagaddanondid	since 2000, and current in 2004)
		NPW-Vul; EPBC-Mig; EPBC-Mar
Little Curlew	Numenius minutus	EPBC-Mig; EPBC-Mar
Whimbrel	Numenius phaeopus	EPBC-Mig; EPBC-Mar
Nankeen Night Heron	Nycticorax caledonicus	EPBC-Mar
Rufous Night Heron	Try directax date activate	Li Bo Mai
Wilson's Storm Petrel	Oceanites oceanicus	TAS1-Rare
Tringeri e Gierri i eu ei		EPBC-Mig; EPBC-Mar
Blue-billed Duck	Oxyura australis	NPW-Rare
Slender-billed Prion	Pachyptila belcheri	EPBC-Mar
Antarctic Prion	Pachyptila desolata	EPBC-Mar
Salvin's Prion	Pachyptila salvini	EPBC-Mar
Fairy Prion	Pachyptila turtur	EPBC-Mar
Fairy Prion	Pachyptila turtur	TAS1-Vul
(southern sub-species)	subantarctica	EPBC-Vul
Broad-billed Prion	Pachyptila vittata	EPBC-Mar
	Pandion haliaetus	
Osprey	Pandion naliaetus	NPW-Rare; EPBC-Mig; EPBC-Mar
White feed Ctores potrol	Dalaga drama marina	EPBC-Mar
White-faced Storm-petrel	Pelagodroma marina	
Common Diving-Petrel	Pelecanoides urinatrix	EPBC-Mar
Australian Pelican	Pelecanus	EPBC-Mar
D. LON. LT. COLOR	conspicillatus	EDDO M
Red-tailed Tropicbird	Phaethon rubricauda	EPBC-Mar
Great Black Cormorant	Phalacrocorax carbo	
Great Cormorant		
Black Cormorant	Distance	EDDO Mari
Black-faced Cormorant	Phalacrocorax	EPBC-Mar
Little Die LO.	fuscescens	
Little Pied Cormorant	Phalacrocorax	
L'illa Dia il Occasionali	melanoleucos	
Little Black Cormorant	Phalacrocorax	
D: 10	sulcirostris	
Pied Cormorant	Phalocrocorax varius	
Large Pied Cormorant	5	EDD0.14
Grey Phalarope	Phalaropus fulicaria	EPBC-Mar
Red-necked Phalarope	Phalaropus lobatus	EPBC-Mig; EPBC-Mar
Ruff	Philomachus pugnax	EPBC-Mig; EPBC-Mar
Reeve		
Sooty Albatross	Phoebetria (Diomedea)	IUCN2002-Vul;
	fusca	IUCN2003-En;
		NPW-Vul; EPBC-Vul; EPBC-Mig;
		EPBC-Mar
Light-mantled Albatross	Phoebetria (Diomedea)	IUCN2003-NT; TAS1-Vul
<u> </u>	palpebrata	EPBC-Mig; EPBC-Mar
Yellow-billed Spoonbill	Platalea flavipes	
Royal Spoonbill	Platalea regia	
Glossy Ibis	Plegadis falcinellus	NPW-Rare; EPBC-Mig; EPBC-
		Mar
American Golden Plover	Pluvialis dominica	EPBC-Mig, EPBC-Mar
Eastern Golden Plover		

Pacific Golden Plover	Pluvialis fulva	EPBC-Mar
Lesser Golden Plover	r raviano ravia	2. 50 Mai
Grey Plover	Pluvialis squatarola	EPBC-Mig; EPBC-Mar
Great Crested Grebe	Podiceps cristatus	NPW-Rare
	,	TAS1-Rare
Hoary-headed Grebe	Podiceps poliocephalus	
Little Grebe	Podiceps ruficollis	
Purple Swamphen	Porphyrio porphyrio	EPBC-Mar
Australian Spotted Crake	Porzana fluminea	
Spotted Crake		
Baillon's Crake	Porzana pusilla	NPW-Rare; EPBC-Mar
Spotless Crake	Porzana tabuensis	EPBC-Mar
White-chinned Petrel	Procellaria	IUCN2000-Vul
	aequinoctialis	(N.B. IUCN status not updated
		since 2000, and current in 2004)
		EPBC-Mig; EPBC-Mar
Grey Petrel	Procellaria cinerea	IUCN2000-LR/NT
		(N.B. IUCN status not updated
		since 2000, and current in 2004)
	<u> </u>	EPBC-Mig; EPBC-Mar
Mottled Petrel	Pterodroma inexpectata	IUCN2000-LR/NT
		(N.B. IUCN status not updated
		since 2000, and current in 2004)
White-headed Petrel	Pterodroma lessonii	EPBC-Mar TAS1-Vul
write-neaded Petrei	Plerouroma lessonii	EPBC-Mar
Gould's Petrel	Pterodroma leucoptera	IUCN2002-Vul; EPBC-En; EPBC-
Godia's Feller	l terodroma ledcoptera	Mig;
		EPBC-Mar
Great-winged Petrel	Pterodroma macroptera	EPBC-Mar
Soft-plumaged Petrel	Pterodroma mollis	NPW-Vul; TAS1-Vul
Jan pramaga a sa a		EPBC-Vul; EPBC-Mar
Little Shearwater	Puffinus assimilis	EPBC-Mar
Flesh-footed Shearwater	Puffinus carneipes	NPW-Rare; EPBC-Mig; EPBC-
Fleshy-footed Shearwater	,	Mar
Fluttering Shearwater	Puffinus gavia	EPBC-Mar
Sooty Shearwater	Puffinus griseus	EPBC-Mig; EPBC-Mar
Hutton's Shearwater	Puffinus huttoni	IUCN2002 & IUCN2003-En;
		EPBC-Mar
Wedge-tailed Shearwater	Puffinus pacificus	EPBC-Mig; EPBC-Mar
Short-tailed Shearwater	Puffinus tenuirostris	EPBC-Mig; EPBC-Mar
Lewin's Rail	Rallus pectoralis	NPW-Vul;
	pectoralis	
Buff-banded Rail	Rallus philippensis	EPBC-Mig; EPBC-Mar
Banded Rail		
Banded Land Rail		
Red-necked Avocet	Recurvirostra	EPBC-Mar
	novaehollandiae	
Australian Painted Snipe /	Rostratula australis	EPBC-Vul; EPBC-Mar; EPBC-
Painted Snipe	Rostratula	Mig
	benghalensis australis	NPW-Rare

Stercorarius (Catharacta) skua Stercorarius longicauda	EPBC-Mar
, ,	EDDC Min. EDDC Mar
	EPBC-Mig; EPBC-Mar
Stercorarius parasiticus	EPBC-Mig; EPBC-Mar
·	
Stercorarius pomarinus	EPBC-Mig; EPBC-Mar
Sterna albifrons	NPW-Vul; TAS1-En;
sinensis	EPBC-Mig, EPBC-Mar
Sterna anaethetus	EPBC-Mig; EPBC-Mar
Sterna bergii	EPBC-Mar
Sterna (Hydroprogne)	EPBC-Mig; EPBC-Mar
caspia	
Sterna nilotica	
Sterna hirundo	NPW-Rare; EPBC-Mig; EPBC-
	Mar
Sterna nereis	NPW-Vul; TAS1-Rare
	EPBC-Mar
Sterna paradisaea	EPBC-Mig; EPBC-Mar
Sterna striata	TAS1-Rare
	EPBC-Mar
Sterna vittata vittata	EPBC-Vul; EPBC-Mar
Sterna vittata bethunei	NPW-En; TAS1-En
	EPBC-En; EPBC-Mar
	NPW-Vul
	EPBC-Mar
•	
	IUCN2002 & IUCN2003-Vul;
(Diomedea) bulleri	NPW-Vul; EPBC-Vul; EPBC-Mig;
The lease we have a sent and	EPBC-Mar
i naiassarche carteri	IUCN2002-Vul
	IUCN2003-En
Thologographo (-	EPBC-Vul; EPBC-Mar IUCN2002 & IUCN2003-NT;
`	NPW-Vul; TAS1-Vul
Diomedea) Caula	EPBC-Vul; EPBC-Mig; EPBC-
	Mar
Thalassamho	IUCN2002-NT
	IUCN2003-En
omoromynonos	EPBC-Mig; EPBC-Mar
Thalassarche	IUCN2002 & IUCN2003-Vul;
	NPW-Vul; TAS1-Vul
omysosioma	EPBC-Vul; EPBC-Mig; EPBC-
	Mar
Thalassarche impavida	IUCN2002 & IUCN2003-Vul;
	Sterna albifrons sinensis  Sterna anaethetus Sterna bergii Sterna (Hydroprogne) caspia Sterna nilotica Sterna hirundo  Sterna paradisaea Sterna striata  Sterna vittata vittata  Sterna vittata bethunei  Stictonetta naevosa Stiltia isabella Tachybaptus novaehollandiae Tadorna tadornoides Thalassarche (Diomedea) bulleri  Thalassarche carteri  Thalassarche (= Diomedea) cauta  Thalassarche chlororhynchos  Thalassarche chrysostoma

Black-browed Albatross	Thalassarche	IUCN2002-Vul
	(Diomedea)	IUCN2003-En;
	melanophrys	TAS1-Vul;
		EPBC-Mig; EPBC-Mar
Pacific Albatross	Thalassarche nov. sp.	EPBC-Vul; EPBC-Mar
Salvin's Albatross	Thalassarche salvini	IUCN2002 & 2003-Vul; NPW-Vul,
		EPBC-Vul;
		EPBC-Mar
White-capped Albatross	Thalassarche steadi	EPBC-Vul; EPBC-Mar
(N.B. closely related to		
Shy Albatross)		
Antarctic Petrel	Thalassoica antarctica	EPBC-Mar
Hooded Plover	Thinornis rubricollis	IUCN2000-LR/NT
(Eastern sub-species)	rubricollis	(N.B. IUCN status not updated
		since 2000, and current in 2004)
		NPW-Vul; EPBC-Mar
Australian White Ibis	Threskiornis molucca	EPBC-Mar
White Ibis		
Sacred Ibis	Threskiornis aethiopica	EPBC-Mar
Straw-necked Ibis	Threskiornis spinicollis	EPBC-Mar
Sacred Kingfisher	Todiramphus sanctus	EPBC-Mar
Wood Sandpiper	Tringa glareola	EPBC-Mig; EPBC-Mar
Common Sandpiper	Tringa hypoleucos	EPBC-Mig
Common Greenshank	Tringa nebularia	EPBC-Mig; EPBC-Mar
Greenshank	_	_
Marsh Sandpiper	Tringa stagnatilis	EPBC-Mig; EPBC-Mar
Common Redshank	Tringa totanus	EPBC-Mig; EPBC-Mar
Buff-breasted Sandpiper	Tryngites subruficollis	IUCN2000-LR/NT
		(N.B. IUCN status not updated
		since 2000, and current in 2004)
		EPBC-Mig; EPBC-Mar
Masked Lapwing	Vanellus miles	
Masked Plover		
Banded Lapwing	Vanellus tricolor	
Banded Plover		
Terek Sandpiper	Xenus cinereus (=	EPBC-Mig; EPBC-Mar
	Tringa terek)	

# **Sponges**

Burton (1963); Bergquist and Skinner (1982); Hooper (1999 and 2000); Edgar (2000); Australian Government Department for the Environment and Heritage (2003d); wilson and Clarkson (2004).

Common Name	Latin Name
(a sponge, known from the S.A. gulfs region; possibly	Amphoriscus cyathiscus
endemic).	
(a sponge with a spherical body, known only from Gulf	Ancorina corticata
St Vincent in S.A.; possibly endemic).	
(a sponge from southern and south-eastern Australia).	Ancorina robusta

(a black, cup-shaped sponge, used as a food souce by <i>Zoila</i> cowries)	Ancorina sp.
(a genus of sponges with distinct skeletal components,	Antho spp.
forming a primary and secondary skeleton; one	(e.g. A. frondifera; A. tuberosa;
species of which is known only from the type locality,	A. saintvincenti)
in Gulf St Vincent).	,
(a pink sponge, found all around Australia, from the	Aplysilla rosea
intertidal down to 160m+).	, ,
(a yellow sponge, found all around Australia, from the	Aplysilla sulfurea (= A.
intertidal down to 160m+).	sulphurea)
(a genus of sponges with several species in southern	Aplysina spp.
Australia. Members of the genus are often cigar-	
shaped, with large exhalent openings, and display a	
marked colour change from yellow, orange or green to	
darker colours, when exposed to air).	
(a calcareous sponge).	Aulorrhiza posterium
(a widely distributed genus of sponges, including	Biemna spp.
encrusting, massive, cup-shaped, fan-shaped and	
branching species, some of which occur in southern	
Australia).	
(a large genus of sponges with spongin-filled	Callyspongia spp.
skeletons, some of which occur in South Australia.	
Previously, species were assigned to the genus	
Siphonochalina).	
(a broadly distributed Australia sponge, from deeper	Callyspongia bilamellata
waters, over 35m).	
(a shallow-water sponge from southern and south-	Callyspongia bullata
eastern Australia).	
(a shallow-water sponge from southern, south-eastern	Callyspongia pergamentacea
and eastern Australia).	
(a sponge from southern and south-eastern Australia).	Callyspongia paucispina
(a sponge known mainly from the South Australia).	Callyspongia relicta
(a sponge found in the shallow waters of the S.A. gulfs	Callyspongia vincentina
region).	
(a genus of bowl- or plate-shaped sponges with no	Carteriospongia spp.
spicules. Some species have symbiotic algae growing	(see below for examples of
on the surface, and members of the genus are	species recorded in S.A.).
common on reefs, particularly in areas of high current	
flow).	
(a sponge from southern and eastern Australia, with	Carteriospongia calciformis
general characteristics as described above for the	
genus)	
(a sponge species from central S.A waters, possibly	Carteriospongia mystica
endemic; general characteristics as described above	
for the genus).	
"Sow's Ear" Sponge	Caulospongia biflabellata
(a brown, southern Australian sponge in a genus of	
erect sponges, either lobed-shaped, fan-shaped or	
with reticulate branching, with solid basal stems).	
(a species found in S.A. and WA, from a genus of	Caulospongia reticulata
erect sponges, either lobed-shaped, fan-shaped or	, ,
with reticulate branching, with solid basal stems).	
<u> </u>	

/	0
(a sponge species of limited distribution, known from	Caulospongia venosa
Point Riley in Spencer Gulf; possibly also occurs in	
western part of S.A.).	Chalananhailla vialagas
(a purple sponge from south-eastern Australia).	Chelonaplysilla violacea
(a widely distributed genus of encrusting sponges with	Chondrilla spp.
smooth surfaces. The cavities under the sponge are	(e.g. <i>C. australiensis</i> )
often used as habitat by brittle stars, shrimps, molluscs	
and other animals).	Ob a sa dua a ia a a a
(a small genus of sponges like <i>Chondrilla</i> , but without spicules).	Chondrosia spp.
(a widely distributed genus of sponges, with species in	Ciocalypta spp.
both tropical and temperate areas. Members of the	
genus are characterised by a fistulose growth form,	
with the base burrowing into the substrate, often sand.	
Sponge often in the form of digitate projections, or	
stalked lamellate shapes. Sponge surface usually	
semi-transparent, detachable, and parchment-like.	
(a genus of sponges, usually spherical, with inhalant	Cinachyra spp.
openings like large pores on the surface).	
(a genus of erect, branching or multi-lamellate	Clathria spp.
sponges, often brightly coloured – e.g. red, orange).	
(a sponge from deeper offshore reefs in western SA,	Clathria (Axosuberites) thetidis
and eastern Australia).	
(a sponge known from S.A. and Bass Strait)	Clathria (Clathria) caelata
(a sponge known from Gulf St Vincent and the Upper	Clathria (Clathria) noarlungae
South-East of S.A.; possibly endemic)	
(a sponge known from central S.A. waters, and	Clathria (Clathria) oxyphila
Tasmania)	
(a sponge known from central S.A. waters, and W.A.)	Clathria (Clathria) partita
(a sponge known from Gulf St Vincent, and the East	Clathria (Clathria) rubens
Coast of Australia, often found on shell or gravel,	
between approximately 18m - 56 m)	
(a reef sponge found to 60m, in waters of the Upper	Clathria (Clathria) transiens
South-East of S.A., and the east coast of Australia).	
(a sponge species, known from the St Francis Isles in	Clathria (Dendrocia) curvichela
S.A.; possibly endemic).	
(a widely distributed sub-tropical and temperate	Clathria (Thalysias) cactiformis
sponge found from the intertidal to around 100m, in	
various habitats such as rocky reef, beds of	
macroalgae, limestone rubble, sand, mud and other	
soft sediments).	
(a reef sponge known from Bass Strait, and sites in	Clathria (Thalysias) costifera
S.A., such as Kingston, in waters 15m – 60m)	
(a sponge found on sand-covered rock substrate,	Clathria (Wilsonella) ensiae
known from Yorke Peninsula in S.A., and northern	
Tasmania)	
(a calcareous sponge, possibly endemic to S.A.).	Clathrina densa
(a calcareous sponge).	Clathrina dictyoides
(a calcareous sponge).	Clathrina primordialis
(a genus of sponges with three distinct growth phases;	Cliona spp.
surface often with polygon-shaped grooves or short	

papillae).	
(an encrusting sponge).	Cliona lesueuri
(a sponge species from southern and south-eastern	Crella incrustans arenacea
Australia).	Orelia iriciustaris arenacea
(a species from a genus of thin-walled sponges with	Cribrochalina dendyi
typically sticky, mucous-feel surfaces; growth forms	
often vases, fans or cups; recorded to date in N.S.W.	
and S.A.).	
(a genus of phototrophic sponges, mostly tropical, but	Cymbastela spp.
some found in southern Australia).	(e.g. Cymbastela notiaina)
(a genus of sponges whose species often have a core	Dactylia spp.
of sand or spicule fragments).	
(a southern Australian sponge species).	Dactylia crispata
(a sponge of tropical affinity, recorded to date in Torres	Dactylia syphonoides
Strait, Queensland and the S.A. Gulf region).	
(a small genus of reef-encrusting sponges, with	Darwinella spp.
variably coloured species, including bright yellow;	
broadly distributed, including southern Australia).	
Rose Sponge	Dendrilla cactos (= D. rosea)
Pink Sponge	,
(a sponge found on rocky reefs, to around 50m deep;	
recorded all around Australia, also New Caledonia and	
Indo-Malayan region)	
(a genus of sponges with reticulate, fibrous skeletons,	Dictyodendrilla spp.
and delicate, cavernous tissue construction; the	
sponges are often lobate, stalked or spreading, with	
digitate projections. Some of the species occur in	
southern Australia).	
(a widely-distributed genus of soft, cavernous	Dysidea spp.
sponges, with cobweb-like surfaces; sponge fibres	
often cored with sand. Some of the species occur in	
southern Australia, and are eaten by Zoila cowries).	
(a sponge known from the upper South-East of S.A.,	Echinochalina barba
and eastern and south-eastern Australia; found from	
the subtidal to around 80m, on sand, shell grit, rock or	
coral substrates, and in kelp beds).	
(a sponge known from Kangaroo Island, and eastern	Echinochalina tubulosa
and south-eastern Australia; records from 15m – 32m,	
on sand, rock or rubble substrates).	
(a reef sponge with two distinct skeletal components	Echinoclathria inornata
and a "honeycomb" surface, known from Nuyts	
Archipelago and Gulf St Vincent in S.A., and also	
found in southern W.A.)	
(a reef sponge with two distinct skeletal components	Echinoclathria leporina
and a "honeycomb" surface, known from waters 5m -	
40m deep; records from St Francis Isles in S.A., and	
various locations in eastern and south-eastern	
Australia waters)	
(a sponge, known only from American River on	Echinoclathria notialis
Kangaroo Island; possibly endemic)	
(a sponge, known to date only from Outer Harbour in	Echinoclathria parkeri
Gulf St Vincent, and possibly endemic; recorded	

between 23-25m depth, on gravel or rock reef).	
(a deeper water sponge found on rock reef, sand, and	Echinoclathria subhispida
seagrass substrates; known from Kangaroo Island,	
N.S.W. and Bass Strait)	
(a sponge from a genus of vase-, cup-, fan-shaped	Echinodictyum austrinum
and branching growth forms; the species is known	,
from W.A., and parts of S.A., such as Yorke	
Peninsula).	
(a sponge known from waters in all Australian States).	Echinodictyum mesenterinum
(a sponge from the Geodiidae, a family of thickly	Erylus lendenfeldi
encrusting, massive to bowl-shaped growth forms. <i>E.</i>	Liylus lenderileidi
lendenfeldi is known from S.A., W.A. and Asia; records	
in waters deeper than 36m).	
(a genus of freshwater sponges).	Eupopius opp
1 0 7	Eunapius spp.
(a sponge, possibly endemic, known from Gulf St	Fasciospongia cacos
Vincent in S.A.; in a genus of globular, tubular, cup- or	
fan-shaped sponges with marked exhalant canals;	
shiny skin-like surfaces produced by collagenous	
deposition; and multiple cone-like surface projections)	
(a widely distributed sponge from northern and	Fasciospongia turgida
southern Australia, recorded between 10m – 50m, with	
characteristics as described above, for <i>F. cacos</i> ).	
(a species endemic to S.A., in a genus of encrusting or	Forcepia crassanchorata
massive sponges).	
(a large genus of massive, amorphous sponges, some	Halichondria spp.
of which occur in southern Australia).	
(a genus of sponges, widely distributed globally, with	Haliclona spp.
many species; some known from Victoria may also	
occur in S.A.).	
(a reef sponge with honeycomb surface and hand-	Holopsamma laminaefavosa
shaped, rounded or lobed form, commonly recorded in	
southern Australian States).	
(a widely distributed genus of sponges, characterised	Hyrtios spp.
by compressible, firm or brittle texture; cone-like	11y11100 3pp.
surface projections; and sand and other debris within	
the fibres).	
,	Hyattella meander
(a sponge recorded in S.A., and also in Asia).	
(a sponge known from the S.A. Gulfs region; possibly	Geodia (Geodia) carteri
endemic).	On a dia (Oidana na ) flancia ni
(a sponge known from the S.A. Gulfs region, with Port	Geodia (Sidonops) flemingi
Elliot being the type locality; possibly endemic to S.A.).	0 "
(a white or pale orange, cave-dwelling sponge found in	Geodia sp. B
southern W.A. and less commonly, in western S.A.)	-
(a calcareous sponge).	Grantessa erinaceus
(a sponge that occurs on the ascidian Pyura spinifera).	Halisarca ascidianum
(a widely distributed genus of erect, lamellate,	Higginsia spp.
massive, vase-shaped or lobate sponges; with	
conulose or papillose surfaces, often silt covered;	
some species occur in south-eastern Australia).	
(a sponge from the S.A. Gulfs coast, Kangaroo Island,	Hippospongia seposita
and Tasmania).	,,,,
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(a reef sponge found form the shallow subtidal to 50m deep; widely distributed in temperate waters, including S.A.).	Holopsamma arborea
(a sponge from S.A., south-eastern Australia and N.S.W., recorded on rock reef, sand and in kelp beds, from 2m – 38m.	Holopsamma crassa
(a reef sponge known from Gulf St Vincent and central N.S.W., recorded between 15m -25 m).	Holopsamma macropora
(a sponge known from Nuyts Archipelago and the upper South-East in S.A., and lower N.S.W.; recorded on rock reef and sand substrates, between 8m–60m depth).	Holopsamma ramosa
(a sponge, possibly endemic, for which Gulf St Vincent is the type locality; in a genus of sponges with conulose surfaces, and no spongin).	Hoplochalina renieroides
(a genus of fibrous, fan-shaped sponges; broadly distributed throughout Australia, Asia and Africa).	lanthella spp.
(a broadly-distributed genus of sponges, mostly massive, branching or encrusting; some brightly coloured).	lophon spp.
(a genus of tough-textured sponges with large fibres, and surfaces marked by prominent cone-like projections).	Ircinia spp.
(a sponge from the shallow subtidal).	Jaspis stellifera
(sponges from a genus of cup-shaped, lobed or flabellate, firmly-textured sponges, with a thin coating of sand armour).	Leiosella caliculata Leiosella sp.
(a calcareous sponge).	Leucandra pandora
(a genus of calcareous, tube-like sponges with a circular tuft of spicules around the opening of each tube; often forming groups, attached to marine plants. There are 8 species in the genus, variously known from sites in southern and western Australia).	Leucosolenia spp.
(a genus of encrusting to massive sponges, with uneven surface and a soft consistency; some toxic; some occur in southern Australia).	Lissodendoryx spp.
(a large genus of sponges with skeletons of spongin fibre and spicules; some species produce large amounts of mucous).	Mycale spp.
(a shallow-water sponge, distributed around Australia and Asia).	Naviculina mirabilis
(species of toxic sponge, including one known to date only from the S.A. Gulfs; possibly endemic).	Neofibularia mordens Neofibularia sp.
(a calcareous sponge).	Paraleucilla cucumis
(a pink, tube-like sponge)	Pericharax sp.
(a genus of sponges, including a small, brown, domeshaped species eaten by <i>Zoila</i> cowries)	Penares spp.
(a sponge species from deeper coastal waters; 28+m).	Phorbas novaezealandiae
(a sponge with sand incorporated into the skeleton, from southern and south-eastern Australia; recorded between 1m – 99m)	Phoriospongia kirki

(a sponge with sand incorporated into the skeleton,	Phoriospongia squalida
from southern and south-eastern Australia; recorded	
between 20m - 40m)	
(a genus of stalked, branching or	Phycopsis spp.
massive, cup-shaped sponges, with a "shaggy"	
surface).	
(a sponge known only from central S.A. waters;	Phycopsis hirsuta
possibly endemic).	
(a sponge with an axial core of sand grains).	Pleraplysilla spinifera
(a genus of sponge whose species are widely	Polymastia spp.
distributed both globally and throughout Australia;	
members of the genus are characterised by complex	
skeletons with up to five components, and have a	
large solid base, and conical, cylindrical, or	
mammillate papillae on the sponge surface).	
(a genus of sponges, usually filled with sand grains	Psammopemma spp.
and foreign spicules i.e. from other sponges).	
(a genus of sponges characterised by regular, reticular	Psammocinia spp.
fibrous skeletons, and surfaces armoured with an	
organised crust of foreign material, incorporating sand,	
small rock fragments, and foreign spicules from other	
sponges).	
(a freshwater sponge, known from the south-eastern	Radiospongilla sceptroides
Australian coastal area and the Murray-Darling	, , ,
drainage system).	
(a freshwater sponge, from eastern and south-eastern	Radiospongilla synoica
Australia)	, , ,
(a broadly distributed genus of branching, lobate or	Raspailia spp.
massive sponges)	,
(a sponge from southern Australia).	Rhabdastrella reticulata
(a prickly-textured species from a genus of massive	Rhaphoxya sp.
sponges, eaten by Zoila cowries)	, , ,
(a genus of sponges characterised by tough texture	Sarcotragus spp.
and cone-like surface projections).	(e.g. Sarcotragus muscarum)
(See Callyspongia spp.)	Siphonochalina spp.
(a large genus of common sponges, from a family	Spirastrella spp.
whose members are often very large, encrusting to	(e.g. Spirastrella cf. papillosa;
massive, with rounded surface protuberances).	S. purpurea)
(a sponge species found in S.A., eastern Australia,	Spongia hispida
N.Z. and Japan, from a genus of compressible,	
"springy" sponges with cone-like surface projections,	
and variable morphology (massive, spherical,	
lamellate or cup-shaped).	
(a genus of sponges, some very tall, and brightly	Spongosorites spp.
coloured; some species are used as by <i>Zoila</i> cowries	
as food sources)	
(a genus of sponges, widely distributed around	Stelletta spp.
Australia).	
(a sponge from southern and western Australia).	Sigmosceptrella fibrosa
(a sponge of uncertain taxonomic affinity, whose type	(Stelospongia scalatella)
locality is the Encounter Bay / Murray Mouth region).	(212100porigia oddiatoria)
iodanty io the Endodnitor Day / Marray Modern region).	

	T
(a small genus of branching sponges, from southeastern Australia).	Stylinos spp.
/	Ctudatriahanhara ruhra
(a smooth sponge with compressed lobate growth	Stylotrichophora rubra
form; found in the shallow subtidal in south-eastern	
Australian waters).	Circotto minoitiro
(a calcareous sponge).	Sycetta primitiva
(a genus of rounded, tube-shaped sponges with a	Sycon spp.
cross-hatched surface; a hole at the top of each tube;	(see below for examples of
and calcium carbonate spicules in the skeleton).	species in S.A.)
(a calcareous sponge).	Sycon carteri
(a brown or cream-coloured calcareous sponge,	Sycon gelatinosum
growing in small clumps on rock surfaces).	
(a calcareous sponge, found to date only in Gulf St	Sycon giganteum
Vincent; possibly endemic)	
(a calcareous sponge, occurring to 30m deep).	Sycon procumbens
(a calcareous sponge, found to date only in Gulf St	Sycortis laevigata
Vincent; possibly endemic)	<del>  _ ,</del>
(a genus of sponges, containing both tropical and	Tedania spp.
temperate species, including an unnamed species	
eaten by Zoila cowries in S.A.).	
(a genus of thin fan-shaped, lamellate or foliaceous	Teichaxinella spp.
sponges)	
(a genus of spherical sponges, often with many small	Tethya spp.
irregular projections used for anchoring to reef	(e.g. <i>T. australis; T.</i>
surfaces. Commonly called "golf ball sponges" or	bergquistae)
"pumpkin" sponges).	
(a genus of stipitate, cup- or lamellate-shaped,	Taonura spp.
compressible sponges of soft texture, with fine small	(see below for examples of
conules covering the surface, and an undulating	species in S.A.)
"pitted" appearance over whole or part of surface).	
(a sponge known from S.A. and W.A., with	Taonura colus
characteristics as outlined above for the genus).	
(a sponge with characteristics as outlined above for	Taonura crassior
the genus; known to date only from Kangaroo Island;	
possibly endemic to S.A.).	
(a sponge known from S.A. and N.S.W., with	Taonura haackei
characteristics as outlined above for the genus).	<u> </u>
(a sponge known from W.A., S.A. and N.S.W., with	Taonura marginalis
characteristics as outlined above for the genus).	ļ
(a sponge known from both northern and southern	Taonura pala
Australia, with characteristics as outlined above for the	
genus).	+
(a sponge known from S.A. and N.S.W., with	Taonura tuba
characteristics as outlined above for the genus).	+ , ,
(an orange, red or brown, erect sponge found in South	Tedania sp.
Australia, from a widely distributed genus).	
(a genus of sponges, widely distributed globally).	Tetilla spp.
(a genus of mainly large sponges, stalked, globular, or	Thorecta spp.
fan-shaped, with a rectangular-mesh, spongin	(e.g. <i>T. prima; T. vasiformis</i> )
skeleton, and usually large spaces between the fibres.	
Sand and other debris is often embedded in parts of	

fleshy skeleton, such as the outer cell layer and the core of the primary fibres. Some species have cylindrical, flanged exhalent openings).	
(a shallow water sponge known from S.A., W.A., Victoria and northern Australia, with general characteristics as outlined above for the genus).	Thorecta latus
(a widely distributed genus of stalked, globular, fan- shaped or tubular sponges, with heavily-armoured, ridged surface; rectangular skeleton with thick fibres and much soft tissue; easily crumbled and collapsible body, and excessive mucus production typical. Species in the genus are known from around Australia, New Zealand, western Pacific, and Japan).	Thorectandra spp.
(a brightly-coloured, finger-shaped sponge species of broad depth distribution, from 14m to 180m, found in southern and western Australia).	Trachycladus laevispirulifer
(a small genus of sponges from lower south-eastern Australia).	Trachygellius spp.

#### **Molluscs**

Beechey (undated); Reeve (1843); Smith (1884); Kobelt (1897); Basedow (1905); Verco (1908); Hedley (1922); Cotton and Godfrey (1931, 1932, 1938); Allan (1936); Cotton (1947, 1956, 1959, 1961); Iredale and McMichael (1962); Macpherson and Gabriel (1962); Powell (1966); Cate (1973); Ponder (1974); Ponder and Yoo (1976, 1977a, 1977b); Ludbrook (1978); Cate (1979); Coleman (1981); Eisenberg (1981); Warén (1981); Marshall (1983); Ponder (1983, 1985a, 1985b, 1985c); Ponder and Yoo (1980); Rheder (1980); Oliver (1982); Phillips et al. (1984); Trew (1984, 1987); Wells and Bryce (1986); Bratcher and Cernohorsky (1987); Gowlett-Holmes and Holmes (1989); Rombouts (1991); Waren and Crossland (1991); Hewish and Gowlett-Holmes (1991); Dance (1992); Lamprell and Whitehead (1992); Poppe and Goto (1992); Sleurs (1992); Ponder and Keyzer (1992); Wilson et al. (1993, 1994); Gowlett-Holmes and Zeidler (1993); Houbrick (1993); Vokes (1993, 1995); Willan (1993); Henning and Hemmen (1993); Wells (1994); Dekker and Goud (1994, 1995); Bieler (1993, 1996, 1997); Macdonald (1996); Bail and Limpus (1997); Hart and Limpus (1998); Lamprell and Healy (1998); Beesley et al. (1998); Ponder and Grayson (1998); Jansen (1995; 1999); Kreipl and Alf (1999); Poppe and Brulet (1999); Weil et al. (1999); Geiger and Poppe (2000); Vongpanich (2000); Middelfart (2000, 2002); Edgar (2000); Lorenz and Hubert (2000); Lorenz (2001); Tursch and Greifeneder (2001); Rudman (2000-2004); Darragh (2002); Wilson (2002); Ponder et al. (2002); Academy of Natural Sciences (2003); Keats (2003); Australian Government Department of the Environment and Heritage (2004a); Watters (2004); Wilson and Clarkson (2004).

The section below on **Conservation Status** includes the rankings of Ponder and Grayson (1998). These authors assigned categories of vulnerability to molluscs used in the shell trade. The criteria that were used, were based on distribution, development, accessibility, and market value. The consequent rankings ranged from A (most vulnerable) through to E (least vulnerable) (see Ponder and Grayson, 1998). O'Hara and Barmby (2000) undertook a similar assessment for Victorian molluscs, using Ponder and Grayson's (1998) criteria. The conservation status of specimen shells according to Ponder and Grayson is listed below for

specimen shells in S.A., as well as those in adjoining and nearby states (Victoria, Tasmania and W.A.), in which some of these species also occur. For a number of species listed below, qualitative statements by shell authorities are also included, regarding rarity / uncommonness. Endemic status of species within S.A. is also included (according to the most recently published knowledge on taxonomy and distribution).

Common Name	Latin Name	Conservation Status
(a white semelid bivalve from intertidal and shallow subtidal sand habitats in	Abra (Syndosmya) exigua	
Victoria, Tasmania and S.A.)		
(a white tellin shell from intertidal sand habitats in N.S.W., Tasmania, Victoria and S.A.)	Abranda modestina	
(a small triphorid gastropod that feed on sponges; found in S.A. and W.A.)	Aclophora hedleyi	
(a small triphorid gastropod that feed on sponges; found in intertidal habitats, in Tasmania, S.A. and W.A.)	Aclophoropsis festiva	
(a cockle from shallow sand habitats in south-eastern and southern Australia)	Acrosterigma cygnorum	
(a white nudibranch with purple papillae; widespread distribution throughout the Indo-West Pacific)	Aegires villosus	
(a small shell in the Columbellidae family; found in N.S.W., Victoria and S.A.)	Aesopus australis	
(a small Whelk shell from the intertidal and subtidal; found in New Zealand, Queensland, N.S.W., Tasmania, Victoria and S.A.).	Agnewia tritoniformis	
(a small shell in the Litiopidae family or the Dialidae family, found across southern Australia, including Tasmania)	Alaba monile (= Diala monile)	
(a small shell in the Litiopidae family, found in Victoria, Tasmania and S.A.).	Alaba pulchra	
(a small transparent shell in the Litiopidae family; ranging from N.S.W. through to W.A., including Tasmania).	Alaba translucida	
(a small marginella shell, from S.A. and southern W.A.,	Alaginella borda	

recorded from 30m to more		
than 200m deep)	Alapinalla maninata	
(a small marginella shell from	Alaginella geminata	
the continental shelf and		
slope; ranging from N.S.W.		
through to S.A., including		
Tasmania)	Alasiaalla maliaa	
(a small marginella shell from	Alaginella malina	
the continental shelf; found in		
N.S.W., Victoria and S.A.)	Alaginalla varasi	
(a small, deep-water	Alaginella vercoi	
marginella shell, found in southern Australia and		
Tasmania)	Aloumo opio	
(a small top shell found	Alcyna acia	
amongst macroalgae and		
seagrass debris in tide pools; occurs in S.A. and W.A.)		
(a small ancillid shell found	Alocospira hosobnortonsia	Possibly endemic to S.A.
1 '	Alocospira beachportensis	Fussibly efficientic to S.A.
to date only in S.A.) (a small ancillid shell found in	Alocospira edithae	
southern Australia, excluding	Alocospira editriae	
Tasmania)		
(a small ancillid shell found	Alocospira petterdi	
across southern Australia,	(= Alocospira fusiformis)	
and in Tasmania; occurs on	(= Ancillaria fusiformis)	
sandy substrates, over the	(= Anciliana rusilionnis)	
width of the continental		
shelf).		
(two small ancillid shells	Alocospira marginata	
found across southern	Alocospira oblonga	
Australia, including	, moooopiia obioriga	
Tasmania).		
(a small cerithiopsid shell	Altispecula geniculose	Possibly endemic to S.A.
that feeds on sponges; found	Thurspeedia gernearese	l' deciety different de Cir ti
to date only in deeper waters		
of the continental shelf, off		
Cape Wiles in S.A.)		
(a small rissoid gastropod	Alvania (Alvania)	
that feeds on micro-algal	novarensis	
film; recorded in Tasmania,		
S.A. and W.A.)		
(two small rissoid gastropods	Alvania (Alvania) fasciata	
that feeds on micro-algal	Alvania (Linemera)	
film; both recorded in	suprasculpta	
N.S.W., Victoria, Tasmania,		
and S.A.)		
(two small rissoid gastropods	Alvania (Alvania) occidua	
that feeds on micro-algal	Alvania (Linemera)	
film; both recorded in S.A.	verconiana	
and W.A.)		
(a small rissoid gastropod	Alvania (Alvania) strangei	

that feeds on micro-algal film; ranging from N.S.W. through to W.A., including Tasmania)		
(a deep-water ancillid shell found on the continental shelf and slope in S.A. and W.A.).	Amalda coccinata	
(a keyhole limpet found under stones in the intertidal and shallow subtidal; ranges from Queensland through to W.A., including Tasmania)	Amblychilepas javanicensis	
Black Keyhole Limpet (a common limpet found under stones in the intertidal and shallow subtidal; ranges from southern Queensland through to southern W.A., including Tasmania)	Amblychilepas nigrita	
(a keyhole limpet found in S.A. and W.A.)	Amblychilepas oblonga	
(a keyhole limpet found in Victoria and S.A.)	Amblychilepas omicron	
(a gregarious mussel, from shallow subtidal habitats in southern and eastern Australia)	Amygdalum beddomei	
Desirable Volute Much-Desired Volute (a volute shell from the continental shelf in S.A. and W.A.)	Amoria exoptanda	Ponder and Grayson (1998) Vulnerability Category: C in S.A. B or C in W.A.
Wavy Volute (a volute shell with a broad depth range, from the intertidal to the outer continental shelf / upper slope; ranging from Queensland through to W.A.)	Amoria undulata	Ponder and Grayson (1998) Vulnerability Category: D in S.A., W.A. and Tasmania  Amoria undulata also assigned vulnerability category D in Victoria (O'Hara and Barmby, 2000), using Ponder and Grayson's (1998) criteria.  Some forms are now considered by some shell distributors and collectors to be hard to obtain, and no longer readily available. Some colour forms are

		considered rare.
(a gastropod shell in the Anabathridae family; found to date only in S.A.)	Amphithalamus (Amphithalamus) obesus	Possibly endemic to S.A.
(a tropical scallop found on mud or sand in the intertidal and shallow subtidal; occurs in parts of the tropical Indo-West Pacific such as Indonesia and New Caledonia; also recorded in Queensland, N.S.W., S.A. and W.A.)	Amusium balloti	
(a small, nest-forming mussel, ranging from N.S.W. through to W.A., including Tasmania)	Amygdalum beddomei	
(a gastropod shell in the Anabathridae family; ranging from N.S.W. through to W.A., including Tasmania)	Anabathron (Anabathron) contabulatum	
(a small dove shell, found all around Australia, including Tasmania and N.T.)	Anachis atkinsoni	
(a small dove shell found on the continental shelf in N.S.W., Victoria, Tasmania and S.A.)	Anachis beachportensis	
(a small dove shell from the intertidal; found in Victoria, S.A. and W.A.)	Anachis cominellaeformis	
(two small dove shells, both known only from S.A.) (a small dove shell found in	Anachis dolicha Anachis fenestrata Anachis fulgida	Both species possibly endemic to S.A.
south-eastern Australia and Tasmania, with S.A. being the western limit)	-	
(a small dove shell found in the intertidal, in Victoria and S.A.)	Anachis remoensis	
(a wedge shell from intertidal sand or mud; found in N.S.W., Victoria, Tasmania and S.A.)	Anapella cycladea	
(a small wedge shell from intertidal sand habitats in Tasmania and S.A.)	Anapella amygdala	
(a small Scissurellid slit shell found in Tasmania and S.A.)	Anatoma guntheri	
(a small Trophine shell, found on the edge of the continental shelf / upper	Anatrophon latior	

slope; endemic to eastern		
S.A. and Bass Strait) (a dolphin shell in the	Angaria australis	Possibly endemic,
Turbinidae, known only from		however there are no
the gulfs region in S.A.,		recent records)
where it was recorded in the mid 1800s; still considered to		
be a valid species, according		
to the Academy of Natural		
Sciences, 2003)		
(a bivalve from mud and	Anisodonta subalata	
sand habitats in the shallow		
subtidal; found in N.S.W., Tasmania, Victoria and S.A.)		
(a lucinid shell from shallow	Anodontia (Cavatidens)	
sand habitats across eastern	perplexa	
and southern Australia, from	, ,	
Queensland to W.A.,		
excluding Tasmania)		
(a venus shell found in estuarine and shallow	Antigona (Antigona) chemnitzii	
subtidal sand and mud	Crierrinitzii	
habitats; occurs around		
Australia, excluding		
Tasmania; also found at		
various locations in the		
eastern Indian Ocean)	Antiqueologo kingonoio	
(a turrid shell from the continental shelf and slope;	Antiguraleus kingensis	
found in Victoria, Tasmania		
and S.A.)		
(a horse hoof limpet; found in	Antisabia erma	
S.A. and W.A.)	A .: 1: 6 !:	
(a horse hoof limpet that is common in the intertidal and	Antisabia foliacea	
shallow subtidal, attached to		
the underside of stones;		
found in N.S.W., Victoria,		
Tasmania, S.A. and W.A.;		
also East Africa and		
Polynesia)	Anicolio broziori	
(a small eulimid shell, parasitic on echinoderms;	Apicalia brazieri	
found across southern		
Australia, including		
Tasmania)		
(a golden-brown sea hare	Aplysia juliana	
mollusc that eats green		
macroalgae) Little Sea Hare	Aplysia parvula	
(a mollusc in the Aplysiidae	Apiysia pai vula	
family; widely distributed in		

tropical and warm temperate		
waters around the world)		
Sydney "Sea Cow"	Aplysia sydneyensis	
(a large sea hare mollusc)	Androdonia lavvasa	Danible and denie to C A
(a nudibranch with a brown	Aphelodoris lawsae	Possibly endemic to S.A.
reticulated pattern; recorded		
to date only in S.A.)	[Anhaladaria an Ol	
(a nudibranch with a brown	[Aphelodoris sp. 2]	
and white reticulated pattern; recorded in south-eastern		
Australia)		
(a small top shell, found	Archiminolia oleacea	Considered rare (Beechey,
between 150m and 1060m	Archiminolla dieacea	undated)
deep; recorded from very few		undated)
locations, in Queensland and		
N.S.W., and off Cape Wiles		
in S.A.)		
(a gastropod in the	Architectonica	
Architectonicidae family,	(perspectiva-group)	
found in mud and sand	perspectiva	
habitats; widespread	,	
throughout the tropical Indo-		
West Pacific; also recorded		
in N.T., Queensland, N.S.W.,		
S.A. and W.A.)		
(a small turbinid shell found	Argalista corallina	
in S.A. and W.A.)		
(a small turbinid shell found	Argalista fugitiva	Possibly endemic to S.A.
in S.A.)	A L'ata	Describe and the C.A.
(a small turbinid shell found	Argalista roseopunctata	Possibly endemic to S.A.
in S.A.)	A receive a circums procedule a curs	
Flag Triton	Argobuccinum pustulosum tumidum	
Argus Triton (a triton shell found on reefs	turniaum	
in the intertidal and subtidal:		
occurs in N.S.W, Victoria,		
Tasmania and S.A.)		
Knobbed Argonaut	Argonauta nodosa	
Southern Argonaut		
(a small gastropod in the	Ascorhis victoriae	
Hydrobiidae family; found in		
mud in coastal rivers and		
estuarine areas; ranging		
from N.S.W. through to S.A.,		
including Tasmania)		
(two turrid shells known from	Asperdaphne	
Victoria and S.A.)	(Asperdaphne) bastowi	
	Asperdaphne	
	(Asperdaphne) bitorquata	
(a turrid shell with various	Asperdaphne	
named forms in Victoria,	(Asperdaphne) desalesii	
Tasmania and S.A.)		

(a turrid shell found in	Asperdaphne	
Victoria, Tasmania and S.A.)	(Asperdaphne) tasmanica	
(three turrid shells, all known	Asperdaphne	All three species possibly
to date only from S.A.)	(Asperdaphne) perplexa	endemic to S.A.
lo date only from e.r)	Asperdaphne	Chachine to C.7 t.
	(Asperdaphne) vercoi	
	Asperdaphne	
	(Asperdaphne) walcotae	
(a turrid shell, known to date	Asperdaphne	
from N.S.W. and S.A.)	(Asperdaphne) vestalis	
(a turrid shell, known from	Asperdaphne (Aspertilla)	
Tasmania, Victoria and S.A.)	legrandi	
(a small brown marine	Assiminea (Metassiminea)	
gastropod in the	brazieri	
Assimineidae, a family of	Brazion	
mainly terrestrial species;		
ranging from N.S.W. through		
to W.A.)		
(a top shell found on rocky	Astele (Astele) armillatum	
reef and in rubble; ranging in	istoro (r. istoro) arrimatarri	
distribution from N.S.W.		
through to W.A., including		
Tasmania)		
(a top shell found on sand	Astele (Astele) ciliare	Reported to be uncommon
amongst seagrasses, in S.A.	riotere (riotere) emare	(Wilson et al., 1993)
and W.A.)		(**************************************
(a top shell found in Victoria,	Astele (Astele)	
Tasmania, S.A. and W.A.)	rubiginosum	
(a top shell with a broad	Astele (Astele)	
depth range on the	subcarinatum	
continental shelf and slope;		
ranging from N.S.W. through		
to W.A., including Tasmania)		
(a top shell found in S.A. and	Astele (Astelena)	
W.A.; live specimens have	multigranum	
been recorded in brown,		
flask-shaped sponge)		
(a top shell found in N.S.W.,	Astele (Astelena) scitulum	
Victoria, Tasmania and S.A.;		
species has been recorded		
in brown, cup-shaped		
sponge)		
(a top shell known only from	Astele (Callistele) calliston	Reported to be rare in
S.A.; holotype was dredged		collections (Wilson et al.,
by Verco in Spencer Gulf; full		1993).
extent of distribution not		Possibly endemic to S.A
known)		
(a top shell with a sinistral	Astele (Sinutor) incertum	
shell, found in Victoria,		
Tasmania, S.A. and W.A.)		
(a small Acmaeid limpet,	Asteracmea alboradiata	
possibly endemic to S.A.)		

(4 species of small,	Asteracmea crebristriata	
translucent limpet, mostly	Asteracmea illibrata	
with radial pink bands, in the	Asteracmea roseoradiata	
Acmaeidae family; all 4	Asteracmea stowae	
species found in S.A. and		
W.A.)		
(a turbinid star shell that is	Astralium aureum	
common in the intertidal and		
shallow subtidal; found in		
Victoria, Tasmania, S.A. and		
W.A.)		
(a turbinid star shell known	Astralium rutidoloma	Possibly endemic to S.A.
only from S.A.; possibly a	/ tetrament randerenna	(if recognised as a
variant of Astralium aureum,		species)
rather than a separate		( Sp 3 3 3 3 )
species)		
Scaly Star Shell	Astralium squamiferum	
(a turbinid star shell that is	7 Stranam Squamilerum	
very common in shallow		
water habitats, especially in		
seagrass beds; ranging from		
N.S.W. through to W.A.,		
including Tasmania)	Atoxogo rithiy na hogoloyi	
(a small cerithiopsid shell	Ataxocerithium beasleyi	
that feeds on sponges; found		
on the continental shelf and		
slope in S.A. and W.A.)	A ( a v a a a vitte i v v a te a a a la vi	
(a small cerithiopsid shell	Ataxocerithium beasleyi	
that lives on sponges in the		
shallow subtidal; ranging		
from N.S.W. through to W.A.,		
including Tasmania)		
(a family of small, planktonic	Atlantidae	
molluscs with fragile shells;		
includes the genus Atlanta,		
recorded mainly on the east		
coast, however there may		
also be representatives in		
southern Australia)		
(a dark nudibranch with	[Atagema intecta]	
many tubercles on the		
surface; widespread in the		
Indo-West Pacific, and		
recorded in W.A.; possibly		
extending into S.A.)		
(a small rissoid gastropod	Attenuata lockyeri	Possibly endemic to S.A.
that feeds on micro-algal		
film; known only from S.A.)		
(a small rissoid gastropod	Attenuata schoutanica	
that feeds on micro-algal		
film; recorded in Tasmania,		
that feeds on micro-algal	Allenuala scrioulanica	

(a pale yellow to bright orange shell-less mollusc from the intertidal and shallow subtidal)	Austraeolis ornata	
(a white bivalve, found on the continental shelf in sand and shell habitats; ranging across southern Australia)	Austrocardiella isosceles	
(a ochre-coloured bivalve, found on the continental shelf; ranging from Queensland through to S.A., including Tasmania)	Austrocardiella (previously Condylocuna) trifoliata	
(a common top shell found on rocky shores in Victoria, Tasmania and S.A.)	Austrocochlea adelaidae	
Wavy Top Shell	Austrocochlea	
(a top shell from exposed rocky shores; ranging from N.S.W. through to W.A., including Tasmania)	concamerata	
Ribbed Top Shell (a common top shell of variable colour and pattern; abundant on rocky shores, and also on muddy flats in bays and estuaries; ranging from N.S.W. though to W.A., including Tasmania)	Austrocochlea constricta	
Checkered Top Shell (a top shell found on rocky shores, in the intertidal and shallow subtidal; occurs in Tasmania, Victoria and S.A.)	Austrocochlea odontis	
Zebra Top Shell (an abundant top shell found on exposed rocky shores, around the mid-tide zone; also on sand, seagrass, and mangroves in sheltered estuaries; ranging from Queensland through to W.A., including Tasmania)	Austrocochlea porcata	
Smooth Top Shell (a top shell that is abundant on exposed rocky shores; found in S.A. and W.A.)	Austrocochlea rudis	
Reeve's Cowrie (a cowrie that occurs on the continental shelf, with deeper water forms being more globular; occasionally seen	Austrocypraea reevei (= Cypraea reevei)	Ponder and Grayson (1998) Vulnerability Category: B (in S.A. and W.A., and therefore nationally).

in the intertidal; found in		
western S.A. and W.A.)		A. reevei has a restricted range in SA
		Considered by some shell distributors to be "now rare".
(three turrid shell species, known to date only from S.A.)	Austrodrillia agrestis Austrodrillia dimidiata Austrodrillia sublicata	All three species possibly endemic to S.A.
(a turrid shell, found in N.S.W., Victoria, Tasmania and S.A.)	Austrodrillia saxea	
(a small marginella shell found in south-eastern and southern Australia, Tasmania and New Zealand)	Austroginella muscaria	
(two small marginella shells found in N.S.W., Victoria, Tasmania and S.A.)	Austroginella johnstoni Austroginella tasmanica	
(a recently described harp shell found on the continental shelf in S.A. and W.A.; the type sepcimen is from 140m, in the gReat Australian Bight)	Austroharpa learorum	Possibly rare; very few specimens have been recorded to date (see Hart and Limpus, 1998; Poppe and Brulet, 1999).
Exquisite Harp (a small, uncommon harp shell from eastern and southern Australia, and Tasmania)	Austroharpa (Palamharpa) exquisita	Ponder and Grayson (1998) Vulnerability Category: C (Tasmania and Victoria).
		Considered rare to very rare by shell collectors and distributors, but not formally listed under any schedules.
Punctate Harp Shell (a small harp shell found in S.A. and southern W.A.)	Austroharpa (Palamharpa) punctata	Ponder and Grayson (1998) Vulnerability Category: B (in S.A. and W.A., and nationally).
		A. (P.) punctata has a restricted range in S.A.
		O'Hara and Barmy (2000) Vulnerability Category C in Victoria, using Ponder and Grayson's criteria.
		A. (P.). punctata is considered by shell collectors and distributors

		to be rare, but is not formally listed on any schedules.
(a small turbinid shell found under stones in the shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania)	Austroliotia australis	
(a small turbinid shell found under rocks in the intertidal and shallow subtidal; recorded in south-eastern Australia and Tasmania, with S.A. being the western limit of the distribution)	Austroliotia botanica	
(a small turbinid shell found in Victoria, S.A. and W.A.)	Austroliotia densilineata	
(a small turbinid shell ranging in disrtibution from N.S.W. through to W.A., including Tasmania)	Austroliotia pulcherrima	
(a small, variable costellate mitre shell found amongst rocks and macroalgae; ranging from southern Queensland through to southern W.A., including Tasmania)	Austromitra analogica	
(a small costellate mitre shell found in rocky, sandy and muddy habitats in the intertidal and shallow subtidal; recorded in S.A. and W.A.)	Austromitra arnoldi	
(a costellate mitre shell known only from the type locality on the continental shelf of the Great Australian Bight in S.A.)	Austromitra minutenodosa	Possibly endemic to S.A.
(a small costellate mitre shell, found in N.S.W., Victoria, Tasmania and S.A.)	Austromitra tasmanica	
(a gastropod in the Aclididae family; found in N.S.W., Victoria, Tasmania and S.A.)	Awanuia minutulum	
(a gastropod in the Anabathridae family; found in N.S.W., Victoria, Tasmania and S.A.)	Badepigrus badia	
Kelp Shell Banded Bankivia	Bankivia fasciata	Ponder and Grayson (1998) assigned a low

Banded Sand Shell (a small, elongate top shell that is highly variable in colour and pattern; lives in the shallow subtidal, and is abundant in beach drift in south-eastern Australia; found in N.S.W., Victoria, Tasmania and S.A.) (a bivalve that attaches to	Barbatia (Barbatia)	category of vulnerability (Category E in all states, including S.A.)
rock or debris; found in all Australian states except N.T.)	pistachia	
(a bivalve that attaches to stones or rock, to 20m deep; found across southern Australia, including Tasmania)	Barbatia (Acar) riculata	
(a white bivalve that burrows in clay, in the shallow subtidal; found in southern W.A., S.A., Victoria, Tasmania and N.S.W.)	Barnea (Anchomasa) obturamentum	
Wedding Cake Venus Shell Frilled Venus Shell Wedding Cake Cockle (a venus shell from sandy mud habitats in N.S.W., Victoria, Tasmania and S.A.)	Bassina (Callanaitis) disjecta (=Venus lamellata)	Ponder and Grayson (1998) assigned a low category of vulnerability (Category E in S.A., Tasmania and Victoria).  Previously, Eisenberg (1981) ranked the species as being uncommon.
Faintly Frilled Venus Shell (a venus shell from shallow sand habitats across southern Australia)	Bassina (Bassina) pachyphylla	
(a small bivalve from the continental shelf in southern W.A. and S.A.)	Bathyarca adelaideana	
(a small white bivalve, recorded to 180+m deep; found to date only in S.A.)	Bathycorbis percostata	Possibly endemic to S.A
(a southern mud creeper shell, found in muddy estuarine habitats in Victoria, Tasmania S.A. and W.A.)	Batillariella estuarina	
(a small, common olivella shell from the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania)	Belloliva triticea	

Gold-mouthed Conniwink (a littorinid shell found in a variety of nearshore habitats, including sheltered rocky shore, sand and mud habitats, and mangroves; found around Australia, including Tasmania and excluding N.T.)	Bembicium auratum	
Striped-mouthed Conniwink (a littorinid shell found on semi-exposed rocky shores in Queensland, N.S.W., Tasmania, Victoria and S.A.)	Bembicium nanum	
(a littorinid shell found in a variety of nearshore habitats, including saltmarshes, sand and mud habitats, mangroves, and rocky shores; found in S.A. and W.A.)	Bembicium vittatum	
(a small Trophine shell from deep waters, to around 450m, with the outer continental shelf being the upper depth limit; known from Tasmania, Victoria and S.A.)	Benthoxystus recurvatus	
(two forms of a top shell that ranges in distribution from N.S.W. to W.A., including Tasmania)	Botelloides bassianus Botelloides bassianus bassianus	
(two species of top shell; both found in W.A. and S.A.)	Botelloides bassianus borda Botelloides chrysalidus chrysalidus	
(a top shell found in Tasmania, S.A. and W.A.)	Botelloides sulcatus sulcatus	
(a small triphorid shell that feeds on sponges; found in the intertidal and shallow subtidal; occurs commonly across eastern and southern Australia; also found in New Zealand and various countries in the tropical Indo-West Pacific)	Bouchetriphora pallida	
Hairy Mussel Rough-beaked Mussel (a mussel from W.A., S.A., Victoria and Tasmania)	Brachidontes (Brachidontes) erosa	
Beaked Mussel	Brachidontes	

(a mussel from N.S.W.,	(Brachidontes) rostratus	
Victoria, Tasmania and S.A.)		
(a mussel from S.A. and W.A.)	Brachidontes ustulatus	
(a tube-shaped bivalve that lives in sand or mud, or embedded in kelp roots; found in W.A. and S.A.)	Brechites (Brechites) vaginiferus australis	
(a large, tube-shaped bivalve that lives in coarse sand amongst sparse <i>Posidonia</i> seagrass and shell debris, to 12m deep; extant species known only from S.A., but fossil form also found in W.A.)	Brechites (Foegia) veitchi	Possibly endemic to S.A.
(two small shells in the	Brookula angeli	
Skeneidae family; both found in N.S.W., Victoria, Tasmania and S.A.)	Brookula crebresculpta	
(a small shell in the Skeneidae family; found in Victoria, Tasmania and S.A.)	Brookula nepeanensis	
(a buccinid whelk from S.A. and W.A., commonly under rocks in the intertidal and shallow subtidal).	Buccinulum bednalli	
(a slug-like mollusc with a heavily calcified external shell; found in shallow subtidal habitats in New Zealand and southern Australia)	Bulla quoyii	
Spengler's Triton Spengler's Rock Whelk (a triton shell that occurs in exposed rocky habitats, mainly in the intertidal and shallow subtidal; commonly found amongst ascidians such as Cunjevoi, upon which it feeds; ranging from southern Queensland through to W.A., including Tasmania; also recorded in New Zealand)	Cabestana spengleri	Ponder and Grayson (1998) assigned a low category of vulnerability (Category E for all States, including S.A.).  O'Hara and Barmby (2000) stated that <i>C. spengleri</i> is one of the previously common shallow water species in Victoria that has been subjected to overcollecting in the nearshore zone, and is no longer commonly seen on shore platforms, compared with its abundance in the
Ploughed Triton	Cabestana tabulata	middle of last century.
	<u> </u>	

		1
Shouldered Triton		
(a triton shell found on reef in		
the intertidal; and in rubble,		
reef and mud habitats in the		
subtidal; ranging from		
N.S.W., through to W.A.,		
including Tasmania; also		
recorded in New Zealand)		
(a small creeper shell found	Cacozeliana granarium	
on rocks, seagrass rhizomes,	grananann	
and amongst macroalgae in		
the shallow subtidal;		
distributed from N.S.W.		
through to W.A., including		
Tasmania)		
(a small creeper shell,	Cacozeliana icarus	
distributed from N.S.W.	Cacozellaria icarus	
through to W.A., including		
Tasmania)	000000000000000000000000000000000000000	
(a small, tube-shaped	Caecum (Caecum)	
gastropod in the Caecidae	amputatum	
family; ranging from N.S.W.		
through to W.A., including		
Tasmania)		
Lamellaria Shells	Caledoniella labyrinthina	All three species possibly
(three species in the	Caledoniella pulchra	endemic to S.A. (Basedow,
Lamellariidae, a family of	Caledoniella testudinis	1905, cited by Wilson et
gastropods with thin,		al., 1993; Academy of
translucent shells; all three		
Transiductiff Stiells, all tillee		Natural Sciences, 2003)
species found to date only in		Natural Sciences, 2003)
•		Natural Sciences, 2003)
species found to date only in	Calliostoma (Fautor)	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the	Calliostoma (Fautor)	Natural Sciences, 2003)
species found to date only in S.A.).	, , ,	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.	allporti	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the	allporti Calliostoma (Fautor)	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria,	allporti	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)	allporti  Calliostoma (Fautor)  columnarium	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cup-	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor)	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges	allporti  Calliostoma (Fautor)  columnarium	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges from N.S.W. through to W.A.,	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor)	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges from N.S.W. through to W.A., excluding Tasmania)	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor) comptum	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges from N.S.W. through to W.A., excluding Tasmania)  (a top shell found in Victoria,	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor) comptum  Calliostoma (Fautor)	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges from N.S.W. through to W.A., excluding Tasmania)  (a top shell found in Victoria, Tasmania, S.A. and W.A.)	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor) comptum  Calliostoma (Fautor) hedleyi	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges from N.S.W. through to W.A., excluding Tasmania)  (a top shell found in Victoria, Tasmania, S.A. and W.A.)  (a top shell ranging in	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor) comptum  Calliostoma (Fautor) hedleyi Calliostoma (Fautor)	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges from N.S.W. through to W.A., excluding Tasmania)  (a top shell found in Victoria, Tasmania, S.A. and W.A.)  (a top shell ranging in distribution from N.S.W.	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor) comptum  Calliostoma (Fautor) hedleyi	Natural Sciences, 2003)
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species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges from N.S.W. through to W.A., excluding Tasmania)  (a top shell found in Victoria, Tasmania, S.A. and W.A.)  (a top shell ranging in distribution from N.S.W. through to W.A., including Tasmania)  (two top shells, both ranging	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor) comptum  Calliostoma (Fautor) hedleyi  Calliostoma (Fautor) legrandi  Calliostoma (Fautor)	Natural Sciences, 2003)
species found to date only in S.A.).  (a top shell found on the continental shelf and slope in Victoria, Tasmania and S.A.  (a top shell found on the continental shelf in Victoria, Tasmania and S.A.)  (a top shell found on cupshaped sponges; ranges from N.S.W. through to W.A., excluding Tasmania)  (a top shell found in Victoria, Tasmania, S.A. and W.A.)  (a top shell ranging in distribution from N.S.W. through to W.A., including Tasmania)  (two top shells, both ranging in distribution from Victoria	allporti  Calliostoma (Fautor) columnarium  Calliostoma (Fautor) comptum  Calliostoma (Fautor) hedleyi  Calliostoma (Fautor) legrandi  Calliostoma (Fautor)	Natural Sciences, 2003)
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sand habitats in N.S.W.,	diemenensis	
Victoria, Tasmania and S.A.)	diemenensis	
(a venus shell from interidal	Callista (Notocallista) kingii	
and subtidal sand habitats in	Cameta (recesameta) rungi	
N.S.W., Victoria, Tasmania		
and S.A.)		
(a very small gastropod in	Callomphala lucida	
the Vitrinellidae family;		
recorded in N.S.W., Victoria,		
Tasmania and S.A.)		
(a small lucinid shell, known	Callucina	
from Tasmania, Victoria, S.A.	(Pseudolucinisca) lacteola	
and W.A.)	Calintra an aghintra afarmia	
(a slipper shell that attaches to stones and the inner sides	Calyptraea calyptraeformis	
of large dead shells; ranging		
from N.S.W. through to W.A.,		
including Tasmania)		
Spiral Nutmeg Shell	Cancellaria (Nevia) spirata	Dance (1992) categorised
(a nutmeg shell found across		C. spirata as Occurrence
southern Australia, from		Code 3 (i.e. mid-way on a
Bass Strait to southern W.A.)		Common to Rare scale of
		5 to 1)
(a nutmeg shell from the	Cancellaria (Sydaphera)	
interidal and shallow	granosa	
subtidal; found in N.S.W.,		
Victoria, Tasmania and S.A.)	Canadlaria (Sydanbara)	
(a nutmeg shell found on the continental shelf across	Cancellaria (Sydaphera) lactea	
southern Australia, including	lactea	
Tasmania)		
(a nutmeg shell from the	Cancellaria (Sydaphera)	
shallow subtidal, found in	purpuriformis	
Victoria, Tasmania and S.A.)		
(a nutmeg shell from the	Cancellaria (Sydaphera)	
shallow subtidal; found in all	undulata	
Australian states, including		
Tasmania but excluding		
N.T.)	Contharidalla haltaata	
(a small top shell found in Tasmania, Victoria and S.A.;	Cantharidella balteata	
may be a synonym of C.		
tiberiana)		
(a small top shell found on	Cantharidella	
the continental shelf in S.A.	beachportensis	
and W.A.)		
(a small top shell found in	Cantharidella ocellina	Possibly endemic to S.A.
deeper waters on the		
continental shelf; known only		
from S.A.; the type specimen		
was dredged off Cape Wiles,		
at 183m deep).		

(a small top shell found on macroalgae in the intertidal and shallow subtidal; found in N.S.W., Victoria, Tasmania and S.A.)	Cantharidella tiberiana	
Rambur's Jewel Top Shell (a small, brightly coloured top shell that is abundant on brown macroalgae in the intertidal and shallow subtidal; known from Victoria and S.A.; considered by some authorities to be the same species as Prothalotia lehmanni)	Cantharidus ramburi	
(a cap limpet that attaches to the shell of other gastropods; ranging from Queensland through to S.A., including Tasmania)	Capulus devotus	
(a cap limpet that attaches to the shell of other gastropods; ranging from N.S.W. through to W.A., including Tasmania)	Capulus violaceus	
(a small luicinid shell found in Tasmania, Victoria and S.A.)	Cardiolucina crassilirata	
(a cardita shell found in N.S.W., Victoria, Tasmania and S.A.)	Cardita calyculata	
Australian Cardita Shell (a cardita shell of variable colour, found around Australia and parts of the tropical Indo-West Pacific region)	Cardita crassicosta	
(a cardita shell from shallow sand habitats; found in all Australian States, and N.T.)	Cardita excavata	
(a brown and white bivalve from southern Australia, known mainly from S.A.)	Carditella (Carditella) subtrigona	
(a brown and/or white bivalve from W.A. and S.A.)	Carditella (Carditella) valida	
(a red-brown and white bivalve from southern W.A., S.A. and Victoria)	Carditella (Carditella) vincentensis	
(a white bivalve from N.S.W., Victoria, Tasmania and S.A.)	Carditellopsis elegantula	
(a family of cylindrical, pelagic molluscs with small cap-like shells; includes the genus Carinaria, known	Carinariidae	

mainly from south-eastern		
Australia, however representatives may also		
occur in southern Australia)		
Fringed Helmet Shell (a helmet shell found in Victoria, S.A. and W.A.)	Cassis (Hypocassis) fimbriata	Ponder and Grayson (1998) Vulnerability Category: D (in S.A., Victoria and Tasmania)
		Dance (1992) categorised C. fimbriata as Occurrence Code 3 (i.e. mid-way on a Common to Rare scale of 5 to 1)
Orange-edged Limpet (a large limpet found on	Cellana solida	
exposed rocky shores in Victoria, Tasmania and S.A.)		
Variegated Limpet	Cellana tramoserica	
(a limpet found on exposed		
rocky shores in Queensland,		
N.S.W., Victoria, Tasmania		
and S.A.)		
(a pink, orange and white	Ceratosoma amoena	
nudibranch)	Caratacama	
Short-tailed Sea-Slug Short-tailed Chromodorid	Ceratosoma brevicaudatum	
(a brightly coloured	Dievicaddatuiii	
nudibranch that ranges from		
N.S.W. through to W.A.)		
(a top shell found on the	Charisma arenacea	
continental shelf in		
Tasmania, Victoria and S.A.)		
(a top shell know to date only from S.A.)	Charisma carinata	Possibly endemic to S.A.
(a top shell found in	Charisma josephi	
Tasmania, Victoria, S.A. and		
W.A.)	Charania lamnas	
Lamp Triton Red Rock Whelk	Charonia lampas Charonia lampas	
(a widely distributed triton	rubicunda	
shell, with various named	rabioarrad	
subspecies in other parts of		
the world; occurs in rocky		
habitats over a broad depth		
range, from the intertidal to		
the continental slope;		
ranging from Queensland		
through to W.A., excluding		
Tasmania)	Cheilea flindersi	
(a limpet-like shell that attaches to stones or other	Griellea IIIIIUEISI	
attaches to stones of other	<u> </u>	

shells; found in Victoria and		
S.A.) (a small gastropod in the Iravadiidae family; recorded to date only in S.A.)	Chevallieria australis	Possibly endemic to S.A.
Damicornis Murex Long-Horned Murex Purple Murex (a muricid shell occurring to around 100m deep; found in Queensland, N.S.W., Victoria and S.A.)	Chicoreus (Triplex) damicornis	Ponder and Grayson (1998) Vulnerability Categories: D in S.A. E in Victoria  C. (T.) damicornis has been considered "moderately uncommon" (Beechey, undated)
Denuded Murex (a muricid shell that occurs mainly in eastern and south- eastern Australia)	Chicoreus (Triplex) denudatus	Ponder and Grayson (1998) assigned a low category of vulnerability (Category E, in S.A. and Victoria)  C. (T.) denudatus is not commonly recorded in S.A.  Recently, Beechey (undated) reported that the species appears to be extinct in S.A., and that recorded specimens are probably fossils.
(a bivalve that attaches to limestone or coral; found in eastern and southern Australia, from Queensland through to W.A., excluding Tasmania)	Chama ruderalis	
(a small triphorid shell that feeds on sponges; found in the shallow subtidal, often under stones; known mainly from N.S.W., but also recorded in southern Queensland, Victoria and S.A.)	Cheirodonta labiata	
(a scallop shell from sand habitats; ranging from Queensland through to W.A., including Tasmania)	Chlamys (Belchlamys) aktinos	
(a scallop from shell debris habitat; found across	Chlamys (Talochlamys) famigerator	

southern Australia, including		
Tasmania)		
(a genus of nudibranchs)	Chromodoris spp.	
(a purple, orange and white	Chromodoris alternata	
nudibranch, found in shallow		
subtidal habitats in southern		
Australia)		
(a white nudibranch with	Chromodoris ambiguus	
purple and orange spots;		
recorded in Tasmania,		
Victoria and S.A.)		
(a cream/white nudibranch	Chromodoris epicuria	
with orange spots; recorded		
in Victoria, Tasmania and		
S.A.) (a white nudibranch with	Chromodoris tasmaniensis	
large orange or red spots;	Chromodons tasmamensis	
found in N.S.W., Victoria,		
Tasmania and S.A.)		
(a cream/white nudibranch	Chromodoris cf.	
with small dark red spots,	tasmaniensis	
found in south-eastern	tadmamentile	
Australia, including S.A.)		
(A widely distributed tropical	Chromodoris tinctoria	
nudibranch, also recorded on		
reefs in southern Australia,		
amongst brown macroalgae)		
(a small shell in the	Chunula johnstoni	
Skeneidae family; found in		
sand and shell habitats in the		
shallow subtidal; occurs in		
N.S.W., Tasmania, Victoria		
and S.A.)		
(a small shell in the	Chunula petalifera	
Skeneidae family; found on the continental shelf in		
N.S.W., Tasmania, Victoria and S.A.)		
(a venus shell from the	Circe (Circe) rivularis	
intertidal and shallow	Once (Once) Tivalaris	
subtidal; found in S.A. and		
W.A.)		
(a venus shell from intertidal	Circe (Redicirce) sulcata	
and shallow subtidal habitat	,	
in northern Australia and		
various parts of the tropical		
Indo-West Pacific; also		
recorded in S.A. and W.A.)		
(a very small gastropod in	Circulus delectabile	
the Vitrinellidae family;		
recorded in Victoria and		
S.A.)		

(a very small gastropod in the Vitrinellidae family; recorded in Victoria, Tasmania and S.A.)	Circulus harriettae	
(a very small gastropod in the Vitrinellidae family; recorded to date only in S.A.)	Circulus pachyston	Possibly endemic to S.A.
(a small shell in the Skeneidae family; found in deeper waters of the continental shelf, in Victoria, Tasmania and S.A.)	Cirsonella carinata	
(a small shell in the Skeneidae family, from the continental shelf and slope; found in south-eastern Australia, from Queensland through to S.A., including Tasmania).	Cirsonella weldii	
(a small wentletrap shell known mainly from N.S.W.; possibly also occurs in S.A., based on previous records from the outer continental shelf)	Cirsotrema mörchi	
(a wentletrap shell found in	Cirsotrema (Propescala) translucidum	
Victoria, Tasmania and S.A.) (a wentletrap shell found at shallow depths on the continental shelf in Tasmania and S.A.; closely related to C. translucidum)	Cirsotrema (Propescala) valida	
(a small top shell that is common under stones in the intertidal and shallow subtidal; found in S.A. and W.A.)	Clanculus consobrinus	
(a small top shell from the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania)	Clanculus denticulatus	
(a small top shell from the intertidal and shallow subtidal; found in Victoria, Tasmania, S.A. and W.A.)	Clanculus dunkeri	
(a small top shell found under stones in the intertidal and shallow subtidal; recorded in Queensland, S.A. and W.A.)	Clanculus euchelioides	
(a small top shell found	Clanculus flagellatus	

under stones in the intertidal		
and shallow subtidal;		
recorded in Victoria,		
Tasmania, S.A. and W.A.)	Claracilia lavia manhalia	
(a small top shell occurring to	Clanculus leucomphalus	
around 150m deep; found in		
Victoria, S.A. and W.A.)	Olaman kan limah atum	
Keeled Clanculus	Clanculus limbatus	
(a small top shell that is common under stones in the		
intertidal and shallow		
subtidal; found in Victoria,		
Tasmania, S.A. and W.A.)		
Rounded Clanculus	Clanculus maxillatus	
(a small top shell that is	Clariculus maxiliatus	
common under stones in the		
intertidal and shallow		
subtidal; found in S.A. and		
W.A.)		
(a small, uncommon top shell	Clanculus albanyensis	C. albanyensis is
found in Victoria, Tasmania,	(previously C. ochroleucus)	considered by shell
S.A. and W.A.)		authorities to be "not
		abundant" (Wilson et al.,
		1993), and considered by
		shell collectors to be
		"uncommon" (e.g. Keats,
		2003).
(a small, uncommon top shell	Clanculus personatus	Considered to be "not
from the intertidal; found in		common" (Wilson et al.,
Victoria, Tasmania, S.A. and		1993)
W.A.)	Olever Level West	
(a small top shell found on	Clanculus philippi	
macroalgae in the subtidal;		
found in Victoria, Tasmania,		
S.A. and W.A.)	Clanaulus plahaius	
(a small top shell found under stones in the intertidal	Clanculus plebejus	
and shallow subtidal; ranging		
from N.S.W. through to W.A.,		
including Tasmania)		
(a small top shell found	Clanculus ringens	
under stones in the intertidal	C.a.ioa.ao iiigono	
and shallow subtidal; found		
in S.A. and W.A. )		
Wavy Clanculus	Clanculus undatus	Ponder and Grayson
(the largest of the Australian		(1998) assigned a low
Clanculus shells; ranging		category of vulnerability
from N.S.W. through to W.A.,		(Category E, in all states,
including Tasmania)		including S.A.).
(a small tan shall found on	Clanculus weedingi	
(a small top shell found on macroalgae in the subtidal;	Claricalus Weedingi	

found in S.A. and W.A.)		
(a tube-shaped bivalve that	Clavagella (Clavagella)	
attaches to rocks and shells;	multangularis	
also lives unattached and	manangalano	
partly embedded in		
substrate; occurs from 2m –		
250m deep; found in S.A.,		
Victoria and N.S.W.; also		
represented in S.A. in fossil		
form)		
(a bivalve that attaches to	Cleidothaerus albidus	Ponder and Grayson
reef in shallow water; found	(= C. albida)	(1998) vulnerability
across southern Australia,	(= G. dibida)	category: D in S.A.,
including Tasmania)		Tasmania and Victoria
Rugose Slit Limpet	Clypidina rugosa	radinaria ana victoria
False Limpet	- c., p.aa ragoda	
(two small species of cap	Cocculinella mayi	
limpet; both recorded from	Cocculinella tasmanica	
Tasmania and S.A.)		
Codakia Shell	Codakia (Codakia) rugifera	
Codakia	(11111111111111111111111111111111111111	
(a white, sand-dwelling		
lucinid shell from south-		
eastern Australia, with S.A.		
being the western limit)		
Codakia Shell	Codakia (Codakia)	
Codakia	perobliqua	
(a sand-dwelling lucinid shell		
from Victoria, S.A. and W.A.)		
Granulated Limpet	Collisella mixta	
(a limpet from exposed		
intertidal rock platforms,		
distributed from western		
Victoria to the west coast of		
S.A., and uncommon in		
Tasmania)		
Banded Limpet	Collisella onychitis	
(a common limpet from the		
intertidal zone, found from		
Ceduna in western S.A. to		
Quobba in W.A.)	0 111 11	
(a limpet found on limestone	Collisella septiformis	
in the intertidal zone, from		
western S.A. to southern		
W.A.)		
(a screw shell found on the	Colpospira (Acutospira)	
continental shelf across	accisa	
southern Australia, including		
Tasmania)		
(a screw shell with a very	Colpospira (Acutospira)	
broad depth range, including	smithiana	
the continental rise and		

slope; found across eastern		
and southern Australia,		
including Tasmania)		
(a screw shell found in	Colpospira (Colpospira)	
N.S.W., Victoria, Tasmania,	runcinata	
S.A. and W.A.)		
(a screw shell found on the	Colpospira (Colpospira)	
outer continental shelf in S.A.	mediolevis	
and southern W.A.)		
(two screw shells, both found	Colpospira (Colpospira)	
on the continental shelf and	bundilla	
slope in Queensland,	Colpospira (Colpospira)	
N.S.W., Victoria, Tasmania,	wollumbi	
S.A. and W.A.)		
(a screw shell found in	Colpospira (Colpospira)	
Victoria, Tasmania, S.A. and	translucida	
W.A.)	- Gariolaolaa	
(a screw shell with a broad	Colpospira (Platycolpus)	
depth range, found on the	quadrata	
continental shelf and slope in	- quadrata  -	
N.S.W., Victoria, and S.A.)		
(a screw shell, found on the	Colpospira (Platycolpus)	
continental shelf in Victoria,	circumligata	
Tasmania and S.A.)	Circumigata	
(a common screw shell,	Colpospira (Ctenocolpus)	
found on the continental	australis	
shelf in N.S.W., Victoria,	australis	
Tasmania and S.A.)		
Ribbed Cominella Shell	Cominella (Cominella)	
(a small whelk shell ranging	eburnea	
from N.S.W. through to	Courried	
1		
Geraldton in W.A., including		
Tasmania; common in the		
intertidal zone of bays and		
estuaries)	Cominalla (Cominalla)	
Spotted Cominella Shell	Cominella (Cominella)	
Chequerboard Snail	lineolata	
(a small whelk shell ranging		
from N.S.W. through to		
southern W.A., including		
Tasmania; common on rocks		
in the intertidal)	0	
Torr's Whelk	Cominella (Godfreyna) torri	
(the largest Cominella whelk		
shell; found in the shallow		
subtidal, in S.A. and W.A.)		
(a small whelk shell; found in	Cominella (Josepha) filicea	
N.S.W., Tasmania, Victoria,		
and S.A.)		
(a small whelk shell; found in	Cominella (Josepha)	
the interidal and shallow	tasmanica	
subtidal; occurs in Tasmania,		

Victoria, S.A. and W.A.)		
(a turrid shell from deeper continental shelf waters; ranging from Queensland through to the S.A./ W.A. border region, including Tasmania)	Comitas murrawolga	
(a small, white bivalve from sand, shell, rock and algal turf habitats, in the intertidal and shallow subtidal habitats; found in Victoria, Tasmania, S.A. and W.A.)	Condylocardia limaeformis	
(a small, yellow bivalve from sand and mud habitats on the continental shelf and slope; found in eastern and southern Australia)	Condylocardia notoaustralis	
(a small bivalve from sand, mud and algal turf habitats, on the continental shelf and slope; found across southern Australia, including Tasmania)	Condylocardia pectinata	
(a small, white bivalve occurring in sand and silt habitats, to around 365m deep; found in S.A., Tasmania, and Victoria)	Condylocardia rectangularis	
(a small, cream-coloured bivalve found on various substrates, including rocks, sand, mud and shells; ranging from N.S.W. through to W.A., including Tasmania; also recorded from Lord Howe Island)	Condylocuna projecta	
(a bivalve found in sand and coral habitats in the intertidal and shallow subtidal; recorded in Queensland and south-eastern Australia, with S.A. being the western limit)	Condylocuna tricosa	
Anemone Cone Shell (a cone shell of highly variable color, that occurs in sand and reef habitats; ranging from N.S.W. through to W.A., including Tasmania).	Conus anemone	Ponder and Grayson (1998) Vulnerability Category: D in S.A., W.A., Tasmania and Victoria In Victoria, concern has been expressed about over-collection of identifiable subspecies or

		races, including those of <i>C. anemone</i> (M. Lyons pers. comm, cited by O'Hara and Barmby, 2000).
(a small cone shell found in Tasmania, Victoria, S.A. and W.A.)	Conus clarus	Ponder and Grayson (1998) vulnerability categories: E in S.A. D in Victoria and W.A.  Previously, Eisenberg (1981) ranked the species as uncommon
Klem's Cone Shell (a cone shell found in sand and reef habitats on the continental shelf, in S.A. and W.A.)	Conus klemae	Ponder and Grayson (1998) assinged a low category of vulnerability (Category E, in S.A. and W.A.)  C. clarus is considered to be uncommon (Wilson et al., 1994). Previously, Eisenberg (1981) ranked the species as "scarce".
(the smallest Australian cone shell; extremely variable in colour and pattern; found across southern Australia and Tasmania, and common in shallow water)	Conus rutilus	Ponder and Grayson (1998) Vulnerability Categories: D in S.A. and Victoria C in W.A. and Tasmania
Coral Shell (an egg-brooding gastropod that feeds on corals; found in S.A. and W.A.,)	Coralliophila (Coralliophila) mira	Ponder and Grayson (1998) vulnerability category: D in S.A. and W.A.
(a small, white or pale pink gastropod found in Victoria, S.A. and W.A.)	Coralliophila (Coralliophila) wilsoni	
(a bivalve from shallow sand and mud habitats; found in N.S.W., Victoria and S.A.)	Corbula (Notocorbula) stolata	
(a bivalve from shallow sand and mud habitats; found around Australia, excluding W.A.)	Corbula (Serracorbula) coxi	
(a bivalve from sand and mud habitats on the continental shelf; recorded to date in Queensland and S.A.)	Corbula (Serracorbula) verconis	
(a small, white bivalve from	Cosa bordaensis	

sand habitats in southern		
W.A. and S.A.)		
(a small, white bivalve; found	Cosa celsa	Possibly endemic to S.A.
to date only in S.A.)		
(a bivalve found recorded on	Cosa fimbriata	
the continental shelf and		
slope; found in southern		
W.A., S.A., Victoria, and		
Tasmania)		
(a small, white bivalve from	Cosa pectinata	
the continental shelf in S.A.,		
Victoria, Tasmania and		
N.S.W.)		
(a small, pale brown bivalve	Cosa tardiradiata	Possibly endemic to S.A.
from intertidal and shallow		
subtidal habitats; known to		
date only from S.A.)		
(a small, pale brown bivalve	Cosa tatei	
from the shallow part of the		
continental shelf; recorded in		
S.A., Victoria, Tasmania and		
N.S.W.)		
(a small, orange, keyhole	Cosmetalepas	Considered rare (Wilson et
limpet with a white	concatenatus	al., 1993).
sculptured shell; found on		
ascidians that grow on rock		
walls, in the subtidal;		
distributed from N.S.W.		
through to W.A., including		
Tasmania)		
(a common turrid shell from	Crassispira (Crassispira)	
Victoria, Tasmania, S.A. and	harpularia	
W.A.)	1101/2010110	
(two forms of a small	Crassitoniella erratica	
gastropod in the	Crassitoniella erratica	
Eatoniellidae family;	erratica	
reproduces by direct	orration	
development; recorded on		
the continental shelf around		
Australia, including		
Tasmania but excluding		
N.T.)		
Pacific Oyster	Crassostrea gigas	Introduced
(an oyster shell, introduced	Urassosirea yiyas	Intioduced
1 1 1		
to New Zealand, Victoria, Tasmania and S.A.)		
(a small, pinkish-brown	Cratis cuboides	
· ·	Craus cuboldes	
bivalve, from shallow waters		
of the continental shelf in		
southern W.A. and S.A.)	Cronidula immoras	
(a slipper shell that lives on dead gastropod shells in the	Crepidula immersa (= Zeacrypta immersa)	
ueau yashupuu shelis in tile	(– ∠σασιγρία ππηθίδα)	

subtidal; ranging from		
N.S.W. through to W.A.,		
including Tasmania)		
(a small shell in the	Crossea cancellata	
Skeneidae family, from the	Crossed cariocilata	
1		
continental shelf and slope;		
found in Victoria, Tasmania		
and S.A.)		
(a small shell in the	Crossea concinna	
Skeneidae family, from the		
shallow subtidal to around		
40m deep; found in N.S.W.,		
Victoria, Tasmania and S.A.)		
(a green or brown	Crosslandia viridis	
nudibranch that feeds on	Crossiariaia viriais	
hydroids; found in the		
1 -		
tropical Indo-West Pacific,		
and also recorded in S.A.)		
(a small, white bivalve; found	Cuna concentrica	
on the continental shelf in		
N.S.W., Tasmania, Victoria		
and S.A.)		
(a white bivalve with a broad	Cuna delta	
depth range, found in sand		
and mud habitats on the		
continental shelf and slope;		
ranging from Queensland		
through to W.A., including		
Tasmania)		
(a bivalve found in sand	Cuna navicula	
habitats on the continental	Curia riavicula	
shelf; recorded in Tasmania,		
S.A. and W.A.)		
(a small, white bivalve; found	Cunanax (previously	
on the continental shelf in	Condylocardia)	
Victoria, Tasmania and S.A.)	crassidentata	
(A small, white bivalve	Cunanax (previously	
occurring on the continental	Condylocardia) subradiata	
shelf and slope, to around	,	
365m deep; found across		
southern Australia, excluding		
Tasmania)		
(two olivella shell species,	Cupidoliva adiorygma	Both species possibly
` ·	, ,	
both recorded to date only in	Cupidoliva solidula	endemic to S.A.
S.A.)		
(an olivella shell, found in	Cupidoliva nympha	
N.S.W., Victoria, Tasmania		
and S.A.)		
(a small eulimid shell,	Curveulima commensalis	
parasitic on echinoderms;		
ranging from N.S.W. through		
to W.A., including Tasmania)		
13 111 II, III III III II III III III III		

(two small eulimid shells,	Curveulima edwardsi	
parasitic on echinoderms;	Curveulima triggi	
both found in S.A. and W.A.)		
(a small eulimid shell,	Curveulima indiscreta	
parasitic on crinoids; found		
across southern Australia,		
including Tasmania)		
(a small eulimid shell,	Curveulima obtusa	
parasitic on crinoids; ranging		
from Queensland through to		
S.A., including Tasmania)		
(a small eulimid shell,	Curveulima petterdi	
parasitic on echinoderms;	Ourveallina petterar	
•		
ranging from Queensland		
through to W.A., including		
Tasmania)	0	
(A white bivalve occurring to	Cuspidaria (Cuspidaria)	
around 190m deep; ranging	exarata	
from the southern		
Queensland / northern		
N.S.W. area through to W.A.,		
including Tasmania)		
(A white bivalve occurring to	Cuspidaria (Cuspidaria)	
around 130m deep; endemic	occidua	
to S.A.)		
(A white bivalve occurring on	Cuspidaria (Rhinoclama)	
the continental shelf and	alta	
slope, to around 275m deep;		
found in Tasmania, Victoria		
and S.A.)		
(A white bivalve occurring on	Cuspidaria (Rhinoclama)	
the continental shelf and	dorsirecta	
slope, to around 275m deep;	doronoota	
found in N.S.W., Victoria and		
S.A.)		
(A white bivalve occurring on	Cuspidaria (Rhinoclama)	Possibly endemic to S.A.
the continental shelf and	simulans	1 Ossibly efficiently to S.A.
	งแบนเลเเง	
slope, to around 275m deep;		
recorded to date only in S.A.)	Oversively a believe	Descibly and serie to C A
(a small ovulid shell recorded	Cuspivolva heleneae	Possibly endemic to S.A.
on Echinogorgia gorgonian	(= Primovula cruenta)	
coral in Spencer Gulf; known		
only from S.A.)		
(a tropical cockle shell known	Ctenocardia (Ctenocardia)	
from Queensland and the	hystrix	
Philippines; purportedly also		
recorded in S.A. during an		
expedition in the early 1880s;		
distribution considered valid		
by the Academy of Natural		
Sciences, 2003)		
(a small bivalve from shelly	Cyamiomactra communis	
,	, ,	1

sand; rangin from N.S.W.		
through to W.A., including		
Tasmania)		
(a small bivalve known from	Cyamiomactra mactroides	
shallow subtidal dredge		
sortings; found in		
Queensland, N.S.W.,		
Victoria, Tasmania and S.A.)		
(a white bivalve that attaches	Cyclocardia (Vimentum)	
to marine structures and	calva	
debris; found in N.S.W.,		
Victoria, Tasmania and S.A.)		
(a red-brown and white	Cyclocardia (Vimentum)	
bivalve occurring to around	dilectum	
240m deep; found in		
southern W.A., S.A. and		
Victoria)		
(a white and brown bivalve;	Cyclocardia (Vimentum)	
found in south-eastern	excelsior	
	CACGISIOI	
Australia, with S.A. being the		
eastern limit)	Cyclese valie (Mine torna)	
(a white and brown bivalve	Cyclocardia (Vimentum)	
occurring to around 240m	jaffaensis	
deep; found in Tasmania,		
Victoria, and S.A.)		
(a tellin shell known from	Cyclotellina umbonella	
Bass Strait / northern		
Tasmania and S.A.)		
(a small mollusc with a	Cylichnatys campanula	
brown shell, found in		
intertidal sand or sandy-mud)		
Neapolitan Triton	Cymatium (Monoplex)	
Hairy Triton	parthenopeum	
Hairy Whelk	(= C. parthenopea)	
Giant Hairy Triton		
(a widely distributed triton		
1 `		
found in a variety of intertidal		
and subtidal habitats,		
including reef, sand and		
mud; in Australia, ranging		
from N.S.W. through to W.A.,		
including Tasmania; also		
recorded in New Zealand,		
East Africa, India, Japan,		
Taiwan, Hawaii, and various		
Western Pacific islands.		
(five small marginella shells	Cystiscus alternans	
found in south-eastern	Cystiscus connectans	
Australia and Tasmania, with	Cystiscus cratericula	
S.A. being the western limit)	Cystiscus flindersi	
o., a boing the western mint)	Cystiscus freycineti	
(five small marginally shalls		
(five small marginella shells,	Cystiscus angasi	

ranging from N.S.W. to W.A.,	Cystiscus cymbalum	
including Tasmania)	Cystiscus minutissima	
	Cystiscus subauriculata	
	Cystiscus thouinensis	
(two small marginella shells	Cystiscus incerta	
known from Tasmania and	Cystiscus indiscreta	
S.A.)		
(two small marginella shells	Cystiscus obesula	
known from Victoria,	Cystiscus problematica	
Tasmania and S.A.)		
(a small, white mussel from	Dacrydium (Quendreda)	
deeper water habitats in	radians	
southern W.A., S.A. and	radiano	
Victoria)		
(a top shell known from S.A.	Danilia telebathia	
and W.A.)	Darilla telebatilla	
,	Danhnalla (Danhnalla)	
(a shallow-water turrid shell	Daphnella (Daphnella)	
from rocky shores; found	botanica	
around Australia, excluding		
N.T.)	Death willia (Death willia)	Dath and in a margible
(two turrid shells known to	Daphnella (Daphnella)	Both species possibly
date only from S.A.)	stiphra	endemic to S.A.
	Daphnella (Daphnella)	
	diluta	
(a white and brown, multi-	Dendrodoris albopurpura	
spotted nudibranch;		
widespread in the Western		
Pacific and perhaps Indian		
Ocean; also found		
throughout Australia)		
(a translucent white to deep	Dendrodoris aurea	
orange nudibranch with white		
pustules; ranging from		
N.S.W. through to W.A.)		
(a translucent white to deep	Dendrodoris carneola	
red nudibranch; often orange		
or light red; ranging from		
N.S.W. through to W.A.)		
(a variably-coloured	Dendrodoris fumata	
nudibranch found in tropical		
and warm temperate parts of		
the Indo-West Pacific; also		
recorded in N.S.W, and S.A.)		
(two small marginella shells,	Dentimargo allporti	
both found in Victoria,	Dentimargo lodderae	
Tasmania, S.A. and southern	Donamargo lodderde	
W.A.)		
(two small marginella shells,	Dentimargo kemblensis	
ranging from N.S.W. to W.A.,	Dentimargo mayii	
including Tasmania)	Dentimaryo mayii	
	Dontimargo ioffo	
(a small marginella shell,	Dentimargo jaffa	
ranging from N.S.W. through		

to W.A., excluding		
Tasmania)		
(a murex shell from S.A. and	Dermomurex	
W.A.)	(Dermomurex) angustus	
(a murex shell from the	Dermomurex	
shallow subtidal, to at least	(Dermomurex) goldsteini	
40m deep; found in N.S.W.,		
Victoria, Tasmania and S.A.)		A.II
(a Murex shell; the only living	Dermomurex (Viator)	All species in the
species in the Dermomurex	howletti	Dermomurex
subgenus Viator known from southern Australia; recorded		subgenus <i>Viator</i> are considered rare (Watters,
to date from a small number		2004)
of localities in S.A. and W.A.)		2001)
(a small shell found amongst	Diala megapicalis	
seagrass rhizomes and algal		
turf, in shallow, sheltered		
habitats; recorded from		
N.S.W., Victoria, Tasmania,		
S.A. and W.A.)		
(a small shell found amongst	Diala suturalis	
rocks, seagrass rhizomes	(previously Diala magna)	
and algal turf in the intertidal		
and shallow subtidal; recorded from Victoria,		
Tasmania, S.A. and W.A.)		
(a small, endemic trough	Diaphoromactra versicolor	
shell, known only from Lake	Diaprioromacira versicolor	
Macdonnell near Ceduna,		
S.A.)		
(a diastoma shell found in	Diastoma melanioides	
sand amongst seagrass, in		
the shallow subtidal;		
recorded in S.A. and W.A.)		
Cart-rut Shell	Dicathais orbita	
Cartrut Shell	(= Thais orbita)	
(a Muricid shell from intertidal and shallow		
subtidal rocky shores;		
widespread throughout		
eastern, southern and		
western Australia; also found		
around New Zealand,		
Kermadec Islands, and Lord		
Howe Island)		
(a pink nudibranch with	Digidentis artubus	
yellow patches)		
(a white and pink/purple	Digidentis perplexa	
nudibranch with orange		
spots; rercorded in southern		
N.S.W., Victoria, Tasmania,		
and S.A.)		

(a keyhole limpet found in S.A. and W.A.)	Diodora lincolnensis	
(a small, white bivalve, found	Diplodonta (Diplodonta)	
on the continental shelf in S.A. and W.A.)	subrotunda	
(a bivalve of unknown	Diplodonta (Zemysina) tasmanica	
habitat, found in beach drift; recorded from N.S.W.,	lasmanica	
Victoria, Tasmania and S.A.)	6	
(a genus of broad, oval- shaped nudibranchs)	Discodoris spp. (e.g. D. dubia, D. turia;	
onapou mudioranono,	D. paroa; D. crawfordi)	
(a gastropod in the Ovulidae	Dissona maccoyi	
family; found in Victoria, Tasmania and S.A.)		
(a lucinid shell from shallow	Divalucina cumingi	
sand habitats in all Australia States, N.T. and New		
Zealand)		
(a lucinid shell from the	Divalucina euclia	
continental shelf and slope in S.A. and W.A.)		
(a lucinid shell from shallow	Divaricella occidua	
sand habitats in S.A. and W.A.)		
(a small spindle shell found	Dolicholatirus spiceri	
in subtidal habitats; ranging	•	
from N.S.W. through to W.A., including Tasmania		
(a mitre shell found on the	Domiporta strangei	
continental shelf and slope;		
ranging from Queensland through to W.A., including		
Tasmania)		
(a pippi found in Victoria, S.A. and W.A.)	Donax (Deltachion) electilis	
Goolwa Cockle	Donax (Plebidonax)	
Pippi / Pipi Surf Clam	deltoides	
(a pippi found in all		
Australian States and N.T.)	D /T //	
(a pippi known only from S.A,; possibly endemic)	Donax (Tentidonax) francisensis	
Doriopsilla	Doriopsilla carneola	
(a variably-coloured		
nudibranch) (a translucent, light yellow	Doris cameroni	
nudibranch with brown		
speckles)	Docinia circinaria	
(a venus shell from shallow sand habitats in N.S.W.,	Dosinia circinaria	
Victoria, Tasmania and S.A.)		

(a venus shell from subtidal	Dosinia crocea	
sand habitats to around		
110m deep; found in N.S.W.,		
Victoria, Tasmania and S.A.)		
(a venus shell from intertidal	Dosinia diana	
and subtidal sand habitats in		
Victoria, Tasmania and S.A.)		
	Dosinia euclia	
(a venus shell from deep-	Dosinia euciia	
water sand habitat in		
Tasmania, S.A. and W.A.)		
(a venus shell from shallow	Dosinia sculpta	
sand habitat; found in all		
Australian States and N.T.)		
(a venus shell from intertidal	Dosinia victoriae	
and subtidal sand habitat:		
ranging from N.S.W. to W.A.,		
including Tasmania)		
,	Doto nito	
(a cosmopolitan nudibranch	Doto pita	
that eats hydroids)		
(a small auger shell from the	Duplicaria fictilis	Possibly endemic to S.A.
continental shelf; found to		
date only in S.A.)		
(a small gastropod in the	Eatoniella (Eatoniella)	
Eatoniellidae family; found	atropurpurea	
amongst algae, under		
stones, and in crevices, in		
the intertidal and shallow		
subtidal; ranging from		
Queensland through to W.A.,		
including Tasmania; also		
occurs in New Zealand)		
(a small gastropod in the	Eatoniella (Eatoniella)	
Eatoniellidae family; found	depressa	
amongst algae on exposed	•	
rocky shores in N.S.W.,		
Victoria, Tasmania, S.A. and		
W.A.)		
(a small gastropod in the	Eatoniella (Eatoniella)	
Eatoniellidae family; found	,	
1	exigua	
amongst algae in the lower		
intertidal and shallow		
subtidal; ranging from		
N.S.W. through to W.A.,		
including Tasmania).		
(a small gastropod in the	Eatoniella (Eatoniella) fulva	
Eatoniellidae family; found	, , , , , , , , , , , , , , , , , , ,	
amongst algae in the		
intertidal and shallow		
subtidal; occurs in Victoria,		
Tasmania, S.A. and W.A.).		
	Fotoniollo (Fotoniollo)	
(a small gastropod in the	Eatoniella (Eatoniella)	
Eatoniellidae family; found	juliae	

amongst algae in the intertidal and shallow subtidal; occurs in western S.A. and southern W.A.). (a small gastropod in the Eatoniellidae family; found amongst algae and under stones in the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania). (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania). (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; found in S.A. and W.A). (a small gastropod in the Cingulopsidae family, found in algal turf habitats in the intertidal and shallow subtidal; known to date only from the type locality, the Great Australian Bight in S.A.) (two small gastropods in the Cingulopsidae family, found amongst algal turf and stones in the intertidal and shallow subtidae; both occur in Victoria, Tasmania and S.A.) (a small gastropod in the Cingulopsidae family, found amongst algal turf and stones in the intertidal and shallow subtidae; both occur in Victoria, Tasmania and S.A.) (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.) (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.) (a small gastropod in the Cingulopsidae family, found amongst algal turf and the intertidal; occurs in western S.A. and southern W.A.) (a small gastropod in the Cingulopsidae family, found amongst algal turf and debris			
subtidal; occurs in western S.A. and southern W.A.).  (a small gastropod in the Eatoniellidae family; found amongst algae and under stones in the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania).  (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania).  (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; found in S.A. and W.A).  (a small gastropod in the Cingulopsidae family; found in N.S.W., Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found in algal turf habitats in the intertidal and shallow subtidal; known to date only from the type locality, the Great Australian Bight in S.A.)  ((wo small gastropods in the Cingulopsidae family, found amongst algal turf and stones in the intertidal and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf and stones in the intertidal and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found emorgst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found emorgst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found emorgst algal turf in the intertidal; occurs in western S.A. and southern W.A.)	amongst algae in the		
S.A. and southern W.A.).  (a small gastropod in the Eatoniellidae family; found amongst algae and under stones in the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania).  (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania).  (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; found in S.A. and W.A).  (a small gastropod in the Cingulopsidae family, found in N.S.W., Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found in algal turf habitats in the intertidal and shallow subtidal; known to date only from the type locality, the Great Australian Bight in S.A.)  (two small gastropods in the Cingulopsidae family, found amongst algal turf and stanles in the intertidal and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)	intertidal and shallow		
(a small gastropod in the Eatoniellidae family; found shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania).  (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; ranging from N.S.W. through to W.A., including Tasmania).  (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; found in N.S.W., including Tasmania).  (a small gastropod in the Eatoniellidae family; found amongst algae in the intertidal and shallow subtidal; found in S.A. and W.A).  (a small gastropod in the Cingulopsidae family, found in algal turf habitats in the intertidal and shallow subtidal; known to date only from the type locality, the Great Australian Bight in S.A.)  (a small gastropods in the Cingulopsidae family, found amongst algal turf and stones in the intertidal and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found elemental catonina) shirileyae	subtidal; occurs in western		
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Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found in algal turf habitats in the intertidal and shallow subtidal; known to date only from the type locality, the Great Australian Bight in S.A.)  (two small gastropods in the Cingulopsidae family, found amongst algal turf and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis		Tulvicolumena	
(a small gastropod in the Cingulopsidae family, found in algal turf habitats in the intertidal and shallow subtidal; known to date only from the type locality, the Great Australian Bight in S.A.)  (two small gastropods in the Cingulopsidae family, found amongst algal turf and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis			
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in algal turf habitats in the intertidal and shallow subtidal; known to date only from the type locality, the Great Australian Bight in S.A.)  (two small gastropods in the Cingulopsidae family, found amongst algal turf and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found Cingulopsidae family, found Small gastropod in the Cingulopsidae family, found Cingulops	, ,	,	Possibly endemic to S.A.
intertidal and shallow subtidal; known to date only from the type locality, the Great Australian Bight in S.A.)  (two small gastropods in the Cingulopsidae family, found amongst algal turf and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found Cingulopsidae family, found amal gastropod in the Cingulopsidae family, found		rubicunda	
subtidal; known to date only from the type locality, the Great Australian Bight in S.A.)  (two small gastropods in the Cingulopsidae family, found amongst algal turf and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis			
from the type locality, the Great Australian Bight in S.A.)  (two small gastropods in the Cingulopsidae family, found amongst algal turf and stones in the intertidal and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found Cingulopsidae family, found Sanguinolenta  Eatonina (Eatonina) shirleyae  Eatonina (Eatonina) shirleyae  Eatonina (Eatonina) shirleyae  Eatonina (Eatonina) shirleyae			
Great Australian Bight in S.A.)  (two small gastropods in the Cingulopsidae family, found amongst algal turf and stones in the intertidal and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amal gastropod in the Cingulopsidae family, found Cingulopsidae family Cingulopsidae family Cingulopsidae family Cingulopsidae family Cingulo	1		
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(two small gastropods in the Cingulopsidae family, found amongst algal turf and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found Cingulopsida	_		
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amongst algal turf and stones in the intertidal and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found Cingulopsidae family, found Cingulopsidae family, found Cingulopsidae family, found	1 '		
stones in the intertidal and shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found Cingulopsidae family, found Cingulopsidae family, found	, ,		
shallow subtidal; both occur in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found Cingulopsidae family, found		,	
in Victoria, Tasmania and S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis		sanguinolenta	
S.A.)  (a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found Westralis	· ·		
(a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis	· ·		
Cingulopsidae family, found amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis			
amongst algal turf in the intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis	, · · · · · · · · · · · · · · · · · · ·	,	
intertidal; occurs in western S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis	Cingulopsidae family, found	shirleyae	
S.A. and southern W.A.)  (a small gastropod in the Cingulopsidae family, found westralis	amongst algal turf in the		
(a small gastropod in the Cingulopsidae family, found westralis	intertidal; occurs in western		
Cingulopsidae family, found westralis	S.A. and southern W.A.)		
	(a small gastropod in the	Eatoniopsis (Pilitonia)	
amongst algal turf and debris	Cingulopsidae family, found	westralis	
	amongst algal turf and debris		
in the lower intertidal and	in the lower intertidal and		
	(a small gastropod in the Cingulopsidae family, found amongst algal turf and debris	, , ,	

shallow subtidal; occurs in		
S.A. and southern W.A.)		
(a bivalve-shelled, green	Edentellina typica	
gastropod in the Juliidae		
family; eats green		
macroalgae; found in eastern		
S.A., northern Tasmania and		
Victoria)		
(a bivalve that attaches to	Electroma (Electroma)	
seaweeds; found across	georgiana	
southern Australia, including		
Tasmania)		
(a bivalve that attaches to	Electroma (Pterelectroma)	
benthic invertebrates such as	physoides	
corals; found around	, ,	
Australia, including		
Tasmania and N.T.)		
(a genus of green shell-less	Elysia spp.	
molluscs, most of which feed	(e.g. E. australis; E. ornata)	
on Caulerpa plants)	,	
(a slit limpet commonly found	Emarginula (Emarginula)	
in beach drift; ranging from	candida	
Victoria through to W.A.,		
including Tasmania)		
(a sub-tropical slit limpet,	(?) Emarginula	
found in Queensland; also	(Émarginula) convexa	
recorded from Cape Jaffa in	,	
S.A., by Cotton, in 1959)		
(a slit limpet of broad	Emarginula (Emarginula)	
geographic range and depth	dilecta	
range; ranging from N.S.W.		
through to W.A., including		
Tasmania; also recorded		
from Japan and Hawaii)		
(a slit limpet from deep	Emarginula (Emarginula)	
water; found on the	patula	
continental shelf and slope,		
in S.A. and W.A.)		
a slit limpet ranging from the	Emarginula (Emarginula)	
intertidal down to	subtilitexta	
approximately 200m; found		
in S.A. and W.A.)		
(a slit limpet commonly found	Emarginula (Subzeidora)	
in beach drift; ranges from	devota	
N.S.W. through to W.A.,		
including Tasmania)		
(a bivalve from sandy mud	Ennucula obliqua	
habitats on the continental		
shelf; found in N.S.W.,		
Victoria, Tasmania and S.A.)		
(a bivalve from subtidal sand	Ennucula dilecta flindersi	
habitats; found in S.A. and		

W.A.)		
(a small, white, sand-	Epicodakia tatei	
dwelling lucinid shell from	,	
Tasmania, Victoria, S.A. and		
W.A.)		
(three turrid shells, all found	Epidirona beachportensis	All three species possibly
to date only in S.A.)	Epidirona jaffaensis	endemic to S.A.
	Epidirona perksi	
(a turrid shell found in S.A.	Epidirona flindersi	
and W.A.).		
(A turrid shell from Victoria,	Epidirona philipineri	
Tasmania, S.A. and W.A.).	E. P. C. C. C.	
(two turrid shells, both found	Epidirona quoyi	
in Victoria, Tasmania and South Australia).	Epidirona schoutanica	
(a small gastropod in the	Epigrus cylindracea	
Epigridae family; ranging	Epigrus cyllitaracea	
from N.S.W. through to W.A.,		
including Tasmania)		
(a small gastropod in the	Epigrus dissimilis	
Epigridae family; ranging		
from Queensland through to		
S.A., including Tasmania)		
(a small wentletrap shell,	Epitonium (Eburniscala)	
ranging from Queensland	delicatulum	
through to S.A)		
(a small wentletrap shell,	Epitonium (Hirtoscala)	
recorded on the continental	acanthopleura	
shelf in S.A. and Victoria)		
(a small wentletrap shell,	Epitonium (Hyaloscala)	
from the intertidal and	friabile	
shallow subtidal; found in		
S.A. and W.A.) (a small, common wentletrap	Enitonium (Hyaloogala)	
shell, found around Australia,	Epitonium (Hyaloscala) jukesianum	
excluding N.T.; also recorded	Jukesiarium	
in New Zealand)		
(a small wentletrap shell,	Epitonium (Laeviscala)	
occurring in the intertidal;	tacitum	
ranging from N.S.W. through		
to W.A., including Tasmania)		
(a small wentletrap shell from	Epitonium (Lamelliscala)	
intertidal habitats; found in	aculeatum	
Victoria, S.A, Tasmania and		
W.A.; also reported from		
parts of the tropical Indo-		
West Pacific)	Faitonium // casallis = = !=\	
(a small wentletrap shell from	Epitonium (Lamelliscala)	
the intertidal and shallow subtidal; found in S.A. and	godfreyi	
W.A.)		
(a small wentletrap shell from	Epitonium (Lamelliscala)	
La sinaii woniiciiap siicii iioiii	-phomain (Lamoniscala)	

	T	1
intertidal habitats; found	minorum	
around Australia, excluding		
N.T.; possibly also occurs in		
New Zealand)	Fritarium (Liminanta)	
(a small wentletrap shell from	Epitonium (Limiscala)	
shallow subtidal habitats;	barissum	
ranging from Queensland		
through to S.A., including		
Tasmania)		
(a tropical wentletrap shell,	Epitonium (Limiscala)	
found in Queensland, Torres	rubrolineata	
Strait, N.T., W.A. and the		
gulfs region of S.A.)		
(a small wentletrap shell,	Epitonium (Parviscala)	
reportedly found to date only	beachportense	
in S.A. and New Caledonia)		
(a small wentletrap shell,	Epitonium (Nitidiscala)	
recorded on the continental	platypleurum	
shelf in S.A. and Victoria; the	(= Epitonium platypleura)	
type specimen came from		
Backstairs Passage in S.A.)		
(a small bivalve, that lives in	Ephippodonta	Possibly endemic to S.A.
burrows made by the prawn	(Ephippodonta) lunata	
Axias plectorhynchus; found		
to date only in S.A.)		
(a small, semi-circular	Ephippodonta	Possibly endemic to S.A.
bivalve, that lives in burrows	(Ephippodontoana)	
made by the prawn Axias	macdougalli	
plectorhynchus; found to		
date only in S.A.)		
Queen Scallop	Equichlamys bifrons	
(a scallop found in N.S.W.,		
Victoria, Tasmania, and S.A.)		
Lightning Volute	Ericusa fulgetrum (=	Ponder and Grayson
(a volute shell found mainly	fulgetra)	(1998) vulnerability
in sand habitats, over a		categories:
broad depth range on the		D in S.A.
continental shelf; found in		C in W.A.
S.A. and W.A.)		
Marbled Volute	Ericusa papillosa	Ponder and Grayson
Papillose Volute		(1998) vulnerability
(a volute shell fuond in sand		category: D in W.A.,
and rubble habitats on the		Victoria and Tasmania.
continental shelf; ranging		
from Queensland through to		Previously, Eisenberg
W.A.)		(1981) ranked the species
		as "uncommon".
Sowerby's Volute	Ericusa sowerbyi	Ponder and Grayson
(a volute shell found in sand		(1998) Vulnerability
and mud habitats; ranging		Categories:
from Queensland through to		D in S.A. and Tasmania
south-eastern S.A.)		E in Victoria
	L.	1

		Previously, Eisenberg (1981) ranked the species as "uncommon".
(a small top shell from the shallow subtidal; found in S.A. and W.A.)	Ethminolia elveri	
(a small top shell from the shallow subtidal; found in Victoria, Tasmania, S.A. and W.A.)	Ethminolia vitiliginea	
(a turrid shell found on the continental shelf and slope; ranging from N.S.W. through to W.A., including Tasmania)	Etrema (Etrema) bicolor	
(a turrid shell found on the continental shelf and slope; occurs in Victoria, Tasmania, S.A. and W.A.)	Etrema (Etrema) denseplicata	
(a turrid shell found in S.A. and W.A.)	Etrema (Etrema) paucimaculata	
(a turrid shell found on the continental shelf; recorded to date only in S.A.)	Etrema (Etrema) sparula	Possibly endemic to S.A.
(a crassatella shell from shallow sand habitats in western S.A. and southern W.A	Eucrassatella decipiens	
(a crassatella shell from shallow sand habitats in S.A. and southern W.A	Eucrassatella donacina	
(a crassatella shell from shallow sand habitats in N.S.W., Victoria, Tasmania and S.A.)	Eucrassatella kingicola	
(a small shell in the Skeneidae family; known from deeper waters of the continental shelf, in S.A. and Tasmania)	Eudaronia jaffaensis	
(a yellow and brown bivalve from the shallow subtidal; recorded to date only in S.A.)	Eugaimardia perplexa	Possibly endemic to S.A.
(a small eulimid shell, parasitic on echinoderms; found across southern Australia, including Tasmania)	Eulima augur augur	
(a small eulimid shell, parasitic on echinoderms; found in S.A. and W.A.)	Eulima augur broadbente	

		T
(a small eulimid shell,	Eulima acutissima	
parasitic on echinoderms;		
known mainly from N.S.W.,		
but may also occur in		
Victoria, Tasmania and S.A.)		
, ,	Culina his ittata	
(a small eulimid shell,	Eulima bivittata	
parasitic on echinoderms;		
found in S.A. and W.A., and		
also recorded in parts of the		
tropical Indo-West Pacific)		
(a small eulimid shell,	Eulima joshuana	
parasitic on echinoderms;		
found in Victoria, Tasmania,		
·		
S.A and W.A.)		
(a small eulimid shell,	Eulima lodderae	
parasitic on echinoderms;		
ranging from Queensland		
through to S.A., including		
Tasmania)		
(a small eulimid shell,	Eulima roegerae	Possibly endemic to S.A.
parasitic on echinoderms;	Zamna reegerae	r coolery cridering to c., t.
· •		
found to date only in S.A.)	Fulltanas vitanas	
(a small eulimid shell,	Eulitoma nitens	
parasitic on echinoderms;		
found in south-eastern		
Australia, with S.A. recorded		
as the western limit)		
(a venus shell of variable	Eumarcia fumigata	
colour, found across		
southern Australia, from		
Queensland through to W.A.,		
including Tasmania) (a small moon snail found in	Functions alborations	
,	Eunaticina albosutura	
S.A. and W.A.)	E C	
(a small moon snail; ranging	Eunaticina umbilicata	
from Queensland through to		
W.A., including Tasmania)		
Southern Dumpling Squid	Euprymna tasmanica	
(a small cerithiopsid	Euseila pileata	
gastropod that feeds on		
sponges; found on the		
continental shelf and slope in		
S.A. and W.A.)		
(two small triphorid	Eutriphora armillata	
gastropods that feed on		
, •	Eutriphora cana	
sponges; found in Victoria,		
S.A. and W.A.)		
(a small triphorid gastropod	Eutriphora dexia	Possibly endemic to S.A.
that feed on sponges; found		
to date only on the		
continental shelf in S.A.)		
(a small triphorid gastropod	Eutriphora pseudocana	
		1

that feed on sponges; found		
in S.A. and W.A.)		
(a small triphorid gastropod	Eutriphora tricolor	
that feed on sponges;		
ranging from N.S.W. through		
to W.A., including Tasmania)		
(a turrid shell known from	Exomilus pentagonalis	
south-eastern Australia and		
Tasmania, with S.A. being		
the western limit)		
(a turrid shell known from	Exomilus telescopialis	
Victoria and S.A.)		
(a turrid shell known mainly	Exomilus dyscritos	
from Tasmania and S.A.)	Zxormae ayeerkee	
(a small dove shell found in	Exomilopsis spica	
N.S.W., Victoria, Tasmania	Exonniopsis spica	
and S.A.).	Evosinores samba	
(a small mussel from deeper	Exosiperna scapha	
waters in southern W.A.,		
S.A., Victoria and Tasmania)		
(a small, deep-water whelk	Fax (Scaeofax) grandior	Considered to be
shell found in N.S.W.,		uncommon (Beechley,
Victoria and S.A.; recorded		undated)
from the outer continental		
shelf, and upper slope)		
(a small Murex shell from	Favartia (Murexiella)	
eastern and southern	brazieri	
eastern and southern Australia)	brazieri	
	brazieri Favartia (Murexiella) tatei	Considered rare (Wilson et
Australia)		Considered rare (Wilson et al., 1994)
Australia) (a small Murex shell; endemic to S.A.)	Favartia (Murexiella) tatei	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the	Favartia (Murexiella) tatei Felaniella (Zemysia)	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in	Favartia (Murexiella) tatei	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and	Favartia (Murexiella) tatei Felaniella (Zemysia)	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.)	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from	Favartia (Murexiella) tatei Felaniella (Zemysia)	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.)	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis Filodrillia dulcis	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.) (a turrid shell recorded from	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis	,
Australia)  (a small Murex shell; endemic to S.A.)  (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.)  (a turrid shell recorded from the continental shelf in Tasmania and S.A.)  (a turrid shell recorded from the continental shelf in	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis Filodrillia dulcis	,
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.) (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.)	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola	al., 1994)
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.) (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.) (two varieties of a turrid shell;	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola	Both varieties possibly
Australia)  (a small Murex shell; endemic to S.A.)  (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.)  (a turrid shell recorded from the continental shelf in Tasmania and S.A.)  (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.)  (two varieties of a turrid shell; recorded from the continental	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola  Filodrillia lacteola crebristriata	al., 1994)
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.) (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.) (two varieties of a turrid shell;	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola crebristriata Filodrillia lacteola	Both varieties possibly
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.) (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.) (two varieties of a turrid shell; recorded from the continental shelf in S.A.)	Favartia (Murexiella) tatei  Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola  Filodrillia lacteola crebristriata Filodrillia lacteola sinusigens	Both varieties possibly
Australia)  (a small Murex shell; endemic to S.A.)  (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.)  (a turrid shell recorded from the continental shelf in Tasmania and S.A.)  (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.)  (two varieties of a turrid shell; recorded from the continental shelf in S.A.)  (a turrid shell recorded from	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola crebristriata Filodrillia lacteola	Both varieties possibly
Australia)  (a small Murex shell; endemic to S.A.)  (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.)  (a turrid shell recorded from the continental shelf in Tasmania and S.A.)  (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.)  (two varieties of a turrid shell; recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf in S.A.)	Favartia (Murexiella) tatei  Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola  Filodrillia lacteola crebristriata Filodrillia lacteola sinusigens	Both varieties possibly
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.) (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.) (two varieties of a turrid shell; recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf in S.A.)	Favartia (Murexiella) tatei  Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola  Filodrillia lacteola crebristriata Filodrillia lacteola sinusigens	Both varieties possibly
Australia)  (a small Murex shell; endemic to S.A.)  (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.)  (a turrid shell recorded from the continental shelf in Tasmania and S.A.)  (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.)  (two varieties of a turrid shell; recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf and slope; found in N.S.W., Victoria, Tasmania and S.A.)	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola crebristriata Filodrillia lacteola sinusigens  Filodrillia tricarinata	Both varieties possibly endemic to S.A.
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.) (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.) (two varieties of a turrid shell; recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf and slope; found in N.S.W., Victoria, Tasmania and S.A.) (a turrid shell recorded from	Favartia (Murexiella) tatei  Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola  Filodrillia lacteola crebristriata Filodrillia lacteola sinusigens	Both varieties possibly
Australia)  (a small Murex shell; endemic to S.A.)  (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.)  (a turrid shell recorded from the continental shelf in Tasmania and S.A.)  (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.)  (two varieties of a turrid shell; recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf and slope; found in N.S.W., Victoria, Tasmania and S.A.)	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola crebristriata Filodrillia lacteola sinusigens  Filodrillia tricarinata	Both varieties possibly endemic to S.A.
Australia) (a small Murex shell; endemic to S.A.) (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.) (a turrid shell recorded from the continental shelf in Tasmania and S.A.) (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.) (two varieties of a turrid shell; recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf and slope; found in N.S.W., Victoria, Tasmania and S.A.) (a turrid shell recorded from	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola crebristriata Filodrillia lacteola sinusigens  Filodrillia tricarinata	Both varieties possibly endemic to S.A.
Australia)  (a small Murex shell; endemic to S.A.)  (a small bivalve from the shallow subtidal; found in Tasmania, Victoria, S.A. and W.A.)  (a turrid shell recorded from the continental shelf in Tasmania and S.A.)  (a turrid shell recorded from the continental shelf in Victoria, Tasmania and S.A.)  (two varieties of a turrid shell; recorded from the continental shelf in S.A.)  (a turrid shell recorded from the continental shelf and slope; found in N.S.W., Victoria, Tasmania and S.A.)  (a turrid shell recorded from the continental shelf and slope; found in N.S.W., Victoria, Tasmania and S.A.)	Favartia (Murexiella) tatei Felaniella (Zemysia) globularis  Filodrillia dulcis  Filodrillia lacteola crebristriata Filodrillia lacteola sinusigens  Filodrillia tricarinata	Both varieties possibly endemic to S.A.

molluscs with no shells;		
includes the genus Firoloida,		
which has representatives in		
southern Australia)		
(a translucent white	Flabellina poenicia	
nudibranch with long orange	•	
and red cerata; ranging from		
N.S.W. through to S.A.)		
(a bivalve from brackish	Fluviolanatus subtorta	
water and coastal lagoons;	Traviolariatas subtorta	
found in all Australia States,		
including N.T. and		
Tasmania)		
· · · · · · · · · · · · · · · · · · ·	Faccarina (Faccarina)	
(a small top shell found	Fossarina (Fossarina)	
amongst mussels and	petterdi	
vegetation, in the intertidal		
zone; occurs in Victoria,		
Tasmania and S.A.)		
(a small top shell found	Fossarina (Minopa)	
amongst macroalgae in the	legrandi	
shallow subtidal; ranging		
from N.S.W. through to		
southern W.A., including		
Tasmania)		
(a small top shell from the	Fossarina (Minopa) reedi	Possibly endemic to S.A.
shallow subtidal; known only	, ,	,
from S.A.)		
(a cockle shell found in	Fulvia (Fulvia) tenuicostata	
shallow sand and mud	(	
habitats across southern		
- FRANKARA GOLOGO GOULLIGITI		
Australia, from N.S.W. to		
Australia, from N.S.W. to W.A.)	Fuscaulima hrunnaa	
Australia, from N.S.W. to W.A.)  (two small eulimid shells,	Fusceulima brunnea	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins;	Fusceulima brunnea Fusceulima perexigua	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and		
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)	Fusceulima perexigua	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle		
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle	Fusceulima perexigua	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle	Fusceulima perexigua	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait	Fusceulima perexigua	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A.,	Fusceulima perexigua	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand	Fusceulima perexigua	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).	Fusceulima perexigua  Fusinus (Fusinus) australis	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle	Fusinus (Fusinus) australis  Fusinus (Fusinus)	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle (a large spindle shell found in	Fusceulima perexigua  Fusinus (Fusinus) australis	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle (a large spindle shell found in south-eastern and southern	Fusinus (Fusinus) australis  Fusinus (Fusinus)	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle (a large spindle shell found in south-eastern and southern Australia, and in Tasmania;	Fusinus (Fusinus) australis  Fusinus (Fusinus)	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle (a large spindle shell found in south-eastern and southern	Fusinus (Fusinus) australis  Fusinus (Fusinus)	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle (a large spindle shell found in south-eastern and southern Australia, and in Tasmania;	Fusinus (Fusinus) australis  Fusinus (Fusinus)	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle (a large spindle shell found in south-eastern and southern Australia, and in Tasmania; ranging from southern	Fusinus (Fusinus) australis  Fusinus (Fusinus)	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle (a large spindle shell found in south-eastern and southern Australia, and in Tasmania; ranging from southern Queensland, through to the	Fusinus (Fusinus) australis  Fusinus (Fusinus)	
Australia, from N.S.W. to W.A.)  (two small eulimid shells, parasitic on sea urchins; found in Victoria, S.A. and W.A.)  Australian Spindle Southern Spindle (a shallow-water spindle shell found from Bass Strait through to Geraldton in W.A., often associated with sand and seagrass habitats).  New Holland Spindle (a large spindle shell found in south-eastern and southern Australia, and in Tasmania; ranging from southern Queensland, through to the Great Australian Bight in	Fusinus (Fusinus) australis  Fusinus (Fusinus)	

extremely variable in form; ranges from the intertidal to around 220m deep; found across southern Australia, from N.S.W. to southern W.A. inlcuding Tasmania)	undulatus	
(a small dog whelk found across eastern and southern Australia)	Fusus bednalli	
(a small dog whelk found across southern Australia, including Tasmania; also recorded in New Zealand)	Fusus reticulatus	
(a small turbinid shell found in Victoria, Tasmania and S.A.)	Gabrielona nepeanensis	
(a yellowish-brown bivalve from the shallow subtidal; found in S.A. and Victoria)	Gaimardia (Neogaimardia) rostellata	
(a pink, light brown or red- brown bivalve occurring to around 165m; found in S.A., Victoria and Tasmania)	Gaimardia (Neogaimardia) tasmanica	
(a purple sunset shell found in the intertidal; ranging from central Queensland to southern W.A., including Tasmania)	Gari (Gari) modesta	
(a sunset shell from shallow subtidal habitats in Tasmania, Victoria and S.A.)	Gari (Psammobia) kenyoniana	
(a sunset shell found in the intertidal; ranging from N.S.W. to southern W.A., including Tasmania)	Gari (Psammobia) livida	
(a bivalve from sand and mud habitats; found in Queensland, N.S.W., Victoria, Tasmania and S.A.; also recorded in various parts of the tropical Indo-West Pacific)	Gastrochaena (Gastrochaena) cuneiformis	
(a bivalve from sand and mud habitats in shallow waters; found in N.S.W., Victoria, Tasmania and S.A.)	Gastrochaena) tasmanica	
(a screw shell from shallow subtidal habitats, sometimes found in beach litter; found in Victoria, Tasmania, S.A. and W.A.)	Gazameda iredalei	
(a screw shell that is	Gazameda tasmanica	

endemic to S.A.
endemic to S.A.

abolt in C A )		
shelf in S.A.)	One was to fine built at the	
Tiled False Ear Shell	Granata imbricata	
Rounded False Ear Shell		
(a top shell found on rock		
platforms, often under		
stones, in the intertidal and		
shallow subtidal; ranging		
from N.S.W. through to W.A.,		
including Tasmania)		
(a gastropod shell in the	Granosolarium asperum	
Architectonicidae family;		
found throughout the tropical		
Indo-West Pacific; also		
recorded from N.T.,		
Queensland, N.S.W., S.A.		
and W.A.)		
(a small marginella shell from	Granulina elliottae	
the continental shelf and		
slope; found in Tasmania,		
Victoria and S.A.)		
Velvet Octopus	Grimpella thaumastocheir	
(a small turrid shell, reported	Guraleus (Euguraleus)	
to date from N.S.W.,	anisus	
Tasmania and S.A.; possibly		
extending to W.A.)		
(a small turrid shell, found on	Guraleus (Euguraleus)	
the continental shelf in	tasmanicus	
N.S.W., Victoria, Tasmania		
and S.A.)		
(three small turrid shells,	Guraleus (Guraleus)	
reported to date from	bordaensis	
Tasmania, S.A. and W.A.)	Guraleus (Guraleus) cuspis	
,	connectens	
	Guraleus (Guraleus)	
	diacritus	
(two small turrid shells, both	Guraleus (Guraleus)	
from the continental shelf	fallaciosus	
and slope; reported to date in	Guraleus (Guraleus)	
Victoria, Tasmania, and S.A.)	incrusta	
(two small turrid shells,	Guraleus (Guraleus)	
reported to date in Victoria,	flaccidus	
Tasmania, and S.A.)	Guraleus (Guraleus)	
,	lallemantianus	
(a small turrid shell, from the	Guraleus (Guraleus)	Possibly endemic to S.A.
continental shelf and slope;	inornatus	
reported to date only in S.A.)		
(a small turrid shell, from the	Guraleus (Guraleus)	Possibly endemic to S.A.
continental shelf; reported to	nitidus	
date only in S.A.)		
(a small turrid shell species	Guraleus (Guraleus)	
and an associated variety,	insculptus	
found on the continental	Guraleus (Guraleus)	
	1 /	

		,
shelf in Victoria, Tasmania and S.A.)	insculptus delicatulus	
(a small turrid shell species and an associated variety, from the continental shelf and slope; ranging from Queensland through to W.A.,	Guraleus (Guraleus) pictus Guraleus (Guraleus) pictus vincentinus	
including Tasmania) (a small turrid shell, found across southern Australia, including Tasmania)	Guraleus (Mitraguraleus) australis	
(a small wentletrap shell, ranging across southern Australia from Queensland through to W.A.; also found in parts of the tropical Indo-West Pacific)	Gyroscala (Gyroscala) pyramis	
(an abalone that lives gregariously in the lower intertidal; found in S.A. and W.A.)	Haliotis cyclobates	
Greenlip Abalone (an abalone found in Victoria, Tasmania, S.A. and southern W.A.)	Haliotis laevigata	
Blacklip Abalone (the south-eastern form of Blacklip Abalone; occurs in N.S.W., Victoria, Tasmania and S.A.)	Haliotis rubra rubra	
Conical Pore Abalone Brownlip Abalone (the large south-western form of Blacklip Abalone, found under ledges in the subtidal; occurs in S.A. and Victoria, extending to southern W.A.)	Haliotis rubra conicopora	
Roe's Abalone (a gregarious abalone species from the lower intertidal and shallow subtidal; found in Victoria, S.A. and W.A.)	Haliotis roei	
Staircase Abalone (the south-eastern form of Haliotis scalaris, found under stones in the intertidal and shallow subtidal; occurs in Tasmania, Victoria, S.A., and southern W.A.)	Haliotis scalaris emmae	Ponder and Grayson (1998) vulnerability category: D in S.A. and W.A.  O'Hara and Barmby (2000) assigned <i>Haliotis scalaris</i> to vulnerability category D

		in Victoria, using Ponder and Grayson's (1998) criteria.
		Previously, Eisenberg (1981) ranked the species as uncommon.
(a straw-coloured bivalve found on the continental shelf and slope; recorded to date only in S.A.)	Haliris (Haliris) jaffaensis	Possibly endemic to S.A.
(a brown-spotted, yellow and white nudibranch, originally described from Kangaroo Island in 1903; rarely recorded)	Halgerda graphica	
(a white bivalve, found on the continental shelf and slope in Victoria, Tasmania and S.A.)	Hamacuna hamata	
(a small, brown-shelled mollusc from the intertidal and shallow subtidal)	Haminoea maugeansis	
Southern Blue-ringed Octopus	Hapalochlaena maculosa	
(a small auger shell, found in shallow waters of the continental shelf, in N.S.W., Victoria, Tasmania and S.A.)	Hastula (Hastula) brazieri	
(a small eulimid shell, parasitic on echinoderms; found in N.S.W., Victoria, and S.A.)	Hebeulima fricata	
(a small triphorid gastropod that feed on sponges; found in Tasmania, Victoria, S.A. and W.A.)	Hedleytriphora basimacula	
(a small triphorid gastropod that feed on sponges; found in N.S.W., S.A. and W.A.)	Hedleytriphora elata	
(a small triphorid gastropod that feed on sponges; ranging from N.S.W. through to W.A., including Tasmania)	Hedleytriphora fasciata	
(a small triphorid gastropod that feed on sponges; found in Victoria and S.A.)	Hedleytriphora scitula	
(a small bivalve from intertidal sand habitats in Victoria, S.A. and W.A.)	Hemidonax chapmani	
(a slit limpet found in Victoria, Tasmania, S.A. and	Hemitoma (Montfortia) subemarginata	

W.A.)		
(a top shell from rocky	Herpetopoma annectans	
habitats; found in S.A. and		
W.A.)		
(a common top shell found	Herpetopoma aspersus	
under stones in the intertidal		
and shallow subtidal; ranging		
from N.S.W. through to W.A.,		
including Tasmania)		
(a top shell with a broad	Herpetopoma fenestrata	
depth range; found in S.A.	riorpotopoma remoduata	
and W.A.)		
(a top shell from rocky	Herpetopoma pumilio	
habitats; found in Victoria,		
Tasmania, S.A. and W.A.)		
(a top shell from rocky	Herpetopoma scabriuscula	
habitats; found in N.S.W.,	, , , : :::::::::::::::::::::::::::::::	
Victoria, Tasmania, and S.A.)		
(a top shell found on rocky	Herpetopoma vixumbilicata	
shores, and amongst dead		
shells on sand flats; recorded		
in Victoria, S.A. and W.A.)		
(a small shell in the	Herviera buliminoides	
Pyramidellidae family; found		
inVictoria, Tasmania and		
S.A.)		
(a Murex shell found in	Hexaplex conatus	Shell distribution
southern W.A. and S.A.)		companies consider H.
		conatus to be rare, which
		is reflected in the high
		prices each specimen
		attracts.
(a bivalve that lives in rock	Hiatella australis	
crevices, or on other shells;		
found in all Australian		
States).		
States). (a gregarious species of	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night;	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania and S.A.; also recorded on	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania and S.A.; also recorded on Lord Howe and Norfolk	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania and S.A.; also recorded on Lord Howe and Norfolk Islands, and parts of the	Hinea brasiliana	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania and S.A.; also recorded on Lord Howe and Norfolk Islands, and parts of the Eastern Pacific).		
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania and S.A.; also recorded on Lord Howe and Norfolk Islands, and parts of the Eastern Pacific).  Bonnet Limpet	Hipponix conicus	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania and S.A.; also recorded on Lord Howe and Norfolk Islands, and parts of the Eastern Pacific).  Bonnet Limpet (a variably coloured,		
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania and S.A.; also recorded on Lord Howe and Norfolk Islands, and parts of the Eastern Pacific).  Bonnet Limpet  (a variably coloured, pustulose nudibranch, often	Hipponix conicus	
States).  (a gregarious species of clusterwink shell that is bioluminescent at night; found on rocky shores in wave-exposed areas; occurs in Queensland, New South Wales, Victoria, Tasmania and S.A.; also recorded on Lord Howe and Norfolk Islands, and parts of the Eastern Pacific).  Bonnet Limpet  (a variably coloured,	Hipponix conicus	

(a tube-shaped bivalve that cements itself to rocks, from 7m – 200m deep; found across southern Australia, including Tasmania)	Humphreyia strangei	
(a white bivalve from the continental shelf in southern W.A. and S.A.)	Huxleyia concentrica	
(a small gastropod in the Hydrococcidae family; found in saltmarshes and muddy sand habitats; ranging from Victoria through to W.A., including Tasmania)	Hydrococcus brazieri	
(three small marginella shells, found in Victoria, Tasmania, S.A. and W.A.)	Hydroginella <sup>#</sup> columnaria Hydroginella <sup>#</sup> tridentata Hydroginella <sup>#</sup> vincentiana	
(two small eulimid shells, parasitic on echinoderms; both species found to date only in S.A.)	Hypermastus georgiiregis Hypermastus williamsi	Both species possibly endemic to S.A.
(a small eulimid shell, parasitic on echinoderms; ranging from N.S.W. through to W.A., including Tasmania)	Hypermastus mucronatus	
(a small, elongated triphorid shell that feeds on sponges; found to date across the continental shelf in S.A.)	Hypotriphora subula	Possibly endemic to S.A.
(a black/gray and white mottled nudibranch; possibly a regional form of the tropical species H. infucata)	Hypselodoris saintvincentius	Possibly endemic to S.A.
Southern Pygmy Squid	Idiosepius notoides	
(a mussel, occurring in deeper waters of the continental shelf and slope; found to date only in S.A.)	Idasola projectus	Possibly endemic to S.A.
(a small, tropical triphorid shell that feeds on sponges; recorded in Queensland, N.T., W.A. and S.A.)	Inella acicula	
(two small triphorid shells that feed on sponges; both found in S.A. and W.A.)	Inella carinata Inella intercalaris	
(a small triphorid shell that feeds on sponges; found in Victoria, S.A. and W.A.)	Inella obliqua	
(a small, elongated triphorid shell that feeds on sponges; found in Victoria, Tasmania and S.A.)	Inella spina	

(a nutmeg shell of uncertain distribution, recorded to date from dredging at 2 localities, in S.A. and W.A.)	Inglisella fischeri	
(a small Scissurellid slit shell ranging from N.S.W. through to W.A., including Tasmania)	Incisura (Scissurona) rosea remota	
(a small Scissurellid slit shell found in Victoria, S.A. and W.A.)	Incisura (Scissurona) vincentiana	
(a turrid shell from the continental shelf and slope; found to date only in S.A.)	Inquisitor hedleyi	Possibly endemic to S.A.
White Irus Shell (a venus shell found in Victoria, Tasmania, S.A. and southern W.A.)	Irus (Irus) carditoides	
(a venus shell found in eastern and southern Australia, from central Queensland through to W.A., including Tasmania)	Irus (Irus) crebrelamellatus	
(a venus shell that lives in mussel clumps or littoral debris; ranging from N.S.W. through to W.A., including Tasmania; also recorded from parts of the tropical Indo-West Pacific)	Irus (Irus) crenatus	
(a venus shell that lives in mussel clumps or littoral debris; found in N.S.W., Victoria, Tasmania and S.A.)	Irus (Irus) cumingii	
(a venus shell from intertidal habitats; found in Victoria, Tasmania, S.A. and W.A.)	Irus (Notopaphia) griseus	
(a venus shell, possibly endemic to S.A.)	Irus distans	
(a venus shell, reported from Victoria, Tasmania, S.A. and W.A.)	Irus exotica	
Australian Chiton	Ischnochiton australis	
Elongated Chiton	Ischnochiton elongatus	
Variegated Ischnochiton	Ischnochiton versicolor	
(a tropical bivalve that attaches to beach rocks; recorded from Queensland and S.A.; also found in parts of the tropical Indo-West	Isognomon (Isognomon) nucleus	

Decifie)		
Pacific)	lootriphoro amothyatina	
(a small triphorid shell that	Isotriphora amethystina	
feeds on sponges; found on		
the continental shelf in		
Tasmania, Victoria, S.A. and		
W.A.)		
(a small triphorid shell that	Isotriphora aureovincta	
feeds on sponges; found on		
the continental shelf in S.A.		
and W.A.)		
(a small triphorid shell that	Isotriphora disjuncta	
feeds on sponges; found on		
the continental shelf and		
slope in Victoria, Tasmania		
and S.A.)		
(a small triphorid shell that	Isotriphora nivea	
feeds on sponges; found on	•	
the continental shelf, mainly		
in S.A. and W.A.; records		
also from Tasmania and		
Victoria)		
(a small triphorid shell that	Isotriphora simulata	
feeds on sponges; recorded		
in N.S.W., Tasmania and		
S.A.)		
(a small triphorid shell that	Isotriphora tasmanica	
feeds on sponges; found on		
the continental shelf in		
N.S.W., Tasmania, Victoria		
and S.A.)		
(a small triphorid shell that	Isotriphora vercoi	
	isotripriora vercor	
feeds on sponges; found in		
Tasmania, S.A. and W.A.) Violet Sea Snails	lonthing avigue	
	Janthina exigua	
(small gastropods that live on	Janthina janthina	
the surface of the open	Janthina pallida	
ocean; recorded across	Janthina prolongata	
southern Australia)		
(two small cerithiopsid shells	Joculator flindersi	Both species possibly
that feed on sponges; both	Joculator introspecta	endemic to S.A.
found to date only on the		
continental shelf in S.A.)		
Mud Cockle	Katelysia rhytiphora	
(two mud cockle species	Katelysia scalarina	
found in sand or mud in		
intertidal areas, particularly		
estuaries; ranging across		
southern Australia)		
Mud Cockle	Katelysia peronii	
(a mud cockle species found		
in sand or mud in intertidal		
areas, particularly estuaries;		
	i	i e e e e e e e e e e e e e e e e e e e

occurs in Victoria, Tasmania,		
S.A. and W.A.)		
(a bivalve recorded to date	Kellia angasiana	Possibly endemic to S.A.
only in S.A.)	16.111	
(a bivalve found on the	Kellia yorkensis	
continental shelf in southern		
W.A. and S.A.)		
(a top shell found on the	Laetifautor spinulosum	
continental shelf in S.A. and		
W.A.)	Las Tractor des Tractor	
(a littorinid shell found in	Laevilittorina (Laevilitorina)	
western S.A. and W.A.)	johnstoni	
(a littorinid shell found in	Laevilitorina (Laevilitorina)	
algal turf, on sheltered reefs;	mariae	
occurs in N.S.W., Victoria, Tasmania and S.A.)		
,	Lamellaria australis	
(a species in the Lamellariidae, a family of	Lamenaria austrans	
gastropods with thin,		
translucent shells; found in		
S.A. and southern W.A.)		
(a species in the	Lamellaria ophione	
Lamellariidae, a family of	Lamena opmene	
gastropods with thin,		
translucent shells; found in		
Victoria, Tasmania, S.A. and		
W.A.)		
( a bivalve that lives in	Lasaea australis	
clumps of mussels and other		
shell aggregations; found in		
southern W.A., S.A., Victoria		
and Tasmania)		
(two white bivalves that	Laternula (Laternula)	
occur in sand and mud	creccina	
habitats; both found in	Laternula (Laternula)	
southern W.A., S.A.,	laterna	
Tasmania, Victoria and		
N.S.W.)		
(a white bivalve from sand	Laternula (Laternula)	
and mud habitats; found in	rostrata	
S.A., Victoria and N.S.W.;		
also recorded from Indo-		
China and Indo-Malaysia)	Latinua pullainai	
(a spindle shell found in S.A. and W.A.)	Latirus pulleinei	
(a small triphorid gastropod	Latitriphora latilirata	
that feed on sponges; found	Lauriphora laumata	
in S.A. and W.A.)		
(a small white bivalve from	Ledella curtior	
the continental shelf in	= Nuculana (Ledella)	
southern W.A. and S.A.)	curtior	
(a small white bivalve from	Ledella miliacea	
15. 55		

the continental shelf;	= Nuculana (Ledella)	
recorded in N.S.W., Victoria	miliacea	
and S.A.)		
(a small white bivalve from	Ledella remensa	Possibly endemic to S.A.
the continental shelf; known	= Nuculana (Ledella)	T coolery criderine to C.7 t.
to date only from S.A.)	remensa	
,		
(a sand-dwelling bivalve from	Leionucula dilecta flindersi	
shallow waters in S.A. and		
southern W.A.)		
(a bivalve from sandy mud,	Leionucula obliqua	
found in south-eastern		
Australia, with S.A. being the		
western limit)		
(a small top shell ranging	Leiopyrga octona	
from N.S.W. through to W.A.,		
including Tasmania)		
(an oyster drill gastropod in	Lepsiella (Bedeva) paivae	
	Lepsielia (Deueva) paivae	
the Muricidae family, found		
across southern Australia,		
including Tasmania)		
Flinders' Lepsiella	Lepsiella (Lepsiella)	
(a small Whelk shell from	flindersi	
rocky shores; found in		
Victoria, S.A. and southern		
W.A.)		
(a small Whelk shell from	Lepsiella (Lepsiella)	Considered to be relatively
intertidal rocky shores; found	baileyana	uncommon (Wilson et al.,
in Tasmania, Victoria and		1994).
S.A.)		100 1).
Wine-mouthed Lepsiella	1	
	I I Ancialia (I Ancialia) Vinnea	
•	Lepsiella (Lepsiella) vinosa	
(a small Whelk shell from	Lepsiella (Lepsiella) vinosa	
(a small Whelk shell from rocky shores; found across	Lepsiella (Lepsiella) vinosa	
(a small Whelk shell from rocky shores; found across southern Australia, from	Lepsiella (Lepsiella) vinosa	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A.,	Lepsiella (Lepsiella) vinosa	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)		
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A.,	Lepsiella (Lepsiella) vinosa  Lepton australe	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)		
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)  (a bivalve that attaches to		
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)  (a bivalve that attaches to the byssal threads of		
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)  (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria)	Lepton australe	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)  (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria)  (a small transparent bivalve		
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf	Lepton australe	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)  (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria)  (a small transparent bivalve found on the continenal shelf and slope in S.A. and	Lepton australe	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria)	Lepton australe  Lepton ovatum	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria) (a bivalve occurring in beach	Lepton australe	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)  (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria)  (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria)  (a bivalve occurring in beach sand; found in S.A. and	Lepton australe  Lepton ovatum	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria) (a bivalve occurring in beach sand; found in S.A. and Victoria)	Lepton australe  Lepton ovatum  Lepton subrostatum	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria) (a bivalve occurring in beach sand; found in S.A. and Victoria) (a small bivalve occurring to	Lepton australe  Lepton ovatum	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria) (a bivalve occurring in beach sand; found in S.A. and Victoria)	Lepton australe  Lepton ovatum  Lepton subrostatum	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria) (a bivalve occurring in beach sand; found in S.A. and Victoria) (a small bivalve occurring to	Lepton australe  Lepton ovatum  Lepton subrostatum	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania)  (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria)  (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria)  (a bivalve occurring in beach sand; found in S.A. and Victoria)  (a small bivalve occurring to around 100m deep; found in	Lepton australe  Lepton ovatum  Lepton subrostatum  Lepton trigonale	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria) (a bivalve occurring in beach sand; found in S.A. and Victoria) (a small bivalve occurring to around 100m deep; found in S.A., Victoria and Tasmania) (a genus of infaunal	Lepton australe  Lepton ovatum  Lepton subrostatum  Lepton trigonale  Liloa spp.	
(a small Whelk shell from rocky shores; found across southern Australia, from N.S.W. to southern W.A., including Tasmania) (a bivalve that attaches to the byssal threads of mussels; found in S.A. and Victoria) (a small transparent bivalve found on the continenal shelf and slope in S.A. and Victoria) (a bivalve occurring in beach sand; found in S.A. and Victoria) (a small bivalve occurring to around 100m deep; found in S.A., Victoria and Tasmania)	Lepton australe  Lepton ovatum  Lepton subrostatum  Lepton trigonale	

Skeneidae family; both recorded from Tasmania and S.A.)	Liotella compacta	
(a small, fragile turbinate shell related to the cap limpets; found in Victoria, Tasmania and S.A.)	Lippistes gabrieli	
(a small tropical turbinate shell related to the cap limpets; reported from N.T., Queensland, N.S.W., Victoria, and S.A.; also found in Papua New Guinea, Singapore, Philippines, and the Red Sea).	Lippistes helicoides	
(two small rissoid gastropods that feed on micro-algal film; both found in Victoria, Tasmania and S.A.)	Lironoba australis Lironoba unilirata	
(a small shell in the Skeneidae family, found in deeper waters on the continental shelf, in N.S.W., Victoria, Tasmania and S.A.)	Lissotesta micra	
(a small, shallow-water mussel found amongst consolidated shell-ooze; found to date only in S.A.)	Lithophaga (Lithophaga) cuneiformis	Possibly endemic to S.A.
(a small Trophine shell, from the intertidal to at least 80m deep; found in N.S.W., Victoria, Tasmania and S.A.)	Litozamia brazieri	
(a small Trophine shell, known from dredge sampling off Beachport, S.A.)	Litozamia longior	Possibly endemic to S.A.
(a small Trophine shell, from the intertidal to around 180m deep; found in N.S.W., Victoria, Tasmania and S.A.)	Litozamia petterdi	
(A bivalve from shelly sand on the continental shelf and slope; found in S.A., Victoria and Tasmania)	Lissarca rhomboidalis	
(A bivalve from shelly sand habitats on the continental shelf; found in southern W.A., S.A., Victoria and Tasmania)	Lissarca rubricata	
False Melon Volute False Baler (a large volute shell found in sand habitats on the	Livonia mammilla	Ponder and Grayson (1998) Vulnerability Category: D (in S.A., Tasmania and Victoria)

	T	T
continental shelf; ranging from Queensland through to eastern S.A.)		Previously, Eisenberg (1981) ranked the species as being uncommon.  Dance (1992) categorised L. mammilla as Occurrence Code 2 (on a Common to Rare scale of 5 to 1)
Cotton's Volute (a large volute shell found in subtidal sand habitats, in S.A. and W.A.)	Livonia nodiplicata	Ponder and Grayson (1998) Vulnerability Categories: C in S.A, and nationally; B in W.A. S.A. is at the margin of the range of this species.  L. nodiplicata is a valuable species in the shell trade.
Roadnight's Volute (a volute shell found in subtidal sand and mud habitats across southern Australia, from N.S.W. through to W.A., excluding Tasmania)	Livonia roadnightae	Ponder and Grayson (1998) vulnerability categories: E in S.A. and Victoria D. in W.A.  Previously, a shell authority (Eisenberg, 1981) ranked the species as being "very scarce", a change of status from the previous category of "uncommon", presumably due to overr-collecting).
(a very small shell in the Vitrinellidae family; found in N.S.W., Victoria, Tasmania and S.A.)	Lodderia lodderae	
(a small Acmaeid limpet found on exposed rock platforms in the intertidal; recorded from S.A. and W.A.)	Lottia onychitis	
(a small Acmaeid limpet found on exposed rock platforms in the midintertidal; recorded from S.A. and Victoria, and uncommon in Tasmania)	Lottia mixta	

		1
(a small rissoid gastropod that feeds on micro-algal film; recorded in Victoria, Tasmania, S.A. and W.A.)	Lucidestea muratensis	
(a burrowing trough shell from estuarine habitats across southern Australia, including Tasmania)	Lutraria (Psammophila) rhynchaena	
Mitre-shaped Lyria (a volute shell, found in sand and rock habitats in the intertidal and shallow subtidal; occurs in W.A., S.A. and Victoria)	Lyria mitraeformis	Ponder and Grayson (1998) vulnerability categories: D in S.A. C in Victoria and W.A.  O'Hara and Barmby (2000) assigned <i>L. mitraeformis</i> to vulnerability category C in Victoria, using Ponder and Grayson's (1998) criteria.  Collectors consider some forms to be rare.
(a "shipworm" bivalve of tropical and temperate Indo-West Pacific distribution; examples of Australian records include those from N.S.W. and S.A.)	Lyrodus pedicellatus	
(a tellin shell from intertidal sand and mud habitats; ranging from southern Queensland to southern W.A., including Tasmania)	Macomona deltoidalis	
(a white tellin shell from intertidal sand habitats; ranging from southern Queensland to S.A., excluding Tasmania)	Macomona imbellis	
(a keyhole limpet found buried in sand, or under stones, or in crevices; ranging from N.S.W. through to W.A., including Tasmania)	Macroschisma producta	
(a keyhole limpet found under stones in the intertidal and shallow subtidal; occurs in N.S.W., Victoria, Tasmania and S.A.)	Macroschisma tasmaniae	
(a small turrid shell of widespread distribution, ranging from N.S.W. through	Macteola anomala	

to W.A., including Tasmania)		
(three trough shells from	Mactra (Austromactra)	
south-eastern and southern	contraria	
Australia, all ranging from	Mactra (Austromactra)	
Queensland to S.A.,	rufescens	
including Tasmania)	Mactra (Electomactra)	
including rasmania)	antecedens	
(two trough shells from	Mactra (Mactra) australis	
shallow sand habitats in	Mactra (Mactra) pura	
Victoria, Tasmania, S.A. and	Waciia (Waciia) para	
W.A.)		
(a trough shell from shallow	Mactra (Mactra) cumingii	
sand habitats in S.A., W.A.	Wacta (Wacta) cariingii	
and N.T.)		
(a trough shell from shallow	Mactra (Mactra) luzonica	
sand habitats in S.A., W.A.,	Wactia (Wactia) lazoriica	
and various parts of the		
tropical Indo-West Pacific)		
(a trough shell from shallow	Mactra (Nannomactra)	
sand habitats in N.S.W.,	jacksonensis	
Victoria, Tasmania and S.A.)	Jacksonene	
(a trough shell from shallow	Mactra (Nannomactra)	
sand habitats in south-	pusilla	
eastern and southern	p s s s	
Australia, from Queensland		
to S.A., including Tasmania)		
(a small, red-brown	Madrella sanguinea	
nudibranch)		
(a worm shell that attaches	Magilina caperata	
its shell to hard substrates;		
found in N.S.W., Victoria,		
Tasmania and S.A.)		
Southern Hammer Oyster	Malleus (Malleus)	
Hammer Oyster	meridianus	
(a hammer oyster found in		
S.A. and W.A.)		
(a horse hoof limpet from the	Malluvium devotus	
continental shelf and slope;		
found in N.S.W., Victoria,		
Tasmania and S.A.)		
New Zealand Screw Shell	Maoricolpus roseus	Introduced
(a turrid shell from the	Maoritomella dilecta	
continental shelf and slope;		
recorded to date in N.S.W.		
and S.A.)	Maraia (Hamitanas)	
(a venus shell of broad	Marcia (Hemitapes)	
distribution; found around	hiantina	
Australia, and parts of the		
tropical Indo-West Pacific) (a white bivalve from sandy	Marikellia solida	
and shelly habitat; found	ivialikelila Sullua	
across southern Australia)		
acioss southern Australia)		

(two small turrid shells, both found on the continental	Marita bella Marita compta	
shelf across southern	wanta compta	
Australia, including Tasmania)		
(a small eulimid shell, parasitic on echinoderms;	Melanella cunaeformis	
recorded to date in Tasmania and S.A.)		
(three small eulimid shells, parasitic on echinoderms; all	Melanella gradata Melanella murrayae	
three species found in S.A. and W.A.)	Melanella planicincta	
(a small eulimid shell, parasitic on echinoderms; found in Victoria, Tasmania and S.A.)	Melanella inflata	
(three small eulimid shells, parasitic on echinoderms; all three species found in Victoria, Tasmania, S.A. and W.A.)	Melanella mayi Melanella orthopleura Melanella tenisoni	
(a translucent, hooded nudibranch with flask-shaped cerata)	Melibe australis	
(a transparent orange, hooded nudibranch; recorded in S.A., Victoria and Tasmania)	Melibe maugeana	
(a small bivalve occurring to around 140m deep; found across southern Australia, including Tasmania)	Melliteryx acupuncta	
Southern Baler Shell Milton Baler (a large volute shell from intertidal and shallow subtidal habitats in S.A. and	Melo miltonis	Ponder and Grayson (1998) vulnerability category: B (in S.A., W.A. and nationally)
W.A.; also reported from western Victoria)		M. miltonis has a restricted range in S.A.
		Shells more than 35cm considered very uncommon (Wilson et al., 1994), although the species grows to more than 50cm long.
		Considered particularly vulnerable due to limited distribution and direct development of young

		(Ponder and Grayson, 1998).
(a small rissoid gastropod that feeds on micro-algal film; ranging from Queensland to S.A., including Tasmania)	Merelina cheilostoma	1000).
(a small rissoid gastropod that feeds on micro-algal film; ranging across southern Australia, including Tasmania)	Merelina gracilis	
(a tellin shell from intertidal and shallow subtidal sand habitats; found in Victoria, Tasmania, S.A. and W.A.)	Merisca margaritina	
(two small marginella shells found in Tasmania, Victoria and S.A.)	Mesoginella altilabra Mesoginella pygmaeoides	
(a small marginella shell found in Victoria, Tasmania, S.A. and southern W.A.)	Mesoginella caducocincta	
(a small marginella shell found on the continental shelf; recorded in Tasmania and S.A.)	Mesoginella consobrina	
(a small marginella shell found on the continental shelf; recorded in N.S.W., Victoria and S.A.)	Mesoginella strangei	
(three small marginella shells found in N.S.W., Victoria, Tasmania and S.A.)	Mesoginella gabrieli Mesoginella olivella Mesoginella schoutanica	
(a small marginella shell found across southern Australia, from N.S.W. to W.A., including Tasmania)	Mesoginella inconspicua	
(a small marginella shell found across southern Australia, from N.S.W. to W.A., excluding Tasmania)	Mesoginella turbinata	
(a scallop shell from known from Victoria, S.A. and southern W.A.)	Mesopeplum anguineum	
(a scallop shell found in deeper waters; known from New Zealand, S.A. and W.A.)	Mesopeplum convexum	
(a scallop shell from south- eastern Australia and Tasmania, with S.A. being the western limit)	Mesopeplum tasmanicum	

(a small triphorid shell that feeds on sponges; recorded from N.S.W. and S.A.)	Metaxia protolineata	
(a brightly coloured nudibranch found in tropical and temperate Australia)	Mexichromis macropus	
(a small spindle shell found from Bass Strait through to W.A.; the W.A. form could be a separate species)	Microcolus dunkeri	
(a gastropod in the Anabathridae family; found in Victoria, Tasmania and S.A.)	Microdryas janjucensis	
(a bivalve from intertidal and subtidal habitats in southern W.A., S.A., Tasmania and Victoria)	Micromytilus crenatulifera	
(a dark brown bivalve, known to date only from S.A.)	Micromytilus francisensis	Possibly endemic to S.A.
(a small, volutomitrid shell, recorded to date from the continental shelf in S.A.).	Microvoluta stadialis	Possibly endemic to S.A.
(A shell-less green mollusc with spots, that eats Caulerpa simpliciuscula plants).	Midorigai australis	
Doughboy Scallop (a scallop from sand habitats; found in parts of the tropical Indo-West Pacific, Norfolk Island, and across south-eastern and southern Australia)	Mimachlamys asperrimus (= asperrima)	Ponder and Grayson (1998) assigned a low category of vulnerability (Category E in S.A., Tasmania and Victoria).  It is noted that <i>M. asperrima</i> has recently (in 2002) been described by one specimen shell authority (G. Poppe) as "uncommon".
(a scallop similar to M. asperrimus, ranging in distribution from N.S.W. through to W.A., including Tasmania)	Mimachlamys instar	
(a top shell found to date in S.A., between Hardwicke Bay in Spencer Gulf and Beachport in the South-East)	Minolops (= Minolia) cincta	Possibly endemic to S.A.
(a top shell found in S.A. and southern W.A.)	Minolops (= Minolia) corallina	
(a common mitre shell from rocky intertidal and subtidal	Mitra carbonaria	Ponder and Grayson (1998) assigned a low category of vulnerability:

	I	
Zealand, N.S.W., Victoria,		Category E in S.A.,
S.A. and south-western		Victoria and W.A.
Australia).		
(a mitre shell found under	Mitra (Mitra) cookii	
stones in the intertidal and		
shallow subtidal, ranging		
from N.S.W. to central S.A.,		
excluding Tasmania)		
(a mitre shell found under	Mitro (Mitro) alabra	
stones in the intertidal and	Mitra (Mitra) glabra	
shallow subtidal, found in		
N.S.W., Victoria, Tasmania,		
S.A. and southern W.A.)		
(a small dove shell found	Mitrella (Dentimitrella)	
across southern Australia,	acuminata	
including Tasmania)		
(a small dove shell that is	Mitrella (Dentimitrella)	
common amongst algae and	austrina	
intertidal rocks; found across		
southern Australia, including		
Tasmania)		
(a small dove shell found in	Mitrella (Dentimitrella)	
south-eastern and southern	axiaerata	
Australia, with S.A. being the		
western limit)		
Long Dove Mitre Shell	Mitrella (Dentimitrella) pulla	
(a small dove shell ranging	with one (Bertallilla one) palle	
from N.S.W. through to W.A.,		
including Tasmania)		
(a small dove shell found in	Mitrella (Dentimitrella)	
south-eastern and southern	dictua	
	dictua	
Australia, including		
Tasmania)	Mittee He (Devetionities He)	
(a small, common dove shell	Mitrella (Dentimitrella)	
that occurs in seagrass and	lincolnensis	
sand habitats in the intertidal		
and shallow subtidal; found		
across southern Australia,		
including Tasmania)		
(a small dove shell found in	Mitrella (Dentimitrella)	
Victoria, Tasmania and S.A.)	legrandi	
(a small dove shell ranging	Mitrella (Dentimitrella)	
from N.S.W. through to W.A.,	semiconvexa	
including Tasmania)		
(a small dove shell found in	Mitrella (Dentimitrella)	
Victoria, S.A. and W.A.)	vincta	
(a small dove shell found in	Mitrella (Zemitrella)	
S.A. and W.A.)	purpureocincta	
(a mussel found amongst	Modiolus (Modiolus)	
sponges; ranging from	albicostatus	
southern Queensland		
through to W.A., including		
anough to wint, moraling		

Tasmania)		
(a mussel found amongst	Modiolus (Modiolus)	
seaweeds; ranging from	areolatus `	
N.S.W. through to southern		
W.A., including Tasmania)		
(a green and white oyster-	Monia zelandica	
like bivalve that lives in		
sandy mud, often attached to		
shell debris; ranging from		
N.S.W. through to W.A.,		
including Tasmania)		
(a lucinid shell from shallow	Monitilora (Monitilora)	
sand habitats in S.A. and	adelaideana	
W.A.)	adciaidearia	
(a lucinid shell from shallow	Monitilora (Monitilora)	Possibly endemic to S.A.
subtidal sand habitats; found	paupera	1 ossibly endernic to S.A.
to date only in S.A.)	paupera	
(a small, common triphorid	Monophorus angosi	
	Monophorus angasi	
shell that feeds on sponges;		
ranging from N.S.W. through		
to W.A., including Tasmania)	Managhawa	Descibly and rais to C A
(a small triphorid shell that	Monophorus australica	Possibly endemic to S.A.
feeds on sponges; found to		
date only in S.A.)	Managhania	
(a small triphorid shell that	Monophorus nigrofusca	
feeds on sponges; found in		
N.S.W., Victoria, Tasmania		
and S.A.)	Manadan trade a la la carina da	Descibly and rais to C A
(a small typhine shell, the	Monstrotyphis bivaricata	Possibly endemic to S.A.
type specimen of which was		
dredged off Neptune Island)	Manatoria	
Yates' Typhis	Monstrotyphis yatesi	
(a small typhine shell from		
the shallow subtidal; found in		
Victoria and S.A.; also		
recorded from New		
Caledonia)		B 111 1 1 1 0 1
(a sand-dwelling bivalve from	Montacuta meridionalis	Possibly endemic to S.A.
the intertidal and shallow		
subtidal; found to date only in		
S.A.)	Mandaguta and State	
(a bivalve that is parasitic on	Montacuta semiradiata	
Echinocardium; found in		
S.A., Victoria and N.S.W.)	Mantantal	
(a slit limpet from the mid-	Montfortula rugosa	
intertidal zone, found		
amongst mussel clumps and		
Galeolaria tube worms;		
ranging from southern		
Queensland through to W.A.,		
including Tasmania)	Manualitia I - II - I	
(a small turbinid shell found	Munditia hedleyi	

in Victoria, Tasmania and		
in Victoria, Tasmania and S.A.)		
	Munditio moveno	
(a small turbinid shell found	Munditia mayana	
in Victoria, Tasmania, S.A.		
and W.A.)		
(a small turbinid shell from	Munditia subquadrata	
the continental shelf and		
slope; found in Victoria,		
Tasmania, S.A. and W.A.)		
(a small turbinid shell from	Munditia tasmanica	
the continental shelf and		
slope; found in N.S.W.,		
Tasmania, Victoria, and S.A.)		
(a small, common Murex	Muricopsis planilirata	
shell from the intertidal and		
shallow subtidal; found in		
Victoria, S.A. and southern		
W.A.)		
(a small Murex shell found in	Muricopsis umbilicatus	
Tasmania, Victoria and S.A.)		
(a small mussel that lives	Musculus cumingiana (=	
attached to ascidians and	cumigianus)	
sponges; found across	,	
eastern and southern		
Australia, from Queensland		
to S.A.)		
(a small mussel that lives	Musculus (Musculus)	
gregariously, in rock	impactus `	
crevices; found across	•	
southern Australia, from		
Queensland to W.A.,		
including Tasmania)		
(a small mussel that occurs	Musculus (Musculus)	
to 260+m deep, and is often	nanus	
washed ashore after storms;		
found around Australia and		
Tasmania)		
(a small mussel known to	Musculus (Musculus)	Possibly endemic to S.A.
date only from S.A.)	, ,	
	nubilis	
(a small mussel that occurs	nubilis Musculus (Musculus)	Possibly endemic to S.A.
(a small mussel that occurs to 260+m deep; known only	Musculus (Musculus)	Possibly endemic to S.A.
to 260+m deep; known only		Possibly endemic to S.A.
to 260+m deep; known only from S.A.)	Musculus (Musculus) semiradiatus	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in	Musculus (Musculus)	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in sandy mud habitats, to	Musculus (Musculus) semiradiatus	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in sandy mud habitats, to around 365m deep; found in	Musculus (Musculus) semiradiatus	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in sandy mud habitats, to around 365m deep; found in N.S.W., Victoria, Tasmania	Musculus (Musculus) semiradiatus	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in sandy mud habitats, to around 365m deep; found in N.S.W., Victoria, Tasmania and S.A.)	Musculus (Musculus) semiradiatus Myadora albida	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in sandy mud habitats, to around 365m deep; found in N.S.W., Victoria, Tasmania and S.A.)  (a grey-white bivalve that	Musculus (Musculus) semiradiatus	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in sandy mud habitats, to around 365m deep; found in N.S.W., Victoria, Tasmania and S.A.)  (a grey-white bivalve that occurs to around 150m deep;	Musculus (Musculus) semiradiatus Myadora albida	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in sandy mud habitats, to around 365m deep; found in N.S.W., Victoria, Tasmania and S.A.)  (a grey-white bivalve that occurs to around 150m deep; found in New Zealand,	Musculus (Musculus) semiradiatus Myadora albida	Possibly endemic to S.A.
to 260+m deep; known only from S.A.)  (a white bivalve that lives in sandy mud habitats, to around 365m deep; found in N.S.W., Victoria, Tasmania and S.A.)  (a grey-white bivalve that occurs to around 150m deep;	Musculus (Musculus) semiradiatus Myadora albida	Possibly endemic to S.A.

sandy mud habitats in the		
intertidal and shallow		
subtidal; found in N.S.W.,		
Victoria, Tasmania and S.A.)		
(a white bivalve that lives in	Myadora complexa	
sandy mud habitats, in the	Wyddord complexa	
intertidal and shallow		
subtidal; ranging from		
N.S.W. through to W.A.,		
including Tasmania	AA a law la l'anta	Description of the C.A.
(a white bivalve that lives in	Myadora delicata	Possibly endemic to S.A.
sandy mud habitats, to		
around 550m deep; recorded		
to date only in central and		
south-eastern S.A.)		
(a white bivalve that lives in	Myadora elongata	
sandy mud habitats, from		
15m to around 270m deep;		
found in S.A. and Tasmania)		
(a white bivalve that lives in	Myadora pervalida	
sandy mud habitats, to		
around 30m deep; found in		
southern W.A., S.A., Victoria,		
Tasmania and N.S.W.)		
(a white bivalve that lives in	Myadora rotunda	
sandy mud habitats, to	,	
around 240m deep; found in		
around 240m deep; found in S.A. and Tasmania)		
S.A. and Tasmania)	Myllita (Myllita) benthicola	Possibly endemic to S A
S.A. and Tasmania) (a white bivalve that ranges	Myllita (Myllita) benthicola	Possibly endemic to S.A.
S.A. and Tasmania) (a white bivalve that ranges from the intertidal to around	Myllita (Myllita) benthicola	Possibly endemic to S.A.
S.A. and Tasmania) (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date	Myllita (Myllita) benthicola	Possibly endemic to S.A.
S.A. and Tasmania) (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)		Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs	Myllita (Myllita) benthicola  Myllita (Myllita) deshayesi	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found		Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and		Possibly endemic to S.A.
S.A. and Tasmania) (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.) (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)	Myllita (Myllita) deshayesi	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in		Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small	Myllita (Myllita) deshayesi	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus;	Myllita (Myllita) deshayesi	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives	Myllita (Myllita) deshayesi	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A.,	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and N.S.W.)	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata  Myllita (Myllita) tasmanica	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and N.S.W.)  (a mauve, cream or yellow-	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and N.S.W.)	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata  Myllita (Myllita) tasmanica	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and N.S.W.)  (a mauve, cream or yellow-	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata  Myllita (Myllita) tasmanica	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and N.S.W.)  (a mauve, cream or yellow-coloured bivalve that	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata  Myllita (Myllita) tasmanica	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and N.S.W.)  (a mauve, cream or yellow-coloured bivalve that attaches to rocks or other	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata  Myllita (Myllita) tasmanica	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and N.S.W.)  (a mauve, cream or yellow-coloured bivalve that attaches to rocks or other shells; found in Queensland,	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata  Myllita (Myllita) tasmanica	Possibly endemic to S.A.
S.A. and Tasmania)  (a white bivalve that ranges from the intertidal to around 100m deep; recorded to date only in S.A.)  (a white bivalve that occurs to around 30m deep; found in W.A., S.A., Tasmania and Victoria)  (a white bivalve that lives in burrows made by the small prawn Axius plectorhynchus; found in W.A. and S.A.)  (a white bivalve that lives amongst shell debris; found in southern W.A., S.A., Tasmania, Victoria and N.S.W.)  (a mauve, cream or yellow-coloured bivalve that attaches to rocks or other shells; found in Queensland, N.S.W., Victoria, Tasmania	Myllita (Myllita) deshayesi  Myllita (Myllita) gemmata  Myllita (Myllita) tasmanica	Possibly endemic to S.A.

to rocks or other shells;		
found in S.A. and Tasmania)		
(a small, semi-transparent	Mysella angasiana	
bivalve occurring in shelly		
sand; found in S.A. and		
Victoria)		
(a white bivalve occurring in	Mysella donaciformis	
shelly sand, from the		
intertidal to around 275m		
deep; found in southern		
W.A., S.A., Victoria and		
Tasmania)		
(a bivalve ranging in depth	Mysella ovalis	Possibly endemic to S.A.
from the intertidal to around		
200m deep; recorded to date		
only in S.A.)		
(a species in the	Mysticoncha wilsoni	
Lamellariidae, a family of		
gastropods with thin,		
translucent shells; found in		
Victoria and S.A.)		
(a small lucinid shell known	Myrtea (Myrtea) mayi	
from shallow sand habitats in		
south-eastern Australia and		
Tasmania, with S.A. being		
the western limit)		
(a small lucinid shell known from S.A.)	Myrtea (Myrtea) percirrata	Possibly endemic to S.A.
Blue Mussel	Mytilus (Mytilus) planulatus	
Edible Mussel	Mytilus edulis	
(a common mussel that	Mytilus edulis planulatus	
attaches to rocks, jetty piles		
or debris; found in all		
Australian states, and		
Tasmania)		
Blue Mussel	Mytilus galloprovincialis	Introduced
(a small limpet from S.A. and	Naccula compressa	
W.A., that lives on <i>Posidonia</i>		
seagrass).		
(a small limpet that lives on	Naccula punctata	
seagrasses in the sublittoral		
zone; found in Victoria,		
Tasmania, S.A. and W.A.).		
Gunther's Volute	Nannamoria guntheri	Ponder and Grayson
(a small volute shell found on	Nannamoria guntheri	(1998) Vulnerability
the continental shelf in W.A.	guntheri	Category for <i>N. guntheri</i>
and S.A.)		guntheri: B (in S.A., W.A.
		and nationally)
		N supthoribes a restricted
		N. guntheri has a restricted
		range in S.A.

		A related from in W.A., Nannamoria guntheri weaveri, has been assigned vulnerability category A, by Ponder and Grayson (1998)  Some forms of N. guntheri are considered rare and "very rare" by shell distributors, and the species is valuable in the shell trade.
(a small volute shell found in sand and rubble habitats on	Nannamoria johnclarki	Ponder and Grayson (1998) Vulnerability
the cointinental shelf; recorded in S.A. and W.A.)		Category: B (in S.A. and W.A., and therefore nationally).
		N. johnclarki has a restricted range in S.A.
(a small top shell from the continental shelf and slope; recorded in Victoria, S.A. and W.A.)	Nanula flindersi	
(a small top shell from the continental shelf and slope; recorded in N.S.W., Tasmania and S.A.)	Nanula galbina	
(a gastropod in the Tornidae family; recorded in N.S.W. and S.A.)	Naricava vincentiana	
(a small dog whelk shell found across eastern and southern Australia)	Nassarius (Alectrion) particeps	
(a small, deep-water dog whelk shell, ranging from N.S.W. to W.A.; the recorded depth distribution is 146m to 2000+m).	Nassarius (Cryptonassarius) ephamillus	
(a small dog whelk shell from south-eastern Australia, with S.A. being the western limit)	Nassarius (Hima) mobilis	
(a small dog whelk shell occurring in muddy sand habitats, from the intertidal to around 150m deep; recorded around Australia, including tasmania and N.T.; also found in parts of the tropical	Nassarius (Hima) pauperus	

Indo-West Pacific)		
(a small dog whelk shell	Nassarius (Niotha) nigellus	
occurring in sandy mud	, , ,	
habitats throughout eastern		
and southern Australia, from		
the shallow subtidal to 180m		
deep)		
(a small dog whelk shell	Nassarius (Niotha)	
found on a variety of subtrate	pauperatus	
types, in the intertidal and		
shallow subtidal zones of		
estuaries and bays; recorded across south-eastern and		
southern Australia)		
(a small dog whelk shell	Nassarius (Plicarcularia)	
found in estuaries and	burchardi	
sheltered bays; recorded	bar orrar ar	
around Australia, excluding		
Tasmania and N.T.)		
(a small dog whelk shell from	Nassarius (Plicarcularia)	
seagrass-lined estuaries and	jonasii	
bays in eastern and southern		
Australia, with S.A. being the		
western limit)		
(a small, common dog whelk	Nassarius (Zeuxis) pyrrhus	
shell occurring across		
southern Australia, in shallow		
estuaries and bays, often associated with seagrasses)		
(a small moon snail found in	Natica sertata	
Victoria, S.A. and W.A.)	Ivalica seriala	
(a small moon snail found in	Natica sticta	
S.A.; possibly the same	Transa shota	
species as Tasmatica		
schoutanica, which ranges		
from Queensland through to		
S.A)		
(a cockle shell from southern	Nemocardium (Pratulum)	
Australia, ranging from	thetidis	
Queensland through to W.A.,		
including Tasmania)	Navita (Malara arita)	
Black Nerite	Nerita (Melanerita)	
(the only nerite shell found	atramentosa	
across southern Australia and Tasmania; also occurs in		
Queensland, New Zealand,		
Lord Howe Island, and East		
Africa).		
Yellow Dorid	Neodoris chrysoderma	
(A yellow or cream coloured		
nudibranch with white		
pustules).		

Brooch Shell (a shell with a pearly, iridescent interior, known from sand habitats in Tasmania, S.A. and southern W.A.)	Neotrigonia bednalli	
(a turrid shell from the continental shelf and slope; recorded in N.S.W., Tasmania and S.A.)	Nepotilla bathentoma	
(a turrid shell known from the continental shelf in N.S.W., Tasmania, Victoria and S.A.)	Nepotilla excavata	
(a turrid shell known from the continental shlef and slope in Tasmania and S.A.)	Nepotilla fenestrata	
(two turrid shells known from	Nepotilla lamellosa	
Tasmania, Victoria and S.A.)	Nepotilla triseriata	
(a bean cowrie found around Australia, including Tasmania and N.T.)	Niveria (Cleotrivia) globosa (includes the South Australian form Niveria (Cleotrivia) pilula euclaensis)	
(three species of bean cowrie, all recorded in the gulfs region of S.A.)	Niveria (Cleotrivia) meridionalis Niveria (Cleotrivia) dorennus Niveria (Cleotrivia) corallina	All three species possibly endemic to S.A. (Cate, 1979, cited by Academy of Natural Sciences, 2003)
Blue Australwink (A littorinid found in clusters, in the upper intertidal of rocky shores; found around Australia, including Tasmania and excluding N.T.)	Nodilittorina unifasciata	
Checkered Australwink (A littorinid found in clusters on rocky shores, in Victoria, Tasmania and S.A.)	Nodilittorina praetermissa	
Tall Limpet (A gray-black and white limpet from south-eastern Australia and Tasmania, with S.A. being the western limit).	Notoacmea alta	
Flamed Limpet (a multi-coloured limpet found in wave-protected areas and under boulders; recorded from N.S.W. through to W.A., including	Notoacmea flammea	

Tasmania).		
May's Beetle Limpet (a gray and brown limpet from the upper intertidal;	Notoacmea mayi	
found in Tasmania, Victoria and S.A.)		
Petterd's Limpet (a limpet that lives on vertical rock faces in the intertidal zone; found in Queensland, N.S.W., Victoria, Tasmania and S.A.)	Notoacmea petterdi	
(a small limpet from the upper interidal in southern Australia states)	Notoacmea septiformis	
(a scallop, ranging from the Bass Strait area through to W.A.)	Notochlamys anguineus	
(a purple and white scallop from sand habitats; found to date only in S.A.)	Notochlamys (previously Semipallium) hallae	Possibly endemic to S.A
(a scallop from sand habitats; found in S.A. and Tasmania)	Notochlamys tasmanica	
(a small moon snail ranging from Queensland through to W.A., excluding Tasmania)	Notocochlis subcostata (= Natica subcostata)	
(a small cap limpet found in N.S.W., Victoria, Tasmania and S.A.)	Notocrater meridionalis	
Plump Cowrie Tight Cowrie (a small cowrie shell from the intertidal to around 150m deep; found on rocks or sponges; occurs in N.S.W.,	Notocypraea angustata (= Cypraea angustata) N. angustata var. molleri N. augustata var. subcarnea N. augustata var. albata	Ponder and Grayson (1998) vulnerability categories: C in S.A., Tasmania and Victoria
Victoria, Tasmania and S.A.)	N. angustata var. globosa	S.A. is at the end of the range of <i>N. angustata</i>
		O'Hara and Barmby (2000) also assigned N. angustata to vulnerability category C in Victoria, using Ponder and Grayson's (1998) criteria.
Compton's Cowrie (a small cowrie shell with forms of various colours, found under rocks and rubble in the subtidal; species ranging from N.S.W. through to W.A., including Tasmania;	Notocypraea comptoni (= Cypraea comptoni) N. comptoni subcarnea N. comptoni comptoni N. comptoni mayi N. comptoni casta N. comptoni trenberthae	One form ( <i>N. comptoni casta</i> ) endemic to S.A.  Ponder and Grayson (1998) vulnerability categories: D in S.A., Tasmania and

forms of more limited range – e.g. N. comptoni comptoni found in S.A. and W.A.; N. comptoni mayi found in N.S.W., Tasmania and Victoria; N. comptoni casta found only in S.A.)	N. comptoni wilkinsi	Previously, Eisenberg (1981) ranked the species as "uncommon". More recently, commercial shell distributors have described some forms of <i>N. comptoni</i> as being "uncommon" or "rare".  O'Hara and Barmby report (2000) reported that <i>N. comptoni</i> is one of the previously common shallow water species in Victoria that has been subjected to overcollecting in the nearshore zone, and is no longer commonly seen on shore platforms, compared with its abundance in the middle of last century.
Sloping Cowrie Speckled Cowrie (a small cowrie shell found under rocks and on sponges; ranging from the intertidal to around 200m deep; occurs in Tasmania, Victoria and S.A.)	Notocypraea declivis (= Cypraea declivis)	Ponder and Grayson (1998) categories: C in S.A. and Victoria B in Tasmania and W.A.  O'Hara and Barmby (2000) also assigned <i>N. declivis</i> to vulnerability category C in Victoria, using Ponder and Grayson's (1998) criteria.
Peppered Cowrie Two-Coloured Piperita Cowrie (two forms of a small and common cowrie of variable pattern, that lives under stones, particularly in the shallow subtidal, but occurs to around 200m deep; ranging from N.S.W. through to W.A., including Tasmania; the form N. piperita bicolor occurs in far western S.A. and southern W.A.)	Notocypraea piperita (= Cypraea piperita) N. piperita piperita N. piperata bicolor	Ponder and Grayson (1998) vulnerability category: D (in Victoria, S.A., and W.A.)  Previously, Eisenberg (1981) ranked the species as "uncommon".

(a small top shell from the continental shelf; ranging from Queensland through to W.A., including Tasmania)	Notogibbula bicarinata	
(a small, brightly coloured top shell found in seagrass beds and macroalgae in the shallow subtidal; found across southern Australia, including Tasmania)	Notogibbula lehmanni	
(a small top shell that is common under stones in the intertidal and shallow subtidal; found in Victoria, S.A. and W.A.)	Notogibbula preissiana	
(a small, fawn-coloured bivalve from shelly sand habitat; found to date only in the upper South-East of S.A.)	Notomytilus robensis	Possibly endemic to S.A
(a small, red or purple bivalve from shelly sand habitat; recorded in N.S.W., Tasmania, Victoria and S.A.)	Notomytilus rubra (= N. ruber)	
(a small, translucent volute shell found in S.A. and W.A.)	Notopeplum translucidum	Ponder and Grayson (1998) Vulnerability Categories: C in S.A and nationally; B in W.A.  Notopeplum translucidum is considered rare by shell specialists, and is a valuable species.
(a "shipworm" bivalve found in N.S.W. and S.A.)	Nototeredo edax	
Gould's Squid Arrow Squid Red Arrow Squid	Nototodarus gouldi	
(a small triphorid gastropod that feed on sponges; found in N.S.W., S.A. and W.A.)	Nototriphora regina	
(a small triphorid gastropod that feed on sponges; found on the continental shelf in Tasmania, S.A. and W.A.)	Nototriphora vestita	
Kreusler's Volute (a volute shell found on the continental shelf in Victoria, S.A. and W.A.)	Notovoluta kreuslerae	Ponder and Grayson (1998) vulnerability category: D in S.A., W.A. and Victoria
Verco's Volute	Notovoluta verconis	Ponder and Grayson

(a small volute shell found in		(1998) vulnerability
shallow waters on the		category: D (in S.A. and
continental shelf in S.A. and		W.A.)
southern W.A.)		
		Commercial shell
		distributors consider the
		species to be uncommon
		and hard to obtain.
(a yellow or lemon-coloured	Noumea closei	
nudibranch, recorded in		
south-eastern Australia,		
including S.A.)	Navyasaaay	
(a yellow nudibranch with	Noumea sulphurea	
orange spots) (a small gastropod in the	Nozeba topaziaca	
Iravadiidae family; found on	Подера (орагіаса	
muddy bottoms and amongst		
seagrasses in the intertidal		
and shallow subtidal; occurs		
in N.S.W., Victoria,		
Tasmania and S.A.)		
(a white bivalve, found to	Nucinella hedleyi	Possibly endemic to S.A
date only on the continental	•	
shelf in S.A.)		
(a small sand-dwelling	Nucula beachportensis	
bivalve from the continental		
shelf; found in Victoria,		
Tasmania, S.A. and W.A.,		
and introduced to N.S.W.)	N	
(a small sand-dwelling	Nucula covra	
bivalve from the continental		
shelf and slope; recorded in N.S.W., Victoria, Tasmania		
and S.A.)		
(a bivalve from sandy-mud in	Nuculana (Scaeoleda)	
eastern and south-eastern	crassa	
Australia, with S.A. being the	1.3004	
western limit)		
(a bivalve found on the	Nuculana (Scaeoleda)	Possibly endemic to S.A.
continental shelf; known to	comita	
date only from S.A.)		
(a bivalve from shelly sand	Nuculana (Scaeoleda)	Possibly endemic to S.A.
habitats; known to date only	verconis	
from S.A.)		
(a white bivalve, found in	Numella adamsi	
Queensland, N.S.W.,		
Victoria, Tasmania and S.A.)	Observa alberrittata	
(a small triphorid shell that	Obesula albovittata	
feeds on sponges; found on shell and sand substrates on		
the continental shelf in		
N.S.W., Victoria, S.A. and		
i v.O.vv., violoria, O.A. ariu		

W.A.)		
(a small triphorid shell that	Obesula mamillata	
feeds on sponges; occurs in		
the intertidal, and subtidally		
to at least 125m; ranging		
from N.S.W. through to W.A.,		
including Tasmania)		
(a small triphorid shell that	Obesula profundior	
feeds on sponges; found in	•	
S.A. and W.A.)		
Southern Keeled Octopus	Octopus berrima	
Southern White-Spot	Octopus bunurong	
Octopus	,	
Southern Sand Octopus	Octopus kaurna	
Maori Octopus	Octopus maorum	
·	,	
Pale Octopus	Octopus pallidus	
Frilled Pygmy Octopus	Octopus superciliosus	
	, ,	
Club Pygmy Octopus	Octopus warringa	
Football Octopus	Ocythoe tuberculata	
(a top shell of variable form,	Odontotrochus	
colou and pattern; common	chlorostomus	
in seagrasses; found in S.A.		
and W.A.)		
Australian Olive	Oliva australis	Ponder and Grayson
(an olive shell with a broad	Oliva australis pallescens	(1998) vulnerability
geographic range, from		categories:
south-eastern and southern		E for O. australis
Australia, through to western		pallescens, in S.A., W.A.
and north-western Australia)		and Victoria
		D. for O. australis australis
(a ampell via a interpretation and	On the (On the) monthly at	in W.A.
(a small rissoid gastropod	Onoba (Onoba) multilirata	
that feeds on micro-algal		
film; recorded in Tasmania		
and S.A.) (a wentletrap shell from	Opalia (Dentiscala)	
intertidal habitats; found in	, , ,	
Victoria, Tasmania and S.A.)	granosa	
(a wentletrap shell, recorded	Opalia (Nodiscala)	
to date only in S.A., however	subcrassa	
the species may be the same	040014004	
as O. apostolorum, from		
N.S.W.)		
(a tropical wentletrap shell	Opalia (Opalia) consors	
found in parts of the Indo-	- pana ( pana) sonon	
West Pacific, and also		
TVCSt i dollio, dila diso		1
recorded in W.A. and the		
recorded in W.A. and the		
7	Opalia (Opalia) australis	
recorded in W.A. and the S.A. gulfs region).	Opalia (Opalia) australis	

(a wentletrap shell from the		
intertidal; common in beach		
drift along the southern		
coast; ranging from southern		
Queensland through to W.A.,		
including Tasmania)		
Southern Mud Oyster	Ostrea (Eostrea) angasi	
Native Oyster		
(an oyster found in mud or		
sand, or on rock debris in		
shallow water; ranging from		
N.S.W. through to W.A.,		
including Tasmania)		
(a white bivalve with a broad	Ovacuna atkinsoni	
depth range over the		
contintental shelf and slope;		
found in seagrass, sand and		
mud habitats; ranging from		
Queensland through to W.A.,		
including Tasmania)		
(a small marginella shell with	Ovaginella ovulum	
a broad depth range; found		
in southern Queensland,		
N.S.W., Victoria, Tasmania		
and S.A.)		
(two small marginella shells,	Ovaginella tenisoni	
found on the continental	Ovaginella whani	
shelf; ranging from N.S.W.		
through to W.A., including		
Tasmania)		
(a green nudibranch that	Oxynoe viridis	
eats Caulerpa plants; widely		
distributed in the tropical and		
temperate Indo-West Pacific)	Dalialla analii	
(a small orange nudibranch	Paliolla cooki	
associated with bryozoa;		
ranging from N.S.W. through		
to S.A.)	Pandara (Franchica)	
(A white bivalve from the	Pandora (Frenamya)	
shallow subtidal; found in W.A. and S.A.)	patula	
(a bivalve found in the	Pananaa australis	
intertidal and shallow	Panopea australis	
subtidal; recorded in		
Queensland, N.S.W.,		
Victoria, Tasmania and S.A.)		
(a venus shell found in N.T.,	Paphia (Paphia)	
Queensland, N.S.W., S.A.	rapnia (rapnia) crassisulca	
and W.A.)	บเลงงเงนเบล	
(a wedge shell found in	Paphies (Amesodesma)	
beach sand; occurs around	elongata	
the Australian coast,	Ciongala	
uio Australian Coast,		

including Tasmania and N.T)		
(a wedge shell found in	Paphies (Atactodea)	
intertidal habitats from	cuneata	
N.S.W. to W.A., including	ourioata	
Tasmania)		
(an edible "surf clam" from	Paphies (Mesodesma)	Introduced
littoral sand; found in New	ventricosa	Introduced
Zealand, and introduced to	Ventricosa	
S.A. and W.A.)		
(a turrid shell found on the	Paramontana modesta	
continental shelf in N.S.W.,	Taramoniana modesia	
Victoria and S.A.)		
(a turrid shell found in	Paramontana rufozonata	
Victoria and S.A.)	trachys	
(a cerithiopsid gastropod that	Paraseila halligani	
feeds on sponges; found on	Farasella Halliyarii	
the continental shelf in		
N.S.W., Victoria, Tasmania		
and S.A.)	Parastropia (Parastropia)	
(a gastropod in the Caecidae family; found around	, , , , , , , , , , , , , , , , , , , ,	
	cygnicollis	
Australia, including		
Tasmania and excluding		
N.T.) (a translucent white bivalve	Parathyanira yaraania	
,	Parathyasira verconis	
occurring to 350+m deep; found in southern W.A. and		
S.A.)		
(a buff-coloured bivalve	Parilimya tasmanicia	
occurring to 190m deep;	T aniimya tasmamcia	
found in Victoria, Tasmania		
and S.A.)		
(a small dove shell found	Parviterebra brazieri	
around Australia, including	Tarviterebra brazieri	
Tasmania and N.T.)		
(a small dove shell ranging	Parviterebra trilineata	
from N.S.W. through to W.A.,	Tarviterebra trilliteata	
including Tasmania)		
(a small limpet that lives on	Patella (Scutellastra)	
rocks in the lower intertidal	chapmani	
zone; ranging from N.S.W.	onapmam 	
through to W.A., including		
Tasmania)		
(the largest Australian limpet,	Patella (Scutellastra)	
found on wave-exposed	laticostata	
rocky shores in S.A. and	เลเเบบรเลเส	
W.A.)		
Scaly Limpet / Scorched	Patolla (Soutollastra)	
	Patella (Scutellastra)	
Limpet (a limpet found on rock	peronii	
platforms and kelp holdfasts,		
in the intertidal and shallow		
in the intertioal and Shallow		

subtidal; ranging from		
N.S.W. through to W.A.,		
including Tasmania)		
Tall-ribbed Limpet	Patelloida alticostata	
(a very common limpet from		
exposed rocky shores;		
distributed across southern		
Australia and Tasmania)		
Lateral-striped Limpet	Patelloida latistrigata	
(a limpet found on wave-	_	
exposed rocky shores;		
distributed from Queensland		
to S.A., including Tasmania).		
(a limpet found under stones	Patelloida insignis	
in the lower intertidal and		
shallow subtidal; distributed		
from Victoria to W.A.,		
excluding Tasmania).		
(a small limpet found in the	Patelloida mufria	
lower intertidal and shallow		
subtidal, often on the shells		
of other gastropods;		
distributed from N.S.W. to		
southern W.A., excluding		
Tasmania).		
(a limpet with a distribution	Patelloida profunda	
that ranges from N.S.W. to		
W.A., including Tasmania).		
(a limpet from the subtidal,	Patelloida profunda	
with a distribution that ranges	calamus	
from N.S.W. to W.A.,		
including Tasmania).		
(a limpet that lives amongst	Patelloida victoriana	
macroalgae in the shallow		
subtidal of exposed rocky		
shores; found in Victoria,		
Tasmania and S.A.)		
King Scallop	Pecten (Pecten) fumatus	
(a large scallop found across	(= Pecten albus)	
eastern and southern	,	
Australia, from Queensland		
to W.A.)		
(a small volutomitrid shell	Peculator bacatus	
found in S.A. and southern		
W.A.).		
(a very small volutomitrid	Peculator porphyria	
shell found on sandy		
substrates in southern		
Australia, Tasmania and		
New Zealand).		
(a small eulimid shell,	Pelseneeria brunneus	
parasitic on sea urchins;		

found in couthour Australia		1
found in southern Australia,		
excluding Tasmania)	<u> </u>	
Mandarin Penion Shell	Penion mandarinus	Ponder and Grayson
Southern Siphon Whelk		(1998) vulnerability
White-Foot Snail		categories:
(a common and highly		E in S.A. and Victoria
variable whelk shell, found		D in W.A.
from northern N.S.W. to		
western Great Australian		Prerviously, Eisenberg
Bight. The species has a		(1981) ranked the species
broad depth range in sandy		as "uncommon".
and silty habitats, from 0m to		
around 600m)		
(a nutmeg shell from south-	Pepta stricta	
eastern, southern and south-		
western Australia)		
(a white bivalve from sand	Periploma (Offadesma)	
and mud habitats; ranging	angasi	
from Queensland through to	_	
S.A., including Tasmania)		
(a venus shell from shallow	Periglypta puerpera	
sand habitats; occurs around		
Australia, and also		
widepread in the tropical		
Indo-West Pacific)		
New Zealand Greenlip	Perna canaliculus	Introduced
Mussel		
New Zealand Green-lipped		
Mussel		
(a small gastropod	Persicula albomaculata	
resembling a marginella		
shell, found in Victoria,		
Tasmania, S.A. and W.A.)		
(a small, tropical gastropod	Persicula pulchella	
resembling a marginella		
shell; found in N.T.,		
Queensland, Victoria, S.A.		
gulfs region, and W.A.; also		
recorded in parts of the		
tropical Indo-West Pacific,		
such as Cocos Islands,		
Indonesia, and Madagascar)		
(a small bivalve found in	Petricola (Petricola)	
crevice habitats in shallow	divergens	
waters; recorded from all		
Australian states, and a few		
localities in the tropical Indo-		
West Pacific region)		
(a small bivalve from	Petricola (Velargilla)	
intertidal mud habitats; found	rubiginosa	
in N.S.W., Victoria,		
Tasmania and S.A.)		

Australian Pheasant Shell Pheasant Shell Painted Lady (a large pheasant shell, often found in seagrass beds and amongst macroalgae in sheltered bays, in the shallow subtidal; found in Victoria, Tasmania, S.A. and W.A.)	Phasianella australis	Ponder and Grayson (1998) assigned a low category of vulnerability (Category E in S.A., W.A. Victoria and Tamania)
Swollen Pheasant Shell Painted Lady (a small pheasant shell found in more wave-exposed habitats than P. australis; occurs in N.S.W., Victoria, Tasmania, S.A. and W.A.)	Phasianella ventricosa	Ponder and Grayson (1998) vulnerability categories: E in S.A. and Victoria D in W.A.
(a small, elongate top shell with an iridescent interior; found in Victoria, S.A. and W.A.)	Phasianotrochus apicinus	Considered to be "not very common" (Wilson et al., 1993).
(a small, brightly coloured top shell with an iridescent interior; found in Victoria, S.A., Tasmania and W.A.)	Phasianotrochus bellulus	
Green Jewel Top Shell (a top shell of variable colour, with an iridescent interior; ranging from N.S.W. through to W.A., excluding Tasmania)	Phasianotrochus eximius	
(a small top shell that is abundant in seagrass; found in Victoria, Tasmania, S.A. and W.A.)	Phasianotrochus irisodontes	
(a small top shell with an iridescent interior; found in Victoria, Tasmania and S.A.)	Phasianotrochus rutilus	
(a sugar limpet from deep water; found in S.A. and W.A.)	Phenacolepas alboradiata	
(a sugar limpet from deep water; found in Victoria, Tasmania, S.A. and W.A.)	Phenacolepas calva	
(a large white mollusc with internal shell)	Philine angasi	
(a large, black or brown, white/yellow-mottled nudibranch, found in muddy sand; recorded to daate only in S.A.)	Philinopsis troubridgensis	Posibly endemic to S.A.
(a gastropod in the	Philippia lutea	

Architectonicidae, found in		
intertidal and subtidal		
habitats on the continental		
shelf; recorded around		
Australia, except in N.T.)		
(an elongate bivalve that	Pholas (Monothyra)	
burrows in soft rock, in the	australasiae	
shallow subtidal; found in all		
Australian States, including		
Tasmania and N.T.).	5.	
(a greyish-white bivalve	Phragmorisma watsoni	
occurring in sand and shell		
habitats, to around 80m		
deep; found in N.S.W.,		
Victoria and S.A.)	Dhyaathaia /fammanhy	
(a small Whelk shell	Phycothais (formerly	
occurring in seagrass beds	Lepsiella) reticulata	
and under rocks, in the intertidal; found across		
southern Australia, from		
N.S.W. through to W.A.,		
including Tasmania)		
(a small gastropod in the	Phyllocoma (Galfridus)	
Muricidae family; found in	eburnea	
Victoria, Tasmania and S.A.)		
Razor Fish	Pinna bicolor	
Razorfish		
Razor Shell		
(A large pinnid shell from the		
tropical Indo-West Pacific		
and Australia, the latter		
distribution including		
Queensland, N.S.W., S.A.,		
W.A. and N.T.)		
(a small gastropod found on	Pisinna approxima	
algae, under rocks and		
stones, in the lower intertidal		
and shallow subtidal; ranging		
from N.S.W. through to W.A.,		
including Tasmania)	Dialiana hissalan	
(three species of small	Pisinna bicolor	
gastropod, mainly found in	Pisinna dubitabilis Pisinna flindersii	
the shallow subtidal; all recorded in Victoria,	risiiiia iiiiluelsii	
Tasmania and S.A.)		
(a small gastropod from	Pisinna costata	
continental shelf waters;	า เราเทล บบรเลเล	
recorded in Victoria,		
Tasmania, S.A. and W.A.)		
(a small gastropod found on	Pisinna frenchiensis	
algae under stones in the		
lower intertidal and		

I	
Pisinna kershawi	
Pisinna tasmanica	
Pisinna tumida tumida	
Pisinna varicifera relata	
Pisinna voorwindei	
Dia a como a contra de elle com	
Placamen calophyllum	
Placamen placidum	
Tracamen placidam	
Placamen flindersi	
Placamen tiara	
Placida dendritica	
Plastiscala invalida	
	Placida dendritica

in Victoria, Tasmania and S.A.)		
(a wentletrap shell from the continental shelf; recorded in N.S.W., Victoria, Tasmania and S.A.)	Plastiscala morchi	
(a wentletrap shell, recorded to date only in S.A.)	Plastiscala verconis	Possibly endemic to S.A.
White Plaxiphora Chiton	Plaxiphora albida	
(a small gastropod found amongst seagrass in the shallow subtidal; ranging from N.S.W. though to W.A., including Tasmania)	Plesiotrochus monachus	
(a large, cream / mottled brown-coloured pleurobranch mollusc)	Pleurobranchaea maculata	
(a large tulip shell, occurring from 0m – 100m in reef and sand habitats; ranging from N.S.W. through to W.A., including Tasmania)	Pleuroploca australasia	Ponder and Grayson (1998) Vulnerability Category: D in S.A., W.A. and Victoria  O'Hara and Barmby (2000) reported that P. australasia is of the previously common shallow water species in Victoria that has been subjected to over- collecting in the nearshore zone, and is no longer commonly seen on shore platforms, compared with its abundance in the middle of last century.
(a moon snail that is abundant in sand substrates in the intertidal; found around Australia, including Tasmania and excluding N.T.)	Polinices (Conuber) conicus	
(a moon snail that is abundant on muddy sand flats in the intertidal; found in Queensland, N.S.W., Victoria and S.A.)	Polinices (Conuber) sordidus	
(a moon snail that lives on muddy substrates; found in Queensland, N.S.W., Victoria and S.A.)	Polinices (Glossaulax) incei	

(a well-camouflaged, shell- less mollusc from tidal pools, with large, flattened plant-like cerata)	Polybranchia pallens	
(a yellow-green, elongate bivalve from sand habitats south-eastern Australia, with S.A. being the western limit)	Poroleda spathula = Nuculana (Poroleda) spathula	
(a sand-dwelling bivalve; recorded to date only in S.A.)	Poroleda typica = Nuculana (Propeleda) typica	Possibly endemic to S.A.
(a small ovulid shell recorded on Euplexaura gorgonian coral in areas of strong tidal movement; known only from S.A.)	Primovula heleneae	Possibly endemic to S.A.
(a small ovulid shell whose biology and distribution are not well known; uncommonly collected to date; known from the Nuyts Archipelago, in S.A.)	Primovula verconis	Possibly endemic to S.A., but further collecting could extend the distribution to W.A. (Wilson et al., 1993).
(a small wentletrap shell, recorded from S.A., possibly extending into Bass Strait)	Problitora globula	
(a small sand-dwelling bivalve from shallow waters in W.A. and S.A.)	Pronucula australiensis (= Nucula australiensis)	
(a small sand-dwelling bivalve; recorded in N.S.W., Victoria, Tasmania and S.A.)	Pronucula mayi	
(a small sand-dwelling bivalve; ranging from N.S.W. through to W.A., including Tasmania)	Pronucula pusilla (= Nucula pusilla)	
(a white or pale pink bivalve found on the continental shelf and slope in Victoria, Tasmania, S.A. and W.A.)	Propecuna obliquissima	
(a white bivalve found in W.A. and S.A.)	Propecuna subovata	
(a small eratos shell that feeds on ascidians; found in W.A. and S.A., possibly extending east into Victoria)	Proterato (Sulcerato) denticulata	
(a small eratos shell that feeds on ascidians; found in Victoria, Tasmania, S.A. and W.A.)	Proterato (Cypraeerato) bimaculata	
(a small top shell found in S.A. and W.A.) (a small top shell that is	Prothalotia flindersi (= Cantharidus flindersi) Prothalotia lehmanni	

common in seagrass and brown macroalgae; found in S.A. and W.A.)	(= Cantharidus lehmanni)	
(a small top shell that is abundant on brown macroalgae in the intertidal and shallow subtidal; found in Victoria, S.A. and W.A.)	Prothalotia pulcherrimus (= Cantharidus pulcherrimus)	
(a small bivalve from deeper waters of the continental shelf and slope, in southern W.A. and S.A.).	Protonucula verconis (= Pseudoglomus verconis)	
Angas' Murex (a small Typhine shell that lives under rocks or ledges, from low tide level to several hundred metres deep; found across southern Australia, including Tasmania)	Prototyphis angasi	Ponder and Grayson (1998) Vulnerability Categories: D in S.A. and Victoria C in W.A.  P. angasi has previously been described as "not common over the entire range" (Coleman, 1981) and more recently, described as "moderately uncommon", (Beechey, undated). Shell distributors consider live examples of P. angasi to be "rare".
(a small dove shell found across southern Australia, from N.S.W. to W.A., including Tasmania)	Pseudamycla dermestoidea	
(a small dove shell found in N.S.W., Victoria, Tasmania and S.A.)	Pseudamycla miltostoma	
(a tellin shell from intertidal sand habitats in Victoria, Tasmania nd S.A.)	Pseudarcopagia victoriae	
(a white bivalve occurring to around 65m; found in southern W.A. and S.A.)	Pseudoneaera trigonalis	
(a small gastropod in the Cingulopsidae family, found amongst algal turf in the intertidal and shallow subtidal; ranging from Queensland through to W.A., including Tasmania)	Pseudopisinna gregaria gregaria	
(a turrid shell that occurs on the continental shelf and slope; found to date in	Pseudoraphitoma alticostata	

N.S.W. and S.A.)		
(a gastropod in the Architectonicidae family, that lives under rocks in the subtidal; recorded to date in S.A. and W.A.; also known from India and Pakistan)	Pseudotorinia (kraussi- group) delectabilis	
(a south-eastern Australian Murex shell, for which Port Macdonnell in S.A. is the western limit)	Pterochelus diffusi (= P. "duffusi") (previously Pterynotus diffusi)	Ponder and Grayson (1998) vulnerability categories: C in S.A. D in Victoria  S.A. is at the end of the range of <i>P. diffusi</i> P. diffusi has been considered "uncommon", both in the past, and in a recent (2002) account of the species (see Coleman 1981, and Beechey, undated).
(a widespread southern Australian Murex shell found in sand, and on rocks, near seagrass)	Pterochelus trifomis (previously Pterynotus triformis)	Ponder and Grayson (1998) vulnerability categories: D in S.A. and Victoria C in W.A.
(a slit limpet recorded in deep water, from a small number of locations in S.A. and Tasmania)	Puncturella (Cranopsis) corolla	
(a slit limpet recorded to date only from S.A., with the type locality being 40 miles south of Cape Wiles)	Puncturella (Fissurisepta) fumarium	Endemic to S.A.
(a slit limpet recorded from Victoria, Tasmania and S.A.)	Puncturella (Puncturella) harrisoni	
(a small rissoid gastropod that feeds on micro-algal film; recorded in Victoria, Tasmania, S.A. and W.A.)	Pusillina (Haurakia) mediolaevis	
(a small shell in the Skeneidae family; found in N.S.W., Victoria, Tasmania and S.A.)	Putilla porcellana	
(a common dove shell found in S.A. and W.A., associated with seagrass beds and brown macroalgae)	Pyrene bidentata	

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(a dove shell recorded from	Pyrene marmorata	Possibly endemic to S.A.
S.A. during the mid 1800's;		
considered in 2003 by the		
Academy of Natural		
Sciences to be a valid		
species)		
(a fragile trough shell from	Raeta (Raeta) meridionalis	Possibly endemic to S.A.
the intertidal; known to date		
only from S.A.)		
Australian (Brown) Triton	Ranella australasia	
Australasian Trumpet	australasia	
(a triton shell found in rocky		
habitats, from the intertidal		
down to 300+m; ranging from		
N.S.W. through to W.A.,		
including Tasmania; also		
recorded around New		
Zealand, Norfolk I. and Lord		
Howe I.)		
(a small gastropod found in	Rissoella (Jeffreysiella)	
the lower intertidal and	wilfredi	
shallow subtidal; recorded in	Williedi	
Victoria, Tasmania, S.A. and		
(two amall goatraneds found	Dissoulle ( leffrey sille)	
(two small gastropods found in the lower intertidal and	Rissoella (Jeffreysilla)	
	confusa umbilicata	
shallow subtidal; both	Rissoella (Rissoella) vitrea	
recorded in S.A. and W.A.)	Dissains (Dissains) inffe	Descibly andomic to C A
(a small rissoid gastropod	Rissoina (Rissoina) jaffa	Possibly endemic to S.A.
that feeds on micro-algal		
film; recorded to date only in		
S.A.)		
(a small rissoid gastropod	Rissoina (Rissoina) nivea	
that feeds on micro-algal		
film; recorded in Victoria,		
Tasmania, S.A. and W.A.)		
(a small rissoid gastropod	Rissoina (Rissoina)	
that feeds on micro-algal	fasciata	
film; ranging from		
Queensland through to S.A.,		
including Tasmania)		
(three small rissoid	Rissoina (Rissoina) angasii	
gastropods that feed on	Rissoina (Rissoina)	
micro-algal film; all ranging	elegantula	
from N.S.W., through to	Rissoina (Rissoina) iredalei	
W.A., including Tasmania)		
(two small rissoid gastropods	Rissoina (Rissoina)	
that feed on micro-algal film;	rhyllensis	
both recorded in N.S.W.,	Rissoina (Rissoina)	
Victoria, S.A. and W.A.)	vincentiana	
(a green nudibranch that	Roburnella wilsoni	
feeds on Caulerpa plants;		

		,
ranging from Bass Strait		
through to southern W.A.)	Destarta	
(a genus of sponge-feeding	Rostanga spp.	
nudibranchs; for example, <i>R</i> .	(e.g. R. australis, and	
australis, which occurs in	Rostanga sp. 1)	
Victoria and S.A., and		
Rostanga sp. 1, recorded in		
S.A.)	Demonstrate de la compansión de la tipo de l	
(a small sand-dwelling	Rumptunucula vincentiana	
bivalve found in S.A., and the		
Bass Strait region)	Cabia avatralia	
(a horse hoof limpet that	Sabia australis	
lives in groups on the shells	(= Hipponix australis)	
of other gastropods, in the		
intertidal and shallow		
subtidal; ranging between		
N.S.W. and W.A., including		
Tasmania)	Sabia conica	
(a horse hoof limpet that		
lives in groups on the shells	(= Hipponix conicus)	
of other gastropods, in the		
intertidal and shallow		
subtidal; found in Tasmania,		
Victoria, S.A. and W.A.; also		
recorded from parts of the		
tropical Indo-West Pacific) (a small eulimid shell,	Sabinella munita	
parasitic on sea urchins;	Sabinella munita	
ranging from N.S.W. to S.A.,		
including Tasmania)		
Ornate Bat-winged	Sagaminopteron ornatum	
Nudibranch	Sagaminopteron omatam	
Bat-winged Nudibranch		
(a small triphorid shell that	Sagenotriphora ampulla	
feeds on sponges; found on	Gageriouripriora arripalia	
the continental shelf in New		
Zealand, N.S.W., Victoria		
and S.A.)		
(a white or horn-coloured	Salaputium micra	
crassatella shell occurring to	Salapadam mora	
200m deep; found in		
southern W.A., S.A. and		
Victoria)		
(a white or terracotta-	Salaputium producta	
coloured crassatella shell,	Calapatian production	
occurring to 200m deep;		
found in southern W.A. and		
S.A.)		
(a horn-coloured crassatella	Salaputium probleenmum	
shell occurring to around	Calapatalli problecimalli	
370m deep; found in		
southern W.A. and S.A.)		
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(a bivalve from S.A., Victoria and N.S.W.)	Sarepta tellinaeformis	
(a triton shell found in subtidal reef and boulder habitats; occurs in Victoria, Tasmania and S.A., and rarely in N.S.W.)	Sassia (Austrotriton) bassi	Ponder and Grayson (1998) Vulnerability Categories: B in S.A. and Tasmania; D in Victoria; C nationally.  S. (A.) bassi has a restricted range in S.A.
(a small triton shell found in sand habitats; recorded from S.A. and Tasmania)	Sassia (Austrotriton) mimetica	
(a small triton shell related to Sassia subdistorta, but occurring in deeper water; found in Tasmania, Victoria and S.A.)	Sassia (Austrotriton) petulans	
Distorted Rock Triton A triton shell found on rock platforms; quite common in shallow water, however depth range extends to more than 250m deep; lays eggs in dead bivalve shells, and has no planktonic larval stage; ranging from N.S.W. through to W.A., including Tasmania)	Sassia (Austrotriton) subdistorta	Ponder and Grayson (1998) Vulnerability Category: D (in S.A., W.A. and Victoria)
(a small, uncommon triton shell found in deeper waters on the continental shelf in Victoria, Tasmania and S.A.)	Sassia (Cymatiella) columnaria	
Lesueur's Sand Triton (a form of Sassia eburnea; found in Victoria, Tasmania and south-eastern S.A.)	Sassia (Cymatiella) eburnea lesueuri	Ponder and Grayson (1998) vulnerability category: C (in Tasmania and Victoria)
		O'Hara and Barmby (2000) assigned <i>S. eburnea</i> to vulnerability category "C" in Victoria, using Ponder and Grayson's (1998) criteria.
(a small triton shell found in the subtidal; occurs in Victoria, Tasmania and S.A.)	Sassia (Cymatiella) sexcostata	Ponder and Grayson (1998) vulnerability categories: D in S.A. and Tasmania C in Victoria.

		O'Hara and Barmby (2000) assigned <i>S. (C.)</i> sexcostata to vulnerability category C in Victoria, using Ponder and Grayson's (1998) criteria.  Globulose form of <i>S. (C.)</i> sexcostata considered by shell collectors and distributors to be "uncommon"
(a small, common triton shell found in the subtidal; ranging from N.S.W. through to W.A., including Tasmania	Sassia (Cymatiella) verrucosa	
Parkinson's Sassia (a triton shell found under stones on rocky shores, and on subtidal reef, to around 140m deep; occurs in N.S.W., Tasmania and Victoria, possibly extending to south-eastern S.A.)	Sassia (Sassia) parkinsonia	
(a small, parasitic eulimid shell, ranging from N.S.W. through to S.A., including Tasmania)	Scalenostoma lodderae	
(a small Scissurellid slit shell ranging from N.S.W. through to W.A., including Tasmania)	Scissurella cyprina	
(a turrid shell from the continental shelf; recorded to date in N.S.W. and S.A.)	Scrinium brazieri	
(a turrid shell from the continental shelf; recorded to date in Victoria and S.A.)	Scrinium gatliffi	
(a turrid shell from the continental shelf; recorded to date only in S.A.)	Scrinium impendens	Possibly endemic to S.A.
Chapman's Limpet	Scutellastra chapmani	
Roman Shield Shell Duck's-bill Limpet Elephant Snail (a large, black, slug-like fissurellid mollusc with a white trough-shaped shell; ranging from N.S.W. through to W.A., including Tasmania)	Scutus (Scutus) antipodes	Protected species in Tasmania
(a cerithiopsid gastropod that feeds on sponges; found on	Seila albosutura	

the continental shelf in N.S.W., Victoria, Tasmania		
and S.A.) (a cerithiopsid gastropod that	Seila crocea	
feeds on sponges; found on the continental shelf and slope; ranging from N.S.W.		
through to W.A., including Tasmania)		
(a cerithiopsid gastropod that feeds on sponges; found in shallow waters, to around 40m deep; recorded from Victoria, S.A. and W.A.)	Seila marmorata	
(a small triphorid shell that feeds on sponges; found around Australia, including N.T. and excluding Tasmania)	Seilarex verconis	
(a top shell found in Victoria, Tasmania and S.A.)	Selastele retiarium	
(two white or pink tellin shells from the intertidal; both ranging from Queensland to S.A., exluding Tasmania)	Semelangulus semitorta Semelangulus tenuilirata	
(a semelid bivalve found in rubble, sand or seagrass habitats in the shallow subtidal; endemic to S.A.)	Semele ada	
(a semelid bivalve from intertidal sand habitats in S.A. and southern W.A.)	Semele monilis	
(a helmet shell found on the continental shelf in Victoria, Tasmania, S.A. and W.A.)	Semicassis (Antephalium) adcocki	Ponder and Grayson (1998) vulerability category: B in W.A., and nationally.
(a helmet shell found on the continental shelf and slope in Victoria, Tasmania, S.A. and W.A.)	Semicassis (Antephalium) semigranosum	
(a helmet shell found on the continental shelf in S.A. and W.A.)	Semicassis (Antephalium) sinuosum	No formal listings, however <i>S. (A.) sinuosum</i> is considered by shell authorities to be a rare shell, taken in deep water (e.g. Wilson et al 1993). Commercial shell distributors also consider <i>S. (A.) sinuosum</i> to be a rare species.
(a helmet shell found on the	Semicassis (Semicassis)	

continental abolf and along		
continental shelf and slope;	pyrum	
recorded in N.S.W., Victoria,		
Tasmania, and S.A.; also		
found in New Zealand and		
South Africa)		
Giant Cuttlefish	Sepia apama	
Australian Cuttlefish		
Southern Bottletail Squid	Sepiadarium austrinum	
Lace Bottletail Squid	Sepiadarium sp.	
Southern Bobtail Squid	Sepiola sp.	
Striped Pyjama Squid	Sepioloidea lineolata	
Southern Calamari Squid	Sepioteuthis australis	
Southern Calamary		
(a small marginella shell from	Serrata haswelli	
deeper waters of the		
continental shelf; found in		
N.S.W., Victoria and S.A.)		
(a small marginella shell from	Serrata mustelina	
shallow reefs / rocky habitats		
in New Zealand,		
Queensland, N.S.W.,		
Victoria, Tasmania and S.A.)		
(a worm shell that cements	Serpulorbis (Cladopoda)	
its shell to hard substrates;	novaehollandiae . , ,	
recorded in Queensalnd,		
S.A. and W.A.)		
(a worm shell that cements	Serpulorbis (Cladopoda)	
its shell to hard substrates;	sipho	
ranging from N.S.W. through	-	
to W.A., including Tasmania)		
(a slipper shell found in	Sigapatella hedleyi	
N.S.W., Victoria and S.A.)	(= Clypeola hedleyi)	
(a tropical slit worm shell	Siliquaria lactea	
recorded from N.S.W., N.T.	•	
and S.A.; also recorded from		
Indonesia and India)		
(a slit worm shell recorded	Siliquaria (Siliquaria)	
from Queensland, N.T., W.A.	anguina	
and S.A.; also known from	3	
Japan and India)		
(a slit worm shell found in	Siliquaria (Siliquaria)	
N.S.W., Victoria, Tasmania,	australis	
S.A. and W.A.; possibly also		
in Queensland)		
(a tropical slit worm shell	Siliquaria (Siliquaria)	
recorded in Queensland,	cumingii	
N.T. and S.A.; also known	5	
from various locations in the		
tropical Indo-West Pacific)		
(a tropical slit worm shell,	Siliquaria (Pyxipoma)	
( op. co. one trotter orion)	(i japoina)	1

recorded to date only from Tahiti and the gulfs region in S.A.)	tahitensis	
(a slit worm shell, recorded from N.S.W. through to W.A., including Tasmania; also found in New Zealand)	Siliquaria (Pyxipoma) weldii	
(a small Scissurellid slit shell ranging from southern Queensland through to W.A., including Tasmania; also found in New Zealand)	Sinezona atkinsoni	
(a small Scissurellid slit shell found in New Zealand, N.S.W., Victoria, S.A. and W.A.)	Sinezona beddomei	
(a small Scissurellid slit shell of broad geographic range; recorded from N.S.W., Victoria, and S.A., and also New Zealand and the Kermadec Islands, and the Coral Sea)	Sinezona pacifica	
(a small Scissurellid slit shell found in Victoria, Tasmania, S.A. and W.A.)	Sinezona pulchra	
(a moon snail found on sandflats; ranging from southern Queensland through to W.A., including Tasmania)	Sinum zonale	
Van Diemen's Siphon Shell (a siphon limpet from rocky shores; found in southern Australia and Tasmania)	Siphonaria (Siphonaria) diemenensis	
Corded Siphon Shell (a siphon limpet from rocky shores; ranging from Queensland through to central S.A., including Tasmania)	Siphonaria funiculata	
(a siphon limpet whose name is not recognised by some authors; found on steep rocky shores in W.A. and western S.A.)	Siphonaria jeanae	
Blue Siphon Shell (a siphon limpet from rocky shores; found in Victoria, Tasmania and south-eastern S.A.)	Siphonaria (Pachysiphonaria) tasmanica	
New Zealand Siphon Shell	Siphonaria zelandica	

	I	
(a siphon limpet whose name		
is not recognuised by some		
authors; variously described		
as being found in New		
Zealand, or in southern		
Australia)		
(a small, uncommon typhine	Siphonochelus	
shell recorded from 15m -	(Siphonochelus)	
300m depth; found in south-	syringianus	
eastern Australia, from		
southern Queensland /		
northern N.S.W. region		
through to S.A.).		
(a small cerithiopsid	Socienna apicicostata	
gastropod that feeds on	Goordinia aprorocciata	
sponges; found on the		
continental shelf and slope in		
· ·		
Tasmania, S.A. and W.A.)	Socionna trisculata	
(a small cerithiopsid	Socienna trisculpta	
gastropod that feeds on sponges; found on the		
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continental shelf in Tasmania		
and S.A.)	0-1	
(a small mussel occurring to	Solamen recens	
260+m deep; found in S.A.,		
Victoria and Tasmania)		
(a dark brown bivalve from	Solemya (Solemya)	
littoral sand or mud, ranging	australis	
from Queensland through to		
S.A., including Tasmania)		
(a sunset shell from the	Soletellina (Soletellina)	
intertidal; ranging from	alba	
Queensland to W.A.,		
including Tasmania)		
(a sunset shell of variable	Soletellina (Soletellina)	
colour, from the intertidal;	biradiata	
ranging from N.S.W. to W.A.,		
including Tasmania)		
(a top shell found on the	Spectamen marsus	
continental shelf in S.A. and		
W.A.)		
(a small cerithiopsid	Specula mammilla	
gastropod that feeds on		
sponges; found on the		
, · •		
continental shelf in Tasmania		
and S.A.)		
and S.A.)	Specula regina	
and S.A.) (a small cerithiopsid	Specula regina	
and S.A.) (a small cerithiopsid gastropod that feeds on	Specula regina	
and S.A.) (a small cerithiopsid gastropod that feeds on sponges; found on the	Specula regina	
and S.A.)  (a small cerithiopsid gastropod that feeds on sponges; found on the continental shelf and slope in	Specula regina	
and S.A.) (a small cerithiopsid gastropod that feeds on sponges; found on the	Specula regina  Specula turbonilloides	

gastropod that feeds on sponges; found on the		
continental shelf in Victoria,		
Tasmania, S.A. and W.A.)		
(a sand-coloured bivalve from the continental shelf and slope; found in southern W.A., S.A. and N.S.W.; also in New Zealand, South Africa and Madagascar)	Spinosipella ericia	
(a trough shell found in	Spisula (Notospisula)	
tropical and temperate intertidal habitats around Australia)	trigonella	
(a bivalve that attaches to shell debris and corals; found in eastern, southern and western Australia)	Spondylus tenellus	
(two turrid shells, found to date only in S.A.)	Splendrillia (Splendrillia) bednalli Splendrillia (Splendrillia) gratiosa	Both species may be endemic to S.A.
(a turrid shell found in Queensland, N.S.W., Victoria and S.A.)	Splendrillia (Splendrillia) nenia	
(a common turrid shell ranging from N.S.W. through to W.A., including Tasmania).	Splendrillia (Splendrillia) woodsi	
(a genus of anemone- consuming nudibranchs with numerous cerata)	Spurilla spp. (e.g. S. australis S. macleayi)	
(a small gastropod in the Skeneopsidae family, recorded to date from S.A.)	Starkeyna cancellata	Possibly endemic to S.A.
(a small shell in the Siliquariidae family; found to date only on the continental shelf in S.A.)	Stephopoma nucleogranosum	Possibly endemic to S.A.
(a small eulimid shell, parasitic on the ophiuroid <i>Ophiothrix crassispina</i> ; found in N.S.W. and S.A.)	Stilapex parva	
(a well-camouflaged green shell-less mollusc with bubble-shaped cerata, that feeds on <i>Caulerpa</i> plants)	Stiliger smaragdinus	
(a stomatella shell found in N.S.W., Victoria, Tasmania, S.A. and W.A.)	Stomatella auricula	
False Ear Shell Elongate False Ear Shell	Stomatella impertusa	

Strigose Stomatella		
(a stomatella shell of variable		
colour and pattern; ranging		
from N.S.W. through to W.A.,		
including Tasmania)		
(a small stomatella shell	Stomatella terminalis	Possibly endemic to S.A.
known only from Gulf St		
Vincent and Spencer Gulf in		
S.A.; possibly a variant of S.		
impertusa, but further		
examination of material is		
required; currently		
recognised as a separate		
species)	0	
(a small rissoid gastropod	Stosicia hedleyi	
that feeds on micro-algal		
film; recorded in S.A. and		
(a venus shell from subtidal	Sunetta vaginalis	
sand habitats to 90m; found	Surretta vagirians	
in Tasmania, Victoria, S.A.		
and southern W.A.)		
(a cream-coloured bivalve	Talabrica angustior	Possibly endemic to S.A.
occurring to around 100m	J J	
deep; found to date only in		
S.A.)		
(a pale yellow-brown bivalve	Talabrica carnea	Possibly endemic to S.A.
occurring on the continental		
shelf and slope, to around		
365m deep; found to date		
only in S.A.)	Tolonono aloriolo	
(a small top shell found in	Talopena gloriola	
N.S.W., Victoria and S.A.) (a green, translucent-shelled	Tamanovalva babai	
mollusc that eats Caulerpa	Tamanovaiva babai	
plants)		
Verco's Tambja	Tambja verconis	
Verco's Nudibranch		
(a small moon snail found in	Tanea sagittata	
the intertidal zone; occurs in	(= Natica sagittata)	
all Australian states,		
including Tasmania and		
N.T.)		
(a small turrid shell recorded	Taranis mayi	Known only from the type
from Neptune Island in S.A.,		locality, at Neptune Island
at 195m)		(Wilson et al., 1994; Academy of Natural
		Sciences, 2003).
(a small moon snail ranging	Tasmatica schoutanica	G01011003, 2000).
from Queensland through to	. admatida donoutamoa	
S.A., including Tasmania)		
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(a small whelk found in the intertidal, in Tasmania, Victoria and S.A.)	Tasmeuthria clarkei	
(two venus shells from sand	Tawera gallinula	
habitats to around 40m deep;	Tawera gaiiridia Tawera lagopus	
both ranging from N.S.W. to	Tawera lagopus	
W.A., including Tasmania)		
,	Towara aniona	
(a venus shell from subtidal	Tawera spissa	
sand habitats to around		
180m deep; found in Victoria,		
Tasmania and S.A.)	Talling byggini	
(a tellin shell, recorded from	Tellina brazieri	
S.A.; possibly endemic)	<del></del>	
(a tellin shell, recorded from	Tellinella albinella	
sand habitats in N.S.W.,		
Victoria, S.A. and W.A.)		
(an auger shell, found in	Terebra albida	
Tasmania, Victoria, S.A. and		
W.A.)		
(an auger shell, found in	Terebra assecla	
N.S.W., Tasmania, Victoria,		
and S.A.)		
(a small auger shell, from	Terebra jacksoniana	
shallow waters in N.S.W.,		
Tasmania, Victoria, and S.A.)		
(a small auger shell from	Terebra tristis	
New Zealand and south-		
eastern Australia, with S.A.		
being the western limit of the		
distribution)		
(a small auger shell,	Terebra scalariformis	Endemic to S.A.
recorded to date only in S.A.)		
(a "shipworm" bivalve of	Teredo navalis	
cosmopolitan distribution;		
examples of Australian		
records include those from		
N.S.W. and S.A.)		
(a small triphorid gastropod	Teretriphora gemmegens	
that feed on sponges;		
recorded in Victoria,		
Tasmania and S.A.)		
(a small triphorid gastropod	Teretriphora novapostrema	Possibly endemic to S.A.
that feed on sponges;		
recorded to date only in S.A.)		
(a small triphorid gastropod	Teretriphora spica	
that feed on sponges; found		
on the continental shelf in		
Tasmania, S.A. and W.A.)		
(a small, common triphorid	Tetraphora granifera	
shell of variable colour, that		
feeds on sponges; found in		
the intertidal, and subtidally		
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	T	
to around 40m deep; ranging		
from N.S.W. through to W.A.,		
including Tasmania)		
(a small, tropical triphorid	Tetraphora mapooensis	
shell that feeds on sponges;		
found in Queensland, with		
records also from the S.A.		
gulfs region)		
(a small triphorid shell that	Teretriphora mcgilpi	
feeds on sponges; recorded	3 7	
to date only from S.A.)		
Conical Thalotia	Thalotia conica	
(a small top shell that is	maiona comea	
abundant in seagrasses;		
found across southern		
Australia, including		
Tasmania)		
(a widely distributed tropical	Theodoxus (Pictoneritina)	
nerite shell, found in in	oualaniensis	
estuarine and mangrove		
area; recorded in N.T.,		
Queensland, N.S.W., S.A.		
and W.A.; also reported from		
various countries in the		
tropical Indo-West Pacific		
(a southern Australian form	Thorunna cf. florens	
of a tropical nudibranch from	Thoranna or. norchs	
Japan, Korea, Thailand and		
the tropical Indo-West		
Pacific; the form has been		
recorded at Rapid Bay, in		
S.A.)		
(a white bivalve occurring to	Thracia (Thracia)	Possibly endemic to S.A.
around 50m deep; found to	concentrica	1 Ossibly endernic to S.A.
• •	Concentinea	
date only in S.A.) (a white bivalve occurring to	Thracia (Thracia)	
around 50m; found in	Thracia (Thracia) lincolnensis	
· · · · · · · · · · · · · · · · · · ·	111100111011313	
Victoria, Tasmania and S.A.)	Thronic (Thronic)	
(a white bivalve occurring to	Thracia (Thracia)	
around 80m; found in	myodoroides	
Victoria, Tasmania and S.A.) (a white bivalve occurring	Thracia (Thracia) angoissa	
from the shallow subtidal to	Thracia (Thracia) speciosa	
around 220m; found in		
southern Queensland,		
N.S.W., Victoria and S.A.)	Thracidora arenosa	
(a bivalve occurring to	i iliadiudia alendsa	
around 200m; ranging from southern Queensland		
through to S.A., including		
Tasmania)	Throughors flinds:	
(a yellowish-coloured bivalve	Thracidora flindersi	

		1
occurring to around 124m;		
found in S.A. and southern		
W.A.)		
(a bivalve from the shallow	Thraciopsis (Thraciopsis)	
subtidal; found in N.S.W.,	peroniana	
Victoria, Tasmania and S.A.)	•	
(a bivalve from the	Thraciopsis (Thraciopsis)	
continental shelf in southern	subrecta	
W.A. and S.A.)		
(a white bivalve occurring to	Thyasira (Thyasira)	
200m; found in S.A. and	adelaideana	
Victoria)	adolardouria	
(a small venus shell from	Timoclea (Chioneryx)	
shallow sandy mud habitats;	cardioides	
ranging from N.S.W. to W.A.,	Cardioides	
, ,		
including Tasmania)	Tanna variagata	Dandar and Crayean
Variegated Tun Shell	Tonna variegata	Ponder and Grayson
(a large tun shell found in		(1998) assigned a low
sandy habitats; occurs in		category of vulnerability
southern Australia, Tasmania		(Category E in all states,
and New Zealand)		including S.A.)
(a reddish brown mottled	Trapania benni	
nudibranch with yellow or		
white spots; recorded in		
N.S.W., Victoria and S.A.).		
(a brown and white patterned	Trapania brunnea	
nudibranch; known from Lord		
Howe Island, N.S.W.,		
Victoria, Tasmania, and S.A.)		
Blanket Octopus	Tremoctopus violaceus	
Hairy Three-area Mussel	Trichomusculus barbatus	
(a mussel found attached to	Trichomya hirsuta	
rocks in the intertidal and	( = T. hirsutus)	
shallow subtidal; ranging	, ,	
from Queensland through to		
S.A., including Tasmania)		
(a mud-dwelling mussel,	Trichomya penetectus	Possibly endemic to S.A.
found to date only in S.A.)		
(a small turbinid shell that is	Tricolia fordiana	
common in rocky shore		
habitats; found in Indo-		
Malaysia and Indo-China,		
and in Queensland, N.T.,		
W.A. and S.A.)		
(a small, bright red or pink	Tricolia rosea	
turbinid shell; found in	Triodia rosea	
N.S.W., Victoria, Tasmania,		
S.A. and W.A.)		
,	Tripolio tombini	
(a small turbinid shell from	Tricolia tomlini	
intertidal habitats; found in		
S.A. and W.A.)	Tripolio veriobilio	
(a small turbinid shell that is	Tricolia variabilis	

extremely variable in colour and pattern; found in intertidal and shallow subtidal habitats at various locations in the tropical Indo-West Pacific, and also recorded from Queensland, N.S.W., Victoria, Tasmania, S.A. and W.A.)		
(a small typhine shell that inhabitats limestone reefs; also recorded on Spondylus bivalves; found in Victoria, northern Tasmania, S.A. and W.A.).	Tripterotyphis robustus	
(a species of bean cowrie, in a family of shells that feed on compound ascidians; recorded in the gulfs region of S.A.)	Trivia (Trivirostra) cydarum (= Trivirostra cydarum)	Possibly endemic to S.A. (Cate, 1979, cited by Academy of Natural Sciences, 2003)
(a species of bean cowrie, in a family of shells that feed on compound ascidians; ranging from southern Queensland through to W.A., including Tasmania)	Trivia (Ellatrivia) merces	Ponder and Grayson (1998) assigned a low category of vulnerability (Category E in S.A., W.A. and Victoria)
(a gastropod that feeds on detritus in saltmarsh habitats; recorded in S.A. and W.A.)	Truncatella (Truncatella) vincentiana	
(a gastropod that feeds on detritus in saltmarsh habitats; recorded across southern Australia)	Truncatella (Truncatella) scalarina	
(a small cerithiopsid gastropod that feeds on sponges; found on the continental shelf and slope, in sand and shell habitats; recorded across southern Australia, including Tasmania)	Tubercliopsis cessicus	
(a small cerithiopsid gastropod that feeds on sponges; found on the continental shelf; recorded mainly in Victoria, Tasmania, and S.A.)	Tubercliopsis dannevigi	
(a dog cockle shell, endemic to S.A.)	Tucetona broadfooti	
(a dog cockle shell, found in subtidal sand habitats in N.S.W., Tasmania, Victoria	Tucetona flabellata	

I O A )		T
and S.A.) (a dog cockle shell, from	Tucetona sordida	
subtidal sand habitats in		
Tasmania, Victoria, S.A. and		
southern W.A.)	Tugali cicatricosa	
(a slit limpet found on rocks, and on larger shells such as	Tugan cicatricosa	
Pinna; found in Victoria,		
Tasmania, S.A. and W.A.)		
(a slit limpet found in N.S.W.,	Tugali cicatricosa	
Victoria, Tasmania, and S.A.)		
Jourdan's Turban Shell	Turbo (Dinassovica)	Ponder and Grayson
Turban Shell	jourdani	(1998) vulnerability
(a large turban shell, often		category: C in S.A. and
occurring in tide pools, and		W.A., and therefore
amongst brown macroalgae		nationally
in the shallow subtidal; found		T (D) is a male of the second
in S.A. and W.A.)		T. (D.) jourdani has a
		restricted range in both S.A. and W.A.
		S.A. and W.A.
Heavy Turban Shell	Turbo (Ninella)	
Turban Shell	torquatus	
(a common turban shell,	,	
often found in crevices and		
amongst macroalgae on		
rocky shores; ranging from		
N.S.W. through to W.A.,		
including Tasmania)	T / (0 / : #)	
Common Warrener	Turbo (Subninella)	
Wavy Turban	undulatus	
(a turban shell that is common on rock platforms in		
the intertidal; ranging from		
N.S.W. through to W.A.,		
including Tasmania)		
(a tuban shell found amongst	Turbo (Euninella) gruneri	
macroalagal-covered rocks	, , , ,	
in the subtidal; commonly		
taken in rock lobster pots;		
found in Victoria, Tasmania,		
S.A. and W.A.)	<del>-</del>	
(a screw shell found to date	Turritellopsis kimberi	Endemic to S.A.
at depths between 36m and		
170m; known only from S.A.) (a screw shell from the	Turritallansis nontunansia	
continental shelf and slope;	Turritellopsis neptunensis	
found in Queensland,		
N.S.W., Victoria and S.A.)		
(a bright yellow notaspid sea	Tylodina corticalis	
slug, with a heavily calcified	, , , , , , , , , , , , , , , , , , ,	
external shell; found in		
external shell; found in		

eastern and southern		
eastern and southern Australia)  Apricot-Coloured Cowrie (a large cowrie from deeper waters, usually 80m – 250m; found in western S.A. and southern W.A.)	Umbilia armeniaca ( = Cypraea armeniaca) U. armeniaca brunescens / brunnea (a variously named colour form)	Ponder & Grayson (1998) Vulnerability Category: A (in S.A. and W.A., and therefore nationally)  U. armeniaca has a restricted range in S.A.  U. armeniaca is described as "one of Australia' rarest
		and most sought after shells" (Wilson et al., 1993).  U. armeniaca is considered by shell fishery management in SA to be rare or apparently rare, and highly sought after by collectors (Macdonald, PIRSA 1996).
Undecided Cowrie Beddome's Cowrie	Umbilia hesitata Umbilia hesitata beddomei	Ponder & Grayson (1998) Vulnerability Category: D (south-eastern Australia)
(a cream-coloured top shell, ranging in distribution from Queensland through to W.A., including Tasmania)	Vaceuchelus ampullus	
(a top shell from the continental shelf and slope, found in Victoria, Tasmania, S.A. and W.A.)	Vaceuchelus profundior	
Flinders Vase (a Turbinellid shell from the continental shelf of S.A. and W.A.)	Vasum (Altivasum) flindersi	Ponder and Grayson (1998) Vulnerability Category: C in S.A. and W.A., and therefore nationally
		V. (A.) flindersi has a restricted range in S.A.  Dance (1992) categorised
		V. (A.) flindersi as Occurrence Code 2, indicating that the species is rare, on a Common to Rare scale of 5 to 1.
		Some forms (e.g. deep-

		water spined forms) are considered by shell distributors to be rare.
(a southern mud creeper shell, found in sandy substrates amongst seagrass and green macroalgae, also amongst mangroves; recorded throughout eastern and southern Australia)	Velacumantus australis	
(a white cardita shell found in southern Australia, ranging from Queensland to W.A., including Tasmania)	Venericardia amabilis	
(a cardita shell from shallow sand habitats in Victoria, Tasmania and S.A.)	Venericardia bimaculata	
(two cardita shells recorded from Victoria, Tasmania and S.A.)	Venericardia columnaria Venericardia quoyi	
(a cardita shell whose distribution is incompletely known; recorded in S.A. and New Zealand)	Venericardia lutea	
(a cardita shell recorded from S.A.)	Venericardia propelutea	
(a cardita shell recorded in southern Australia, from N.S.W. through to W.A., including Tasmania)	Venericardia rosulenta	
(a venus shell from intertidal habitats; ranging from southern Queensland through to S.A., including Tasmania)	Venerupis anomala	
(a venus shell from intertidal habitats; ranging from N.S.W. through to W.A., including Tasmania)	Venerupis galactites	
(a small venus shell, ranging from N.S.W. through to W.A., including Tasmania)	Venerupis iridescens	
(a venus shell of broad distribution; ranging from N.S.W. through to W.A., inlcuding Tasmania; also recorded in China, Japan, and the Philippines)	Venerupis mitis	
(a small venus shell found in Victoria and S.A.)	Venerupis obesa	
(a small venus shell found in	Venerupis planicosta	

	T	
both northern and southern		
Australia)	Vanagaria na vena data	
(a small nutmeg shell from	Vercomaris pergradata	
deeper waters, found in		
N.S.W., Victoria, Tasmania and S.A.)		
,	Verconia verconis	
(a pink, yellow or orange, sponge-feeding nudibranch;	verconia verconis	
found in Victoria, Tasmania,		
S.A. and south-western		
W.A.)		
(a white bivalve occurring to	Verticordia bordaensis	
around 550m deep; found in	Vorticordia sordaoriole	
southern W.A. and S.A.)		
(a small costellate mitre shell	Vexillum (Costellaria)	
found in N.S.W., Victoria,	apicitinctum	
S.A. and southern W.A.)		
(a small costellate mitre shell	Vexillum (Costellaria)	
found under rocks in the	lincolnense	
intertidal and shallow		
subtidal, in S.A. and		
southern W.A.)		
(a very small costellate mitre	Vexillum (Costellaria)	
shell found in Victoria and	pellucidum	
S.A., with few specimens		
known)		
(a costellate mitre shell,	Vexillum (Costellaria)	
ranging from Queensland	acromiale	
through to W.A., excluding		
Tasmania)	Marilla (David)	
(a costellate mitre shell found	Vexillum (Pusia) australe	
in Victoria, Tasmania, S.A.		
and W.A.) (a small costellate mitre shell	Vovillum (Puoio) corollinum	
found in S.A. and southern	Vexillum (Pusia) corallinum	
W.A., and also recorded in		
the tropical Indo-West		
Pacific)		
(a very small gastropod in	Vitrinella caperatum	
the Vitrinellidae family;	Thin one ouporatum	
recorded in Victoria and		
S.A.)		
(an oyster-like bivalve that	Vulsella spongiarum	
lives embedded in sponges;		
ranging from N.S.W. through		
to W.A., including Tasmania)		
(an oyster-like bivalve that	Vulsella vulsella	
lives embedded in sponges;		
found around Australia)		
(a small volutomitrid shell	Waimatea obscura	
found in the intertidal and		
shallow subtidal, on rocky		

shores, in New Zealand,		
Tasmania, Victoria, and S.A.)		
(a small lucinid shell, found	Wallucina assimilis	
in sand in shallow waters;	VVanaonia acontinio	
ranges across southern		
Australia, including		
Tasmania)		
(a small bivalve recorded on	Warrana cessens	
the continental shelf in S.A.	Warrana 00000710	
and Tasmania)		
(a white bivalve found in	Warrana comma	
sand, shell and coral	Traina demina	
habitats; recorded in Victoria,		
Tasmania, S.A. and W.A.)		
(a bivalve found in sand	Warrana edentata	
habitats on the continental	Tranana Gaernaia	
shelf and slope; ranging from		
N.S.W. through to W.A.,		
including Tasmania)		
(a bivalve found in sand and	Warrana pauciconcentrica	
shell habitats on the	, , , , , , , , , , , , , , , , , , ,	
continental shelf; recorded in		
S.A. and W.A.)		
(a carrier shell that attaches	Xenophora (Austrophora)	Ponder and Grayson
small shells and pebbles to	flindersi flindersi	(1998) vulnerability
its own shell, as a form of		category: C in S.A. and
camouflage; may reproduce		W.A., and therefore
by direct development; found		nationally
in S.A. and W.A.)		
,		X. (A.) flindersi has a
		restricted range in S.A.
		X. (A.) flindersi is
		considered by some shell
		distributors to be "quite
		scarce".
(a mussel that lives in rock	Xenostrobus inconstans	
crevices, or attached to rocks		
or shells in the intertidal;		
found in Victoria, Tasmania,		
S.A. and W.A.)		
Little Black Horse Mussel	Xenostrobus pulex	
(a gregarious mussel from		
exposed rocky and sandy		
habitats; found across		
southern Australia, from		
southern Queensland /		
northern N.S.W. region		
through to southern W.A.,		
including Tasmania)		
(a small gregarious mussel	Xenostrobus securis	
that lives on timber, rock or		

dead shells, in brackish		
water; ranging from southern		
Queensland through to W.A.,		
including Tasmania).		
a small cerithiopsid	[ Zaclys semilaevis ]	
gastropod that feeds on	[	
sponges; found on the		
continental shelf across		
southern Australia, including		
Tasmania; has been		
assigned to another genus		
by Laseron (1956), however		
Zaclys semilaevis is still		
recognised by some sources		
as a valid species – e.g. see		
Academy of Natural		
Sciences, 2003)		
(a small cerithiopsid	Zaclys styliferus	
gastropod that feeds on		
sponges; found on the		
continental shelf and slope in		
Victoria, S.A. and W.A.)		
(a small shell in the	Zalipais bruniense	
Skeneidae family; found in		
Victoria, Tasmania and S.A.)		
(a small shell in the	Zalipais inscripta	
Skeneidae family; found in	Σαπραίδ πιδυτιρία 	
1		
N.S.W., Victoria, Tasmania		
and S.A.)	Zanavina aratus alla sussissi	
(a southern mud creeper	Zeacumantus diemenesis	
shell that is abundant on		
estuarine mud and sand		
flats, particularly amongst		
Zostera eelgrass; found in		
Victoria, Tasmania, S.A. and		
W.A.)		
Southern Creeper	Zeacumantus subcarinatus	Introduced to south-
(a southern mud creeper		eastern Australia, from
shell from New Zealand,		N.Z.
found in intertidal mud		
habitats)		
(a slit limpet found in S.A.;	Zeidora legrandi	Possibly endemic to S.A
might also occur in		
Tasmania, where a similar		
species, Z. tasmanica, was		
described)		
	Zeidora lodderae	
(a slit limpet found in	Zeluula luudelae	
Queensland, N.S.W.,		
Tasmania, Victoria and S.A.)	7.11.1.11	
(a small dove shell with a	Zella beddomei	
depth range between 40m		
and 300m; ranging between		

Oversaland and C A	T	
Queensland and S.A.,		
excluding Tasmania)	Zananaa minuta	
(a turrid shell, recorded from Tasmania, Victoria and S.A.)	Zenepos minuta	
,	Zananaa mimiaa	
(a turrid shell, recorded from	Zenepos mimica	
· · · · · · · · · · · · · · · · · · ·		
,	Zaila magninata aniantalia	7 mayainata ayiantalia ia
New Zealand, Tasmania, Victoria and S.A.)  Broad-margined Cowrie (a sponge-feeding cowrie that usually lives in the darker recesses of caves, to at least 45m deep; found in S.A., with close relatives in southern W.A.)	Zoila marginata orientalis other names: Z. orientalis Z. marginata var. intermedians Zoila marginata raybaudii	Z. marginata orientalis is considered to be the S.A. form of Z. marginata (Wilson and Clarkson, 2004). It is noted that one auithority considers it to be a separate species (i.e. Z. orientalis), endemic to S.A. (Lorenz and Hubert, 2000; Lorenz, 2001, cited by Academy of Natural Sciences, 2003).  Ponder and Grayson (1998) vulnerability categories: D (in S.A., for South Australian form of Z. marginata). C (nationally, for Z. marginata  Various forms of Zoila marginata in W.A. have been assigned vulnerability category A (one form) and B (two forms), both in W.A. and nationally (see Ponder and Grayson, 1998).  Z. marginata is considered in S.A. shell fishery management terms to be rare or apparently rare, and highly sought after by collectors (Macdonald, 1996).
		Some forms also
		considered rare by
		specimen shell collectors
		and distributors.
Hump-backed Cowrie	Zoila friendii thersites	Considered to be a
Black Cowrie	(= Cypraea Zoila thersites)	geographically isolated
DIACK COMITE	(- Cypraca Zulia li lei siles)	geographically isolated

Rose-spotted Cowrie (a named form)  (a cowrie species with various named forms; lives in caves and under ledges in the shallow subtidal; found mainly in southern W.A., but one form extends east into the Great Australian Bight of S.A.)	zoila venusta f. profunda  Zoila venusta f. profunda  (also Zoila venusta f. roseopunctata)	eastern sub-species of the <i>Z. friendii</i> complex (Wilson et al., 1993; Wilson and Clarkson, 2004). Note that one authority considers <i>Z. friendii thersites</i> to be a separate species (i.e. <i>Z. thersites</i> ), endemic to S.A. (Lorenz and Hubert, 2000; Lorenz, 2001; Academy of Natural Sciences, 2003), however there appears to be limited evidence to support species status (Wilson and Clarkson, 2004).  Ponder and Grayson (1998) vulnerability category: C in S.A. <i>Z. friendii thersites</i> has been assigned vulnerability category B in Victoria (O'Hara and Barmby 2000), using Ponder and Grayson's (1998) criteria.  Previously, Eisenberg (1981) ranked various forms / varieties as "scarce" or "rare".  Ponder and Grayson (1998) Vulnerability Category for <i>Z. venusta</i> : C (in S.A. and W.A., and therefore nationally)  Previously, Eisenberg (1981) ranked the species as "very scarce".  Various forms of <i>Z. venusta</i> ; A cyarious forms of <i>Z. venusta</i> , particulary those
		in parts of southern W.A., are considered by shell specialists to be rare, and attract very high prices in
(a Western Australian cowrie species; also found in deeper	Zoila rosselli	the commercial shell trade.
waters in far western S.A.,		

which is the eastern edge of	
the species range)	

<sup># (</sup>The genus *Marginella* is a synonym for these three *Hydroginella* species, but the previous name *Pillarginella* is no longer applicable)

## **Echinoderms**

Baker (1982a and 1982b); Rowe (1982); Shepherd et al. (1982); Zeidler and Shepherd (1982); O'Loughlin and O'Hara (1992); Rowe and Gates (1995a,b,c,d,e); O'Hara (2001a,b,c,d,e); Commonwealth Department of the Environment and Heritage (2003b and 2003c); Natural History Museum (2003).

Common Name	Latin Name
Spiny Sea Star	Allostichaster polyplax
Many-armed Sea Star	
(a five-armed sea star from S.A., south-eastern and	Allostichaster regularis
eastern Australia, with a recorded depth range of 10m -	
174m).	
(a green and white sea urchin; one variety with bright red	Amblypneustes elevatus (=
spines; recorded from southern and south-eastern	A. pachistus)
Australian States and N.Z., with a reported depth range	
of 0m – 50m).	
(a sea urchin from southern Australian States, with a	Amblypneustes formosus
recorded depth range of 0m – 10m).	
(a sea urchin from southern and south-eastern Australia,	Amblypneustes grandis
with a recorded depth range of 10m – 180m).	
(a sea urchin from W.A. and S.A., with a recorded depth	Amblypneustes leucoglobus
range of 0m – 18m).	
Egg-shaped Sea Urchin	Amblypneustes ovum
(a sea urchin from southern and south-eastern Australia,	
with a recorded depth range of 0m – 70m).	
(a sea urchin from W.A. and S.A., with a recorded depth	Amblypneustes pallidus
range of 0m – 137m).	A
(a shallow subtidal sea urchin from southern and south-	Amblypneustes pulchellus
eastern Australia).	A
(a yellow-brown or reddish "sand dollar", possibly	Ammotrophus cyclius
endemic to the S.A. gulfs region, with a recorded depth	
range to 45m).	A server transfer or in let of a mare
(a "sand dollar", apparently known from a single	Ammotrophus platyterus
distinctive specimen, from Gulf St Vincent; possibly	
endemic).	Americantium
(a deeper water brittle star from western, eastern and	Amphiophiura urbana
southern Australia, the latter including records from	
seaward of the S.A. gulfs region).	Amphiantus achratausa
(a brittle star found from tropical and southern Australian	Amphioplus ochroleuca
waters).	Amphinholio osusmata
(a small, bio-luminescent brittle star).	Amphipholis squamata
(a brittle star from southern and south-eastern Australia).	Amphistigma minuta

/ III	
(a small, banded brittle star).	Amphiura constricta
(a brittle star from shallow waters, in southern and south-	Amphiura elandiformis
eastern Australia).	
(a brittle star from shallow waters less than 10m).	Amphiura multiremula
(a brittle star with tropical affinity, found in the S.A. gulfs).	Amphiura (Fellaria)
	octacantha
(a brittle star from shallow waters less than 10m).	Amphiura (Ophiopeltis)
·	parviscutata
(a brittle star from southern and south-eastern Australia).	Amphiura trisacantha
(a small, white, ten-armed feather star from western,	Antedon incommoda
southern and eastern Australia, and offshore islands).	
(a small, white, ten-armed feather star from southern and	Antedon loveni
south-eastern Australia).	7 integer revern
(a brick-red, mottled sea star, found in S.A. and W.A.).	Anthaster valvulatus
(a sea cucumber from the shallow subtidal, known from	Apsolidium alvei
the S.A. gulfs region, from Yorke Peninsula to Encounter	Apsolidium aivei
Bay; possibly endemic).	
(a sea cucumber from the shallow subtidal, known from	Apsolidium handrecki
southern W.A., S.A., and Bass Strait, between 0m – 3m).	Apsolidium nandrecki
(a feather star recorded from S.A. and W.A., to 30m).	Aporometra occidentalis
	•
(a small, brown, orange or red, viviparous feather star,	Aporometra wilsoni
recorded from S.A. and south-eastern Australia, with a	
reported depth range of 1m – 67m).	A - t - vice t - vice - i - t -
(a small, pentagon-shaped sea star from W.A., S.A. and	Asterina atyphoida
the south-eastern States, with recorded depth range of	
0m – 40m).	A staning a salaing to
(a small, brown sea star from the littoral zone in south-	Asterina scobinata
eastern Australia, with Port MacDonnell in S.A. as the	
western limit).	
Firebrick Sea Star	Asterodiscides truncatus
(a sea star from southern and south-eastern Australia	
and N.Z., with a broad depth range recorded, from the	
shallow subtidal to around 800m).	
Erna's Basket Star	Astroboa ernae
(a large, five-armed sand star, reddish brown or fawn	Astropecten preissi
colour, found in W.A. and S.A., with a recorded depth	
range of 0m -140 m).	
(a reddish-brown, brown or fawn sand star with marginal	Astropecten vappa
spines, found around Australia, with a recorded depth	
range of 0m - 128m).	
(a small, pink, five-armed sand star).	Astropecten pectinatus
(a deeper water sea star from S.A., south-eastern and	Australiaster
mid-eastern Australia, with recorded depth range of 27m	(Coscinasterias) dubia
– 500m).	,
(a basket star found in W.A. and western S.A., in waters	Astrosierra microconus
deeper than 35m).	
Many-pored Sea Star	Austrofromia polypora
(a yellow or red sea star with black papulae, from	(= Fromia polypora)
western, southern and south-eastern Australia, with a	(
recorded depth range of 0m – 160m).	
(a sea star distributed across southern Australia, from	Bollonaster pectinatus
(a coa ciai dictiicated delece coattletti / deltatia, from	

W.A. to N.S.W., with a recorded depth range 9m –	
280m).	
(a tropical sea urchin, also recorded in southern	Brissus (Allobrissus)
Australian States, with a reported depth range of 0m –	agassizii
120m).	
(a common sea cucumber from W.A. and S.A., with	Ceto cuvieria
recorded depth range of 15m – 66m).	
(a feather star from S.A., south-eastern Australian States	Cenolia benhami
and islands, and N.Z., with a reported depth range of 5m	
– 35m).	
(a feather star from W.A., S.A., and south-eastern	Cenolia spanoschistum
Australian States, with a reported depth range of 18m -	•
306m).	
(a feather star from W.A., S.A., and south-eastern	Cenolia tasmaniae
Australian States, with a reported depth range of 1m –	
63m).	
Orange Feather Star	Cenolia trichoptera
(a feather star from W.A., S.A., and south-eastern	
Australian States, with a reported depth range of 0m –	
37m).	
(a green or red-brown sea urchin from W.A. and S.A.,	Contractorhanus
with a recorded depth range of 0m to around 100m).	Centrostephanus
	tenuispinus Clarkoma canaliculata
(a red, brown and white brittle star from southern and south-eastern Australia).	Ciarkoma canaliculata
	Clarkaama nulahra
(a brittle star from southern and south-eastern Australia).	Clarkcoma pulchra
(a large, forty-armed feather star, coloured orange,	Comanthus trichoptera
green, brown or black).	Comatulella brachiolata
(a ten-armed, red or orange feather star, found in red	Comatulella bracrilolata
macroalgae, and recorded from W.A., S.A. and south-	
eastern Australia).	Canadadua ayatmalia
Southern Basket Star	Conocladus australis
Eleven-armed Sea Star	Coscinasterias muricata
	(= C. calamaria)
(a grey, white and yellow sea cucumber).	("Cucumaria") squamatoides
(a cream-white or brown sea cucumber from the shallow	Cucumella mutans
subtidal, distributed across southern Australian states).	
(a sea cucumber described in 1992, known from southern	Cucuvitrum rowei
Australian states, with records from 0m – 28m).	
(a large, yellow, dark red or brown sea star with short	Echinaster arcystatus
spines, from coastal waters in mid and southern W.A.,	
S.A. and the south-eastern states).	
(a large yellow or dark red sea star with short spines,	Echinaster glomeratus
from mid and southern W.A., and S.A., recorded from the	
intertidal to around 60m).	
Heart-shaped Urchin	Echinocardium cordatum
Heart Urchin	
(a sea urchin from W.A., S.A. and south-eastern	Echinocyamus platytatus
Australia, with a recorded depth range of 9m - 365m).	
(a purple feather star from shallow waters in S.A. and	Euantedon paucicirra
south-eastern Australia, recorded to 10m).	•
(a sea urchin described in 1990, from S.A. and	Eupatagus flindersi
· · · · · · · · · · · · · · · · · · ·	

Tasmanian coastal waters).	
(a sea urchin from southern Australia, including S.A., with	Fibularia (Fibularia) plateia
a recorded depth range of 25m – 235m).	i ibulana (i ibulana) piatela
(a tropical sea urchin, also recorded in W.A. and S.A.,	Fibularia (Fibulariella)
from waters deeper than 20m).	oblonga
(a deeper water sea urchin from the continental shelf of	Genocidaris incerta
southern Australia, with S.A. records between Beachport	Genocidans incerta
·	
and Cape Borda, Kangaroo Island.	Canicaldaria impressa
(a sea urchin from S.A. and south-eastern Australia, with	Goniocidaris impressa
a recorded depth range of 9m – 160m).	Caminaidania tubania
Spiny Pencil Sea Urchin	Goniocidaris tubaria
Spiny Pencil Urchin	
Pencil Urchin	
(a broadly distributed sea urchin from western, southern	
and eastern Australia, with a recorded depth range of 0m	
- 630m).	
(a sea urchin from W.A., S.A. and south-eastern	Granobrissoides dyscritus
Australia).	
Purple Sea Urchin	Heliocidaris erythrogramma
Spiny Urchin	
Red Sea Urchin	Heliocidaris tuberculata
(a cream / gray and brown sea cucumber with a recorded	Holothuria (Thymiosycia)
depth range of 0m – 40m, known from WA and western	hartmeyeri
S.A., with Port Lincoln being the known eastern limit).	
Inflated Sea Urchin	Holopneustes inflatus
(a sea urchin recorded across southern Australia,	
between 0m – 25m).	
Pored Sea Urchin	Holopneustes porosissimus
(a sea urchin recorded across southern Australia, in the	
littoral zone).	
(a sea urchin recorded across southern Australia, in the	Holopneustes purpurascens
littoral zone).	
(a pink-white sea cucumber with a depth range from 0m -	Leptosynapta dolabrifera
200m, from W.A., S.A. and eastern Australia).	, , ,
(a brown, fusiform sea cucumber recorded from central	Lipotrapeza ventripes
S.A. to south-eastern Australia).	
(a brown, fusiform sea cucumber recorded from W.A.,	Lipotrapeza vestiens
S.A. and south-eastern Australia, between 0m – 10m).	
Southern Sand Star	Luidia australiae
(a large, seven-armed sea star distributed across	
southern Australia, from mid-W.A. to mid-Qld).	
(a purple-blue and red tropical sea cucumber from WA,	Mensameria intercedens
extending into western S.A.).	Worldaniona intologuens
(a small red-brown, green and white sea urchin from S.A.	Microcyphus annulatus
and south-eastern Australia, recorded from waters	who ooyphus amuatus
deeper than 25m).	
,	Microcyphus compaus
(a small sea urchin with a broad depth distribution	Microcyphus compsus
between 5m – 235m, with inshore records from Spencer	
Gulf in S.A., eastwards to Tasmania).	Mioropymbyro =i=====
(a small dark brown and red sea urchin, recorded from	Microcyphus zigzag
S.A., Bass Strait and northern Tasmania, between 0m –	

40m).	
(a heart urchin found in the littoral zone, with records	Moira lethe
	IVIOITA IELITE
from all around Australia, including S.A. but excluding	
N.T.).	Nootrio moorobroobio
Large-plated Sea Star	Nectria macrobrachia
(a yellow or orange, five-armed sea star from reef	
habitats in W.A., S.A. and south-eastern Australia).	A
(a yellow, orange or red, five-armed sea star from the	Nectria multispina
shallow subtidal in W.A., S.A. and south-eastern	
Australia, recorded to 20m.	
Ocellate Sea Star	Nectria ocellata
(a five-armed sea star from southern and south-eastern	
Australia, recorded from the intertidal to 230m).	
(a five-armed sea star distributed across the southern	Nectria pedicelligera
Australian coast, from the intertidal to around 20m).	
(a bright rose-red, five-armed sea star, distributed across	Nectria saoria
southern Australia, from the intertidal to around 25m).	
Wilson's Sea Star	Nectria wilsoni
(a five-armed sea star, distributed across southern	
Australia, with a recorded depth range from the intertidal	
to around 44m).	
(a dark blue or purple-black sea cucumber, known from	Neoamphicyclus lividus
the intertidal in southern Australia).	
(a sea cucumber described in 1992, and known from the	Neocnus bimarsupiis
shallow subtidal in S.A. and south-eastern Australia).	,
(a sea cucumber from S.A. and south-eastern Australia,	Neocucumella fracta
with Spencer Gulf being the recorded western limit;	
recorded depth range 10m - 71m).	
(a pink or red sea star found on reefs in W.A., S.A. and	Nepanthia troughtoni
the south-eastern States).	, ,
(a small white sea cucumber).	Ocnus calcareus
(a small brittle star from the shallow subtidal).	Ophiacantha alternata
(a brittle star with sub-tropical affinity).	Ophiacantha clavigera
(a brittle star from southern and south-eastern Australia).	Ophiacantha shepherdi
(a brittle star with a broad depth range, from southern	Ophiactis resiliens
and south-eastern Australia).	Opinaciis resilieris
(a small, multi-coloured brittle star).	Ophiactis tricolor
Ramsay's Brittle Star	Ophiarachnella ramsayi
(a large brittle star, living in soft sediments).	Ophiocentrus pilosus (=
la large brittle star, living in soit sediments).	pilosa)
(a brittle star found amongst rocks in shallow water)	,
(a brittle star found amongst rocks in shallow water).	Ophioceres bispinosus
(a brittle star with banded arms, from shallow water).	Ophiocomina australis
(a brittle star found in the shallow subtidal in SA and WA).	Ophioconus opacum
(a brown and white/cream brittle star, known from	Ophiocrossota multispina
western, southern and south-eastern Australia, from the	
shallow subtidal to around 85m).	
(two deeper-water brittle stars from southern Australia,	Ophiomusium anisacanthum
including waters south of the S.A. gulfs).	Ophiomusium australe
Red Serpent Star	Ophiomyxa australis
Schayer's Brittle Star	Ophionereis schayeri
(a brittle star from W.A. and southern Australian states,	

found from the shallow subtidal to around 180m).	
(a brittle star found in both northern and southern	Ophionereis semoni
Australia and the Pacific, from the shallow subtidal to	,
around 180m).	
(a brittle star from waters deeper than 50m, found along	Ophionereis terba
southern and south-eastern Australia).	,
(a brittle star from southern Australia).	Ophiopeza cylindrica
(a shallow water brittle star, found amongst rubble /	Ophiopeza sp.
stones).	
(a brittle star recorded between 0m - 50m, from	Ophioplocus bispinosus
Tasmania, Victoria and South Australia, with West Island	
in S.A. as the known western limit).	
(a southern Australian brittle star with a broad depth	Ophiopsammus assimilis
range).	
(a deeper water brittle star from south-eastern Australia	Ophiothrix (Ophiothrix)
and Asia, for which Beachport, S.A., is the western limit	aristulata
in southern Australia).	
(a pink-red or yellow brittle star from southern and south-	Ophiothrix (Ophiothrix)
eastern Australia, found in bryozoa and sponges).	caespitosa
(a purple and cream coloured brittle star, known from	Ophiothrix (Placophiothrix)
western, southern and south-eastern Australia).	spongicola
(a small brittle star with a broad geographic range and	Ophiura kinbergi
depth range, found in soft sediments).	
(a brittle star with a broad depth range, from eastern and	Ophiura ooplax
southern Australia, with Spencer Gulf as the known	
western limit).	
(a green/gray and light purple sea urchin from S.A. and	Pachycentrotus australiae
south-eastern Australia, with a reported depth range of	
0m – 70m).	5 "
(a pink and white sea cucumber from western, southern	Paracaudina australis
and eastern Australia, with a broad depth distribution,	
from the shallow subtidal to around 230m).	Dana accidina totia da
(a gray sea cucumber from S.A., Victoria and Tasmania,	Paracaudina luticola
with a recorded range of 3m - 12m).	Davida tatuan ara
(a sea cucumber from shallow waters in W.A. and S.A.).	Paracaudina tetrapora
(a sea cucumber, recorded between Victoria and W.A., to	Paracaudina sp.
145m).	Daranananthia arandia
(a sea star with "webbed" arms, from western, southern	Paranepanthia grandis
and south-eastern Australia, recorded to 40m).  Purple Sea Star	Patirialla bravianina
(a sea star found across southern Australian States, from	Patiriella brevispina
the intertidal to around 36m).	
Cushion Sea Star	Patiriella calcar
Carpet Sea Star	i dunisiid valvai
Spurred Sea Star	
Common Eight-armed Sea Star	
(a sea star from the intertidal and shallow subtidal, found	
along southern Australian coasts).	
Small Green Sea Star	Patiriella exigua
(a broadly distributed, dark blue-green sea star from the	- Lancing Original
intertidal).	
	I .

0'	D. C. C. H.
Six-armed Sea Star	Patiriella gunnii
(a small sea star with six short arms, found along the	
mid-western and southern Australian coasts, to around	
30m).	Detinialla nomininara
(a viviparous sea star; the smallest sea star in Australia,	Patiriella parvivipara
known only from the western part of S.A.; possibly	
endemic).	
(a genus of sea cucumbers, some with tropical affinities).	Pentacta spp.
Vermilion Sea Star	Pentagonaster duebeni
(a sea star found across the southern half of the	
Australian coast,	
with a recorded depth range of 0m – 160m).	
(a sea cucumber from W.A., S.A. and south-eastern	Pentocnus bursatus
Australia, described in 1992, and recorded between 0m -	
4m).	
(a small "hat urchin", known from western, southern and	Peronella peronii
eastern Australia, with a recorded depth range of 10m -	
360m).	
Velvet Sea Star	Petricia vernicina
Velvet Star	
Slate Pencil Urchin	Phyllacanthus irregularis
(a sea urchin from shallow waters in S.A. and W.A.).	
Mosaic Sea Star	Plectaster decanus
(a sea star with five long cylindrical arms, from mid and	
southern W.A., S.A., Victoria, Tasmania, and southern	
N.S.W., with a recorded depth range of 0m – 200m).	
(a sea cucumber from W.A., S.A., south-eastern Australia	Plesiocolochirus ignava
and N.Z., with records between 1m – 36m).	
(a sea urchin from W.A., S.A. and south-eastern	Protenaster australis
Australia, recorded between 0m – 46m).	
(a small, gray and black sea cucumber).	Pseudocnus sp.
(a sea cucumber from the littoral fringe in south-eastern	Psolidiella hickmani
Australia, for which Robe is the recorded western limit).	
(an orange, red or purple feather star from W.A., S.A. and	Ptilometra macronema
south-eastern Australia, with a reported depth range of	
0m – 113m).	
(a five-armed, light- and dark-red sea star, from S.A. and	Smilasterias irregularis
south-eastern Australia, recorded to 30m).	
(a sea cucumber described in 1992, from the shallow	Squamocnus aureoruber
subtidal in south-eastern Australia and S.A., with Streaky	
Bay as the recorded western limit).	
(a light and dark brown sea cucumber, with a recorded	Stichopus ludwigi
depth range of 0m – 25m, known from W.A., S.A. and	_
south-eastern Australia).	
(a brown and black-ringed sea cucumber, with a recorded	Stichopus mollis
depth range of 0m – 140m; known from W.A., S.A. and	-
south-eastern Australia).	
(a small brown sea cucumber from the intertidal and	Staurothyone inconspicua
shallow subtidal, in S.A. and south-eastern Australia).	,
(a brown sea cucumber, recorded from Gulf St Vincent;	("Staurothyone") vercoi
possibly endemic to S.A; possibly a member of the	·
Staurothyone genus).	
· · · · · · · · · · · · · · · · · · ·	•

(a sea cucumber known from the S.A. gulfs region, and	Taeniogyrus heterosigmus
W.A.).	To a size of the s
(a small red sea cucumber known from the shallow	Taeniogyrus roebucki
subtidal in western, southern and south-eastern Australia).	
(a small red-brown, green and white sea urchin from	Temnopleurus michaelseni
western and southern Australia, recorded from 0m –	Terriropieurus michaeisem
40m).	
(a small, purple-black sea cucumber, recorded from	Thyone nigra
W.A., S.A. and south-eastern Australia, between 0m -	
20m ).	
(a tropical sea cucumber from Qld and the Pacific, also	Thyone okeni
recorded throughout southern Australia, including S.A.,	
between 0m – 30m).	
Southern Biscuit Star	Tosia australis
Biscuit Sea Star	
Biscuit Star	
(a "biscuit star" common in shallow water in Tasmania	(Tosia magnifica)*
and Victoria, but recorded in deep water in S.A.)	<u> </u>
(a "biscuit star" from mid and south W.A., S.A. and the	Tosia nobilis
south-eastern States, recorded from the intertidal to	
around 40m).	Track throws alsh ass
(a sea cucumber described in 1992, recorded between	Trachythyone glebosa
3m – 15m, from Kangaroo Island westward to	
Michaelmas Island in W.A.).  (a dark red or purple sea cucumber, known from S.A.,	Trochodota allani
Victoria and Tasmania)	Trochodola allani
(a black sea cucumber, known from the shallow subtidal	Trochodota shepherdi
in Gulf St Vincent and Spencer Gulf in S.A., and from	Trochodota shepheral
Victoria).	
Zig Zag Sea Star	Uniophora granifera
Southern Sea Star	gramora
(a five-armed sea star covered with blunt spines,	
recorded from southern and south-eastern Australian	
States, from 0m – 143m).	
(a five-armed sea star similar to Uniophora granifera,	Uniophora nuda
recorded from the S.A. Gulfs region, with a depth range	
of 0m – 60m; possibly endemic).	

<sup>\*(</sup>*Tosia magnifica* is included in the echinoderm list for South Australia, because it can occur in shallow water, as records from Tasmania and Victoria show; however it is noted that South Australian records are from deep waters, such as 200m).

## Ascidians, Salps and Larvaceans

Kott (1962, 1972a, 1972b, 1975, 1990, 1992, 1997, 1998, 2003); Shepherd (1983b); Monniot and Monniot (1996); NIMPIS (2002); Australian Government Department of the Environment and Heritage (2004b).

Common Name	Latin Name	Conservation Status
(a small ascidian species that	(Amphicarpa	
occurs in aggregations; reported	meridiana)	
in S.A., Victoria, Tasmania and	,	
N.S.W; the name Amphicarpa		
meridiana is not recognised by		
some authorities)		
(a massive, cushion-shaped	Aplidiopsis mammillata	Possibly endemic to S.A.
colonial ascidian known to date		
only from S.A., with the type		
specimen taken at Thistle Island)		
(a rounded, cushion-like colonial	Aplidiopsis sabulosa	Possibly endemic to S.A.
ascidian recorded to date only		
from S.A., with the type specimen		
taken at Price I.)		
(a branching, stalked colonial	Aplidium acroporum	Possibly endemic to S.A.
ascidian with embedded sand;		
found in the shallow subtidal, in		
mixed reef, sand and seagrass		
habitat; recorded to date only in		
S.A., with examples of locations		
including Thorny Passage and		
Kangaroo I.)	And individual and a state of the state of	
(a soft, sessile, dome-shaped	Aplidium amorphatum	
colonial ascidian, found in		
N.S.W., Victoria and S.A.) (a colonial ascidian, comprising	Anlidium quatralianas	
cylindrical heads on long sandy	Aplidium australiense	
stalks; recorded in W.A., S.A.		
and Victoria)		
(a colonial ascidian comprising	Aplidium bacculum	Possibly endemic to S.A.
parallel, branching stalks with	Tipilaram baocalam	1 ossibly chachile to c., t.
embedded sand; found to date		
only in S.A., with Edithburgh		
being the type locality		
(a white or pale pink colonial	Aplidium	
ascidian, comprising rounded	brevilarvacium	
heads on long sandy stalks;		
found mainly in S.A. and W.A.)		
(a sheet-like ascidian with	Aplidium caelestis	
embedded sand; found in		
Queensland, Victoria, S.A. and		
W.A.; also recorded at Norfolk I.,		
and various locations in the		
tropical western Pacific, such as		
New Caledonia)		
(a flat-topped, cushion-like	Aplidium clivosum	
colonial ascidian, found in		
Queensland, N.S.W., S.A. and		
W.A.)		

(a accella galatinava calcuial	A ra li ali:aa aa ra ifa ruaa	
(a sessile, gelatinous colonial	Aplidium coniferum	
ascidian, found on the continental		
shelf and slope; recorded in S.A.,		
Victoria, Tasmania and N.S.W)		
(a tropical colonial ascidian known from N.T., Queensland, N.S.W., S.A. and W.A.; also recorded in Hong Kong, and parts of the West Pacific)	Aplidium controversum	
(a solid, irregular-shaped colonial	Aplidium distaplium	
ascidian with embedded sand; recorded on calcareous reef in S.A. and Victoria)	- пристант спосорнатт	
(an undulating, fan-shaped colonial ascidian with embedded sand; known to date only from S.A., with Waterloo Bay / Elliston being the type locality)	Aplidium elatum	Possibly endemic to S.A.
(A cushion-shaped, transparent ascidian that occurs on rocky bottom, in areas of slow current; known to date only from S.A., with southern Anxious Bay being the type locality)	Aplidium gastrolineatum	Possibly endemic to S.A.
(a white, spherical colonial	Aplidium geminatum	
ascidian on a short stalk; known	Tipiraiam geminatam	
from S.A., Victoria and northern		
Tasmania)		
/	A 1:-1: : : : : : : :-	
(a colonial ascidian with thick, short stalks; known from S.A. and Victoria)	Aplidium inflorescens	
(an aqua-blue encrusting colonial ascidian, found on vertical surfaces in shallow waters; recorded in Queensland, S.A. and W.A.)	Aplidium lenticulum	
(an irregular-shaped, sheet-like	Aplidium lodix	
colonial ascidian recorded in S.A. and Victoria)	- Apridiant Todix	
(a wedge-shaped or mat-like	Aplidium lunacratum	
colonial ascidian found in W.A., S.A., Victoria and N.S.W.)	,	
(an upright, round-topped	Aplidium magnilarvum	
colonial ascidian recorded over a		
narrow depth range on the outer		
continental shelf of the Great		
Australian Bight, W.A. / S.A.		
border area).		
(a semi-transparent, yellow	Aplidium multiplicatum	
colonial ascidian that forms a	- <del>Дрнашн нашрисашн</del>	
soft, gelatinous cushion or sheet;		
widespread throughout the		

tropical Indo-West Pacific, and		
also recorded in W.A., S.A. and		
Victoria)		
(a sheet-like or cushion-like	Aplidium opacum	
colonial ascidian with a soft		
gelatinous test; ranging from		
N.S.W. through to W.A., including		
Tasmania)		
(a small colonial ascidian with	[Aplidium parvum]	
short stalks; recorded in southern		
W.A. and the Bass Strait region		
of Victoria; possibly occurs in		
S.A., given distribution in		
adjacent States)	A !! !!	
(a hard colonial ascidian	Aplidium petrosum	Possibly endemic to S.A.
recorded to date at few locations		
in S.A., such the Great Australian		
Bight, Spencer Gulf, and the		
upper South-East)	A . P P	Description of Co.
(a colonial ascidian that forms	Aplidium pronum	Possibly endemic to S.A.
small, falt-topped lobes, united at		
the base; known to date only		
from the type specimen, taken in		
Investigator Strait, S.A.)	Andidium no bustum	
(a spherical or conical-shaped,	Aplidium robustum	
sessile colonial ascidian found in		
W.A., S.A. and Tasmania).	Andidiana makaisa Ilana	
(a flat colonial ascidian with	Aplidium rubricollum	
rounded borders and embedded		
sand; recorded mainly in in S.A.,		
and possibly extending to		
Victoria) (a soft colonial ascidian found in	Anlidium triggeoneo	
turbulent areas exposed to surf	Aplidium triggsense	
or strong currents; occurs on		
1		
stones and shells, with basal projections that penetrate the		
surrounding substrate; recorded		
in Queensland, Victoria, S.A. and		
W.A.; also known from New		
Caledonia)		
(an oval-shaped ascidian with a	Ascidia decepta	
firm, gelatinous test with	7.00ma dooopia	
embedded sand; recorded in		
Queensland, N.S.W., Tasmania		
and S.A.)		
(a long, narrow ascidian;	[Ascidia gemmata]	
recorded in N.T., Queensland,	L. Isolaia golilliataj	
N.S.W., Victoria, Tasmania and		
W.A.; possibly also occurs in		
S.A., given circum-Australian		
distribution, and occurrence in		
,	<u> </u>	

adjacent States)		
(a robust solitary ascidian found	Ascidia latesiphonica	
in Queensland, S.A., Victoria,	/ Addidia latedipriorilea	
and W.A.)	Appidio accessos	
(a dorso-ventrally flattened	Ascidia scaevola	
ascidian with a brittle test,		
containing embedded sand or		
shell particles; found in		
Indonesia, parts of the Western		
Pacific, and in Queensland,		
Victoria and S.A.)		
(a large, gray solitary ascidian	Ascidia sydneiensis	
that lives in mud or sand, or on	7 lociala oyarrereriole	
rocky bottoms in the shallow		
subtidal; widely distributed		
around Australia, and throughout		
the Indo-West Pacific and the		
Atlantic)		
(a firm, gelatinous, club-shaped	Ascidia thompsoni	
ascidian; found in S.A. and		
Tasmania)		
(an ascidian with an oval-shaped,	Ascidiella aspersa	Possibly introduced from
laterally flattened body; found in	•	the northern hemisphere
the Mediterranean Sea, Adriatic		
Sea, Norway, English Channel,		
Irish Sea, Scotland, Shetland		
Islands, and New Zealand; also		
recorded in Australia, mainly from		
locations in the vicinity of ports		
and harbours, in Victoria,		
Tasmania, S.A. and W.A.)		
(a spherical ascidan with a thin,	Asterocarpa humilis	
leathery test; known from		
Indonesia, New Zealand, South		
Africa, and in Australia, rercorded		
in W.A., S.A. and Tasmania)		
(a pink, elongated or cushion-	Atriolum sp.	Possibly endemic to S.A.
shaped colonial ascidian with a	- <b>-</b> -	
funnel-like cloacal opening in the		
upper surface of the colony;		
1		
recorded to date only in a cave at		
Flinders I., in the Investigator		
Group, S.A.)	Data Wait 1	
(an encrusting colonial ascidian	Botrylloides leachii	
that is highly variable in colour;		
often found on seargass,		
macroalgae, rubble or other firm		
substrates; recorded all around		
Australia, excluding Tasmania		
and N.T., and also found in the		
North-east Atlantic Ocean, North		
Sea, Mediterranean Sea, Black		
oca, mediterranean oca, Diack		

	I	
Sea, Adriatic, Red Sea and		
tropical Indo-west Pacific Ocean)		
(a colonial ascidian of variable	Botrylloides anceps	
colour combinations, including	Botrylloides	
blue and yellow, cream and	magnicoecum	
black, red, pinkish-red, purple	(Botrylloides nigrum	
and yellow; widely distributed in	magnicoecum)	
shallow reef habitats around	,	
Australia and Tasmania, and the		
Indo-West Pacific)		
(a colonial ascidian of variable	Botrylloides perspicuus	
colour, often found attached to		
seagrasses; recorded in		
Queensland, S.A., Tasmania,		
Victoria and W.A.; also known		
from Lord Howe Island, and		
·		
Hong Kong, Indonesia,		
Philippines and other locations in		
the tropical Indo-West Pacific)	D. C. H	
(an ascidian with zooids forming	Botryllus schlosseri	
crowded circular or oval systems		
in flat, investing colonies; dozens		
of different colour morphs are		
known; found in Queensland,		
S.A., Tasmania, Victoria, and		
W.A.; also recorded in New		
Zealand, Hong Kong, North		
Atlantic Ocean, North Sea,		
Mediterranean Sea, Black Sea		
and Adriatic Sea)		
(a colonial ascidian with a	Botryllus stewartensis	
surface layer of sand; recorded		
from the South Island of New		
Zealand, and also in		
Queensland, N.S.W., S.A. and		
Victoria)		
(a colonial ascidian that forms a	Brevicollus tuberatus	
	Dievicolius luberalus	
long, firm, tuber-like mass; found		
in S.A. and Victoria)	Drookoja vastusta	
(a salp that occurs in the tropical	Brooksia rostrata	
parts of the Atlantic and Indian		
Oceans, and the west and east		
Pacific; also recorded in south-		
eastern Australia, including Bass		
Strait in Victoria, and likely to		
occur in south-eastern S.A.)		
(a solitary ascidian species	Ciona intestinalis	Introduced
recorded in many harbours		
around the world, including		
U.S.A., Alaska, Arctic region,		
Greenland, China and Japan,		
Europe and the Mediterranean,		
	1	

and Australia; found on ship hulls and harbour installations. C. intestinalis is recorded all Australian states, excluding N.T. but including Tasmania. The species is now not as common in most parts of Australia as it was last century)		
(a blue, rope-like colonial ascidian that lives in caves and crevices, and on vertical surfaces; ranging from W.A. through to Victoria.	Clavelina cylindrica	
(a yellow-brown or buff coloured ascidian that lives on sand; known to date only from the type locality, Waldegrave Island in S.A.)	Clavelina mirabilis	Possibly endemic to S.A.
Blue-throated Ascidian (a seasonal colonial ascidian of widespread distribution, ranging from north Queensland, around southern Australia, to northern W.A.; also found in various parts of the tropical Indo-West Pacific, such as Philippines and Singapore).	Clavelina moluccensis	
(a blue ascidian that lives on open sandy or rocky bottoms, to around 30m deep; found in southern W.A. and western S.A.)	Clavelina ostrearium	
(an ascidian with stalked colonies, living on sandy or rocky bottoms; found in southern W.A., S.A. and Victoria)	Clavelina pseudobaudinensis	
(an ascidian with embedded sand; found on sandy or rocky bottoms; recorded to date only in Gulf St Vincent and Investigator Strait in S.A., with Yankalilla Bay being the type locality)	Claudenus antipodus	Possibly endemic to S.A.
(an ascidian that has been recorded to date only in S.A., with the type locality being mixed sand, rubble and seagrass habitat, 7m deep, at North Point, Sir Joseph Banks Group, S.A.)	Cnemidocarpa amphora	Possibly endemic to S.A.
(an ascidian occurring to approximately 70m deep; found in all Australian states, including N.T. but excluding Tasmania; also known from Fiji, Hong Kong,	Cnemidocarpa irene	

Marsa Janan Cuadalaura		
Korea, Japan, Guadaloupe,		
Marianas, and various other parts		
of the West Pacific Ocean)		
(an ascidian that is often found	Cnemidocarpa lobata	
on		
wharf pylons, and on muddy or		
sandy substrates; recorded in all		
Australian states, including		
Tasmania but excluding N.T.)		
(a large ascidian with a tough,	Cnemidocarpa pedata	
leathery test; recorded in Japan,		
Philippines and the south-west		
Pacific, and also found at		
Waldegrave I. and Pearson I. in		
S.A., and in Victoria, N.S.W. and		
Queensland)		
(an ascidian with a thin, white,	Cnemidocarpa	
tough test; sometimes found in	radicosa	
Macrocystis beds; occurs on	744/6034	
sandy or rocky substrates, to		
1		
around 50m deep; recorded		
around Australia, excluding N.T.)	Circurai de como	Descibly and arris to C A
(an ascidian that has been	Cnemidocarpa	Possibly endemic to S.A.
recorded to date only at Seal	tribranchiata	
Rocks in Encounter Bay, S.A.)		
(a fan-shaped colonial ascidian	Condominium	
found on sand, mainly in the	areolatum	
tropics; known from Lord Howe		
Island and New Caledonia, and		
also recorded in Queensland,		
S.A. and W.A.)		
(a transparent, laterally flattened	Corella eumyota	
ascidian; often occurs in large		
aggregations of attached		
individuals, on the sea floor, or		
on rocks or harbour fittings;		
widespread southern distribution,		
in South Africa, Chile, Macquarie		
I., Antarctic Peninsula, New		
Zealand and Australia, including		
W.A., S.A., Victoria and		
Tasmania)		
(a salp that occurs in the east	<del>  </del>	
La saib mar occars in me cast	Cyclosalna hakori	
and west Pacific and warmer	Cyclosalpa bakeri	
and west Pacific, and warmer	Cyclosalpa bakeri	
parts of Atlantic; also found in	Cyclosalpa bakeri	
parts of Atlantic; also found in south-eastern Australia, including	Cyclosalpa bakeri	
parts of Atlantic; also found in south-eastern Australia, including Bass Strait in Victoria, and may	Cyclosalpa bakeri	
parts of Atlantic; also found in south-eastern Australia, including Bass Strait in Victoria, and may therefore extend into south-	Cyclosalpa bakeri	
parts of Atlantic; also found in south-eastern Australia, including Bass Strait in Victoria, and may therefore extend into southeastern S.A.).		
parts of Atlantic; also found in south-eastern Australia, including Bass Strait in Victoria, and may therefore extend into southeastern S.A.).  (a brown, pink, white or purple	Cyclosalpa bakeri  Cystodytes dellachiajei	
parts of Atlantic; also found in south-eastern Australia, including Bass Strait in Victoria, and may therefore extend into southeastern S.A.).		

/a apharical calculation an	Diatablia australamaia	
(a spherical colonial ascidian on	Distaplia australensis	
a stalk; recorded on sandy		
substrate in upper Spencer Gulf		
in S.A.; also found in parts of		
Tasmania; possibly also present		
in Queensland)		
(a soft, flat-topped, cushion-like	Distaplia florida	
colonial ascidian known from		
N.S.W., S.A. and Tasmania)		
(a cushion-like or sheet-like	Distaplia pallida	
colonial ascidian that occurs on		
rubble substrates; known from		
S.A., Victoria and Tasmania)		
(a colonial ascidian forming a	Distaplia stylifera	
rounded, sponge-like head on a		
stalk; found in Queensland, W.A.,		
and S.A.; also recorded from		
South Africa and the Red Sea)		
(a sessile, cushion-like colonial	Distaplia tokiokai (= D.	Possibly endemic to S.A.
ascidian recorded to date only	tokioka)	
from Price Island in S.A.)		
(a blue-grey or blue-black,	Distaplia viridis	
cushion-shaped or sheet-like	Distaplia viriais	
colonial ascidian found on shell,		
rubble or other hard sbstrates in		
shallow waters; recorded mainly		
from Victoria and the S.A. Gulfs		
region, with Victor Harbor being		
the type locality).		
(a salp that has a wide global	Dolioletta gegenbauri	
1 ` .	Dolloletta gegeribauri	
distribution; also found in south-		
eastern Australia, including Bass		
Strait in Victoria, and may		
therefore extend into south-		
eastern S.A.)		
(a colonial ascidian that forms a	Dumus areniferus	
thicket of club-shaped, branching		
stalks, covered with a thin layer		
of sand; recorded in W.A., S.A.,		
Victoria, N.S.W. and		
Queensland; also occurs in New		
Zealand)		
(an ascidian that forms firm,	Eucoelium coronarium	
sphercial, oval or dome-shaped		
colonies; found over a broad		
depth range on the continental		
shelf; recorded along all parts of		
the W.A. coast, extending into		
western S.A.)		
(a convex, lobed, colonial	Eudistoma aureum	Possibly endemic to S.A.
ascidian recorded from		_
Posidonia seagrass beds in Gulf		

St Vincent, S.A.).		
(a colonial ascidian that forms	Eudistoma constrictum	Possibly endemic to S.A.
, ,	Luuistoilla ColistiiCtuffi	russibly efficientic to S.A.
irregular, rounded cushions with		
embedded sand; recorded to		
date only in S.A., including		
Chinaman's Hat I. on Yorke		
Peninsula, and in Investigator		
Strait)		
(a blue or gray colonial ascidian	Eudistoma maculosum	
that forms fleshy investing		
colonies, with black, star-shaped		
patterns of zooids; found in W.A.,		
S.A., Victoria and N.S.W.)		
(a cushion-shaped colonial	Eudistoma sabulosum	
ascidian with embedded sand;		
found in S.A., Victoria and		
northern Tasmania)		
(an ascidian found in Indonesia,	[Eugyra molguloides]	
and also in Queensland, Victoria	[Eugyra Moiguloides]	
7		
and southern W.A.; possibly		
occurs in S.A., given distribution		
in adjacent States)		
(a tropical ascidian formed of	Euherdmania digitata	
separate zooids attached to		
basal stolons or a solid basal		
mass; known from northern W.A.,		
north Queensland, Tahiti, Fiji and		
the Palau Islands, and also		
recorded in parts of S.A., such as		
the Investigator Group islands,		
on the west coast).		
(an ascidian composed of stalked	Euherdmania	Possibly endemic to S.A.
individuals with glassy,	translucida	
transparent tests; recorded to	a a rora ora a	
date only in shallow subtidal		
habitats in parts of S.A., including		
Posidonia seagrass beds off		
southern Spencer gulf, and the		
Investigator Islands on the west		
coast of S.A.)	Fultilla via	
(a planktonic larvacean with a	Fritillaria megachile	
wide range in tropical and sub-		
tropical waters; also found rarely		
in coastal waters of eastern and		
southern Australia)		
(a roughly spherical, tough, red-	Halocynthia dumosa	
orange ascidian, found		
individually or in groups, in		
caves, on vertical rock surfaces,		
or on the sea floor, sometimes in		
Posidonia seagrass beds; widely		
distributed in the Pacific Ocean;		
aleandated in the radiile count,	<u> </u>	

		1
in Australia, known from		
Queensland, N.S.W., Tasmania,		
Victoria and S.A.)		
(a large solitary ascidian, often	Herdmania momus	
with epiphytes on the test; the		
species is found on a variety of		
substrates, all around Australia,		
including N.T. and Tasmania,		
however the sub-species H.		
momus galei is known only from		
southern Australian States).		
(a soft gelatinous ascidian, often	Hypodistoma mirabile	
fond in caves with strong water	Trypodistorna mirabile	
movement, less than 20m deep;		
recorded from the west coast of		
S.A. and parts of Victoria).	Lhunoioto zoo	
(an ascidian that forms oval,	Hypsistozoa	
cone-shaped or rope-like heads	distomoides	
on thick fleshy stalks; recorded		
from subtidal habitats less than		
20m deep, in S.A., Tasmania and		
N.S.W.)		
(a salp that that occurs in the	Ihlea magalhanica	
Straits of Magellan and to the		
south, and Cape of Good Hope;		
also found in south-eastern		
Australia, including Bass Strait in		
Victoria, and likely to occur in		
south-eastern S.A.)		
(an ascidian found to date only at	Leptoclinides	Possibly endemic to S.A.
Pearson Island in S.A., at 50m	fungiformis	
deep, on gravelly bottom with		
rock and shell fragments)		
(a reddish-brown or gray and	Leptoclinides	
orange colonial ascidian, found in	imperfectus	
S.A. and Victoria).		
(a pink, massive colonial	Leptoclinides	
ascidian; found in N.S.W.,	multilobatus	
Victoria, Tasmania and S.A.)		
(a pink or gray colonial ascidian,	Leptoclinides volvus	Possibly endemic to S.A.
found to date only in the Great	,	,
Australian Bight of S.A.)		
(a green and orange colonial	Leptoclinides sp. 1	Possibly endemic to S.A.
ascidian known from Spencer	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Gulf and the West Coast of S.A.)		
(a pale colonial ascidian with	Leptoclinides sp. 2	Possibly endemic to S.A.
black spots, known from Gulf St	Loptoomingoo op. Z	. Society structure to G.71.
Vincent in S.A.).		
(a flat, sheet-like colonial	Leptoclinides sp. 3	Possibly endemic to S.A.
ascidian that is orange and black,	Leptochinges sp. 3	1 Ossibly efficiently to S.A.
1		
with white spicules; known from		
northern and eastern Great		

Australian Bight, and Gulf St		
Vincent and Investigator Strait in		
S.A.).		
(a thin, sheet-like colonial	Leptoclinides sp. 4	Possibly endemic to S.A.
ascidian with irregular conical		
prominences; known from the		
northern and eastern Great		
Australian Bight and Gulf St		
Vincent in S.A.)		
(a colonial ascidian recorded	Lissoclinum ostrearium	
from Queensland, S.A. and W.A.)		
(a colonial ascidian recorded to	Lissoclinum	
date from the Tasmanian coast	tasmanense	
and the S.A. Gulfs region)	(= Echinoclinum	
and the Sint Sums region)	tasmanense	
(a pinkish-yellow colonial	Lissoclinum sp. 1	Possibly endemic to S.A.
ascidian found to date only at	Zioccomiani op. 1	Toolisiy criderine to C., t.
Flinders Island in S.A., in high		
wave energy conditions).		
(a purplish-pink colonial ascidian	Lissoclinum sp. 2	Possibly endemic to S.A.
found to date only at Ward Island	Liocomium op. 2	T decistly endermie to e t.
in S.A.).		
(an ascidian that comprises	Metandrocarpa indica	
sessile, round, laterally flattened	Wotarrarooarpa maioa	
individuals; recorded in sand and		
shell bottom habitats in areas of		
strong surge, to around 45m		
deep, in S.A. and W.A.)		
(an ascidian with individuals that	[Microcosmus	
form rounded aggregates; known	australis]	
from N.T., Queensland, N.S.W.,		
Bass Strait in Victoria, and lower		
and central W.A.; possibly occurs		
in S.A., given distribution in		
adjacent States)		
(an ascidian comprising irregular	Microcosmus helleri	
or spherical individuals, coated in		
sand; found in Taiwan,		
Queensland, N.T., W.A., S.A.		
and Victoria)		
(a circular, flattened ascidian with	Microcosmus planus	
a thin, hard test encrusted with	The second secon	
sand; found to date in S.A. and		
Victoria)		
(a thick, leathery ascidian,	Microcosmus	
comprising rounded individuals	propinguus	
with both apertures on long		
siphons, close together on the		
upper surface; recorded to date		
in S.A., Victoria, and southern		
Queensland)		
(an irregular-shaped, rounded	Microcosmus	
\		

ascidian with a tough test; occurs	squamiger	
on cave walls, concrete, oysters,		
reef and other hard surfaces;		
recorded around Australia,		
including Tasmania but excluding		
N.T.)		
(a spherical or top-shaped	Microcosmus	
ascidian with a stalk or root-like	stoloniferus	
processes; recorded to date in		
S.A., Tasmania, Victoria and		
Queensland)		
(an ascidian that forms sandy,	Molgula ellistoni	Possibly endemic to S.A.
spherical individuals; found to		
date only in caves subject to		
strong swell, in the Elliston area,		
S.A.)		
(a spherical or laterally flattened	Molgula ficus	
ascidian with a thin test; found	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
around Australia, and in the Indo-		
West Pacific)		
(an ascidian that is small, oval or	Molgula mollis	
lens-shaped, and laterally		
flattened; recorded in S.A.,		
Victoria, N.S.W. and		
Queensland)		
(a spherical ascidian that has a	Molgula sabulosa	
thin, brittle test with embedded	moigaia casaicea	
sand; found in S.A., Victoria and		
W.A.)		
(a sandy, lobe-shaped ascidian	Monniotus australis	
found in high wave energy areas	mommetae adeliane	
in W.A., S.A. and Victoria)		
(an ascidian in the Polyclinidae	Morchellium albidum	Possibly endemic to S.A.
family; found to date only in S.A.,	merenemann aneraann	l coolery criticaline to our in
with Wedge Island being the type		
loclaity)		
(a soft, sessile ascidian with	Neodistoma	Possibly endemic to S.A.
rounded or conical surface	mammillatum	
prominences; known to date only	a.iiiiiiiataiii	
from caves and reefs in S.A., with		
Seacliff being type locality)		
(an ascidian that forms sandy	Oculinaria australis	
colonies; often on stems of		
macroalgae, in places of strong		
water movement; found in W.A.,		
S.A., Victoria and Tasmania)		
(a planktonic larvacean found in	Oikopleura dioica	
coastal waters of the tropics; also	Cinopidara didida	
occurs in the continental shelf		
waters of western and southern		
Australia, including S.A.).		
(a planktonic larvacean found in	Oikopleura longicauda	
La bianizionio iai vacean ionna ili	Unopieura lurigicauda	

the coastal waters of North and		
South America; also the		
Mediterranean Sea, and most		
warmer oceanic waters; also		
occurs in the continental shelf		
waters of eastern and southern		
Australia, including S.A.).		
(a planktonic larvacean found in	Oikopleura rufescens	
most oceans of the world; also	Olkopieura ruiesceris	
,		
occurs in continental shelf waters		
around Australia, including S.A.).		
(a planktonic salp with solitary	Pegea confoederata	
and aggregate forms; found in		
eastern and southern Australian		
waters; also occurs in the warm		
and temperate parts of all		
oceans, and in the Mediterranean		
sea)		
(a large solitary ascidian found	Phallusia obesa	
on sand, rubble or wooden jetty		
pylons; recorded in W.A., S.A.,		
Victoria, N.S.W. and		
Queensland)		
(a colonial ascidian with	Plurella elongata	
embedded sand; occurs in sandy	i lurella elorigata	
habitats to around 90m deep;		
known mainly from southern		
W.A. and S.A., extending into		
Victoria)	5.4	
(an ascidian that forms large,	Polyandrocarpa	
sandy colonies; found on hard	lapidosa	
vertical surfaces in areas of		
strong current, to around 25m		
deep; recorded in S.A., Victoria		
and N.S.W.)		
(a reddish-brown colonial	Polyandrocarpa	Possibly endemic to S.A.
ascidian with encrusting sand;	simulans	·
found to date only in S.A., with		
recorded localities including St		
	Polycarna clavata	
	. Siyodipa olavala	
1 9 9		
, ,		
· ·		
,		
Pacific)		
(a common, upright solitary	Polycarpa flava	
ascidian that is spherical or top-		i l
(a common, upright solitary	Polycarpa clavata  Polycarpa flava	

Polycarpa hartmeyeri	
Polycarpa papillata	
5.	
Polycarpa pedunculata	
Dali raama amaaana	
Polycarpa procera	
Polycarna rigida	
Torycarpa rigida 	
[Polycarpa	
,	
Polycarpa viridis	
•	
	Polycarpa pedunculata  Polycarpa procera  Polycarpa rigida  [Polycarpa thelyphanes]

the vicinity of seagrass; recorded in W.A., S.A., Victoria, and N.S.W.)		
(a colonial ascidian comprising small, spherical or slightly pointed translucent heads on cylindrical stalks; common in <i>Posidonia</i> seagrass beds; recorded in S.A. and N.S.W.	Polycitor calamus	
(an ascidian that forms solid, hemispherical colonies, with embedded sand; recorded to date only at Franklin Island in S.A., amongst macroalgae at 15m depth)	Polycitor cerasus	Possibly endemic to S.A.
(an ascidian with a glassy test, that forms conical to spherical colonies; found on a wide variety of substrates; recorded in W.A., S.A., Victoria, Tasmania, N.S.W. and southern Queensland)	Polycitor giganteus	
(a pale grey colonial ascidian that forms a spherical head of swollen zooids, on a short stalk; recorded to date only in S.A., with Flinders I. in the Investigator Group being the type locality)	Polycitor nubilus	Possibly endemic to S.A.
(a firm, cone-shaped colonial ascidian; recorded to date only in Investigator Strait, S.A.).	Polycitor obeliscus	Possibly endemic to S.A.
(a colonial ascidian that forms firm, spreading sheets, with surface and embedded sand; known mainly from southern W.A. and S.A., extending to western Victoria).	Polyclinum incrustatum	
(a colonial ascidian that forms soft, irregular sheets; recorded in W.A., S.A., Victoria and Tasmania)	Polyclinum marsupiale	
(a colonial ascidian that forms thin fleshy sheets, covered with surface sand; recorded in southern W.A. and S.A.)	Polyclinum tenuatum	
(a colonial ascidian recorded from Japan and Australia, the latter distribution including Queensland, S.A. and W.A.)	Polysyncraton aspiculatum	
(a pink, orange or red colonial ascidian, found in S.A. and W.A.)	Polysyncraton orbiculum	
(a colonial ascidian, found to date in New Zealand and the Great	Polysyncraton paradoxum	

Australian Bight region of S.A.)		
(an ascidian with crowded, spherical sandy zooids, attached to a branching network of basal stolons; recorded to date only in S.A., with the type specimen from Price I.)	Polyzoa nodosa	Possibly endemic to S.A.
(a stalked colonial ascidian with spherical heads; known to date only from Margaret Brock Reef in S.A.)	Protoholozoa australiensis	Possibly endemic to S.A.
(an ascidian that lives on rock substrate, between 10m and around 100m depth; ranging from the Great Australian Bight in W.A. through S.A. and Victoria / Bass Strait, to southern N.S.W.)	Pseudodiazona claviformis	
(a colonial ascidian comprising pointed heads on hard, branching stalks; recorded to date from few locations in S.A., such as Nora Creina in the South East, and Ward Island on the West Coast)	Pseudodistoma acuatum	Possibly endemic to S.A.
(a rose-pink colonial ascidian comprising fleshy, conical-shaped heads on a basal mass; found in W.A., S.A. and Victoria).	Pseudodistoma australe	
(a colonial ascidian comprising a spherical or conical heads on wrinkled stalks; found in southern W.A., S.A. and Victoria)	Pseudodistoma candens	
(a soft, transparent colonial ascidian, found in S.A., Victoria, N.S.W. and Queensland)	Pseudodistoma gracilum (= P. gracile)	
(a colonial ascidian comprising a fleshy head on a leathery stalk; found in W.A., S.A., Victoria and northern Tasmania)	Pseudodistoma oriens	
(a colonial ascidian that forms vertical, branching stalks with gelatinous terminal caps; found to date only in S.A., with the Investigator Group islands being the type locality)	Pseudodistoma pilatum	Possibly endemic to S.A.
(a soft, gelatinous colonial ascidian that forms golden, sessile cushions; found to date in S.A., with the Investigator Group islands being the type locality)	Pseudodistoma pulvinum	Possibly endemic to S.A.
(a colonial ascidian composed of small, laterally flattened zooids joined by short jointed stolons to	Perophora hutchisoni	

a horny central stem; recorded in New Zealand, and the Bass Strait area of Victoria, and in southern W.A.; possibly occurs in S.A., given distribution in adjacent States)  (a colonial ascidian with semispherical zooids protruding from a sandy, central cylindrical stalk; found on sand and rubble substrates; recorded in Investigator Strait in S.A., and extends to western Victoria).  (an orange colonial ascidian that comprises separate stalked control under overhanging reef; recorded to date only in S.A., with Franklin Island being the type locality)  (a white, yellow or bright blue colonial ascidian of delicate structure; found in the shallow subtidal, in caves and under ledges, or on rubble, sand or other invertebrates; widely distributed, including New Caledonia, Philippines, Lord Howe I., NT., Queensland, S.A. and W.A.)  (a colonial ascidian that forms cylindrical, sandy stalks on a sandy basal mass; found on rock amongst breaking reef, near sand patches; recorded to date only in S.A., with Franklin Island being the type locality)  (a white, bead-like colonial ascidian on a sandy basal mass; found on shallow reefs in the Gulfs region of S.A., and also in Victoria).  (a colonial salp that is common in the southern Pacific Ocean, and also occurs across southern Australia, including the Great Australian Bight and the gulfs in S.A Cucumber Fish Paraulopus nigripinnis feed on swarms of this species.  (a stalked solitary ascidian with a this tower wireled etch results.)			,
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species.  (a stalked solitary ascidian with a Pyura abradata	•		
(a stalked solitary ascidian with a Pyura abradata	, ·		
	•	Pyura abradata	
Linn, tough, willkied test, mostly	thin, tough, wrinkled test; mostly	_	

known from S.A., with American		
River on Kangaroo Island being		
the type locality; also recorded in		
Bass Strait in Victoria).		
(a solitary ascidian with an oval	Pyura australis	
head and a long stalk; found in a		
range of conditions on exposed		
to sheltered shores, to around		
20m deep; recorded in W.A.,		
S.A., Tasmania, Victoria and		
N.S.W.)		
(a rounded to elongate solitary	Pyura crassacapitata	
ascidian, with a mosaic pattern	yura orassasaphata	
on the hard test; recorded to date		
in shallow subtidal habitats in		
southern W.A., S.A. and southern		
Queensland)		
	Duura alangata	
(an ascidian comprising small individuals with scale-like	Pyura elongata	
thickenings on the surface of the		
test; often wedged in crevices,		
and attached to rock under-		
surfaces, in intertidal and shallow		
subtidal habitats; recorded		
around Australia, including		
Tasmania; also known from Hong		
Kong, Indonesia and the Arafura		
Sea)		
(an elongated, flattened solitary	Pyura fissa	
ascidian with a rough, irregular		
test; recorded in S.A. and		
Victoria)		
(a spiny, stalked ascidian	Pyura gibbosa draschii	
resembling Pyura australis; the		
subspecies P. gibbosa draschii is		
found in southern W.A., S.A.,		
Victoria and Tasmania)		
(an ascidian comprising	[Pyura isobella]	
aggregates of small, upright	-	
individuals that form regular,		
sandy mats; recorded in southern		
W.A. and N.S.W., and may also		
occur right across the southern		
Australian coast).		
(an ascidian with a thick coat of	Pyura molguloides	
sand and shell particles, attached	. Jana morganorado	
to long hairs on the test; various		
commensal worms and		
echinoderms are also found on		
the test, under the sand coating; found in continental shelf habitats		
in S.A., Victoria and N.S.W.)		

	,	
(an ascidian comprising numerous small individuals embedded in the encrusting sponge <i>Halisarca</i> ; recorded to date in shallow subtidal habitats in southern W.A., and Bass Stait in Victoria; possibly occurs in S.A., given distribution in adjacent States)	[Pyura ostreophila]	
(a stalked ascidian found on jetty pylons in southern W.A., and S.A.)	Pyura rapaformis	
(a spherical or oval-shaped ascidian, sessile or with a stalk; individuals often form aggregations; found on rocky or sandy substrates in areas of slight water movement; recorded in New Caledonia, Palau, Arafura Sea, N.T, W.A. and S.A.)	Pyura robusta	
(an oval or rounded, stalked ascidian; head and stalk usually covered with a yellow, investing sponge; found to 80m depth, on sand and rubble substrates; ranging across southern Australia, from W.A. through to N.S.W.).	Pyura spinifera	
(a solitary or aggregated, stalked or sessile ascidian found in rocky habitats over a broad depth range, from the intertidal to the upper continental slope; recorded in southern W.A., Bass Strait in Victoria, northern Tasmania, and N.S.W.; possibly occurs in S.A., given distribution in adjacent States)	[Pyura spinosa]	
Cunjevoi (an ascidian that comprises upright, cylindrical or cone- shaped individuals that form aggregates; found in South Africa, South America, and across southern Australia, from W.A. to southern Queensland / northern N.S.W., including Tasmania)	Pyura stolonifera	
(a firm, upright ascidian with a rounded lid; recorded in all Australian States, including N.T. and Tasmania; also known from	Rhodosoma turcicum	

		,
California, Chile, China, Japan,		
Indonesia, Philippines, and		
locations in the Coral Sea, Indian		
Ocean, Atlantic Ocean, Red Sea,		
and the Mediterranean)		
(an ascidian with colonies that	Ritterella asymmetrica	
are consolidated by sand, and		
thus help to stabilise sand		
substrates in association with		
similar colonies in other taxa;		
recorded in southern W.A., S.A.		
and Victoria)		
(a colonial ascidian that forms a	Ritterella compacta	Possibly endemic to S.A.
massive, firm, cushion-shaped		
colony with flat-topped lobes on		
the surface; recorded to date only		
from a few areas in western S.A.,		
with Flinders Island in the		
Investigator Group being the type		
locality)		
(a colonial ascidian that forms	Ritterella cornuta	Possibly endemic to S.A.
sandy, upright stalks on	Tatterena corriata	1 decibly diadrine to c.7 t.
branching, basal stolons; known		
to date only from the type		
specimen, taken at Price Island		
in S.A.)		
(a colonial ascidian that forms	Ritterella papillata	Possibly endemic to S.A.
sandy upright stalks, attached to	Tuttorona papmata	Tooling or domino to C.7 t.
branching, basal stolons; known		
to date only from the type		
specimen, taken at Price Island		
in S.A.)		
(a colonial ascidian that forms	Ritterella pedunculata	
small, slender, sandy filaments	Tuttorona podarrodiata	
with basal stolons; stabilises		
sand substrate in areas of fast-		
flowing currents; recorded in		
N.S.W., Victoria, Tasmania and		
S.A.)		
(a planktonic salp, found mainly	Ritteriella amboinensis	
in warmer waters, from the	Tattoriolia arribolitoriolo	
surface to around 200m deep;		
occurs in the Indian and Pacific		
Oceans; also found in eastern		
and southern Australia, as far		
west as Bass Strait in Victoria,		
and therefore possibly extends		
into south-eastern S.A.)		
(a planktonic salp with solitary	Salpa fusiformis	
Ta Piankionio Saip with Sullary		1
and addredate forms: forms part	<i>Saipa iusiioiiiiis</i>	
and aggregate forms; forms part	Saipa iusiioittiis	
and aggregate forms; forms part of the diet of commercial fish species such as Blue Cod;	Saipa iusiioiiilis	

widespread in the Atlantic, Indian and Pacific oceans, and Bering Sea and the Mediterranean Sea; also eastern and south-eastern Australia, as far west as Bass Strait, and may therefore extend into south-eastern S.A.)		
(a planktonic salp, known from the North Atlantic Ocean; Cape Horn and coast of Chile; east and west Pacific Ocean to Bering Sea, and Mediterranean Sea; also found in south-eastern Australia, as far west as Bass Strait in Victoria, and therefore may extend into south-eastern S.A.).	Salpa maxima	
(a rope-like or conical colonial ascidian found in caverns, and under reefs; known from New Zealand, and N.S.W., S.A. and W.A.)	Sigillina australis	
(a colonial ascidian often found on the stems of brown macroalgae such as <i>Hormosira</i> ; recorded in W.A., S.A., Victoria and Tasmania)	Sigillina fantasiana	
(a bright orange colonial ascidian found on vertical rocky sufaces; known from W.A. and S.A.)	Sigillina grandissima	
(a planktonic salp that is common in temperate waters, such as Atlantic Ocean between 40°S and Iceland, western and central Mediterranean Sea, Indian Ocean, west Pacific Ocean to Japan, and east Pacific from Straits of Magellan to Alaska; also found in south-eastern Australia, as far west as Bass Strait in Victoria, and therefore may extend into south-eastern S.A.).	Soestia zonaria	
(an ascidian comprising upright, oval to club-shaped, sandy, stalked or sessile individuals joined by narrow stolons, basal stalks or membranes; recorded in W.A., S.A., Tasmania and Victoria)	Stolonica australis	
(an ascidian that forms tight, investing, oval-shaped, sandy	Stolonica carnosa	

_		
colonies; recorded in W.A., S.A.		
and Victoria)		
(an ascidian comprising rounded,	Stolonica truncata	
sandy individuals, joined by basal		
stolons; recorded to date on		
rocky bottom with sand patches,		
between 3m - 25m deep, in		
southern W.A. and western S.A.)		
(a tropical species that occurs in	Stolonica vesicularis	
the shallow subtidal, often on		
other ascidians; known from the		
Philippines, and also recorded in		
the Great Australian Bight,		
including Ward Island in S.A.)		
(a colonial ascidian forming	Stomozoa	Possibly endemic to S.A.
rounded heads on short, wide	australiensis	1 ossibly chachino to C.7 t.
stalks; found amongst rubble,	australierisis	
and in caves and crevices in		
shallow waters; recorded to date		
only from S.A., with Topgallant I.		
being the type locality)	[0]	[Descibly seems as as
(a leathery ascidian from Japan,	[Styela clava]	[Possibly occurs, as an
that has been introduced to		introduced species]
Europe and Australia; recorded in		
Bass Strait; possibly occurs in		
S.A., given Victorian records, and		
means of introduction / transfer)		
(a solitary ascidian that occurs	Styela plicata	Introduced
singularly or in groups, from the		
low intertidal to 30m depth;		
usually found on hard substrata,		
in protected embayments and		
harbours; distributed throughout		
tropical to warm temperate seas;		
recorded around Australia,		
Japan, the West Indian Ocean,		
and the temperate and tropical		
Atlantic Ocean)		
(a stalked, fan-shaped ascidian	Sycozoa brevicauda	
found on the floor of marine		
caves; known from W.A. and		
S.A.)		
(a undulating or pleated colonial	Sycozoa cerebriformis	
ascidian on a short stalk, found in	-	
caves and crevices on sandy and		
rock substrates; recorded in		
Queensland, N.S.W., Victoria,		
Tasmania, S.A. and W.A.)		
(a conical or flat, paddle-shaped	Sycozoa murrayi	
colonial ascidian on a stalk, often		
attached to marine vegetation;		
recorded in N.S.W., Victoria,		
recorded in N.S.VV., Victoria,		

Tasmania, and S.A.)		
(a cone-shaped, stalked ascidian	Sycozoa pedunculata	
found in southern W.A., S.A.,		
Victoria and Tasmania;		
commonly recorded in upper		
Spencer Gulf)		
(a common, seasonal colonial	Sycozoa pulchra	
ascidian found in sand habitats to		
around 50m deep; recorded		
around Australia, and in		
Indonesia)		
(a stalked colonial ascidian found	Sycozoa sigillinoides	
in cooler regions such as the		
Antarctic and sub-Antarctic; also		
recorded from New Zealand,		
Tasmania and southern spencer		
Gulf in S.A.) (an ascidian that forms sessile,	Symplegma arenosa	Possibly endemic to S.A.
sandy individuals on a sandy	Symplegina arenosa	1 ossibly endernic to S.A.
basal plate; recorded to date only		
from Waldegrave Island in S.A.)		
(an ascidian with a transparent	Symplegma oceania	
test; forms extensive, thin,	3,11,410 3,110 100 11110	
encrusting colonies; widespread		
around Australia and the Indo-		
West Pacific region)		
(an encrusting ascidian found in	Symplegma	
Queensland, Victoria, S.A., and	stuhlmanni	
W.A.; also found in Fiji, Hong		
Kong, Indonesia, Sri Lanka,		
Thailand and various locations in		
the West Pacific Ocean and		
Indian Ocean)		
(a firm, translucent, cushion-like	Synoicum bowerbanki	
ascidian known from southern		
W.A. and Bass Strait in Victoria;		
possibly also occurs in S.A.,		
given distribution in adjacent states)		
(a bright yellow colonial ascidian,	Synoicum citrum	
found in south-eastern S.A.,	Syrioicarri citrarri	
Tasmania and Victoria)		
(a sessile or short-stalked	Synoicum erectum	
colonial ascidian found in	2,1.0.00.111 0.00.0111	
western S.A. and Victoria)		
(a colonial ascidian found in	Synoicum papilliferum	
southern W.A. and Bass Strait in		
Victoria; possibly also occurs in		
S.A., given distribution in		
adjacent States).		
(a cushion-like, lobed or	Synoicum sacculum	
branched colonial ascidian found		

on jetty pylons, and also in caves in wave-exposed areas; recorded in S.A. and Victoria, and also known from deep water in Tasmania)		
(a planktonic salp with solitary and aggregate forms; widely distributed in tropical and temperate waters, and is the most common salp in southern Australian coastal waters; occurs as far west as Bass Strait in Victoria, and may therefore extend into south-eastern S.A.)	Thalia democratica	
(a colonial ascidian found around Australia, New Zealand, and in South Africa).	Trididemnum cerebriforme	
(a tropical ascidian found in Queensland, Fiji, New Caledonia, Palau, Indonesia, Philippines, and Gilbert Islands; also recorded from the S.A. Gulfs region, the only occurrence in southern Australia)	Trididemnum discrepans	
(a tropical ascidian found in Queensland and various parts of the tropical Indo-West Pacific; also reported to occur in W.A. and S.A., according to Kott, 1997)	Trididemnum savignii	
(a pale pink colonial ascidian, found in W.A. and S.A.)	Trididemnum spiculatum	

## **Brachiopods**

Richardson (1997); Commonwealth Department for the Environment and Heritage (2003e).

#### Notes:

- A number of species with fossil records, not included in the account of extent species by Richardon (1997), have been listed in the Australian Faunal Directory (Commonwealth Department for the Environment and Heritage 2003b). These include Aldingia furculifera (an articulated lamp shell from southern and south-eastern Australia, and for which Blanche Point at Aldinga in S.A. is the type locality); and *Aldingia woodsi* (an articulated lamp shell from southern and south-eastern Australia).
- Deep water brachiopods from the outer continental shelf and continental slope are not included here.

Common Name	Latin Name
(an articulate lamp shell from western, southern and	Anakinetica cumingii

south-eastern Australia, free-living in sediments, and	("Magadena cumingi")
recorded between 22m – 155m).	
(an articulate lamp shell known from southern W.A., S.A., Victoria, Tasmania, Bass Strait, N.S.W. and Queensland,	Aulites brazieri
recorded between 31m – 1143m, on carbonate sands).	A row moth a constrain
(a small, endemic, articulate lamp shell, known from	Argyrotheca australis
Kangaroo Island in S.A.).	Argurothood movi
(a small, articulate lamp shell, from southern and south-	Argyrotheca mayi
eastern Australian waters).	Compages furnifore
(an articulate lamp shell from western, southern and	Campages furcifera
south-eastern Australia, also recorded in Queensland and Indonesia).	
(an articulate lamp shell from western, southern and	Cancellothyris hedleyi
eastern Australia, with records between 2m – 440m.	Cancellotify is fredieyi
Cancellothyris hedleyi attaches to hard substrates, often	
in caves, and a yellow sponge is often epizoic on this	
species at shallow depths).	
(an articulate lamp shell from hard substrates in southern	Epacrosina fulva
and eastern Australia, with records between 73m –	Zpacreema rarva
640m).	
(a widely distributed tropical species of articulate lamp	Frenulina sanguinolenta
shell, also recorded in South Australia, from Fowlers	, ronama sangamorema
Bay).	
(an articulate lamp shell from western, southern and	Jaffaia jaffaensis
eastern Australia, with records between 67m – 550m).	,
(a free-living, articulate lamp shell from coarse bryozoan	Magadinella mineuri
sands in southern and south-eastern Australia, with	
records between 49m – 82m).	
(a larger, articulate lamp shell with a wide depth range,	Magellania flavescens
from western, southern and south-eastern Australia. The	
species is often founds in rubbly sand in reefs and	
seagrass beds, with the pedicle bonded to rocks, shell	
fragments or <i>Pinna</i> shells. Recorded from the intertidal to	
around 330m).	
(an articulate lamp shell from the shallow subtidal in	Megerlina atkinsoni
southern Australia).	
(an articulate lamp shell from southern Australia,	Megerlina lamarckiana
common under limestone slabs on rocky bottom).	
(an articulate lamp shell from southern Australia, with	Murravia exarata
records between 8m – 300m. The type locality is	
Beachport, S.A.).	
(an inarticulate lamp shell from eastern Australia, and	Neocrania reevei
also recorded in S.A.).	
(a small, free-living articulate lamp shell from carbonate	Parakinetica stewarti
sands along the western, southern and eastern coasts of	
Australia, with records between 77m – 115m).	B
(a small, red or pink articulate lamp shell found in	Pirothyris vercoi
southern and south-eastern Australia, with records	
between 222m – 300m).	To and and the
(an articulate lamp shell from southern and eastern	Terebratulina cavata
Australia, with records between 30m – 549m).	

# Appendix 5: IUCN Protected Area Management Categories, and **Commonwealth Application to Australian Protected Areas**

In 1994, the IUCN published a set of *Guidelines for Protected Area Management Categories*. The set of guidelines specified the conservation principles and other objectives of protected areas classified under each category, as well as the level of protection that should be implicit in MPAs classified under any of those categories. The guidelines also provided management and zoning recommendations for each category. The guidelines were developed mainly for terrestrial protected areas, and their application to marine systems was open to a variety of interpretations. Nevertheless, the guidelines provide a consistent framework for classifying protected areas, and for reporting requirements of States to the Commonwealth on the classification of protected areas in each State. The Commonwealth has recommended the use of IUCN categories in the Development of the NRSMPA at both national and State levels (ANZECC 1999). Consequently, the Commonwealth has recently developed a set of IUCN Reserve Management Principles for Commonwealth Marine Protected Areas. http://www.ea.gov.au/coasts/publications/index.html#mpa

In principle, large, multiple-use protected areas may comprise more than one IUCN category, as has occurred with the zoning of some of the Commonwealth-designated MPAs). At State level, it is more common for authorities to use the IUCN categories for reporting requirements only, rather than for "on-the-ground" protection and management, because the conservation objectives and management arrangements for State-designated MPAs rarely coincide directly and completely with the specifications of the IUCN categories.

At a Commonwealth level, once the objectives are identified for a particular MPA, an IUCN category is now assigned, and the category used is that which most closely aligns with the objectives of the MPA. According to Commonwealth of Australia (2002), activities considered appropriate in each reserve must be consistent with the Australian IUCN Reserve Management Principles and are decided in a case-by-case assessment, based on all the information available for a specific reserve, and in a way that "provides stakeholders with opportunities to be involved in these decisions in an open and transparent way".

IUCN Reserve Management Principles for Australian protected areas have been specified in the Environment Protection and Biodiversity Conservation Act 1999. This Act considers that:

- the proclamation of a Commonwealth reserve must assign the reserve to an IUCN category and may also assign an IUCN category to any zones:
- the Minister must be satisfied that the reserve or zone has the characteristics listed in the Act:
- the reserve or zone should be managed in accordance with the Australian IUCN Reserve Management Principles:
- the management plan for each Commonwealth reserve must also assign the reserve to an IUCN category.

The IUCN (1994) categories and the Commonwealth's (2002) IUCN Reserve Management Principles for those categories, are listed below:

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IUCN Category Ia: Strict Nature Reserve: Protected Area managed mainly for science Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

### Australian IUCN Reserve Management Principles for Category la:

(Schedule 8 of the EPBC Regulations, 2000)

- 1.01 The reserve or zone should be managed primarily for scientific research or environmental monitoring based on the following principles.
- 1.02 Habitats, ecosystems and native species should be preserved in as undisturbed a state as possible.
- 1.03 Genetic resources should be maintained in a dynamic and evolutionary state.
- 1.04 Established ecological processes should be maintained.
- 1.05 Structural landscape features or rock exposures should be safeguarded.
- 1.06 Examples of the natural environment should be secured for scientific studies, environmental monitoring and education, including baseline areas from which all avoidable access is excluded.
- 1.07 Disturbance should be minimised by careful planning and execution of research and other approved activities.
- 1.08 Public access should be limited to the extents consistent with these principles.

### IUCN Category Ib: Wilderness Area: Protected Area managed mainly for wilderness protection

Large area of unmodified or slightly modified land and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

Australian IUCN Reserve Management Principles for Category Ib: (Schedule 8 of the EPBC Regulations, 2000)

- 2.01 The reserve or zone should be protected and managed to preserve its unmodified condition based on the following principles.
- 2.02 Future generations should have the opportunity to experience, understand and enjoy reserves or zones that have been largely undisturbed by human action over a long period
- 2.03 The essential attributes and qualities of the environment should be maintained over the long term.
- 2.04 Public access should be provided at levels and of a type that will best serve the physical and spiritual well-being of visitors and maintain the wilderness qualities of the reserve or zone for present and future generations.
- 2.05 Indigenous human communities living at low density and in balance with the available resources should be able to maintain their lifestyle.

IUCN Category II: National Park: Protected Area managed mainly for ecosystem conservation and recreation

Natural area of land and/or sea, designated to (a)protect the ecological integrity of one or more ecosystems for this and future generations,(b) exclude exploitation or occupation inimical to the purposes of designation of the area, and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

### Australian IUCN Reserve Management Principles for Category II:

(Schedule 8 of the EPBC Regulations, 2000)

- 3.01 The reserve or zone should be protected and managed to preserve its natural condition according to the following principles.
- 3.02 Natural and scenic areas of national and international significance should be protected for spiritual, scientific, educational, recreational or tourist purposes.
- 3.03 Representative examples of physiographic regions, biotic communities, genetic resources, and native species should be perpetuated in as natural a state as possible to provide ecological stability and diversity.
- 3.04 Visitor use should be managed for inspirational, educational, cultural and recreational purposes at a level that will maintain the reserve or zone in a natural or near natural state.
- 3.05 Management should seek to ensure that exploitation or occupation inconsistent with these principles does not occur.
- 3.06 Respect should be maintained for the ecological, geomorphological, sacred and aesthetic attributes for which the reserve or zone was assigned to this category.
- 3.07 The needs of indigenous people should be taken into account, including subsistence resource use, to the extent that they do not conflict with these principles.
- 3.08 The aspirations of traditional owners of land within the reserve or zone, their continuing land management practices, the protection and maintenance of cultural heritage and the benefit the traditional owners derive from enterprises, established in the
- reserve or zone, consistent with these principles should be recognised and taken into account.

IUCN Category III: Natural Monument: Protected Area managed for conservation of specific natural features.

Area containing one or more specific natural or natural/cultural feature which is of outstanding value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

Australian IUCN Reserve Management Principles for Category III: (Schedule 8 of the EPBC Regulations, 2000)

- 4.01 The reserve or zone should be protected and managed to preserve its natural or cultural features based on the following principles.
- 4.02 Specific outstanding natural features should be protected or preserved in perpetuity because of their natural significance, unique or representational quality or spiritual connotations.
- 4.03 Opportunities for research, education, interpretation and public appreciation should be provided to an extent consistent with these principles.

- 4.04 Management should seek to ensure that exploitation or occupation inconsistent with these principles does not occur.
- 4.05 People with rights or interests in the reserve or zone should be entitled to benefits derived from activities in the reserve or zone that are consistent with these principles.

**IUCN Category IV**: Habitat / Species Management Area: Protected Area managed mainly for conservation through management intervention.

Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

Australian IUCN Reserve Management Principles for Category IV<sup>8</sup>: (Schedule 8 of the EPBC Regulations 2000)

- 5.01 The reserve or zone should be managed primarily, including (if necessary) through active intervention, to ensure the maintenance of habitats, or to meet the requirements of collections or specific species based on the following principles.
- 5.02 Habitat conditions necessary to protect significant species, groups or collections of species, biotic communities or physical features of the environment should be secured and maintained, if necessary through specific human manipulation.
- 5.03 Scientific research and environmental monitoring that contribute to reserve management should be facilitated as primary activities associated with sustainable resource management.
- 5.04 The reserve or zone may be developed for public education and appreciation of the characteristics of habitats, species or collections and of the work of wildlife management.
- 5.05 Management should seek to ensure that exploitation or occupation inconsistent with these principles does not occur.
- 5.06 People with rights or interests in the reserve or zone should be entitled to benefits derived from activities in the reserve or zone that are consistent with these principles.

**IUCN Category V**: Protected Landscape / Seascape: Protected Area managed mainly for landscape / seascape conservation and recreation.

Area of land, with coast and seas as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, cultural and/or ecological value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

Australian IUCN Reserve Management Principles for Category V: (Schedule 8 of the EPBC Regulations 2000)

- 6.01 The reserve or zone should be managed to safeguard the integrity of the traditional interactions between people and nature based on the following principles.
- 6.02 The harmonious interaction of nature and culture should be maintained through the
  protection of landscape or seascape and the continuation of traditional uses, building
  practices and social and cultural manifestations.

<sup>&</sup>lt;sup>8</sup> (Principle 5.07 is not included here, because it pertains only to terrestrial protected areas).

- 6.03 Lifestyles and economic activities that are in harmony with nature, and the preservation of the social and cultural fabric of the communities in the reserve or zone concerned should be supported.
- 6.04 The diversity of landscape, seascape and habitat, and of associated species and ecosystems, should be maintained.
- 6.05 Land and sea uses and activities that are inappropriate in scale or character should not occur.
- 6.06 Opportunities for public enjoyment should be provided through recreation and tourism appropriate in type and scale to the essential qualities of the reserve or zone.
- 6.07 Scientific and educational activities, that will contribute to the long-term well-being of resident populations and to the development of public support for the environmental protection of similar areas, should be encouraged.
- 6.08 Benefits to the local community, and contributions to its well-being, through the provision of natural products and services should be sought and promoted if they are consistent with these principles.

IUCN Category VI: Managed Resource Protected Area: Protected Area managed mainly for the sustainable use of natural ecosystems

Area containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

Australian IUCN Reserve Management Principles for Category VI (Schedule 8 of the EPBC Regulations 2000)

- 7.01 The reserve or zone should be managed mainly for the sustainable use of natural ecosystems based on the following principles.
- 7.02 The biological diversity and other natural values of the reserve or zone should be protected and maintained in the long term.
- 7.03 Management practices should be applied to ensure ecologically sustainable use of the reserve or zone.
- 7.04 Management of the reserve or zone should contribute to regional and national development to the extent that this is consistent with these principles.

An Ecologically Representative System of Marine Protected Areas in S.A. Technical Report