

NATURE TERRITORY

May 2012

Newsletter of the Northern Territory Field Naturalists Club Inc.

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Club web-site: <http://ntfieldnaturalists.org.au/>

Meetings are generally held on the second Wednesday of every month, commencing at 7:45 PM, in Blue 1.14 (Business Faculty Building) on the Casuarina Campus of Charles Darwin University.

Subscriptions are on a financial-year basis and are: Families/Institutional - \$30; Singles - \$25; Concessions - \$15. Discounts are available for new members – please contact us.



The dry season must be approaching, as dragonflies are in the news again. Graham Brown busts the “seasonal dragonflies” myth on page 8 of this newsletter, pointing out that there are dragonflies such as the above Rosy Skimmer (*Orthetrum migratum*) in the Top End year-round, although there are some definite seasonal migrants that increase in numbers at some times of year. *Photo by Jon Clark*

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Disclaimer: The views expressed in *Nature Territory* are not necessarily those of the NT Field Naturalists Club Inc. or members of its Committee.

Club activities

May meeting. Wednesday May 9, 7:45 PM. Blue 1.14 (Business Bldg.), CDU Casuarina.

Louis Elliott: "Weeds of the Top End"

Northern Australia has a reputation for retaining large areas of relatively weed-free natural environment in comparison with more developed regions. However, in many ways weeds are hidden from the eyes of human observers. For example, people may not have sufficient familiarity with natural environments to distinguish between weeds and native flora, or they may be entirely ignorant of the impacts of weeds on native biodiversity and human livelihoods. Large areas at risk (or invaded) are in sparsely settled areas and may not be easily accessible. Humans are often reluctant to accept the notion that some plants that they like or have in their

control may be potential weeds; yet it is people who are the principle vector of weed spread and the source of new introductions.

To further complicate matters, the notion of what is or isn't a weed is not always agreed upon. Some invasive plants also have economic uses which can result in conflicts of purpose between different sectors of society. Many introduced plants are not truly invasive but may persist (even reproduce) in the environment and not cause significant impact. Science does not deal in absolutes but in terms of risk and probability, and the evidence that it relies upon can require interpretation and contextualisation. In a world where



Gamba fire in the Top End. Photo: Sue Lamb, Bushfires NT

resources are limited, it is the human perception of the problem which has become the battleground, and the Top End is at serious risk of being further impacted by invasive plants over coming decades.

Louis Elliott is based in Darwin and has been working on topics related to Top End plants for the past 7 years. He has been Weed Scientist at the NT Weed Management Branch for the past 3 ½ years. His duties include administration of the NT Weed Risk Management System, and the evaluation of the impact of biological control agents of *Mimosa pigra*, a serious weed of the Top End.



May field trip. Sunday May 13, 8.30am.

The Howard River area has a range of habitats from the flora rich sandsheets, through to monsoon forest, riparian habitats and woodland. It is also in the vicinity of rural residential development, sand mining and other extractive industries.

We will be interested at looking at, identifying and discussing invasive plants in the area. We are certain to find a range of invasive grasses (Mission grasses, Gamba grass and others). *Mimosa pigra*, *Salvinia* and many other weeds also occur in the area. There will also be plenty of opportunity to see birds, insects and other wildlife through the range of habitats that we encounter. It is a particularly good time of year for swamp flora as the weather dries out. There will be good photographic opportunities for plants including native grasses and pretty flowers.

We are meeting at the Howard River Iron Bridge on Gunn Point Rd (before it turns to dirt) and likely to drive to 1 or 2 nearby locations. Contact Tissa on 8921 8226 for further details.



June 2012 meeting. Wednesday June 13.

Club notices

Welcome to new members: Julia Fogg & Tony Shorten

Thank you: the previous issue was proof-read by **Erica Garcia**, printed by **Stuart Young**, and collated and mailed by **Anne Highfield**. It was printed using equipment kindly made available by **Collections, Biodiversity and Biological Parks** from the Department of Natural Resources, Environment, the Arts & Sport.

Newsletter contributions welcome: Sightings, reports, travelogues, reviews, photographs, sketches, news, comments, opinions, theories , anything relevant to natural history. Please forward material to Tissa at tissa@imprintdesign.com.au or the Club's postal address, or contact him on 8921 8226.

Deadline for the June newsletter: Wednesday 23 May.

Need a Club membership form? Go to: <http://sites.google.com/site/ntfieldnaturalists/downloads>.

Club library: The Club's journal and book collection is available to members. Lists of holdings can be found on our web-site: <http://sites.google.com/site/ntfieldnaturalists/library>. The library is housed in two sections:

Books, reports and CDs: at the medical clinic of Dr. Lyn Reid in the Rapid Creek Business Village. This can be accessed directly between 9 AM and 2:30 PM Tuesday to Thursday, and 4–6 PM on Tuesday, or indirectly by phoning Lyn at work on 8985 3250.

Journals: in the office of Stuart Young at the Biodiversity Unit at Berrimah. These can be accessed by ringing Stuart on 8995 5026 (w).

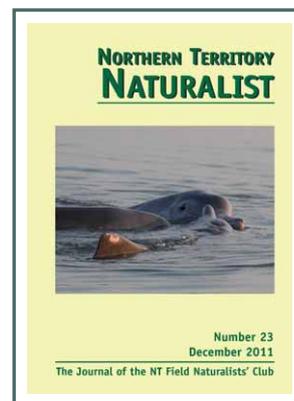
Northern Territory Naturalist: The Editorial Committee of the Club's journal, the *Northern Territory Naturalist*, is now calling for manuscripts for issue no. 24. The journal publishes works concerning any aspect of the natural history and ecology of the Northern Territory or adjacent northern Australia and may include Research Papers (Articles or Short Notes), Reviews, Species Profiles and Book Reviews.

The *Northern Territory Naturalist* is a registered, peer-reviewed journal (ISSN 0155-4093). Author instructions may be downloaded from our web-site:

<http://sites.google.com/site/ntfieldnaturalists/journal>.

If possible, manuscripts should be submitted in digital form by email to michael.braby@nt.gov.au. Manuscript editors are Drs Michael Braby, Lynda Prior and Anke Frank. Louis Elliott is the production editor.

Originals are available of most back issues, some are available as photocopies only, and several recent issues are out-of-print but individual papers are available as pdfs. The journal page of the Club's web-site has an order form for back issues. Free pdfs of papers from issue 18 (2005) onwards are available from the authors or by contacting Lou Elliott, email louis.elliott@nt.gov.au.



Top End Native Plant Society activities

May meeting. May 17th - TBA

May excursion. May 20th Field Trip - Howard River Sandsheet - photography opportunities.

General meetings are held on the 3rd Thursday of the month at the Marrara Christian College, corner Amy Johnson Ave. and McMillans Road, and commence at 7:30 PM (speaker at 8 PM). Visit

<http://www.topendnativeplants.org.au/index.php> or contact Russell Dempster on 8983 2131.

Migratory birds on Olango Island, Philippines

Magen Pettit

Each year millions of shorebirds fly south from their breeding grounds in the Arctic tundra to escape the cold winter weather from September to April. During their long journey, many of these birds stop to rest and feed in Asia. The East Asian – Australasian Flyway is one of several flyways around the world. Some shorebirds may migrate 25,000 km annually along this flyway and some species may fly more than 6,000 km non-stop.

Olango Island is the largest island in the central part of the Philippine archipelago, about 10 km off the east coast of Mactan Island in Cebu. In 1987, the vast intertidal flats on Olango Island's southern shore was discovered to be an important refueling site for approximately 50,000 migratory birds using the East Asian Flyway. The 103 ha wetland was officially declared the Olango Island Wildlife Sanctuary in 1992. It became the first RAMSAR site (wetland of international importance especially in waterfowl habitat) in the Philippines in 1994.

Olango Island Wildlife Sanctuary contains 27 species of mangroves and mangrove associates. Marine algae thrive among the mangroves and intertidal flats while extensive seagrass beds are found on the southernmost part of the sanctuary. These provide abundant food and ideal nesting sites for the birds, arriving in late September and leaving in early March.



There are 97 bird species on Olango Island, including 48 migratory species and 42 resident species. Among the 54 species of waterbirds, 32 are waders, 13 are waterfowl and nine are seabirds. The rare Asiatic Dowitcher (*Limnodromus semipalmatus*) and endangered Chinese Egret (*Egretta eulophotes*) utilise Olango as a refueling site.

As I looked at the posters and maps in the Visitor's Room, I noticed the birds would continue on their migratory route from Olango Island to Parry's Lagoons, Roebuck Bay and Eighty Mile Beach in Western Australia.

A local Filipino boy offered to show us some birds through his telescope. He informed me his father was a bird guide. My two young daughters and I stayed at the sanctuary for about two hours and we spotted 16 bird species: Little Egret, Chinese Egret, Nankeen Night Heron, Ruddy Turnstone, Eastern Curlew, Whimbrel, Grey-tailed Tattler, Common Greenshank, Terek Sandpiper, Great Knot, Red-necked Stint, Grey Plover, Lesser Sand Plover, Little Tern, Collared Kingfisher and Pacific Swallow.

As I left Olango Island, I smiled at the thought that one day I might see some of those birds again when they fly south to escape winter and make it all the way to our Top End. If these birds can fly thousands of kilometres to another continent, surely I can hop in my car and drive west several hundred kilometres for a reunion!

Through my Camera Lens – creatures and plants of the Top End

Report on Tissa Ratnayeke's April meeting presentation

Hannah Seward

Members were treated to a talk and presentation of Tissa's stunning wildlife photographs at the April meeting. Tissa explained that his move from film to digital photography around six years ago encouraged him to reconsider his photographic techniques. He admitted that it had taken him a while to not just look, but really 'see' potential photographic subjects when out and about. After starting off with landscapes and birds as subjects, Tissa progressed to much smaller wildlife (macro) about three years ago. Armed with two cameras, one with a telephoto lens and the other a macro lens, Tissa was able to show us a wonderfully varied selection of photography subjects, most of which the average person would just walk on past without noticing.



Above: Black Kite basking in the sun: the right light!

Below: Caterpillar and flower. Photos Tissa Ratnayeke

Tissa puts his best shots down to the combination of the right light, good framing and being in the right mood! He does not use a flash, preferring instead to make the best use of the beautiful natural light at dawn and dusk here in the NT. Birds featured strongly in his selection. We were treated to spectacular shots of a barking owl in flight, forest kingfisher, white bellied sea eagle, red backed fairy wren and a gorgeous little pardalote, to name a few. Tissa has the knack of capturing his ornithological subjects doing something slightly unusual such as landing on a branch, balancing awkwardly on a twig, or looking in

an unusual direction. Tissa also believes in showing a little more of the subject's natural environment instead of cropping the shot too tightly. This gives the viewer a much more interesting visual experience, rather than looking at the same old wildlife poses over and over. It also allows the viewer to gauge a sense of depth and scale.

The birds were great, but Tissa's macro shots were even better. His love for all things tiny came through when he showed us photos of a range of frogs, spiders, grasshoppers and other insects. The detail captured on some of these subjects was wonderful. Coming face to face with a praying mantis and dragonfly gave us some idea what it must feel like to be a hapless insect on the menu with no escape. Tissa's patience out in the field has been rewarded with quite a few happy accidents when an unexpected bug or two would drop into one of his shots when he least expected it.

The talk was rounded off with some beautiful shots of flowering turkey bush and grevillea, followed by a final selection of bugs; caterpillars, green tree ants, a jewel and a crusader bug. The presentation of photos was very inspiring and really showed what an amazing range of wildlife we have in Darwin - right under our noses. All we have to do is take the time to actually stop, look and really 'see' what's going on around us.



Tissa's Jungle: A joint excursion through Holmes Jungle with CSIRO Double Helix Club

On Saturday, 14 April 2012, the NT Field Nats Group was accompanied by CSIRO Double Helix Club for a nature walk at Holmes Jungle Nature Reserve. There were approximately ten Field Nat members and eight children from the Double Helix Club with their parents who joined us for the two hour stroll.



Rather than visit the monsoon forest that most visitors are familiar with, our guide Tissa was keen to introduce the group to the other habitats within this park and also to highlight the abundant insect life that is present at the end of the wet season. Starting at the exit gate, we followed a walking track parallel to Vanderlin Drive that traced the rocky escarpment. Numerous species of grasshoppers were prolific along this path and leapt out in all directions. This rocky soil, absent of large trees, seemed to provide the ideal conditions for the growth of native *Gardenia megasperma*, sand palms, kapok bush and green plum.

Turning off, we began descending the escarpment and the vegetation quickly changed to that of the familiar Top End savannah. At the base of a large tree, amongst its roots, Tissa pointed out the entrance to a colony of the stingless, native "sugarbag" bees (*Trigona* sp.). The terrain began flattening out and we soon reached and followed the damp, green and shaded edge of the monsoon forest. Competing with and perhaps slowly displacing the native grasses of this wet area was the bright green Tully grass from Africa. A little further on through this shaded section Grass Yellow butterflies (*Eurema* spp.) were abundant.

Continuing on our loop, we began an easy climb back up. It was on this section that Graham Brown identified for us our third and perhaps most interesting species of praying mantid (*Paraoxypilus* sp.) - this small, terrestrial and flightless specimen was a final instar female nymph that is a mimic of

pony ants (*Rhytidoponera* sp.). As we reached the top, the land levelled revealing flowering meadows of red *Gomphrena* sp. and blue *Spermacoce* sp., all abuzz with the busy feeding activities of several species of wasps, bees and flies. The highlights here were the Blue-banded bees, Carpenter bees (Australia's largest bee) and another giant, the Bee Fly (*Ligyra satyrus*).

On the short walk back to the carpark we made one final stop to inspect, hanging under a cocky apple tree, a large silken bag-like

retreat of long since dispersed processionary caterpillars. A lone and very dead, hairy specimen remained for us to examine.

All the children showed interest in observing the insects at close hand and who knows, we may have inspired some of them to become budding entomologists! My eight year old daughter, Elisha, wrote: 'At the Double Helix Club I enjoyed going to Holmes Jungle and seeing the Hawk moth caterpillar, the praying mantis, the bees, the grasshoppers and the butterflies'.



Top: Field Nats and Double Helix Club members listening for the call of the Striated Pardalote; above: a Blue Argus (*Junonia orithya albicincta*). Photos Magen Pettit



We would like to thank Tissa Ratnayeke for organising and leading the fieldtrip, Maeli Cooper from CSIRO Education Centre for organising the Double Helix Club, Graham Brown for all his insect identifications, Peter Holbery for sharing his grasshopper knowledge, Mike Jarvis for his contribution to the bird list and Ben Stuckey for all his floristic information.

Magen Pettit

Left: Tissa showing Double Helix kids a case moth on a grass stalk; below left: Hawk moth caterpillar; below right: Terrestrial mantid *Paraoxyphilus* sp.
Photo Tissa Ratnayeke

Interesting observations at Holmes Jungle

Interesting insects observed included:

- Ants (Green tree ants *Oecophylla smaragdina*, Pony ants *Rhytidoponera* sp. and Spiny Ants *Polyrhachis* sp.)
- Beeflies (family Bombyliidae)
- Bees (Native honey bee *Trigona* sp., Blue-banded bee *Amegilla* spp., Carpenter Bee *Xylocopa* sp.)
- Butterflies and moths (Australasian Lesser Wanderer, Blue Argus, Case moth larvae, Common Crow, Grass Yellow, Swamp Tiger, Tiger moth *Amata* sp., Hawk moth larvae *Theretra oldenlandiae* and a dead Processionary caterpillar, *Ochrogaster lunifera*)
- Dragonflies & Grasshoppers (many species)
- Hemiptera (Planthopper nymphs and Wattle scale)
- Praying mantid (three species)
- Tenebrionid Beetle (*Pterohelaeus* sp.)



Spiders observed included:

- Jumping spider (family Salticidae)
- Lynx spider, *Oxyopes* sp. (family Oxyopidae).



Interesting plants observed included:

- Annual herbs with red & pink flowers (*Gomphrena* sp.) and blue flowers (*Spermacoce stenophylla*)
- Sand palms (*Livistona* sp.)
- Kakadu plum (*Terminalia ferdinandiana*) where some people tasted the fruit which contains possibly the highest vitamin C concentration of any known fruit
- Native lemon grass (*Cymbopogon* sp.) which can be used to make bush tea
- Legume belonging to the Fabaceae family (*Aeschynomene* sp.), where its leaves are sensitive and close up when touched
- Native grass *Eriachne burkitii*
- Introduced grasses Gamba grass (*Andropogon gayanus*) and Tully grass (*Urochloa* sp.).

Dragonflies and The Dry: Myths and Migrants

Graham Brown

Well it is that time of the year again: drying vegetation and drying ponds and streams, and lots of dragonflies. Thus signalling that the dry season is rapidly approaching, despite what the media might or might not be saying.



The Territory has 101 species of dragonflies and damselflies (order Odonata). They occur throughout the year with individual species occurring at specific times of the year. Most people don't realise this, and only notice the build up in numbers of certain species at the end of the wet. These species are the Common Glider (*Tamea loewi*), Graphic Flutterer (*Rhyothemis graphiptera*) and the Wandering Glider (*Pantala flavescens*). The species ratios vary from year to year, and in this and last year there have been some Water Princes (*Hydrobasileus brevistyla*)

in this mix. However, this species is commonly seen in large numbers at the end of the dry season.

Some dragonflies are known to migrate, but this has not been studied in Australia. What I think is happening is that they move north as the inland dries out and gets colder. What we see in the Top End are both the local species and inland specimens congregating and then on some cue fly to islands to our north. What this cue is or how far they fly is unknown.

Photos: Seasonally present dragonflies like Graphic Flutterer (Rhyothemis graphiptera) (left) and Common Glider (Tamea loewi) (below) attract disproportionate media attention at this time of year. Photos Jon Clark, Graham Brown



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Striated Heron using bread as fishing bait

Magen Pettit



Striated Herons are known to use bread as bait for fishing. The bird on left fished using this technique at Lake Alexander in suburban Darwin. There were a number of small bread pieces floating near the waters' edge and the heron would walk over to each one and place them into deeper water. When the bread floated away too far, the heron would pick it up and place it in shallow water.

After nearly an hour of watching this interesting behaviour, Magen sadly reports that the heron hadn't caught any dinner.

Photo by Magen Pettit

Interesting bird sightings

Reporting period: 20 March to 21 April 2012

Compiled by Peter Kyne & Micha Jackson

Sightings are reported (unvetted, unconfirmed) and have been mostly compiled from e-mails sent to the NT Birds forum

(<http://groups.yahoo.com/group/ntbirds>) moderated by Niven McCrie. Bird names follow the IOC world checklist.

Species	Date	Location	Observer/s	Numbers/comments
Waterbirds, Seabirds & Shorebirds				
Freckled Duck	16/4/12	Alice Springs Sewage Ponds	Chris Watson	8
Australian Shelduck	8/4/12	Leanyer Sewage Ponds	Peter Kyne & Chris Sanderson	Still present 21/4
Pink-eared Duck	16/4/12	Leanyer Sewage Ponds	Peter Kyne	2; 3 on 21/4
Black-necked Stork	22/3/12	Stuart Hwy, sth of Adelaide River	Marc Gardner	Nest building on power line tower
Great-billed Heron	25/3/12	Middle Arm, Darwin Hbr	John Rawsthorne & Jon Clark	1; & 8/4 on mudflats on low tide
Chestnut Rail	14/4/12	Buffalo Creek	Luke Paterson	1; & 2 seen by Jon Clark 22/4
Birds Of Prey				
Black-breasted Buzzard	22/3/12	Stuart Hwy, north of Pine Creek	Marc Gardner	1; & 3 Buntine Hwy 3/4
Black Falcon	3/4/12	Buntine Hwy	Marc Gardner	1
Other Non-Passerines				
Red-backed Buttonquail	11/4/12	Near King River	Marc Gardner	2
Little Buttonquail	24/3/12	Santa Teresa Road, Alice Springs	Clive Garland	
Spinifex Pigeon	3/4/12	Buntine Hwy	Marc Gardner	4
Partridge Pigeon	22/3/12	Jabiru	Marc Gardner	3+; and subsequent sightings
Chestnut-quilled Rock Pigeon	11/4/12	East Alligator River region	Luke Paterson	
Bourke's Parrot	24/3/12	Kurnoth Bore	Clive Garland	9
Channel-billed Cuckoo	19/4/12	Gardens Oval, Darwin	Peter Kyne & Micha Jackson	1 flying over
Large-tailed Nightjar	18/4/12	Wagait Beach	Peter Kyne & Micha Jackson	~20 hawking along stretch of road
Pacific Swift (formerly Fork-tailed Swift)	30/3/12	Acacia Hills	Marc Gardner	90+, and many subsequent Darwin area sightings
Little Kingfisher	30/3/12	Tom Turner Creek, Wadeye road	Marc Gardner	1
Passerines				
Rufous-crowned Emu-wren	25/3/12	Santa Teresa Road, Alice Springs	Clive Garland	3+ heard, 2 seen
Dusky Grasswren	24/3/12	Santa Teresa Road, Alice Springs	Clive Garland	2
Black-chinned (Golden-backed) Honeyeater	4/4/12	Kalkaringi	Marc Gardner	1; & 2 Giwining Nature Park 6/4
Banded Honeyeater	6/4/12	Near King River	Marc Gardner	Several, including an active nest
Cinnamon Quail-thrush	24/3/12	Santa Teresa Road, Alice Springs	Clive Garland	
Sandstone Shrikethrush	11/4/12	East Alligator River region	Luke Paterson	
Buff-sided Robin	12/4/12	Yellow Waters	Luke Paterson	With a Brush Cuckoo chick
Barn Swallow	8/4/12	Leanyer Sewage Ponds	Peter Kyne & Chris Sanderson	1 immature
Spinifexbird	24/3/12	Santa Teresa Road, Alice Springs	Clive Garland	
Gouldian Finch	6/4/12	Giwining Nature Park	Marc Gardner	6; & 1 near King River 9/4
~	13/4/12	Edith Falls Road	Luke Paterson	
Pictorella Mannikin	6/4/12	Giwining Nature Park	Marc Gardner	3
Eastern Yellow Wagtail	8/4/12	Leanyer Sewage Ponds	Peter Kyne & Chris Sanderson	1 full breeding plumage



Leanyer Ponds: Access to Leanyer Ponds is generally available after induction through PAWC. Go to <https://www.rapidinduct.com.au/powerwater/waterservices> to commence the induction process. A key to the ponds may be obtained on payment of a \$50 deposit. Only those who have undertaken the induction and signed an indemnity can enter Leanyer Ponds.

Leanyer Sewage Ponds will be **temporarily closed** to birdwatchers from 1 May 2012 until September 2012 due to major works being undertaken by Power and Water. This work will involve significant mobile plant and equipment on-site to remove accumulated sludge in order to enhance the treatment process. Closure of the entire lagoon site to non-Power and Water staff will be required during this time. Power and Water will advise when the ponds will be re-opened to birdwatchers possessing a permit to access the site.

Bryan Baker has keys for the Alice Springs Sewage Ponds, available for collection in Darwin by members before they head south. Bryan can be reached in Darwin on 8948 2196.

Aquatic Biodiversity in Northern Australia: patterns, threats and future

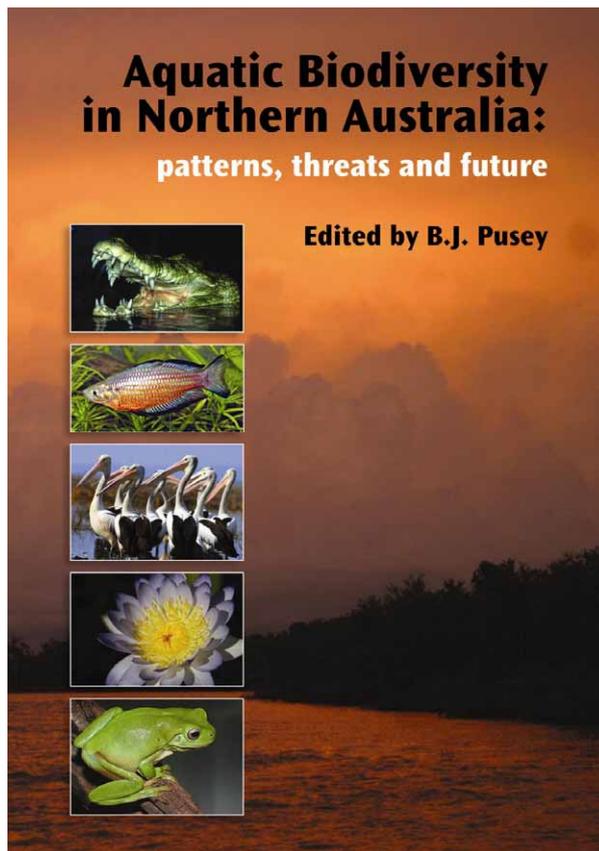
A New Book on Top End Natural History

The aquatic biodiversity of northern Australia is a very rich, highly distinctive and frequently economically important component of the Australian fauna and flora reflecting the distinctive nature of the landscape, soils and climate. More than one million gegalitres of rain falls over northern Australia every year in a dramatic seasonal cycle of short intense humid wet seasons followed by long extended dry seasons that may last for as long as nine months. This vast rainfall creates an equally vast tapestry of aquatic habitats across the landscape. However, the annual water budget of the region (rainfall minus evapotranspiration) is in deficit by more than 1000 mm per year and thus, the aquatic habitats seasonally vary in extent and quality. Vast floodplains dry out and most rivers cease to flow. The region's aquatic biodiversity must deal with this profound seasonal change. Water is a key element in all aspects of human development in northern Australia.

This book provides an entry into the research, both past and present, concerning the aquatic biodiversity of northern Australia and more importantly, will help inform the continuing debate about the future of the region and especially of the distinctive biodiversity of its freshwater ecosystems.

Best of all, this book showcases the work of several NT Field Naturalist Club members, including Erica Garcia and Peter Kyne, with photos by Jon Clark and Micha Jackson. See the Recent Literature section on page 11 for a full listing of chapter contents and authors.

Edited by Brad Pusey



Aquatic Biodiversity in Northern Australia: patterns, threats and future

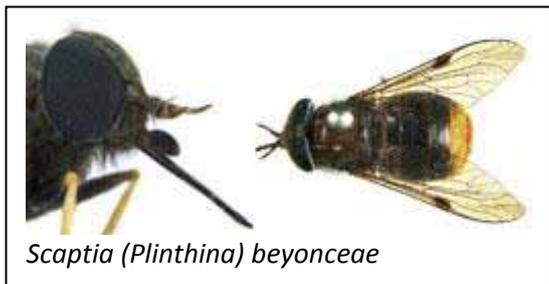
Edited by B.J. Pusey



Bootylicious fly named *Beyoncé*

CSIRO NEWS

A previously un-named species of horse fly whose appearance is dominated by its glamorous golden lower abdomen has been named in honour of American pop diva, Beyoncé.



Five 'new' species of Australian horse fly from the *Scaptia* (*Plinthina*) subgenus have been unveiled by the Australian National Insect Collection (ANIC), effectively doubling the size of the subgenus. Some of the new species have remained 'hidden' in the collection for over 35 years waiting to be described.

When describing the species for the paper, published in the *Australian Journal of Entomology*, the ANIC's Bryan Lessard found that one species particularly stood out, due to the glamorous

golden hairs on its lower abdomen. Bryan named this species *Scaptia (Plinthina) beyonceae*, in honour of Beyoncé, a member of the former group Destiny's Child.

'Although often considered a pest, many species of horse fly are extremely important pollinators of many plants', he said. 'Horse flies act like hummingbirds during the day, drinking nectar from their favourite varieties of grevillea, tea trees and eucalypts.'

The new species were collected from Arnhem Land, Davies Creek, the Atherton Tablelands, the Kimberley and Lamington National Park, extending the known distribution of *Scaptia* to include the Northern Territory and north-western Australia, where they were previously not thought to exist. The *Scaptia (Plinthina) beyonceae* was collected from Mount Haig in Queensland's Atherton Tablelands in 1981, the same year that Beyoncé was born. Horseflies have been described in all biogeographic regions around the world, with almost 4400 species being described to date.

Recent literature about Top End natural history

AQUATIC (FRESHWATER) ECOSYSTEMS

Compiled by Don Franklin

Fish

- Cook BD, Kennard MJ, Real K, Pusey BJ, Hughes JM. 2011. Landscape genetic analysis of the tropical freshwater fish *Mogurnda mogurnda* (Eleotridae) in a monsoonal river basin: importance of hydrographic factors and population history. *Freshwater Biology* 56: 812-827. [Northern Trout Gudgeon, Daly River]
- Davis AM, Pusey BJ, Pearson RG. 2012. Trophic ecology of terapontid fishes (Pisces : Terapontidae): the role of morphology and ontogeny. *Marine and Freshwater Research* 63: 128-141.
- Davis AM, Pusey BJ, Pearson RG. 2012. Contrasting intraspecific dietary shifts in two terapontid assemblages from Australia's wet-dry tropics. *Ecology of Freshwater Fish* 21: 42-56.
- Sommer JA, Brozek CL, Bessert ML, Orti G, Berra TM. 2011. Low genetic diversity in Nurseryfish, *Kurtus gulliveri* (Perciformes: Kurtidae), and an appraisal of its breeding system using microsatellite loci. *The Beagle, Records of the Museums and Art Galleries of the Northern Territory* 27: 179-188.
- Stewart-Koster B, Olden JD, Kennard MJ, Pusey BJ, Boone EL, Douglas M, Jackson S. 2011. Fish response to the temporal hierarchy of the natural flow regime in the Daly River, northern Australia. *Journal of Fish Biology* 79: 1525-1544.
- Walther BD, Dempster T, Letnic M, McCulloch MT. 2011. Movements of diadromous fish in large unregulated tropical rivers inferred from geochemical tracers. *Plos One* 6: e18351. [Barramundi, Daly & Victoria Rivers]

Rivers, floodplains & groundwater

- Crosbie RS, McCallum JL, Harlington GA. 2009. Estimation of groundwater recharge and discharge across northern Australia. In *18th World IMACS Congress and MODSIM09 International Congress on Modelling and Simulation - Interfacing Modelling and Simulation with Mathematical and Computational Sciences*, ed. RS Anderssen, RD Braddock, LTH Newham, pp. 3053-3059.
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