Jawoyn Country Bush Blitz

Odonates

Murrumbij - Dragonflies & Damselflies

31 March to 10 April 2025

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A new record for the Northern Territory - the tiny dragonfly *Nannophya australis* was found at four sites on the Jawoyn Country Bush Blitz (Photo: J. Archibald)

Nomenclature and taxonomy used in this report is consistent with:

The Australian Faunal Directory (AFD)



A clear fast-flowing stream on the escarpment at Site JA15 – excellent odonate habitat. (Photo: J. Archibald)



A Slender Skimmer *Orthetrum sabina* resting on a reed. This species was present at most swampy sites that were visited during the survey (Photo: J. Archibald)

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A common damselfly of Jawoyn Country, the Redtail *Ceriagrion aeruginosum*

(Photo: J. Archibald)

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The most common and conspicuous damselfly in Jawoyn Country – a pair of Black-winged Threadtails *Nosoticta baroalba* in the 'wheel' position (Photo: J. Archibald)

Abstract

An Odonata fauna survey was carried out on Jawoyn Country, incorporating Nitmiluk National Park, in the central Top End over eleven days in March and April 2025. This survey was part of the Bush Blitz program of biodiversity surveys across Australia. Twenty sites were sampled encompassing a range of habitats. A total of 31 Odonata species were recorded. As no previous dedicated surveys had been made in this area, these records establish a baseline list of odonates for this region. Of these 31 species, one was sampled for the first time in the Northern Territory, and another two were range extensions. Overall, Jawoyn Country appears to support a moderate diversity of Odonata fauna, but further surveys are needed to ascertain what additional species are present in this region

1. Introduction

Odonates are a relatively well-known order of diurnal carnivorous insects that are made up of two main groups. These are the dragonflies (Anisoptera) and the damselflies (Zygoptera). Dragonflies are generally larger, more robust, and most species hold their wings horizontally when at rest; damselflies are generally of a more delicate structure and hold their wings vertically above their bodies at rest. Both groups have aquatic nymphs in their life cycle, and odonates are often used as bio-indicators in studies on global warming, conservation, climate change, land management, pollution of waterways, and biodiversity.

The Australian odonate fauna remains to be fully documented. Work continues on species discovery and description, mapping distributions, and recording unknown aspects of their biology.

Jawoyn Country covers approximately 55,000 square kilometres of land in the central Top End. It incorporates Nitmiluk National Park, the southern section of Kakadu National Park, the southwestern corner of Arnhem Land, and land stretching down to around Mataranka. This region contains the southern end of the Arnhem Land sandstone escarpment and various other habitats such as tropical open woodlands, swamps, paperbark and riparian forests, and covers the headwaters for several major Top End watercourses.

No targeted surveys of Odonata have been carried out on Jawoyn Country in the past meaning there is no species baseline list and consequently conservation and land management plans cannot currently consider this fauna.

This report summarises the results of an eleven-day targeted survey of dragonflies and damselflies on Jawoyn Country in March and April 2025. It complements odonate data from previous Bush Blitz surveys across the Top End (Fish River Station, Wongalara Sanctuary, Judbarra National Park, Bradshaw Field Training Area, and Groote Eylandt), to create a baseline upon which future scientific, Ranger and citizen science surveys can build.

2. Methods

2.1 Site selection

Twenty sites were sampled, including one Standard Survey Site (SSS2). The timing of the survey coincided with the end of an average Wet Season over the Top End of the Northern Territory. This meant that sampling occurred during what is normally a peak of odonate activity and abundance, and this proved to be the case. Due to constraints of accessibility to most areas on Jawoyn Country (escarpment country, lack of roads, and areas closed for cultural reasons), two helicopters were shared across a large biological survey team and used extensively to access most sites. Due to the difficulty of gaining access to Jawoyn Country and the lack of any previous sampling, sites were targeted primarily in the more remote and escarpment areas which could not be reached by vehicles, with lowland areas being accorded

less sampling pressure. As Odonata were sampled as part of a multi-taxa team (with Fish and Lepidoptera), sites targeted included representative aquatic habitats across the survey area as this allowed maximum efficiency of sampling; nonetheless adjacent terrestrial habitat was also sampled at each site across a wide area of the study region. A summary of sampling sites is shown in Table 1.

Incidental records of odonates across the survey area, both by observation and specimens, made by other Bush Blitz teams are included in the results.

Table 1. Odonata Sampling Sites, Jawoyn Country, GDA94 datum

Site	Latitude (S)	Longitude (E)	Location	Date
JA01	-14.47690	132.26082	Base Camp, Katherine Showgrounds.	1-10 April 2025
JA02	-14.17474	132.18521	Creek crossing 750m NW of Edith Falls	31 March 2025
JA03	-14.17996	132.18912	Leliyn-Edith Falls Main Pool area	31 March 2025
JA04	-13.91447	133.23883	Waterhouse River headwaters	1 April 2025
JA05	-13.80881	133.16255	Central Katherine River tributary	1 April 2025
JA06	-14.33611	132.42314	Helipad, Gorge Road, near Nitmiluk NP	1 & 10 April 2025
JA07	-14.24787	132.91522	11km E on Blue Drum Road, E of Manyallaluk Road	2 April 2025
JA08	-14.24608	133.03216	Fire trail East of Blue Drum Rd	2 April 2025
JA09	-14.18448	132.97952	Eva Creek tributary	3 April 2025
JA10	-14.13711	133.13422	Waterhouse River west branch, headwaters	3 April 2025
JA11	-14.14662	132.28299	Sandy Camp, Edith River, Jatbula Trail	4 April 2025
JA12	-14.04056	132.30667	Upper Ferguson River, above falls	6 April 2025
JA13	-14.11604	132.37427	17 Mile Creek above falls, Jatbula Trail	6 April 2025
JA14	-14.25251	132.43628	Top of Biddlecombe Cascades	7 April 2025
JA15 &15/2	-13.76430	133.12007	Escarpment tributary, mid reaches of Katherine River	7 & 9 April 2025
JA16	-14.12915	132.51357	Crystal Falls Creek headwaters	8 April 2025
JA17	-13.82136	132.37646	Douglas Springs south branch	8 April 2025
JA18	-13.75618	133.13527	Escarpment tributary, mid reaches of Katherine River	9 April 2025
JA19	-14.47547	132.92952	Dook Creek headwaters	10 April 2025
SSS2	-14.17717	132.19403	Sweetwater Pool Walk, Leliyn, Nitmiluk NP	10 April 2025

2.2 Survey techniques

All sites sampled comprised an area of approximately 1.5–2.0 ha. Odonates were recorded using visual observations or collected using a standard entomological sweep net (400mm internal diameter). Specimens retained as vouchers were placed in glassine envelopes, fixed in acetone for 24 hours, dried, and stored in boxes containing silica gel to prevent mould in the prevailing humid conditions. Sampling effort varied per site, but was typically around 2 to 3 hrs, either in the late morning or early afternoon when odonate activity was at its greatest. However, as most sites were accessed by helicopter, available survey time was often dictated by helicopter scheduling.

2.2.1 Methods used at standard survey sites

Standard Survey Site 2 (SSS2) was sampled as per the standard method prescribed for these sites. One collector sampled for 60 minutes within the site boundaries. All species of Odonata detected were recorded with no voucher specimens being collected.

SSS2 was located on the eastern slope of a rocky hillside with an open woodland habitat that had been recently burnt and had begun to regenerate. Sampling at the site was carried out between 1515 and 1615 hours (the hottest part of the day). There was little in the way of floral understorey or insect life, and the site was approximately 500 metres from the closest water source. Due to these factors only one odonate species was recorded.

Standard Survey Site 1 (SSS1) was not sampled during this survey.

2.3 Identifying the collections

Vouchered specimens were identified based primarily on Theischinger and Hawking (2021), as well as comparison with material in the Museum and Art Gallery of the Northern Territory (MAGNT) entomological collection. Photos of three damselfly specimens and one dragonfly (*Nannophya sp.*) taken through a dissecting microscope were sent to Dr. Stephen Richards for identification. The same images of the *Nannophya* specimens were then sent to Dr. Gunther Theischinger for a further opinion on identification.
The specimen data was assembled in a FileMaker Pro database managed by the Natural Sciences Section at MAGNT and observational data manually added. A copy of this data will ultimately be uploaded to the Atlas of Living Australia (ALA). The data has been recorded to the level of subspecies. Specimens that were not recorded to species level (i.e. where there was uncertainty in identification due to damage) were excluded.



The Bicoloured Skimmer *Notolibellula bicolor* was only found at two survey sites – both cascading streams in stone country – their preferred habitat (Photo: J. Archibald)

3. Results and Discussion

Thirty-one species of Odonata were recorded on Jawoyn Country. Appendix 1 lists all odonates recorded during the Jawoyn Country Bush Blitz. Collections made during this Bush Blitz will result in 153 specimens being added to public collections and 200 records being added to publicly accessible databases. This survey has produced a baseline list of taxa for Jawoyn Country.

3.1 Un-named or not formalised taxa

No un-named or not-formalised Odonata taxa were found on Jawoyn Country.

3.2 Species new to science

In this report, 'species new to science' means species that were not recognised by Western science before this Bush Blitz.

No Odonata species new to science were found on Jawoyn Country.

3.3 Introduced species

No introduced species of Odonata were found on Jawoyn Country.

However, during field work three species of invasive weeds were noted (see Table 2). Mission Grass, Hyptis and Wild Passionfruit are common weeds found across the Top End of the Northern Territory, and the first two are considered Class B weeds under the *NT Weeds Management Act 2001*.

Mission Grass was observed along the verge of roads and tracks near the Leliyn-Edith Falls main pool area, and at the Helipad area on Gorge Road. Both are disturbed sites. This species is easily spread by vehicles and both human and animal activity and needs to be actively controlled to make sure it does not spread any further into Nitmiluk National Park and Jawoyn Country.

Hyptis was observed at six sites within the study area. At most of these sites it was in small stands, but at Site JA19 it covered large areas of open woodland and was so thick its distinctive odour was all-pervasive once the helicopter landed. Surprisingly it was also found at Site JA15 – an area of stone country that is only accessible by helicopter. Hyptis produces large amounts of small square sticky seeds that are easily spread by human and animal activity. It would be advisable to monitor these stands over time to ascertain whether they are spreading.

Wild Passionfruit is not a declared weed but has spread throughout the Top End and semi-arid areas via bird droppings. In good habitat it becomes a woody vine that climbs trees and can smother native vegetation. It is nearly impossible to control due to its dispersal by birds but should be controlled where possible and its spread monitored.

None of these species are likely to cause high impacts on odonate communities although their control should be prioritised so they do not spread further through Jawoyn Country.

Fortunately, no evidence of Gamba grass *Andropogon gayanus* was found in the areas of the study zone visited. This Class A and B Declared Weed is spreading across the Top End and causing serious environmental and economic damage.

Two species of feral mammal were recorded during the survey (see Table 2). Although buffalo were only recorded at six sites, large numbers of individuals were seen right across the study area from helicopters as Bush Blitz teams transited between survey sites. Buffalo wallows and channels were also recorded in both lowlands and escarpment country. Neither of these species are likely to cause high impacts on odonate communities in the short term; however, the propensity of large mammal species, particularly buffalo, to degrade or even destroy

sensitive odonate breeding habitats at springs, riparian areas and swamps, as well as assist in the spread of invasive weeds, suggests buffalo control measures or even eradication may be necessary (see Section 5).

Table 2. Introduced species recorded

Introduced species	Location sighted/observed	Indication of abundance	Comments
Cenchrus polystachios Mission Grass	Noted at Sites JA3 & JA6	Noted in stands along road verges and walking tracks.	Class B Weed – to be controlled under the Act.
Hyptis suaveolens Hyptis	Noted in stands at Sites JA3, JA6, JA11, JA15, JA17, JA19	The largest infestations were at JA19 – other sites had not developed thick stands as yet.	Class B Weed – to be controlled under the Act.
Passiflora foetida Wild Passionfruit	Noted at Sites JA3, JA15, JA19	Random plants but some quite large and smothering native vegetation	Not a Declared Weed but an invasive introduced species that should be controlled.
Bubalus bubalis Water Buffalo	Noted at Sites JA4, JA07, JA08, JA09, JA16, JA19	Wallows and animals sighted all over Jawoyn Country from the air.	Found right across the study area – need controlling to curb environmental degradation and spread of pest weeds
Bos Taurus Feral Cattle	Noted at Site JA19	Single scrub bull sighted	



The Common Bluetail *Ischnura heterosticta* is a damselfly found Australia wide. It was identified at nine sites across Jawoyn Country (Photo: J. Archibald)

3.4 Threatened species

No odonate species found on Jawoyn Country are currently listed as threatened under any of the state, national or international lists of threatened species schedules. These schedules include the Territory Parks and Wildlife Conservation Act, the EPBC Act - List of Threatened Fauna, and the IUCN Red List of Threatened Species.

3.5 Range extensions

Jawoyn Country is located in the central Top End and incorporates the southwestern end of the Arnhem Land escarpment with associated plant and animal communities. Due to much of this country not being easily accessible there has not been a high level of odonate collecting across the region. Of the 31 species of diurnal Odonata recorded on this survey, three species (*Nannophya australis, Aciagrion fragile* and *Lathrecista asiatica festa*) have not been recorded in this part of the Top End before and represent significant extensions to their geographic range (See Table 3).

Table 3. Range extensions or significant infill in distribution records for species

Species	Location sighted/observed	Distance from nearest known record (km)	Comments
Nannophya australis Australian Pygmyfly	JA09, JA14, JA17, Near SSS1	1070km WSW of the closest record at Fruit Bat Falls, Cape York Peninsula	New record for the NT and massive range extension
Aciagrion fragile Blue Slim	JA09 & JA19	280km SE of the closest record at Howard Springs, NT	Range extension
Lathrecista asiatica festa Australian Slimwing	JA11	152km SE of the closest record at Robin Falls, NT	Range extension

The Australian Pygmyfly *Nannophya australis* is one of the smallest dragonflies found in Australia. Until this survey, there were no *Nannophya* species known from the Northern Territory apart from a reasonably recently described species found in northeastern Arnhem Land (*Nannophya paulsoni*). Over the course of the Jawoyn Country Bush Blitz, seven specimens of a *Nannophya* species were collected from four sites across the region with live photos taken at Site JA17 (see cover of report and Page 19). These specimens were ultimately identified as *Nannophya australis* and represent a new Northern Territory record for this species. All specimens were found in boggy swamps of rank grass, and it is possible that this species ranges over a far larger area of the Top End than previously known. They are a very small and somewhat cryptic dragonfly and would be easily overlooked especially as their favoured habitat is very difficult to traverse. Further surveys are needed right across the Top End to ascertain the extent of the range of this species.

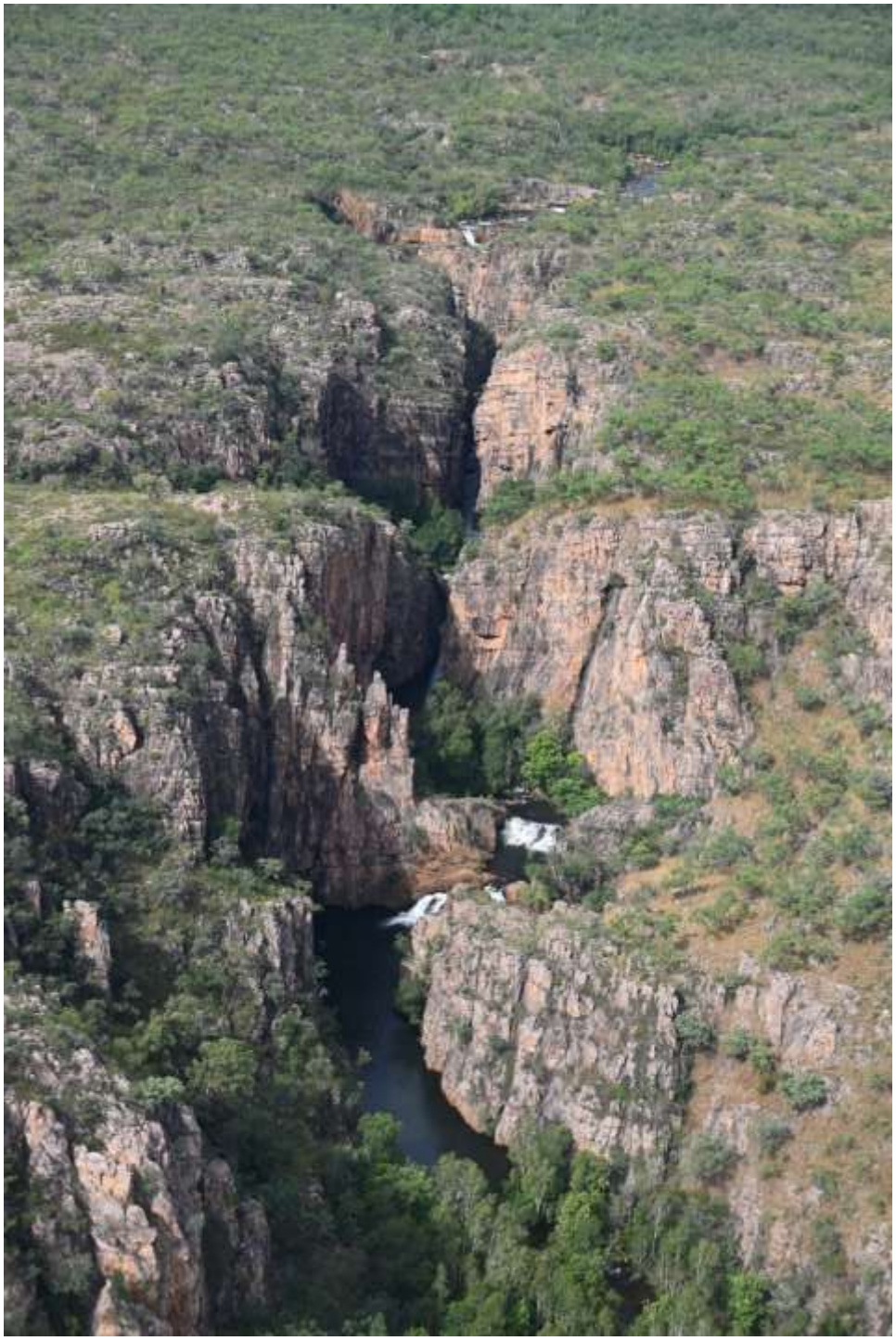
The tiny damselfly *Aciagrion fragile* Blue Slim was previously only known in the Northern Territory from around the Darwin area and Groote Eylandt. During the Jawoyn Country Bush Blitz, two specimens were collected from two different localities – both in boggy swamp habitats. As with *Nannophya australis*, it is possible that this species ranges over a far larger area of the Top End than previously known as they are a tiny and cryptic damselfly and would be easily overlooked. Further surveys are needed right across the Top End to ascertain the extent of this range of this species.

The Australasian Slimwing *Lathrecista asiatica festa* has been recorded from much of the northwestern Top End. The single specimen collected at Site JA11 extends its range into the

central Top End and once again, further surveys need to be carried out to determine the extent of its range in the Northern Territory.

3.6 Genetic information

No genetic sampling of any odonate species was undertaken, however voucher specimens are suitable and available for tissue subsampling in the future.



A typical escarpment gorge in Jawoyn Country (Photo: J. Archibald)

4. Information on species lists

A total of 200 records (153 specimens and 47 observations) were made during this survey, representing 31 species of Odonata. Of these 31 species, voucher specimens were obtained for 28 - the other three records being visual observations. Sampling was carried out in excellent conditions for odonate fauna with mostly warm sunny days (the first two days had rain periods) and all drainage systems flowing strongly with fresh clean water from Wet Season rains. Due to these conditions, it is felt that a representative survey of the odonate fauna of Jawoyn Country was achieved.

However, as there has only been opportunistic collecting carried out historically on much of Jawoyn Country with no dedicated surveys of Odonata as such, this survey can only be considered a first baseline study of the Odonata taxa for this region. Results of a review of ALA specimen and observation records ascertained that there are at least 15 extra odonate species recorded in the general area that were not recorded on this survey. Further surveys need to be undertaken on Jawoyn Country during different seasons, and in differing habitats to gain a comprehensive record of the odonate fauna of this region.

The relative abundance of the odonate fauna on Jawoyn Country during the survey period can also be outlined. The most abundant dragonfly species was the Pygmy Percher *Nannodiplex rubra* being recorded at 14 of the 20 sites surveyed. The Painted Grasshawk *Neurothemis stigmatizans* was second with 12 sites. The most abundant damselfly species was the Black-winged Threadtail *Nososticta baroalba* which was found at 12 of the 20 sites surveyed. As most sites were either riparian or swamp habitats these were not unexpected results. However, twelve of the 31 species (over one third) were only recorded from a single site with a single specimen or observation which suggests that the species richness in the region is higher than that recorded.

The richest survey site in terms of species diversity was JA15 with 16 species recorded. This site was a spring-fed stream running through escarpment country and falling into a jungly gorge. This site was unburnt and incorporated a diverse range of habitats with no water buffalo interference or damage - ideal odonate habitat (but no swampy areas). The next most species diverse site was JA09 with 13 species recorded. This site was a boggy swamp at the headwaters to Eva Creek which was in excellent condition apart from some buffalo damage.

The sites with the lowest species diversity with only one species being recorded at each were JA01, JA02, JA07 and SSS2. Only one site, JA06, had no odonates recorded at all. It was noted that many sites displayed hot fire damage that had seemingly regenerated well and appeared visually to be excellent odonate habitat, but a paucity of species were recorded when surveyed.

Standard Survey Site 2 (SSS2) was located on the eastern slope of a rocky hillside with an open woodland habitat that had been recently burnt and had begun to regenerate. Only one species of dragonfly was recorded here. The site is at least 500m from any water source and had a lack of insect life so was not ideal odonate habitat.

5. Information for land managers

Jawoyn Country, incorporating Nitmiluk National Park, comprises a large, diverse and relatively intact region that is critical to the integrity and connectivity of the National Reserve System within the Top End and more broadly within the Australian Monsoon Tropics.

In relation to the odonate fauna of this area, the major recommendation for land managers is to control the three major factors that contribute to ongoing habitat destruction and degradation in the Top End, namely feral animals, invasive weeds and inappropriate fire regimes.

The main large feral animal recorded on Jawoyn Country during the survey was the Water Buffalo. They were recorded at six of the survey sites but were noted as animals or their sign (wallows) all over the region from the air. They have the propensity to degrade and potentially destroy sensitive habitats around water sources, especially during the late dry season when surface water is scarce. Controlling populations of these feral animals ought to be a priority and will help protect the vegetation in these fragile habitats for all fauna, especially dragon and damselflies that use permanent water sources as breeding areas and refugia during the dry season.

Although there was evidence of weeds in some disturbed areas, and Hyptis was recorded at six sites, weeds were conspicuous by their absence. Wind, vehicles, and human and animal movement (seeds caught in fur and clothing) are the main vectors for weeds. Controlling weeds by physically removing them and using herbicides, careful control of vehicle and human movements through known weed areas, meticulous cleaning of vehicles and clothing that enter Jawoyn Country and controlling weeds already present will help keep weed species under control on the property.

Some habitats, such as riparian monsoon forest, paperbark forest and monsoon vine thickets surrounding permanent springs, are important odonate habitats. These habitats are extremely fire sensitive. Many of the sites visited exhibited evidence of hot destructive fires and as a result low species diversity when sampled. Managers need to ensure that any fuel reduction burns avoid these critical habitats with burns being carried out early in the dry season so that the threat of destructive wildfires is greatly diminished late in the dry season. Attempts should also be made to burn in a mosaic or patchwork pattern so that there is far less chance of large-scale wildfires sweeping across the landscape. It must be stated that evidence of mosaic burning could be seen across the study region from the air and the above advice is not given as a criticism but in support of what is already being carried out.

Dragon and damselflies represent an ideal portal to improved understanding of biodiversity research and conservation, being an active and visual part of habitats and landscapes (country). Dragon and damselfly sampling techniques, identification and biology could form a component of activities including school education programs, ranger survey capacity building, and two-way learning to document language names and traditional ecological knowledge.



A heavily burnt and regenerated paperbark forest at Douglas Springs (Photo: J. Archibald)

6. Other significant findings

A second new record for the Northern Territory was made on Jawoyn Country during the Bush Blitz survey. This was one specimen of *Veria colorata* - a wasp mimic katydid of the Order Orthoptera. This female specimen was captured by R. Webb on 2 April 2025 at Bush Blitz Site 19. It has been accessioned into the MAGNT Insect Collection with number I011910.

This species has been recorded on both the east and west sides of the Australian continent but not in the Northern Territory before. The closest publicly available record (ALA) of this species to Jawoyn Country is 1500km southwest at Torrens Creek, inland from Townsville, Queensland.



A photo of the colourful live specimen of *Veria colorata* – a wasp mimic katydid collected at Site 19. This katydid has not been recorded in the Northern Territory before (Photo: R. Webb)

7. Conclusions

Jawoyn Country supports a moderate diversity of odonates that are characteristic of the tropical woodland, riparian, stream, swamp and escarpment communities of northern Australia. Further surveys at other times of year, as well as in differing habitats (especially Stone Country) are likely to identify additional species on the property. This Bush Blitz survey provided an opportunity to survey a relatively unsampled and difficult to access region of the Northern Territory for odonate fauna resulting in a significant baseline list that can be built on in the future.

Acknowledgements

We thank the Traditional Owners of Nitmiluk National Park and surrounding Jawoyn Country, for permitting us to conduct our surveys on their land. We recognise their ongoing cultural connection to land and country, and pay our respects to Elders past, present and emerging. We thank the Jawoyn Association Aboriginal Corporation for their assistance in helping us conduct our survey and a huge thankyou to all the Jawoyn Rangers without whose help, knowledge, and enthusiasm would have made this Bush Blitz impossible. We also thank Northern Territory Parks & Wildlife Rangers from Nitmiluk National Park, and Warddeken Land Management Rangers, for their eagerness and passion on the survey. The field assistance and enthusiasm of teachers participating with Earthwatch Australia's TeachLive was a highlight of the fieldwork. Another huge thankyou goes to the Bush Blitz team for their help and support, to the helicopter pilots of HM Air for their professional skills, and Tegan and her team from Dragonfly Catering who fed us copiously with food beyond compare. Last but not least, a special thank you goes to Suzanne Horner for her unfailing patience, much needed support in IT matters, and assistance with MAGNT collection accessioning.



Found only at Site JA10 during the survey, the Red Swampdragon *Agrionoptera insignia allogenes* prefers a habitat of swampy shaded paperbark forests (Photo: J. Archibald)

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A male Blue Skimmer *Orthetrum caledonicum* - although common across Australia this species was only recorded from four sites on Jawoyn Country (Photo: J. Archibald)

Appendices

Appendix 1. List of Odonata recorded during the Jawoyn Country Bush Blitz

Number of taxa: **31** (including subspecies and varieties but without double counting).

Family	Species	Common name	Species new to science	Threatened (EPBC Act)	Threatened (NT)	Introduced species
Lestidae	*Lestes concinnus*	Dusky Spreadwing	No	No	No	No
Platycnemididae	*Nososticta baroalba*	Black-winged Threadtail	No	No	No	No
Coenagrionidae	*Aciagrion fragile*	Blue Slim	No	No	No	No
Coenagrionidae	*Agriocnemis pygmaea*	Pygmy Wisp	No	No	No	No
Coenagrionidae	*Austroagrion exclamationis*	Northern Billabongfly	No	No	No	No
Coenagrionidae	*Ceriagrion aeruginosum*	Redtail	No	No	No	No
Coenagrionidae	*Ischnura aurora*	Aurora Bluetail	No	No	No	No
Coenagrionidae	*Ischnura heterosticta*	Common Bluetail	No	No	No	No
Coenagrionidae	*Pseudagrion lucifer*	Citrine-headed Riverdamsel	No	No	No	No
Coenagrionidae	*Pseudagrion microcephalum*	Blue Riverdamsel	No	No	No	No
Aeshnidae	*Gynacantha noarlangie*	Cave Duskhawker	No	No	No	No
Gomphidae	*Austroepigomphus (Xerogomphus) turneri*	Flame-tipped Hunter	No	No	No	No
Libellulidae	*Agrionoptera insignis allogenes*	Red Swampdragon	No	No	No	No
Libellulidae	*Crocothemis nigrifrons*	Black-headed Skimmer	No	No	No	No
Libellulidae	*Diplacodes haematodes*	Scarlet Percher	No	No	No	No
Libellulidae	*Lathrecista asiatica festa*	Australasian Slimwing	No	No	No	No
Libellulidae	*Marcodiplax cora*	Wandering Pennant	No	No	No	No

Family	Species	Common name	Species new to science	Threatened (EPBC Act)	Threatened (NT)	Introduced species
Libellulidae	*Nannodiplax rubra*	Pygmy Percher	No	No	No	No
Libellulidae	*Nannophlebia mudginberri*	Top End Archtail	No	No	No	No
Libellulidae	*Nannophya australis*	Australian Pygmyfly	No	No	No	No
Libellulidae	*Neurothemis stigmatizans*	Painted Grasshawk	No	No	No	No
Libellulidae	*Notolibellula bicolor*	Bicoloured Skimmer	No	No	No	No
Libellulidae	*Orthetrum caledonicum*	Blue Skimmer	No	No	No	No
Libellulidae	*Orthetrum migratum*	Rosy Skimmer	No	No	No	No
Libellulidae	*Orthetrum sabina*	Slender Skimmer	No	No	No	No
Libellulidae	*Pantala flavescens*	Wandering Glider	No	No	No	No
Libellulidae	*Potamarcha congener*	Swampwatcher	No	No	No	No
Libellulidae	*Rhodothemis lieftincki*	Red Arrow	No	No	No	No
Libellulidae	*Rhyothemis braganza*	Iridescent Flutterer	No	No	No	No
Libellulidae	*Rhyothemis graphiptera*	Graphic Flutterer	No	No	No	No
Libellulidae	*Tramea loewii*	Common Glider	No	No	No	No



A subadult male Australian Pygmyfly *Nannopyha australis*. This was one of two specimens collected at Douglas Springs (Photo: J. Archibald)