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Metropolitan Adelaide and Northern Coastal Butterfly Species Assessment

A revision of the Butterfly Section of the Metropolitan Adelaide and Northern Coastal Action Plan 2009 VOLUME 1 & 2

Report Prepared for Green Adelaide Board

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Summary

The Metropolitan Adelaide and Northern Coast supports a total of 29 recorded butterfly species and a further seven possible vagrant species. Nine species are determined as localised in coastal areas and of local conservation significance and restricted to specific habitats.

Since the report (Caton *et. al* 2009) was produced, known as the Metropolitan Adelaide and Northern Coastal Action Plan (MANCAP), additional butterfly species distributions have been recorded including those of conservation concern. These include additional records for *Anisynta cynone cynone* (Mottled Grass Skipper), *Ogyris olane* (Broad Margined Azure), *Ogyris amaryllis meridionalis* (Satin Azure) *Erina hyacinthina simplex* (Varied Dusky-Blue) and *Erina acasta* (Blotched Dusky Blue).

Significant habitat creation, habitat improvements and weed management have occurred in selected cells since the 2009 report. These works have allowed for security of existing butterfly populations as well as reintroduction of butterfly species, namely *Hesperilla flavescens* and *Theclinesthes albocinctus*.

Whilst conservation efforts for increasing habitats through plantings of *Gahnia filum* for *Hesperilla flavescens* (Yellowish Sedge Skipper) have been undertaken at various locations and proved to be beneficial, generally habitat quality across coastal conservation assessment cells, where new data is available, had provided no significant change for use, based upon overall butterfly species diversity.

Capacity for dispersal and/or colonisation due to a lack a suitable habitats and interconnectivity corridors prohibiting movement indicate that several species are still vulnerable to population collapse. Habitat works require continuity and an increase for the preservation of many disjunct butterfly populations in the metropolitan coastal environments.

Work recommendations translating to on-ground results often take time to achieve and along with key threats of threatened species these should be implemented without delay. On-ground works, in particular creation of habitat interconnectivity and site management practices for these species, should be of the highest priority.

Introduction

This report provides a current snapshot of species present within the coastal cells, their habitat conditions where available and revises the species habitat management proposal.

The 2009 MANCAP report revision presents the butterfly species of conservation significance and their associated habitats across the 24 coastal cells from Sellicks Beach to the Port Wakefield Proof Range.

Several butterfly species have been identified in need of conservation through increased protection of current habitats and restoration proposals.

These species are specialists in their larval host plant use and selected habitat preferences and are localised with limited distributions within the Metropolitan Adelaide and Northern Coast. Several species that have localised populations are limited in capacity for dispersal and/or colonisation of new sites. The lack of suitable habitats and interconnectivity corridors prohibits such movements and therefore creates localised isolation of populations. Furthermore, the urbanisation of coastal areas reduces the efficiency of species movements that otherwise would occur. Several species are now restricted to pockets of isolated habitats resulting in some being vulnerable to population collapse.

Habitats for many of these species continue to be under pressure from the following factors, but not limited to, such as;

- Ongoing weed pressure
- Human impacts through use of coastal areas for recreational activities
- Increased grazing pressures of larval hosts by native and exotic animals
- Fire - both natural, ecological and fuel reduction burns
- Coastal housing developments

Habitat improvements have been undertaken for species of conservation significance. At this stage, some efforts, due to unforeseen circumstances have not completely provided positive or significant responses. Adaptation of new habitat development methods to overcome challenges is continuing.

Habitat creation and threatened species management practices (monitoring, research, planning, approvals, funding source) presents challenges due to the immediate risks presented by isolated populations and time frames in which it takes to implement and achieve on-ground change. This is evident with the creation of

interconnectivity corridors for *Antipodia atralba* due to propagation success of *Gahnia lanigera* as one example.

A dedicated landscape approach is necessary to consider the species requirements of adequate habitat size and localised on-ground works for long term positive outcomes.

Methodology

Species lists, habitats and their associated cells were compiled using existing data in the MANCAP 2009. Species names were checked for taxonomic updates using Australian Faunal Directory and Australian Virtual Herbarium.

Additional butterfly species records were sourced from iNaturalist, Atlas of Living Australia and Green Adelaide Butterfly Survey Reports.

Priority species for conservation significance works were identified based on the current status of these species and their restricted habitats with a realistic approach to the possibilities of successful habitat restoration outcomes.

Coastal cells were assessed using data from existing and new reports.

Results

The assessment found that habitats and their quality within the coastal cells, from recent reporting, had provided no significant change of use based upon overall butterfly species diversity (Appendix 1).

Whilst there may have not been change of use by the various species, increase in habitat restoration has occurred in selected areas across the region. *Gahnia filum* and *G. trifida* restoration works undertaken since 2009 has increased habitats for *Hesperilla flavescens* for current and future releases into sites. Additional habitat development and enhancements have occurred for *Theclinesthes albocinctus* with plantings of *Adriana quadripartita* allowing for translocations to occur.

Weed control has been pivotal in securing habitat quality at numerous sites and in particular; The Washpool for *Hesperilla flavescens*, Marino Conservation Park for *Antipodia atralba* and Ochre Point for *Anisynta cynone cynone*.

Butterfly species of conservation significance and their larval food plants are presented in Table 1. These include a number of species where conservations efforts can be undertaken to reduce threats and are further discussed below.

Priority sites and proposed restoration activities for species conservation and restoration is presented in Appendix 2.

A number of highly specialised species requiring specific habitat and/or larval host parameters require protection in their existing habitats and include; *Anisynta cynone cynone* (Mottled Grass Skipper), *Antipodia atralba* (Black and White Skipper), *Theclinesthes albocinctus* (Bitter Bush Blue Butterfly), *Neolucia agricola agricola* (Fringe Heath Blue) and *Hesperilla flavescens* (Yellowish Sedge Skipper). These species whilst having widespread South Australian distributions have patchy and disjunct populations in the Metropolitan Adelaide and Northern Coastal region are only found to sustain populations in a selected number of the coastal conservation assessment cells.

Furthermore, three butterfly species; *Delias aganippe* (Wood White), *Ogyris amaryllis meridionalis* (Satin Azure) and *Ogyris olane* (Broad Margined Azure) are locally vulnerable due to habitat and larval host plant availability. Both *D. aganippe* and *O. a. meridionalis* have the ability to cover vast areas in search of larval host plants, their larval host plant occurrences and habitat suitability in coastal areas determine whether localised populations exist.

O. olane displays localised population distributions and is restricted to cell MA2 at Aldinga Scrub Conservation Park with no interconnectivity to other populations.

Ogyris genoveva (Genoveva Azure) has been reported as occurring in cell MA2 at Aldinga Scrub Conservation Park (A. lines *pers. comm*. 2021). Limited survey of the species was undertaken, however its presence has not been verified and is included until such time new data becomes available.

Table 1. Metropolitan Adelaide and Northern Coast: Butterfly species and larval food plants, species of local conservation significance.

[FAMILY] Species	Common Name	Conservation Status (A. Stolarski)	Larval Food Host
[HESPERIIDAE] (Skippers)			[Skipper butterflies are entirely dependent on tussock grasses, Poaceae and Cyperaceae] #
Anisynta cynone cynone	Mottled Grass Skipper	Vulnerable	Native & introduced grasses, incl. e.g. *Brachypodium distachyon*, Ehrharta calycina*, E. longiflora*, Poa spp.*
Antipodia atralba	Diamond Sedge Skipper	Vulnerable	*G. lanigera*
Hesperilla flavescens	Yellowish Sedge Skipper	Vulnerable	*G. filum; G. trifida*
[LYCAENIDAE] (Coppers & blues)			
Erina acasta	Blotched Blue	Local, Vulnerable	*Cassytha glabella form dispar, C. pubescens*
Erina hyacinthina simplex	Varied Dusky-Blue	Local, Vulnerable	*Cassytha melantha*
Ogyris amaryllis meridionalis	Amaryllis Azure	Local	*Amyema melaleucae; A. miquelii, A. preissii.* Larvae attended by small ants
Ogyris genoveva	Genoveva Azure	Rare	*A. miquelii.* Larvae attended by sugar ants (*Camponotus spp*.)
Ogyris olane	Broad margined Azure	Vulnerable	*Amyema miquelii.* Larvae usually attended by small ants
Neolucia agricola agricola	Fringed Heath Blue	Vulnerable	*Eutaxia microphylla, Pultenaea tenuifolia*
Theclinesthes albocinctus	Bitter-bush Blue	Local	*Adriana* quadripartita. Larvae usually attended by small ants
Jalmenus icilius	Icilius Hairstreak	Vulnerable	*Acacia* spp. incl. *A. pycnantha, A. retinodes, A. uncifolia, A. victoriae.* Larvae attended by small black ants
Jalmenus lithochroa	Waterhouse's Hairstreak	Extinct-Reintroduction possibility	*Acacia victoriae.* Obligatory larval attendance by *Iridomyrmex purpureus* or *I. viridiaeneus*.

*****Exotic weed species. **#**Exception, introduced *Cephrenes augiades sperthias.*

Three *Ogyris* species; *O. olane, O. genoveva* and *O. amaryllis meridionalis* require *Amyema spp*. (mistletoes) as their larval hosts and cannot exist without this species of plant. Limited *Amyema preissii* and *A. melaleucae* seedings trials have been undertaken with successful outcomes. It is recommended that mistletoes should be retained in the environment and additional seeding of the species increased and undertaken across the cells to create interconnectivity and achieve substantiative habitat outcomes for *Ogyris* populations.

Two *Erina* species; *Erina acasta* and *Erina hyacinthina simplex* require *Cassytha spp.* as larval hosts and cannot exist without the species. The primary threat to the two species is senescing and limited natural regeneration and/or removal of the larval hosts.

Additional observation records of *A. c. cynone* across a number of cells are presented. This species of conservation significance persists in these cell areas due to the availability of exotic grass species, namely *Ehrharta calycina* (Perennial Veldt Grass), *Ehrharta longiflora* (Annual Veldt Grass) and *Brachypodium distachyon* (False Brome). Conservation of this species is dependent upon the retention of these exotic grasses in areas where native grass species establishment is not possible. The exclusion of mowing in population areas especially around small shrubs will aid the butterfly populations.

Jalmenus icilius (Amethyst Hairstreak) with very limited supportive habitats and larval host requirements, is currently limited in distribution to Marino Conservation Park.

The potential of habitat restoration and enhancement of sites exists for the following species; *H. flavescens, A. atralba, N. a. agricola, Delias aganippe, T. albocinctus, Erina* and *Ogyris* species through the provision of additional larval host plants.

The substantial enhancement of existing and creation of new habitats for *Hesperilla flavescens* have been undertaken at Windamere Park (adjacent to Cell MA18), Barker Inlet and Greenfield wetlands (adjacent to Cell MA17) and Perrys Bend (Port Noarlunga Cell MA8).

Hesperilla flavescens has been subject to conservation efforts through translocation introductions into The Washpool at Aldinga (Cell MA2) with successful outcomes. The species was also introduced unsuccessfully into northern areas at Constellation Model Flying Club site, Greenfield Wetlands, Magazine Creek Wetlands and Barker Inlet. Further habitat enhancements at Magazine Creek Wetlands and Barker Inlet (adjacent to Cell MA17) are being undertaken and once completed further attempts for translocations will be initiated.

Theclinesthes albocinctus whilst locally common at times is subject to restricted population sites supporting *Adriana quadripartita,* its only larval host plant, and if not available would not persist. The butterfly is restricted to cells LeFevre Peninsula (MA14), Torrens Island (MA16), Gawler River to Port Prime (MA18 – MA21) and Parham (MA23) and (MA24) and requires additional habitat enhancement through plantings of *Adriana quadripartita* in suitable soils within cells MA14 and MA16.

Whilst the opportunity for habitat enhancement and/or interconnectivity creation exists for *Antipodia atralba* in cells Port Stanvac (MA10) and Hallett Cove MA11 cells where suitable soil parameters exist, currently this possibility is restricted due to the current limitations to successfully propagating *Gahnia lanigera* plants, the larval host. Ongoing work to develop and improve propagation techniques is required. The

protection of current habitats for the butterfly is paramount for persistence of this species within the southern metropolitan Adelaide coastal areas.

Jalmenus lithochroa (Waterhouse's Hairstreak) historically occurred at Marino and last observed in 1962. Trial translocations trials have been undertaken into Marino Conservation Park, however a viable population has yet to be established. Further work on the ecology and translocation approaches in its remnant range is currently being undertaken.

Additional species information is available in Appendix 3.

A number of vagrant species have been identified within the Metropolitan Adelaide and Northern Coast and are listed in Table 2. These species have sporadic occurrences with possibilities of localised temporary population establishments in suburban gardens within the coastal cell boundaries during favourable years, should the butterfly find the necessary larval hosts.

Table 2. Metropolitan Adelaide and Northern Coast: Vagrant butterfly species.

[FAMILY] Species	Common Name	Larval Food Host	Comments
[PIERIDAE] (Whites & Yellows)			
Eurema smilax	Small Grass-Yellow	*Senna spp.*	Common at times, occasional coastal population establishment where suitable Senna spp. is present.
Belenois java teutonia	Caper White	*Capparis spp.*	A migratory species periodically observed in large numbers. Able to sustain temporary local populations on exotic *Capparis spinosa* in town gardens.
[HESPERIIDAE] (Skippers)			
Cephrenes augiades sperthias	Orange Palm Dart	*Arecaceae spp.*	Vagrant species to the coastline, established in suburban gardens on various Palm trees, *Arecaceae.*
[NYMPHALIDAE] (Browns)			
Charaxes sempronius sempronius	Tailed Emperor	*Brachychiton spp., Acacia spp.*	A vagrant species, rarely observed and able to establish localized populations during favourable years in suburban areas.
[PAPILIONIDAE] (Swallowtails)			
Papilio anactus	Dainty Swallowtail	*Citrus spp.*	A species that is able to establish temporary localized populations on cultivated *Citrus spp*. at times.
Papilio aegeus aegeus	Orchard Swallowtail	*Citrus spp.*	A vagrant species rarely seen during favourable years.
Papilio demoleus sthenelus	Lime Swallowtail	*Cullen australasicum*	A vagrant species commonly encountered during favourable years. Able to establish temporary localized populations on *Cullen australasicum* in gardens and landscape settings. Occasionally uses *Citrus spp.*

References

Atlas of Living Australia (2024). *Atlas of Living Australia website, accessed 27th November 2024,* <https://www.ala.org.au/>.

Australian Faunal Directory (2024). Australian Faunal Directory website, accesses 27th November 2024, <https://biodiversity.org.au/afd/home/>.

Caton, B., Fotheringham, D., Krahnert, E. Pearson, J., Royal, M. & Sandercock, R. (2009). Metropolitan Adelaide and Northern Coastal Action Plan. Prepared for the Adelaide and Mount Lofty Ranges NRM Board and Department for Environment and Heritage.

Glatz, R.V., Young, D.A., Marsh, J. & Swarbrick, A. (2017). Action Plan for the Bitterbush blue butterfly (Theclinesthes albocincta): Northern Adelaide Plains – Kangaroo Island. Final Report to Adelaide and Mount Lofty Ranges Natural Resources Management. D'Estrees Entomology and Science Services, Kangaroo Island, Australia: 71 pp.

iNaturalist (2024). *iNaturalist website, accessed 27th November 2024*, < https://www.inaturalist.org/>

Plants of South Australia (2024). *Plants of South Australia website, accessed 27th November 2024,* <http://www.syzygium.xyz/saplants/index.html>.

Stolarski A., (2022). *Diamond Sedge Skipper Butterfly (Antipodia atralba) Coastal mini-management plan*. Report Prepared for Green Adelaide Board, South Australia, Ento Search, May 2022.

Stolarski A., (2022). *Mottled Grass Skipper Butterfly (Anisynta cynone cynone) Baseline coastal distribution Parham to Aldinga Beach Report*. Prepared for Green Adelaide Board, South Australia, Ento Search, May 2022.

Stolarski A., (2023). *Re-evaluation of the Bitter-bush Blue Butterfly (Theclinesthes albocinctus) and Coast Bitter-bush (Adriana quadripartita) Distributions Version 3.0 Report*. Prepared for Green Adelaide Board, South Australia, Ento Search, December 2023.

Stolarski A., (2023). *Satin Azure (Ogyris amaryllis meridionalis) Parham population survey Report*. Prepared for Green Adelaide Board, South Australia, Ento Search, March 2023.

Stolarski A., (2024). *Reintroduction Project Survey of Yellowish Sedge Skipper (Hesperilla flavescens) Aldinga Washpool Progress Report.* Prepared for Green Adelaide Board, South Australia, Ento Search, February 2024.

The Australasian Virtual Herbarium (2024*). The Australasian Virtual Herbarium website, accessed 27th November 2024*, <https://www.avh.ala.org.au>.

Appendices

Appendix 1. Summary of known butterfly species present in MANCAP region and distribution amongst cells (MA1-MA24) with host plants present.

BUTTERFLY	COMMON NAME	MA1	MA2	MA3	MA4	MA5	MA6	MA7	MA8	MA9	MA10	MA11	MA12	MA13	MA14	MA15	MA16	MA17	MA18	MA19	MA20	MA21	MA22	MA23	MA24
Anisynta cynone cynone	Mottled Grass Skipper	*	*		*	*	*								*		*		*	*	*			*	
Antipodia atralba	Diamond Sedge Skipper					*	*				*	*													
Candalides heathi heathi	Rayed Blue		*				*				*	*													
Danaus petilia	Lesser Wanderer		*				*		*		*	*													
Danaus plexippus plexippus	Monarch		*				*		*		*	*			*		*								
Delias aganippe	Wood White	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	
Erina acasta	Blotched Dusky-blue		*			*	*					*	*												
Erina hyacinthina simplex	Western Dusky-blue		*																						
Geitoneura klugii	Common Xenica		*									*													
Hesperilla flavescens	Yellowish Sedge-skipper		*																						
Heteronympha merope merope	Common Brown		*						*		*	*			*										

BUTTERFLY	COMMON NAME	MA1	MA2	MA3	MA4	MA5	MA6	MA7	MA8	MA9	MA10	MA11	MA12	MA13	MA14	MA15	MA16	MA17	MA18	MA19	MA20	MA21	MA22	MA23	MA24
Jalmenus icilius	Icilius Hairstreak											*													
Junonia villida calybe	Meadow Argus	*	*				*		*	*	*	*	*		*		*							*	
Lampides boeticus	Long-tailed Pea-blue		*				*		*		*	*			*		*							*	
Nacaduba biocellata biocellata	Two-spotted Line-blue		*						*		*	*			*		*							*	
Neolucia agricola agricola	Fringed Heath-blue		*			*	*			*	*	*													
Ocybadistes walkeri hypochlora	Southern Grass-dart	*	*			*	*		*	*	*	*	*	*	*	*	*								
Ogyris amaryllis meridionalis	Amaryllis Azure								*			*								*				*	
Ogyris genoveva	Genoveva Azure		*																						
Ogyris olane	Olane Azure		*																						
Papilio demoleus sthenelus	Lime Swallowtail		*						*			*													
Pieris rapae rapae +	Cabbage White		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Taractrocera papyria papyria	White-banded Grass-dart		*				*		*		*	*													
Theclinesthes albocinctus	Bitter-bush Blue														*		*		*	*	*	*		*	*
Theclinesthes miskini miskini	Wattle Blue		*									*		*											

BUTTERFLY	COMMON NAME	MA1	MA2	MA3	MA4	MA5	MA6	MA7	MA8	MA9	MA10	MA11	MA12	MA13	MA14	MA15	MA16	MA17	MA18	MA19	MA20	MA21	MA22	MA23	MA24
Theclinesthes serpentatus serpentatus	Salt-bush Blue	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Vanessa itea	Australian Admiral		*		*		*		*	*	*	*		*		*	*	*							
Vanessa kershawi	Australian Painted Lady		*	*	*	*	*	*	*	*	*	*	*	*	*	*									
Zizina otis labradus	Common Grass-blue	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

+ Introduced species

Appendix 2. Priority sites for species conservation and proposed management activities.

Cell	Location	Species present	Habitat condition	Proposed management action	Priority of action	Key Stakeholders
MA2	The Washpool & Aldinga Scrub CP	*Hesperilla flavescens, Anisynta cynone cynone, Ogyris olane, Ogyris genoveva, Neolucia agricola agricola, Candelides heathii heathi, Delias aganippe, Erina acasta, Erina hyacinthina simplex*	Good	Continue with current management for *Hesperilla flavescens*. Protect *Amyema spp.* and *Cassytha spp.* Increase *Eutaxia microphylla* and *Pultenaea tenuifolia* plants where possible	High	DEW, Friends Groups, Green Adelaide
MA4	Blanche Point - south	*Anisynta cynone cynone*	Poor	Reduce grass mowing in areas to increase habitat	High	Green Adelaide

Cell	Location	Species present	Habitat condition	Proposed management action	Priority of action	Key Stakeholders
MA5	Moana South - coastal heath	*Antipodia atralba, Anisynta cynone cynone, Neolucia agricola agricola*	Good	Protection from human disturbances, woody weed management. Increase *Eutaxia microphylla* and *Pultenaea tenuifolia* plants where possible	High	Green Adelaide
MA6	Moana South - Ochre Point Blanche Point area	*Antipodia atralba, Anisynta cynone cynone, Neolucia agricola agricola*	Good	Protection from human disturbances, woody weed management. Increase *Eutaxia microphylla* and *Pultenaea tenuifolia* plants where possible	High	Green Adelaide
MA8	Perrys Bend area	*Ogyris amaryllis meridionals,* (*Hesperilla flavescens* –future introductions)	Good	Continue with habitat enhancement for *Hesperilla flavescens*	High	DEW, Green Adelaide, Friends Groups
MA10	Port Stanvac coastal heath, Tingira Reserve	*Antipodia atralba, Neolucia agricola agricola, Delias aganippe, Candalides heathi heathi.*	Good to excellent	Protection from human disturbances, woody weed management	High	Green Adelaide
MA11	Marino Conservation Park	*Antipodia atralba, Jalmenus icilius, Delias aganippe, Ogyris amaryllis meridionalis, Anisynta cynone cynone*	Good	Continue with weed management, monitor *Amyema preissii* densities, monitor *Jalmenus icilius*.	High	DEW, Green Adelaide, Friends Groups
MA11	Hallett Cove Headland Reserve	*Erina acasta*	Poor	Ensure adequate *Cassytha glabella f. dispar* and/or *C. pubescens*	High	Green Adelaide, Friends Groups
MA11	Hallett Cove Headland Reserve	*Antipodia atralba*	Poor to good	Protection from human disturbances, woody weed management	High	Green Adelaide, Friends Groups
MA14	Lefevre Peninsula	*Theclinesthes albocinctus*	Poor	Increase *Adriana quadripartita* stands	High	Green Adelaide

Cell	Location	Species present	Habitat condition	Proposed management action	Priority of action	Key Stakeholders
MA16	Torrens Island	*Theclinesthes albocinctus*	Poor	Habitat enhancement through additional *Adriana quadripartita* plantings.	High	AGL, Green Adelaide
MA16	Torrens Island	*Anisynta cynone cynone*	Good	Retention of Veldt Grass in areas until provision of alternative native grasses is fully established.	High	AGL, Green Adelaide
MA23	Parham, Webb Beach	*Theclinesthes albocinctus*	Good	Protect *Adriana quadripartita* stands in public areas and roadsides.	High	Green Adelaide, Council

Appendix 3. Focal species for the Metropolitan Adelaide and Northern Coastal Action Plan region.

Photo: Matt Endacott

***Antipodia atralba* (Diamond Sedge Skipper)**
Conservation status (Uncommon, locally vulnerable)

This butterfly is very localised and restricted to coastal heath areas where its larval food plant, *Gahnia lanigera,* (Desert or black grass saw-sedge) grows in large enough densities. Populations within and between sites fluctuate in densities in response to the availability of fresh *G. lanigera* leaf growth favoured by larvae. The butterfly is very responsive to post fire plant growth and often attains large population numbers following such events.

Antipodia atralba has a patchy distribution along the southern metropolitan coast and has been recorded from the following locations: Port Stanvac coastal heath, Tingira Reserve, Hallett Headland, Hallett Cove Conservation Park, Marino Conservation Park and Moana South/Ochre Point. Two populations are isolated.

The following threatening processes are identified:
- *G. lanigera* tussocks becoming too old, weed infested and unfavourable for female butterflies to use.
- Reduced genetic diversity in small populations.
- Human recreational impacts
- Unauthorised habitat alterations and destruction
- Coastal developments

Photo: Matt Endacott

***Theclinesthes albocinctus* (Bitter-bush Blue)**
Conservation status (Localised, locally vulnerable)

This butterfly is very localised and restricted to coastal areas where its larval food plant, *Adriana quadripartita,* (Coast Bitter-bush) grows in large enough densities. Populations within and between sites fluctuate in densities in response to the availability of fresh leaf growth and male flower spikes favoured by larvae.

Theclinesthes albocinctus has a patchy distribution along the Metropolitan Adelaide and Northern Coast and has been recorded from the following locations: Le Fevre Peninsula, Torrens Island, Port Gawler, Middle beach, Light Beach, Port Prime area, Parham and Webb Beach.

The following threatening processes are identified:
● *A. quadripartita* plants senescing and not naturally recruiting resulting in *T. albocinctus* population demise
● Vegetation crowding of *A. quadripartita*
● Lack of additional *A. quadripartita* plantings to support current populations (Le Fevre Peninsula and Torrens Island)
● Low population numbers vulnerable to complete collapse with extreme fluctuations in environmental conditions
● Reduced genetic diversity in small populations

Photo: Matt Endacott

***Anisynta cynone cynone* (Mottled Grass Skipper)**
Conservation status (Uncommon, locally vulnerable)

This butterfly is very localised and restricted to coastal areas where its larval food plants, Poaceae (Grasses) both native and introduced are present.

A. cynone cynone has a patchy distribution occurring at: Sellicks Beach, The Washpool – Aldinga, Blanche Point area, Moana South/Ochre Point, Le Fevre Peninsula, Torrens Island, Greenfield Wetlands, Buckland Park, Middle beach, Light Beach area and Parham.

The following threatening processes are identified:
- *Poaceae* including exotic grasses displaced by invasive woody weed species
- Inter dune system disturbances by unauthorised use
- Coastal developments
- Reduced grass occurrences in sheltered coastal situations
- Low population numbers vulnerable to complete collapse with extreme fluctuations in environmental conditions
- Reduced genetic diversity in small populations
- Ecological restoration works removing exotic grasses prior to full establishment of native grasses of proportionate amount at population sites.

Photo: Matt Endacott

***Hesperilla flavescens* (Yellowish Sedge Skipper)**
Conservation status (Very localised, vulnerable)

This butterfly is very localised and restricted to coastal wetland areas where its larval food plant, *Gahnia filum,* (Chaffy Saw-sedge) grows in large enough densities. Populations are restricted to sites with the availability of fresh *G. filum* leaf growth favoured by larvae. The butterfly is very responsive to post fire and slashing plant growth attaining large population numbers following such events.

Hesperilla flavescens occurs only at The Washpool, Aldinga as a result of introductions to site. Currently no other suitable areas exist within metropolitan Adelaide and northern coastal areas. Currently additional habitats are being created in areas of Buckland Park, Barker Inlet and Magazine Creek Wetlands. Nearest naturally occurring populations exist on Yorke Peninsula and the Lower Lakes region.

The following threatening processes are identified:
- *G. filum* tussocks becoming too old and unfavourable for use by butterflies
- Vegetation crowding of *G. filum* stands
- Inappropriate habitat alterations at The Washpool

Photo: Matt Endacott

***Jalmenus icilius* (Amethyst Hairstreak)**
Conservation status (Rare, very local)

This butterfly is very localised, rarely observed and occurs in Marino Conservation Park where its larval food plant, *Acacia victoriae* (Elegant Wattle) is found present. The species' larvae are often attended by small *Iridomyrmex* ants.

Currently no other metropolitan Adelaide and northern coastal sites are known to support the butterfly.

It appears that the population at Marino CP is isolated from populations in the Adelaide Hills.

The following threatening processes are identified:
- Removal of or trimming of *A. victoriae* branches along tracks without inspecting for larvae
- Reduction of suitable shrubs at site
- Fire

Photo: Matt Endacott

Neolucia agricola agricola **(Fringes Heath Blue)**
Conservation status (Uncommon, very localised, vulnerable)

This butterfly is very localised and restricted to areas where its larval food plant, *Pultenaea tenuifolia* (Slender Bush-pea) and *Eutaxia microphylla* (Common Eutaxia) grows in large enough densities. The butterfly requires open coastal heath systems with the larval hosts growing in unobstructed sunny situations.

Neolucia agricola agricola has a patchy distribution in the southern metropolitan coastal areas recorded from five coastal sites; Aldinga Scrub Conservation Park, Moana beach, Port Stanvac coastal heath, Taringa reserve and Hallett Cove Conservation Park. Historically the species had broader distributions within the coastal metropolitan areas. The butterfly populations are healthiest in areas where larval plants are found in sufficient densities, especially Port Stanvac coastal heath.

The following threatening processes are identified:
- Larval host plants not rejuvenating naturally at sites.
- Vegetation crowding of larval host plants
- Human recreational impacts
- Unauthorised habitat alterations and destruction
- Coastal developments