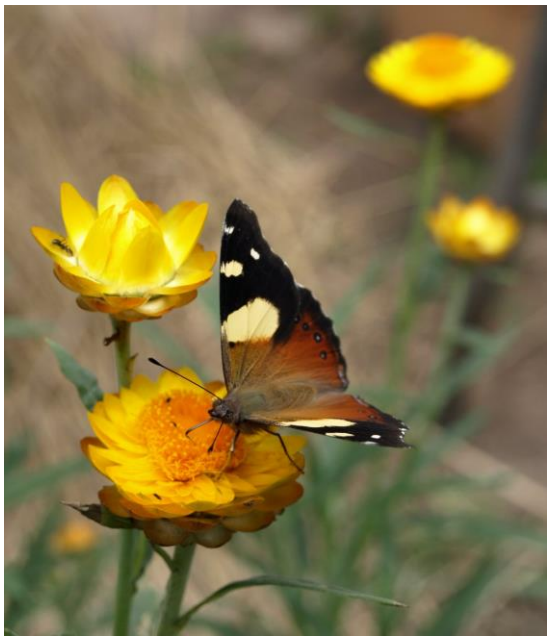
ARMIDALE TREE GROUP NEWSLETTER

Number 107 Spring Edition

October 2016

Planting Guides for Armidale Butterflies and Skippers

by David Britton



Editor: Kerry Steller
The Armidale Tree Group
80 Mann St, Armidale, 2350
Phone 67711620
www.armidaletreegroup.org

Cover Photo: **Yellow Admiral Butterfly**, *Vanessa itea*, drinking nectar from a Golden Everlasting or Paper Daisy in an Armidale garden (Photo: Kate Boyd)

Editors note: 2016 Spring Edition

Dear ATG Members and Friends

Welcome to our 2016 Spring edition of the ATG Newsletter. It is a very busy Spring Season with so much happening to inform and entertain you. Keep abreast of what is on offer and join in when you can. Also consider our need for enthusiastic people on our great ATG committee at our AGM on 2nd November! What can talents you share with us?

Kerry Steller (editor)

Our feature article this season on Butterflies and Skippers was written by David Britton in 2002 and David has kindly updated this for us. Dr David Britton worked for UNE, leaving some years ago to be the collection manager of entomology at the Australian Museum in Sydney and now lives with tropical butterflies in Cairns. This article was written while David was living in Armidale. David's article includes known food plants for many species. If you have identified butterflies or caterpillars feeding on other plant species we would be interested to know. For example, Peter Metcalfe says that while the caterpillars of Orchard Swallowtails usually eat leaves of citrus trees, Correas are in the same family as citrus and could be hosts for these lovely big butterflies, however David has seen the eggs laid but has not seen the larvae survive past the third moult. Keep an eye out for them! You can increase the numbers and variety of butterflies around us by planting (or not mowing) the preferred food plants for caterpillars as well as nectar plants for adults. Buy your pet food here: at least 20 of the particular species and genera listed are available from our nursery (not counting the brassica vegetable seedlings eaten by introduced pest Cabbage White larvae). Have fun! (contributed by Kate Boyd)

A summary of the articles in this ATG Spring Newsletter

- Notice of ATG AGM 2nd November 2016 and an ad for a new position.
- *Planting Guides for Armidale Butterflies and Skippers* by David Britten
- *Escape to New England* ….heaps happening this Spring. See the Calendar of Events on http://armidaletreegroup.org.au/escape-to-new-england/
- Wattle Day…Pictures of Peter Metcalfe's Wattles
- *Spring in our Garden* by Warren Sheather

- Pictures of our Members' Seed Collecting Workshop led by Dave Carr
- *ATG Open Day* 5th November 2016
- *Black Gully Festival* 12th November 2016

NOTICE OF ATG AGM

This is to advise you of the upcoming Annual General Meeting of the members of Armidale Tree Group Inc.

2nd November 2016
5:30pm
Mike O'Keeffe Woodland Centre,
Armidale Tree Group, 80 Mann Street.

At the meeting all committee positions will be declared vacant and members will have the opportunity to:

Nominate and elect new committee positions.
Find out about ATG's operations and finances.
Ask questions about the operations and finances of ATG.
Speak about any items on the agenda.
Vote on any resolutions proposed.

Light refreshments will be available.

Expressions of Interest are invited for a new position with the Armidale Tree Group Native Nursery.

We require a motivated, passionate and adaptable person to integrate into the nursery team at Armidale Tree Group. This is initially a casual position, with a view to becoming a permanent part-time member of staff after a successful trial period. On-the-job training will be provided and the right person would ideally possess a high level of communication skills as well as having experience in one or more of the following areas;

- Customer service
- Australian plant knowledge
- Basic horticultural skills

The position is envisaged to start in November 2016.
Please register your interest by 4th November by sending an introductory letter along with your resume to manager@armidaletreegroup.org.au or drop this in to the Armidale Tree Group at 80 Mann Street during business hours.

Planting Guides for Armidale Butterflies and Skippers

By Dr David Britton

It is possible to grow both food plants and nectaring plants for many of the local New England Tableland butterfly and skipper species in gardens, parks and restoration areas so that you can encourage and observe these attractive insects. There are many available guides for butterfly gardening now available, but only a few deal with Australian species, and these are mostly aimed at coastal regions where there are many species which do not occur on the Tablelands.

Mating Sun Moths: Native Grasses are crucial for the survival of many butterflies, and also some moths, such as this **Sun Moth** (*Synemon collecta*) which has larvae that feed on the roots of **Wallaby Grass**

These tables are not intended to be an exhaustive guide; there are some

butterfly species which may occur around Armidale which are not listed because they are either rare vagrants, or are yet to be confirmed as present. Likewise, there are probably food plants which have not yet been discovered for some butterfly species which occur in this region. I have listed those species
where there is a need for observations of food plants – this information would be very useful for future butterfly gardeners and for habitat restoration/conservation projects. I have not attempted to list food plants which will not grow or do not occur on the New England Tablelands. I have included information on where to see some of the species, based on my own observations, but you will probably be able to find these insects in many other places around Armidale. Some of the species listed already occur within the urban limits of Armidale City, but it is possible that some of these are only there because of remnant vegetation, such as that present around the Cemetery, or the native grassland area of the Arboretum on Kentucky Street. It may yet be possible to attract and establish populations of some of the other species if there is sufficient habitat created in gardens and parks around the City. I have listed vagrant species of butterfly as well; these do not breed on the tablelands, but are often seen flying though Armidale and environs. They will usually visit nectaring sources, and this can be a rewarding aspect of butterfly gardening.

Pupae and adults of Imperial Hairstreaks (*Jalmenus evagoras)* on Black Wattle whose larvae (caterpillars) feed on various Australian acacias. They are attended and protected by ants. The larvae pupate in groups on the acacia. Adults have pale blue and black markings on their upper surfaces. (Photo: David Britton)

It is important to note that many of the so-called butterfly plants listed in popular Australian gardening literature are nectaring plants. Butterflies and skippers belong to the insect order Lepidoptera, which also contains the moths, which are far more numerous and diverse insects. This order has a characteristic life-history where the immature stages (caterpillars or larvae) feed on a completely different diet to the adults (the butterfly or moth stage). Larvae usually feed on plants, eating leaves, roots, buds, flowers, fruit

and the woody parts depending on the lepidopteran species. There are some carnivorous caterpillars as well (see the Ant-blues in the table). The adults usually feed on nectar from flowers, but they will also feed on sap flows from damaged trees, carrion, dung and other sources of salty or sugary fluids. Some adult Lepidoptera do not feed at all, and rely on the stored energy accumulated during the larval stages. It is obvious that the successful butterfly gardener must have plants that supply resources for both larval and adult stages. I refer to plants that are larval resources as "food plants", whilst the plants that appeal to adult butterflies I have called "nectaring plants". Between the adult and larval stage is the pupal stage (often called a chrysalis when referring to butterflies). Table 1 lists food plants for butterflies that are likely to occur on the New England Tablelands, whilst Table 2 is a list of some of the plant species which are useful nectaring plants for adult butterflies and other insects is also provided; this is provisional, and there are certainly a large number of plants which could be added to this list for the Tablelands.

The **Bright Copper** (*Paralucia aurifer*) on Blackthorn (*Bursaria spinosa).*
Photo: David Britton

The main table is arranged around the systematic classification of butterflies and skippers that is currently used by entomologists. Butterflies and skippers consist of several families of the Lepidoptera that are mostly day-flying, have clubbed antennae, and have an exposed pupa. There are, however, many moths which have all or some of those characteristics. There are specialized anatomical differences that define each family, but these are largely of no concern to the butterfly gardener. For further details I advise having a look at some of the references listed below.

There are many other important factors in providing for these insects. The general habitat that you place the food plants into will affect the success of attracting and supporting populations of butterflies. Some species prefer open sunny habitats where the food plant is exposed to direct light, whilst others will only lay eggs on food plant in shaded moist areas. Some will only occur

on north or south facing slopes for much the same reasons. The age and size of the plant is often important. The larvae of some butterflies such as the Fiery and Bright Coppers (*Paralucia pyrodiscus*, *P. aurifer*) will only successfully develop on tiny stunted (less than 60cm high) plants of their food plant (Blackthorn, *Bursaria spinosa*), and prefer the small-leafed form of this variable plant. These stunted plants often occur in habitats which are subject to relatively frequent fires, suggesting that some butterflies will respond to appropriate fire management. The Imperial Hairstreak (*Jalmenus evagoras evagoras*) prefers smaller wattles such as regrowth *Acacia dealbata* on roadsides, whilst the Moonlight Jewel prefers large mature or senescent, borer-ridden trees of the same species of wattle.

Many of the Blues and Coppers (such as the three mentioned above) require the presence of suitable ant species to survive. These ants protect the larvae from parasitic insects and predators, and in return receive a nutritious honeydew from the caterpillars. To encourage these butterflies you also need to encourage the ants! In the case of the Ant-blues, the ants are the main course for the developing larvae, and the caterpillars spend their time within the nests of the ants where they eat larvae and pupae of the ants. This remarkable association is thought to be a result of the butterfly larvae using chemical signals to "trick" the ants into thinking that they are immature stages of the ants.

A number of butterfly species have mistletoes as food plants – this may create a conflict for those gardeners and tree planters who see mistletoe as a pest on their plants rather than a resource for butterflies. Other potential conflicts may occur if you intend to use pesticides – obviously insecticides may kill all stages of butterflies and associated insects if used in a cavalier manner. This goes for the so-called organic pesticides such as natural pyrethrins, rotenone and the various spray oils. The natural tendency of many gardeners (myself included) is to keep a clean garden, free of dead wood on the ground around trees, and with a trimmed lawn. This is often detrimental to many butterfly species, particularly those which feed on grasses as larvae, so the next time you need an excuse not to mow the lawn you can claim you are "doing it for the butterflies"!

I have provided a reference list to enable you to look up further details on butterflies; much of the information present in these lists is from these references. I have also included some web pages which may have content applicable to the New England Tablelands.

Table 1. Armidale Butterflies and Skippers and their Food Plants

Classification & Scientific Name	*Common Name*	*Urban (U)*	*Food plants (on New England Tablelands)*	*Notes*
Hesperiidae	**Skippers & Darts**			
Netrocoryne repanda repanda	Bronze Flat		*Brachychiton populneus* (Kurrajong), may have other food plants esp. in the Lauraceae (Laurels)	Flies early in the day, males observed at top of Dangar Falls, Oxley Wild Rivers NP.
Trapezites phigalia	Heath Ochre		small *Lomandra* spp. (Mat Rushes) eg. *L. glauca, L. obliqua*	
Trapezites phigaliodes	Montane Ochre		small *Lomandra* spp. (Mat Rushes) eg. *L. glauca, L. obliqua*	
Trapezites iacchoides	Silver-studded Ochre		**Lomandra longifolia *(Mat Rushes)***	A rarely encountered species, prefers sandstone outcrops, males hilltop.
Trapezites eliena	Orange Ochre		*Lomandra longifolia*, *Lomandra* spp. (Mat Rushes)	
Trapezites symmomus	Splendid Ochre	(U)	*Lomandra longifolia, L. obliqua* (Mat Rushes)	Larvae prefer partially-shaded areas of food plant; will probably increase with urban plantings of *L. longifolia*
Anisynta dominula dominula	Two-brand Grass-skipper		*Poa* spp. (needs further observation to determine what grass species are utilized)	Often common along roadsides particularly to the east of Armidale, flies in February and March
Pasma tasmanicus	Two-spotted Grass-skipper		*Poa* spp. (needs further observation to determine what grass species are utilized), *Microlaena stipoides*	Rarely observed, small, may prefer wetter eastern woodlands, such as those around New England NP.
Dispar compacta	Barred Skipper	(U)	Grasses like *Tetrarrhena* spp., *Poa* spp., *Gahnia* spp. (Saw Sedges), *Lomandra* spp. (Mat Rushes)	probably feeds on some introduced grass species as well, very common in late summer
Signeta flammeata	Bright Shield-skipper		Grasses, such as *Poa* spp. *Tetrarrhena* spp.	very common mid-late summer in tussock grasses under trees
Hesperilla donnysa donnysa	Varied Sedge-skipper		*Gahnia* spp. (Saw Sedges)	the most generalist of the sedge-skippers; will breed in disturbed areas if food plants present
Taractrocera papyria papyria	White-banded Grass-dart	(U)	Numerous grasses and some small sedges, including introduced grass species	
Ocybadistes walkeri sothis	Green Grass-dart	(U)	Numerous grasses, including introduced grass species	loves wild areas of introduced Couch Grass

Papilionidae	**Swallowtails**			
Graphium macleayanus	Macleay's Swallowtail		Vagrant, breeds in cool temperate rainforest on Sassafras	rarely spotted in Armidale, the bright green colours on the wings makes it easy to identify on the wing
Papilio anactus	Dainty Swallowtail	(U)	Vagrant, breeds on Rutaceae, including introduced *Citrus* (Lemons, Oranges etc.)	may possibly breed on the introduced ornamental *Choisya*, *Microcitrus* is a native host elsewhere.
Papilio aegeus	Orchard Swallowtail	(U)	Breeds on Rutaceae, including introduced *Citrus*, in Armidale on *Choisya ternata* (Mexican Orange Blossom) (M. Gray obs.)	The common large Swallowtail seen in Armidale over summer
Papilio demoleus	Chequered Swallowtail		Vagrant, larvae feed in inland regions on the native legume *Cullen* spp. (was formerly called *Psoralea*)	A strong-flying butterfly that covers considerable distances, common inland.

Pieridae	**Whites, Yellows, & Jezebels**			
Catopsilia pyranthe	White Migrant		Vagrant, may temporarily establish on large *Senna* spp. and *Cassia* spp.	
Catopsilia pomona	Lemon Migrant		Vagrant, may temporarily establish on large *Senna* spp. and *Cassia* spp.	
Eurema smilax	Small Grass-Yellow		Vagrant, may sometimes establish on *Senna nemophila*	a common migrant in summer
Eurema hecabe	Large Grass-Yellow		Vagrant	
Elodina parthia	Striated Pearl-white		Vagrant, breeds on native *Capparis* spp. (Capers) which do not tolerate any frost	
Elodina padusa	Narrow-winged Pearl-white		Vagrant, breeds on native *Capparis* spp. (Capers) which do not tolerate any frost	
Belenois java	Caper White		Vagrant, breeds on native *Capparis* spp. (Capers) which do not tolerate any frost	a very common migrant in early summer, often in huge numbers
Cepora perimale	Caper Gull		Vagrant, breeds on native *Capparis* spp. (Capers) which do not tolerate any frost	rarely seen on the tablelands
Delias harpalyce	Imperial Jezebel	(U)	mistletoes, *Amyema congener*, *A. miquelii*, *A. pendula*, *A. preissii*, *A. quandang*, *Muellerina eucalyptoides*	with a stunningly bright underside, this butterfly has two generations a year, flying in spring and in late summer/autumn

Delias nigrina *Delias argenthona*	Black Jezebel Scarlet Jezebel	(U)	Vagrant from coast mistletoes, *A. miquelii*, *A. pendula*, *Muellerina celestroides*, and others	rarely establishes in Armidale
Delias aganippe	Spotted Jezebel	(U)	mistletoes, *Amyema cambagei*, *A. linophylla*, *A. melaleucae*, *A. miquelii*, *A. preissii*, *A. quandang*, *Exocarpus cupressiformis*, *Exocarpus* spp., *Santalum* spp.	common, often flies with *D. harpalyce*
Pieris rapae	Cabbage White	(U)	Brassicaceae (mustards, cabbage, turnip, canola etc.)	an introduced pest of vegetable gardens and crops
Nymphalidae	**Browns, Nymphs, and others**			
Hypocysta pseudirius	Grey Ringlet		Poaceae – needs research into food plants	found in dry areas to the west of Armidale, particularly around cypress pine
Hypocysta euphemia	Rock Ringlet		Poaceae – needs research into food plants	always associated with rock outcrops, particularly sandstone, occurs around Invergowrie in low numbers
Oreixenica lathoniella herceus	Silver Xenica		grasses such as *Microlaena stipoides*, *Poa ensiformis*, *P. labillardieri*	a montane species, occurs in higher altitude tussock grass/snow grass areas such as around Point Lookout, flies in March
Geitoneura acantha	Ringed Xenica		grasses such as *Microlaena stipoides*, *Poa sieberiana*, *P. tenera*, *Themeda triandra*	not usually seen in urban areas, but has the potential to colonise suitable south-facing native-grassed slopes
Geitoneura klugii	Marbled Xenica	(U)	grasses such as *Poa labillardieri*, *P. morrisii*, *P. tenera*, *Themeda triandra*, introduced grass species	common in drier forested areas where there are areas of tall grass, particularly native *Poa* spp.
Heteronympha merope	Common Brown	(U)	grasses such as *Microlaena stipoides*, *Poa* spp., *Themeda triandra*, introduced grass species	the most common summer-flying brown butterfly in Armidale, large, females look different to males
Heteronympha penelope	Shouldered Brown	(U)	soft grasses, such as *Austrodanthonia* spp., *Poa* spp.,	not as adaptable as *H. merope*, does not

			Themeda triandra	appear to readily feed on introduced grass species
Heteronympha banksii	Bank's Brown		grasses such as *Poa tenera*, *Poa* spp., rarely on sedges such as *Gahnia* spp., needs research into food plants	flies in forested areas such as Mount Duval
Heteronympha cordace	Bright-eyed Brown		on the sedge *Carex appressa*	has been recorded at Ben Lomond; may occur in other swampy areas with lots of *C. appressa* growth, rare.
Polyura sempronius	Tailed Emperor	(U)	many food plants, including *Acacia* spp., *Brachychiton populneus* (Kurrajong), lots of introduced plants in the Mimosaceae and Caesalpiniaceae.	spectacular summer visitor, large, fast-flying, with equally amazing larvae, males hill-top around high points in Armidale.
Acraea andromacha	Glasswing	(U)	Vagrant	often seen floating around hilltops with a slow flight
Junonia villida	Meadow Argus	(U)	feeds on a large variety of introduced and native forbs in grassy open areas	very common, flies almost all year round in Armidale, including sunny winter days
Vanessa kershawii	Australian Painted Lady	(U)	larvae on herbaceous native and introduced daisies (Asteraceae) including *Helichrysum* spp.	very common, often active during the late afternoon in summer and autumn
Vanessa itea	Yellow Admiral	(U)	introduced and native nettle species	flies late in the day, often in cooler temperatures compared to other butterflies, larvae prefer shaded patches of food plants
Danaus chrysippus	Lesser Wanderer		Vagrant, larvae on native and introduced milkweeds	
Danaus chrysippus	Monarch		Vagrant, larvae on native and introduced milkweeds	
Euploea core corinna	Common Crow		Vagrant, sometimes establishes on introduced oleander bushes	Larvae and pupae found on oleander in the Arboretum on Kentucky Street.

Lycaenidae	**Blues, Hairstreaks & Coppers**		
Lucia limbaria	Grassland Copper (U)	native *Oxalis* spp. (Sour Sob) in grassland areas, requires the presence of small black *Iridomyrmex* ants	often breeds in the Arboretum on Kentucky Street as well as in the Armidale Cemetery.
Acrodipsas brisbanensis	Bronze Ant-blue	larvae possibly feed on immature stages of ants, possibly on the Coconut Ant, *Papyrius nitidus* (the ant forms large matted nests of bits of grass on logs, smells of coconut)	a mystery waiting to be solved, the adults are usually caught flying around hilltops, but the larvae are yet to be found and described
Acrodipsas myrmecophila	Small Ant-blue	larvae feed on immature stages of Coconut Ant, *Papyrius nitidus*.	the Coconut Ant is very common on the tablelands, so it is possible this butterfly may also be found here
Paralucia pyrodiscus	Fiery Copper	food plant is *Bursaria spinosa* (Blackthorn), attended by small black ants, *Notoncus* spp.	prefers hot dry northern slopes to the west, small stunted small-leafed *B. spinosa*, rarely found
Paralucia aurifer	Bright Copper	food plant is *Bursaria spinosa* (Blackthorn), attended by small black ants, *Anonychomyrma* spp.	prefers damper habitats to *P. pyrodiscus*, same food plant preferences, ants have a pungent acidic aroma. Can be seen at Dangars Falls, Oxley Wild Rivers NP, slopes of Mount Duval and many other localities, much more common than *P. pyrodiscus*.
Hypochrysops byzos	Yellow Jewel	food plant is a *Pomaderris* species in the New England Region; requires further identification	I have not observed this species, but it probably can be found where large areas of *Pomaderris* occur.
Hypochrysops delicia	Moonlight Jewel	larvae feed on wattles, *Acacia dealbata, A. baileyana, A. decurrens* and others, associated with small black ants, *Crematogaster* spp.	males hilltop (eg. the lookouts at Wollomombi Falls), prefers old borer-ridden wattles where the attendant ants and larvae can shelter in the borer tunnels.

Ogyris abrota	Dark Purple Azure	(U?)	mistletoes, especially *Muellerina eucalyptoides*, also Amyema congener, *M. celestroides*, *Dendrothoe vitellina*	I have not observed this species here, but it has adapted to urban conditions in Victoria where *M. eucalyptoides* parasitises introduced and native trees
Ogyris olane	Broad-margined Azure	(U)	mistletoes, *Amyema miquelii*, *A. pendula*	the most common of the azures around Armidale, larvae and pupae can be found under bark on the trunk of the tree carrying the mistletoe.
Ogyris amaryllis	Satin Azure		mistletoes, *Amyema cambagei* on various Casuarinas, especially River Casuarina.	sometimes attended by ants
Ogyris genoveva	Southern Purple Azure		mistletoes, *Amyema* spp., *Dendrothoe glabrescens*, *D. vitellina*, *Muellerina eucalyptoides*, attended by sugar ants, *Camponotus* spp.	rare, males hilltop
Jalmenus ictinus	Stencilled Hairstreak		Wattles, such as *Acacia dealbata*, *A. decurrens*, *A. implexa*, *A. melanoxylon*, *A. mearnsii* with attendant meat ants, *Iridomyrmex purpureus*.	rarely found, despite both the food plants and ants being very common. I have not seen this species around Armidale, but it probably occurs here
Jalmenus daemeli	Emerald Hairstreak		Wattles, with small attendant ants, *Iridiomyrmex "rufoniger"* group	has been recorded from north of Armidale, but is normally a northern Qld species
Jalmenus evagoras	Imperial Hairstreak	(U)	Wattles, including the local *Acacia ingramii*, attended by small black ants, *Iridomyrmex "rufoniger"* and *"anceps"* groups	the most common and spectacular of the ant-attended Hairstreaks, found along roadsides particularly to the east of Armidale and Guyra, as well as near the Armidale Cemetery, in Beadle Grove, prefers smaller regrowth trees. Larvae feed openly during the day.
Pseudalmenus chlorinda barringtonensis	Silky Hairstreak		Wattles, especially *Acacia melanoxylon*, attended by small black ants, *Anonychomyrma biconvexa*.	in wetter cool forests to the east, such as around Styx River and Point Lookout, the ants have a pungent acidic odour,

				over winters as pupae under tree bark
Candalides cyprotus	Copper Pencilled-blue		probably on flowers and buds of *Grevillea* spp. and *Hakea* spp., prostrate form of *G. juniperinum* is likely	the food plant has not been recorded from around Armidale, adults fly in early spring, and are rarely encountered
Candalides hyacinthina	Varied Dusky-blue		on native dodder-laurels, *Cassytha* spp.	males hilltop
Candalides xanthospilos	Yellow-spotted Blue		on rice flowers such as *Pimelea ligustrina, P. linifolia, P. stricta*	I have observed this butterfly in mixed cypress pine woodland to the west of Armidale
Candalides heathi	Rayed Blue		*Prostanthera nivea, Westringia fruiticosa, W. rigida, Plantago* spp. (including introduced species), *Derwentia derwentia, D. perfoliata, Pimelea* spp. and others	this blue has a very diverse range of host plants. The Ebor race (on *Derwentia* spp.) of this butterfly is particularly large and bright compared to other populations elsewhere in Australia
Nacaduba biocellata	Two-spotted Line-blue	(U)	buds and flowers of many wattles (*Acacia* spp.)	common throughout summer, a very small butterfly that often perches at the top of trees
Theclinesthes miskini	Wattle Blue		wattles (*Acacia* spp.), sometimes with attendant ants of various species	males hilltop
Theclinesthes serpentata serpentata	Saltbush Blue		Saltbushes, including *Atriplex* spp., *Rhagodia* spp., *Chenopodium* spp.	a very small butterfly that stays close to the ground
Neolucia agricola	Fringed Heath-blue		various native peas, including *Aotus ericoides, Bossiaea carinalis, B. rhombifolia, Daviesia angulata, D. divariacata, D. mimosoides, Dillwynia* spp., *Pultenaea* spp.	
Lampides boeticus	Long-tailed Pea-blue	(U)	on introduced and native legumes, especially flowers, buds and pods	a cosmopolitan species found everywhere except for the Americas, often a pest of crops and gardens
Zizina labradus	Common Grass-blue	(U)	on introduced and native legumes, especially clovers	very common in grassy areas, flies almost all year round in Armidale, almost all small blues flying at ground level

Everes lacturnus	Orange-tipped Pea-blue	*Desmodium heterocarpon*, may be on other legumes	will be this species found in mixed cypress pine woodland to the west of Armidale, not common

Table 2 Some Nectaring Plants for the New England Tablelands

(* indicates those plants which are non-native, but are very useful nectar sources in gardens; I do not advise planting these species anywhere other than in enclosed garden environments)

Common Name (s)	**Scientific Name**	**Comments**
Sweet Bursaria	Bursaria spinosa	An excellent nectaring plant, often the only large source of nectar during the hotter drier part of summer
Native Daisies	Asteraceae	Popular with skippers, painted ladies, admirals, meadow argus and browns
Eucalypts	*Eucalyptus* spp.	Species which flower in warm weather are preferred, short or mallee species mean you can see your visitors!
Paper Barks/Honey-myrtles	*Melaleuca* spp.	The large flower spikes are fantastic for attracting any nectar feeders
Tea Trees	*Leptospermum* spp.	White flowering species are best for insects
Hakeas/Needlebushes	*Hakea* spp.	Most of these butterfly plants are also good for birds; the spiny foliage of many hakeas provides shelter for small birds
Grevilleas/Spider Flowers	*Grevillea* spp.	Choose white-flowered varieties – they are more attractive to insects, where as red flowers attract birds
Kunzeas	*Kunzea* spp.	White-flowered varieties (eg. tick bush, *K. ambigua*) of this are great for native bees as well as butterflies
Grass Tree	*Xantharrhoea* spp.	
Rice Flowers	*Pimelea* spp.	
Buddleja/Butterfly Bush	*Buddleja davidii**	Often advertised as a butterfly plant in nurseries. Can be a noxious weed in some habitats, so plant with care

References:

Braby MF. 2000. *Butterflies of Australia: Their Identification, Biology and Distribution*. CSIRO Publishing, Melbourne.

Braby, MF. 2016. *The Complete Field Guide to the Butterflies of Australia.* CSIRO Publishing,

Melbourne.

Common IFB & Waterhouse DF. 1981. *Butterflies of Australia*. Angus and Robertson, Sydney.

Coupar P & Coupar M. 1992. *Flying Colours: Common Caterpillars, Butterflies and Moths of South-Eastern Australia*. NSW University Press, Kensington, NSW.

Field, R. 2013. *Butterflies: Identification and life-history.* Museum Victoria, Melbourne.

Fisher RH. 1978. *Butterflies of South Australia: (Lepidoptera: Hesperoiidea, Papillionidea)*. South Australian Government Printer, Plympton, South Australia.

New TR. 1996. *Butterfly Conservation*. Oxford University Press, Melbourne.

Orr, A. & Kitching, R. 2010. The Butterflies of Australia. Allen & Unwin.

Web References:

Victorian Butterfly Database from the Museum of Victoria (**http://www.museum.vic.gov.au/bioinformatics/butter/**). Many species of butterfly in common with the New England Tablelands, with an excellent relational database with data on distributions, food plants and many other aspects of butterfly biology.

Butterfly Gardening: What to grow and conserve in the Adelaide region. http://www.butterflygardening.net.au (specific for South Australia, but still interesting and useful).

Coffs Harbour Butterflyhouse website includes photo of 3837 moths and butterflies and 736 caterpillar pictures as well as a section on food plants:
http://lepidoptera.butterflyhouse.com.au/

Online resources for Australian Lepidoptera (Moths and Butterflies)
http://australianmuseum.net.au/online-resources-for-lepidoptera-moths-and-butterflies

Atlas of Living Australia http://www.ala.org.au/

Butterfly and Other Invertebrates Club (BOIC)
http://www.boic.org.au/index.html?page=/html/home.html

Society for Insect Studies (SFIS) http://www.duttcom.com/Insects/

HELP NEEDED!!
Are there any members with an interest and some time to spare?
We really need someone who can donate their time to research and find resources to help us make local educational flyers on some of our local fauna for Biodiversity Conservation:
BUTTERFLIES BEES WASPS KOALAS

ESCAPE to New England

Environment**S**cience**C**ommunity**A**rts**P**eople**E**ntertainment

This spring, ***Escape*** to New England. From the 20th of October to the 12th November Armidale and surrounding areas emerge from the cold of winter to present a program of events and activities based on the environment, arts and science. A truly people-powered celebration, these events are presented by the network of community organisations that make Armidale such a vibrant place.

For details, see http://armidaletreegroup.org.au/escape-to-new-england/. You will find the full program of events, with details about when and where they are on.

Armidale Tree Group is one of the lead organisations in ESCAPE, as host of the Black Gully Music Festival and Woodland Week.

Black Gully Music Festival

Now in its sixth year, the Black Gully Music Festival on 12th November is a community festival featuring the best local musical talent, artists, stalls, food, tree planting and activities. The festival is held in Black Gully behind NERAM, where community groups have been working for years to improve the environment and make a beautiful recreational space.

This year the festival features four internationally-acclaimed ecoartists, in a joint project with EcoArts Australis and funded by Festivals Australia. The four artists will work for 2 weeks in the lead up to the festival to develop ephemeral artworks using natural materials. The festival will also include a 'makers market' with art and craft from some of the region's best artists. ATG will be the host for the festival and will have a stall and organise tree planting on the creek. If you are available to help volunteer on the day, please contact the nursery on 6771 1620.

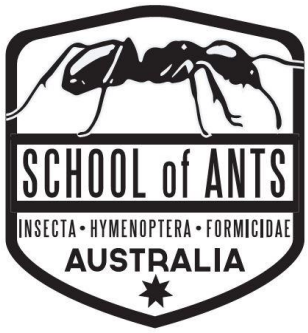
For more information on the festival you can look at the event on the ATG Facebook page.

Woodland Week

As a member of the New England North West Regional Science Hub, ATG is hosting a series of events called 'Woodland Week'. There are five events supported by Inspiring Australia focusing on the science and ecology of woodlands in New England:

- The first event is a **Breakfast with the Birds led by Peter Metcalfe** on Sunday 30 October at Sunnyside TSR. Peter's expert knowledge of local birds and his easy presenting style ensure this will be a great day for families to see some woodland birds.

- On the 4th and 5th November **Kirsti Abbott and her team** form the School of Ants will again be running an **Ant Blitz** in the Mike O'Keeffe Woodland behind the nursery (this coincides with the Tree Group Open Day on 5th November). You can get involved by helping to set out traps and identify the ants found in different habitats. Last time the Ant Blitz identified over 30 different species. We can see if ant populations are changing as a result of the plantings and management in the woodland.



- On Saturday 29th October, **Phil Spark** will be running a **Spotlighting** night at Thalgarrah Field Studies Centre. Phil is a fauna ecologist who knows about the local mammals, birds, frogs and reptiles and where they live. He will lead a night walk to uncover some of the creatures of the night woodlands. Hopefully we will see gliders, possums and bats.

- Insects are the most common animals in woodlands. On 6th November, **Jan Clark** will run a workshop from 10am-2pm at NERAM for kids to learn to **draw insects**.

- On Wednesday the 9th November from 10am-1pm, **Dave Carr** will lead a **Woodland Walk** in Imbota Nature Reserve to demonstrate how ecologists measure and describe woodlands. You will learn the characteristics of local woodlands including tree density, the different layers of vegetation and the species that make up the local bush. There should be a range of wildflowers out.

- Other Woodland Week activities include: **Planting Woodland Wildlife habitat** (28/10), **Woodland Regeneration** working bees (29/10 and 4/11), a Wildflower Wander at Apex Lookout (29/10) and a **walk through the woodlands** at Dumaresq Dam (30/10).

For more details on any of these activities go to the ATG website. http://armidaletreegroup.org.au/escape-to-new-england/.

The *Escape to New England* program features many other events including a science film festival, ecoarts talks and art events at NERAM.

WATTLE DAY
Peter Metcalfe has 44 species of Acacia in his garden. He shared his expertise with some of us around Wattle Day. Next year we will make it a member's tour if we can tie Peter down.

This is *Acacia buxifolia* – Box-leaved wattle –

Spring in our Garden 2016
Warren Sheather

Spring has arrived and the wattles have put on their usual blaze of colour. The good rains, from June onwards, have triggered a blooming bonanza in our grevilleas. Many varieties have flowered more prolifically than they have for many years. Not only are we admiring the flowers but also the honeyeaters are taking advantage of the copious nectar production from the mass of flowers. This time we will describe some of our profuse flowering grevilleas.

Grevillea Amethyst is a delightful small plant that reaches a height of one metre with a similar spread in our garden. The foliage is slightly prickly and in spring and summer masses of showy, mauve flowers cover the plants. Sporadic flowering occurs at other times. Occasional tip prune is appreciated.

Grevillea Amethyst could be cultivated in a rockery, native cottage garden or as an eye-catching border plant in a native garden bed.

Photo 1: *Grevillea* Amethyst
(Warren Sheather)

Grevillea Apricot Glow is another hybrid that is flowering profusely. This tall shrub will reach a height of two to three metres. The foliage is deep green which contrasts nicely with the masses of large apricot flowers. Flowering starts in late winter and extends to early summer. Honeyeaters are partial to the flower's nectar. Pruning will increase foliage and flower density.

Grevillea Apricot Glow, in combination with other native shrubs, could be used in hedges and screens.

Photo2: Grevillea Apricot Glow
(Warren Sheather)

Grevillea Forest Rambler is a spreading hybrid shrub with bright green, prickly leaves. Large, spider-like flower clusters are an unusual translucent pale purple-pink colour. Our plants are covered with blooms at the moment. They are rich in nectar and attract honeyeaters. The flower colour is similar to the colour of *G. shiressii* which is said to be one of the parents.Prune after flowering to keep plants dense and free flowering.

Photo 3: *Grevillea* Forest Rambler (Warren Sheather)

Grevillea anethifolia is the most visible variety in our garden. This species provides a feast for both the eye and nose. The masses of white flowers cover the pendulous stems from late winter to summer. The sweet honey scent permeates the garden. The leaves are light green, divided and a trifle prickly. This is another grevillea with a lengthy flowering period that extends for many months. *Grevillea anethifolia* has a wide distribution. The species is found in western NSW, South Australia and Western Australia.

Photo 4: *Grevillea anethifolia* (Warren Sheather)

Thanks Dave Carr for this ATG Member's Activity. We need everyone to keep an eye out for native seed as it ripens. The guidelines for collection include accurate identification of the species with samples of leaves, flower etc. Records are essential for seed integrity.

FREE WORKSHOPS

ARMIDALE TREE GROUP OPEN DAY

10am
Warren Sheather
Native aviaries for small native birds

11am
Peter Metcalfe
Birdwatching tour

1pm
Ray South
Small natives for the home garden

2pm
Jane Pickard
Food forest gardening incorporating natives

SATURDAY 5TH NOVEMBER 2016
9AM - 3PM
80 MANN ST 6771620

Kids Activities
including Ant Blitz

Free Sausage Sizzle at 12 noon!

Expert Advice
on native plants and veggie growing

ARMIDALE TREE GROUP
Restoring New England with Native Plants


BLACK GULLY
MUSIC FESTIVAL
2016
MUSIC
ENVIRONMENT
COMMUNITY
ART
SAT. 12TH NOV. 10AM - 10PM
@ BLACK GULLY - BEHIND NERAM
LIVE MUSIC | ECO ART | TREE PLANTING
WORKSHOPS | FOOD STALLS | MAKERS
MARKET | ACTIVITIES | BAR FACILITIES
SPONSORED BY FESTIVALS AUSTRALIA & ARMIDALE CITY BOWLING CLUB
NERAM
EcoArts
ARMIDALE
/BlackGullyMusicFestival

Membership Application/Renewal

Name: _____

Address: _____

_____

_____

_____

_____

Telephone: _____

Email: _____

Payment method: cash / cheque /credit card /direct credit

Membership is $5.00 per year

Donation $ _____

Please find enclosed my/our cheque for $_____

Make cheques payable to Armidale Tree Group Inc.

or

Please debit my credit card for $_____

Card type: Visa / Mastercard only

Card number: _____

Expiry date: _____

CCV number: _____

Name on card _____

Signature:_____

To pay by Direct Credit Please remit payment to
BSB: 932000 Account No...620682 (please tag payment as 'subs')

accounts@armidaletreegroup.org.au

Donations over $2.00 are tax deductable to The Armidale Tree Group Fund

Date processed:_____

Office use only