BUTTERFLY CONSERVATION IN SOUTHERN EYRE PENINSULA

R. GRUND AUGUST 1997

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(The sites are not numbered. Map sheet divisions are separated by a blue page.)	
SUMMARY OF SITES	
DEFINITIONS OF SITE SUMMARY	
BANKS 1/50,000 SHEET	
1. BAN 00201, 34 32 18, 136 05 36, 600321, 6177609.	

- (Point Bolingbroke, 18 km south of Tumby Bay).
- 2. BAN 00202, 34 32 09, 136 05 27, 600095, 6177886. (Point Bolingbroke, 18 km south of Tumby Bay).
- 3. BAN 00203, 34 31 57, 136 05 10, 599660, 6178255. (Point Bolingbroke, 18 km south of Tumby Bay).
- 4. BAN 00204, 34 31 27, 136 05 38, 600403, 6179175. (Point Bolingbroke, 18 km south of Tumby Bay).
- 5. BAN 00301, 34 30 29, 136 04 30, 598688, 6180986. (Point Bolingbroke, 18 km south of Tumby Bay).

COCKALEECHIE 1/50,000 SHEET

- 6. COC 00201, 34 02 49, 135 57 60, 589213, 6232201. (2 km north of Tarlinga, Hundred of Moody, Section 36).
- 7. COC 01F07, 34 02 39, 135 56 29, 586900, 6232528. (2 1/2 km NW of Tarlinga, Hundred of Moody, Section 37).

CUMMINS 1/50,000 SHEET

- 8. CUM 00201, 34 18 52, 135 40 14, 561697, 6202749. (8 km southwest of Cummins).
- 9. CUM 01101, 34 20 30, 135 42 49, 565648, 6199726. (8 1/2 km south of Cummins).

- 10. CUM 01201, 34 21 25, 135 39 35, 560676, 6198042. (11 km southwest of Cummins).
- 11. CUM 01301, 560640, 6200000. (10 km southwest of Cummins).
- 12. CUM 01401, 34 21 14, 135 37 51, 558026, 6198425. (13 km southwest of Cummins).
- 13. CUM 01501, 560850, 6196100. (13 km southwest of Cummins).
- 14. CUM 01701, 34 22 21, 135 35 09, 553857, 6196360. (11 1/2 km west of Edillilie on the Edillilie-North Block Road).
- 15. CUM 02301, 568900, 6187900. (5 1/2 km southeast of Edillilie).
- 16. CUM 02401, 34 27 36, 135 40 58, 562722, 6186599. (5 km SSW of Edillilie on the Tod Highway).
- 17. CUM 02501, 34 29 55, 135 30 60, 547425, 6182416. (Roadside 6 km northeast of Wangary).

JUSSIEU 1/50,000 SHEET

- 18. JUS 00201, 34 46 03, 135 56 43, 586514, 6152334. JUS 00401, 34 46 24, 135 56 14, 585758, 6151687. JUS 00402, 34 46 36, 135 56 10, 585663, 6151308. JUS 00403, 34 46 36, 135 56 02, 585451, 6151306. (Stamford Hill area, Lincoln National Park).
- 19. JUS 00601, 34 45 11, 135 52 35, 580207, 6153964, LIN 02201, 34 44 59, 135 52 54, 580710, 6154337. Jussieu and Lincoln. (Porter Bay south, Port Lincoln Vegetation Reserve).
- 20. JUS 00701, 34 48 53, 135 51 12, 578054, 6147159. (Lincoln National Park, northwest side).
- 21. JUS 01001, 34 49 56, 135 56 28, 586067, 6145146. (Taylor's Landing Road, Lincoln National Park).
- 22. JUS 01101, 34 51 06, 135 57 08, 587050, 6142967. (Taylor's Landing, Lincoln National Park).
- 23. JUS 01201, 34 49 39, 135 51 22, 578281, 6145738. (Lake Pillie, Lincoln National Park).
- 24. Tulka Township, 572650, 6149050.

KIANA 1/50,000 SHEET

- 25. KIA 00301, 34 00 16, 135 21 55, 533726, 6237265. (6 km east of Lake Hamilton's Sheoak Island).
- 26. KIA 00302, 34 00 18, 135 20 07, 530969, 6237212, KIA 00303, 34 00 37, 135 20 16, 531189, 6236634. (3 1/2 km east of Lake Hamilton's Sheoak Island).
- 27. KIA 00401, 34 01 48, 135 22 39, 534845, 6234443. (8 km ESE of Lake Hamilton's Sheoak Island).
- 28. KIA 00501, 34 00 28, 135 16 05, 524765, 6236932. (Coastal cliffs, west side of Lake Hamilton).
- 29. KIA 00601, 34 02 24, 135 16 25, 525251, 6233351. (Coastal cliffs, west side of Lake Hamilton).
- 30. KIA 00801, 34 06 59, 135 22 48, 535040, 6224846.

- (3 km ESE of Mount Hope township).
- 31. KIA 01201, 34 07 45, 135 16 15, 524971, 6223477. (Hill Bay, Drummond Point north).
- 32. KIA 01801, 34 08 35, 135 18 55, 529078, 6221926. (On access road to Drummond Point, 5 1/2 km southwest of Mount Hope township).
- 33. KIA 01901, 34 10 20, 135 16 02, 524638, 6218690. (Picnic Beach, Drummond Point south).
- 34. KIA 02201, 34 12 27, 135 19 47, 530363, 6214783. (Mount Drummond Spring).
- 35. KIA 02301, 34 14 47, 135 20 34, 531552, 6210455. (7 km southwest of Mount Drummond Post Office).
- 36. Lake Hamilton, Kiana and Pearce.

LINCOLN 1/50,000 SHEET

- 37. Port Lincoln Airport, 580600, 6168700.
- 38. Tod River, 580300, 6172250. (Tod River on the Lincoln Highway).

SLEAFORD 1/50,000 SHEET

- 39. SLE 00201, 34 46 30, 135 44 58, 568585, 6151636. (12 km southwest of Port Lincoln in the Waterworks Reserve).
- 40. SLE 00401, 34 49 29, 135 43 57, 566981, 6146136. (1/2 km east of the northern part of Sleaford Mere).
- 41. SLE 01701, 34 50 46, 135 40 39, 561941, 6143797. (2 km south of Mikkira Ruins and 4 km west of Seaford Mere).
- 42. SLE 01702, 34 51 36, 135 39 46, 560574, 6142267. (1 km northwest of Tarnana Homestead).
- 43. SLE 01703, 34 51 29, 135 38 40, 558898, 6142499. (3 km northwest of Tarnana Homestead).
- 44. SLE 01801, 34 52 10, 135 37 02, 556411, 6141250. (4 1/2 km west of Tarnana Homestead).
- 45. SLE 01901, 34 51 35, 135 35 28, 554020, 6142354. (4 km northwest of D'Anville Bay, and 1/2 km inland of the coast).
- 46. SLE 02001, 554900, 6144100. (North side of saline lake, 5 1/2 km north of D'Anville Bay).
- 47. SLE 02201, 34 53 49, 135 40 12, 561217, 6138181. (2 km NNW of Fishery Bay).
- 48. SLE 02401, 34 55 00, 135 39 09, 559607, 6135985. (2 1/2 km west of Fishery Bay).
- SLE 02601, 34 56 16, 135 37 37, 557249, 6133656.
 (Coastal cliffs, 1/2 km east of Matthew Flinders Lookout, Cape Carnot).
- 50. SLE 02602, 34 55 09, 135 37 32, 557131, 6135723. (Coastal cliffs at Red Banks, Whalers Way.
- 51. SLE 02E31, 551200, 6149200. (Cooroona Waterhole).
- 52. Sleaford Mere Conservation Park, west side of the mere.
- 53. Roadside vegetation, 0.8 km northeast of Tarnana Homestead, 561950, 6141800.

54. White Lookout, Fishery Bay, 562350, 6135500.

TUMBY 1/50,000 SHEET

55. TUM 01001, 34 20 50, 136 07 23, 603297, 6198748. (On coast, 3 1/2 km northeast of Tumby Bay).

WANGARY 1/50,000 SHEET

- 56. WAG 00403, 34 31 14, 135 23 04, 535292, 6180036, WAG 00501, 34 31 22, 135 23 25, 535822, 6179791. (Horse Peninsula north, northeast side of Little Douglas).
- 57. WAG 01001, 34 35 11, 135 23 48, 536369, 6172741, WAG 01002, 34 35 28, 135 23 43, 536248, 6172214, WAG 02F17, 34 35 29, 135 23 34, 536011, 6172200. (Horse Peninsula south, 1 1/2 km northwest of Koromoonah Homestead).
- 58. WAG 01003, 34 35 57, 135 24 36, 537588, 6171305. (Koromoonah Scrub, Horse Peninsula).

WANILLA 1/50,000 SHEET

- 59. WAN 00102, 34 32 41, 135 43 01, 565775, 6177191, WAN 00103, 34 33 01, 135 42 55, 565636, 6176592. (Wanilla Conservation Park, 4 km east of Wanilla).
- 60. WAN 00201, 34 31 58, 135 40 24, 561801, 6178543. (Wanilla Reserve, 1 km south of Wanilla).
- 61. Big Swamp, 563800, 6166600.
 (Roadside 18 km northwest of Port Lincoln on the Flinders Highway).
- 62. Wanilla South Wetlands, 560350, 6176500. (3 km south of Wanilla).

YEELANNA 1/50,000 SHEET

63. YEE 01701, 552900, 6222100, YEE 01801, 34 08 18, 135 33 53, 552060, 6222343, YEE 01901, 34 08 27, 135 33 48, 551926, 6222080, YEE 01F25, 34 08 48, 135 33 46, 551873, 6221413. (6 km east of Kapinnie).

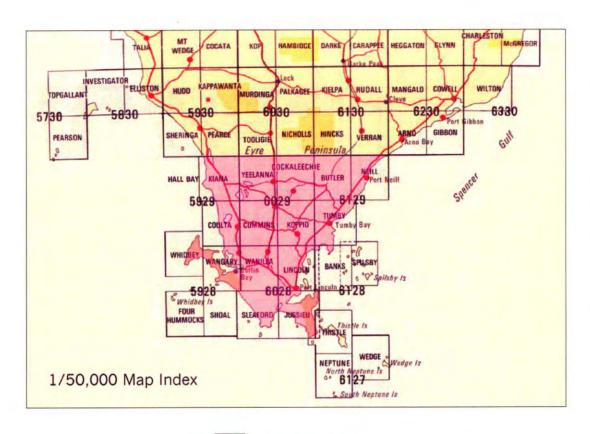
APPENDIX

APPENDIX 1: Original Scope of Project.

APPENDIX 2: South Australian (Southern Eyre Peninsula) Butterfly Data.

APPENDIX 3: Common names for South Australian (Southern Eyre Peninsula)

Butterflies.



Area of survey

Figure 1: Survey area, southern Eyre Peninsula.

SUMMARY

The aim of this project was to identify native vegetation remnants within the southern Eyre Peninsula region (Figure 1), that could act as suitable habitat for threatened (endangered and vulnerable) and potentially threatened (rare) butterflies, and also to assess the present or likely populations of those butterflies so that conservation management policies could be developed. The project was undertaken in conjunction with the Department of Housing and Urban Development (GIS Division) vegetation survey of southern Eyre Peninsula, so that their floristic expertise and transport facilities could be utilized. The survey was conducted over the period 8-21 October 1995.

Within these remnants, the emphasis was to locate foodplants for the threatened and potentially threatened butterflies. The basis for that emphasis was the notion that butterfly populations are largely controlled by the presence and density of their larval foodplants. A corollary to that notion, was that any degradation or loss of vegetation habitat containing the foodplants would also result in the loss of the butterfly populations (Appendix 1).

Approximately 73 sites were visited and reported upon by the author. For each reported site a list of the plants identified by the GIS teams was documented, and also a list was made of the foodplants that occurred for threatened and rare butterflies, a list of the butterflies seen during the site visit, a list of possible additional threatened and rare butterflies based on the presence and condition of their foodplants, a historical record of the last sightings of the threatened and rare butterflies at the site or in adjacent areas, a summary of the condition of the site, and finally the conservation status of the site as to whether it was protected, or privately held and subjected to grazing. Where possible, a picture of the site was included in the report.

Overall, it was found that the condition of the native vegetation remnants in southern Eyre Peninsula was good, and that collectively there was an adequate cross section of preserved habitat, except along the east side of the Koppio Hills. Some clearing and degradation was noted to be still occurring at some of the privately held sites.

The survey indicated that population levels of most of the (presently categorised) threatened or rare butterfly species had declined, when compared to historical levels. Although several of these species were widespread, their population numbers were exceedingly low. The reason for this is puzzling, considering that there appears to be an adequate distribution of conserved native vegetation and foodplant. One possible reason is that the decline is a temporary condition brought about by the preceding years of drought.

Among the threatened species encountered was Ogyris otanes (small brown azure), which was documented for the first time from Eyre Peninsula. One threatened species Trapezites luteus (rare white spot skipper), is now likely to be extinct in the region.

SUMMARY OF BUTTERFLY DISTRIBUTION AND VULNERABILITY

Butterflies are good survivors and are extremely tolerant of environmental abuse. If they are not present in an area, where they are expected to be, then it is a good indication that some environmental catastrophe has either happened historically or is presently occurring. The obvious and usual catastrophe is the loss of their foodhost due to clearing, or overgrazing by feral or domestic animals. Fires are also catastrophic, especially when major, and particularly at the present time with the loss of regional habitat preventing species replenishment. Another major catastrophe, also particularly noticeable at present within intensive-use agricultural areas is the massive use of sprays (insecticides, dipel, weedicides etc), to protect legume crops, especially those distributed by aerial means.

There are presently 73 species of butterfly recorded from South Australia, from a total known number of approximately 400 species within Australia. Seventeen of the South Australian species are threatened, of which three are largely endemic to South Australia. Within the southern Eyre Peninsula region 45 species of butterfly have been recorded, with a further five species likely to occur, and one species (*Hesperilla chrysotricha naua*), is endemic to the region. The following is a detailed examination of each threatened and rare butterfly species likely to be encountered within the survey area. Refer to Appendix 2 for present vulnerability and foodhost list for each butterfly. Common names for the butterflies are included in Appendix 3.

In Eyre Peninsula (where the remnant native vegetation is still reasonably widespread compared to the rest of the agriculturalized areas of South Australia), it would be possible to re-establish butterflies by the simple method of reintroducing their foodhost to an area.

Family **HESPERIIDAE** (Skippers)

In South Australia, these butterflies favour grasses and sedges as foodplants, and are especially vulnerable to the effects of agriculture and urbanization, and have suffered the most among the butterflies with most of the species in South Australia now either threatened or rare. On the other hand, these butterflies would be the easiest to re-establish and conserve due to their simple requirements, and that they usually do not wander very far from their foodplant.

Trapezites luteus (V): This butterfly was not seen during the survey and it now may be extinct in the southern Eyre Peninsula region. Its particular Lomandra foodplants (L. densiflora and L. multiflora dura) were not recorded during this survey, and unfortunately these two plants are also favoured by grazing animals, both domestic and kangaroos, putting the species under a lot of pressure. The butterfly was last recorded from the region in 1911 (Port Lincoln). Its original habitat was probably the lush Eucalyptus odorata (peppermint gum) forests in the heavy soil areas along the east side of the Koppio Hills, which were also the first areas to be denuded for agriculture. Vegetation remnants of this eco-system are now extremely rare in the region. The last known remaining strongholds of this butterfly in South Australia are the iron-grass (Lomandra) tussock-lands of the pastoral and conserved areas of the Midnorth and Flinders Ranges.

Trapezites sciron eremicola (V): This butterfly was recorded from several areas in the north and northwest parts of the survey. Its previous distribution in Eyre Peninsula was from a single hilltop in the eastern part of Hincks Conservation Park. Its foodplant is Lomandra collina which was relatively common throughout the survey area, as indeed it is throughout

most of southern South Australia. It is therefore surprising the butterfly is not more common in the region, or in other areas of South Australia where its foodplant occurs. It obviously requires a certain type of niche which has not been studied. The butterfly is also currently reported from mallee areas in Billiatt and Ngarkat Conservation Parks in the Murray Mallee.

Anisynta cynone gracilis (R): This butterfly was not encountered during the survey, nor has it ever been previously recorded from the region. It has a short flight period during autumn and its early stages are difficult to find. It prefers open grassland habitat. Habitat conducive to its occurrence and survival exist in southern Eyre Peninsula, particularly along the undisturbed coastal reserves. It is still locally found in the Adelaide area, within the coastal reserves from Port Wakefield south to Aldinga, and it is expected to remain at those coastal sites provided they remain undisturbed. Away from the coast the butterfly is now very rarely seen due to agricultural disturbance.

Herimosa albovenata albovenata (V): This butterfly was also not seen during the survey. Its foodplant range has not been fully determined, presently known to consist of several small, wiry spear-grasses Stipa scabra, S. eremophila and possibly S. semibarbata. This is another butterfly with a very short, specific flight time during early spring, and is therefore difficult to survey. It may be more common than indicated as its foodplants are widespread throughout South Australia. Stipa scabra was commonly recorded throughout this survey. It normally requires broad-acre native grasslands for survival, and besides conservation parks, this inevitably means either road side or rail verges, or private land, which are vulnerable to the whims of man, grazing animals and agricultural disturbances. It will most likely require specific grassland conservation for its long term survival. It is presently known from several widely spaced areas within pastoral regions of South Australia. The closest recording to southern Eyre Peninsula is from the Botenella Hills near Kimba.

Hesperilla chrysotricha naua (V): This endemic butterfly to southern Eyre Peninsula was historically reported as being common at most of the abundant localities of its foodplant Gahnia filum and Gahnia trifida. These Gahnia areas are still common in the region, although not as continuous as they were before agricultural disturbance. During this survey the butterfly was found to be extremely rare, being seen at only a few places. Its strongest presence was along the western side of the Sleaford Mere, and thankfully within the Sleaford Mere Conservation Park.

In most areas the above *Gahnia* was usually in good condition, with not much evidence of over-grazing, and therefore the low abundance of the butterfly was surprising. There were however, some areas where farmers were attempting to destoy the *Gahnia* by burning off and presumably this has been occurring in other areas in the past which would be one possible way the butterfly populations were decimated to their present levels.

If **immediate measures** can be taken to conserve these *Gahnia* sites on private land it should be possible to stop the decline of the butterfly. The burning off of the *Gahnia* is not critical to the butterflies' survival, provided not all of the *Gahnia* at a given site is burnt at once. The burn off is usually not enough to kill the *Gahnia* provided it is not annually repeated, in fact it is actually good for the *Gahnia* as it removes much of the older, non-functional leaves and promotes abundant young growth. In the past the new growth was used as fodder for stock. The *Hesperilla* larvae also have a profound preference for the new growth, and provided the growth is not overgrazed the larvae and stock should be able to co-exist. However, non-burnt or non-grazed areas in a single population, must be kept in reserve which can act as a

butterfly reservoir for continual replenishment in case of a mishap in the grazed or burnt areas. Some light grazing would probably still be needed in the protected areas to keep excessive growth to manageable levels.

Hesperilla donnysa diluta (R): Historically, this butterfly was also commonly reported on the larger growing Gahnia. During this survey the butterfly was still present in the region, and although widespread, was usually rare in its occurrence. It was very rarely encountered on its preferred foodplants Gahnia filum and Gahnia trifida, probably for the same reasons as outlined above for Hesperilla chrysotricha. However, H. donnysa can also manage to survive on the less nutritional Gahnia deusta, which is common and widespread in southern Eyre Peninsula and it is probably for this reason the butterfly is managing a widespead presence.

The conservation measures recommended above for *H. chrysotricha* would also be suitable for *H. donnysa*, as both butterflies will normally coexist.

Motasingha trimaculata trimaculata (R): This is a naturally rare species even though its Lepidosperma foodplant is common and widespread. It was only seen in the Wanilla and Mount Drummond areas during the survey, where it has been historically recorded. It prefers pristine habitat, and is likely to still occur at very localized sites throughout the range of its foodplant.

Antipodia atralba (R): Historically, this butterfly was once common where its foodplants Gahnia lanigera and Gahnia ancistrophylla occurred. During this survey it was found to be rare, but widespread. Its most common occurrence was along the coastal cliff-tops near White Lookout on Whalers Way, where Gahnia lanigera was growing.

Family PIERIDAE (Whites and Yellows)

Delias aganippe (R): This magnificent butterfly was occasionally encountered near one its preferred foodplants Amyema melaleucae. The latter only occurring on Melaleuca lanceolata growing in the coastal reserves along the east side of southern Eyre Peninsula. The butterfly is now rarely seen in South Australia. Its foodplants are common and widespread yet the butterfly remains very rare, with only occasional sightings throughout the southern half of the state. The reason for its decline is not known. It would be possible to reintroduce the butterfly to its southern haunts, but as the butterfly has migration tendencies it may be that this inclination is also causing its present rarity with an inherited inability to stay in one place.

Family LYCAENIDAE (Coppers and Blues)

The endemic species of the Lycaenidae have suffered the most in South Australia, due to their particular requirements of either a very narrow range of foodhosts or dependence on the presence of certain ants which also have particular requirements. Most of these threatened species now appear to be confined to large conservation parks. These same butterflies would be very difficult to re-establish and conserve due to their exacting requirements.

Lucia limbaria (R): This butterfly was not seen during the survey, nor has it ever been recorded from Eyre Peninsula. Its foodplant is common and widespread throughout southern South Australia but the butterfly remains scarce. This is probably because it requires exacting biological conditions for its survival, namely cool temperate localities, or damp

areas, where the foodplant Oxalis perennans remains in active growth over the dry summer months, and particularly where the habitat is not too congested with high grasses and is not over grazed. It is an extremely localized butterfly and very hard to detect in the field unless flying. It was very rarely encountered in South Australia until recently, when three colonies were found in the Mt Lofty Range, and another in the southern Flinders Range. It may be more rare than indicated, but this cannot be substantiated due to the lack of survey data.

Hypochrysops ignitus ignitus (V): This exquisite butterfly was not detected during the survey. This may have been partly due to its flight period being later than that of the survey. It has numerous foodplants but is totally dependent on one species of attendant ant which favours large areas of pristine native vegetation. This ant was commonly seen during the survey and it is probable the butterfly still exists in the region. The butterfly was last seen about 1890 (Port Lincoln). It still occurs locally in vulnerable habitat in conservation parks of the Murray Mallee, Southeast and Yorke Peninsula.

Acrodipsas brisbanensis (E): This butterfly was also not seen during the survey, again probably due to its flight period being later than the survey. It was only recently detected by the author for the first time in South Australia, within the Ngarkat Conservation Park. It favours hilltops in large areas of pristine native vegetation. Its larvae eat the immature stages of small black ants, of the same species that associate with Hypochrysops ignitus, so both butterflies should occur together, and it is likely the Acrodipsas is as widespread as the Hypochrysops.

Ogyris amaryllis meridionalis (L): This brilliant blue butterfly was encountered in the southern Eyre Peninsula region for the first time during this survey. It was in a form similar to that which occurs on Yorke Peninsula and in the Mount Lofty Range. It was seen where ever its preferred foodplant, the mistletoe Amyema melaleucae was present. This butterfly is worth more attention as it has high tourist appeal due to its brilliant metallic-blue colouration, and it is always an eye opening experience when seen flying.

Ogyris idmo halmaturia (E): This unique but critically endangered butterfly was also not detected during the survey. It has not been seen in the southern Eyre Peninsula region since 1890, when a single specimen was recorded from Port Lincoln. The reason for its decline is not known. The butterfly is remarkable in that for survival it is believed its larvae eat the immature stages of certain sugar-ants which occur commonly throughout the area. It may still occur in major conservation parks such as Flinders Chase, Lincoln, Ngarkat and Yumbarra/Pinkawillinie, but would require a major survey for its detection as it has a short summer flying period and is very difficult to detect in the field.

Ogyris nsp (V): This recently discovered butterfly, awaiting a scientific name, has very similar habits and life history to O. idmo. It was not seen during this survey although suitable habitat is present throughout Eyre Peninsula. Its occurrence is presently restricted to the Riverland where it occurs at several vulnerable locations. It should be relatively easy to relocate this species to major conservation parks.

Ogyris otanes (V): This butterfly was discovered on Eyre Peninsula for the first time during this survey. Recent research by the author on this butterfly and its parasitic foodplant Choretrum glomeratum, has indicated the butterfly (like several other very rare Lycaenid species), is very particular upon which plant it chooses to colonize, presumably related to the presence of its attendant sugar-ant. The density of this foodplant colonization is often poorer

than one in thirty and this may be the reason for the rarity of the butterfly, as it is now realized the plant is rarely encountered in such numbers. The foodplant was growing in relative abundance at only three areas in the survey, namely the north-east Koppio area, the Lincoln National Park, and in pristine mallee scrub at the north end of the Kiana sheet. Its larval presence was seen at the former location. Flying adults were seen in the Whalers Way Heritage Park, although its foodplant was not seen in that area. The butterfly has recently been found in other widespread areas of South Australia, but the rarity of its colonisation still leaves the butterfly a threatened species, and it is highly vulnerable to bush fires. The only way the numbers of this butterfly can be increased it to re-establish *Choretrum glomeratum* in conservation parks. This plant, like *Santalum acuminatum* appears to have no bad effects upon other vegetation.

Jalmenus icilius (R): This butterfly was not encountered during the survey, nor has it previously been recorded from southern Eyre Peninsula. Its foodplants are common and widespread throughout the area, but the butterfly is very local in its habits and difficult to detect in the field unless flying. It is likely to be eventually found in the region. The closest area of known habitation is near Whyalla.

Jalmenus lithochroa (V): The record and habits of this butterfly are the same as for J. icilius above. It is still locally present in the Flinders Ranges, where it appears to be dependent upon Acacia victoriae as a foodplant, which occurs mainly in pastoral areas and is vulnerable to the effects of over grazing.

Cyprotides(Candalides) cyprotus cyprotus (R): Until recently not much was known about this butterfly. Its known foodplants in South Australia (Grevillea huegelii and Hakea leucoptera), were recently determined by the author and it is now believed the butterfly is widespread but naturally rare in its occurrence. It may be present in the southern Eyre Peninsula region. However, neither of the two foodplants above were encountered during the survey, although it is possible the butterfly may also use Grevillea ilicifolia and Hakea cycloptera as foodplants, which were reasonably common.

Microscena(Candalides) heathi (R): This butterfly was not encountered during the survey, nor has it previously been recorded from southern Eyre Peninsula. It is another naturally rare species, although widespread in its occurrence. It tends to occur in defined localities, and has developed a preference for the introduced *Plantago lanceolata as a foodplant.

Theclinesthes albocincta (L): This butterfly was thought to be rare, but during the survey its foodplant Adriana klotzschii was found to be common in the back-dune areas along the coast. The butterfly was seen to occur at nearly all the areas of Adriana, but it will require conservation measures to ensure the Adriana is protected from uncontrolled beach access.

CONSERVATION MANAGEMENT RECOMMENDATIONS

Management recommendations have been made on the individual site summaries. However, several major recommendations are proposed here.

- 1. The present distribution and density of native vegetation in southern Eyre Peninsula is adequate for the conservation of known threatened butterflies in the region, **provided no more of this vegetation is allowed to be cleared or degraded**. It is supporting viable colonies of the vulnerable butterflies *Trapezites sciron* and *Ogyris otanes*. With further surveys it is suspected other threatened butterfly species will also be eventually found in the region.
- 2. The wetland areas containing Gahnia filum and Gahnia trifida need special conservation measures to preserve their integrity. It was noted there has been a serious decline in the numbers of Hesperilla skippers, which are dependent upon Gahnia as foodplants. This was despite the fact that the Gahnia is presently in good shape. A survey needs to be undertaken of the owners of the Gahnia wetlands to determine the management history of the latter. The reason for this is to determine if the Gahnia has a history of overgrazing, burn-off, proximity to toxic spray drift or whether it is pristine. A better understanding of the historical aspect of the wetlands would then ensure implementation of the correct conservation measures. Possible protective measures for the Gahnia were outlined above under the individual management procedures for the Hesperilla butterflies, where it was recommended certain portions of the wetlands should be permanently preserved.
- 3. The Whalers Way Heritage area is still much a wilderness area and should be acquired by the government if it comes onto the market as it compliments the Lincoln National Park. Similarly, control of the land management aspect of the Waterworks Reserve should pass to the Department of Environment and made into a conservation area. This would ultimately set up quite a large wilderness area in the southern Eyre Peninsula region, and a potential tourist attraction on the same scale as some of the larger National Parks in the U.S.A.

SPECIES	LOCATIO	N	ΙΞ	2	33	4	=	=	2	010	01	[5]	[5]
Family Hesperiidae Trapezites sciron eremicola V	200		020	050	020	020	030	020	1F(00	110	12	13
Family Hesperiidae Trapezites sciron eremicola V			Ŏ	0	O N	0 7	0 7	0.0	2.0	M (M (Σ
Family Hesperiidae Trapezites sciron eremicola V	SPECIES		BAl	BAl	BAl	BAl	BAl	CO	S	CI	CO	5	[5]
Trapezites sciron eremicola Hesperilla chrysotricha naua Hesperilla donnysa diluta To Motasingha trimaculata trimaculata Family Papilionidae Framily Papilionidae Frinceps demoleus sthenelus Frinceps demoleus Frinceps demol	Family Hesperiidae												
Hesperilla chrysotricha naua	Trapezites sciron eremicola	٧							Х				
Motasingha trimaculata r	Hesperilla chrysotricha naua	٧	·										
Motasingha trimaculata r	Hesperilla donnysa diluta	r											
Antipodia atralba r		r											
Princeps demoleus sthenelus (v)	Antipodia atralba	Г							Х				
Princeps demoleus sthenelus (v)	Family Papilionidae												
Family Pieridae Eurema smilax m Delias aganippe r X Subfamily Nymphalidae Subfamily Danainae Danaus chrysippus Geitoneura klugii klugii Subfamily Nymphalinae Vanessa kershawi Ic X X X X X X X X X X X X X X X X X X X		(v)							х				
Eurema smilax m x x x x x x x x x x x x x x x x x x													
*Pieris rapae rapae	Eurema smilax	m							Х				
*Pieris rapae rapae	Delias aganippe	Г			Х								
Family Nymphalidae Subfamily Danainae Danaus chrysippus Subfamily Satyrinae Geitoneura klugii klugii Subfamily Nymphalinae Vanessa kershawi Ic x x x x x x x x x x x x x x x x x x x		lc	Х				•		Х		х	х	
Subfamily Danainae Danaus chrysippus Subfamily Satyrinae Geitoneura klugii klugii													
Subfamily Satyrinae Geitoneura klugii klugii Subfamily Nymphalinae Vanessa kershawi Ic x x x x x x x x x x x x x x x x x x x	Subfamily Danainae												
Subfamily Satyrinae Geitoneura klugii klugii Subfamily Nymphalinae Vanessa kershawi Ic x x x x x x x x x x x x x x x x x x x	Danaus chrysippus	(v)						·	X				
Geitoneura klugii klugii C	Subfamily Satyrinae												
Vanessa kershawi	Geitoneura klugii klugii	lc											
Family Lycaenidae Ogyris amaryllis meridionalis I X X X Ogyris otanes Erina acastus Erina hyacinthinus simplex Nacaduba biocellata biocellata Neolucia agricola agricola Theclinesthes albocincta I X X X I X X X I X X X I X X X I X X X X	Subfamily Nymphalinae												
Family Lycaenidae Ogyris amaryllis meridionalis I X X X Ogyris otanes V	Vanessa kershawi	lc	Х	х	Х	Х	Х	Х	X				
Ogyris amaryllis meridionalis I X X I Ogyris otanes V V V V V V V V V V V V V V V V V V V	Junonia villida calybe	lc						X	X				
Ogyris otanes	Family Lycaenidae												
Ogyris otanes	Ogyris amaryllis meridionalis	Ι.				Х	Х						
Erina hyacinthinus simplex Nacaduba biocellata lc Neolucia agricola agricola I x x x x x x Inheclinesthes albocincta I l l l l l l l l l l l l l l l l l l l	Ogyris otanes	٧											
Nacaduba biocellata biocellata	Erina acastus	I							Х				
Neolucia agricola agricola I X X X X X X I X I I I I I I I I I I	Erina hyacinthinus simplex	1											
Theclinesthes albocincta	Nacaduba biocellata biocellata	lc											
Theclinesthes serpentata serpentata lc Lampides boeticus	Neolucia agricola agricola	I	X	х	X				X				
Lampides boeticus	Theclinesthes albocincta	ı											
Lampides boeticus	Theclinesthes serpentata serpentata	lc											
	Lampides boeticus	-											
	Zizina labradus labradus	lc	Х	Х		X	X		X			Х	

Table 1: Actual butterfly population seen during survey.

Banks, Cockaleechie and Cummins Map Sheets.

T.O.C.	NAT.		-	Г—		I —						r	_
LOCATIO	JN	9	20	70	30	9	50	5	12	JUS 00402	03	12	12
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		 	₹	<u> </u>	\(\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	₹	Ξ	S	S (S	S	S	
SPECIES	<u></u>	<u> </u>	C		CI	<u>5</u>	CI	$\frac{1}{10}$	13	13	3	Ω	
Family Hesperiidae						<u> </u>	,		_				
Trapezites sciron eremicola	٧												
Hesperilla chrysotricha naua	٧												
Hesperilla donnysa diluta	ŗ	х					х						
Motasingha trimaculata trimaculata	r												
Antipodia atralba	r												
Family Papilionidae								_					
Princeps demoleus sthenelus	(v)												
Family Pieridae													
Eurema smilax	m .												-
Delias aganippe	Г												
*Pieris rapae rapae	lc		Х										
Family Nymphalidae													
Subfamily Danainae													
Danaus chrysippus	(v)					х							
Subfamily Satyrinae													
Geitoneura klugii klugii	lc					х						T	
Subfamily Nymphalinae													
Vanessa kershawi	lc				х	х	х						
Junonia villida calybe	lc				х	х	х						
Family Lycaenidae													
Ogyris amaryllis meridionalis									х			х	
Ogyris otanes	v						Ì						
Erina acastus	T												
Erina hyacinthinus simplex													
Nacaduba biocellata biocellata	lc					х				一	一		
Neolucia agricola agricola	1					1			一	_			
Theclinesthes albocincta	T			\neg	ヿ	一		\dashv		\neg			
Theclinesthes serpentata serpentata	lc	一			一						寸		\neg
Lampides boeticus	1		_			х			一		1	寸	\exists
Zizina labradus labradus	lc	一	\dashv			\mathbf{x}	$\neg \uparrow$		一			\dashv	
*													

Table 2: Actual butterfly population seen during survey. Cummins, Jussieu and Lincoln Map Sheets.

LOCATION	ı T	_	1	1	1		=	2	33)])1	=
Location	`	020	100	110	120	A	030	030	030	040	KIA 00501	90
		SO	S 0	0 S	S 0	LK	4 O	A 0	4 O	4 O	A 0	A 0
SPECIES		J.	JŪ	Σ	JU	T	KL	ΚĽ	KL	ΚĽ	KL	KL
Family Hesperiidae												
	٧						X					
Hesperilla chrysotricha naua	v					Х						
Hesperilla donnysa diluta	r			X			X	X				
Motasingha trimaculata trimaculata	r											
Antipodia atralba	r			X			X	X				Х
Family Papilionidae												
	(v)										Х	
Family Pieridae												
Eurema smilax	m											
Delias aganippe	r											
*Pieris rapae rapae	lc						X				X	X
Family Nymphalidae												
Subfamily Danainae												
Danaus chrysippus ((v)											
Subfamily Satyrinae												
Geitoneura klugii klugii	lc						X	X			X	X
Subfamily Nymphalinae												
Vanessa kershawi	lc											
Junonia villida calybe	lc							X				
Family Lycaenidae												
Ogyris amaryllis meridionalis	1											
Ogyris otanes	v	х										
Erina acastus	1											Х
Erina hyacinthinus simplex	1			х								
Nacaduba biocellata biocellata	ic						х				X	x
Neolucia agricola agricola	1											X
Theclinesthes albocincta	i									Х		
	lc											X
Lampides boeticus	i										Х	
Zizina labradus labradus	lc			<u> </u>			X	X				X

Table 3: Actual butterfly population seen during survey.

Jussieu and Kiana Map Sheets.

LOCATION	τ.								ΓE			
LOCATION	١				l .	l		W	3	똤		<u> </u>
		801	201	801	901	201	301	Τ	ĕ.	\leq	201	104
		00	01,	018	014	02.	02.	ΕI	AII) R	00	8
SDECIES		IA	KIA 01201	IA	Ι	ΙV	IA	AK	Z	0	LE	田
SPECIES	\geq	K	X	K	X	X	K			Œ	S	S
Family Hesperiidae			\vdash									_
7	<u> </u>											
Hesperilla chrysotricha naua	٧											Х
Hesperilla donnysa diluta	r							Х	Х			
Motasingha trimaculata trimaculata	<u>r</u>	X	\vdash									
Antipodia atralba	r	Х	X								Х	ļ
Family Papilionidae												
	(v)			X								
Family Pieridae												
Eurema smilax	m											
Delias aganippe	r											
2 11 12 12 12 12 12 12 12 12 12 12 12 12	lc		X		Х							
Family Nymphalidae	_											
Subfamily Danainae												
Danaus chrysippus (V)											
Subfamily Satyrinae	·											
Geitoneura klugii klugii	<u>5</u>				Х						Х	Х
Subfamily Nymphalinae			•									
Vanessa kershawi	C				X							X
Junonia villida calybe	lc		Х									х
Family Lycaenidae												
Ogyris amaryllis meridionalis												
Ogyris otanes	٧											
Erina acastus			х									
Erina hyacinthinus simplex	_											
Nacaduba biocellata biocellata	lc		Х									
Neolucia agricola agricola	ı		Х									
Theclinesthes albocincta	_					X	X		X			
Theclinesthes serpentata serpentata	lc											
Lampides boeticus	Ι		х		Х							
	lc		х		Х							

Table 4: Actual butterfly population seen during survey.

Kiana, Lincoln, Pearce and Sleaford Map Sheets.

LOCATION	т 1		2	m		-	1	1		1	2	1
LOCATION	۱ ۱	70	70,	70;	01	06	00	20	40	9	.09	E3
		01	01	01	18	01	0.5	0.7	0.	02	0.7	02
SPECIES		SLE 01701). SLE). SLE). SLE	3LE). E). SLE	SLE)LE	SLE 02602	SLE
Family Hesperiidae	\exists	7	V 2	V 3			- 51	<u> </u>	5 2	5 2	V 2	0,1
-	\overline{v}											
	v											х
	7				Х		х		х	х	Х	-
	7								x?			
**	7					Х			Х	Х		
Family Papilionidae	寸							-				
	v)											
Family Pieridae												
	m											
Delias aganippe	7											
	lc											
Family Nymphalidae					·							
Subfamily Danainae												
	v)											
Subfamily Satyrinae	\neg											
	lc				Х							
Subfamily Nymphalinae	コ											
	lc	х	х	х	Х				Х			
Junonia villida calybe	lc				Х				Х		X	
Family Lycaenidae												
Ogyris amaryllis meridionalis	1											
Ogyris otanes	v								X			
Erina acastus	1		Х								X	
Erina hyacinthinus simplex												
Nacaduba biocellata biocellata	lc									X		
Neolucia agricola agricola				Х	X	X			X	X		
Theclinesthes albocincta												
Theclinesthes serpentata serpentata	lc											
Lampides boeticus					, .	X				Х		
Zizina labradus labradus l	ic	X	X	X	X				X			

Table 5: Actual butterfly population seen during survey. Sleaford Map Sheet.

SPECIES	N	SLEAFORD MERE	ARNANA	WHITE LOOKOUT	UM 01001	WAG 00403	WAG 00501	WAG 01001	WAG 01002	WAG 02F17	WAG 01003	WAN 00102	WAN 00103
Family Hesperiidae		<i>9</i> 2	J		-								
Trapezites sciron eremicola	V												
Hesperilla chrysotricha naua	v	х											
Hesperilla donnysa diluta	r	X							x	-	x	X	
Motasingha trimaculata trimaculata	r					\vdash				 			
Antipodia atralba	r			Х		ļ		-	х		х	х	
Family Papilionidae													
Princeps demoleus sthenelus	(v)												
Family Pieridae	` '							 					
Eurema smilax	m			X						\Box			
Delias aganippe	ſ				х								
*Pieris rapae rapae	lc			х									
Family Nymphalidae													
Subfamily Danainae													
Danaus chrysippus	(v)												
Subfamily Satyrinae													
Geitoneura klugii klugii	lc								х		Х		
Subfamily Nymphalinae													
Vanessa kershawi	lc		Х									Х	
Junonia villida calybe	lc											х	
Family Lycaenidae													
Ogyris amaryllis meridionalis													
Ogyris otanes	٧			Х									
Erina acastus	1											Х	
Erina hyacinthinus simplex	1												
Nacaduba biocellata biocellata	lc								Х			X	
Neolucia agricola agricola	1			Х								X	
Theclinesthes albocincta	1					х			X				
Theclinesthes serpentata serpentata	lc												
Lampides boeticus	ı											X	
Zizina labradus labradus	lc		X						х		X	X	

Table 6: Actual butterfly population seen during survey.
Sleaford, Tumby, Wangary and Wanilla Map Sheets.

LOCATION	ON	Γ	Γ	ш				
LOCATE	ON	_	₽.	TI			_	٠. ا
		20	Æ	00	701	801	901	F2.
		ŏ	S.	Š	01	01	01	01
CRECIEC		WAN 00201	BIG SWAMP	/A	EE	EE	E	EE
SPECIES		15	B	×	٨	Y	Ϋ́	Y
Family Hesperiidae		 -	<u> </u>					
Trapezites sciron eremicola	<u> </u>							
Hesperilla chrysotricha naua	<u> v</u>	<u> </u>						
Hesperilla donnysa diluta	ſ		ļ			Х		
Motasingha trimaculata trimaculata	r	Х	<u> </u>					
Antipodia atralba	r	Х						
Family Papilionidae	, ,							
Princeps demoleus sthenelus	(v)							
Family Pieridae								
Eurema smilax	m							
Delias aganippe	r							
*Pieris rapae rapae	lc					х		
Family Nymphalidae								
Subfamily Danainae								
Danaus chrysippus	(v)							
Subfamily Satyrinae								
Geitoneura klugii klugii	lc	х				Х		
Subfamily Nymphalinae								
Vanessa kershawi	lc							
Junonia villida calybe	lc	х				х		
Family Lycaenidae								
Ogyris amaryllis meridionalis	Ī							
Ogyris otanes	٧							
Erina acastus	ı							
Erina hyacinthinus simplex	ı							
Nacaduba biocellata biocellata	lc					Х		
Neolucia agricola agricola	1							
Theclinesthes albocincta	1							
Theclinesthes serpentata serpentata	lc							
Lampides boeticus	l							-
Zizina labradus labradus	lc	х				х		

Table 7: Actual butterfly population seen during survey. Wanilla and Yeelanna Map Sheets.

SUMMARY OF SITES

SUMMARY OF SITES

The locations for the sites are based on the GIS survey quadrats. The site summaries are arranged within the report in numerical order with respect to each GIS quadrat number within each 1/50,000 map sheet. (Note however, each site has been given a contents listing number 1-63, which have not been used for indexing purposes). The map sheets are arranged in alphabetical order according to their names, (see Figure 1 for list of mapsheets).

The summaries should be read in conjunction with the 'Southern Eyre Peninsula Landcover' 1/200,000 database map produced by the Department of Housing and Urban Development (GIS Division). This map displays roads, towns, lakes, rivers, remnant vegetation cover, the locations of the various quadrat sites, as well as the outlines of the 1/50,000 mapsheets. It has not been included in this report.

Each site has been summarized according to the following definitions.

DEFINITIONS OF SITE SUMMARY

LOCATION: Self evident. Usually based on a Department of Housing and Urban Development (GIS Division) quadrat (30 x 30 metre square), but includes an area up to 1/2 km from the site in which the author surveyed for the presence of butterflies and their foodhosts. Only a small percentage of the GIS sites were managed to be surveyed by the author. Some non GIS spot surveys are included which were conducted either during the GIS survey, or done at a later late (end of March 1996) when the author was invited back to the region by the Society for Growing Australian Plants.

DATE & LENGTH OF SURVEY: Self evident.

WEATHER CONDITION: Weather conditions at the time of survey. This is important for the surveying of adult butterflies as they mostly fly during the heat of the day. They normally will not fly in rain, cold strong winds, extremely hot conditions, or in heavy overcast.

VEGETATION DOMAIN: Self evident.

DOMINANT VEGETATION: Self evident.

CONDITION: Condition and distribution information of the remnant vegetation, and a list of the plants collected and identified by the GIS personnel within their survey quadrat. Some additional records of foodplants for butterflies were made by the author outside of the quadrat.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY

THREATENED BUTTERFLIES: A list of the butterfly foodplants occurring within the survey area, for threatened (endangered and vulnerable), potentially threatened (rare) and for butterflies of (local) significance.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): A list of the most recent historical recordings of the threatened butterflies, potentially threatened butterflies, and of butterflies of (local) significance, which occurred within or nearby, to the survey area. It also includes a notation if these butterflies should have occurred based upon historical records of the general eco-system, and noted as no previous record.

ACTUAL BUTTERFLY POPULATION: A list of all the butterflies seen within the survey area during the limited time period of the survey.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: A list of butterflies which are likely to occur within the survey area based on the presence and preservation condition of their foodplant, but which were not seen during the survey period.

SUMMARY: Management comments on the current preservation and significance of the remnant vegetation and butterfly population.

CONSERVATION STATUS: A record of whether the surveyed vegetation remnant is currently conserved, (as a National Park, Conservation Park, Linear Park, Recreation Park, Wildlife Park, Coastal Reserve, Council Reserve, Forest Reserve, Game Reserve, Highways Reserve, Lighthouse Reserve, Rail Reserve, Regional Reserve, SA Water Reserve, Transport Authority Reserve, Botanic Garden, Commonwealth Land, State Land, Conservation Trusts, National Trust, National Estate, Heritage Listing, Private Land, etc).

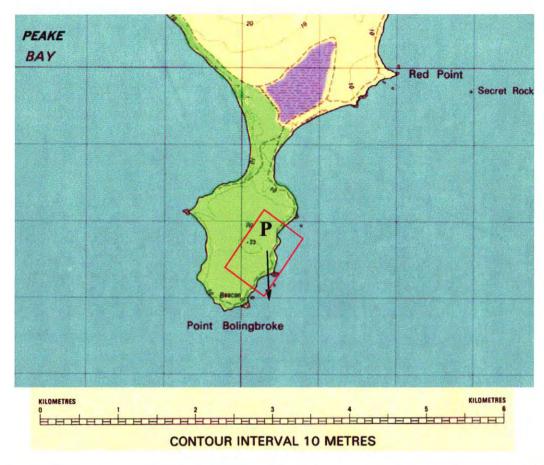
SITES ON THE BANKS 1/50,000 SHEET

- 1. BAN 00201, 34 32 18, 136 05 36, 600321, 6177609. (Point Bolingbroke, 18 km south of Tumby Bay).
- 2. BAN 00202, 34 32 09, 136 05 27, 600095, 6177886. (Point Bolingbroke, 18 km south of Tumby Bay).
- 3. BAN 00203, 34 31 57, 136 05 10, 599660, 6178255. (Point Bolingbroke, 18 km south of Tumby Bay).
- 4. BAN 00204, 34 31 27, 136 05 38, 600403, 6179175. (Point Bolingbroke, 18 km south of Tumby Bay).
- 5. BAN 00301, 34 30 29, 136 04 30, 598688, 6180986. (Point Bolingbroke, 18 km south of Tumby Bay).

LOCATION: BAN 00201, 34 32 18, 136 05 36, 600321, 6177609.

(Point Bolingbroke, 18 km south of Tumby Bay).

MAPSHEET: Banks 1/50,000.





LOCATION: BAN 00201, 34 32 18, 136 05 36, 600321, 6177609, Banks 1/50000 Sheet. (Point Bolingbroke, 18 km south of Tumby Bay).

DATE & LENGTH OF SURVEY: 20 October 1995. 1 1/2 hrs

WEATHER CONDITION: Sunny, with a very strong, cold, southerly wind.

VEGETATION DOMAIN: Coastal heath and mallee.

DOMINANT VEGETATION: Mixed.

CONDITION: This site forms part of the Point Bolingbroke vegetation remnant. The vegetation is in pristine condition, and is situated on white-sand covered limestone, at the eastern side of the point, along an elevated limestone cliff area. The area is windswept by the prevailing winds causing a strong stunting of the mallee vegetation.

The vegetation present includes Acacia cupularis, A. farinosa, A. spinescens, Allocasuarina muelleriana muelleriana, Amyema melaleucae on Melaleuca lanceolata, Astroloma conostephioides, Billardiera versicolor, Calytrix involucrata, Cassytha melantha, C. peninsularis, Comesperma calymega, Correa reflexa coriacea, Dianella revoluta revoluta, Eucalyptus angulosa, Eutaxia microphylla, Exocarpos aphyllus, E. syrticola, Gahnia deusta, G. lanigera, Glischrocaryon behrii, Gonocarpus mezianus, Hakea cycloptera, Hibbertia riparia (glabriuscula), H. virgata, Homoranthus wilhelmii, Hybanthus floribundus floribundus, Lepidosperma congestum, L. concavum, L. gladiatum, L. viscidum, Leptospermum coriaceum, Leucopogon cordifolius, Lomandra collina, L. leucocephala robusta, Melaleuca lanceolata, M. uncinata, Pimelea stricta, Pultenaea acerosa, Santalum acuminatum, Schoenus racemosus, Spyridium leucopogon, Stipa spp incl. S. elegantissima, Templetonia retusa, Tetragonia implexicoma, Thysanotus sp, Trachymene pilosa, Triodia scariosa scariosa, Westringia dampieri.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Amyema melaleucae, Cassytha melantha, C. peninsularis, Eutaxia microphylla, Exocarpos aphyllus, E. syrticola, Hakea cycloptera, Lepidosperma concavum, L. viscidum, Lomandra collina, perennial grasses, Pultenaea acerosa, Santalum acuminatum, Westringia sp.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Neolucia agricola agricola as well as the common species *Pieris rapae, Vanessa kershawi and Zizina labradus labradus. Antipodia atralba was not present on the Gahnia lanigera.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Delias aganippe, Ogyris amaryllis meridionalis and possibly Candalides cyprotus cyprotus, Candalides heathi heathi, Candalides hyacinthinus simplex, Motasingha trimaculata trimaculata, Theclinesthes miskini miskini and Trapezites sciron eremicola.

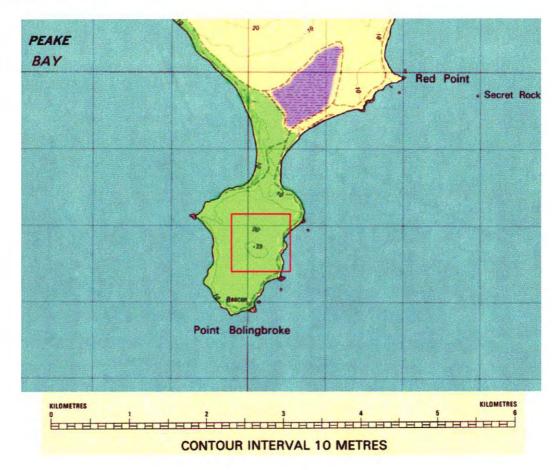
SUMMARY: Point Bolingbroke is a highly significant area of remnant vegetation for the conservation of butterflies, due to the presence of *Amyema melaleucae* infested *Melaleuca lanceolata*. The mistletoe is supporting a viable colony of *Ogyris amaryllis* (Adelaide Form). This area (Point Bolingbroke to Tumby Bay), is one of only two known areas for the mistletoe and the butterfly in the southern Eyre Peninsula region. The other colony is present on the north side of Lincoln National Park. The butterfly was discovered for the first time in the southern Eyre Peninsula Region during this survey and in these two areas. This area is also the only one during the survey, in which the rare, Wood White butterfly *Delias aganippe* was recorded.

CONSERVATION STATUS: Private Land.

LOCATION: BAN 00202, 34 32 09, 136 05 27, 600095, 6177886.

(Point Bolingbroke, 18 km south of Tumby Bay).

MAPSHEET: Banks 1/50,000.



LOCATION: BAN 00202, 34 32 09, 136 05 27, 600095, 6177886, Banks 1/50000 Sheet. (Point Bolingbroke, 18 km south of Tumby Bay).

DATE & LENGTH OF SURVEY: 20 October 1995. 1 1/2 hrs

WEATHER CONDITION: Sunny, with a very strong, cold, southerly wind.

VEGETATION DOMAIN: Coastal mallee.

DOMINANT VEGETATION: Eucalyptus angulosa.

CONDITION: This site forms part of the Point Bolingbroke vegetation remnant. The vegetation is in pristine condition, and is situated on a white-sand covered limestone ridge. The area is windswept by the prevailing winds causing a stunting of the mallee vegetation.

The vegetation present includes Acacia cupularis, A. farinosa, A. spinescens, Allocasuarina muelleriana muelleriana, Amyema melaleucae on Melaleuca lanceolata, Astroloma conostephioides, Baeckea crassifolia, Cassytha melantha, C. peninsularis, Comesperma calymega, Correa reflexa coriacea, Cryptandra leucophracta, Dianella revoluta revoluta, Dillwynia hispida, Enchylaena tomentosa tomentosa, Eucalyptus angulosa, Eucalyptus dumosa complex, Eutaxia microphylla, Exocarpos aphyllus, E. syrticola, Glischrocaryon behrii, Gonocarpus mezianus, Grevillea ilicifolia ilicifolia, Hakea cycloptera, Helichrysum leucopsideum, Hibbertia riparia, Homoranthus wilhelmii, Hybanthus floribundus floribundus, Lasiopetalum discolor, Lepidosperma congestum, L. viscidum, Leptospermum coriaceum, Leucopogon cordifolius, Logania ovata, Lomandra collina, L. leucocephala robusta, Melaleuca lanceolata, M. uncinata, Phebalium bullatum, Pimelea stricta, Prostanthera serpyllifolia microphylla, Pterostylis sanguinea, Pultenaea acerosa, Rhagodia crassifolia, Santalum acuminatum, Schoenus racemosus, Stipa spp incl. S. elegantissima, S. hemipogon, Templetonia retusa, Tetragonia implexicoma, Thysanotus patersonii, Trachymene pilosa, Triodia scariosa scariosa, Westringia dampieri.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Amyema melaleucae, Cassytha melantha, C. peninsularis, Dillwynia hispida, Eutaxia microphylla, Exocarpos aphyllus, E. syrticola, Grevillea ilicifolia ilicifolia, Hakea cycloptera, Lepidosperma viscidum, Lomandra collina, perennial grasses, Pultenaea acerosa, Santalum acuminatum, Westringia sp.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Neolucia agricola agricola as well as the common species Vanessa kershawi and Zizina labradus labradus.

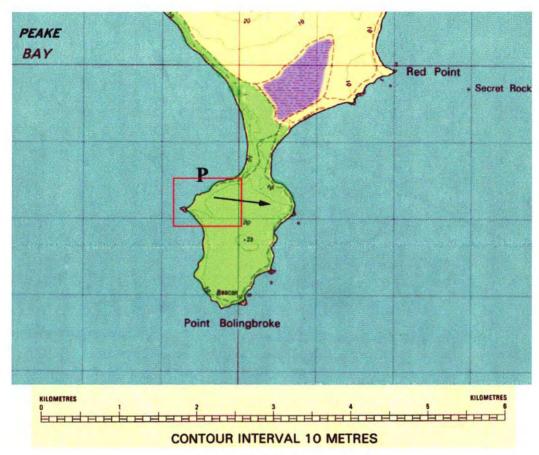
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Delias aganippe, Ogyris amaryllis meridionalis and possibly Candalides cyprotus cyprotus, Candalides heathi heathi, Candalides hyacinthinus simplex, Motasingha trimaculata trimaculata, Theclinesthes miskini miskini and Trapezites sciron eremicola.

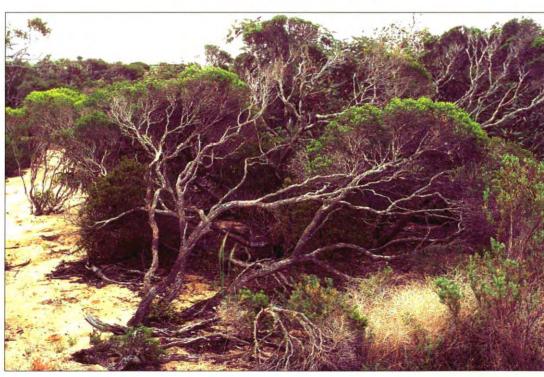
SUMMARY: Point Bolingbroke is a highly significant area of remnant vegetation for the conservation of butterflies, due to the presence of *Amyema melaleucae* infested *Melaleuca lanceolata*. The mistletoe is supporting a viable colony of *Ogyris amaryllis* (Adelaide Form). This area (Point Bolingbroke to Tumby Bay), is one of only two known areas for the mistletoe and the butterfly in the southern Eyre Peninsula region. The other colony is present on the north side of Lincoln National Park. The butterfly was discovered for the first time in the southern Eyre Peninsula Region during this survey and in these two areas. This area is also the only one during the survey, in which the rare, Wood White butterfly *Delias aganippe* was recorded.

CONSERVATION STATUS: Private Land.

LOCATION: BAN 00203, 34 31 57, 136 05 10, 599660, 6178255. (Point Bolingbroke, 18 km south of Tumby Bay).

MAPSHEET: Banks 1/50,000.





LOCATION: BAN 00203, 34 31 57, 136 05 10, 599660, 6178255, Banks 1/50000 Sheet. (Point Bolingbroke, 18 km south of Tumby Bay).

DATE & LENGTH OF SURVEY: 20 October 1995. 1 1/2 hrs

WEATHER CONDITION: Sunny, with a very strong, cold, southerly wind.

VEGETATION DOMAIN: Coastal heath and mallee.

DOMINANT VEGETATION: Mixed.

CONDITION: This site forms part of the Point Bolingbroke vegetation remnant. The vegetation is in pristine condition, and is situated on white-sand covered coastal limestone, at the western side of the point, along an elevated limestone cliff area. The area is on the lee side of the prevailing winds and the vegetation is not as stunted as on the east side of the point.

The vegetation present includes Acacia calamifolia, A. farinosa, A. rupicola, Alyxia buxifolia, Amyema melaleucae on Melaleuca lanceolata, Astroloma conostephioides, Baeckea crassifolia, Beyeria lechenaultii, Calandrinia calyptrata, Calytrix involucrata, Cassytha melantha, C. peninsularis, Correa reflexa coriacea, Dianella revoluta brevicaulis, Dillwynia hispida, Disphyma crassifolium clavellatum, Dodonaea viscosa spatulata, Enchylaena tomentosa tomentosa, Eucalyptus angulosa, E. dumosa complex, Exocarpos aphyllus, Gahnia deusta, Gonocarpus mezianus, Hibbertia riparia, Hybanthus floribundus floribundus, Lasiopetalum discolor, Lepidosperma concavum, L. viscidum, Leptospermum coriaceum, Leucopogon cordifolius, Logania ovata, Melaleuca acuminata, M. lanceolata, Olearia ramulosa, Pimelea serpyllifolia serpyllifolia, P. stricta, Spyridium leucopogon, Stipa spp incl. S. elegantissima, Tetragonia implexicoma, Trachymene pilosa, Westringia dampieri.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Amyema melaleucae, Cassytha melantha, C. peninsularis, Dillwynia hispida, Exocarpos aphyllus, Gahnia deusta, Lepidosperma concavum, L. viscidum, perennial grasses, Westringia sp.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Delias aganippe, Neolucia agricola agricola as well as the common species Vanessa kershawi.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Ogyris amaryllis meridionalis and possibly Candalides heathi heathi, Candalides hyacinthinus simplex, Motasingha trimaculata trimaculata and Theclinesthes miskini miskini.

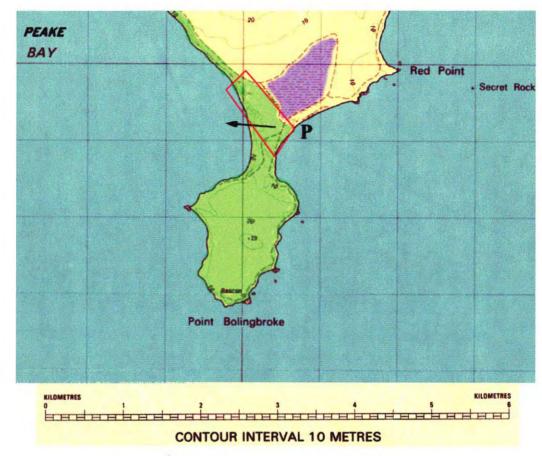
SUMMARY: Point Bolingbroke is a highly significant area of remnant vegetation for the conservation of butterflies, due to the presence of *Amyema melaleucae* infested *Melaleuca lanceolata*. The mistletoe is supporting a viable colony of *Ogyris amaryllis* (Adelaide Form). This area (Point Bolingbroke to Tumby Bay), is one of only two known areas for the mistletoe and the butterfly in the southern Eyre Peninsula region. The other colony is present on the north side of Lincoln National Park. The butterfly was discovered for the first time in the southern Eyre Peninsula Region during this survey and in these two areas. This area is also the only one during the survey, in which the rare, Wood White butterfly *Delias aganippe* was recorded.

CONSERVATION STATUS: Private Land.

LOCATION: BAN 00204, 34 31 27, 136 05 38, 600403, 6179175.

(Point Bolingbroke, 18 km south of Tumby Bay).

MAPSHEET: Banks 1/50,000.





LOCATION: BAN 00204, 34 31 27, 136 05 38, 600403, 6179175, Banks 1/50000 Sheet. (Point Bolingbroke, 18 km south of Tumby Bay).

DATE & LENGTH OF SURVEY: 20 October 1995, 28 March 1996. 4 hrs

WEATHER CONDITION: (20th) Overcast, squally, with a very strong, cold, southerly wind, (28th) Clear, warm, sultry day.

VEGETATION DOMAIN: Coastal mallee and *Melaleuca lanceolata* woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: This site forms part of the Point Bolingbroke vegetation remnant. The vegetation is in pristine condition, and is situated on white-sand dunes. The site occurs at the northern end of the vegetation remnant, although the vegetation type forms most of the northern half of the remnant. Immediately to the north of the remnant is a large saline lake, bordered with samphire marsh vegetation, but no *Gahnia filum*. Further to the north the vegetation has been removed for agriculture.

The vegetation present includes Acacia calamifolia, A. rupicola, A. spinescens, Amyema melaleucae (very common) on Melaleuca lanceolata, Baeckea crassifolia, Billardiera versicolor, Calytrix involucrata, Cassytha melantha, C. peninsularis peninsularis, Correa reflexa coriacea, Dianella revoluta revoluta, Disphyma crassifolium clavellatum, Eucalyptus angulosa, Exocarpos aphyllus, Hakea cycloptera, Hibbertia riparia, H. virgata, Homoranthus wilhelmii, Lasiopetalum discolor, Lepidosperma gladiatum, L. viscidum, Leptospermum coriaceum, Lomandra collina, L. leucocephala robusta, L. micrantha micrantha, Melaleuca lanceolata, M. uncinata, Phebalium bullatum, Pimelea stricta, Pultenaea tenuifolia, Schoenus racemosus, Spyridium leucopogon, Stipa spp incl. S. hemipogon, Templetonia retusa, Tetragonia implexicoma, Thysanotus patersonii, Trachymene pilosa, Triodia scariosa scariosa.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Amyema melaleucae, Cassytha melantha, C. peninsularis, Exocarpos aphyllus, Hakea cycloptera, Lepidosperma viscidum, Lomandra collina, perennial grasses, Pultenaea tenuifolia.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Ogyris amaryllis meridionalis and the common species Vanessa kershawi and Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, Delias aganippe, common spp and possibly Candalides cyprotus cyprotus, Candalides hyacinthinus simplex, Motasingha trimaculata trimaculata, Theclinesthes miskini miskini and Trapezites sciron eremicola.

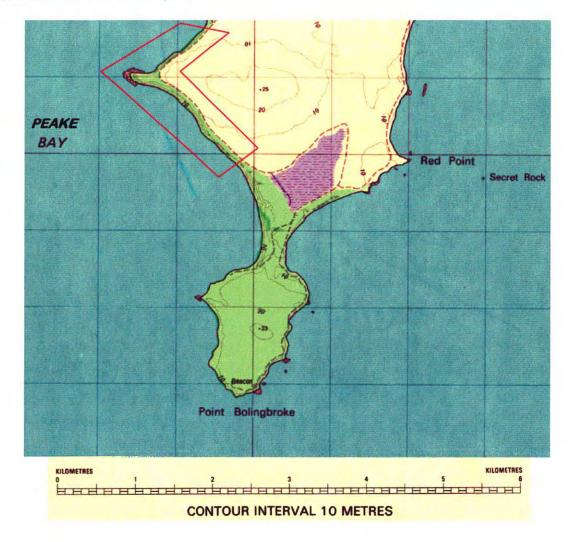
SUMMARY: Point Bolingbroke is a highly significant area of remnant vegetation for the conservation of butterflies, due to the presence of *Amyema melaleucae* infested *Melaleuca lanceolata*. The mistletoe is supporting a viable colony of *Ogyris amaryllis* (Adelaide Form). This area (Point Bolingbroke to Tumby Bay), is one of only two known areas for the mistletoe and the butterfly in the southern Eyre Peninsula region. The other colony is present on the north side of Lincoln National Park. The butterfly was discovered for the first time in the southern Eyre Peninsula Region during this survey and in these two areas. This area is also the only one during the survey, in which the rare, Wood White butterfly *Delias aganippe* was recorded.

CONSERVATION STATUS: Private Land.

LOCATION: BAN 00301, 34 30 29, 136 04 30, 598688, 6180986.

(Point Bolingbroke, 18 km south of Tumby Bay).

MAPSHEET: Banks 1/50,000.



LOCATION: BAN 00301, 34 30 29, 136 04 30, 598688, 6180986, Banks 1/50000 Sheet. (Point Bolingbroke, 18 km south of Tumby Bay).

DATE & LENGTH OF SURVEY: 20 October 1995. 1 1/2 hrs

WEATHER CONDITION: Overcast, squally, with a very strong, cold, southerly wind.

VEGETATION DOMAIN: Coastal mallee and *Melaleuca lanceolata* woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: This site forms part of the Point Bolingbroke vegetation remnant. The vegetation is in pristine condition, and is situated on white-sand dunes. The site occurs 3 km to the northwest of the Point Bolingbroke Peninsula. It forms part of a narrow coastal vegetation remnant linking the Point Bolingbroke vegetation remnant in the south, with the large coastal vegetation remnant at the north end of Peake Bay. The vegetation to the east of the site has been removed for agriculture.

The vegetation present includes Amyema melaleucae (very common) on Melaleuca lanceolata, Beyeria lechenaultii, *Brassica tournefortii, *Bromus diandrus, Calandrinia calyptrata, Carpobrotus rossii, Cassytha melantha, C. peninsularis peninsularis, Clematis microphylla, Crassula sieberiana tetramera, Dianella revoluta brevicaulis, D. revoluta revoluta, Disphyma crassifolium clavellatum, Enchylaena tomentosa tomentosa, Eucalyptus angulosa, E. dumosa complex, E. gracilis, Exocarpos aphyllus, Hybanthus floribundus floribundus, Melaleuca acuminata, M. lanceolata, *Mesembryanthemum crystallinum, Muehlenbeckia adpressa, Myoporum insulare, Pimelea serpyllifolia serpyllifolia, Pimelea stricta, Rhagodia candolleana candolleana, Santalum acuminatum, Senecio glossanthus, S. lautus, Stipa elegantissima, S. flavescens, Tetragonia implexicoma, Trachymene pilosa.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Amyema melaleucae, Cassytha melantha, C. peninsularis, Exocarpos aphyllus, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Ogyris amaryllis meridionalis and the common species Vanessa kershawi and Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, Delias aganippe, common spp and possibly Candalides hyacinthinus simplex.

SUMMARY: Point Bolingbroke is a highly significant area of remnant vegetation for the conservation of butterflies, due to the presence of *Amyema melaleucae* infested *Melaleuca lanceolata*. The mistletoe is supporting a viable colony of *Ogyris amaryllis* (Adelaide Form). This area (Point Bolingbroke to Tumby Bay), is one of only two known areas for the mistletoe and the butterfly in the southern Eyre Peninsula region. The other colony is present on the north side of Lincoln National Park. The butterfly was discovered for the first time in the southern Eyre Peninsula Region during this survey and in these two areas. This area is also the only one during the survey, in which the rare, Wood White butterfly *Delias aganippe* was recorded.

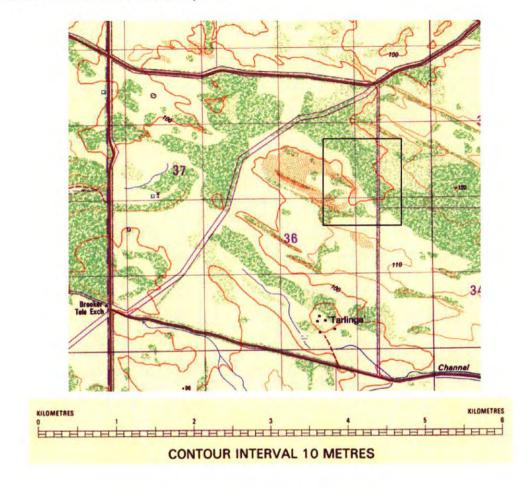
CONSERVATION STATUS: Private Land and Coastal Reserve.

SITES ON THE COCKALEECHIE 1/50,000 SHEET

- 6. COC 00201, 34 02 49, 135 57 60, 589213, 6232201. (2 km north of Tarlinga, Hundred of Moody, Section 36).
- 7. COC 01F07, 34 02 39, 135 56 29, 586900, 6232528. (2 1/2 km NW of Tarlinga, Hundred of Moody, Section 37).

LOCATION: COC 00201, 34 02 49, 135 57 60, 589213, 6232201. (2 km north of Tarlinga, Hundred of Moody, Section 36).

MAPSHEET: Cockaleechie 1/50,000.



LOCATION: COC 00201, 34 02 49, 135 57 60, 589213, 6232201, Cockaleechie 1/50000

Sheet. (2 km north of Tarlinga, Hundred of Moody, Section 36).

DATE & LENGTH OF SURVEY: 10 October 1995. 1 1/2 hrs

WEATHER CONDITION: Fine and hot.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mailee.

CONDITION: A large remnant of mallee situated on the Tarlinga property 15 km NW of Ungarra. It is white sand based. The native vegetation where present, is in pristine condition. The vegetation to the south of the site has been cleared for agriculture.

The vegetation present includes Acacia spinescens, Acrotriche cordata, Allocasuarina muelleriana muelleriana, Baeckea behrii, B. crassifolia, Boronia coerulescens coerulescens, Calytrix tetragona, Cassytha glabella dispar, Comesperma scoparium, Dampiera rosmarinifolia, Drosera macrantha planchonii, Eriostemon pungens, Eucalyptus diversifolia, E. flocktoniae, E. leptophylla, Goodenia willisiana, Hakea cycloptera, Halgania cyanea, Helichrysum leucopsideum, Hibbertia riparia (glabriuscula), H. riparia, Homoranthus wilhelmii, Lepidosperma carphoides, L. viscidum, Leucopogon clelandii, Logania ovata, Lomandra collina (common), Melaleuca lanceolata, M. uncinata, Neurachne alopecuroidea, Opercularia scabrida, Pimelea glauca, Platysace heterophylla heterophylla, Prostanthera serpyllifolia (red flowers), Schoenus breviculmis, S. racemosus, Stackhousia aspericocca, Stipa mundula, Thelymitra sp., Tricoryne tenella, Triodia scariosa scariosa.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Cassytha glabella dispar, Lepidosperma carphoides, L. viscidum, Lomandra collina, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

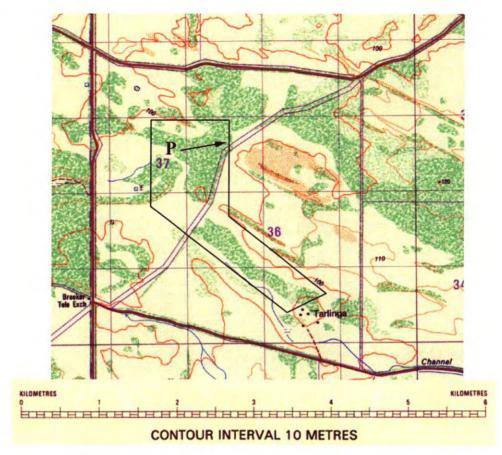
ACTUAL BUTTERFLY POPULATION: Common species Junonia villida calybe, Vanessa kershawi. This site was examined at 6 pm when it was nearly dark, and it was not possible to check for all the possible resident butterflies.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Trapezites sciron eremicola and possibly Motasingha trimaculata trimaculata and Ogyris idmo halmaturia.

SUMMARY: This site has the potential to conserve the rare skipper butterfly *Trapezites sciron eremicola*. Its foodplant is common, and although the butterfly was not seen at this site due to the late time of the day, it was seen earlier in the day at an adjacent site 2 km to the southwest. The skipper has been recorded on Eyre Peninsula only once before, at the east side of Hincks Conservation Park.

LOCATION: COC 01F07, 34 02 39, 135 56 29, 586900, 6232528. (2 1/2 km NW of Tarlinga, Hundred of Moody, Section 37).

MAPSHEET: Cockaleechie 1/50,000.





LOCATION: COC 01F07, 34 02 39, 135 56 29, 586900, 6232528, Cockaleechie 1/50000

Sheet. (2 1/2 km NW of Tarlinga, Hundred of Moody, Section 37).

DATE & LENGTH OF SURVEY: 10 October 1995. 3 hrs

WEATHER CONDITION: Fine and hot.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mallee.

CONDITION: A large remnant of mallee situated on the Tarlinga property 15 km NW of Ungarra. It is sand over limestone based. The native vegetation where present, is in pristine condition. It is surrounded by patches of cleared vegetation, some of it recently cleared. There is a small Callistemon rugulosus thicket adjacent to the site on its south side.

The vegetation present includes Acacia calamifolia, A. spinescens, *Avena barbata, Baeckea behrii, B. crassifolia, Boronia coerulescens coerulescens, Caladenia septuosa, Callistemon rugulosus, Calytrix involucrata, C. tetragona, Cassytha glabella dispar, Chrysocephalum baxteri, Dampiera rosmarinifolia, Daucus glochidiatus, Drosera macrantha planchonii, Eriostemon pungens, Eucalyptus diversifolia, E. incrassata, E. leptophylla, Eutaxia microphylla microphylla, Exocarpos sparteus, Gahnia deusta, G. lanigera, Goodenia blackiana, G. willisiana, Hakea cycloptera, H. vittata, Helichrysum leucopsideum, Hibbertia riparia (glabriuscula), H. virgata, *Hypochaeris glabra, Kennedia prostrata, Lasiopetalum behrii, Lepidosperma carphoides, L. congestum, L. viscidum, Leptomeria aphylla, Leucopogon clelandii, Linum marginale, Lomandra collina, Melaleuca uncinata, Microtis arenaria, Millotia tenuifolia tenuifolia, Neurachne alopecuroidea, Olearia ciliata ciliata, O. floribunda floribunda, Opercularia scabrida, Podotheca angustifolia, Prasophyllum fitzgeraldii, Prostanthera serpyllifolia serpyllifolia, Pultenaea spp incl. P. tenuifolia, Schoenus breviculmis, Schoenus racemosus, Spyridium phylicoides, Stipa mundula, Thelymitra nuda, Thysanotus patersonii, Trachymene pilosa, Tricoryne tenella, *Trifolium campestre, *T. tomentosum, Triodia scariosa scariosa, *Urospermum picroides, *Vulpia myuros myuros. Along the roadside near Tarlinga are occasional Bursaria spinosa and Choretrum glomeratum glomeratum.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Choretrum glomeratum glomeratum, Eutaxia microphylla microphylla, Exocarpos sparteus, Gahnia deusta, G. lanigera, Lepidosperma carphoides, L. viscidum, Leptomeria aphylla, Lomandra collina, perennial grasses, Pultenaea spp incl. P. tenuifolia.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia

(~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Candalides acastus, Danaus chrysippus petilia, Eurema smilax, Neolucia agricola agricola, Princeps demoleus sthenelus, Trapezites sciron eremicola and the common species Junonia villida calybe, *Pieris rapae rapae, Vanessa kershawi, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Acrodipsas brisbanensis cyrilus, common spp, Hesperilla donnysa diluta, Hypochrysops ignitus ignitus, and possibly Motasingha trimaculata trimaculata, Ogyris idmo halmaturia and Ogyris otanes.

SUMMARY: This is a highly significant area for the conservation of rare and threatened butterflies. It is supporting a healthy population of both common and rare butterflies, and foodplant diversity for rare and threatened species is very good. During this survey, this area was one of three in which Leptomeria aphylla was found to be present. This plant is one of the foodplants for the vulnerable blue butterfly Ogyris otanes, although the butterfly could not be found at this site. With more intensive searching it may be found, although experience elsewhere in the state has shown the butterfly uses only one plant in fifty as a foodplant. Coconut smelling, byre building ants, the attendant ants for the vulnerable blue butterfly Hypochrysops ignitus ignitus were common, although again this butterfly could not be found. This same ant is also the foodhost for the endangered copper butterfly Acrodipsas brisbanensis cyrilus. Both these butterflies fly later in the season and this may be the reason they were not encountered in this area even though the habitat is conducive for them to be present. This site is also one of two in which the vulnerable skipper butterfly *Trapezites* sciron eremicola was recorded during this survey. The other site is 55 km further to the west at KIA00301. The skipper had been recorded on Eyre Peninsula only once before, at the east side of Hincks Conservation Park.

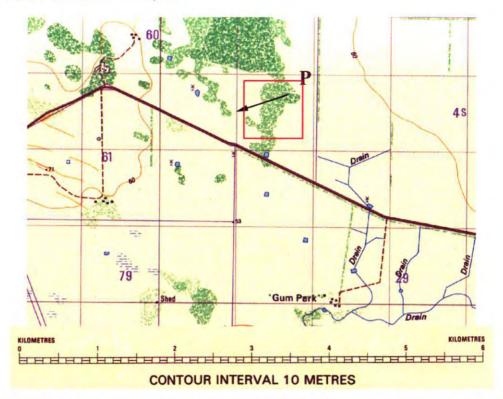
The large yellow, migrant swallowtail butterfly *Princeps demoleus* was recorded for the second time from southern Eyre Peninsula at this site. It is probably not resident in the region as its foodplant *Psoralea* spp was not recorded during the survey. Two other migrant butterflies, the yellow *Eurema smilax*, and the Lesser Wanderer *Danaus chrysippus petilia*, were recorded for the first time from southern Eyre Peninsula.

The scrub in this area shows recent attempts to clear the vegetation.

SITES ON THE CUMMINS 1/50,000 SHEET

- 8. CUM 00201, 34 18 52, 135 40 14, 561697, 6202749. (8 km southwest of Cummins).
- 9. CUM 01101, 34 20 30, 135 42 49, 565648, 6199726. (8 1/2 km south of Cummins).
- 10. CUM 01201, 34 21 25, 135 39 35, 560676, 6198042. (11 km southwest of Cummins).
- 11. CUM 01301, 560640, 6200000. (10 km southwest of Cummins).
- 12. CUM 01401, 34 21 14, 135 37 51, 558026, 6198425. (13 km southwest of Cummins).
- 13. CUM 01501, 560850, 6196100. (13 km southwest of Cummins).
- 14. CUM 01701, 34 22 21, 135 35 09, 553857, 6196360.(11 1/2 km west of Edillilie on the Edillilie-North Block Road).
- 15. CUM 02301, 568900, 6187900. (5 1/2 km southeast of Edillilie).
- 16. CUM 02401, 34 27 36, 135 40 58, 562722, 6186599. (5 km SSW of Edillilie on the Tod Highway).
- 17. CUM 02501, 34 29 55, 135 30 60, 547425, 6182416. (Roadside 6 km northeast of Wangary).

LOCATION: CUM 00201, 34 18 52, 135 40 14, 561697, 6202749. (8 km southwest of Cummins).





LOCATION: CUM 00201, 34 18 52, 135 40 14, 561697, 6202749, Cummins 1/50000

Sheet. (8 km southwest of Cummins).

DATE & LENGTH OF SURVEY: 11 October 1995. 1 1/2 hrs

WEATHER CONDITION: Overcast and cool.

VEGETATION DOMAIN: Mallee and Callistemon rugulosus thicket.

DOMINANT VEGETATION: Mixed.

CONDITION: A small remnant of mallee and *Callistemon rugulosus* thicket, situated 8 km southwest of Cummins. It is limestone based. The understorey vegetation is badly degraded due to sheep and rabbit grazing. The surrounding areas have been cleared for agriculture.

The vegetation present includes Acacia gillii, A. spinescens, Astroloma conostephioides, Astroloma humifusum, *Avellinia michelii, Baeckea behrii, Blennospora drummondii, Boronia coerulescens coerulescens, Comesperma scoparium, Correa reflexa coriacea, Crassula colorata acuminata, Cryptandra leucophracta, Dampiera rosmarinifolia, Danthonia setacea setacea, Dodonaea hexandra, Eucalyptus diversifolia, Eutaxia microphylla microphylla, Gahnia ancistrophylla, G. deusta, G. lanigera, *Galium murale, Gonocarpus mezianus, Goodenia willisiana, Grevillea ilicifolia ilicifolia, Hakea cycloptera, Hibbertia riparia (glabriuscula), *Hypochaeris glabra, *H. radicata, Lasiopetalum baueri, Lepidosperma viscidum, Lomandra collina (tate), Melaleuca uncinata, Millotia tenuifolia tenuifolia, Mitrasacme paradoxa, Neurachne alopecuroidea, Opercularia scabrida, Poranthera triandra, *Polycarpon tetraphyllum, Pultenaea spp incl. P. acerosa, *Rostraria cristata, Schoenus deformis, Spyridium vexilliferum vexilliferum, Stackhousia aspericocca ssp. "One-sided inflorescence"(W.R.Barker 697), Stipa hemipogon, S. mundula, Thelymitra nuda, Thysanotus patersonii, Tricoryne tenella.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Eutaxia microphylla microphylla, Gahnia ancistrophylla, G. deusta, G. lanigera, Grevillea ilicifolia ilicifolia, Hakea cycloptera, Lepidosperma viscidum, Lomandra collina, perennial grasses, Pultenaea spp incl. P. acerosa.

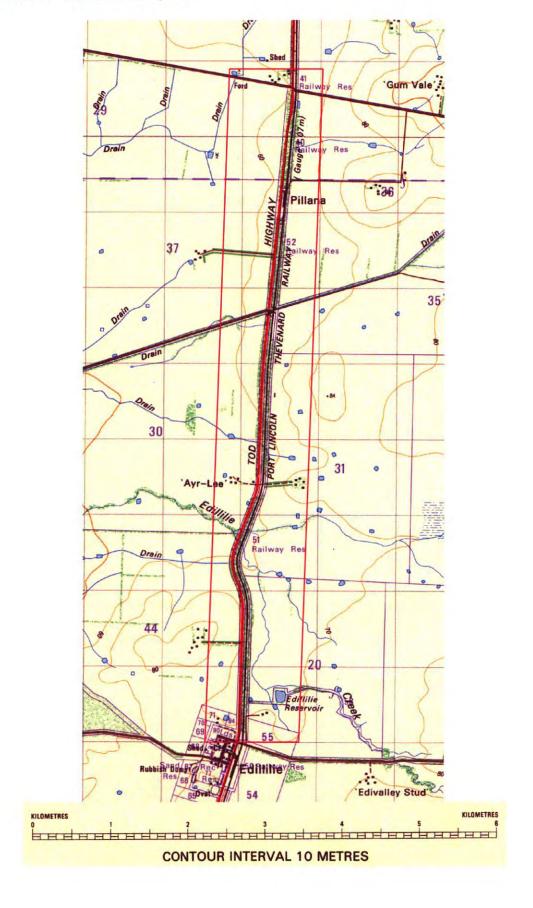
HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen. This site was examined at 7.30 am which is too early to check for flying butterflies. There was no *Antipodia* or *Hesperilla* habitation on the *Gahnia*.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly *Candalides acastus* and *Neolucia agricola*.

SUMMARY: This site is too degraded to continually support rare and threatened butterflies. If it were put into a conservation mode then it has the potential to support *Antipodia atralba* and *Hesperilla donnysa diluta*.

LOCATION: CUM 01101, 34 20 30, 135 42 49, 565648, 6199726. (8 1/2 km south of Cummins).



LOCATION: CUM 01101, 34 20 30, 135 42 49, 565648, 6199726, Cummins 1/50000

Sheet. (8 1/2 km south of Cummins).

DATE & LENGTH OF SURVEY: 11 October 1995. 1 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mallee.

CONDITION: A mallee remnant forming part of the rail reserve between Cummins and Edillilie. It is best developed in the southern half closest to Edillilie, where it is 100m wide and extends for 8 1/2 km. It is sand over limestone based. The native vegetation is in pristine condition but is bounded by exotic grasses and weeds closer to the rail track. The adjacent areas have been cleared for agriculture.

The vegetation present includes Acacia calamifolia, A. microcarpa, Bursaria spinosa, Callistemon rugulosus, Cassytha melantha, C. peninsularis peninsularis, Choretrum glomeratum (rate-neat Edillile), Crassula colorata acuminata, Danthonia setacea setacea, Daviesia pectinata, *Desmazeria rigida, Dianella revoluta revoluta, Dodonaea baueri, *Ehrharta longiflora, Eucalyptus 'anceps' x dumosa complex, E. calycogona, E. dumosa complex, E. dumosa, E. flocktoniae, Gahnia deusta, *Galium murale, Lagenifera huegelii, Lasiopetalum behrii, Lepidosperma viscidum, *Lolium rigidum, Melaleuca acuminata, M. lanceolata, M. uncinata, *Myrsiphyllum asparagoides, *Polycarpon tetraphyllum, *Rostraria cristata, Santalum acuminatum, *Scabiosa atropurpurea, *Sonchus asper, Stipa exilis, *Trifolium campestre, *Vulpia myuros myuros.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha melantha, C. peninsularis peninsularis, Choretrum glomeratum, Daviesia pectinata, Gahnia deusta, Lepidosperma viscidum, perennial grasses, Santalum acuminatum.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

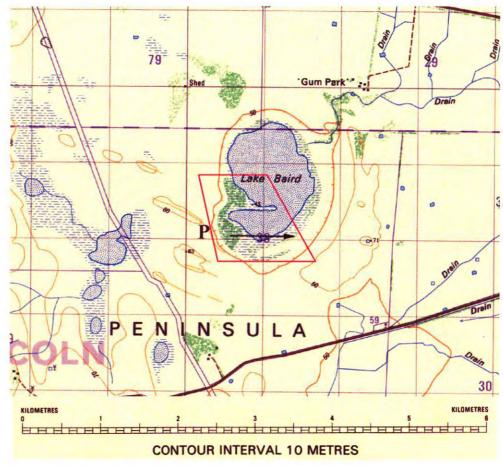
ACTUAL BUTTERFLY POPULATION: Common species *Pieris rapae rapae.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, Candalides hyacinthinus simplex, common spp and possibly Hesperilla donnysa diluta and Motasingha trimaculata trimaculata.

SUMMARY: The butterfly foodplants are reasonably diverse, although the rail reserve may be too narrow to support endangered species of butterflies which normally require large pristine areas. Some of the rarer butterflies, as indicated, may locally survive along the reserve.

CONSERVATION STATUS: Rail Reserve.

LOCATION: CUM 01201, 34 21 25, 135 39 35, 560676, 6198042. (11 km southwest of Cummins).





LOCATION: CUM 01201, 34 21 25, 135 39 35, 560676, 6198042, Cummins 1/50000

Sheet. (11 km southwest of Cummins).

DATE & LENGTH OF SURVEY: 11 October 1995. 1 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Wetland.

DOMINANT VEGETATION: Gahnia trifida and Melaleuca spp.

CONDITION: A large remnant of *Gahnia trifida* and *Melaleuca* wetland situated along the southwest side of Lake Baird, and forming the northernmost part of the Salt Creek system of wetlands. The vegetation at the site is in pristine condition with prime *Gahnia* tussocks to 2m high and 2 1/2 m wide. The *Melaleuca* thicket is almost inpenetrable. The surrounding areas have been cleared.

The vegetation present includes Acacia spp, Baumea juncea, Callistemon rugulosus, Cassytha glabella dispar (tare), *Centaurium erythraea, Drosera pygmaea, Epilobium billardierianum billardierianum, Eucalyptus sp, Eutaxia microphylla (tare), Gahnia trifida, Hakea rugosa, Homoranthus wilhelmii, Leptocarpus brownii, *Lolium sp, Melaleuca brevifolia, M. decussata, M. halmaturorum, Microtis sp, Schoenus nitens, *Senecio pterophorus, Stipa spp, Thelymitra sp.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Eutaxia microphylla, Gahnia trifida, perennial grasses.

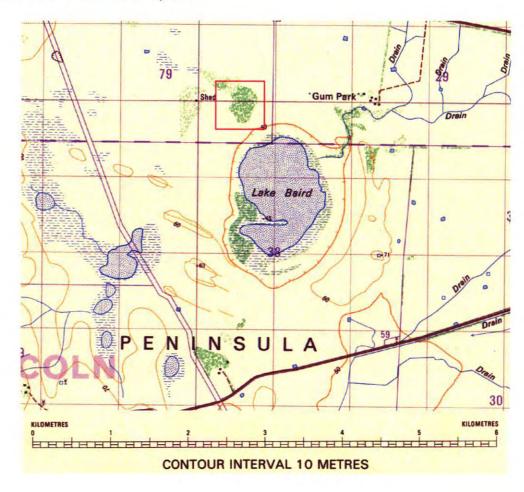
HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Common butterflies *Pieris rapae rapae, Zizina labradus labradus. Hesperilla spp were not present on the Gahnia.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly Candalides acastus and Neolucia agricola agricola.

SUMMARY: No *Hesperilla* spp were seen on the *Gahnia* at the site which is unusual and it is therefore likely this site has suffered historical clearing, burn back or more likely poisonous spray drift from the adjacent farm lands. The site now appears to be in a conservation mode and it should be suitable for the reintroduction of the *Hesperilla* skipper butterflies, provided the likelihood of spray drift no longer exists.

LOCATION: CUM 01301, 560640, 6200000. (10 km southwest of Cummins).



LOCATION: CUM 01301, 560640, 6200000, Cummins 1/50000 Sheet. (10 km southwest of Cummins).

DATE & LENGTH OF SURVEY: 11 October 1995. 1 hr

WEATHER CONDITION: Overcast and cool, with drizzle.

VEGETATION DOMAIN: Wetland.

DOMINANT VEGETATION: Eucalyptus camaldulensis.

CONDITION: A small redgum remnant situated 1 km NNW of Lake Baird, and forming the northernmost part of the Salt Creek system of wetlands. The understorey vegetation at the site is grazed and consists of sedges, grasses and sparse *Callistemon rugulosus*. The surrounding areas have been cleared.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp.

SUMMARY: This site is interesting for its fine old stands of *Eucalyptus camaldulensis*, but has no significance for butterfly conservation.

LOCATION: CUM 01401, 34 21 14, 135 37 51, 558026, 6198425.

(13 km southwest of Cummins).

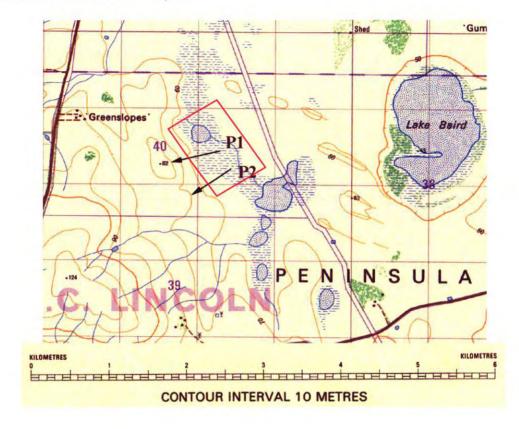


Photograph 1: Stands of Gahnia trifida in good condition.



Photograph 2: Attempts at burning off Gahnia trifida.

LOCATION: CUM 01401, 34 21 14, 135 37 51, 558026, 6198425. (13 km southwest of Cummins).



LOCATION: CUM 01401, 34 21 14, 135 37 51, 558026, 6198425, Cummins 1/50000

Sheet. (13 km southwest of Cummins).

DATE & LENGTH OF SURVEY: 11 October 1995. 1 hr

WEATHER CONDITION: Overcast and cool.

VEGETATION DOMAIN: Wetland.

DOMINANT VEGETATION: Gahnia trifida.

CONDITION: A large remnant of *Gahnia trifida* wetland situated west of Lake Baird, and forming the northernmost part of the Salt Creek system of wetlands. The vegetation is in various degrees of degradation due to attempts at clearing by burning off.

The vegetation present includes Baumea juncea, Burchardia umbellata, Gahnia trifida, Juncus pallidus, Leptocarpus brownii, Lythrum hyssopifolia, Melaleuca brevifolia, *Senecio pterophorus pterophorus, Sonchus hydrophilus.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Gahnia trifida, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

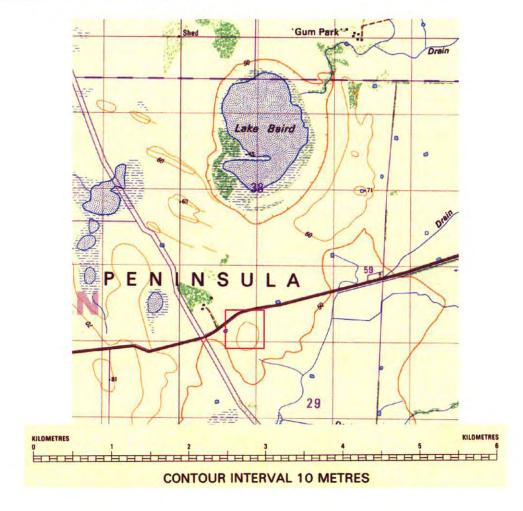
ACTUAL BUTTERFLY POPULATION: Hesperilla donnysa diluta.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp.

SUMMARY: Only *Hesperilla donnysa diluta* was present on the *Gahnia*, and it was extremely rare. If this site was to be put into a conservation mode then it would be suitable for the reintroduction of the vulnerable skipper butterfly *Hesperilla chrysotricha naua*.

LOCATION: CUM 01501, 560850, 6196100.

(13 km southwest of Cummins).



LOCATION: CUM 01501, 560850, 6196100, Cummins 1/50000 Sheet. (13 km southwest of Cummins).

DATE & LENGTH OF SURVEY: 11 October 1995. 1/2 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Woodland and heath.

DOMINANT VEGETATION: Eucalyptus camaldulensis and Banksia ornata.

CONDITION: A small redgum and heath remnant situated 2 km south of Lake Baird, on the south side of the access road, forming the northernmost part of the Salt Creek system of wetlands. The site is situated near a white dune remnant. The vegetation is badly degraded, with the heath portion historically cleared but now regenerating. The surrounding areas have been cleared for agriculture.

The vegetation present includes Banksia ornata, Callistemon rugulosus, *Ehrharta calycina, Eucalyptus camaldulensis, Melaleuca brevifolia.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

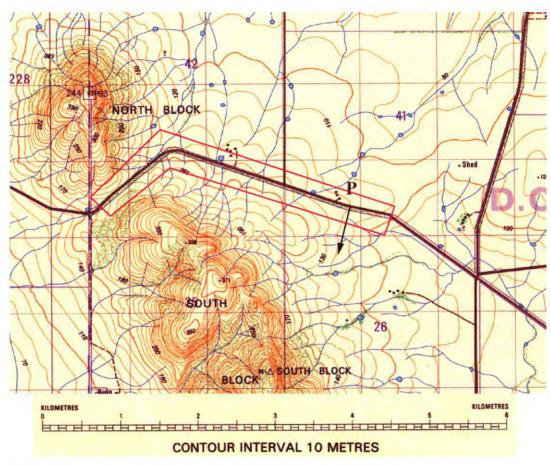
ACTUAL BUTTERFLY POPULATION: Common species *Pieris rapae rapae.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp.

SUMMARY: This site is interesting for the regenerating stands of *Banksia ornata* and remnant *Eucalyptus camaldulensis*, but has no significance for butterfly conservation. This site was one of only four in which *Banksia ornata* was recorded during the survey.

LOCATION: CUM 01701, 34 22 21, 135 35 09, 553857, 6196360.

(11 1/2 km west of Edillilie on the Edillilie-North Block Road).





LOCATION: CUM 01701, 34 22 21, 135 35 09, 553857, 6196360, Cummins 1/50000

Sheet. (11 1/2 km west of Edillilie on the Edillilie-North Block Road).

DATE & LENGTH OF SURVEY: 14 October 1995. 1 1/2 hrs

WEATHER CONDITION: Overcast and cool.

VEGETATION DOMAIN: Mallee/heath.

DOMINANT VEGETATION: Mixed.

CONDITION: A narrow, 30-40 m wide, but long roadside mallee and heath remnant occurring along the Edillilie-North Block Road. The vegetation is in pristine condition, and laterite over loam-sand based.

The vegetation present includes Acacia gillii, A. myrtifolia myrtifolia, A. pycnantha, A. spinescens, Adenanthos terminalis, *Aira cupaniana, Allocasuarina muelleriana muelleriana, *Arctotheca calendula, Astroloma conostephioides, A. humifusum, Baeckea behrii, *Briza minor, Burchardia umbellata, Calytrix tetragona, Cassytha glabella dispar, C. peninsularis peninsularis, Centrolepis aristata, C. strigosa, Chamaescilla corymbosa corymbosa, Compositae sp., Correa reflexa coriacea, Crassula closiana, Cryptandra leucophracta, Dampiera rosmarinifolia, Danthonia setacea setacea, Daviesia asperula asperula, Dianella revoluta revoluta, Dodonaea hexandra, Drosera glanduligera, D. macrantha planchonii, Eucalyptus incrassata, E. leptophylla, Exocarpos sparteus, Gahnia ancistrophylla, G. deusta, Glischrocaryon behrii, Gonocarpus mezianus, Goodenia robusta, Grevillea aspera, G. ilicifolia, Hakea cycloptera, Hibbertia riparia (glabriuscula), Homoranthus homoranthoides, *Hypochaeris radicata, Lasiopetalum baueri, Lepidosperma carphoides, L. viscidum, Levenhookia stipitata, Lobelia gibbosa, Melaleuca decussata, M. uncinata, Microtis arenaria, Mitrasacme paradoxa, Neurachne alopecuroidea, Opercularia scabrida, Oxalis perennans, Pultenaea teretifolia teretifolia, P. trinervis, *Romulea minutiflora, Scaevola linearis linearis, Schoenus breviculmis, S. nanus, Spyridium leucopogon, S. vexilliferum vexilliferum, Stipa hemipogon, Thelymitra flexuosa, T. luteocilium, Thysanotus patersonii, Triodia scariosa scariosa, Xanthorrhoea semiplana semiplana.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED

BUTTERFLIES: Acacia spp, Cassytha glabella dispar, C. peninsularis peninsularis, Daviesia asperula asperula, Exocarpos sparteus, Gahnia ancistrophylla, G. deusta, Grevillea aspera, G. ilicifolia, Hakea cycloptera, Lepidosperma carphoides, L. viscidum, Oxalis perennans, perennial grasses, Pultenaea teretifolia teretifolia, P. trinervis.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia

(~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen. This site was examined at 8.00 am which is too early to check for flying butterflies. There was no *Antipodia* or *Hesperilla* habitation on the *Gahnia*.

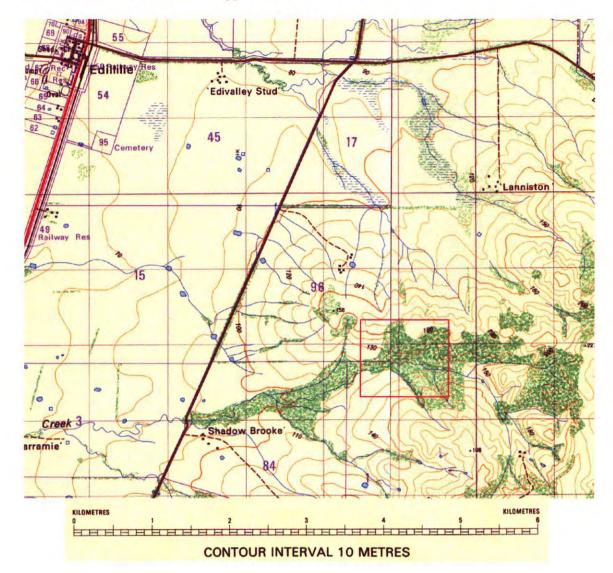
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp and possibly Acrodipsas brisbanensis cyrilus, Antipodia atralba, Candalides cyprotus cyprotus, Candalides hyacinthinus simplex, Hesperilla donnysa diluta, Hypochrysops ignitus ignitus, Jalmenus icilius, Motasingha trimaculata trimaculata, Neolucia agricola agricola, Theclinesthes miskini miskini.

SUMMARY: This is a lush site with a diverse range of foodplants for rare and threatened butterflies. No butterflies were seen at the site but this would have been partly due to the site being examined too early in the morning before the butterflies started flying. The overcast and cool conditions would have been another negative factor. However, none of the foodplants examined were supporting larval habitation. The narrowness of the roadside remnant may not be to the total liking of the threatened butterflies. Coconut smelling, byre building ants, the attendant ants for the vulnerable blue butterfly Hypochrysops ignitus ignitus were common, although again this butterfly could not be found. This same ant is also the foodhost for the endangered copper butterfly Acrodipsas brisbanensis cyrilus. Both these butterflies fly later in the season and this may be the reason they were not encountered in this area even though the habitat is reasonably conducive for them to be present. The nearby North and South Blocks would be better habitat to look for the two latter butterflies in future biological surveys.

CONSERVATION STATUS: Roadside Reserve.

LOCATION: CUM 02301, 568900, 6187900. (5 1/2 km southeast of Edillilie).

MAPSHEET: Cummins and Koppio 1/50,000 Sheets.



LOCATION: CUM 02301, 568900, 6187900, Cummins 1/50000 Sheet. (5 1/2 km southeast of Edillilie).

DATE & LENGTH OF SURVEY: 11 October 1995. 1 hr

WEATHER CONDITION: Fine and cool.

VEGETATION DOMAIN: Woodland.

DOMINANT VEGETATION: Eucalyptus cladocalyx.

CONDITION: A large, dense canopied, sugargum remnant situated 5 1/2 km southeast of Edillilie. The understorey vegetation at the site is strongly grazed by kangaroos and sheep. The surrounding areas have been partly cleared.

The vegetation present includes Cassytha glabella dispar (rare), C. peninsularis peninsularis (rare), Daviesia pectinata, Eucalyptus cladocalyx, Gahnia ancistrophylla (rare), Lomandra collina (rare). This vegetation list, excepting the sugargum, only includes the butterfly foodplants for rare and endangered species.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Cassytha glabella dispar, C. peninsularis peninsularis, Daviesia pectinata, Gahnia ancistrophylla, Lomandra collina, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

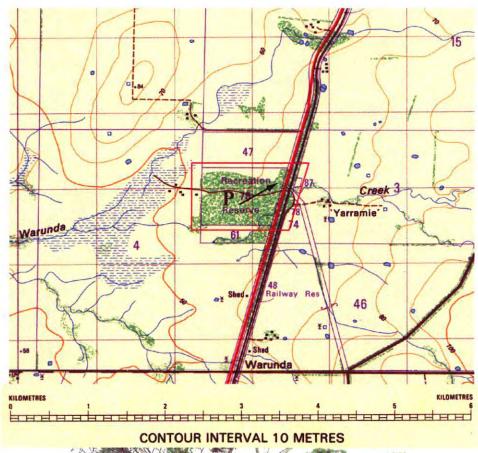
ACTUAL BUTTERFLY POPULATION: Common species Junonia villida calybe, Vanessa kershawi. This site was examined at 5 pm when it was nearly dark, and it was not possible to check for all the possible resident butterflies.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly Antipodia atralba, Candalides acastus, Candalides hyacinthinus simplex and Hesperilla donnysa diluta.

SUMMARY: This site is typical for many sugargum remnants in the area with very poor understorey vegetation, which is probably due to a combination of overgrazing and also possibly to the dense sugargum canopy on the south facing slopes of the hillside, preventing a lush understorey growth. The degraded condition and rarity of the butterfly foodplants would probably preclude any rare and threatened butterflies from establishing at this site.

LOCATION: CUM 02401, 34 27 36, 135 40 58, 562722, 6186599.

(5 km SSW of Edillilie on the Tod Highway).





LOCATION: CUM 02401, 34 27 36, 135 40 58, 562722, 6186599, Cummins 1/50000

Sheet. (5 km SSW of Edillilie on the Tod Highway).

DATE & LENGTH OF SURVEY: 14 October 1995. 2 hrs

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Eucalyptus and Acacia woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A large bluegum and sugargum woodland remnant, now conserved as a recreation reserve, 5 km SSW of Edillilie on the Tod Highway on its west side. The site has been historically used as a source of fill, with most of the pits and channels left by these works now naturally revegetated to the indigenous flora, although exotic grasses and weeds are common. The native vegetation present is in excellent condition, and is gravel and coarse sand based. The surrounding areas have been cleared.

The vegetation present includes Acacia calamifolia, A. microcarpa, A. paradoxa, A. rupicola, A. spinescens, *Aira cupaniana, *Anagallis arvensis, *Arctotheca calendula, *Avellinia michelii, *Avena barbata, *Briza maxima, Bulbine semibarbata, Calandrinia calyptrata, *Carduus tenuiflorus, Cassytha glabella dispar, C. peninsularis peninsularis, Clematis microphylla, Convolvulus remotus, Danthonia spp, Daviesia sp, Dodonaea baueri, Eremophila behriana, Eucalyptus behriana, E. cladocalyx, E. petiolaris, Eutaxia microphylla microphylla, Exocarpos aphyllus (very rare), Gahnia deusta (very rare), Gonocarpus mezianus, Goodenia ovata, Grevillea linearifolia, Helichrysum leucopsideum, *Hypochaeris glabra, Lagenifera huegelii, Lasiopetalum baueri, Lepidosperma viscidum, *Lolium rigidum, Lomandra effusa, Melaleuca uncinata, *Myrsiphyllum asparagoides, Oxalis perennans, Plantago gaudichaudii, *Romulea minutiflora, *Senecio pterophorus pterophorus, *Sonchus oleraceus, Stipa elegantissima, S. exilis, Thelymitra nuda, Thysanotus patersonii, *Trifolium campestre, *Urospermum picroides, Vittadinia cervicularis cervicularis, Vittadinia gracilis.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, C. peninsularis peninsularis, Daviesia sp, Eutaxia microphylla microphylla, Exocarpos aphyllus, Gahnia deusta, Lepidosperma viscidum, Oxalis perennans, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Danaus chrysippus petilia and the common species Geitoneura klugii klugii, Junonia villida calybe, Lampides boeticus, Nacaduba biocellata biocellata, Vanessa kershawi.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Neolucia agricola agricola and possibly Candalides hyacinthinus simplex, Jalmenus icilius, Motasingha trimaculata trimaculata, Theclinesthes miskini miskini.

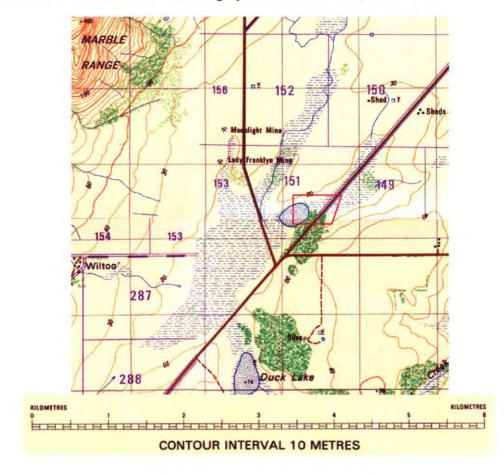
SUMMARY: This is potentially a significant area for the conservation of rare butterflies. It is supporting a healthy population of common butterflies, but the rarer butterflies were not seen although some of their foodplant is present. The site has probably been too disturbed in the past to support threatened butterflies and the lack of a vegetation fairway to the native vegetation remnants to the east would have precluded a reestablishment of these species once the area was allowed to regenerate. However, it should be possible to reintroduce some of these threatened species, particularly the *Acacia* eating butterflies.

CONSERVATION STATUS: Council Recreation Reserve.

LOCATION: CUM 02501, 34 29 55, 135 30 60, 547425, 6182416.

(Roadside 6 km northeast of Wangary).

MAPSHEET: Coulta, Cummins, Wangary and Wanilla 1/50,000 Sheets.



LOCATION: CUM 02501, 34 29 55, 135 30 60, 547425, 6182416, Cummins 1/50000

Sheet. (Roadside 6 km northeast of Wangary).

DATE & LENGTH OF SURVEY: 14 October 1995. 1 hr

WEATHER CONDITION: Overcast and cool.

VEGETATION DOMAIN: Freshwater wetland.

DOMINANT VEGETATION: Mixed.

CONDITION: A large freshwater wetland remnant forming part of the Salt Creek wetland complex. The wetland is dominated by dense stands of Gahnia trifida and Melaleuca brevifolia. The higher ground is more open and comprises mainly Lepidospema viscidum and redgum. The vegetation is in variable condition, and looked as if it was suffering from a lack of water or possibly poison, particularly the Gahnia trifida which often had yellow leaves or dead looking new central growth. The surrounding areas are cleared for agriculture.

The vegetation present includes Acacia sclerophylla, *Anagallis arvensis, Angianthus preissianus, Apium annuum, Cassytha glabella dispar, C. peninsularis peninsularis, Comesperma volubile, Eucalyptus camaldulensis, Eutaxia microphylla microphylla, Gahnia deusta, G. trifida, Grevillea linearifolia, Halosarcia pterygosperma pterygosperma, Juncus bufonius, Lepidosperma carphoides, L. viscidum, Melaleuca brevifolia, *Polypogon maritimus, *Senecio pterophorus pterophorus, *Spergularia marina, Stipa spp, Triglochin mucronatum.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Cassytha glabella dispar, Cassytha peninsularis peninsularis, Eutaxia microphylla microphylla, Gahnia deusta, G. trifida, Lepidosperma carphoides, L. viscidum, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla donnysa diluta and the common species Junonia villida calybe, Vanessa kershawi.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Neolucia agricola agricola and possibly Hesperilla chrysotricha naua, Motasingha trimaculata trimaculata and Theclinesthes miskini miskini.

SUMMARY: This is potentially a good wetland site but presently seems to be suffering from some ailment. Foodplant diversity for rare butterflies is good. Only *Hesperilla donnysa diluta* was present on the *Gahnia*. It was reasonably common but most of the pupa seen on the foodplant were dead, and probably suffered the same fate as what caused the foodplant to turn yellow. If this site was to be put into a conservation mode then it would be suitable for the reintroduction of the threatened skipper butterflies *Hesperilla chrysotricha naua* and *Motasingha trimaculata trimaculata*.

CONSERVATION STATUS: Private Land and Roadside Reserve.

SITES ON THE JUSSIEU 1/50,000 SHEET

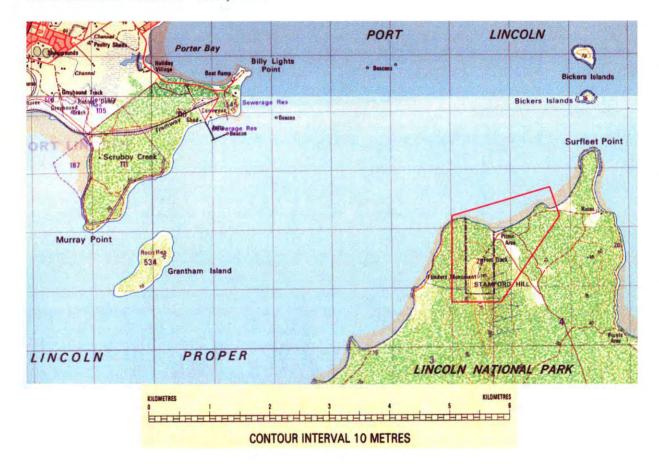
- 18. JUS 00201, 34 46 03, 135 56 43, 586514, 6152334. JUS 00401, 34 46 24, 135 56 14, 585758, 6151687. JUS 00402, 34 46 36, 135 56 10, 585663, 6151308. JUS 00403, 34 46 36, 135 56 02, 585451, 6151306. (Stamford Hill area, Lincoln National Park).
- 19. JUS 00601, 34 45 11, 135 52 35, 580207, 6153964, LIN 02201, 34 44 59, 135 52 54, 580710, 6154337. Jussieu and Lincoln. (Porter Bay south, Port Lincoln Vegetation Reserve).
- 20. JUS 00701, 34 48 53, 135 51 12, 578054, 6147159. (Lincoln National Park, northwest side).
- 21. JUS 01001, 34 49 56, 135 56 28, 586067, 6145146. (Taylor's Landing Road, Lincoln National Park).
- 22. JUS 01101, 34 51 06, 135 57 08, 587050, 6142967. (Taylor's Landing, Lincoln National Park).
- 23. JUS 01201, 34 49 39, 135 51 22, 578281, 6145738. (Lake Pillie, Lincoln National Park).
- 24. Tulka Township, 572650, 6149050.

LOCATION: JUS 00201, 34 46 03, 135 56 43, 586514, 6152334;

JUS 00401, 34 46 24, 135 56 14, 585758, 6151687; JUS 00402, 34 46 36, 135 56 10, 585663, 6151308; JUS 00403, 34 46 36, 135 56 02, 585451, 6151306.

(Stamford Hill area, Lincoln National Park).

MAPSHEET: Jussieu 1/50,000.



LOCATION: JUS 00201, 34 46 03, 135 56 43, 586514, 6152334.

JUS 00401, 34 46 24, 135 56 14, 585758, 6151687. JUS 00402, 34 46 36, 135 56 10, 585663, 6151308. JUS 00403, 34 46 36, 135 56 02, 585451, 6151306.

Jussieu 1/50000 Sheet. (Stamford Hill area, Lincoln National Park).

DATE & LENGTH OF SURVEY: 29 March 1996. 1 1/2 hrs

WEATHER CONDITION: Overcast, warm and sultry, with sunny periods.

VEGETATION DOMAIN: Eucalyptus and Melaleuca lanceolata woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: These sites form part of a coastal *Amyema melaleucae* infested *Melaleuca lanceolata* woodland found on the north coast area of the Lincoln National Park, to the east of Stamford Hill. It also includes *Eucalyptus* woodland that cloaks the slopes of Stamford Hill. The vegetation is in pristine condition, except for historic cleared areas along the access road to the area and at the top of Stamford Hill.

The vegetation present includes Acacia dodonaeifolia, A. paradoxa, A. spinescens, Acrotriche patula, *Aira cupaniana, Amyema melaleucae on Melaleuca lanceolata, *Anagallis arvensis, Anthocercis anisantha anisantha, Astroloma humifusum, *Avellinia michelii, Beyeria lechenaultii, Blennospora drummondii, Bulbine semibarbata, Calandrinia calyptrata, C. eremaea, Calytrix tetragona, Carpobrotus rossii, Cheilanthes austrotenuifolia, Chrysocephalum apiculatum, Comesperma volubile, Correa reflexa reflexa, Crassula decumbens decumbens, C. sieberiana tetramera, Cyrtostylis robusta, Daucus glochidiatus, *Desmazeria rigida, Dianella revoluta revoluta, Disphyma crassifolium clavellatum, *Ehrharta longiflora, Eucalyptus angulosa, E. conglobata, E. diversifolia, E. gracilis, E. oleosa, E. rugosa, Exocarpos aphyllus, Gahnia deusta, *Galium murale, Gnaphalium indutum, Gonocarpus mezianus, Goodenia willisiana, Hibbertia sericea major, Hyalosperma demissum, *Hypochaeris glabra, Lasiopetalum baueri, L. discolor, L. schulzenii, Lepidosperma viscidum, Lichen sp., Lobelia sp., Lomandra collina, Melaleuca lanceolata, Millotia tenuifolia tenuifolia, *Minuartia mediterranea, Moss sp., *Myrsiphyllum asparagoides, Olearia ramulosa, Opercularia turpis, Parietaria cardiostegia, Pimelea serpyllifolia serpyllifolia, Pittosporum phylliraeoides microcarpa, Plantago sp. B, Poa crassicaudex, Podolepis tepperi, Podotheca angustifolia, Pomaderris flabellaris, Poranthera microphylla, Pterostylis pusilla, Quinetia urvillei, Rhagodia candolleana candolleana, R. crassifolia, Rhodanthe laevis, *Rostraria cristata, Schoenus nanus, Sclerolaena diacantha, Senecio glossanthus, *Stellaria media, Stipa acrociliata, S. blackii, S. exilis, S. hemipogon, Thelymitra nuda, Threlkeldia diffusa, Thysanotus patersonii, Trachymene cyanopetala, T. pilosa, *Vulpia muralis, Wahlenbergia gracilenta, Wurmbea dioica dioica.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Amyema melaleucae, Exocarpos aphyllus, Gahnia deusta, Lepidosperma viscidum, Lomandra collina, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus

(no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Ogyris amaryllis meridionalis.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly Acrodipsas brisbanensis cyrilus, Delias aganippe, Hesperilla donnysa diluta, Hypochrysops ignitus ignitus, Motasingha trimaculata trimaculata, Ogyris idmo halmaturia, Theclinesthes miskini miskini and Trapezites sciron eremicola.

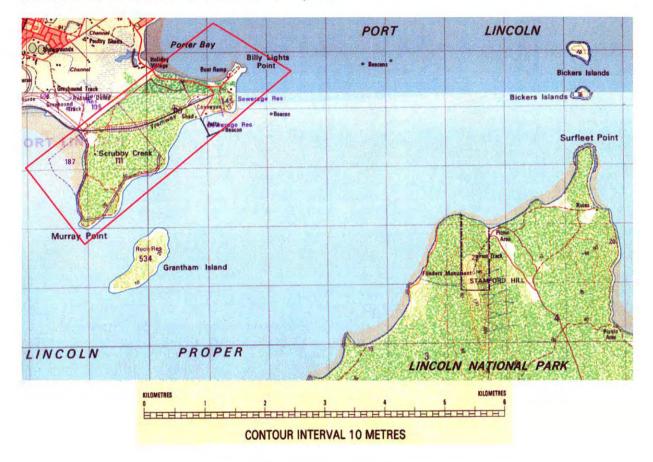
SUMMARY: The Lincoln National Park is a highly significant area for the conservation of rare and threatened butterflies. The butterfly diversity was not prominent at the time of the survey, but this was probably due to the short survey period, and the foodplant diversity was also not that significant, at least within the sampled quadrats. The mistletoe *Amyema melaleucae* is supporting a viable colony of *Ogyris amaryllis* (Adelaide Form). This area is one of only two known areas for the mistletoe and the butterfly in the southern Eyre Peninsula region. The other colony is present in the Point Bolingbroke to Tumby Bay area, further to the north. This butterfly was discovered for the first time in the southern Eyre Peninsula Region during this survey and in these two areas. The pristine nature of the habitat would suggest that threatened butterfly species are likely to be still present in the area, and they particularly favour the prescence of a pinnacle hill such as Stamford Hill. *Choretrum glomeratum* the foodplant for vulnerable *Ogyris otanes* is present in the park, but not at the above sites.

1

CONSERVATION STATUS: National Park.

LOCATION: JUS 00601, 34 45 11, 135 52 35, 580207, 6153964; LIN 02201, 34 44 59, 135 52 54, 580710, 6154337. (Porter Bay south, Port Lincoln Vegetation Reserve).

MAPSHEET: Lincoln and Jussieu 1/50,000.



LOCATION: JUS 00601, 34 45 11, 135 52 35, 580207, 6153964,

LIN 02201, 34 44 59, 135 52 54, 580710, 6154337,

Lincoln and Jussieu 1/50000 Sheets. (Porter Bay south, Port Lincoln Vegetation Reserve).

DATE & LENGTH OF SURVEY: October 1995.

WEATHER CONDITION: Not known.

VEGETATION DOMAIN: Mallee and Melaleuca lanceolata woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: These two sites occur at the north end of the Port Lincoln Vegetation Reserve, situated at the south side of Porter Bay. The two sites were not examined by the author. They form part of a coastal Amyema melaleucae infested Melaleuca lanceolata woodland, that is also found directly opposite the sites to the east, on the north coast area of the Lincoln National Park, east of Stamford Hill.

The vegetation present includes Acacia alcockii, A. anceps, A. cupularis, A. nematophylla, A. spinescens, A. triquetra, Acrotriche cordata, A. patula, *Aira cupaniana, Allocasuarina verticillata, Amyema melaleucae on Melaleuca lanceolata, *Anagallis arvensis, *Avellinia michelii, *Bromus madritensis, Carpobrotus rossii, Cassytha melantha, C. peninsularis peninsularis, *Cerastium balearicum, Clematis microphylla, Comesperma volubile, Correa pulchella, C. reflexa coriacea, Craspedia glauca, Danthonia caespitosa, Daucus glochidiatus, *Desmazeria rigida, Dianella revoluta brevicaulis, Dichelachne crinita, Drosera macrantha planchonii, Eucalyptus diversifolia, E. gracilis, E. oleosa, E. rugosa, Eutaxia microphylla microphylla, Exocarpos aphyllus, Gahnia deusta, G. lanigera, *Galium murale, Geranium potentilloides potentilloides, Gnaphalium indutum, Goodenia blackiana, Hardenbergia violacea, Helichrysum leucopsideum, Hibbertia sp. D, Hydrocotyle capillaris, Lasiopetalum discolor, Lepidosperma congestum, Lomandra collina, L. micrantha micrantha, Melaleuca decussata, M. lanceolata, Microseris lanceolata, Microtis arenaria, Pimelea serpyllifolia serpyllifolia, Poa labillardieri labillardieri, Pomaderris obcordata, P. paniculosa paniculosa, Poranthera triandra, Prasophyllum occultans, Rhagodia candolleana candolleana, Santalum acuminatum, Sebaea ovata, Stackhousia annua, S. aspericocca, Stipa exilis, S. flavescens, Templetonia retusa, Thysanotus patersonii, Trachymene pilosa, Tricoryne tenella, *Vulpia myuros, Wahlenbergia gracilenta.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Amyema melaleucae, Cassytha melantha, C. peninsularis peninsularis, Eutaxia microphylla microphylla, Exocarpos aphyllus, Gahnia deusta, G. lanigera, Lomandra collina, perennial grasses, Santalum acuminatum.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia

agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini (npr), Trapezites luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Ogyris amaryllis meridionalis.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Antipodia atralba, Candalides acastus, common spp, Delias aganippe, Hesperilla donnysa diluta, Neolucia agricola agricola and possibly Candalides hyacinthinus simplex, Hypochrysops ignitus ignitus, Theclinesthes miskini miskini and Trapezites sciron eremicola.

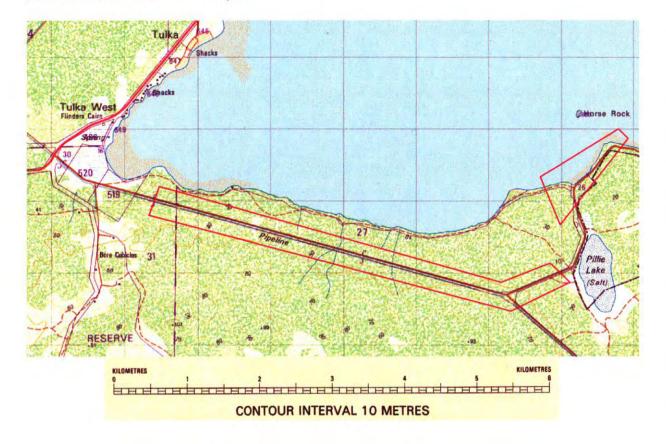
SUMMARY: This vegetation reserve is potentially a highly significant area for the conservation of rare and threatened butterflies, due to the diverse number of foodplants present for these butterflies. This reserve was not examined by the author, but a sighting of the metallic-blue Lycaenid butterfly Ogyris amaryllis (Adelaide Form), was made at this location by the vegetation collectors which is duly recorded. This area is one of only two known areas for the mistletoe and the butterfly in the southern Eyre Peninsula region. The other colony is present in the Point Bolingbroke to Tumby Bay area, further to the north. This butterfly was discovered for the first time in the southern Eyre Peninsula Region during this survey and in these two areas.

CONSERVATION STATUS: Unknown, probably Council Reserve.

LOCATION: JUS 00701, 34 48 53, 135 51 12, 578054, 6147159.

(Lincoln National Park, northwest side).

MAPSHEET: Jussieu 1/50,000.



LOCATION: JUS 00701, 34 48 53, 135 51 12, 578054, 6147159, Jussieu 1/50000 Sheet. (Lincoln National Park, northwest side).

DATE & LENGTH OF SURVEY: 29 March 1996. 1/4 hr

WEATHER CONDITION: Overcast, warm and sultry, with sunny periods.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mallee.

CONDITION: This site consists of limestone based mallee in pristine condition.

The vegetation present includes Acrotriche patula, *Anagallis arvensis, Apium prostratum prostratum, Beyeria lechenaultii, Bulbine semibarbata, Cassytha peninsularis peninsularis, Clematis microphylla, Correa reflexa coriacea, Crassula sieberiana tetramera, Danthonia caespitosa, Daucus glochidiatus, Dianella revoluta brevicaulis, *Desmazeria rigida, Dodonaea humilis, Eucalyptus conglobata, E. diversifolia, Gahnia deusta, Galium migrans, *Galium murale, Hardenbergia violacea, Hibbertia riparia, H. sp. D, Lasiopetalum discolor, Lepidosperma congestum, Melaleuca decussata, M. lanceolata, Mitrasacme paradoxa, *Myrsiphyllum asparagoides, Pelargonium littorale, Pimelea glauca, Poa labillardieri labillardieri, Pomaderris obcordata, Poranthera triandra, Prasophyllum calcicola, Ranunculus sessiliflorus sessiliflorus, *Rostraria cristata, Sebaea ovata, *Senecio pterophorus pterophorus, Stipa flavescens, Templetonia retusa, Thysanotus patersonii, Trachymene pilosa.

West of this site, (between the park entrance and Pillie Lake), along either side of the main access road are occasional *Choretrum glomeratum*.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Cassytha peninsularis peninsularis, Choretrum glomeratum, Gahnia deusta, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen at the site. West of the site some of the *Choretrum* was examined of which one showed evidence of old *Ogyris otanes* larval habitation.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Hesperilla donnysa diluta and possibly Acrodipsas brisbanensis cyrilus, Candalides hyacinthinus simplex, Hypochrysops ignitus ignitus and Ogyris idmo halmaturia.

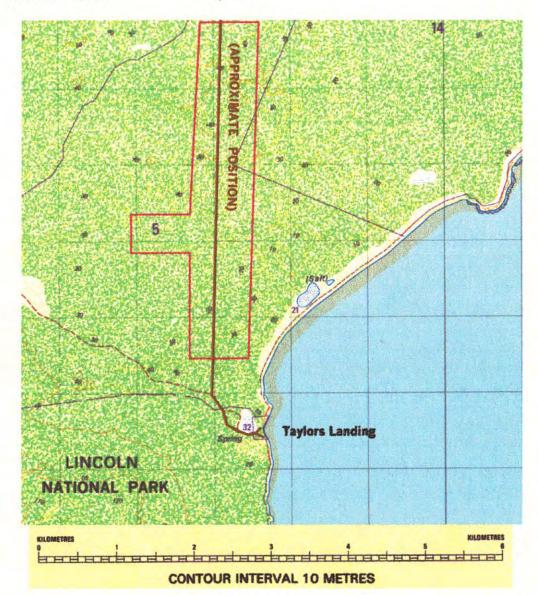
SUMMARY: This area of the Lincoln National Park contains mallee vegetation typical for most of the park, in which are sprinkled *Choretrum glomeratum* the foodplant for the vulnerable butterflies *Hypochrysops ignitus ignitus* and *Ogyris otanes*. There were good, but old larval eat-marks on one of the smaller *Choretrum* bushes indicative of *Ogyris otanes* habitation, although the attendant sugar-ant was not present. During this survey, this butterfly was found flying for the first time on Eyre Peninsula, at a site 20 km to the southwest near Whalers Way. The pristine vegetation at Lincoln National park is conducive habitat for both of the above butterflies, as well as other threatened species such as *Acrodipsas brisbanensis cyrilus* and *Ogyris idmo halmaturia*.

CONSERVATION STATUS: National Park.

LOCATION: JUS 01001, 34 49 56, 135 56 28, 586067, 6145146. (Taylor's Landing Road, Lincoln National Park).

MAPSHEET: Jussieu

1/50,000.



LOCATION: JUS 01001, 34 49 56, 135 56 28, 586067, 6145146, Jussieu 1/50000 Sheet. (Taylor's Landing Road, Lincoln National Park).

DATE & LENGTH OF SURVEY: 29 March 1996. 1/4 hr

WEATHER CONDITION: Overcast, warm and sultry, with sunny periods.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Maliee.

CONDITION: This site consists of limestone based mallee, in pristine condition.

The vegetation present includes Acacia brachybotrya, Acrotriche cordata, A. patula, Beyeria lechenaultii, Cassytha melantha, C. peninsularis, Correa pulchella, Dianella revoluta revoluta, *Desmazeria rigida, Dodonaea humilis, Eucalyptus conglobata, E. oleosa, E. rugosa, Eutaxia microphylla microphylla, Exocarpos aphyllus, Gahnia deusta, Genoplesium rufum, Hibbertia riparia, Lasiopetalum discolor, Melaleuca lanceolata, Microcybe pauciflora, Pomaderris obcordata, Pterostylis longifolia, Pultenaea acerosa, Stipa exilis, Templetonia retusa, Veronica hillebrandii, Westringia eremicola. There are also occasional Choretrum glomeratum growing along this access road.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Cassytha melantha, C. peninsularis, Choretrum glomeratum, Eutaxia microphylla microphylla, Exocarpos aphyllus, Gahnia deusta, perennial grasses, Pultenaea acerosa, Westringia eremicola.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, Candalides hyacinthinus simplex, common spp, Hesperilla donnysa diluta, Neolucia agricola agricola, Ogyris otanes and possibly Acrodipsas brisbanensis cyrilus, Candalides heathi heathi, Hypochrysops ignitus ignitus and Ogyris idmo halmaturia.

SUMMARY: This area of the Lincoln National Park contains mallee vegetation typical for most of the park, in which are sprinkled *Choretrum glomeratum* the foodplant for the vulnerable butterflies *Hypochrysops ignitus ignitus* and *Ogyris otanes*. At another site 12 km

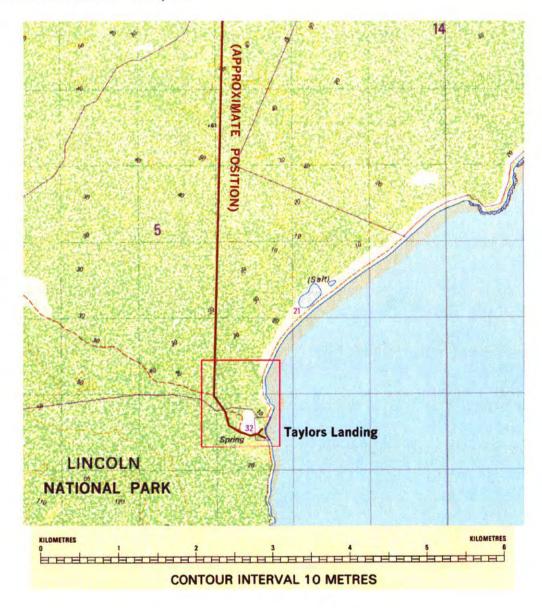
to the west there were good, but old larval eat-mark indications on one of the smaller *Choretrum* bushes suggestive of *Ogyris otanes* habitation. This butterfly was found for the first time on Eyre Peninsula, during this survey, 20 km to the southwest near Whalers Way. The pristine vegetation is conducive for habitation by rare and threatened butterflies, although none were seen at this site due to the very short time spent there.

CONSERVATION STATUS: National Park.

LOCATION: JUS 01101, 34 51 06, 135 57 08, 587050, 6142967.

(Taylor's Landing, Lincoln National Park).

MAPSHEET: Jussieu 1/50,000.



LOCATION: JUS 01101, 34 51 06, 135 57 08, 587050, 6142967, Jussieu 1/50000 Sheet. (Taylor's Landing, Lincoln National Park).

DATE & LENGTH OF SURVEY: 29 March 1996. 2 hrs

WEATHER CONDITION: Overcast, warm and sultry, with sunny periods.

VEGETATION DOMAIN: Mallee and saline marsh.

DOMINANT VEGETATION: Mixed.

CONDITION: This site consists of limestone and white-sand based mallee in the higher areas, and saline marsh vegetation in the lower areas. The mallee vegetation is in pristine condition, although the *Gahnia filum* in the marsh was heavily grazed by kangaroos.

The vegetation present includes Acacia rupicola, Acianthus pusillus, Acrotriche cordata A. patula, Astroloma humifusum, Beyeria lechenaultii, Billardiera versicolor, Bulbine semibarbata, Cassytha glabella dispar, C. melantha, C. peninsularis peninsularis, Choretrum glomeratum glomeratum, Comesperma volubile, Correa pulchella, C. reflexa coriacea, Danthonia setacea setacea, Daucus glochidiatus, Dianella revoluta brevicaulis, Dodonaea humilis, Drosera macrantha planchonii, Eucalyptus conglobata, E. diversifolia, Exocarpos aphyllus, E. sparteus, Gahnia deusta, G. filum, Gonocarpus mezianus, Goodenia willisiana, Halosarcia sp, Hibbertia sp. A, H. sp. D, Lasiopetalum baueri, L. discolor, L. schulzenii, Lepidosperma congestum, Lomandra collina, L. micrantha micrantha, Melaleuca lanceolata, Microtis arenaria, Mitrasacme paradoxa, Opercularia turpis, Pomaderris flabellaris, P. obcordata, Pterostylis longifolia, P. plumosa, Stipa acrociliata, Templetonia retusa.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Cassytha glabella dispar, C. melantha, C. peninsularis, Choretrum glomeratum, Dodonaea humilis, Exocarpos aphyllus, E. sparteus, Gahnia deusta, G. filum, Lomandra collina, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Candalides hyacinthinus simplex, Hesperilla donnysa diluta.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Ogyris otanes, and possibly Acrodipsas brisbanensis cyrilus,

Hypochrysops ignitus ignitus, Ogyris idmo halmaturia, Ogyris otanes and Trapezites sciron eremicola.

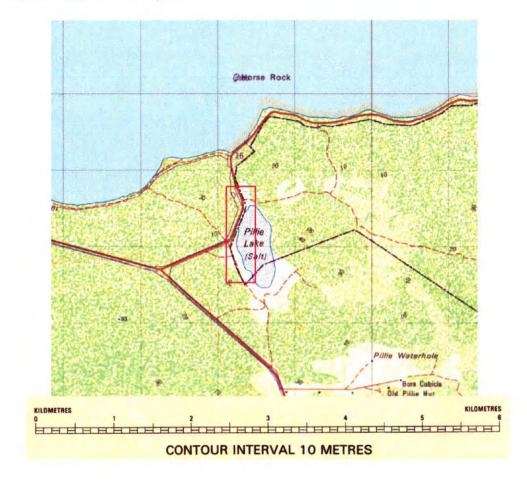
SUMMARY: This area of the Lincoln National Park contains mallee vegetation typical for most of the park, in which are sprinkled *Choretrum glomeratum* the foodplant for the vulnerable butterflies *Hypochrysops ignitus ignitus* and *Ogyris otanes*. At another site 14 km to the west there were good, but old larval eat-mark indications on one of the smaller *Choretrum* bushes suggestive of *Ogyris otanes* habitation. This butterfly was found for the first time on Eyre Peninsula, during this survey, 22 km to the southwest near Whalers Way. At this site, the blue Lycaenid butterfly *Candalides hyacinthinus simplex* was also seen for the first time in the southern Eyre peninsula region. The pristine vegetation in this area is conducive for habitation by further rare and threatened butterflies.

CONSERVATION STATUS: National Park.

LOCATION: JUS 01201, 34 49 39, 135 51 22, 578281, 6145738.

(Lake Pillie, Lincoln National Park).

MAPSHEET: Jussieu 1/50,000.



LOCATION: JUS 01201, 34 49 39, 135 51 22, 578281, 6145738, Jussieu 1/50000 Sheet. (Lake Pillie, Lincoln National Park).

DATE & LENGTH OF SURVEY: 29 March 1996. 1/2 hr

WEATHER CONDITION: Overcast, warm and sultry, with sunny periods.

VEGETATION DOMAIN: Brackish marsh.

DOMINANT VEGETATION: Gahnia filum.

CONDITION: A large area of brackish, *Gahnia* tussockland, situated along the western side of Lake Pillie. The vegetation is in good condition.

The vegetation present includes Acrotriche patula, *Aira cupaniana, *Avellinia michelii, Baumea juncea, Carpobrotus rossii, Clematis microphylla, Corybas sp., Dianella revoluta brevicaulis, Eutaxia microphylla microphylla, Gahnia filum, G. trifida, *Galium murale, Hydrocotyle capillaris, H. medicaginoides, Lasiopetalum discolor, Leucopogon parviflorus, Melaleuca brevifolia, M. lanceolata, Microtis sp., Mitrasacme paradoxa, *Myrsiphyllum asparagoides, *Polypogon maritimus, Pomaderris paniculosa paniculosa, Poranthera triandra, Pterostylis plumosa, Samolus repens, Schoenus nitens, Sebaea ovata, Selliera radicans, *Senecio pterophorus pterophorus, Stipa exilis, S. flavescens.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Eutaxia microphylla microphylla, Gahnia filum, G. trifida, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly *Hesperilla chrysotricha naua*, *Hesperilla donnysa diluta* and *Neolucia agricola agricola*.

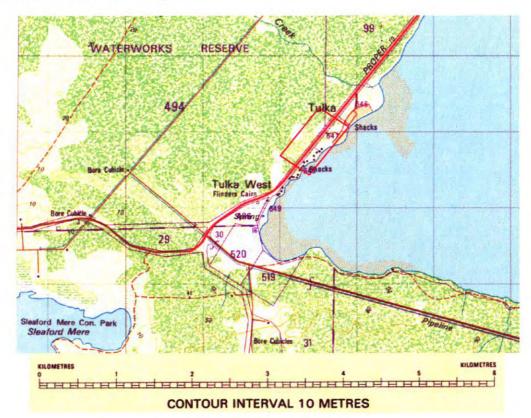
SUMMARY: This site was a repetition of the other *Gahnia filum* sites in the southern Eyre Peninsula region, in which there was very sparse or no *Hesperilla* habitation. Historically, these areas used to be heavily populated with the two indigenous *Hesperilla* skipper species,

which use the larger *Gahnia* as foodplant. The cause of this demise has not been investigated.

CONSERVATION STATUS: National Park.

LOCATION: Tulka Township, 572650, 6149050.

MAPSHEET: Jussieu 1/50,000.



LOCATION: Tulka Township, 572650, 6149050, Jussieu 1/50000 Sheet.

DATE & LENGTH OF SURVEY: 15 October 1995. 1/4 hr

WEATHER CONDITION: Fine and cool.

VEGETATION DOMAIN: Brackish wetland.

DOMINANT VEGETATION: Gahnia filum.

CONDITION: A small roadside brackish wetland situated at the Tulka Township on the east side of the Proper Bay Road. It contains a well developed stand of *Gahnia filum*.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Gahnia filum, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla chrysotricha naua.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly *Hesperilla donnysa diluta*.

SUMMARY: The vulnerable skipper butterfly Hesperilla chrysotricha naua was present at this site, but was extremely rare. Hesperilla donnysa diluta was not present on the Gahnia. The site probably does not have much of a future being so close to the township but is recorded here as one of only three areas in which this vulnerable skipper was seen during this survey. The other areas are along the west side of Sleaford Mere, approximately 7 km further southwest of Tulka, and at Cooroona Waterhole 18 km to the west.

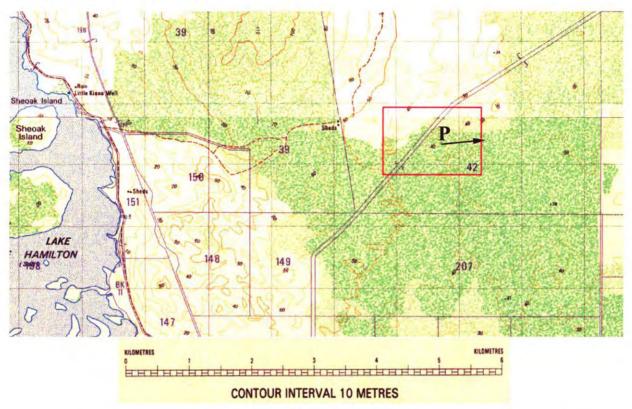
CONSERVATION STATUS: Unknown, maybe Council Land or Private Land.

SITES ON THE KIANA 1/50,000 SHEET

- 25. KIA 00301, 34 00 16, 135 21 55, 533726, 6237265. (6 km east of Lake Hamilton's Sheoak Island).
- 26. KIA 00302, 34 00 18, 135 20 07, 530969, 6237212, KIA 00303, 34 00 37, 135 20 16, 531189, 6236634. (3 1/2 km east of Lake Hamilton's Sheoak Island).
- 27. KIA 00401, 34 01 48, 135 22 39, 534845, 6234443. (8 km ESE of Lake Hamilton's Sheoak Island).
- 28. KIA 00501, 34 00 28, 135 16 05, 524765, 6236932. (Coastal cliffs, west side of Lake Hamilton).
- 29. KIA 00601, 34 02 24, 135 16 25, 525251, 6233351. (Coastal cliffs, west side of Lake Hamilton).
- 30. KIA 00801, 34 06 59, 135 22 48, 535040, 6224846. (3 km ESE of Mount Hope township).
- 31. KIA 01201, 34 07 45, 135 16 15, 524971, 6223477. (Hill Bay, Drummond Point north).
- 32. KIA 01801, 34 08 35, 135 18 55, 529078, 6221926. (On access road to Drummond Point, 5 1/2 km southwest of Mount Hope township).
- 33. KIA 01901, 34 10 20, 135 16 02, 524638, 6218690. (Picnic Beach, Drummond Point south).
- 34. KIA 02201, 34 12 27, 135 19 47, 530363, 6214783. (Mount Drummond Spring).
- 35. KIA 02301, 34 14 47, 135 20 34, 531552, 6210455. (7 km southwest of Mount Drummond Post Office).
- 36. Lake Hamilton, Kiana and Pearce.

LOCATION: KIA 00301, 34 00 16, 135 21 55, 533726, 6237265. (6 km east of Lake Hamilton's Sheoak Island).

MAPSHEET: Kiana 1/50,000.





LOCATION: KIA 00301, 34 00 16, 135 21 55, 533726, 6237265, Kiana 1/50000 Sheet. (6 km east of Lake Hamilton's Sheoak Island).

DATE & LENGTH OF SURVEY: 12 October 1995. 2 hrs

WEATHER CONDITION: Fine and warm, with a strong westerly wind.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mallee.

CONDITION: A very large remnant of mallee situated immediately to the east of Lake Hamilton. It is mostly sand over limestone based. The vegetation is in pristine condition, but there is some degradation of the understorey due to overgrazing by kangaroos.

The vegetation present includes Acacia microcarpa, Baeckea behrii, Calytrix tetragona, Cassytha glabella dispar, C. peninsularis peninsularis, Comesperma volubile, Dianella revoluta, Dodonaea hexandra, Eucalyptus 'anceps', E. leptophylla, Eutaxia microphylla microphylla (rare), Gahnia deusta, G. lanigera, Hakea cycloptera, H. rugosa, Hibbertia riparia (glabriuscula), Homoranthus homoranthoides, Lepidosperma congestum, L. viscidum, Leucopogon cordifolius, Lomandra collina (rare), L. micrantha micrantha, Melaleuca gibbosa, M. uncinata, Microtis unifolia, Neurachne alopecuroidea, Opercularia turpis, Prostanthera serpyllifolia serpyllifolia, Santalum acuminatum, Schoenus breviculmis, Stipa hemipogon, Thelymitra nuda/pauciflora.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Cassytha glabella dispar, C. peninsularis peninsularis, Eutaxia microphylla microphylla, Gahnia deusta, G. lanigera, Lepidosperma viscidum, Lomandra collina, perennial grasses, Santalum acuminatum.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Hesperilla donnysa diluta Trapezites sciron eremicola and the common species Geitoneura klugii klugii, Nacaduba biocellata biocellata, *Pieris rapae rapae, Zizina labradus labradus.

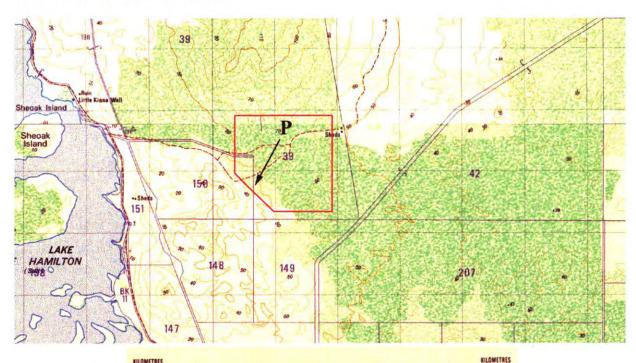
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, Candalides hyacinthinus simplex, common spp, Neolucia agricola agricola and possibly Candalides cyprotus cyprotus, Motasingha trimaculata trimaculata and Ogyris idmo halmaturia.

SUMMARY: This site, when combined with the adjacent sites of KIA00302 and KIA00303 further to the west, is highly significant as an area for the conservation of rare and threatened butterflies. It is supporting a healthy population of both common and rare butterflies, although at this site the foodplant diversity for rare and threatened species is only reasonable. This site is one of two in which the vulnerable skipper butterfly *Trapezites sciron eremicola* was recorded during this survey. The other site is 55 km further to the east near COC01F08. The skipper had been recorded on Eyre Peninsula only once before, at the east side of Hincks Conservation Park.

CONSERVATION STATUS: Private Land, Heritage Listed.

LOCATION: KIA 00302, 34 00 18, 135 20 07, 530969, 6237212; KIA 00303, 34 00 37, 135 20 16, 531189, 6236634. (6 km east of Lake Hamilton's Sheoak Island).

MAPSHEET: Kiana 1/50,000.





LOCATION: KIA 00302, 34 00 18, 135 20 07, 530969, 6237212,

KIA 00303, 34 00 37, 135 20 16, 531189, 6236634, Kiana 1/50000 Sheet.

(3 1/2 km east of Lake Hamilton's Sheoak Island).

DATE & LENGTH OF SURVEY: 12 October 1995. 4 hrs

WEATHER CONDITION: Fine and warm, with a strong westerly wind.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mallee.

CONDITION: A very large remnant of mallee situated immediately to the east of Lake Hamilton. It is mostly sand over limestone based. The vegetation is in pristine condition. To the west of the sites there is some remnant, partly cleared *Melaleuca lanceolata* woodland.

The vegetation present includes Acacia cupularis, Acacia nematophylla, Acrotriche patula, *Anagallis arvensis, *Avena barbata, *Bromus rubens, Bulbine bulbosa, Bursaria spinosa, Callitris preissii, *Carduus tenuiflorus, Cassytha glabella dispar, Choretrum glomeratum glomeratum (common), Clematis microphylla, Correa pulchella, Dampiera rosmarinifolia, Daucus glochidiatus, Dianella revoluta, Dodonaea hexandra, D. viscosa spatulata, Eucalyptus diversifolia, Eutaxia microphylla microphylla (rare), Gahnia deusta, G. lanigera, Hakea cycloptera, H. vittata, Hardenbergia violacea, Helichrysum leucopsideum, Hibbertia riparia (glabriuscula), H. sp. D, *Hypochaeris glabra, Helichrysum leucopsideum, Lasiopetalum baueri, L. discolor, Lepidosperma carphoides (rare), L. congestum, Melaleuca gibbosa, M. lanceolata, M. uncinata, *Myrsiphyllum asparagoides, Neurachne alopecuroidea, Olearia axillaris, Pelargonium littorale, Pimelea flava dichotoma, P. glauca, Pittosporum phylliraeoides microcarpa, Ptilotus spathulatus spathulatus, Stackhousia monogyna, Stipa exilis, Templetonia retusa, Thelymitra nuda, Thryptomene micrantha, Thysanotus patersonii, Tricoryne elatior, *Trifolium campestre, Vittadinia australasica australasica, Wahlenbergia stricta stricta.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Cassytha glabella dispar, Choretrum glomeratum glomeratum, Eutaxia microphylla microphylla, Gahnia deusta, G. lanigera, Lepidosperma carphoides, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Hesperilla donnysa diluta and the common species Geitoneura klugii klugii, Junonia villida calybe, Zizina labradus labradus.

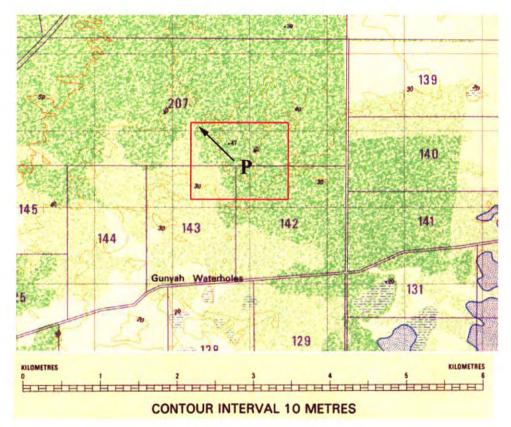
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Acrodipsas brisbanensis cyrilus, Candalides acastus, common spp, Hypochrysops ignitus ignitus, Neolucia agricola agricola, Ogyris otanes and possibly Candalides cyprotus cyprotus, Motasingha trimaculata trimaculata and Ogyris idmo halmaturia.

SUMMARY: This is a highly significant area for the conservation of rare and threatened butterflies, particularly when it is combined with the significance of the adjacent site at KIA00301. It is supporting a healthy population of both common and rare butterflies, and foodplant diversity for rare and threatened species is very good. During this survey, this area was one of four in which Choretrum glomeratum was found to be common. This plant is the foodplant for the vulnerable blue butterflies Hypochrysops ignitus ignitus and Ogyris otanes. The former butterfly is more dependant upon its attendant ant than foodplant, and this ant was seen to be very common in this area, although the butterfly could not be found. This same ant is also the foodhost for the endangered copper butterfly Acrodipsas brisbanensis cyrilus. Both these butterflies fly later in the season and this may be the reason they were not encountered in this area even though the habitat is conducive for them to be present. Similarly, O. otanes could not be found in this area, although it is likely to be found with more intensive searching as experience elsewhere in the state has shown the butterfly uses only one Choretrum plant in fifty as a foodplant.

CONSERVATION STATUS: Private Land, Heritage Listed.

LOCATION: KIA 00401, 34 01 48, 135 22 39, 534845, 6234443. (8 km ESE of Lake Hamilton's Sheoak Island).

MAPSHEET: Kiana 1/50,000.





LOCATION: KIA 00401, 34 01 48, 135 22 39, 534845, 6234443, Kiana 1/50000 Sheet. (8 km ESE of Lake Hamilton's Sheoak Island).

DATE & LENGTH OF SURVEY: 12 October 1995. 1 1/2 hrs

WEATHER CONDITION: Overcast and cool, with a strong westerly wind.

VEGETATION DOMAIN: Mallee and woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A large remnant of mallee situated ESE of Lake Hamilton. A very large portion of the site, on its north side, has recently been rolled and burnt, then allowed to regenerate. On the southwest side of the site is a perched remnant of ancient *Melaleuca lanceolata* woodland that includes *Adriana klotzschii*, which is more typically seen at coastal locations. The vegetation is in pristine condition where it has not been rolled. It is mostly sand over limestone based.

The vegetation present includes Acacia rupicola, Acrotriche patula, Adriana klotzschii,
*Aira cupaniana, *Anagallis arvensis, Asteridea athrixioides athrixioides, *Avena barbata,
Callistemon rugulosus, Callitris canescens, Daucus glochidiatus, Dodonaea hexandra,
Eucalyptus diversifolia, Eutaxia microphylla microphylla, Geranium retrorsum,
Hardenbergia violacea, Hibbertia sp. D, Hyalosperma demissum, *Hypochaeris glabra,
Lasiopetalum baueri, Leucopogon cordifolius, *Medicago truncatula, Melaleuca lanceolata,
Microtis unifolia, Muehlenbeckia adpressa, Neurachne alopecuroidea, Pimelea flava
dichotoma, Pittosporum phylliraeoides microcarpa, *Senecio pterophorus pterophorus,
*Sonchus oleraceus, Stipa sp, Thryptomene micrantha, *Trifolium arvense arvense,
Vittadinia australasica australasica.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Adriana klotzschii, Eutaxia microphylla microphylla, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Theclinesthes albocincta. This site was examined at 6 pm when it was nearly dark, and it was not possible to check for all the possible resident butterflies.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp, and possibly *Neolucia agricola*.

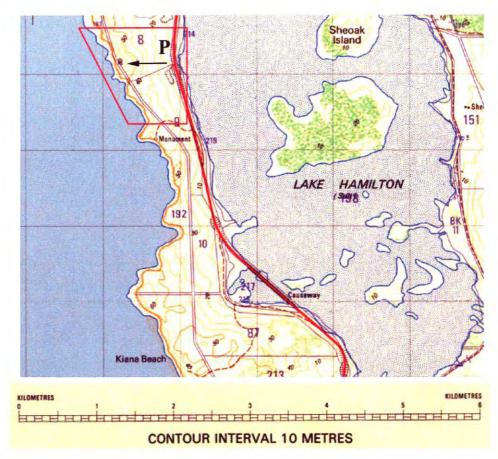
SUMMARY: This is an interesting remnant by virtue of the ancient *Melaleuca lanceolata* trees, some of which are 3-4 m high and with very thick buttresses. Growing among the *Melaleuca* on the hill top are *Adriana klotzschii*, supporting a major population of the small blue butterfly *Theclinesthes albocincta*. This woodland is more typically found on the coast immediately behind the dune systems.

CONSERVATION STATUS: Private Land.

LOCATION: KIA 00501, 34 00 28, 135 16 05, 524765, 6236932.

(Coastal cliffs, west side of Lake Hamilton).

MAPSHEET: Kiana 1/50,000.





LOCATION: KIA 00501, 34 00 28, 135 16 05, 524765, 6236932, Kiana 1/50000 Sheet. (Coastal cliffs, west side of Lake Hamilton).

DATE & LENGTH OF SURVEY: 9 October 1995. 2 hrs

WEATHER CONDITION: Fine, warm day, with a very strong northerly wind.

VEGETATION DOMAIN: Coastal heath.

DOMINANT VEGETATION: Mixed.

CONDITION: The vegetation is low, scrubby, wind swept coastal heath, situated on the back side of the coastal limestone cliffs. There are also occasional areas with perched white sand dunes. The vegetation is in pristine condition. Immediately to the east is the large saline Hamilton Lake, edged with *Gahnia filum* which was not examined at this site.

The vegetation present includes Acacia anceps, A. longifolia sophorae, *Anagallis arvensis, Atriplex sp, *Avellinia michelii, *Avena barbata, Carpobrotus rossii, Cassytha peninsularis peninsularis, Clematis microphylla, Comesperma volubile, *Desmazeria rigida, Dianella revoluta brevicaulis, Eutaxia microphylla microphylla, Exocarpos syrticola, *Hypochaeris glabra, Isolepis nodosa, Kennedia prostrata, Lasiopetalum discolor, Leucopogon parviflorus, *Melilotus indica, Olearia axillaris, Pultenaea tenuifolia, Rhagodia candolleana candolleana, *Sonchus oleraceus, Stipa drummondii, S. mundula, Triodia scariosa scariosa, *Vulpia myuros myuros.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha peninsularis, Eutaxia microphylla microphylla, Exocarpos syrticola, perennial grasses, Pultenaea tenuifolia.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Princeps demoleus sthenelus and the common species Geitoneura klugii klugii, Lampides boeticus, Nacaduba biocellata biocellata, *Pieris rapae rapae.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, Candalides hyacinthinus simplex, common spp, Neolucia agricola agricola and possibly Jalmenus icilius and Theclinesthes miskini miskini.

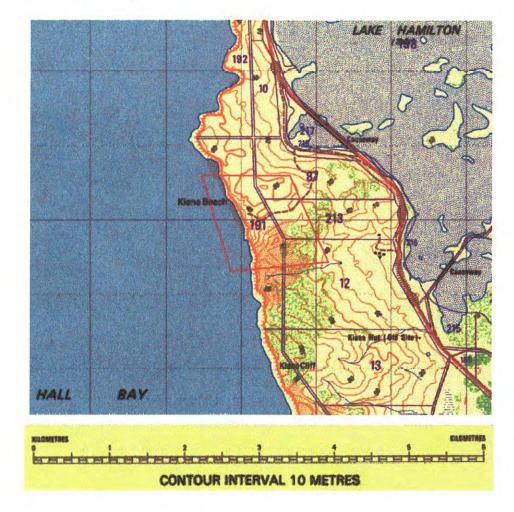
SUMMARY: The vegetation along the coast here is in pristine condition. This site is supporting a healthy population of common butterflies. Foodplants for common butterflies are abundant, but foodplant diversity for rare and threatened species is poor. The large yellow, migrant swallowtail butterfly *Princeps demoleus* was recorded for the first time from southern Eyre Peninsula at this site. It is probably not resident in the region as its foodplant *Cullen(Psoralea)* spp was not recorded during the survey.

CONSERVATION STATUS: Unknown, probably Private Land.

LOCATION: KIA 00601, 34 02 24, 135 16 25, 525251, 6233351.

(Coastal cliffs, west side of Lake Hamilton).

MAPSHEET: Kiana 1/50,000.



LOCATION: KIA 00601, 34 02 24, 135 16 25, 525251, 6233351, Kiana 1/50000 Sheet. (Coastal cliffs, west side of Lake Hamilton).

DATE & LENGTH OF SURVEY: 9 October 1995. 2 hrs

WEATHER CONDITION: Fine, warm day, with a very strong northerly wind.

VEGETATION DOMAIN: Coastal heath.

DOMINANT VEGETATION: Mixed.

CONDITION: The vegetation is low, scrubby, wind swept coastal heath, situated on the back side of the coastal limestone cliffs. There are also occasional areas with perched white sand dunes. The vegetation is in pristine condition. Immediately to the east is the large saline Hamilton Lake, edged with *Gahnia filum* which was not examined at this site.

The vegetation present includes Acacia anceps, Acrotriche patula, *Bupleurum semicompositum, Cassytha peninsularis peninsularis, Dianella revoluta brevicaulis, *Desmazeria rigida, *Diplotaxis tenuifolia, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia lanigera, Helichrysum leucopsideum, Lasiopetalum discolor, Leucophyta brownii, Leucopogon parviflorus, Lomandra collina (very rare), Microtis arenaria, Olearia axillaris, Opercularia turpis, Pimelea serpyllifolia serpyllifolia, Pultenaea tenuifolia, Rhagodia candolleana, Samolus repens, Senecio lautus, *Sonchus oleraceus, Spyridium phylicoides, Stipa flavescens, Tetragonia implexicoma, Threlkeldia diffusa, Thysanotus baueri, Triodia scariosa scariosa, Veronica hillebrandii.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha peninsularis, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia lanigera, Lomandra collina, perennial grasses, Pultenaea tenuifolia.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Candalides acastus, Neolucia agricola agricola and the common species Geitoneura klugii klugii, Nacaduba biocellata biocellata, *Pieris rapae rapae, Theclinesthes serpentata serpentata, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly Candalides hyacinthinus simplex, Jalmenus icilius and Theclinesthes miskini miskini.

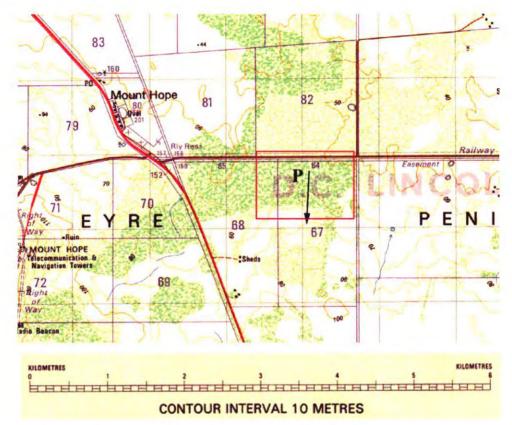
SUMMARY: The vegetation along the coast here is in excellent condition, although at this site there is some die back, probably from the previous years' drought. This site is supporting a healthy population of both common and rare butterflies. Foodplants for common butterflies are abundant, but foodplant diversity for rare and threatened species is poor.

CONSERVATION STATUS: Unknown, probably Private Land.

LOCATION: KIA 00801, 34 06 59, 135 22 48, 535040, 6224846.

(3 km ESE of Mount Hope township).

MAPSHEET: Kiana 1/50,000.





LOCATION: KIA 00801, 34 06 59, 135 22 48, 535040, 6224846, Kiana 1/50000 Sheet. (3 km ESE of Mount Hope township).

DATE & LENGTH OF SURVEY: 12 October 1995. 1 1/2 hrs

WEATHER CONDITION: Overcast and warm, with a strong westerly wind.

VEGETATION DOMAIN: Mailee.

DOMINANT VEGETATION: Mallee.

CONDITION: A large remnant of mallee situated on the south side of a main road, 3 km ESE of Mount Hope township. It is mostly sand over limestone based. The vegetation is in pristine condition. Adjacent areas have been mostly cleared.

The vegetation present includes Acacia myrtifolia myrtifolia, A. spinescens, Acrotriche patula, Astroloma conostephioides, Baeckea behrii, B. crassifolia, Calytrix tetragona, Cassytha glabella dispar, Choretrum glomeratum glomeratum (tate), Correa reflexa coriacea, Dampiera rosmarinifolia, Dianella revoluta, Dodonaea hexandra, Eucalyptus diversifolia, Eutaxia microphylla microphylla, Gahnia lanigera (tate), Gonocarpus mezianus, Hakea cycloptera, Hibbertia riparia (glabriuscula), Lasiopetalum baueri, Lepidosperma congestum, L. viscidum, Leucopogon cordifolius, Melaleuca uncinata, Microtis unifolia, Neurachne alopecuroidea, Opercularia turpis, Pomaderris obcordata, Prostanthera serpyllifolia serpyllifolia, Schoenus breviculmis, Stackhousia monogyna, Stipa mundula, Thryptomene micrantha, Tricoryne elatior.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Choretrum glomeratum glomeratum, Eutaxia microphylla microphylla, Gahnia lanigera, Hakea sp, Lepidosperma viscidum, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Motasingha trimaculata trimaculata.

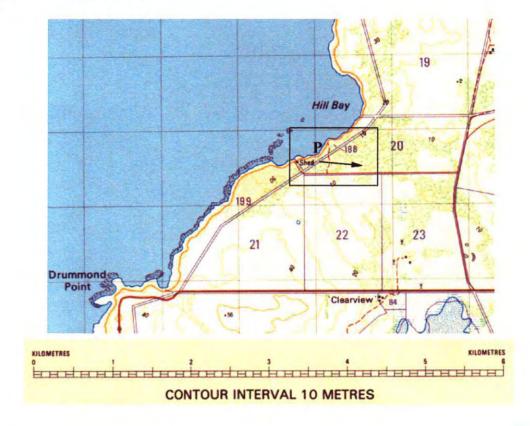
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp, and possibly Candalides acastus, Candalides cyprotus cyprotus, Hypochrysops ignitus ignitus, Neolucia agricola agricola, Ogyris otanes and Ogyris idmo halmaturia.

SUMMARY: This is a highly significant area for the conservation of rare and threatened butterflies. It is supporting a population of the rare skipper butterfly Motasingha trimaculata trimaculata. This site is one of two in which this butterfly was recorded during this survey. The other site is at the Wanilla Reserve. The foodplant diversity for rare and threatened species is reasonable. Choretrum glomeratum was present at this site, but was rare and occurred as ancient, very large bushes of 2m height and 3m breadth. This plant is the foodplant for the vulnerable blue butterflies Hypochrysops ignitus ignitus and Ogyris otanes. The former butterfly is more dependant upon its attendant ant than foodplant, and this ant was not seen at this site, and the butterfly was also not seen. Similarly, O. otanes could not be found, although its attendant sugar-ants were present, and it is possible this butterfly may be found with more intensive searching, although elsewhere in the state, experience has shown the butterfly uses only one Choretrum plant in fifty as a foodplant, and this plant was certainly not present at this site in such numbers.

CONSERVATION STATUS: Private Land.

LOCATION: KIA 01201, 34 07 45, 135 16 15, 524971, 6223477. (Hill Bay, Drummond Point north).

MAPSHEET: Kiana 1/50,000.





LOCATION: KIA 01201, 34 07 45, 135 16 15, 524971, 6223477, Kiana 1/50000 Sheet. (Hill Bay, Drummond Point north).

DATE & LENGTH OF SURVEY: 9 October 1995. 2 hrs

WEATHER CONDITION: Overcast and cool, with a westerly wind.

VEGETATION DOMAIN: Coastal woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A large remnant of scrubby, wind swept coastal mallee, situated on the back side of coastal white sand-dunes. The vegetation is in pristine condition. Parts of adjoining areas have been cleared for agriculture.

The vegetation present includes Acacia anceps, Acrotriche patula, *Anagallis arvensis, Cassytha glabella dispar, C. melantha, C. peninsularis peninsularis, Clematis microphylla, Eucalyptus diversifolia, E. yalatensis, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia lanigera, Goodenia willisiana, Helichrysum leucopsideum, Hibbertia sp. D, Lasiopetalum discolor, Lomandra collina, L. effusa, Melaleuca acuminata, Microtis arenaria, Minuria leptophylla, Olearia axillaris, Oxalis perennans, Pimelea flava dichotoma, Pittosporum phylliraeoides microcarpa, *Poa bulbosa, Pomaderris paniculosa paniculosa, Pultenaea sp, Rhagodia candolleana candolleana, Thysanotus baueri, Tricoryne tenella, Triodia scariosa scariosa. East of the site along the access road are some Gahnia filum, which were briefly examined.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia anceps, Cassytha glabella dispar, C. melantha, C. peninsularis, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia filum, G. lanigera, Lomandra collina, Oxalis perennans, perennial grasses, Pultenaea sp.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba (rare), Candalides acastus, Neolucia agricola agricola and the common species Junonia villida calybe, Lampides boeticus, Nacaduba biocellata biocellata, *Pieris rapae rapae, Zizina labradus labradus. Hesperilla spp were not present on the Gahnia filum.

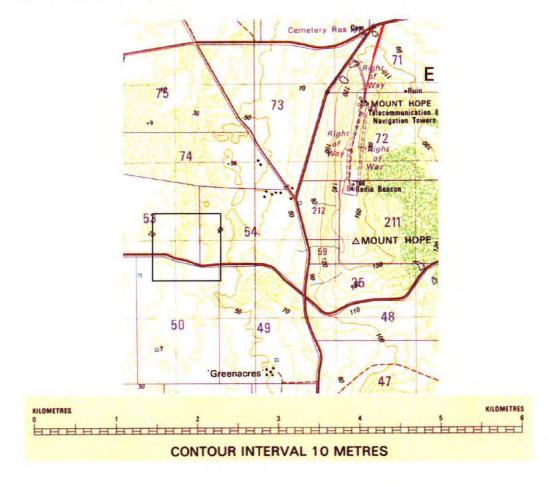
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp. and possibly Candalides hyacinthinus simplex, Jalmenus icilius, Theclinesthes miskini miskini and Trapezites sciron eremicola.

SUMMARY: This site is supporting a healthy population of common and rare butterflies. Foodplant diversity for rare and threatened species is good.

CONSERVATION STATUS: Private Land.

LOCATION: KIA 01801, 34 08 35, 135 18 55, 529078, 6221926. (On access road to Drummond Point, 5 1/2 km southwest of Mount Hope township).

MAPSHEET: Kiana 1/50,000.



LOCATION: KIA 01801, 34 08 35, 135 18 55, 529078, 6221926, Kiana 1/50000 Sheet. (On access road to Drummond Point, 5 1/2 km southwest of Mount Hope township).

DATE & LENGTH OF SURVEY: 10 October 1995.

WEATHER CONDITION: Fine day.

VEGETATION DOMAIN: Coastal mallee.

DOMINANT VEGETATION: Mixed.

CONDITION: A small remnant of coastal mallee, which forms part of a larger remnant of mallee to the north. The adjoining area to the south has been cleared for agriculture. This site was not examined by the author.

The vegetation present includes Acacia alcockii, Acrotriche patula, *Anagallis arvensis, Clematis microphylla, Danthonia caespitosa, Dianella revoluta brevicaulis, Eucalyptus diversifolia, E. rugosa, Gahnia deusta, G. lanigera, Goodenia willisiana, Helichrysum leucopsideum, *Medicago truncatula, *Myrsiphyllum asparagoides, Pimelea flava dichotoma, Pittosporum phylliraeoides microcarpa, Stipa exilis, Thysanotus baueri, Thysanotus patersonii, Tricoryne elatior, *Trifolium campestre, Triodia scariosa scariosa, *Vulpia myuros myuros.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Gahnia deusta, G. lanigera, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Princeps demoleus sthenelus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly Antipodia atralba and Hesperilla donnysa diluta.

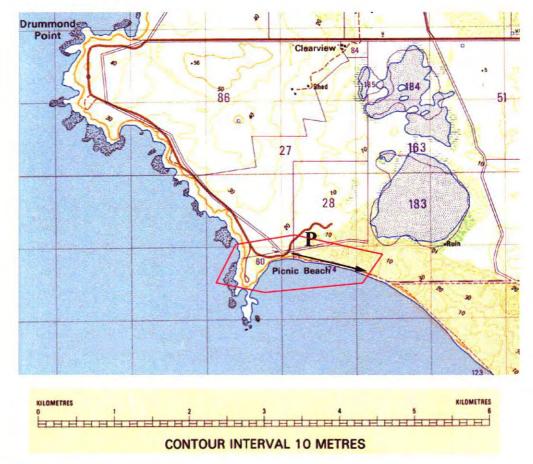
SUMMARY: This site was not examined by the author, but a sighting of the large yellow, migrant swallowtail butterfly *Princeps demoleus* was recorded at this site by the vegetation collectors, which is duly recorded. It is probably not resident in the region as its foodplant *Cullen(Psoralea)* spp was not recorded during the survey. The foodplant diversity for butterflies at this site (within the sampled quadrat) is poor.

CONSERVATION STATUS: Private Land.

LOCATION: KIA 01901, 34 10 20, 135 16 02, 524638, 6218690.

(Picnic Beach, Drummond Point south).

MAPSHEET: Kiana 1/50,000.





LOCATION: KIA 01901, 34 10 20, 135 16 02, 524638, 6218690, Kiana 1/50000 Sheet. (Picnic Beach, Drummond Point south).

DATE & LENGTH OF SURVEY: 9 October 1995. 2 hrs

WEATHER CONDITION: Fine, warm day, with a very strong northerly wind.

VEGETATION DOMAIN: Coastal heath.

DOMINANT VEGETATION: Mixed.

CONDITION: The vegetation is low, scrubby, wind swept coastal heath, situated on the back side of the coastal, white sand covered limestone cliffs. The vegetation is in pristine condition. Immediately to the east the area has been cleared for agriculture.

The vegetation present includes *Anagallis arvensis, *Cakile maritima, *Desmazeria rigida, Eutaxia microphylla microphylla, Exocarpos syrticola, Frankenia pauciflora fruticulosa, Isolepis nodosa, Lasiopetalum discolor, Leucophyta brownii, Leucopogon parviflorus, *Medicago truncatula, Olearia axillaris, *Parapholis incurva, Pimelea serpyllifolia serpyllifolia, Podotheca angustifolia, Pultenaea tenuifolia, Rhagodia candolleana candolleana, *Rostraria cristata, Samolus repens, *Silene nocturna, Stipa acrociliata, Threlkeldia diffusa, Thryptomene micrantha.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Eutaxia microphylla microphylla, Exocarpos syrticola, perennial grasses, Pultenaea tenuifolia.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Common species Geitoneura klugii klugii, Lampides boeticus, *Pieris rapae rapae, Vanessa kershawi, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: *Neolucia agricola agricola* and common spp.

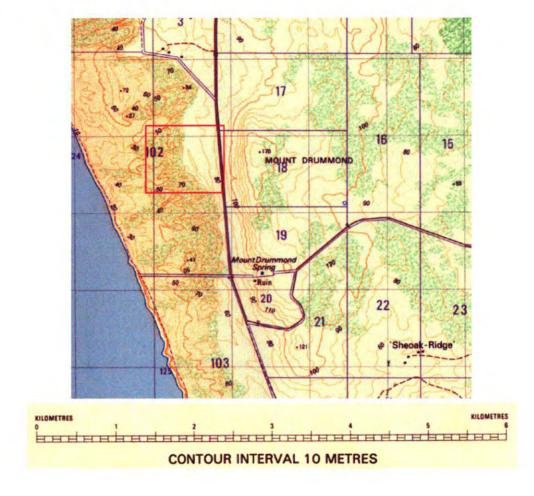
SUMMARY: The remaining vegetation along the coast here is in good condition, and is supporting a healthy population of common butterflies. Foodplant diversity for rare and threatened species is poor.

CONSERVATION STATUS: Council Coastal Reserve.

LOCATION: KIA 02201, 34 12 27, 135 19 47, 530363, 6214783.

(Mount Drummond Spring).

MAPSHEET: Kiana 1/50,000.



LOCATION: KIA 02201, 34 12 27, 135 19 47, 530363, 6214783, Kiana 1/50000 Sheet. (Mount Drummond Spring).

DATE & LENGTH OF SURVEY: 10 October 1995.

WEATHER CONDITION: Fine day.

VEGETATION DOMAIN: Coastal woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A large remnant of coastal woodland, situated on the back side of a large expanse of coastal white sand-dunes. Most of the adjoining areas to the east have been cleared for agriculture. This site was not examined by the author.

The vegetation present includes Acacia nematophylla, Adriana klotzschii, Allocasuarina verticillata, *Anagallis arvensis, *Avena barbata, *Bromus diandrus, *Bromus rubens, Carpobrotus rossii, Correa pulchella, *Critesion murinum glaucum, *Erodium cicutarium, *Lagurus ovatus, Leucopogon parviflorus, Olearia axillaris, Parietaria debilis, Podotheca angustifolia, Rhagodia candolleana candolleana, Stipa flavescens, Templetonia retusa, Tetragonia implexicoma, Threlkeldia diffusa, Zygophyllum billardierei.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp., Adriana klotzschii, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Theclinesthes albocincta.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly Jalmenus icilius and Theclinesthes miskini miskini.

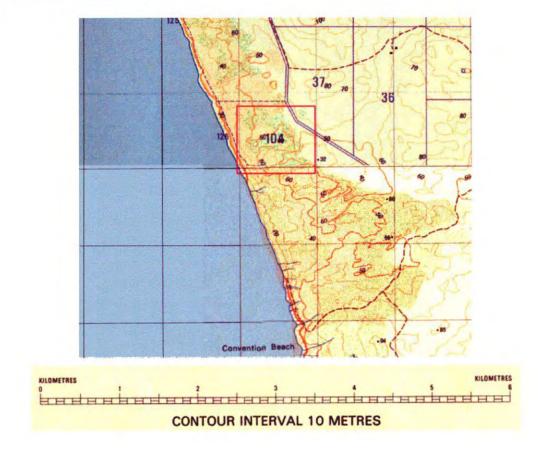
SUMMARY: This site was not examined by the author, but a sighting of the small blue Lycaenid butterfly *Theclinesthes albocincta*, was made at this location by the vegetation collectors which is duly recorded. The foodplant diversity for butterflies at this site (within the sampled quadrat) is poor.

CONSERVATION STATUS: Unknown, probably Private Land.

LOCATION: KIA 02301, 34 14 47, 135 20 34, 531552, 6210455.

(7 km southwest of Mount Drummond Post Office).

MAPSHEET: Kiana 1/50,000.



LOCATION: KIA 02301, 34 14 47, 135 20 34, 531552, 6210455, Kiana 1/50000 Sheet. (7 km southwest of Mount Drummond Post Office).

DATE & LENGTH OF SURVEY: 10 October 1995.

WEATHER CONDITION: Fine day.

VEGETATION DOMAIN: Coastal woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A large remnant of degraded coastal woodland, situated on the back side of a large expanse of coastal white sand-dunes. Most of the adjoining areas to the east have been cleared for agriculture. This site was not examined by the author.

The vegetation present includes Acacia cupularis, Adriana klotzschii, *Anagallis arvensis, *Avena barbata, *Bromus diandrus, Carpobrotus rossii, Clematis microphylla, Crassula sieberiana tetramera, *Critesion murinum glaucum, *Desmazeria rigida, Dianella revoluta brevicaulis, *Diplotaxis tenuifolia, Exocarpos syrticola, Geranium sp., *Hypochaeris glabra, Isolepis nodosa, *Lagurus ovatus, Leucopogon parviflorus, *Lycium ferocissimum, *Medicago truncatula, *Minuartia mediterranea, Myosotis australis, Olearia axillaris, Oxalis perennans, Pittosporum phylliraeoides microcarpa, Rhagodia candolleana candolleana, *Rostraria cristata, *Sonchus oleraceus, Stipa flavescens, Tetragonia implexicoma, Vittadinia australasica australasica, *Vulpia myuros myuros.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Adriana klotzschii, Exocarpos syrticola, Oxalis perennans, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Theclinesthes albocincta.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly Jalmenus icilius and Theclinesthes miskini miskini.

SUMMARY: This site was not examined by the author, but a sighting of the small blue Lycaenid butterfly *Theclinesthes albocincta*, was made at this location by the vegetation collectors which is duly recorded. The foodplant diversity for butterflies at this site (within the sampled quadrat) is poor.

CONSERVATION STATUS: Unknown, probably Private Land.

LOCATION: Lake Hamilton.

MAPSHEETS: Kiana and Pearce 1/50,000.



LOCATION: Lake Hamilton, Kiana and Pearce 1/50000 Sheets.

DATE & LENGTH OF SURVEY: 12 October 1995. 1/2 hr

WEATHER CONDITION: Fine and warm, with a strong westerly wind.

VEGETATION DOMAIN: Saline marsh.

DOMINANT VEGETATION: Gahnia filum.

CONDITION: Lake Hamilton is a very large saline lake situated on the east side of the Flinders Highway between Mount Hope and Sheringa. It is edged with pockets of *Gahnia filum* and *Gahnia trifida* along its south and eastern shores, but along its northern edge it is edged with a vast community of *Gahnia filum* to 100 m deep. The *Gahnia* is in variable condition due to sheep grazing, but is generally good.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Gahnia filum, G. trifida.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla donnysa diluta.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Possibly *Hesperilla chrysotricha naua.*

SUMMARY: The *Gahnia* along the southeast side of the lake was very briefly examined for *Hesperilla* habitation, but nothing was found. At the northern end of the lake, *Hesperilla* donnysa diluta was present on the *Gahnia filum*, but was extremely rare. This lake-side environment should have been a prime habitat for both *H. chrysotricha* and *H. donnysa*, and their demise from the area is an indication of the poor environmental management practices that have occurred in the past. If the northern site remains in its present condition it would be a suitable area for the reintroduction of these butterflies.

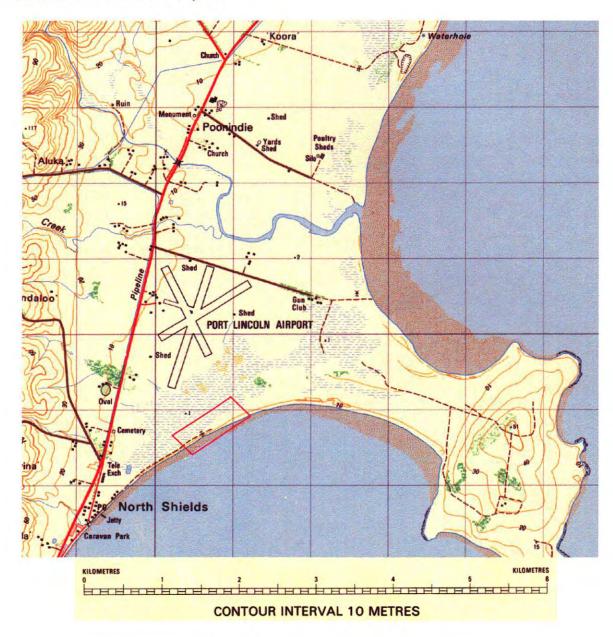
CONSERVATION STATUS: Unknown, probably Private Land.

SITES ON THE LINCOLN 1/50,000 SHEET

- 37. Port Lincoln Airport, 580600, 6168700.
- 38. Tod River, 580300, 6172250. (Tod River on the Lincoln Highway).

LOCATION: Port Lincoln Airport, 580600, 6168700.

MAPSHEET: Lincoln 1/50,000.



LOCATION: Port Lincoln Airport, 580600, 6168700, Lincoln 1/50000 Sheet.

DATE & LENGTH OF SURVEY: 28 March 1996. 1 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Coastal saline marsh and sand-dunes.

DOMINANT VEGETATION: Melaleuca halmaturorum and Gahnia filum.

CONDITION: A large area of coastal saline-marsh occurs along the south side of the Port Lincoln Airport. Near the sea the marsh contains mainly *Melaleuca halmaturorum* with some *Gahnia filum*. A narrow coastal dune system is present between the marsh and the sea. The area immediately behind the dunes and the adjoining marsh were briefly examined for *Adriana klotzschii*, and the presence of *Hesperilla* species on the *Gahnia filum*. The *Gahnia* was in very poor condition suffering from water stress. *Adriana* occurred along the back side of the dune system. The mistletoe *Amyema melaleucae* was not present on the *Melaleuca halmaturorum*.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Adriana klotzschii, Gahnia filum, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla donnysa diluta, Theclinesthes albocincta.

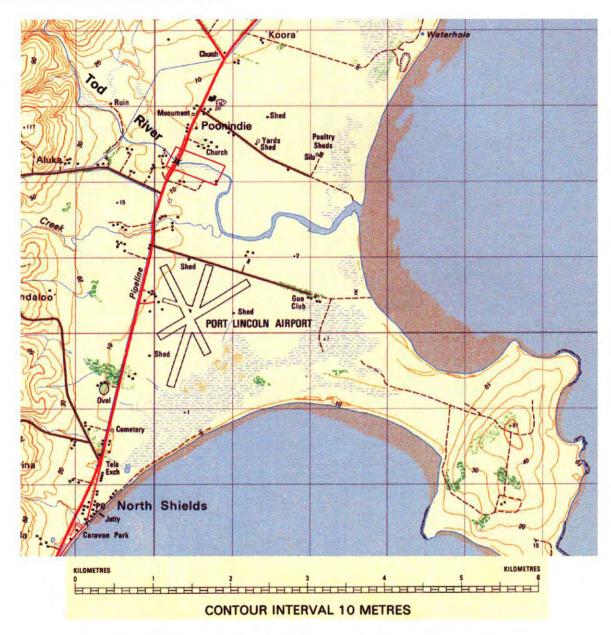
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly *Hesperilla chrysotricha naua*.

SUMMARY: Historically, both *Hesperilla* species were found in this area, and were last reported from there in 1957. This survey indicates a massive decline in their presence. With a more intensive survey they may be found to exist elsewhere in the marsh, although the *Gahnia* looked very stressed and non-conducive for *Hesperilla* habitation. *H. donnysa* was extremely scarce and only one flying adult was seen. The *Adriana* were in good condition and were extensively eaten by the larvae of *Theclinesthes albocincta*, although the butterfly was not flying.

CONSERVATION STATUS: Airport Authority and Coastal Reserve.

LOCATION: Tod River, 580300, 6172250. (Tod River on the Lincoln Highway).

MAPSHEET: Lincoln 1/50,000.



LOCATION: Tod River, 580300, 6172250, Lincoln 1/50000 Sheet. (Tod River on the Lincoln Highway).

DATE & LENGTH OF SURVEY: 21 October 1995. 1/4 hr

WEATHER CONDITION: Very cold and squally, with a strong southerly.

VEGETATION DOMAIN: River estuary.

DOMINANT VEGETATION: Gahnia filum.

CONDITION: A large stand of *Gahnia filum* occurs within the uppermost parts of the Tod River estuary, where it is crossed by the Lincoln Highway. It was briefly examined for the presence of *Hesperilla* species. The *Gahnia* was in good condition.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: *Gahnia filum,* perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly *Hesperilla chrysotricha naua* and *Hesperilla donnysa diluta*.

SUMMARY: Historically, both *Hesperilla* species were found along the Tod River, and were last reported from there in 1957. This survey indicates a massive decline in their presence, although they may still be present further east nearer the sea. If this site was to be put into a conservation mode then it should be suitable for their reintroduction.

CONSERVATION STATUS: Private Land.

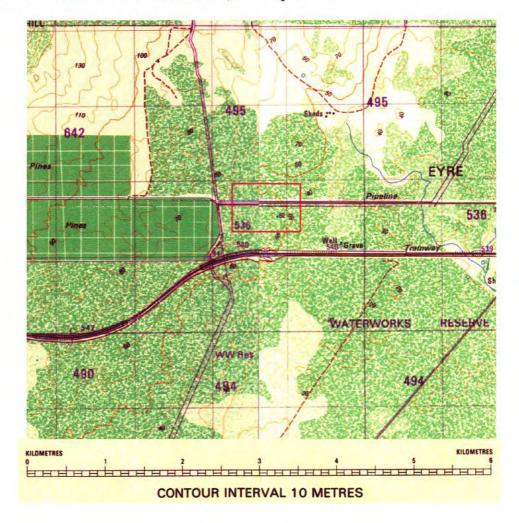
SITES ON THE SLEAFORD 1/50,000 SHEET

- 39. SLE 00201, 34 46 30, 135 44 58, 568585, 6151636. (12 km southwest of Port Lincoln in the Waterworks Reserve).
- 40. SLE 00401, 34 49 29, 135 43 57, 566981, 6146136. (1/2 km east of the northern part of Sleaford Mere).
- 41. SLE 01701, 34 50 46, 135 40 39, 561941, 6143797. (2 km south of Mikkira Ruins and 4 km west of Seaford Mere).
- 42. SLE 01702, 34 51 36, 135 39 46, 560574, 6142267. (1 km northwest of Tarnana Homestead).
- 43. SLE 01703, 34 51 29, 135 38 40, 558898, 6142499. (3 km northwest of Tarnana Homestead).
- 44. SLE 01801, 34 52 10, 135 37 02, 556411, 6141250. (4 1/2 km west of Tarnana Homestead).
- 45. SLE 01901, 34 51 35, 135 35 28, 554020, 6142354. (4 km northwest of D'Anville Bay, and 1/2 km inland of the coast).
- SLE 02001, 554900, 6144100.
 (North side of saline lake, 5 1/2 km north of D'Anville Bay).
- 47. SLE 02201, 34 53 49, 135 40 12, 561217, 6138181. (2 km NNW of Fishery Bay).
- 48. SLE 02401, 34 55 00, 135 39 09, 559607, 6135985. (2 1/2 km west of Fishery Bay).
- SLE 02601, 34 56 16, 135 37 37, 557249, 6133656.
 (Coastal cliffs, 1/2 km east of Matthew Flinders Lookout, Cape Carnot).
- 50. SLE 02602, 34 55 09, 135 37 32, 557131, 6135723. (Coastal cliffs at Red Banks, Whalers Way.
- 51. SLE 02E31, 551200, 6149200. (Cooroona Waterhole).
- 52. Sleaford Mere Conservation Park, west side of the mere.
- 53. Roadside vegetation, 0.8 km northeast of Tarnana Homestead, 561950, 6141800.
- 54. White Lookout, Fishery Bay, 562350, 6135500.

LOCATION: SLE 00201, 34 46 30, 135 44 58, 568585, 6151636.

(12 km southwest of Port Lincoln in the Waterworks Reserve).

MAPSHEET: Sleaford and Jussieu 1/50,000 Mapsheets.



LOCATION: SLE 00201, 34 46 30, 135 44 58, 568585, 6151636, Sleaford 1/50000 Sheet. (12 km southwest of Port Lincoln in the Waterworks Reserve).

DATE & LENGTH OF SURVEY: 17 October 1995. 1 1/2 hrs

WEATHER CONDITION: Fine and hot, with a strong northerly wind.

VEGETATION DOMAIN: Mailee.

DOMINANT VEGETATION: Mallee.

CONDITION: A very large area of mallee with a dense, impassable understorey of *Acacia paradoxa*, situated on the south side of the water-works pipeline. In the higher ridge areas the *Acacia paradoxa* is replaced by *Xanthorrhoea semiplana*. It is laterite over limestone based. The vegetation is in pristine condition, although the massive prescence of the *Acacia paradoxa* would suggest there has been some historical degradation of the original understorey.

The vegetation present includes Acacia leiophylla, A. longifolia sophorae, A. paradoxa, A. rupicola, Acaena echinata, Acrotriche patula, *Aira cupaniana, Allocasuarina verticillata, *Anagallis arvensis, Bursaria spinosa, Caladenia septuosa, Carex breviculmis, Cassytha glabella dispar, Cheilanthes austrotenuifolia, Clematis microphylla, Convolvulus remotus, Crassula sp., Danthonia setacea setacea, *Desmazeria rigida, Dianella revoluta brevicaulis, Dichondra repens, Drosera glanduligera, Eucalyptus diversifolia, *Euphorbia peplus, Gahnia ancistrophylla, G. deusta, G. lanigera, *Galium murale, Geranium sp., Hibbertia sp. D, Hydrocotyle capillaris, Lagenifera huegelii, Lasiopetalum baueri, Lepidosperma congestum, L. viscidum, Leucopogon parviflorus, Lissanthe strigosa, Lomandra collina (common on ridges), Melaleuca lanceolata, Microtis arenaria, Mitrasacme paradoxa, *Myrsiphyllum asparagoides, Oxalis perennans, Pelargonium littorale, Plantago sp., Poa sp, Rutidosis multiflora, Sebaea ovata, *Senecio pterophorus pterophorus, Stipa elegantissima, Stuartina muelleri, Trachymene pilosa, Wahlenbergia gracilenta, Xanthorrhoea semiplana.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Gahnia ancistrophylla, G. deusta, G. lanigera, Lepidosperma viscidum, Lomandra collina, Oxalis perennans, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba and the common species Geitoneura klugii klugii. This site was examined at 5 pm when it was nearly dark, and it was not possible to check for all the possible resident butterflies.

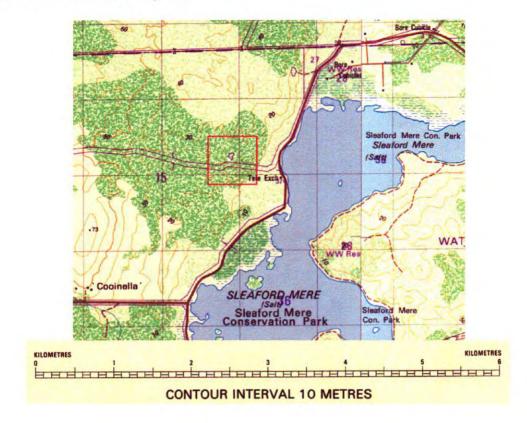
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Hesperilla donnysa diluta and possibly Jalmenus icilius, Motasingha trimaculata trimaculata, Theclinesthes miskini miskini and Trapezites sciron eremicola.

SUMMARY: This is an important area for the conservation of rare and threatened butterflies. There was good foodplant diversity, although the high density of the understorey may curtail the prescence of the butterflies which prefer more open understorey.

CONSERVATION STATUS: Waterworks Reserve.

LOCATION: SLE 00401, 34 49 29, 135 43 57, 566981, 6146136. (1/2 km east of the northern part of Sleaford Mere).

MAPSHEET: Sleaford 1/50,000.



LOCATION: SLE 00401, 34 49 29, 135 43 57, 566981, 6146136, Sleaford 1/50000 Sheet. (1/2 km east of the northern part of Sleaford Mere).

DATE & LENGTH OF SURVEY: 17 October 1995. 1 1/2 hrs

WEATHER CONDITION: Fine and hot, with a strong northerly wind.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mixed.

CONDITION: A very large area of mallee with a dense, impassable understorey of *Xanthorrhoea semiplana*. At the site, the area has been used as a quarry, but appears unused at present and the quarried site is revegetating to *Acacia*. It is laterite over limestone based. The vegetation, where undisturbed, is in pristine condition.

The vegetation present includes Acacia leiophylla, A. longifolia sophorae, A. myrtifolia myrtifolia, A. paradoxa, *Aira cupaniana, *Anagallis arvensis, *Avellinia michelii, Banksia marginata, Billardiera versicolor, *Cerastium balearicum, Clematis microphylla, Crassula closiana, Danthonia setacea setacea, *Desmazeria rigida, Dianella revoluta revoluta, Dichondra repens, Drosera macrantha planchonii, Eucalyptus diversifolia, E. lansdowneana albopurpurea, Eutaxia microphylla, Gahnia deusta (rare), G. trifida, Galium gaudichaudii, *G. murale, Gonocarpus mezianus, Goodenia blackiana, Hakea vittata, Hardenbergia violacea, Hibbertia sp. D, Hydrocotyle callicarpa, Kennedia prostrata, Lasiopetalum baueri, Lepidosperma carphoides, L. congestum, L. viscidum, Leucopogon parviflorus, Lomandra collina (very rare), L. micrantha, Millotia tenuifolia, Mitrasacme paradoxa, *Myrsiphyllum asparagoides, Oxalis perennans, Pelargonium littorale, Pimelea glauca, Pomaderris obcordata, Poranthera triandra, Pultenaea acerosa, Sebaea ovata, *Senecio pterophorus pterophorus, Stipa flavescens, Stipa mundula, Trachymene pilosa, Triglochin centrocarpum, Veronica hillebrandii, Vittadinia australasica australasica, Wahlenbergia gracilenta, Xanthorrhoea semiplana.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Eutaxia microphylla, Gahnia deusta, G. trifida, Lepidosperma carphoides, L. viscidum, Lomandra collina, Oxalis perennans, perennial grasses, Pultenaea acerosa.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla chrysotricha naua and the common species Geitoneura klugii klugii, Junonia villida calybe, Vanessa kershawi.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp, Hesperilla donnysa diluta, Neolucia agricola agricola and possibly Jalmenus icilius, Motasingha trimaculata trimaculata and Theclinesthes miskini miskini.

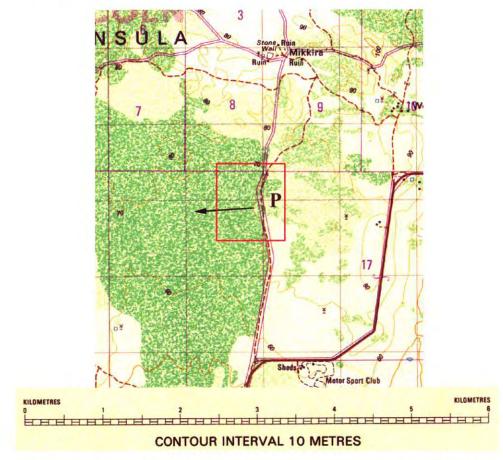
SUMMARY: This site had some *Gahnia trifida* growing along the west side of the quarry area, which may not be a natural occurrence. They were harbouring the vulnerable skipper butterfly *Hesperilla chrysotricha naua*, which have probably originated from the nearby Seaford Mere area. The site is also supporting a healthy population of *Acacia*, although no *Acacia* eating butterflies were seen. Foodplant diversity for rare and threatened butterflies, was reasonable.

CONSERVATION STATUS: Private Land.

LOCATION: SLE 01701, 34 50 46, 135 40 39, 561941, 6143797.

(2 km south of Mikkira Ruins and 4 km west of Seaford Mere).

MAPSHEET: Sleaford 1/50,000.





LOCATION: SLE 01701, 34 50 46, 135 40 39, 561941, 6143797, Sleaford 1/50000 Sheet. (2 km south of Mikkira Ruins and 4 km west of Seaford Mere).

DATE & LENGTH OF SURVEY: 18 October 1995. 1 1/2 hrs

WEATHER CONDITION: Overcast and cool.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mallee.

CONDITION: A very large area of mallee with a reasonably dense understorey of *Xanthorrhoea semiplana*, interspersed with many flowering plants. It is gravel and coarse sand based. The mallee vegetation is in pristine condition. The area to the east has been partially cleared.

The vegetation present includes Acacia leiophylla, A. longifolia sophorae, A. myrtifolia myrtifolia, A. spinescens, Acrotriche cordata, Adenanthos terminalis, *Aira cupaniana, Allocasuarina muelleriana muelleriana, Baeckea behrii, Banksia marginata, Billardiera uniflora, Callistemon rugulosus, Calytrix tetragona, Cassytha glabella dispar, Chamaescilla corymbosa corymbosa, Cheiranthera alternifolia, Correa reflexa coriacea, Cryptandra leucophracta, Danthonia setacea setacea, Daviesia brevifolia, *Desmazeria rigida, Drosera glanduligera, D. macrantha planchonii, Eucalyptus diversifolia, E. lansdowneana albopurpurea, Eutaxia microphylla, Gahnia ancistrophylla (тате), Glischrocaryon behrii, Gompholobium ecostatum, Gonocarpus mezianus, Goodenia blackiana, Grevillea ilicifolia ilicifolia, Hakea cycloptera, H. vittata, Hibbertia riparia (glabriuscula), Homoranthus homoranthoides, Hypolaena fastigiata, Kennedia prostrata, Lepidosperma carphoides, L. viscidum, Lomandra collina (common), L. micrantha tuberculata, Melaleuca decussata, M. uncinata, Mitrasacme paradoxa, Opercularia scabrida, Pimelea glauca, Prasophyllum occidentale, Prasophyllum sp, Pultenaea spp incl. P. trinervis, Schoenus breviculmis, *Senecio pterophorus pterophorus, Sphaerolobium minus, Stipa mollis, Thelymitra luteocilium, Tricoryne tenella, *Trifolium campestre, *Vulpia myuros megalura, Wahlenbergia gracilenta, Xanthorrhoea semiplana, Xanthosia pusilla.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Daviesia brevifolia, Eutaxia microphylla, Gahnia ancistrophylla, Grevillea ilicifolia ilicifolia, Hakea cycloptera, Lepidosperma carphoides, L. viscidum, Lomandra collina, perennial grasses, Pultenaea spp incl. P. trinervis.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia

(~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: The common species Vanessa kershawi, Zizina labradus labradus. This site was examined at 7.30 am when it was too early to check for most flying butterflies.

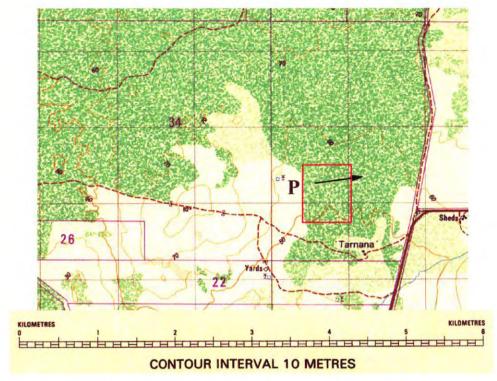
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Neolucia agricola agricola and possibly Antipodia atralba, Candalides cyprotus cyprotus, Hesperilla donnysa diluta, Jalmenus icilius, Motasingha trimaculata trimaculata, Theclinesthes miskini miskini and Trapezites sciron eremicola.

SUMMARY: This is a lush site with a diverse range of foodplants for rare and threatened butterflies. Only common butterflies were seen at the site but this would have been partly due to the site being examined too early in the morning before the butterflies started flying. The overcast and cool conditions would have been another negative factor. However, none of the foodplants examined were supporting larval habitation. More time at the site would be required to fully evaluate its potential. Coconut smelling, byre building ants, the attendant ants for the vulnerable blue butterfly *Hypochrysops ignitus ignitus* were common, although again this butterfly could not be found. This same ant is also the foodhost for the endangered copper butterfly *Acrodipsas brisbanensis cyrilus*. Both these butterflies fly later in the season and this may be the reason they were not encountered in this area even though the habitat is reasonably conducive for them to be present.

CONSERVATION STATUS: Private Land.

LOCATION: SLE 01702, 34 51 36, 135 39 46, 560574, 6142267. (1 km northwest of Tarnana Homestead).

MAPSHEET: Sleaford 1/50,000.





LOCATION: SLE 01702, 34 51 36, 135 39 46, 560574, 6142267, Sleaford 1/50000 Sheet. (1 km northwest of Tarnana Homestead).

DATE & LENGTH OF SURVEY: 18 October 1995. 1 1/2 hrs

WEATHER CONDITION: Overcast and cool.

VEGETATION DOMAIN: Mailee.

DOMINANT VEGETATION: Mallee.

CONDITION: A very large area of dense whip-stick mallee. It is white-sand over limestone based. The original vegetation is in pristine condition. The area has been partially cleared, particularly to the west.

The vegetation present includes Acacia leiophylla, A. longifolia sophorae, A. myrtifolia myrtifolia, A. spinescens, Acrotriche cordata, Allocasuarina muelleriana muelleriana, Argentipallium obtusifolium, Astroloma humifusum, Baeckea behrii, Banksia marginata, B. ornata, Boronia filifolia, Burnettia nigricans, Calytrix tetragona, Cassytha glabella dispar, Centrolepis aristata, Correa reflexa coriacea, Cryptandra leucophracta, Danthonia setacea setacea, Daviesia brevifolia, Drosera macrantha planchonii, Eucalyptus angulosa, Eucalyptus diversifolia, Eutaxia microphylla microphylla, Gahnia trifida (rare), Gonocarpus mezianus, Hakea cycloptera, H. muelleriana, Hibbertia riparia, Homoranthus homoranthoides, Hydrocotyle callicarpa, Hypolaena fastigiata, Lepidosperma carphoides, L. congestum, L. viscidum, Leptocarpus brownii, Leptospermum coriaceum, Leucopogon rufus, Lomandra collina, L. micrantha tuberculata, Micrantheum demissum, Pultenaea acerosa, Schoenus breviculmis, *Senecio pterophorus pterophorus, Stackhousia aspericocca ssp "One-sided inflorescence" (W.R.Barker 697), Stipa mundula, Thysanotus patersonii, T. wangariensis, *Vulpia myuros megalura, Xanthorrhoea semiplana.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Daviesia brevifolia, Eutaxia microphylla microphylla, Gahnia trifida, Hakea cycloptera, Lepidosperma carphoides, L. viscidum, Lomandra collina, perennial grasses, Pultenaea acerosa.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Candalides acastus and the common species Vanessa kershawi, Zizina labradus labradus.

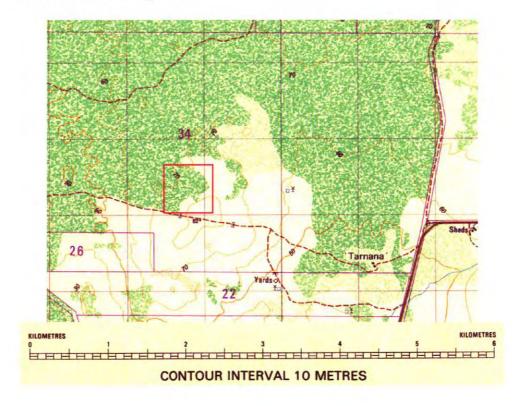
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp, Neolucia agricola agricola and possibly Candalides cyprotus cyprotus, Hesperilla donnysa diluta, Jalmenus icilius, Motasingha trimaculata trimaculata, Theclinesthes miskini miskini and Trapezites sciron eremicola.

SUMMARY: This is a disappointing site, as it has a reasonably diverse range of foodplants for rare and threatened butterflies, yet only common butterflies were seen, and none of the foodplants examined were supporting larval habitation.

CONSERVATION STATUS: Private Land.

LOCATION: SLE 01703, 34 51 29, 135 38 40, 558898, 6142499.

(3 km northwest of Tarnana Homestead).



LOCATION: SLE 01703, 34 51 29, 135 38 40, 558898, 6142499, Sleaford 1/50000 Sheet.

(3 km northwest of Tarnana Homestead).

DATE & LENGTH OF SURVEY: 18 October 1995. 1 1/2 hrs

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Maliee.

DOMINANT VEGETATION: Mallee.

CONDITION: A very large area of whip-stick mallee. It is white-sand over limestone based. The original vegetation is in pristine condition. The area has been partially cleared.

The vegetation present includes Acacia leiophylla, A. myrtifolia myrtifolia, A. spinescens, Acrotriche cordata, *Aira cupaniana, Allocasuarina verticillata, Billardiera versicolor, Cassytha glabella dispar, Clematis microphylla, Correa reflexa coriacea, Crassula sieberiana tetramera, Daucus glochidiatus, Dianella revoluta brevicaulis, Dichelachne crinita, Eucalyptus angulosa, E. diversifolia, Gahnia deusta, G. lanigera, *Galium murale, Gonocarpus mezianus, Goodenia blackiana, Hakea vittata, Hibbertia riparia (glabriuscula), Hydrocotyle capillaris, *Hypochaeris glabra, Lepidosperma carphoides, L. congestum, L. viscidum, Leucopogon parviflorus, *Lolium rigidum, Lomandra collina, L. effusa, L. juncea, Melaleuca lanceolata, M. uncinata, Mitrasacme paradoxa, *Myrsiphyllum asparagoides, Opercularia turpis, Pomaderris obcordata, Prasophyllum odoratum, Pultenaea acerosa, P. rigida ovata, *Senecio pterophorus pterophorus, Stipa spp, Thelymitra luteocilium, Trachymene pilosa, *Vulpia myuros, Wahlenbergia gracilenta, Xanthorrhoea semiplana.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Gahnia deusta, G. lanigera, Lepidosperma carphoides, L. viscidum, Lomandra collina, perennial grasses, Pultenaea acerosa, P. rigida ovata.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Neolucia agricola agricola and the common species Vanessa kershawi, Zizina labradus labradus.

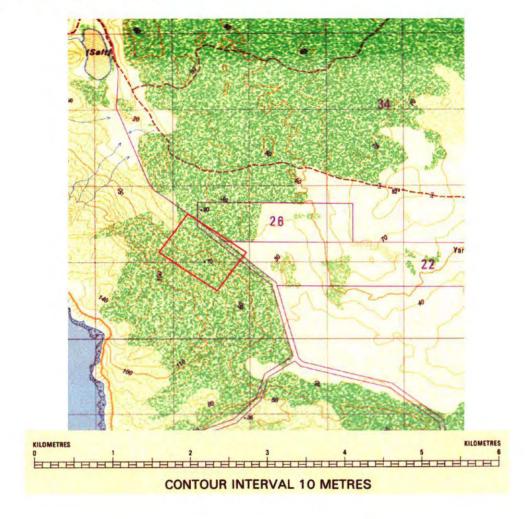
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Antipodia atralba, Candalides acastus, common spp, Hesperilla donnysa diluta, and possibly Jalmenus icilius,

Motasingha trimaculata trimaculata, Theclinesthes miskini miskini and Trapezites sciron eremicola.

SUMMARY: This is a disappointing site. It has a reasonably diverse range of foodplants for rare butterflies, yet mostly common butterflies were seen. The *Gahnia* foodplants examined were not supporting larval habitation.

CONSERVATION STATUS: Private Land.

LOCATION: SLE 01801, 34 52 10, 135 37 02, 556411, 6141250. (4 1/2 km west of Tarnana Homestead).



LOCATION: SLE 01801, 34 52 10, 135 37 02, 556411, 6141250, Sleaford 1/50000 Sheet.

(4 1/2 km west of Tarnana Homestead).

DATE & LENGTH OF SURVEY: 18 October 1995. 2 hrs

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mallee.

CONDITION: A very large area of dense whip-stick mallee. It is white-sand over limestone based. The original vegetation is in pristine condition. The area has been partially cleared, particularly to the east. The site is mainly associated with a limestone ridge, the east side of which has been exposed to the influence of exotic grasses and weeds.

The vegetation present includes Acacia cupularis, A. leiophylla, A. rupicola, A. triquetra, A. spinescens, Acrotriche patula, *Aira cupaniana, *Anagallis arvensis, Beyeria lechenaultii, Billardiera versicolor, Brachycome goniocarpa, *Briza minor, *Bromus madritensis, *B. rubens, Bulbine semibarbata, Bursaria spinosa, Cassytha peninsularis peninsularis, *Centaurea melitensis, *Centaurium tenuiflorum, Chrysocephalum apiculatum, Clematis microphylla, Correa pulchella, Crassula sieberiana tetramera, Danthonia setacea setacea, *Desmazeria rigida, Daucus glochidiatus, Dianella revoluta brevicaulis, Dodonaea humilis, Eucalyptus diversifolia, E. rugosa, Eutaxia microphylla microphylla, Gahnia deusta, G. lanigera, *Galium murale, Geranium solanderi solanderi, Goodenia blackiana, Goodia lotifolia lotifolia, Hakea vittata, Hardenbergia violacea, Hibbertia sp. D, *Hypochaeris glabra, Lasiopetalum baueri, Leucopogon parviflorus, Linum marginale, Lomandra collina, Melaleuca decussata, M. lanceolata, Microtis arenaria, Millotia major, *Minuartia mediterranea, *Myrsiphyllum asparagoides, Olearia axillaris, Pelargonium littorale, Pimelea flava dichotoma, Pomaderris obcordata, P. paniculosa paniculosa, *Senecio pterophorus pterophorus, *Sonchus oleraceus, Stipa exilis, Thelymitra nuda, Trachymene pilosa, *Trifolium campestre, Vittadinia australasica australasica, *Vulpia myuros forma myuros, Wahlenbergia gracilenta, Xanthorrhoea semiplana. At the foot of the ridge was a small remnant of larger eucalypts containing Eucalyptus petiolaris and E. odorata.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Daviesia brevifolia, Eutaxia microphylla microphylla, Gahnia deusta, G. lanigera, Lomandra collina, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla donnysa diluta, Neolucia agricola agricola and the common species Geitoneura klugii klugii, Junonia villida calybe, Vanessa kershawi, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp, and possibly Candalides acastus, Jalmenus icilius, Theclinesthes miskini miskini and Trapezites sciron eremicola.

SUMMARY: This is a interesting site, with a reasonably diverse range of foodplants and butterflies, typical of the local mallee. The occurrence of the larger eucalypts at this site is unique and may be partly representative of the cleared, low lying areas to the east.

CONSERVATION STATUS: Private Land.

LOCATION: SLE 01901, 34 51 35, 135 35 28, 554020, 6142354.

(4 km northwest of D'Anville Bay, and 1/2 km inland of the coast).



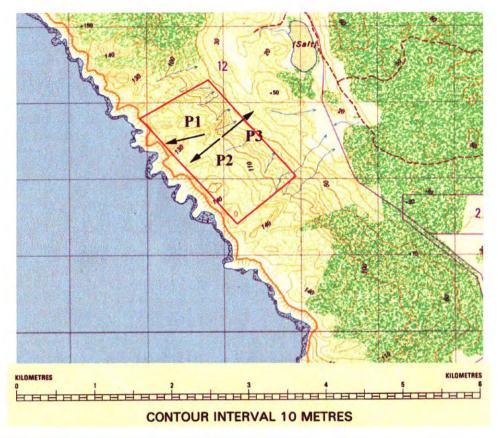
Photograph 2: Coastal heath.



Photograph 3: Panoramic view of southern Eyre Peninsula, showing coastal heath (SLE1901), saline lakes (SLE2001) and mallee habitat (SLE1703).

LOCATION: SLE 01901, 34 51 35, 135 35 28, 554020, 6142354.

(4 km northwest of D'Anville Bay, and 1/2 km inland of the coast).





Photograph 1: Coastal heath and perched sand dunes.

LOCATION: SLE 01901, 34 51 35, 135 35 28, 554020, 6142354, Sleaford 1/50000 Sheet. (4 km northwest of D'Anville Bay, and 1/2 km inland of the coast).

DATE & LENGTH OF SURVEY: 18 October 1995. 2 hrs

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Coastal mallee and heath.

DOMINANT VEGETATION: Mixed.

CONDITION: A very large open, elevated area of partially cleared coastal mallee and heath, situated on the back side of the coastal limestone cliff system. It is white sand over limestone based, with some very large perched white dunes to 140 m. The original vegetation is in pristine condition, although it is open to grazing. The area has been partially cleared, particularly to the east. The scenery at this location is exceptional.

The vegetation present includes Acacia alcockii, A. anceps, A. cupularis, A. longifolia sophorae, A. spinescens, A. triquetra, Acrotriche cordata, A. patula, Adriana klotzschii, *Avellinia michelii, Beyeria lechenaultii, Callitris canescens, Calytrix tetragona, Carpobrotus rossii, Cassytha glabella dispar, C. peninsularis peninsularis, Chrysocephalum apiculatum, Comesperma volubile, Correa pulchella, Crassula sieberiana tetramera, *Desmazeria rigida, Eucalyptus diversifolia, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia deusta, G. lanigera, Hardenbergia violacea, Hibbertia sp. D, Ixodia achillaeoides achillaeoides, Lasiopetalum discolor, Lepidosperma congestum, Leucopogon parviflorus, Logania crassifolia, Melaleuca decussata, Microcybe pauciflora, *Minuartia mediterranea, Olearia axillaris, Orthrosanthus multiflorus, Pimelea glauca, Podotheca angustifolia, Pomaderris paniculosa paniculosa, Poranthera triandra, Pultenaea rigida ovata, P. tenuifolia, *Rostraria cristata, Sebaea ovata, Senecio lautus, *Silene nocturna, Spyridium phylicoides, Stipa flavescens, Trachymene pilosa, *Trifolium campestre, Veronica hillebrandii.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, C. peninsularis peninsularis, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia deusta, G. lanigera, perennial grasses, Pultenaea rigida ovata, P. tenuifolia.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Neolucia agricola agricola and the common species Lampides boeticus.

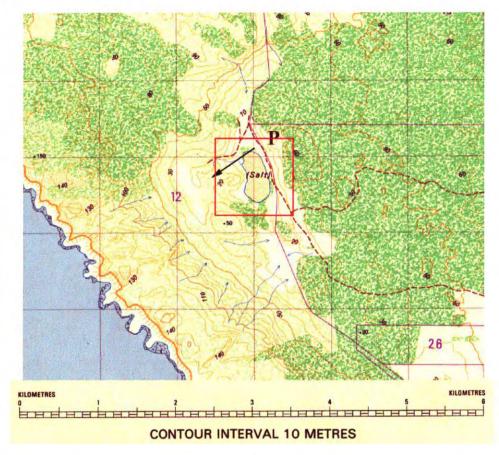
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp and possibly Hesperilla donnysa diluta, Jalmenus icilius and Theclinesthes miskini miskini.

SUMMARY: This is a highly significant site from a touristic point of view. The foodplants and butterflies present are typical for the coastal heath areas, with a reasonably diverse range of foodplants and butterflies.

CONSERVATION STATUS: Private Land.

LOCATION: SLE 02001, 554900, 6144100.

(North side of saline lake, 5 1/2 km north of D'Anville Bay).





LOCATION: SLE 02001, 554900, 6144100, Sleaford 1/50000 Sheet. (North side of saline lake, 5 1/2 km north of D'Anville Bay).

DATE & LENGTH OF SURVEY: 18 October 1995. 1/2 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Brackish wetland.

DOMINANT VEGETATION: Gahnia filum.

CONDITION: A large saline lake edged with well developed stands of *Gahnia filum*. On its north side the *Gahnia filum* is 30 m deep, but occurs less extensively down the sides of the lake. The southern end of the lake is edged with *Melaleuca brevifolia* and *M. halmaturorum*. There are occasional large tussocks of *G. trifida*. The *Gahnia* is presently in good condition with tussocks to 2m high. The *Gahnia* at the north end of the lake was briefly examined for *Hesperilla* habitation.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Gahnia filum, G. trifida, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla donnysa diluta.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp.

SUMMARY: This isolated area of Gahnia was extremely disappointing as a habitat for butterflies, as only a single, old Hesperilla donnysa diluta pupa was seen at the site. In such a location it should have been harbouring both Hesperilla species in large numbers and it can only be surmized that the area was extensively ravaged in the past, and this was confirmed by one of the locals. If this site remains in its present condition it would be suitable for their reintroduction.

CONSERVATION STATUS: Private Land.

LOCATION: SLE 02201, 34 53 49, 135 40 12, 561217, 6138181.

(2 km NNW of Fishery Bay).



LOCATION: SLE 02201, 34 53 49, 135 40 12, 561217, 6138181, Sleaford 1/50000 Sheet. (2 km NNW of Fishery Bay).

DATE & LENGTH OF SURVEY: 15 October 1995. 1/2 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Brackish wetland.

DOMINANT VEGETATION: Gahnia trifida and Melaleuca brevifolia.

CONDITION: A small roadside, brackish wetland situated 2 km NNW of Fishery Bay. The vegetation was in good condition.

The vegetation present includes Acacia rupicola, Acrotriche patula, Adriana klotzschii, Allocasuarina verticillata, Callistemon rugulosus, Cassytha glabella dispar, Clematis microphylla, Comesperma volubile, Eucalyptus diversifolia, Gahnia deusta, G. filum, G. trifida, Hakea rugosa, Hardenbergia violacea, Hibbertia sp. A, Lasiopetalum baueri, Leucopogon parviflorus, Melaleuca brevifolia, Olearia axillaris, Pterostylis plumosa, *Senecio pterophorus pterophorus, Xanthorrhoea semiplana.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Adriana klotzschii, Cassytha glabella dispar, Gahnia deusta, G. filum, G. trifida, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

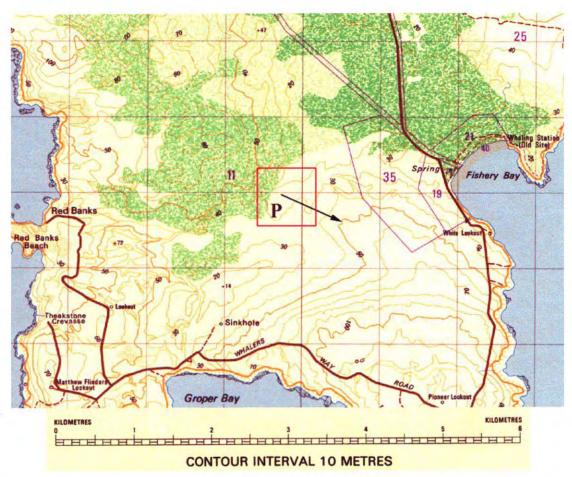
ACTUAL BUTTERFLY POPULATION: Nothing seen.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp and possibly Hesperilla chrysotricha naua and Hesperilla donnysa diluta.

SUMMARY: This is potentially an important wetland remnant, even though no butterflies were seen during the brief time at the site. It is possible the site gets covered in dust during the summer months from the car traffic along the dirt road, which might affect the butterfly populations. As it is nearby to Sleaford Mere it would be a simple matter to reintroduce the two *Hesperilla* species to the site, which would help with their conservation.

CONSERVATION STATUS: Private Land-Heritage Listed.

LOCATION: SLE 02401, 34 55 00, 135 39 09, 559607, 6135985. (2 1/2 km west of Fishery Bay).





LOCATION: SLE 02401, 34 55 00, 135 39 09, 559607, 6135985, Sleaford 1/50000 Sheet. (2 1/2 km west of Fishery Bay).

DATE & LENGTH OF SURVEY: 17 October 1995. 1 1/2 hrs

WEATHER CONDITION: Fine and hot, with a strong northerly wind.

VEGETATION DOMAIN: Mallee and *Melaleuca lanceolata* woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A very large, partly cleared remnant of dense, impassable whip-stick mallee situated at the southern end of Eyre Peninsula, between Fishery Bay in the east, and Red Banks in the west. It is white-sand over limestone based. The vegetation, where present, is in pristine condition. Some small historically cleared areas are regenerating quite well.

The vegetation present includes Acacia leiophylla, A. rupicola, A. triquetra, Acrotriche cordata, A. patula, Caladenia carnea complex, Cassytha glabella dispar, C. peninsularis peninsularis, *Cerastium balearicum, Clematis microphylla, Comesperma volubile, Crassula sieberiana tetramera, *Desmazeria rigida, Dodonaea humilis, Eucalyptus diversifolia, Eutaxia microphylla microphylla, Gahnia deusta, G. lanigera, *Galium murale, Hibbertia sp. D, Lasiopetalum discolor, Lepidosperma congestum, Leptomeria aphylla (very rare), Leucopogon parviflorus, Lomandra collina (very rare), Melaleuca lanceolata, *Melilotus indica, *Myrsiphyllum asparagoides, Olearia axillaris, Pimelea sp, Pterostylis nana, *Rostraria cristata, Sebaea ovata, *Senecio pterophorus pterophorus, Stipa flavescens, Thelymitra nuda, Thysanotus baueri, Triodia scariosa scariosa.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, C. peninsularis peninsularis, Eutaxia microphylla microphylla, Gahnia deusta, G. lanigera, Leptomeria aphylla, Lomandra collina, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Hesperilla donnysa diluta, ?Motasingha trimaculata trimaculata, Neolucia agricola agricola, Ogyris otanes and the common species Junonia villida calybe, Vanessa kershawi, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, and possibly Acrodipsas brisbanensis cyrilus, Hypochrysops ignitus

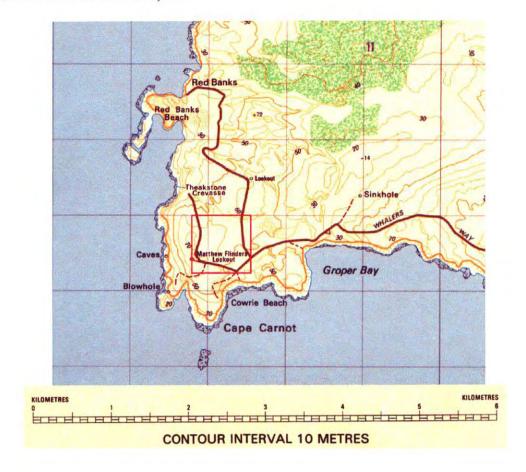
ignitus, Jalmenus icilius, Ogyris idmo halmaturia, Theclinesthes miskini miskini and Trapezites sciron eremicola.

SUMMARY: This is a highly significant area for the conservation of rare and threatened butterflies, particularly when it is combined with the significance of the adjacent site at White Lookout, Fishery Bay. It is supporting a healthy population of rare and threatened butterflies, even though the foodplant diversity was not observed to be very good. The vulnerable, large metallic-blue butterfly Ogyris otanes was recorded at this site. Its main foodplant Choretrum glomeratum was not seen in the area, although it has been reported during previous vegetation surveys. Another possible foodplant Leptomeria aphylla, (so far used as a foodplant only in Western Australia), was seen at the site and the butterfly may be using this as a foodplant in this area. This sighting, along with a possible sighting at White Lookout 2 1/2 km to the east, were the only actual flight recordings for the butterfly during the survey, and were also the first for this butterfly on Eyre Peninsula. To conserve this Ogyris colony no further clearance of vegetation should occur in the immediate area, especially below Latitude 34 53. A possible sighting of the rare skipper butterfly Motasingha trimaculata trimaculata was also made at the site, although its foodplant was not evident. The wilderness type of habitat for this southernmost area of Eyre Peninsula about Whalers Way, may be conducive for the finding of other threatened butterflies.

CONSERVATION STATUS: Private Land-Heritage Listed.

LOCATION: SLE 02601, 34 56 16, 135 37 37, 557249, 6133656.

(Coastal cliffs, 1/2 km east of Matthew Flinders Lookout, Cape Carnot).



LOCATION: SLE 02601, 34 56 16, 135 37 37, 557249, 6133656, Sleaford 1/50000 Sheet. (Coastal cliffs, 1/2 km east of Matthew Flinders Lookout, Cape Carnot).

DATE & LENGTH OF SURVEY: 17 October 1995. 1 1/2 hrs

WEATHER CONDITION: Fine, hot day, with a strong northerly wind.

VEGETATION DOMAIN: Coastal heath and mallee.

DOMINANT VEGETATION: Mixed.

CONDITION: The vegetation is low, scrubby, wind swept coastal mallee and heath, situated on white sand dunes on the back side of the coastal limestone cliffs. The vegetation is in pristine condition.

The vegetation present includes Acacia anceps, A. leiophylla, A. ligulata, A. nematophylla, A. spinescens, Acrotriche cordata, A. patula, *Anagallis arvensis, *Avellinia michelii, Beyeria lechenaultii, Caladenia septuosa, Calytrix tetragona, Carpobrotus rossii, Cassytha glabella dispar, C. peninsularis peninsularis, Chrysocephalum apiculatum, Correa pulchella, Danthonia setacea setacea, Daucus glochidiatus, Dodonaea humilis, Eucalyptus diversifolia, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia deusta, G. lanigera, Goodenia blackiana, Hibbertia sp. D, Lasiopetalum discolor, Lepidosperma congestum, Leucopogon parviflorus, Lomandra effusa, Melaleuca decussata, M. lanceolata, Microseris lanceolata, Microtis arenaria, Mitrasacme paradoxa, Olearia axillaris, Opercularia turpis, Pimelea glauca, P. serpyllifolia serpyllifolia, Podotheca angustifolia, Pomaderris obcordata, Poranthera microphylla, Pultenaea tenuifolia, *Rostraria cristata, Sebaea ovata, Senecio lautus, Spyridium phylicoides, Stackhousia aspericocca ssp. "One-sided inflorescence" (W.R.Barker 697), Stipa flavescens, Templetonia retusa, Thysanotus baueri, T. patersonii, Trachymene pilosa, Veronica hillebrandii.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, C. peninsularis peninsularis, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia deusta, G. lanigera, perennial grasses, Pultenaea tenuifolia.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Hesperilla donnysa diluta, Neolucia agricola agricola and the common species Lampides boeticus, Nacaduba biocellata biocellata.

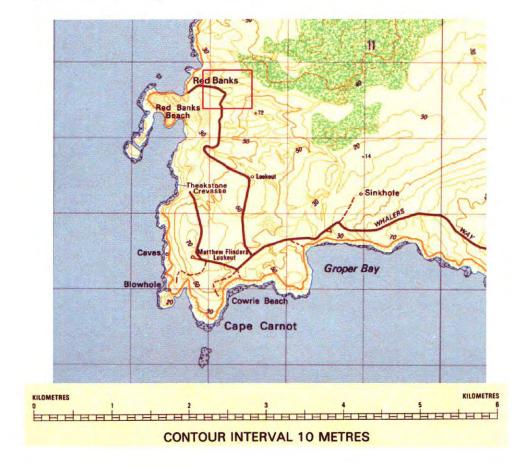
ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp and possibly Jalmenus icilius and Theclinesthes miskini miskini.

SUMMARY: The vegetation along the coast here is in pristine condition. This site is supporting a reasonable population of common and rare butterflies. Foodplant diversity for common and rare butterflies is good, but poor for threatened species. The skipper butterflies *Antipodia atralba* and *Hesperilla donnysa diluta* were both present, but very rare.

CONSERVATION STATUS: Private Land-Heritage Listed.

LOCATION: SLE 02602, 34 55 09, 135 37 32, 557131, 6135723.

(Coastal cliffs at Red Banks, Whalers Way.



LOCATION: SLE 02602, 34 55 09, 135 37 32, 557131, 6135723, Sleaford 1/50000 Sheet.

(Coastal cliffs at Red Banks, Whalers Way.

DATE & LENGTH OF SURVEY: 17 October 1995. 1 1/2 hrs

WEATHER CONDITION: Fine, hot day, with a strong northerly wind.

VEGETATION DOMAIN: Coastal heath and mallee.

DOMINANT VEGETATION: Mixed.

CONDITION: The vegetation is low, scrubby, wind swept coastal heath, situated on the back side of the coastal limestone cliffs. There are also occasional areas with perched white sand dunes. The vegetation is in good condition, but some of the low areas have been historically cleared.

The vegetation present includes Acacia cupularis, A. longifolia sophorae, Acrotriche patula, *Aira cupaniana, *Anagallis arvensis, Aphanes australiana, Apium annuum, *Avellinia michelii, *Briza minor, *Bromus rubens, Calytrix tetragona, Carpobrotus rossii, Cassytha glabella dispar, *Cerastium balearicum, Clematis microphylla, Correa pulchella, *Desmazeria rigida, Dianella revoluta brevicaulis, Exocarpos syrticola, Gahnia deusta, G. lanigera, *Galium murale, Geranium sp., Haloragis acutangula, Helichrysum leucopsideum, Hibbertia sp. D, Isolepis nodosa, Lasiopetalum discolor, Leucopogon parviflorus, Logania crassifolia, Lomandra collina (very tare), L. effusa, Microtis arenaria, *Minuartia mediterranea, Olearia axillaris, Oxalis perennans, Pimelea glauca, P. serpyllifolia serpyllifolia, Plantago hispida, Rhagodia candolleana candolleana, *Rostraria cristata, Senecio lautus, *S. pterophorus pterophorus, Spyridium phylicoides, *Stellaria media, Stipa flavescens, Templetonia retusa, Thelymitra nuda, Trachymene pilosa, Veronica hillebrandii, *Vulpia myuros myuros.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, Exocarpos syrticola, Gahnia deusta, G. lanigera, Lomandra collina, Oxalis perennans, perennial grasses, Plantago hispida.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

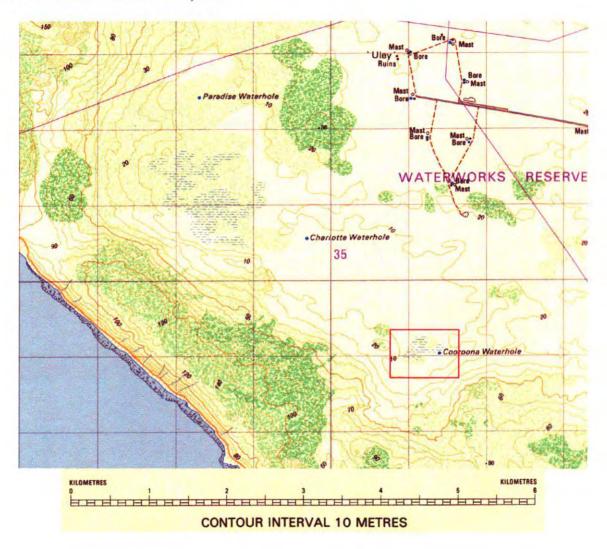
ACTUAL BUTTERFLY POPULATION: Candalides acastus, Hesperilla donnysa diluta and the common species Junonia villida calybe.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Antipodia atralba, common spp and possibly Jalmenus icilius and Theclinesthes miskini miskini.

SUMMARY: The vegetation along the coast at this site is in good condition, but has suffered from previous development and current tourist traffic. Butterfly diversity is poor. Foodplant diversity for common and rare butterflies is reasonable, but poor for threatened species. The skipper butterfly *Hesperilla donnysa diluta* was present, but very rare.

CONSERVATION STATUS: Private Land-Heritage Listed.

LOCATION: SLE 02E31, 551200, 6149200. (Cooroona Waterhole).



LOCATION: SLE 02E31, 551200, 6149200, Sleaford 1/50000 Sheet. (Cooroona

Waterhole).

DATE & LENGTH OF SURVEY: 19 October 1995. 1/2 hr

WEATHER CONDITION: Overcast and drizzly.

VEGETATION DOMAIN: Brackish wetland.

DOMINANT VEGETATION: Gahnia.

CONDITION: A large 10 hectare wetland containing well developed stands of *Gahnia trifida*. It forms part of a much larger wetland that extends to Paradise Waterhole, 3 km to the northwest. Most of the adjoining areas have been cleared. This site was not examined by the author.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Gahnia trifida, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

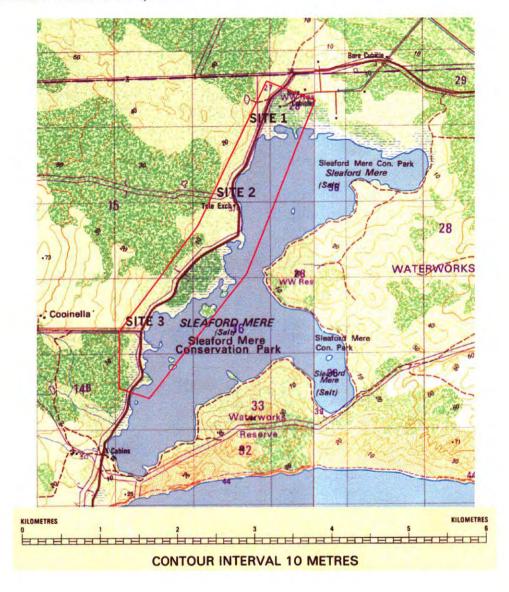
ACTUAL BUTTERFLY POPULATION: Hesperilla chrysotricha naua.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and *Hesperilla donnysa diluta.*

SUMMARY: This site was not examined by the author, but the vulnerable skipper butterfly Hesperilla chrysotricha naua was noted at this location by the vegetation collectors, which is duly recorded. The butterfly was extremely rare, which is very disappointing. None the less, this site is an extremely important area for the conservation of this butterfly as it is one of only three areas in which the skipper was seen during this survey. The other areas are at Tulka and the west side of Seaford Mere. This location should have been harbouring both Hesperilla species in large numbers and it can only be surmized that the area was extensively ravaged in the past, and this was confirmed by one of the locals. If this site is put into a conservation mode it would be suitable for their reestablishment.

CONSERVATION STATUS: Water Reserve.

LOCATION: Sleaford Mere Conservation Park, west side of the mere.



LOCATION: Sleaford Mere Conservation Park, west side of the mere. Sleaford 1/50000 Sheet.

DATE & LENGTH OF SURVEY: 15,17 October 1995. 1 1/2 hrs

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Brackish wetland.

DOMINANT VEGETATION: Gahnia trifida.

CONDITION: A long, but narrow and broken expanse of *Gahnia* wetland occurs along the northwest and west sides of the Sleaford Mere. It was usually in excellent condition where present. Several of these *Gahnia* occurrences were briefly examined for *Hesperilla* habitation, and include the following.

Site 1: SLE00301, 568000, 6147150. This was the best developed site of the *Gahnia*. It consisted mainly of *G. trifida* with occasional *G. filum*. Other butterfly foodplants present were *Cassytha glabella dispar*.

Site 2: East of SLE00401, 567450, 6146050. There were occasional large tussocks of both G. filum and G. trifida present at this site. Other butterfly foodplants present were Acacia leiophylla, Adriana klotzschii (two large female bushes), Cassytha peninsularis peninsularis.

Site 3: At the junction of the roads to Sleaford Mere south and Whalers Way, 566300, 6144400. There was only G. trifida present here. Other butterfly foodplants present were Cassytha glabella dispar, C. peninsularis peninsularis, Gahnia deusta.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia leiophylla, Adriana klotzschii, Cassytha glabella dispar, C. peninsularis peninsularis, Gahnia deusta, G. filum, G. trifida, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla chrysotricha naua (present at all three sites), Hesperilla donnysa diluta (present at Sites 2,3). No other butterflies were seen.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp and possibly Acrodipsas brisbanensis cyrilus, Hypochrysops ignitus ignitus, Jalmenus icilius, Theclinesthes miskini miskini.

SUMMARY: The west side of Sleaford Mere is an extremely important area for the conservation of the vulnerable skipper butterfly *Hesperilla chrysotricha naua*. This skipper was common at Site 3, but very rare at the other two sites. Sleaford Mere is one of only three areas in which the skipper was seen during this survey. The other areas are at Tulka, approximately 7 km further northeast of the mere, and at Cooroona Waterhole, 17 km to the west. *Hesperilla donnysa diluta* was very rare at the two sites it was encountered.

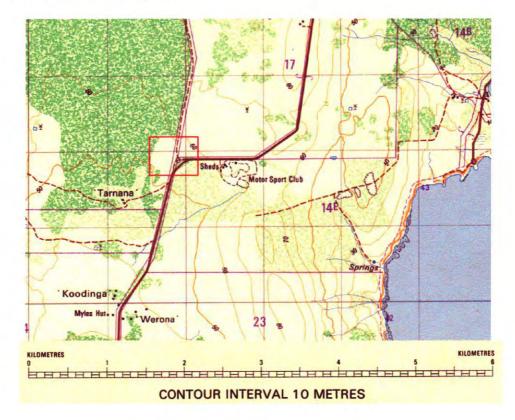
At Site 1 there was a high incidence of disease in the *Hesperilla* colony, usually indicative of stress and the late stages of colony decline.

At Site 2, coconut smelling, byre building ants, the attendant ants for the vulnerable blue butterfly *Hypochrysops ignitus ignitus* were established at the base of the *Acacia leiophylla*, a known foodplant of the butterfly, although there was no evidence for the butterfly. This same ant is also the foodhost for the endangered copper butterfly *Acrodipsas brisbanensis cyrilus*. Both these butterflies fly later in the season and this may be the reason they were not encountered in this area even though the habitat is reasonably conducive for them to be present.

More Gahnia trifida should be planted in the above site areas to maintain the viability of the *H. chrysotricha* colony.

CONSERVATION STATUS: Conservation Park, Private Land, Road Reserve, Waterworks Reserve.

LOCATION: Roadside vegetation, 0.8 km northeast of Tarnana Homestead, 561950, 6141800.



LOCATION: Roadside vegetation, 0.8 km northeast of Tarnana Homestead, 561950, 6141800, Sleaford 1/50000 Sheet.

DATE & LENGTH OF SURVEY: 18 October 1995. 1/4 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mixed.

CONDITION: A very small area of partially cleared mallee occurring on the roadside at the junction of Mikkira Ruins and Whalers Way Roads. It is white sand over limestone based. The vegetation is in good condition. The surrounding areas have been partially cleared. The site has vegetation similar to the nearby mallee sites at SLE01701 and SLE01702.

Foodplants suitable for rare and threatened butterflies, present at the site include Acacia longifolia sophorae, A. myrtifolia myrtifolia, Eutaxia microphylla microphylla, Gahnia ancistrophylla, Lepidosperma carphoides, Lomandra collina, Pultenaea sp.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Eutaxia microphylla microphylla, Gahnia ancistrophylla, Lepidosperma carphoides, Lomandra collina, perennial grasses, Pultenaea sp.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Common species Vanessa kershawi, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and *Neolucia agricola agricola.*

SUMMARY: At this site the *Gahnia* was closely examined for *Antipodia atralba* and *Hesperilla donnysa diluta*, but there were no signs of habitation.

CONSERVATION STATUS: Roadside Reserve.

LOCATION: White Lookout, Fishery Bay, 562350, 6135500.





LOCATION: White Lookout, Fishery Bay, 562350, 6135500, Sleaford 1/50000 Sheet.

DATE & LENGTH OF SURVEY: 15 October 1995. 1/2 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Mallee and coastal heath.

DOMINANT VEGETATION: Mixed.

CONDITION: A semi-developed area adjacent to the Whalers Way Tourist Office. There are undeveloped remnants of pristine native vegetation, mainly along the coast and to the south of the Lookout.

The vegetation present includes Acacia leiophylla, Cassytha glabella dispar, C. melantha, C. peninsularis peninsularis, Eucalyptus angulosa, E. diversifolia, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia deusta, G. lanigera, Lomandra collina (very rare), Pultenaea spp, Santalum acuminatum. Adriana klotzschii was present along the north shore of Fishery Bay.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia leiophylla, Cassytha glabella dispar, C. melantha, C. peninsularis peninsularis, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia deusta, G. lanigera, Lomandra collina, perennial grasses, Pultenaea spp, Santalum acuminatum.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Eurema smilax, Neolucia agricola agricola, Ogyris otanes and the common species *Pieris rapae rapae.

Theclinesthes albocincta was not seen on the Adriana klotzschii.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Hesperilla donnysa diluta and possibly Jalmenus icilius, Theclinesthes albocincta and Theclinesthes miskini miskini.

SUMMARY: The Whalers Way tourist complex is an extremely important area for rare and threatened butterflies. It contains diverse vegetation types suitable for these butterflies. As a tourist attraction the scenery is superb. The tops of the cliffs at this site have important stands of *Gahnia lanigera* colonized by the rare skipper butterfly *Antipodia atralba*. The

density of this colonization was the best seen during the survey, with larval shelters of the skipper quite common. A possible sighting of the vulnerable, large metallic blue butterfly Ogyris otanes was made at this site. It was flying very quick about the area and a capture was not possible. This butterfly was captured at another site 3 km to the west and therefore the sighting at the Lookout is believed positive. These sightings are the first for this butterfly on Eyre Peninsula. Its foodplant Choretrum glomeratum was not reported from this area during the survey, although previous vegetation surveys have reported its existance at Fishery Bay and Cape Wiles. A brief look for this foodplant was made to the west of the office and around the north side of Fishery Bay without success. To conserve this Ogyris colony no further clearance of vegetation should occur in the immediate area, especially below Latitude 34 53.

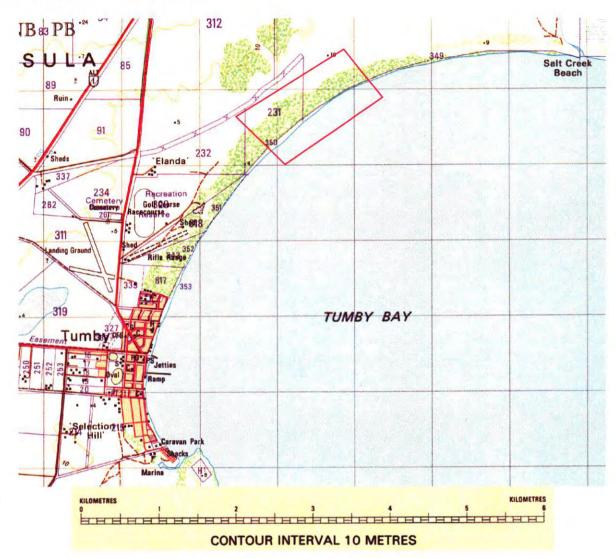
CONSERVATION STATUS: Coastal Reserve, Private Land-Heritage listed.

SITES ON THE TUMBY 1/50,000 SHEET

55. TUM 01001, 34 20 50, 136 07 23, 603297, 6198748. (On coast, 3 1/2 km northeast of Tumby Bay).

LOCATION: TUM 01001, 34 20 50, 136 07 23, 603297, 6198748. (On coast, 3 1/2 km northeast of Tumby Bay).

MAPSHEET: Tumby 1/50,000.



LOCATION: TUM 01001, 34 20 50, 136 07 23, 603297, 6198748, Tumby 1/50000 Sheet. (On coast, 3 1/2 km northeast of Tumby Bay).

DATE & LENGTH OF SURVEY: October 1995.

WEATHER CONDITION: Not known.

VEGETATION DOMAIN: Coastal.

DOMINANT VEGETATION: Mixed.

CONDITION: This site forms part of the north Tumby Bay vegetation remnant. It was not examined by the author. The remnant is best developed for a distance of 7 km, between Tumby Bay and Salt Creek Beach further to the north.

The vegetation present includes Allocasuarina verticillata, Alyxia buxifolia, Baumea juncea, *Brassica tournefortii, *Bromus rubens, Calandrinia eremaea, Carpobrotus rossii, Cassytha sp., Crassula colorata colorata, C. sieberiana tetramera, Dianella revoluta, Disphyma crassifolium clavellatum, *Ehrharta longiflora, Enchylaena tomentosa tomentosa, *Galenia pubescens pubescens, *Hypochaeris glabra, *H. radicata, Isolepis nodosa, *Lycium ferocissimum, Lysiana exocarpi exocarpi on Allocasuarina verticillata, Melaleuca lanceolata, Muehlenbeckia adpressa, Olearia axillaris, *Pentaschistis airoides, Rhagodia candolleana candolleana, R. preissii preissii, Templetonia retusa, Tetragonia implexicoma, Trachymene pilosa, *Vulpia myuros myuros, Wahlenbergia stricta stricta, Wahlenbergia luteola.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Cassytha sp, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Delias aganippe.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly *Candalides acastus* and *C. hyacinthinus simplex*.

SUMMARY: A sighting of the rare, Wood White butterfly *Delias aganippe* was made at this location by the vegetation collectors, which is duly recorded. Its probable foodplant *Amyema melaleucae*, was not recorded at the site. The nearest record of the foodplant is at

sites TUM01601 and TUM01602, 4 km south of Tumby Bay. This area (Point Bolingbroke to Tumby Bay), was the only one during the survey in which *Delias aganippe* was recorded.

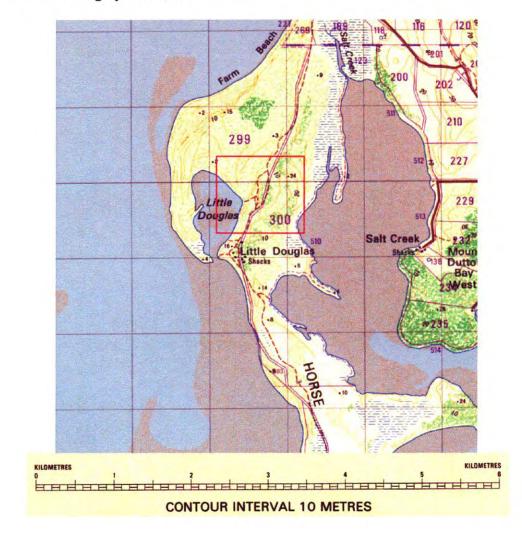
CONSERVATION STATUS: Private Land and Coastal Reserve.

SITES ON THE WANGARY 1/50,000 SHEET

- 56. WAG 00403, 34 31 14, 135 23 04, 535292, 6180036, WAG 00501, 34 31 22, 135 23 25, 535822, 6179791. (Horse Peninsula north, northeast side of Little Douglas).
- 57. WAG 01001, 34 35 11, 135 23 48, 536369, 6172741, WAG 01002, 34 35 28, 135 23 43, 536248, 6172214, WAG 02F17, 34 35 29, 135 23 34, 536011, 6172200. (Horse Peninsula south, 1 1/2 km northwest of Koromoonah Homestead).
- 58. WAG 01003, 34 35 57, 135 24 36, 537588, 6171305. (Koromoonah Scrub, Horse Peninsula).

LOCATION: WAG 00403, 34 31 14, 135 23 04, 535292, 6180036; WAG 00501, 34 31 22, 135 23 25, 535822, 6179791. (Horse Peninsula north, northeast side of Little Douglas).

MAPSHEET: Wangary 1/50,000.



LOCATION: WAG 00403, 34 31 14, 135 23 04, 535292, 6180036,

WAG 00501, 34 31 22, 135 23 25, 535822, 6179791, Wangary 1/50000

Sheet. (Horse Peninsula north, northeast side of Little Douglas).

DATE & LENGTH OF SURVEY: 19 October 1995. 1 1/2 hrs

WEATHER CONDITION: Cold, with squally west winds.

VEGETATION DOMAIN: Coastal woodland and tall heath.

DOMINANT VEGETATION: Mixed.

CONDITION: A large area of partially cleared coastal woodland and tall heath, occurring around the east and northeast edges of the Little Douglas Embayment. It is mostly white dunes to the west of the access road, and white-sand covered limestone to the east. The original vegetation on the sand dunes is very dense and in pristine condition, while the partially cleared woodland is full of exotic grasses and weeds.

The woodland vegetation includes Acacia anceps, A. cupularis, A. longifolia sophorae, A. nematophylla, *Aira cupaniana, Allocasuarina verticillata, *Anagallis arvensis, *Arctotheca calendula, Asteridea athrixioides athrixioides, *Avellinia michelii, *Avena barbata, *Brassica tournefortii, *Briza maxima, *B. minor, *Bromus diandrus, *Bupleurum semicompositum, Cassytha glabella dispar, C. peninsularis peninsularis, *Centaurea melitensis, Clematis microphylla, Convolvulus remotus, Danthonia setacea setacea, Dianella revoluta brevicaulis, *Diplotaxis tenuifolia, Dodonaea viscosa spatulata, *Ehrharta longiflora, Gahnia deusta, G. lanigera, *Galium murale, Geranium retrorsum, Hardenbergia violacea, *Hypochaeris glabra, Lasiopetalum baueri, L. discolor, Leucopogon parviflorus, Linum marginale, Lomandra micrantha (very common), *Lycium ferocissimum, *Malva parviflora, *Medicago polymorpha polymorpha, Melaleuca lanceolata, *Melilotus indica, Microtis arenaria, *Myrsiphyllum asparagoides, *Petrorhagia velutina, Pittosporum phylliraeoides microcarpa, Podotheca angustifolia, Ptilotus spathulatus spathulatus, *Rostraria cristata, *Senecio pterophorus pterophorus, *Sonchus oleraceus, Stipa exilis, Trachymene pilosa, *Trifolium campestre, *Trifolium glomeratum, *Urospermum picroides, Vittadinia australasica australasica.

The sand-dune vegetation includes Acacia anceps, A. cupularis, A. longifolia sophorae, A. nematophylla, Adriana klotzschii, Allocasuarina verticillata, Calandrinia eremaea, Carpobrotus rossii, Cassytha peninsularis peninsularis, Clematis microphylla, Crassula sieberiana tetramera, Daucus glochidiatus, *Erodium cicutarium, Exocarpos syrticola, Helichrysum leucopsideum, Lepidosperma gladiatum, Leucopogon parviflorus, Muehlenbeckia adpressa, Olearia axillaris, Pelargonium littorale, Poa fax, Poa poiformis, Podotheca angustifolia, Rhagodia candolleana candolleana, Santalum acuminatum (common), Senecio lautus, Stipa flavescens, Templetonia retusa, Tetragonia implexicoma, Threlkeldia diffusa, Trachymene pilosa, Zygophyllum billardierei.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Adriana klotzschii, Cassytha glabella dispar, C. peninsularis peninsularis, Exocarpos syrticola, Gahnia deusta, G. lanigera, perennial grasses, Santalum acuminatum.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: The clines the salbocincta. This site was examined at 6 pm when it was nearly dark, and it was not possible to check for all the possible resident butterflies.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Antipodia atralba, Candalides acastus, common spp, Delias aganippe, Hesperilla donnysa diluta and possibly Candalides hyacinthinus simplex, Jalmenus icilius and Theclinesthes miskini miskini.

SUMMARY: This is an interesting site with a reasonably diverse range of foodplants for rare butterflies. The very cold weather conditions and the lateness of the day prevented a thorough investigation of the site. The Horse Peninsula, like the Coffin Bay Peninsula, is potentially a very significant conservation area, as with minimal fencing effort it could be made into a secure habitat for fauna.

CONSERVATION STATUS: Unknown, probably Private Land.

LOCATION: WAG 01001, 34 35 11, 135 23 48, 536369, 6172741,

WAG 01002, 34 35 28, 135 23 43, 536248, 6172214, WAG 02F17, 34 35 29, 135 23 34, 536011, 6172200.

(Horse Peninsula south, 1 1/2 km northwest of Koromoonah Homestead).

MAPSHEET: Wangary 1/50,000.



Photograph 1: Coastal heath and woodland containing Adriana klotzschii.



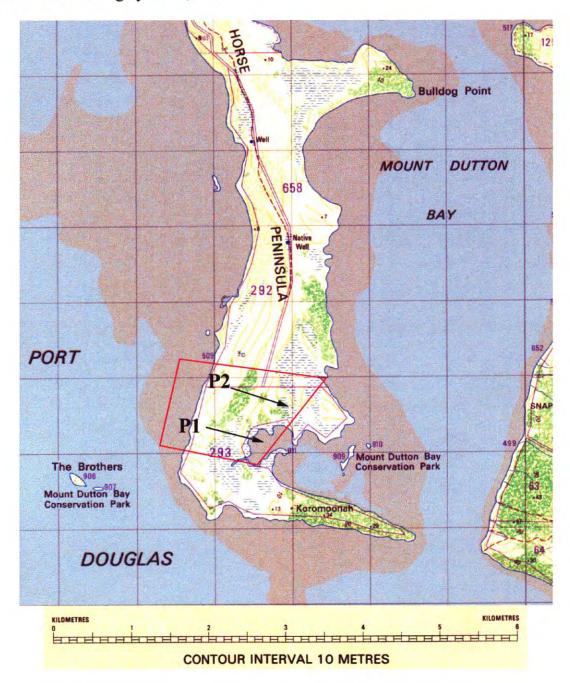
Photograph 2: Coastal heath and mallee containing Adriana klotzschii.

LOCATION: WAG 01001, 34 35 11, 135 23 48, 536369, 6172741,

WAG 01002, 34 35 28, 135 23 43, 536248, 6172214, WAG 02F17, 34 35 29, 135 23 34, 536011, 6172200.

(Horse Peninsula south, 1 1/2 km northwest of Koromoonah Homestead).

MAPSHEET: Wangary 1/50,000.



LOCATION: WAG 01001, 34 35 11, 135 23 48, 536369, 6172741,

WAG 01002, 34 35 28, 135 23 43, 536248, 6172214,

WAG 02F17, 34 35 29, 135 23 34, 536011, 6172200, Wangary 1/50000

Sheet. (Horse Peninsula south, 1 1/2 km northwest of Koromoonah Homestead).

DATE & LENGTH OF SURVEY: 19 October 1995. 6 hrs

WEATHER CONDITION: Cold, with squally west winds.

VEGETATION DOMAIN: Coastal mallee, woodland and marsh.

DOMINANT VEGETATION: Mixed.

CONDITION: A large area of diverse habitat, comprising open and dense, tall coastal mallee, saline marsh and open, regenerating *Acacia/Adriana* woodland with considerable exotic grasses and weeds. It is mostly karst limestone based, with some thin white sand cover. The original vegetation is in good condition. The area has been partially cleared, and was historically grazed, but has been free of sheep for three years.

The vegetation present includes Acacia anceps, A. cupularis, A. cyclops, A. longifolia sophorae, A. nematophylla, A. spinescens, A. triquetra, Acrotriche patula, Adriana klotzschii (very common), *Aira cupaniana, Allocasuarina verticillata, *Anagallis arvensis, Atriplex sp, *Avellinia michelii, *Avena barbata, Brachycome exilis, *Bromus madritensis, Bulbine semibarbata, Caladenia septuosa, Cassytha glabella forma dispar, C. peninsularis peninsularis, *Centaurium tenuiflorum, *Cerastium balearicum, Chrysocephalum apiculatum, Clematis microphylla, Comesperma volubile, Correa pulchella, Crassula sieberiana tetramera, *Desmazeria rigida, Dianella revoluta brevicaulis, Disphyma crassifolium clavellatum, *Ehrharta longiflora, Eucalyptus diversifolia, E. oleosa, Exocarpos syrticola, Frankenia pauciflora gunnii, Gahnia filum (very rare), G. deusta, G. lanigera, Galium gaudichaudii, *G. murale, Halosarcia sp., Hardenbergia violacea, Helichrysum leucopsideum, *Hypochaeris glabra, Kennedia prostrata, *Lagurus ovatus, Lasiopetalum discolor, Lawrencia squamata, Lepidosperma congestum, L. gladiatum, Leptorhynchos waitzia, Leucopogon parviflorus, Lomandra effusa, L. micrantha, *Medicago polymorpha polymorpha, Melaleuca halmaturorum, H. lanceolata, *Melilotus indica, Microseris lanceolata, Microtis arenaria, Millotia myosotidifolia, *Myrsiphyllum asparagoides, Olearia axillaris, *Parentucellia latifolia, Pelargonium littorale, *Petrorhagia velutina, Pittosporum phylliraeoides microcarpa, Poa clelandii, Podotheca angustifolia, Poranthera microphylla, P. triandra, Rhagodia candolleana candolleana, *Rostraria cristata, Sarcocornia sp., Senecio lautus, *Senecio pterophorus pterophorus, *Silene gallica gallica, *Sonchus oleraceus, Stipa exilis, S. flavescens, Suaeda australis, Trachymene pilosa, Tricoryne tenella, *Trifolium campestre, Vittadinia australasica australasica, *Vulpia myuros myuros, Wahlenbergia sp., Wilsonia humilis humilis.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Adriana klotzschii, Cassytha glabella dispar, C. peninsularis peninsularis, Eutaxia microphylla microphylla, Exocarpos syrticola, Gahnia filum, G. deusta, G. lanigera, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Hesperilla donnysa diluta, Theclinesthes albocincta and the common species Geitoneura klugii klugii, Nacaduba biocellata biocellata, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Neolucia agricola agricola and possibly Candalides hyacinthinus simplex, Jalmenus icilius and Theclinesthes miskini miskini.

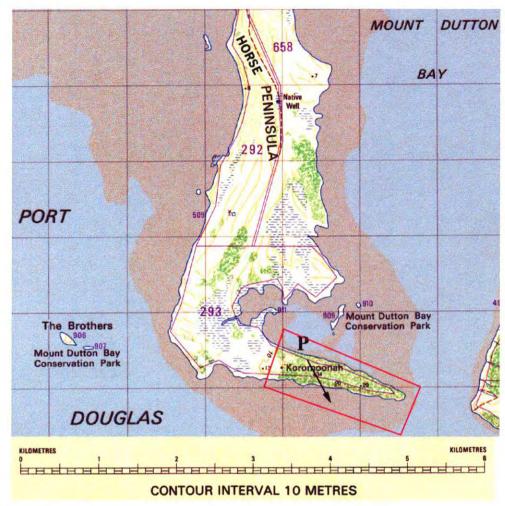
SUMMARY: This is a significant site with a reasonably diverse range of foodplants for rare butterflies. Several rare species were present although the very poor weather conditions prevented most butterflies from flying. There is a very well established, large colony of the blue butterfly *Theclinesthes albocincta* present. The Horse Peninsula, like the Coffin Bay Peninsula, is potentially a very significant conservation area, as with minimal fencing effort it could be made into a secure habitat for fauna.

CONSERVATION STATUS: Private Land.

LOCATION: WAG 01003, 34 35 57, 135 24 36, 537588, 6171305.

(Koromoonah Scrub, Horse Peninsula).

MAPSHEET: Wangary 1/50,000.





LOCATION: WAG 01003, 34 35 57, 135 24 36, 537588, 6171305, Wangary 1/50000

Sheet. (Koromoonah Scrub, Horse Peninsula).

DATE & LENGTH OF SURVEY: 19 October 1995. 1 1/2 hrs

WEATHER CONDITION: Cold, with squally west winds.

VEGETATION DOMAIN: Mallee.

DOMINANT VEGETATION: Mailee.

CONDITION: A large area of open, coastal mallee. It is mostly limestone based, with some thin white sand cover. The original vegetation is in good condition. The area has been partially cleared, and was historically grazed.

The vegetation present includes Acacia anceps, A. calamifolia, A. cyclops, A. leiophylla, A. longifolia sophorae, A. rupicola, A. triquetra, Acrotriche patula, *Anagallis arvensis, Apium annuum, *Arenaria leptoclados, *Avellinia michelii, *Bromus rubens, Bulbine semibarbata, *Bupleurum semicompositum, Cassytha glabella dispar, C. peninsularis peninsularis, *Centaurium tenuiflorum, Cheiranthera alternifolia, Clematis microphylla, Comesperma volubile, Crassula sieberiana tetramera, *Desmazeria rigida, Dianella revoluta, *Dittrichia graveolens, Eucalyptus diversifolia, E. rugosa, Euchiton sphaericus, Eutaxia microphylla microphylla, Exocarpos sparteus, Gahnia deusta, G. lanigera, *Galium murale, Goodia lotifolia lotifolia, Hardenbergia violacea, Hibbertia sp. D, *Hypochaeris glabra, Lasiopetalum discolor, Lepidosperma congestum, Leucopogon parviflorus, Linum marginale, Lomandra collina (very tate), L. micrantha, Melaleuca halmaturorum, M. lanceolata, *Melilotus indica, *Myrsiphyllum asparagoides, *Parentucellia latifolia, Parietaria debilis, Pittosporum phylliraeoides microcarpa, Rhagodia candolleana candolleana, *Rostraria cristata, Santalum acuminatum, Senecio lautus, *Senecio pterophorus pterophorus, *Silene nocturna, Stipa spp incl. S. exilis, Trachymene pilosa, Vittadinia australasica australasica.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha glabella dispar, C. peninsularis peninsularis, Eutaxia microphylla microphylla, Exocarpos sparteus, Gahnia deusta, G. lanigera, Lomandra collina, perennial grasses, Santalum acuminatum.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Hesperilla donnysa diluta and the common species Geitoneura klugii klugii, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Neolucia agricola agricola and possibly Candalides hyacinthinus simplex, Jalmenus icilius and Theclinesthes miskini miskini.

SUMMARY: This site has a reasonably diverse range of foodplants for rare butterflies, and several rare species were present although the very poor weather conditions prevented most butterflies from flying.

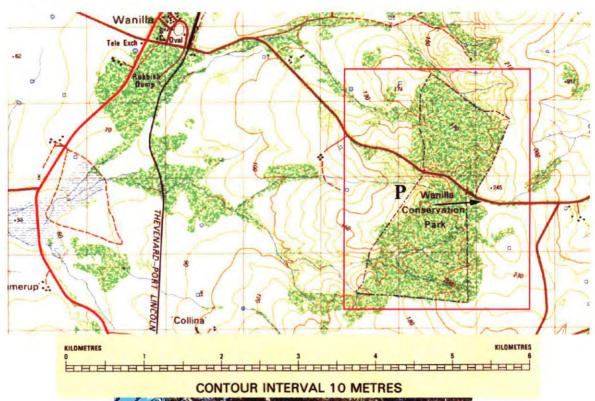
CONSERVATION STATUS: Private Land.

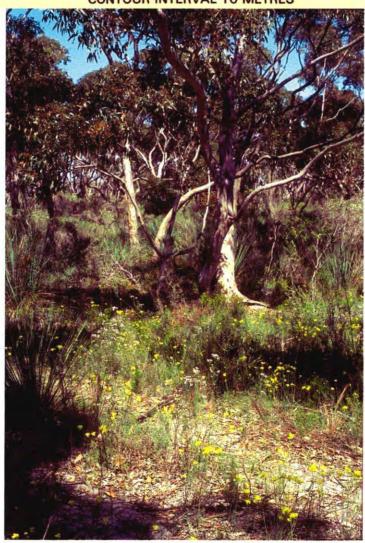
SITES ON THE WANILLA 1/50,000 SHEET

- 59. WAN 00102, 34 32 41, 135 43 01, 565775, 6177191, WAN 00103, 34 33 01, 135 42 55, 565636, 6176592. (Wanilla Conservation Park, 4 km east of Wanilla).
- 60. WAN 00201, 34 31 58, 135 40 24, 561801, 6178543. (Wanilla Reserve, 1 km south of Wanilla).
- 61. Big Swamp, 563800, 6166600. (Roadside 18 km northwest of Port Lincoln on the Flinders Highway).
- 62. Wanilla South Wetlands, 560350, 6176500. (3 km south of Wanilla).

LOCATION: WAN 00102, 34 32 41, 135 43 01, 565775, 6177191; WAN 00103, 34 33 01, 135 42 55, 565636, 6176592. (Wanilla Conservation Park, 4 km east of Wanilla).

MAPSHEET: Wanilla 1/50,000.





LOCATION: WAN 00102, 34 32 41, 135 43 01, 565775, 6177191,

WAN 00103, 34 33 01, 135 42 55, 565636, 6176592, Wanilla 1/50000 Sheet.

(Wanilla Conservation Park, 4 km east of Wanilla).

DATE & LENGTH OF SURVEY: 15,16 October 1995. 9 hrs

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Sugar-gum woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A very large, sugar-gum woodland remnant. Adjacent to the access road the vegetation is highly diverse and in pristine condition. Elsewhere there is a marked change in the understorey, becoming less diverse, more open and more degraded. The cause of the latter seems to be the result of overgrazing. both historical and recent, particularly from kangaroos. Some of it may also be due to canopy shading. The soil is gravel and coarse sand based. The surrounding areas have been cleared.

The vegetation present includes Acacia calamifolia, A. gillii, A. myrtifolia myrtifolia, A. pycnantha, A. rupicola, *Aira cupaniana, *Anagallis arvensis, Astroloma conostephioides, A. humifusum, *Avellinia michelii, Baeckea behrii, Banksia ornata, B. marginata, Billardiera sericophora, Blennospora drummondii, Brachycome perpusilla, Burchardia umbellata, Burnettia nigricans, Caladenia septuosa, Callistemon rugulosus, Calytrix tetragona, Cassytha glabella dispar, C. peninsularia peninsularis, Centrolepis aristata, C. strigosa, Chamaescilla corymbosa corymbosa, Cheiranthera alternifolia, Chrysocephalum baxteri, Comesperma calymega, Compositae sp., Conospermum patens, Correa reflexa coriacea, Cryptandra leucophracta, C. tomentosa, Danthonia setacea setacea, Daucus glochidiatus, Daviesia asperula obliqua, D. brevifolia, Dianella revoluta revoluta, Dillwynia hispida, Diuris aff. corymbosa, Drosera glanduligera, D. macrantha planchonii, Eucalyptus cladocalyx, Eutaxia microphylla microphylla, Exocarpos sparteus, Gahnia ancistrophylla, G. deusta, Gompholobium ecostatum, Gonocarpus mezianus, Goodenia blackiana, Hakea cycloptera, H. rugosa, Hibbertia paeninsularis, H. riparia, Homoranthus homoranthoides, Hydrocotyle callicarpa, *Hypochaeris glabra, Kennedia prostrata, Lagenifera huegelii, Lepidosperma canescens, L. carphoides, L. concavum, L. viscidum, Leptospermum coriaceum, Levenhookia stipitata, Lissanthe strigosa, Lomandra collina (very rare), micrantha tuberculata, Melaleuca decussata, M. uncinata, Microtis arenaria, Millotia tenuifolia tenuifolia, Mitrasacme paradoxa, Neurachne alopecuroidea, Opercularia scabrida, Orthoceras strictum, Oxalis perennans, Pimelea flava dichotoma, Pimelea octophylla, Pultenaea spp incl. P. trinervis, Schoenus apogon, S. breviculmis, S. nanus, Sphaerolobium minus, Spyridium vexilliferum vexilliferum, Stackhousia aspericocca ssp. "One-sided inflorescence" (W.R.Barker 697), Stipa hemipogon, S. mundula, Thelymitra flexuosa, T. luteocilium, T. nuda, Trachymene pilosa, Triodia scariosa scariosa, *Vulpia myuros megalura, Wahlenbergia gracilenta, Xanthorrhoea semiplana, Xanthosia pusilla.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED

BUTTERFLIES: Acacia spp, Cassytha glabella dispar, C. peninsularis peninsularis, Conospermum patens, Daviesia sp, Dillwynia sp, Eutaxia microphylla microphylla, Exocarpos sparteus, Gahnia ancistrophylla, G. deusta, Hakea cycloptera, Lepidosperma

carphoides, L. concavum, L. viscidum, Lomandra collina, Oxalis perennans, perennial grasses, Pultenaea spp.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Candalides acastus, Hesperilla donnysa diluta, Neolucia agricola agricola and the common species Junonia villida calybe, Lampides boeticus, Nacaduba biocellata biocellata, Vanessa kershawi, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly Candalides cyprotus cyprotus, Candalides hyacinthinus simplex, Jalmenus icilius, Motasingha trimaculata trimaculata and Theclinesthes miskini miskini.

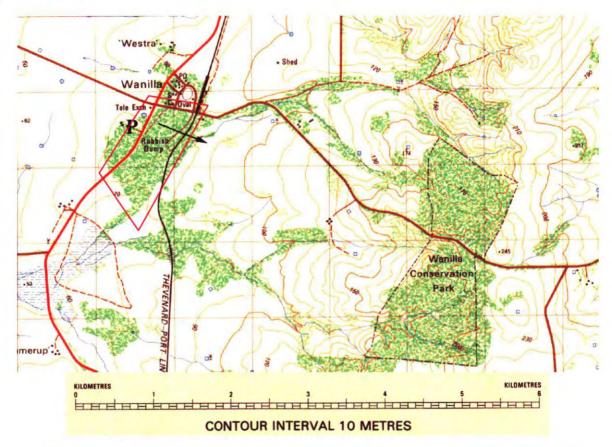
SUMMARY: This is significant area for the conservation of rare butterflies. It is supporting a healthy population of both rare and common butterflies, but no threatened species were encountered. *Gahnia ancistrophylla* is common about the hill top to the north and is supporting good populations of the skipper butterflies *Antipodia atralba* and *Hesperilla donnysa diluta*.

CONSERVATION STATUS: Conservation Park.

LOCATION: WAN 00201, 34 31 58, 135 40 24, 561801, 6178543.

(Wanilla Reserve, 1 km south of Wanilla).

MAPSHEET: Wanilla 1/50,000.





LOCATION: WAN 00201, 34 31 58, 135 40 24, 561801, 6178543, Wanilla 1/50000 Sheet. (Wanilla Reserve, 1 km south of Wanilla).

DATE & LENGTH OF SURVEY: 15,16 October 1995. 2 hrs

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Sugar-gum woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A large, open canopied, sugar-gum woodland remnant. The vegetation is diverse and in pristine condition. The soil is gravel and coarse sand based. The surrounding areas have been cleared.

The vegetation present includes Acacia spinescens, *Aira cupaniana, Amphipogon strictus setifer, *Anagallis arvensis, Astroloma conostephioides, *Avellinia michelii, Baeckea behrii, Blennospora drummondii, *Briza maxima, *B. minor, Burchardia umbellata, Caladenia patersonii complex, Calytrix tetragona, Cassytha glabella dispar, Centrolepis aristata, C. strigosa, Chamaescilla corymbosa corymbosa, Cheiranthera alternifolia, Crassula closiana, Dampiera rosmarinifolia, Danthonia setacea setacea, Daucus glochidiatus, Daviesia asperula obliqua, Dianella revoluta var. revoluta, Dichelachne crinita, Drosera glanduligera, D. macrantha planchonii, Eucalyptus cladocalyx, Eutaxia microphylla microphylla, Exocarpos sparteus, Gahnia ancistrophylla, G. deusta, Glischrocaryon behrii, Gnephosis drummondii, Gonocarpus mezianus, Hakea cycloptera, Hibbertia riparia (glabriuscula), Homoranthus homoranthoides, Hydrocotyle callicarpa, *Hypochaeris glabra, Lasiopetalum baueri, Lepidosperma carphoides, L. viscidum, Levenhookia dubia, Lissanthe strigosa, Lomandra collina, L. juncea, L. micrantha tuberculata, Melaleuca uncinata, Microtis arenaria, Mitrasacme paradoxa, Neurachne alopecuroidea, Opercularia scabrida, Pimelea flava dichotoma, Pultenaea trinervis, Scaevola linearis linearis, Schoenus apogon, S. nanus, Stipa hemipogon, Stylidium calcaratum, Thelymitra flexuosa, T. luteocilium, Thysanotus patersonii, Trachymene pilosa, Wahlenbergia luteola, Xanthorrhoea semiplana, Xanthosia pusilla.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia sp, Cassytha glabella dispar, Daviesia sp, Dillwynia sp, Eutaxia microphylla microphylla, Exocarpos sparteus, Gahnia ancistrophylla, G. deusta, Hakea cycloptera, Lepidosperma carphoides, L. viscidum, Lomandra collina, perennial grasses, Pultenaea sp.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia

(~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Antipodia atralba, Motasingha trimaculata trimaculata and the common species Geitoneura klugii klugii, Junonia villida calybe, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Candalides acastus, common spp, Hesperilla donnysa diluta, Neolucia agricola agricola and possibly Candalides cyprotus cyprotus, Jalmenus icilius, Theclinesthes miskini miskini and Trapezites sciron eremicola.

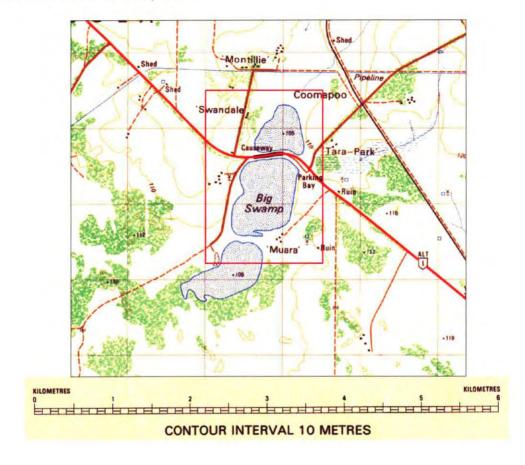
SUMMARY: This is a highly significant reserve for the conservation of rare and threatened butterflies. The foodplant diversity is good, and the lush open canopied area, free of grazing animals is an ideal habitat for butterflies. It is supporting a healthy population of both rare and common butterflies. Gahnia ancistrophylla is common and is supporting a good population of the rare skipper butterfly Antipodia atralba. The reserve is also supporting a population of the very rare skipper butterfly Motasingha trimaculata trimaculata. This site is one of two in which this butterfly was recorded during this survey. The other site was near Mount Hope township at KIA00801. The reserve has the potential to support other rare and threatened butterflies, if they are not already present, based on the presence of their foodplant.

CONSERVATION STATUS: DENR Reserve.

LOCATION: Big Swamp, 563800, 6166600.

(Roadside 18 km northwest of Port Lincoln on the Flinders Highway).

MAPSHEET: Wanilla 1/50,000.



LOCATION: Big Swamp, 563800, 6166600. Wanilla 1/50000 Sheet. (Roadside 18 km northwest of Port Lincoln on the Flinders Highway).

DATE & LENGTH OF SURVEY: 15 October 1995. 1/2 hr

WEATHER CONDITION: Fine and warm.

VEGETATION DOMAIN: Brackish wetland.

DOMINANT VEGETATION: Gahnia filum.

CONDITION: A large brackish lake edged with well developed stands of *Gahnia filum* on its north and west sides. The west side *Gahnia* occurs south of the highway for 1 km, and it was briefly examined for the presence of *Hesperilla* species. The *Gahnia* along the west side was grazed but in good condition. The *Gahnia* to the north occurred in a wide expanse and appeared in excellent condition, but was not examined during this survey. Some *Adriana klotzschii* occurred along the sides of the highway.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Adriana klotzschii, Gahnia filum, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp and possibly *Hesperilla chrysotricha naua* and *Hesperilla donnysa diluta*.

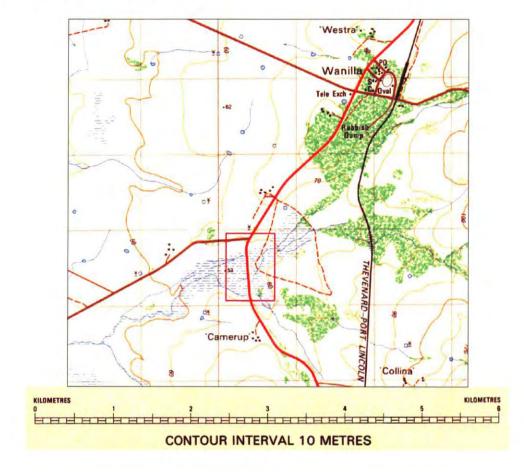
SUMMARY: Historically, both *Hesperilla* species were found at Big Lake, and were last reported from there in 1978. This survey indicates a massive decline in their presence, although they may still be present along the north side of the lake. If this site was to be put into a conservation mode then it should be suitable for their reintroduction.

CONSERVATION STATUS: Private Land.

LOCATION: Wanilla South Wetlands, 560350, 6176500.

(3 km south of Wanilla).

MAPSHEET: Wanilla 1/50,000.



LOCATION: Wanilla South Wetlands, 560350, 6176500, Wanilla 1/50000 Sheet. (3 km south of Wanilla).

DATE & LENGTH OF SURVEY: 16 October 1995. 1/2 hr

WEATHER CONDITION: Fine and cool.

VEGETATION DOMAIN: Wetland.

DOMINANT VEGETATION: Gahnia filum and G. trifida.

CONDITION: A large remnant of brackish *Gahnia/Melaleuca halmaturorum* wetland occurring 3 km south of Wanilla, and which trends southwesterly from the Tod Highway for 5 km. On the roadside of the Tod Highway is mainly *G. trifida* in excellent condition, while in the adjacent paddocks is mainly heavily grazed *G. filum*. The *Gahnia* near the highway was briefly inspected for *Hesperilla* habitation.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Gahnia filum, G. trifida, perennial grasses.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Nothing seen, there was no *Hesperilla* habitation on the *Gahnia*.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp.

SUMMARY: This is another area of larger *Gahnia* in which the *Hesperilla* skipper butterflies no longer occur. The reason for this decline is not known, but historical clearing attempts and overgrazing are probably the main cause, combined with the possibility of poison spray drift from adjacent cropping areas. If any part of the wetland was to be put into a conservation mode then it would be suitable for the reintroduction of these skippers.

CONSERVATION STATUS: Road Reserve and Private Land.

SITES ON THE YEELANNA 1/50,000 SHEET

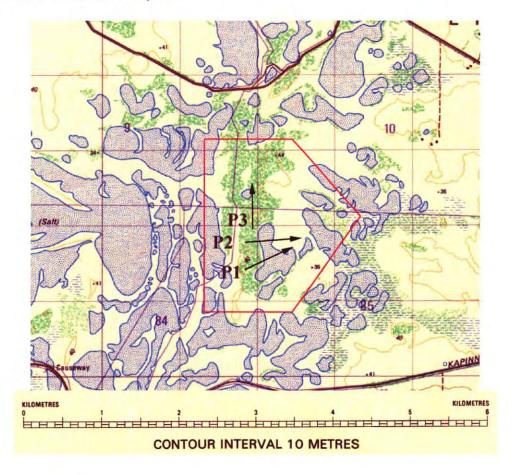
63. YEE 01701, 552900, 6222100, YEE 01801, 34 08 18, 135 33 53, 552060, 6222343, YEE 01901, 34 08 27, 135 33 48, 551926, 6222080, YEE 01F25, 34 08 48, 135 33 46, 551873, 6221413. (6 km east of Kapinnie).

LOCATION: YEE 01701, 552900, 6222100,

YEE 01801, 34 08 18, 135 33 53, 552060, 6222343, YEE 01901, 34 08 27, 135 33 48, 551926, 6222080, YEE 01F25, 34 08 48, 135 33 46, 551873, 6221413.

(6 km east of Kapinnie).

MAPSHEET: Yeelanna 1/50,000.





Photograph 1: Callitris preissii and Santalum acuminatum woodland.

LOCATION: YEE 01701, 552900, 6222100,

YEE 01801, 34 08 18, 135 33 53, 552060, 6222343, YEE 01901, 34 08 27, 135 33 48, 551926, 6222080, YEE 01F25, 34 08 48, 135 33 46, 551873, 6221413, Yeelanna 1/50000 Sheet. (6 km east of Kapinnie).

DATE & LENGTH OF SURVEY: 13 October 1995. 10 hrs

WEATHER CONDITION: Fine and warm, with a strong westerly wind, becoming overcast and cold in the late afternoon at YEE 01701.

VEGETATION DOMAIN: Mallee and *Melaleuca* woodland.

DOMINANT VEGETATION: Mixed.

CONDITION: A very large remnant of open mallee and *Melaleuca* woodland occurring within the Lake Malata saline, wetland complex, and 6 km east of Kappinie and north of the Kapinnie-Yeelanna Railway. The understorey is sparse and dominated by exotic grasses and weeds, and is heavily grazed by sheep and kangaroos. There are many ancient trees still existing with one quandang tree possessing a buttress 1/2 m thick. The original population of larger *Gahnia* has been mostly cleared or grazed from the area, with just isolated *Gahnia filum* remaining. The sites are white-sand over limestone based.

The vegetation present includes Acacia brachybotrya, A. rupicola, Acrotriche cordata, A. patula, Actinobole uliginosum, *Aira cupaniana, Allocasuarina verticillata, *Anagallis arvensis, *Arctotheca calendula, Asteridea athrixioides athrixioides, *Avellinia michelii, *Avena barbata, Beyeria lechenaultii, Blennospora drummondii, Brachycome lineariloba, *Bromus rubens, *Bupleurum semicompositum, Bursaria spinosa, Calandrinia calyptrata, C. eremaea, Callitris preissii, Calotis hispidula, *Carduus tenuiflorus, Cassytha peninsularis peninsularis, *Centaurium tenuiflorum, Chrysocephalum apiculatum, Clematis microphylla, Comesperma volubile, Correa reflexa, Crassula colorata acuminata, C. exserta, C. sieberiana tetramera, Danthonia caespitosa, D. setacea setacea, Daucus glochidiatus, Dianella revoluta revoluta, Drosera macrantha planchonii, Enchylaena tomentosa tomentosa, Eucalyptus diversifolia, E. leptophylla, E. odorata, E. porosa, Eutaxia microphylla microphylla, Exocarpos aphyllus, Gahnia filum (very rare), G. deusta (rare), *Hedypnois rhagadioloides, Helichrysum leucopsideum, *Hypochaeris glabra, Lepidosperma congestum, L. viscidum, Leptorhynchos waitzia, Linum marginale, Lomandra collina (very rare), *Medicago truncatula, Melaleuca acuminata, M. lanceolata, M. halmaturorum, *Mesembryanthemum nodiflorum, Millotia muelleri, M. myosotidifolia, M. tenuifolia tenuifolia, Myoporum sp. *Myrsiphyllum asparagoides, Oxalis perennans, *Petrorhagia velutina, Pimelea flava dichotoma, P. serpyllifolia serpyllifolia, Pittosporum phylliraeoides microcarpa, *Plantago sp, Podolepis tepperi, Podotheca angustifolia, *Polypogon maritimus, Pomaderris paniculosa paniculosa, Poranthera triandra, Pterostylis excelsa, Pterostylis pusilla, Ptilotus spathulatus spathulatus, Rhagodia candolleana candolleana, Santalum acuminatum, *Silene nocturna, Stipa elegantissima, S. exilis, S. scabra falcata, Threlkeldia diffusa, Thysanotus patersonii, Trachymene pilosa, *Trifolium angustifolium, *T. arvense arvense, *T. campestre, *T. glomeratum, *Urospermum picroides, *Vicia monantha, Vittadinia australasica australasica, *Vulpia fasciculata, Wahlenbergia gracilenta, Wurmbea dioica dioica.

RESIDENT FOODPLANTS FOR THREATENED & POTENTIALLY THREATENED BUTTERFLIES: Acacia spp, Cassytha peninsularis peninsularis, Eutaxia microphylla microphylla, Exocarpos aphyllus, Gahnia filum, G. deusta, Lepidosperma viscidum, Lomandra collina, Oxalis perennans, perennial grasses, Santalum acuminatum, Stipa scabra falcata.

HISTORICAL BUTTERFLY RECORDINGS OF THREATENED & POTENTIALLY THREATENED SPP (LAST DATE OF RECORDING): Acrodipsas brisbanensis cyrilus (no previous record), Antipodia atralba (1981), Candalides acastus (1981), Candalides cyprotus cyprotus (npr), Candalides heathi heathi (npr), Candalides hyacinthinus simplex (npr), Delias aganippe (1955), Herimosa albovenata albovenata (npr), Hesperilla chrysotricha naua (1981), Hesperilla donnysa diluta (1981), Hypochrysops ignitus ignitus (~1890), Jalmenus icilius (npr), Motasingha trimaculata trimaculata (1981), Neolucia agricola agricola (1981), Ogyris amaryllis meridionalis (npr), Ogyris idmo halmaturia (~1890), Ogyris otanes (npr), Theclinesthes albocincta (1974), Theclinesthes miskini miskini (npr), Trapezites luteus luteus (1911), Trapezites sciron eremicola (1982).

ACTUAL BUTTERFLY POPULATION: Hesperilla donnysa diluta, Neolucia agricola agricola and the common species Geitoneura klugii klugii, Junonia villida calybe, Nacaduba biocellata biocellata, *Pieris rapae rapae, Zizina labradus labradus.

ADDITIONAL LIKELY RESIDENT BUTTERFLY POPULATION: Common spp, and possibly Candalides acastus, Candalides hyacinthinus simplex and Herimosa albovenata albovenata.

SUMMARY: This is a unique remnant by virtue of the ancient trees present, particularly the quandangs, but unfortunately there does not appear to be much regeneration due to the grazing. Most of the foodplants for the rare and threatened butterflies are too scarce to support viable populations and it is surprising that *Hesperilla donnysa diluta* is present considering the poor state of its *Gahnia* foodplants. If this remnant was ever put in a conservation mode then it has potential for supporting many rare butterflies as many of their foodplants already exist and would likely, quickly multiply. The *Stipa scabra* could be extended as a foodpant for the vulnerable skipper butterfly *Herimosa albovenata albovenata*.

CONSERVATION STATUS: Private Land.

APPENDIX

APPENDIX 1: Original Scope of Project

PROJECT TITLE

Butterfly Conservation in southern Eyre Peninsula.

SCOPE

The aim of this project is to identify the remaining indigenous foodplant habitat for threatened and potentially threatened (rare and local) butterflies within the southern Eyre Peninsula region (Figure 1), and to assess the present or likely populations of these butterflies so that conservation management policies can be developed.

BRIEFING

Knowledge on the state of S.A. butterfly populations is presently poor. With increased pressures of urbanization and agriculture, and the indiscriminate use of pesticides along with the lack of butterfly lore by the general population, a steady decline in butterfly numbers in the state has been witnessed. Already nine species are on the threatened list (five endangered and four vulnerable), from a total of 62 species known to reside in S.A. There are a further five species as occasional migrants from the tropical north, and a further 21 species known to occur adjacent to the state's borders and which are likely to be found in S.A. with further surveys.

This lack of knowledge has contributed to the conservation plight of the butterfly with no set management policy in place for the conservation of butterfly species both within and outside the state's conservation parks. Every adult on the street will tell you that they like butterflies, that they used to be everywhere when they were a child, and now they do not see them any more. Greening Australia policies of recent years has seen a massive increase in revegetation projects across Australia, but unfortunately about 95% of this vegetation is unsuitable as foodplant for butterflies.

It has been observed by the applicant that a large percentage of government grants are being awarded for vegetation studies. However this vast resource is not being constructively utilized when it is realized that Australian butterflies are 98% dependent upon specific vegetation types, and yet when vegetation surveys are undertaken no Lepidopterist accompanies the botanical team. Lepidopteral and botanical surveys should be undertaken together where possible to pool and conserve valuable resource funds so that duplication of effort does not occur.

This project is dependent upon the pooling of such effort and funds.

(NOTE: Due to the increased knowledge obtained on butterfly distributions from this project, and from other surveys undertaken concurrently, the above vulnerability has been revised and is incorporated into Appendix 2).

WORK PROCEDURE

The work effort is entirely contingent upon interfacing with the Department of Housing and Urban Development (GIS Division) vegetation survey of southern Eyre Peninsula, for the utilization of their transport, and floristic knowledge.

Remnant native vegetation sites, particularly conservation areas will be examined for threatened and potentially threatened butterflies and their foodhosts, and sites will be photographed for a visual record. A report will be produced documenting the results of each site examination, listing the foodhosts present, the presence of the butterflies actually seen or likely to be present based on the presence of their foodhost, a notation of the last time the threatened butterfly was reported in the area, and a summary of the conservation value of the site relevant to the threatened butterflies future conservation management.

APPENDIX 2: Southern Eyre Peninsula Butterfly Data

SOUTH AUSTRALIAN BUTTERFLIES (SOUTHERN EYRE PENINSULA REGION)

Family HESPERIIDAE (Skippers)		
Trapezites luteus luteus	V	L. densifiora (pointed mat-rush), L. longifolia (spiny-headed mat-rush), L. multiflora dura (stiff mat-rush) (Liliaceae/Xanthorrhoeaceae)
sciron eremicola	\mathbf{V}	Lomandra collina (pale mat-rush or irongrass)
Anisynta cynone gracilis?	R	Native and introduced perennial grasses, including *Brachypodium distachyon (false brome), *Cynodon dactylon (couch), *Piptatherum(Oryzopsis) miliaceum (rice millet)(Gramineae/Poaceae)
Herimosa albovenata albovenata?	V	Stipa eremophila (desert spear-grass), Stipa scabra (rough spear-grass), S. scabra falcata (delicate spear-grass), S. semibarbata (fibrous spear-grass) (Gramineae/Poaceae)
Hesperilla chrysotricha naua	V	Gahnia filum (thatching grass), G. trifida (cutting grass) (Cyperaceae)
donnysa diluta	R	Gahnia ancistrophylla, G. filum, G. deusta, G. trifida
Motasingha trimaculata trimaculata	R	Lepidosperma carphoides (black rapier-sedge), L. concavum (sand-hill sword-sedge), L. viscidum (sticky sword-sedge), Schoenus spp (bog-rushes) (Cyperaceae)
Antipodia atralba	R	Gahnia ancistrophylla, G. deusta, G. lanigera (black grass)
Croitana arenaria?	R	Enteropogon acicularis (umbrella or curly windmill grass) (Gramineae/Poaceae)
Taractrocera papyria papyria ?	R	Perennial native and introduced grasses incl. *Agrostis capillaris, *Cynodon dactylon (couch), Danthonia spp incl. D. caespitosa (common wallaby-grass), Echinopogon spp (rough-bearded or hedgehog grasses), *Ehrharta calycina (perennial veldt grass), *E. erecta, *E. longiflora (annual veldt grass), Imperata cylindrica (blady or kunai grass), Microlaena stipoides (weeping rice-grass), *Paspalum dilatatum, *Pennisetum clandestinum (kikuyu), Phragmites australis (common reed), Poa spp (Gramineae/Poaceae); also Carex gaudichaudiana (sedge)(Cyperaceae)
Ocybadistes walkeri hypochlorus?	L	Perennial native and introduced grasses incl. *Brachypodium distachyon, *Bromus spp (brome), *Cynodon dactylon, *Ehrharta erecta (panic veldt grass), Imperata cylindrica, *Panicum sp, *Paspalum vaginatum (salt-water couch), *Pennisetum

clandestinum (Gramineae/Poaceae); also Dianella sp (flax lilies) (Liliaceae)

Family **PAPILIONIDAE** (Swallowtails)

Eleppone anactus

Princeps demoleus sthenelus

L

Native and introduced Rutaceae incl. *Citrus spp,
Eremocitrus glauca (desert lime), *Fortunella spp
(cumquat), *Poncirus trifoliata (Rutaceae)
Cullen(Psoralea) spp. incl. C. australasica (tall

L(V) Cullen(Psoralea) spp incl. C. australasica (tall verbine), C. cinereum (annual verbine), C. patens (native verbine), *C. pinnata (African scurf-pea) (Leguminosae/Papilionoideae). Overseas, feeds on *Citrus spp

Family PIERIDAE (Whites and Yellows)

Eurema smilax

 $-\mathbf{M}$

Cassia and Senna spp incl. **C. fistula, S. artemisioides coriacea (punty bush), S. artemisioides "tomentosa" (blunt-leaved cassia), S. artemisioides "nemophila" (desert cassia or punty bush); also Neptunia spp and **Paraserianthes(Albizia) lophantha lophantha (Cape Leeuwin wattle) (Leguminosae/Mimosoideae)

Delias aganippe

R

Amyema spp incl. A. linophyllum (bulloak mistletoe), A. melaleucae (melaleuca mistletoe), A. miquelii (box mistletoe), A. pendulum (drooping mistletoe), A. preissii (wire-leaf mistletoe), A. quandang quandang (grey mistletoe)(Loranthaceae); also Exocarpos aphyllus (stiff cherry), E. cupressiformis (native cherry), E. strictus (dwarf cherry), Santalum acuminatum (quandong), S. lanceolatum (plumbush) (Santalaceae)

Belenois(Anaphaeis) java teutonia (M)
*Pieris(Artogeia) rapae rapae LC(V)(I)

Capparis spp incl. C. mitchelii (Capparaceae) Requires foodplants containing mustard oils. These include most plants of the Cruciferae family incl. *Arabis spp (rock cress), *Barbarea spp (wintercress), cruciferous crops *Brassica spp, *Cakile edentula (American sea-rocket), *Cardaria draba (hoary cress), *Descurainia sophia (flixweed), *Eruca sativa (purplevein rocket), *Erysimum spp (mustards), *Hesperis spp (rocket), Lepidium spp incl. L. hyssopifolium (peppercress), *Lobularia maritima (sweet alyssum), *Lunaria spp (honesty), *Matthiola incana (common stock), *Raphanus sativus (radish), *R. raphanistrum (wild radish), Rorippa spp incl. *R. nasturtiumaquaticum (watercress), *R. palustris (yellow cress), *Sisymbrium spp. incl. *S. irio (London rocket), *S. officinale (hedge mustard) (Cruciferae); also the herbs *Capparis spp, Cleome spp incl. Cleome viscosa (tickweed)(Capparaceae); *Reseda spp (mignonettes)

(Reseduceae); *Tropaeolum spp (nasturtiums) (Tropaeolaceae)

Subfamily **DANAINAE** (Danaids)

Danaus chrysippus petilia

L(V) *Asclepias curassavica (red-head cotton-bush), *A.fruticosa (swan plant), *A. physocarpa (balloon cotton-bush), *A. rotundifolia (broad-leaved cottonbush), *Calotropis procera (king's crown), Cynanchum floribundum (native pear), Marsdenia(Leichardtia) australis (native pear), Rhyncharrhena(Pentatropis) linearis (cotton vine), *Orbea(Stapelia) variegata (carrion flower), Sarcostemma spp (Asclepiadaceae)

plexippus plexippus

LC(V) *Araujia hortorum (cruel plant), *Asclepias curassavica, *A. fruticosa, *A. physocarpa, *A. rotundifolia, *Calotropis spp (king's crown), *Orbea variegata (Asclepiadaceae)

Subfamily SATYRINAE (Browns)

Geitoneura klugii klugii

LC Native and introduced grasses incl. *Brachypodium distachyon, Danthonia spp, *Ehrharta calycina (perennial veldt grass), Poa tenera (slender

tussock grass), Stipa flavescens, Themeda triandra (kangaroo grass), *Vulpia sp (Gramineae/Poaceae)

Heteronympha merope merope

LC Native and introduced grasses incl. *Agrostis capillaris, *Brachypodium distachyon, *Ehrharta erecta (panic veldt grass), Microlaena stipoides, Poa poiformis (coast tussock grass), P. tenera, Themeda triandra; also rarely on G. sieberiana (red-fruit saw-sedge) (Cyperaceae)

Subfamily **NYMPHALINAE** (Nymphs)

Vanessa cardui?

R Numerous foodplants. Mainly within Compositae/ Asteraceae and Leguminosae/Papilionoideae, but also

> within Boraginaceae, Chenopodiaceae, Convolvulaceae, Cruciferae, Cucurbitaceae, Hydrophyllaceae, Labiatae, Malvaceae, Plantaginaceae, Polygonaceae, Rhamnaceae, Rosaceae, Rutaceae, Solanaceae,

Ulmaceae, Umbelliferae, Urticaceae and Verbenaceae

families

kershawi

LC(M) Numerous native and introduced herbs and ornamental plants, mainly Compositae/Asteraceae incl.

**Ammobium alatum (paper daisy), *Arctotheca calendula (cape weed), *Artemisia spp (wormwoods), Bracteantha bracteata (strawflower), *Carduus spp (prickly thistles), Chrysocephalum apiculatum (common everlasting), *Gamochaeta spicata (spiked cudweed, Gnaphalium spp (cudweeds), Leucochrysum spp (sunrays), *Onopordum acanthium (scotch

Vanessa(Bassaris) itea

Junonia villida calybe

thistle), *O. illyricum (Illyrian thistle), Rhodanthe chlorocephala rosea (western sunray); also *Lavandula officinalis (lavender) (Labiatae)

LC(M) Mainly plants of the Urticaceae family. Parietaria debilis (shade pellitory), *P. judaica (wall pellitory), *Soleirolia soleirolii (baby's tears), Urtica incisa (native stinging nettle), *U. urens (stinging nettle); also *Arctotheca calendula (Compositae/Asteraceae)

LC(M) Numerous native and introduced herbaceous plants incl. *Ruellia sp (Acanthaceae); *Arctotheca calendula, Epaltes australis (spreading nut-heads)(Compositae/ Asteraceae); Evolvulus alsinoides (native convolvulus) (Convolvulaceae); *Centaurium erythraea (common centaury), *C. spicatum (spike centaury) (Gentianaceae): Goodenia spp. incl. G. geniculata, Scaevola aemula (fairy fanflower)(Goodeniaceae); Plantago spp (plantains) incl. *P. lanceolata (ribgrass or ribwort) (Plantaginaceae); Portulaca oleracea (munyeroo, purslane or pigweed)(Portulacaceae); *Antirrhinum majus (garden snapdragon), *Russelia equisetiformis (coral plant)(Scrophulariaceae); *Phyla canescens (lippia); *Verbena spp incl. *V. bonariensis (purple-top verbena), *V. officinalis (common verbena) (Verbenaceae); *Scabiosa atropurpurea (scabious) (Dipsacaceae)

Family LYCAENIDAE (Coppers and Blues)

Lucia limbaria?

R *Oxalis corniculata (yellow wood-sorrel),

O. perennans (creeping yellow oxalis) (Oxalidaceae). Larvae attended by numerous small black ants Iridomyrmex sp (gracilis group)

Acrodipsas brisbanensis cyrilus?

E The entire

The entire immature stage is spent in the nests of the small dark-brown byre building ant Papyrius (Iridomyrmex) sp (nitidus group). In related species the immature stages use a small black ant Crematogaster sp, the larval stage being predacious on the immature

Hypochrysops ignitus ignitus

Y

Numerous foodplants of a variety of families incl.
Cassinia spp (Compositae/Asteraceae); Brachyloma
daphnoides (daphne heath)(Epacridaceae); Acacia spp
incl. **A. decurrens (queen wattle), A. leiophylla
(smooth-leaf wattle), A. pycnantha (golden wattle),
**A. saligna (golden-wreath wattle) (Leguminosae/
Mimosoideae); Eucalyptus spp (Myrtaceae); Banksia sp
(Proteaceae); Pomaderris sp (Rhamnaceae); *Prunus sp
(plum), *Rubus "fruticosus" (blackberry)(Rosaceae);
Choretrum glomeratum (berry broombrush or
common sour-bush), Exocarpos aphyllus (stiff cherry),

		E appropriés mais (notive abore Mentalagons)
		E. cupressiformis (native cherry)(Santalaceae);
		**Alectryon (Heterodendrum) spp, **Cupaniopsis
		anacardioides (tuckeroo), Dodonaea spp incl. D.
		humilis (dwarf hop-bush), D.viscosa angustissima
		(attenuata) (narrow-leaf hop-bush) (Sapindaceae).
		Larvae attendant ant is Papyrius(Iridomyrmex) sp
		(nitidus group), a byre building small dark-brown ant
		with a distinctive coconut smell
Ogyris amaryllis meridionalis	L	Amyema melaleucae (melaleuca mistletoe), A.
(Adelaide form)		miquelii (box mistletoe), A. pendulum pendulum
		(drooping mistletoe), A. preissii (wire-leaf mistletoe)
		(Loranthaceae). Larvae attended by a few small ants
		incl. a dark brown Crematogaster sp and small black
		or orange and black Iridomyrmex spp
idmo halmaturia	E	Entire larval stage spent in sugar-ant nests, Camponotus
		spp incl. C. nigriceps and C. terebrans, at the base of
		trees and shrubs in a variety of pristine habitats. Larvae
		believed to be predatory on the immature ant stages
nsp?	\mathbf{V}	As above, in Camponotus terebrans sugar-ant nests
		in sandy soil at the base of trees and shrubs in mallee
		habitat. Larvae believed to be predatory on the
		immature ant stages
otanes	\mathbf{V}	Choretrum glomeratum glomeratum (berry
		broombush or common sour-bush), C. spicatum (spiked
		sour-bush), Leptomeria preissiana (currant-bush)
		(Santalaceae). Larvae attended by numerous sand
		dwelling sugar-ants Camponotus terebrans, also C. sp
	_	(claripes group) and possibly C. hartogi
Jalmenus icilius ?	R	Acacia spp incl. A. anceps (Port Lincoln wattle),
		A. aneura aneura (mulga), A. calamifolia (wallowa),
		A. mearnsii (black wattle), A. pycnantha, A. retinodes
		retinodes (Wirilda-hills form), A.r. aff. uncifolia, A.
		victoriae victoriae (elegant or bramble wattle)
		(Leguminosae/Mimosoideae); also Senna spp incl. S.
		artemisioides (silver cassia), S. artemisioides coriacea
		(desert cassia), S.a. petiolaris (Leguminosae/
		Caesalpinioideae). Larvae attended by numerous small
		black ants Iridomyrmex sp
lithochroa?	V	Acacia pycnantha, A. victoriae victoriae. Larvae
		near Adelaide attended by numerous small black ants
		Iridomyrmex sp, in the Flinders Range by large
	_	meat ants Iridomyrmex purpureus and I. viridiaeneus
Erina(Candalides) acastus	L	Cassytha glabella dispar (slender dodder-laurel or
		devil's twine), C. peninsularis flindersii (streaked
		dodder-laurel), C. pubescens (downy or rusty dodder-
		laurel) (Lauraceae). Larvae sometimes attended by a
		few small ants

R

LC

 \mathbf{L}

hyacinthinus simplex L

Cyprotides(Cand.) cyprotus cyprotus? R

Microscena(Cand.) heathi heathi

Nacaduba biocellata biocellata

Neolucia agricola agricola

Cassytha melantha (coarse dodder-laurel or devil's twine), C. peninsularis peninsularis (streaked dodder-laurel), C.p. flindersii (Lauraceae). Larvae attended by a few small brown or black ants Ochetellus sp In eastern states on Jacksonia scoparia (dogwood) (Leguminosae/Papilionoideae); also on Conospermum spp (smoke-bushes), Grevillea spp (Proteaceae); in S.A. found on G. huegelii (comb grevillea) and possibly G. ilicifolia (holly-leaved grevillea) and Hakea spp incl. H. leucoptera (needle bush)(Proteaceae). Probable attendant ants in S.A. are small black Iridomyrmex sp, but possibly also include black sugar ants Camponotus chalceus, and of the C. capito group, a bright red and black Iridomyrmex sp and a Podomyrma sp brown ant with yellow spots on the abdomen.

Prostanthera spp (mintbushes), Westringia spp incl.

**W. fruticosa (coastal rosemary), W. rigida (western rosemary)(Labiatae); Eremophila spp incl. E. deserti (turkey-bush), E. longifolia (weeping emubush or berrigan)(Myoporaceae); Plantago spp incl. *P. lanceolata (ribgrass or ribwort)(Plantaginaceae); Derwentia(Parahebe) spp incl. D. derwentiana (Derwent speedwell)(Scrophulariaceae); Brachychiton spp (kurrajongs) (Sterculiaceae), Pimelea spp (Thymelaeaceae). Larvae attended by a few small black ants Iridomyrmex sp

Acacia spp incl. A. anceps (Port Lincoln wattle), A. aneura aneura (mulga), A. brachybotrya (grey mulga), A. calamifolia (wallowa), A. cyclops (western coastal wattle), A. erinacea (spiny wattle), A. halliana, A. ligulata (umbrella bush or sandhill wattle), *A. karroo, A. nematophylla, A. oswaldii (miljee or umbrella wattle), A. papyrocarpa(sowdenii) (western myall), A. pycnantha (golden wattle), A. quornensis (Quorn wattle), A. retinodes retinodes (Wirilda), A. r. aff. uncifolia, A. rigens (nealie), A. rupicola (rock wattle), A. salicina (Broughton willow or coobah), A. sclerophylla (hard-leaf wattle), A. stenophylla (river cooba), A. tetragonophylla (dead finish), A. victoriae victoriae (Leguminosae/ Mimosoideae). Larvae normally attended by a few small black ants Iridomyrmex spp and in the northern areas by the large meat ants Iridomyrmex purpureus and I. viridiaeneus

Various small bush-pea plants incl. Actus spp, Bossiaea spp, Daviesia spp (bitter-peas), Dillwynia spp (parrot-peas), Eutaxia spp incl. E. microphylla microphylla (mallee bush-pea), Pultenaea spp incl. P. L

Theclinesthes albocincta

acerosa (bristly bush-pea), P. largiflorens (twiggy bush-pea). P. rigida ovata (Leguminosae/ Papilionoideae). Larvae sometimes attended by a few small ants

Adriana spp incl. A. hookeri (mallee bitterbush or water bush), A. klotzschii (coast bitterbush), A. quadripartita (rare bitterbush)(Euphorbiaceae). Larvae attended by a few ants of numerous species which also feed from the nectary glands of the Adriana, and include the large brown sugar-ant Camponotus consobrinus and a small black sugar-ant of the C. rubiginosus gp, a small Crematogaster sp, Dolichoderus sp, Iridomyrmex spp incl. meat ants, Melophorus sp. Monomorium sp. Myrmecia spp incl. the inch-ant M. nigriscapa, brown or black Notoncus spp, a small Ochetellus sp, a black Polyrhachis sp, Rhytidoponera metallica

miskini miskini L

Mainly on Acacia spp incl. A. anceps, A. pycnantha, A. salicina, **A. saligna, A. tetragonophylla (kurara or deadfinish wattle), A. victoriae victoriae, and **Paraserianthes (Albizia) lophantha lophantha (Cape Leeuwin wattle)(Leguminosae/ Mimosoideae); also on Sesbania cannabina (Leguminosae/ Papilionoideae); Atalaya spp (whitewoods) (Sapindaceae). Larvae attended by a either a few small black ants Iridomyrmex sp, or in the far north by numerous large black meat ants Iridomyrmex viridiaeneus

serpentata serpentata LC

Mainly on saltbushes incl. Atriplex australasica (native orache), A. cinerea (coast saltbush), A. eichleri, A. elachophylla, A. holocarpa (pop saltbush), A. leptocarpa (slender-fruited saltbush), A. limbata (spreading saltbush), A. lindleyi & ssp (baldoo), A. lobativalvis, A. macropterocarpa, A. morrisii, A. muelleri (annual saltbush), A. nummularia nummularia (old-man saltbush), A. obconica, A. paludosa cordata (marsh saltbush), *A. prostrata (mat saltbush), A. pseudocampanulata (mealy saltbush), A. quinii, A. rhagodioides (river saltbush), A. semibaccata (berry saltbush), A. spongiosa (pop saltbush), A. suberecta (lagoon saltbush), A. velutinella (sandhill saltbush), A. vesicaria variabilis (bladder saltbush), *Chenopodium album (fat hen or white goosefoot), C. gaudichaudianum, C. nitrariaceum (nitre goosefoot), Einadia nutans nutans (climbing saltbush), E. nutans oxycarpa, Rhagodia candolleana candolleana (seaberry saltbush), R. crassifolia (fleshy saltbush), R. eremaea,

Lampides boeticus

Zizina labradus labradus

R. parabolica (fragrant or mealy saltbush), R. preissii preissii, R. spinescens (spiny saltbush) (Chenopodiaceae); also on Atalaya hemiglauca (whitewood)(Sapindaceae). Larvae attended by a few ants usually small black or brown Iridomyrmex spp. but occasionally a small black sugar-ant of the Camponotus ceriseipes gp, small black Monomorium rubriceps, a small red bull-ant of the Myrmecia nigrocinctus gp, a small black Notoneus sp

L(M) On numerous native and introduced plants of the Leguminosae/Papilionoideae family incl. *Colutea arborescens (bladder senna), Crotalaria spp incl. C. cunninghamii (green birdflower), C. eremaea eremaea (bluebush pea), *Cytisus proliferus (tree lucerne), *Dipogon lignosus (lavatory creeper), Gompholobium ecostatum (dwarf wedge-pea), Kennedia prostrata (running postman or scarlet runner), *Lathyrus odoratus (sweet-pea), Lotus australis (trefoil), *Lupinus spp (lupins), *Phaseolus vulgaris (garden bean), *P. limensis, *Pisum sativum (garden pea), Cullen(Psoralea) australasica (tall verbine), C. patens (native verbine), Pultenaea tenuifolia (bush-pea), Sesbania cannabina (yellow pea-bush), *Sophora spp, Swainsona spp (darling peas) incl. S.(Clianthus) formosus (Sturt's desert-pea), Templetonia retusa (cockies tongue), *Vicia faba (broadbean), *V. sativa (common vetch), *Virgilia oroboides (Cape virgilia). Larvae sometimes attended by a few small ants incl. Iridomyrmex sp

attended by a few small ants incl. Iridomyrmex sp LC(M) On numerous native and introduced plants of the Leguminosae/Papilionoideae family incl. Glycine spp incl. *G. max (soybean), Glycyrrhiza acanthocarpa (native liquorice), Hardenbergia violacea (native lilac), Indigofera spp (indigo's), Lotus australis, *Medicago spp (lucernes, medics), *Phaseolus spp incl. *P. vulgaris (french gardenbean), *Pisum sativum, Cullen(Psoralea) adscendens (dusky scurfpea), C. australasica, C. pallidum (bullamon lucerne), C. patens, Pultenaea tenuifolia, Swainsona spp, *Trifolium spp (clover), *Trigonella spp (fenugreeks), *Vicia faba, *Virgilia oroboides. Larvae attended by a few small black ants incl. Iridomyrmex, Rhytedoponera and Tapinoma spp, or a small darkbrown ant Paratrechina sp.

DEFINITIONS: E=Endangered, V=Vulnerable, R=Rare, L=Local, LC=Locally Common, (M)=Migrant, (V)=Vagrant, (I)=Introduced (* denotes an overseas source), ?=Unknown Status, not yet recorded from southern Eyre Peninsula (although conditions of the region are conducive for its presence). Vulnerability refers to the species' status within South Australia. Underlined vulnerability indicates the species has a threatened existence only within South Australia's political borders, and that it occurs elsewhere in Australia as non threatened fauna.

The food host list includes all known Australian foodplant records, which have also been reported as growing within South Australia, either as indigenous natives or introduced cultivars and escapes.

Those plants featured in **bold type** are those upon which butterfly larvae have been found within South Australia. A single *asterisk denotes the plant is an overseas introduction. Double **asterisks denote the plant is an interstate introduction.

Most Lycaenid butterflies are closely associated with ants, and those ants featured in **bold type** are those which the butterfly has been found to associate with in South Australia.

The reference book for S.A. butterflies is "Butterflies of South Australia" by R.H. Fisher, 1978 which can now be bought from the State Information Centre for \$3.95. Some generic butterfly names have changed since publishing but they should be no problem to decipher, also there are some new butterfly additions which are included above.

VULNERABILITY DEFINITIONS

THREATENED FAUNA

The following two categories are mainly related to habitat degradation. Species survival is dependant upon the presence of food host (ie. the plants or ants upon which the larvae feed), in a suitable environment. These are often very specific. Should the food host habitat be destroyed then the butterfly will also perish. Loss of habitat is due to urbanization and agricultural land use.

ENDANGERED: Species are in serious risk of disappearing within two decades if present causal factors continue.

VULNERABLE: Species are endangered over a longer time or are extremely localized and at sites likely to experience detrimental change.

NON THREATENED FAUNA

RARE: Species are not currently threatened but are localized or patchy in distribution.

They may be widespread in overall distribution, but are not always present near the food host, and usually occur in very few numbers.

LOCAL: Species are usually present wherever the food host occurs, but are rarely seen in large numbers.

LOCALLY COMMON: Species are present wherever the food host occurs, and are usually common.

MIGRANT: These species either periodically or annually migrate in numbers within Australia, over short or long distances. Usually common near the food host in their normal environment.

VAGRANT: These species either periodically or annually, randomly migrate singly within Australia, over short or long distances. Many species have this tendency (especially the females), particularly during favourable seasons, it being used as a means of dispersal.

INTRODUCED: These species have been accidentally introduced to an area favourable to their continuing existence. This may be by natural causes such as violent uplifting storms or by rafting,

but is usually by transportation of early stages on foodplant hosts or by adults sealed in transportation vehicles.

R. GRUND, updated 31 July 1997

APPENDIX 3:

COMMON NAMES FOR SOUTH AUSTRALIAN BUTTERFLIES

(SOUTHERN EYRE PENINSULA REGION)

BUTTERFLY

Family **HESPERIIDAE** (Skippers)

Trapezites luteus luteus

sciron eremicola

Anisynta cynone gracilis

Herimosa albovenata albovenata

Hesperilla chrysotricha naua

donnysa diluta

Motasingha trimaculata trimaculata

Antipodia atralba

Croitana arenaria

Taractrocera papyria papyria

Ocybadistes walkeri hypochlorus

Family PAPILIONIDAE (Swallowtails)

Eleppone anactus

Princeps demoleus sthenelus

Family **PIERIDAE** (Whites and Yellows)

Eurema smilax

Delias aganippe

Belenois(Anaphaeis) java teutonia

*Pieris(Artogeia) rapae rapae

Subfamily **DANAINAE** (Danaids)

Danaus chrysippus petilia

plexippus plexippus

Subfamily SATYRINAE (Browns)

Geitoneura klugii klugii

Heteronympha merope merope

Subfamily **NYMPHALINAE** (Nymphs)

Vanessa cardui

kershawi

Vanessa(Bassaris) itea

Junonia villida calybe

COMMON NAME

Rare white-spot skipper

Sciron skipper

Cynone skipper

White-veined skipper

Chrysotricha skipper

Donnysa skipper

Trimaculata skipper

Black and white skipper

White grassdart

Southern dart

Dingy swallowtail

Chequered swallowtail

Small grass yellow

Wood white

Caper white

Cabbage white

Lesser wanderer

Monarch, Wanderer

Klug's brown

Common brown

Painted lady

Australian painted lady

Australian admiral

Meadow argus

Family LYCAENIDAE (Coppers and Blues)

Lucia limbaria

Acrodipsas brisbanensis cyrilus Hypochrysops ignitus ignitus Ogyris amaryllis meridionalis

idmo halmaturia

nsp

otanes

Jalmenus icilius

lithochroa

Erina(Candalides) acastus

hyacinthinus simplex

Cyprotides(Candalides) cyprotus cyprotus

Microscena(Candalides) heathi heathi

Nacaduba biocellata biocellata

Neolucia agricola agricola

Theclinesthes albocincta

miskini miskini

serpentata serpentata

Lampides boeticus

Zizina labradus labradus

Small copper

Large ant-blue

Fiery jewel

Amaryllis azure

Large brown azure

Moore's azure

Small brown azure

Icilius blue

Lithochroa blue

Blotched blue

Western dusky blue

Cyprotus blue

Rayed blue

Blue-spotted lineblue

Fringed blue

Grund's blue

Miskin's blue

Chequered blue

Pea blue

Common grass blue