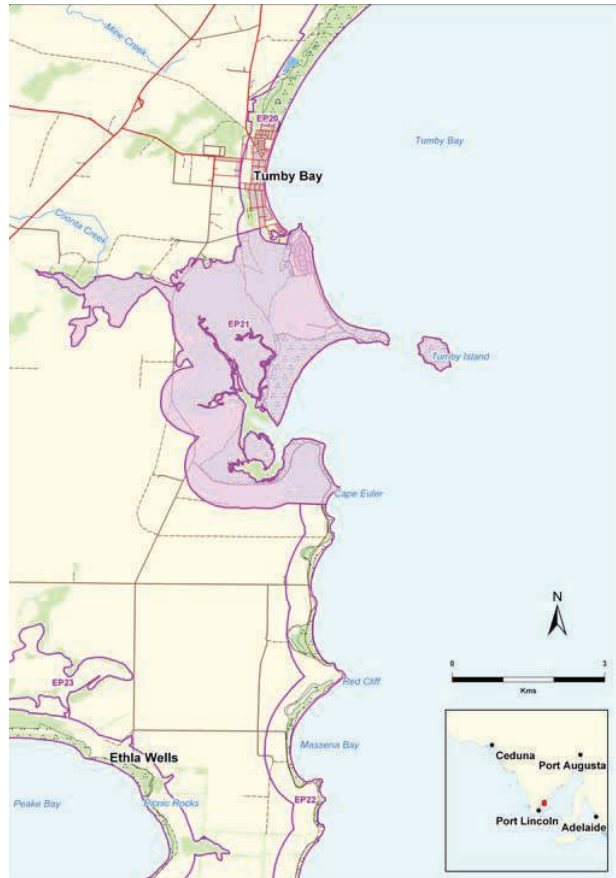


Cell EP21 Cape Euler/Tumby Island CP

Cell area 1,453 ha. Shoreline length 38.62 km.

Landforms

This cell is almost entirely a sedimented inlet, intertidal in elevation, largely in salt marsh vegetation (74% of native vegetation), and protected to some extent by sandflats and cusped foreland sand accumulation in the lee of Tumby Island. There is a large volume of sand stored in the intertidal zone at the mouth of the inlet. The foreland extends to within 500m of Tumby Island, and is a Holocene sand feature over granite platforms and reef; the shore platform allows foot access to the island at low tide. The northern edge of the cell has been modified to boat mooring/ marina development. There are coarse sand beaches with some inshore reefs on the northern side of the cell. Short et al. 1986, p.72, note that the foredune ridges have accreted in recent years, with some shoreline progradation.



Benthic Habitat

Dense seagrass with wide bare sand areas, and narrow inshore sand.

Biota

1,015 ha is remnant vegetation; 75% of this is salt marsh. *Tecticornia* sp. and *Maireana oppositifolia* low shrubland, with mangroves near the tidal inlets. The dunes are *Olearia axillaris* mixed shrubland, and *Melaleuca lanceolata* shrubland. The inlet NE of Cape Euler (Second Creek) is lined by wide areas of mangrove. West of the Thuruna Road there is a *Melaleuca balmaturorum*/ *Ghania filum* wetland.

There are 36 BDBSA flora survey sites, 10 herbarium record sites, 1 fauna survey site (on Tumby Island – island conserved for seabird breeding) and 4 opportune fauna sites.

Land Use/ Land Ownership

Predominantly privately owned. A narrow coastal reserve extends around the foreshore, an area of Crown land Act reserve occurs at the southern end of the cell where the creek discharges to sea. Crown leasehold land occupies the north west portion of the cell and Tumby Island CP is 2% of the cell area.

Uses (Field visits and local reports)

Conservation

Recreation and tourism – fishing, swimming, sight-seeing, dog walking, camping

Agriculture

Beach boat launching

Residential

Onshore aquaculture in EP22 adjacent southern boundary of EP21



FIGURE 6.7 Cusped foreland to Tumby Island, and (left) dunes and salt marsh of EP21.
Photo: Coast Protection Board, 2007

Values (Field visits and local reports)

Tumby Island CP hosts a number of plants outside of their normal range/distribution including the threatened West Coast Mintbush (*Prostanthera calycina*), the rare Australian broomrape (*Orobanche cernua* var. *Australiana*), Emu bush (*Eremophila glabra*) and other threatened flora species. (However, these species have not been recorded within the flora surveys that have been undertaken and entered into the BDBSA).

Threats (Field visits and local reports)

Much of the salt marsh is a storm surge hazard zone; and this area is subject to potential CASS. Development, including proposed marina expansion onto mangrove and salt marsh areas with high conservation values

With increasing population, Tumby Island CP, coastal reserves and salt marsh areas will have increased visitation and increased impact from recreational activities.

Eco-tourism / tourism ventures

Boat launching (public safety, hydrocarbon spills)

Foreshore damage / debris / outflows from adjacent aquaculture

Opportunities (Field visits and local reports)

Active community Coastcare action in the salt marsh (eg. walking tracks and interpretation) has created a positive momentum to further conserve this area.

Develop and implement management plan for Tumby Island CP

Cell description – EP21 Cape Euler/ Tumby Island CP

Boxthorn control has been undertaken for a number of years along Ski beach and on Tumby Island CP by local volunteers and more recently GreenCorps volunteers with EP NRM staff. This has kept boxthorn numbers low, but on-going control work is paramount. In 2010, Lower Eyre Pest Management Group members cut and swab over 200 boxthorn plants.

Conservation Analysis (GIS)

Total of conservation priority values is 94.92, an average score for the region. The pattern of combined total conservation means is clear: the dune ridges north and south of the Tumby Island cusped foreland have high total priority; elsewhere totals are low, with the exception of some medium totals within the salt marsh. Tumby Island CP totals are medium.

Total number of threatened species is high in many parts of the dune and salt marsh, notably threatened bird species; habitat for the Australian Pied Oystercatcher is found throughout the salt marsh; Beach Slider and Eastern Coast Skink in the coastal sand ridges. Samphire areas are recorded as of high wetland value.

Two mammals (feral), one reptile, one amphibian and 47 bird species have been recorded within this cell, including the state endangered Fairy Tern and the state vulnerable Eastern Curlew and Banded Stilt.

Threat Analysis (GIS)

The total of threat summary layers is 50.89, high for the region. High to medium high values are found throughout the cell, with the exception of low threat totals in the mangrove areas on the southern side of the major inlet. Threat totals are high on all dune areas, including Tumby Island. Above average threat values are found for the following layers: ORV activity (all parts of the cell except the CP), land ownership and land use, sea views and landscape amenity, vegetation block degradation and weeds, and acid sulfate soils potential (salt marsh).

Adaptation to Climate Change Threats

(See also discussion of scenario in section 4.11)

NOTE: the advice below is indicative of likely change and the direction of change, with implications for ecosystems. Dates, amounts and probabilities cannot be accurately calculated at this time. Thus advice on flood levels, for example, should not be used in engineering or development planning.

Climate change element/ scenario	Impacts and implications (for this cell)	Protect and manage habitat threats	Address landscape issues: fire, connectivity, refuges, hydrology
Combined climate changes and sea level rise throughout this cell	This cell presents a complex pattern of habitats sensitive to change	Create a baseline for shoreline, dune and salt marsh change by establishing a rectified aerial photographic record at an appropriate resolution.	
Sea level rise: 2030 : +c.20cm	Beach recession and dune instability (in the short term the rate may depend on the circulation of sediment stored in the nearshore zone).	Continue to monitor existing DENR beach profiles (310010 – 12: beach south of foreland, and 340008: salt marsh to sand flat). Active management of dunes	

Cell description – EP21 Cape Euler/ Tumby Island CP

Climate change element/ scenario	Impacts and implications (for this cell)	Protect and manage habitat threats	Address landscape issues: fire, connectivity, refuges, hydrology
	Higher tides begin to impact salt marsh.	Consider land use and development plan changes to create buffer for salt marsh retreat.	
2070: +c.80cm.	Frequency and duration of marine flooding of salt marsh increases, resulting in species and habitat change and landward migration. Mangrove recession across former salt marsh. Possible sediment accumulation in salt marsh from marine ingress and terrestrial flooding.	Monitor salt marsh species and elevation changes. Continue implementation of strategic retreat of salt marsh.	
	Threats to tidal circulation within the salt marsh, threaten the Tecticornia species found here. Continued damage to foredunes; beach and dune recession.	Allow tidal circulation through the marina to the salt marsh.	
Storms: <i>Frequency</i> continues to show great variation on a decadal scale.	2030: Occasional storm tide flooding above highest known tides.	Continue to monitor beach profiles. Active management of dunes	
<i>Intensity</i> of large storms increases.	Low dunes over hard rock, backed by low ground are extremely vulnerable to storm damage, overtopping, and rapid recession. Large sand storage in mouth of estuary will be driven into the inlet by storms.	Dune habitats can only be retained by allowing rapid overwash recession of low dune ridges. (Salt marsh recession buffer important).	
Warmer average conditions: 2030:+0.3 to.6°C 2070:+1.5 to 2°C	(Impacts uncertain. Existing terrestrial vegetation is found in warmer conditions elsewhere). There will be an increased risk for species that are already vulnerable. Invasive species may become more dominant.		Maintain NE-SW connectivity of vegetation within the coastal boundary
Drier average conditions: 2030: -2% to 5% 2070: - 10% to 20%	Dune habitats adapt well to drier conditions, but recover more slowly from fire, disease and storm damage	Active dune management, including weed control	Ensure dunes are part of the regional fire plan.

Cell description – EP21 Cape Euler/ Tumby Island CP

Climate change element/ scenario	Impacts and implications (for this cell)	Protect and manage habitat threats	Address landscape issues: fire, connectivity, refuges, hydrology
'Flashy' run off: Drier creeks, but larger rare floods	Intense rainfall events may lead to sediment deposition in salt marsh areas, (assisting salt marsh adaptation).		
Groundwater lowering; saline incursion:	Local impact on soil water and vegetation survival	Adaptive management of plant assets	
Nearshore sea changes - temperature; acidity; wave climate: 2030: +0.3°C to +0.6°C 2070: +1.0°C to +1.50°C	Persistent swell wave climate maintains sediment movement towards the north along the Gulf coast. Local movement of large quantities of sand in the nearshore zone may be accelerated as sea levels rise.	Monitor beaches, see above.	

TABLE 6.8 Recommended Actions and Priority for EP21 Cape Euler/Tumby Island CP

Component	Issue	Proposed Action	Priority of Action	Key Players
Whole cell	Inadequate data on biodiversity and habitat values, particularly fauna.	Undertake coastal flora and fauna surveys to inform future management directions.	High (cons/ threat)	DENR, EP NRM
	Species identified that are not within the BDBSA	Identify records and surveys that are not in the BDBSA (eg. private surveys/records, government surveys not yet entered). Evaluate/verify data and enter into the BDBSA	High (cons/ threat)	DENR, EP NRM, community
	Important area for a number of threatened and sensitive flora and fauna species, with potential disturbance from recreational activities and land management practices.	Review management of sensitive locations and species with a view to minimise damage and disturbance and increase protection eg. restrict vehicles on beaches, dogs on leashes, track management, pest animal and plant control, restrict access to sensitive locations. Install interpretive/ educational signage. Community education programs.	High (cons/thr eat)	DENR, EP NRM, DC of Tumby Bay, private landowners, community groups

Cell description – EP21 Cape Euler/ Tumby Island CP

Component	Issue	Proposed Action	Priority of Action	Key Players
	Climate change and sea level rise is having multiple effects within the cell	<p>Ensure the establishment and maintenance of a time series of aerial photographs at an appropriate resolution.</p> <p>Continue and supplement (see above) the DENR beach profile record, to accurately track beach and dune recession.</p> <p>Seek to improve the resilience of plant and animal habitats by taking opportunities to improve connectivity between vegetation blocks.</p>	Medium (cons)	DENR, EP NRM, DC of Tumby Bay, private land owners, community
		Take steps to allow recession and survival of mangroves and salt marsh, through the creation of retreat buffer zones on the development plan, and by allowing the circulation of tidal waters	High (cons/ threat)	DENR, EP NRM, DC of Tumby Bay, DPLG, private land owners, community
	Potential impact on breeding habitat of the endangered Eastern Osprey, particularly during the breeding season.	<p>Develop site management and monitoring strategy.</p> <p>Ensure management/works programs are not undertaken during the breeding season.</p> <p>Community education.</p>	Medium (cons/ threat)	DENR
	Maintenance of coastal access management infrastructure	Use the EP Coastal infrastructure audit to setup a maintenance program	Medium	EP NRM, DC of Tumby Bay, DENR, community groups
	Weed species identified throughout cell	<p>Develop and implement weed management plan (including monitoring and recording weed species, removal and rehabilitation as required).</p> <p>Ensure continuity of current/previous weed control programs (eg. boxthorn control at Ski Beach and Tumby Island CP)</p> <p>Undertake education program on impact of garden escape plants and weed control program.</p>	Medium (threat)	EP NRM, private land owners, DENR, DC of Tumby Bay, community

Cell description – EP21 Cape Euler/ Tumby Island CP

Component	Issue	Proposed Action	Priority of Action	Key Players
	Possible future development with potential impact on high conservation values of surrounding area (eg. domestic animals disturbing/destroying native species, vegetation damage, habitat loss, soil compaction, weed escapes, increased tracks, discharges to sensitive marine environment, etc)	<p>Ensure future development is not located in areas of high conservation value or high sensitivity.</p> <p>Review development plan zoning to these areas to increase protection.</p> <p>Ensure any future development minimises impact to surrounding environment (eg. limit track creation, limit development footprint, prohibit/ minimise discharges to the marine environment).</p> <p>Community education about impacts, eg. regarding garden plants becoming weeds, impacts of uncontrolled pets, etc</p>	Medium (cons/ threat)	DC of Tumby Bay, DPLG, DENR, EP NRM, private land owners, developers, community groups
	ORV activity occurs throughout the cell, shown in multiple tracks; with impact from soil compaction, native flora and fauna disturbance / damage, soil erosion and weed introduction.	<p>Develop access/traffic management plan – including review of existing tracks with a view to rationalise unnecessary tracks. Block access (eg. fencing/rocks) to tracks to be closed, rehabilitate (where appropriate) and maintain.</p> <p>Upgrade any tracks that are not well defined, or are causing water run-off erosion. Install directional /educational signage.</p> <p>Community education</p>	Medium (cons/ threat)	DC of Tumby Bay, DENR, EP NRM, private land owners, community
	Introduced animals – rabbits identified in the south and centre of the cell; with potential impact on vegetation degradation, competition for food and habitat with native species.	<p>Monitor and record existence and impacts of introduced pest animals eg rabbits, foxes, cats.</p> <p>Undertake control program as required.</p>	Medium (cons/ threat)	EP NRM, DENR, private land owners, DC of Tumby Bay
All salt marsh areas	All salt marsh areas show the potential for acid sulfate soil following disturbance; in turn this would potentially threaten surrounding and offshore life forms.	Potential hazard can be avoided by following procedures in CPB 'Coastline' on acid sulfate soils.	High (threat)	Private land owners, DC Tumby Bay, developers, DENR, EP NRM

Cell description – EP21 Cape Euler/ Tumby Island CP

Component	Issue	Proposed Action	Priority of Action	Key Players
Dunes north and south of Tumby Island cusplate foreland	These dunes are the highest conservation value areas within the cell; they are threatened by ORV and weeds; some rabbit activity has been recorded	Develop and implement weed and pest animal management plans, including control works as required. Review existing tracks with a view to rationalise unnecessary tracks. Implement actions to control or exclude off-road vehicle activity. Community education. Interpretive signage.	High (cons/ threat)	Private land owners, EP NRM, DC of Tumby Bay, DENR
All dunes	Stress through climate change: including sea level rise and increasing aridity, leading to foredune recession and increased opportunity for invasion by grassy weeds.	Increase dune management effort to slow recession of dune landforms. Maintain monitoring record of change to this unstable landform/ habitat.	Medium (cons)	DENR, EP NRM, DC of Tumby Bay, community groups
Tumby Island CP	Potential impact on conservation values, including from weeds and recreational activities.	Prepare and implement a management plan for the conservation park.	Medium (cons/ threat)	DENR
Tumby Bay township	Existing development impacting on high conservation values of surrounding area (eg. domestic animals disturbing/destroying native species, vegetation damage, soil compaction, weed escapes, increased tracks, etc)	Work with private land owners to minimise impact from existing development, including education and/or restoration where appropriate. Community education about impacts, eg. regarding garden plants becoming weeds, impacts of uncontrolled dogs and cats, ORV etc	Medium (cons/ threat)	EP NRM, DC of Tumby Bay, DENR, private land owners, community groups

BIOTA

Flora

Remnant vegetation area (ha)	1,014.81 ha, 69.83% of cell area
# flora surveys / records	36 surveys, 10 herbarium record sites, 1 threatened plant population record site.
# flora in cell	106
# conservation rated flora in cell	2
# non-indigenous flora in cell	15
Significant CDCS floristic community	<i>Olearia axillaris</i> / <i>Lasiopetalum discolor</i> shrubland – 52% of SA records in EP
Protected area	3% of remnant vegetation within Heritage Agreement

Weeds

Species	Common Name	Status	Study rating
<i>Argyranthemum frutescens</i> ssp.	Marguerite Daisy	RA	4
<i>Euphorbia paralias</i>	Sea Spurge	RA	5
<i>Leptospermum laevigatum</i>	Coast Tea-tree	RA	5
<i>Mesembryanthemum crystallinum</i>	Common Iceplant	RA	4
<i>Asparagus asparagoides</i> (NC)	Bridal Creeper	D, RA	9
<i>Lycium ferocissimum</i>	African Boxthorn	D, RA	8
<i>Asphodelus fistulosus</i>	Onion Weed	D	3
<i>Galenia pubescens</i> var. <i>pubescens</i>	Coastal Galenia		0
<i>Mesembryanthemum nodiflorum</i>	Slender Iceplant		2
<i>Mesembryanthemum</i> sp.	Iceplant		3
<i>Parapholis incurva</i>	Curly Ryegrass		1
<i>Senecio pterophorus</i>	African Daisy		2
<i>Spergularia media</i> (NC)	Coast Sand-spurrey		0
<i>Stellaria media</i>	Chickweed		0
<i>Valerianella discoidea</i>	Lesser Corn-salad		0

D: Declared weed, RA: Red alert weed

Native flora

Species	Common Name	Aus status	SA status
<i>Crassula exserta</i>	Large-fruit Crassula		R
<i>Eucalyptus conglobata</i> ssp. <i>conglobata</i>	Port Lincoln Mallee		R*
<i>Acacia calamifolia</i>	Wallowa		
<i>Acacia calamifolia</i> (NC)	Wallowa		
<i>Acacia gillii</i>	Gill's Wattle		
<i>Acacia ligulata</i>	Umbrella Bush		
<i>Acacia ligulata</i> (NC)	Umbrella Bush		
<i>Acacia nematophylla</i>	Coast Wallowa		
<i>Acrotriche patula</i>	Prickly Ground-berry		
<i>Adriana klotzschii</i> (NC)	Coast Bitter-bush		
<i>Allocasuarina verticillata</i>	Drooping Sheoak		
<i>Amymma melaleuca</i>	Tea-tree Mistletoe		
<i>Atriplex paludosa</i> ssp. <i>cordata</i>	Marsh Saltbush		
<i>Austrostipa elegantissima</i>	Feather Spear-grass		
<i>Austrostipa exilis</i>	Heath Spear-grass		
<i>Austrostipa flavescens</i>	Coast Spear-grass		
<i>Austrostipa stipoides</i>	Coast Spear-grass		
<i>Avicennia marina</i> ssp. <i>marina</i>	Grey Mangrove		
<i>Beyeria lechenaultii</i>	Pale Turpentine Bush		
<i>Billardiera cymosa</i> (NC)	Sweet Apple-berry		
<i>Brachyscome lineariloba</i>	Hard-head Daisy		
<i>Calandrinia calyptrata</i>	Pink Purslane		
<i>Calytrix tetragona</i>	Common Fringe-myrtle		
<i>Carpobrotus rossii</i> (NC)	Native Pigface		
<i>Cassytha glabella</i> f. <i>dispar</i>	Slender Dodder-laurel		
<i>Cassytha</i> sp.	Dodder-laurel		
<i>Centrolepis cephaloformis</i> ssp.	Cushion Centrolepis		
<i>Clematis microphylla</i> var. <i>microphylla</i> (NC)	Old Man's Beard		
<i>Compositae</i> sp.	Daisy Family		
<i>Crassula colorata</i> var.	Dense Crassula		

Cell description – EP21 Cape Euler/ Tumby Island CP

Species	Common Name	Aus status	SA status
<i>Crassula sieberiana</i> ssp. <i>tetramera</i> (NC)	Australian Stonecrop		
<i>Daucus glochidiatus</i>	Native Carrot		
<i>Dianella brevicaulis</i>	Short-stem Flax-lily		
<i>Dianella revoluta</i> (NC)			
<i>Dianella revoluta</i> var. <i>revoluta</i>	Black-anther Flax-lily		
<i>Disphyma crassifolium</i> ssp. <i>clavellatum</i>	Round-leaf Pigface		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	Ruby Saltbush		
<i>Eremophila crassifolia</i>	Thick-leaf Emubush		
<i>Eucalyptus gracilis</i>	Yorrell		
<i>Eucalyptus incrassata</i>	Ridge-fruited Mallee		
<i>Eutaxia microphylla</i>	Common Eutaxia		
<i>Exocarpos sparteus</i>	Slender Cherry		
<i>Ficinia nodosa</i>	Knobby Club-rush		
<i>Frankenia pauciflora</i> var.	Southern Sea-heath		
<i>Gramineae</i> sp.	Grass Family		
<i>Grevillea ilicifolia</i> var. <i>ilicifolia</i> (NC)	Holly-leaf Grevillea		
<i>Hakea cycloptera</i>	Elm-seed Hakea		
<i>Halosarcia</i> sp. (NC)	Samphire		
<i>Hibbertia virgata</i>	Twiggy Guinea-flower		
<i>Homoranthus wilhelmii</i>	Wilhelm's Homoranthus		
<i>Hybanthus floribundus</i> ssp. <i>floribundus</i>	Shrub Violet		
<i>Lasiopetalum discolor</i>	Coast Velvet-bush		
<i>Lawrenzia squamata</i>	Thorny Lawrenzia		
<i>Lepidosperma congestum</i>			
<i>Lepidosperma congestum</i> (NC)	Clustered Sword-sedge		
<i>Lepidosperma gladiatum</i>	Coast Sword-sedge		
<i>Leucophyta brownii</i>	Coast Cushion Bush		
<i>Leucopogon cordifolius</i>	Heart-leaf Beard-heath		
<i>Leucopogon parviflorus</i>	Coast Beard-heath		
<i>Lomandra effusa</i>	Scented Mat-rush		
<i>Lycium australe</i>	Australian Boxthorn		
<i>Maireana oppositifolia</i>	Salt Bluebush		
<i>Melaleuca lanceolata</i> ssp. <i>lanceolata</i> (NC)	Dryland Tea-tree		
<i>Melaleuca uncinata</i> (NC)	Broombush		
<i>Millotia major</i>			
<i>Muehlenbeckia adpressa</i>	Climbing Lignum		
<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum		
<i>Myoporum insulare</i>	Common Boobialla		
<i>Nitraria billardiarei</i>	Nitre-bush		
<i>Olearia axillaris</i>	Coast Daisy-bush		
<i>Pimelea serpyllifolia</i> ssp. <i>serpyllifolia</i>	Thyme Riceflower		
<i>Pittosporum angustifolium</i>	Native Apricot		
<i>Poa poiiformis</i> var. <i>poiiformis</i>	Coast Tussock-grass		
<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Sea-berry Saltbush		
<i>Samolus repens</i>	Creeping Brookweed		
<i>Sarcocornia blackiana</i>	Thick-head Samphire		
<i>Sarcocornia quinqueflora</i>	Beaded Samphire		
<i>Senecio glossanthus</i> (NC)	Annual Groundsel		
<i>Senecio pinnatifolius</i> (NC)	Variable Groundsel		
<i>Spyridium bifidum</i> (NC)			
<i>Spyridium bifidum</i> var. <i>bifidum</i> (NC)	Forked Spyridium		
<i>Tecticornia arbuscula</i>	Shrubby Samphire		
<i>Tecticornia halocnemoides</i> ssp.	Grey Samphire		

Cell description – EP21 Cape Euler/ Tumby Island CP

Species	Common Name	Aus status	SA status
<i>Tecticornia halocnemoides ssp. halocnemoides</i>	Grey Samphire		
<i>Tecticornia indica ssp.</i>	Brown-head Samphire		
<i>Templetonia retusa</i>	Cockies Tongue		
<i>Tetragonia implexicoma</i>	Bower Spinach		
<i>Teucrium racemosum</i>	Grey Germander		
<i>Threlkeldia diffusa</i>	Coast Bonefruit		
<i>Triglochin trichophora</i>			
<i>Westringia dampieri</i>	Shore Westringia		

R: Rare, V: Vulnerable, E: Endangered

Fauna

# of fauna in cell	50 recorded – 47 birds, 0 butterflies, 2 mammals, 1 reptiles, 1 amphibians (an additional 18 reptiles and 25 butterflies identified by experts as possibly occurring)
# of fauna surveys / records	1 survey site, 4 opportune sites, 1 reserve database record site
# of threatened fauna in cell	12
# of non-indigenous fauna	6 recorded (an additional 1 invertebrate possible)

Non-indigenous fauna

Species	Common Name	Class	Record
<i>Columba livia</i>	Rock Dove	Aves	x
<i>Streptopelia chinensis</i>	Spotted Dove	Aves	x
<i>Sturnus vulgaris</i>	Common Starling	Aves	x
<i>Pieris rapae rapae</i>	Cabbage White	Invertebrate	p
<i>Mus musculus</i>	House Mouse	Mammalia	x
<i>Oryctolagus cuniculus</i>	Rabbit (European Rabbit)	Mammalia	x

x: recorded, p: possibly there as suggested by R. Grund

Birds

Species	Common Name	Aus status	SA status
<i>Sternula nereis</i>	Fairy Tern		E
<i>Cladorhynchus leucocephalus</i>	Banded Stilt		V
<i>Numenius madagascariensis</i>	Eastern Curlew	M	V
<i>Arenaria interpres</i>	Ruddy Turnstone	M	R
<i>Calidris alba</i>	Sanderling	M	R
<i>Haematopus fuliginosus</i>	Sooty Oystercatcher		R
<i>Haematopus longirostris</i>	Australian Pied Oystercatcher		R
<i>Limosa lapponica</i>	Bar-tailed Godwit	M	R
<i>Neophema petrophila</i>	Rock Parrot		R
<i>Numenius phaeopus</i>	Whimbrel	M	R
<i>Pluvialis fulva</i>	Pacific Golden Plover	M	R
<i>Tringa brevipes</i>	Grey-tailed Tattler	M	R
<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater		
<i>Anas castanea</i>	Chestnut Teal		
<i>Anas gracilis</i>	Grey Teal		
<i>Artamus cinereus</i>	Black-faced Woodswallow		

Cell description – EP21 Cape Euler/ Tumby Island CP

Species	Common Name	Aus status	SA status
<i>Artamus cyanopterus</i>	Dusky Woodswallow		
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	M	
<i>Calidris ferruginea</i>	Curlew Sandpiper	M	
<i>Calidris ruficollis</i>	Red-necked Stint	M	
<i>Charadrius ruficapillus</i>	Red-capped Plover		
<i>Chroicocephalus novaehollandiae</i>	Silver Gull		
<i>Corvus coronoides</i>	Australian Raven		
<i>Cygnus atratus</i>	Black Swan		
<i>Egretta novaehollandiae</i>	White-faced Heron		
<i>Elseyornis melanops</i>	Black-fronted Dotterel		
<i>Eolophus roseicapillus</i>	Galah		
<i>Epthianura albifrons</i>	White-fronted Chat		
<i>Falco cenchroides</i>	Nankeen Kestrel		
<i>Glyciphila melanops</i>	Tawny-crowned Honeyeater		
<i>Hirundo neoxena</i>	Welcome Swallow		
<i>Hydroprogne caspia</i>	Caspian Tern		
<i>Larus pacificus</i>	Pacific Gull		
<i>Lichenostomus virescens</i>	Singing Honeyeater		
<i>Microcarbo melanoleucos</i>	Little Pied Cormorant		
<i>Pelecanus conspicillatus</i>	Australian Pelican		
<i>Phalacrocorax varius</i>	Pied Cormorant		
<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater		
<i>Pluvialis squatarola</i>	Grey Plover	M	
<i>Poliiocephalus poliocephalus</i>	Hoary-headed Grebe		
<i>Rhipidura leucophrys</i>	Willie Wagtail		
<i>Thalasseus bergii</i>	Crested Tern		
<i>Tringa nebularia</i>	Common Greenshank	M	
<i>Vanellus miles</i>	Masked Lapwing		

R: Rare, V: Vulnerable, E: Endangered, M: Migratory

Butterflies

Species	Common Name	Status*	Record
<i>Ogyris otanes</i>	Small Bronze Azure	E	p
<i>Hesperilla chrysotricha cyclopsila</i>	Chrysotricha Sedge-skipper	V	p
<i>Candalides heathi heathi</i>	Rayed Blue	R	p
<i>Cyprotides cyprotus cyprotus</i>	Cyprotus Pencilled-blue	R	p
<i>Delias aganippe</i>	Wood White	R, Va	p
<i>Jamenus icilus</i>	Icilius Hairstreak	R	p
<i>Trapezites sciron eremicola</i>	Sciron Rush-skipper	R	p
<i>Belenois java teutonia</i>	Caper White	Mi	p
<i>Danaus chrysippus petilia</i>	Lesser Wanderer		p
<i>Erina acasta</i>	Blotched Dusky-blue		p
<i>Erina hyacinthina form simplex</i>	Western Dusky-blue		p
<i>Eurema (Terias) smilax</i>	Small Grass-yellow	Mi	p
<i>Geitoneura klugii</i>	Common Xenica	LC	p
<i>Hesperilla donnyisa diluta</i>	Donnyisa Sedge-skipper		p
<i>Junonia villida calybe</i>	Meadow Argus	LC, Mi	p
<i>Lampides boeticus</i>	Long-tailed Pea-blue	LU	p
<i>Motasingha trimaculata trimaculata</i>	Dingy four-spot Sedge-skipper	LU	p
<i>Nacaduba biocellata biocellata</i>	Two-spotted Line-blue	LC	p
<i>Neolucia agricola agricola</i>	Fringed Heath-blue	LU	p
<i>Ogyris amaryllis meridionalis (coastal form)</i>	Amaryllis Azure		p

Cell description – EP21 Cape Euler/ Tumby Island CP

Species	Common Name	Status*	Record
<i>Theclinessthes albocincta</i>	Bitter-bush Blue		p
<i>Theclinessthes miskini miskini</i>	Wattle Blue	LU	p
<i>Vanessa kershawi</i>	Australian Painted Lady	LC, Mi	p
<i>Zizina labradus labradus</i>	Common Grass-blue	LC	p

Vulnerability as per R. Grund, E: Endangered, V: Vulnerable, R: Rare, Va: Vagrant, Mi: Migrant, LC: Locally common, LU: Locally uncommon

x: recorded, p: possibly there as suggested by R. Grund

Mammals

No native mammal species recorded

Reptiles

Species	Common Name	Aus status	SA status	Record
<i>Bassiana trilineata</i>	Western Three-lined Skink		R	e
<i>Amphibolurus norrisi</i>	Mallee Tree-dragon			e
<i>Christinus marmoratus</i>	Marbled Gecko			e
<i>Ctenophorus fionni</i>	Peninsula Dragon			c
<i>Ctenophorus pictus</i>	Painted Dragon			c
<i>Ctenotus orientalis</i>	Spotted Ctenotus			e
<i>Delma australis</i>	Barred Snake-lizard			e
<i>Egernia stokesii</i>	Gidgee Skink			e
<i>Gehyra variegata</i>	Tree Dtella			e
<i>Hemiergis peronii</i>	Four-toed Earless Skink			c
<i>Lerista dorsalis</i>	Southern Four-toed Slider			e
<i>Lerista edwardsae</i>	Myall Slider			e
<i>Lerista terdigitata</i>	Southern Three-toed Slider			e
<i>Menetia greyii</i>	Dwarf Skink			e
<i>Morethia adalaidensis</i>	Adelaide Snake-eye			e
<i>Morethia obscura</i>	Mallee Snake-eye			c
<i>Notechis scutatus</i>	Eastern Tiger Snake	ssp		c
<i>Tiliqua occipitalis</i>	Western Bluetongue			x
<i>Tympanocryptis lineata</i>	Five-lined Earless Dragon			c

R: Rare, V: Vulnerable, E: Endangered

x: recorded, e: potentially everywhere (M. Hutchinson pers. comm), c: could occur (M. Hutchinson pers. comm)

Amphibians

Species	Common Name	Aus status	SA status	Record
<i>Crinia signifera</i>	Common Froglet			x