

NATURE TERRITORY

September 2010

Newsletter of the Northern Territory Field Naturalists Club Inc.

PO Box 39565, Winnellie, NT 0821

President:	Tida Nou	8981 6667 (h)
Secretary:	Ian Hance	8945 6691 (h)
Treasurer:	Fiona Douglas	8985 4179 (h)
Membership Officer:	Sherry Prince	8945 7352 (h)
Journal Editors:	<i>details inside newsletter</i>	
Newsletter Editor:	Don Franklin	8948 1293 (h)
Website Editor:	Tissa Ratnayeke	8921 8226 (h)
Committee Member:	Stuart Young	8995 5026 (w)
Committee Member:	Graham Brown	8945 4745 (w/h)
Committee Member:	Peter Holbery	8901 6105 (w)
Committee Member:	Annie Grattidge	8981 1100 (w)

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.



This Golden Tree-snake (*Dendrelaphis punctulata*) was photographed at Berry Springs by Jenny Crowley. Her photo won a Best Wildlife Photo prize, sponsored by the NT Field Naturalists Club, at the Darwin Show.

CONTENTS

Club activities .. p2

Grevillea .. p5

bird observations .. p9

Club notices .. p3

Borneo .. p6-7

AGM .. p9

land management .. p4

Pine Creek .. p8

recent literature .. p10

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

September meeting. Wednesday September 8, 7:45 PM. Blue 1.14 (Business Bldg.), CDU.

Judit Szabo

"Tapaculos, Elaenias and dead dogs – surveying birds in Venezuela"

Tropical Latin America houses an enormous share of the world's biodiversity, yet the region has a marked deficit of trained personnel and funding for planning and prioritising the conservation of its significant species and ecosystems. These pressing resource imbalances must be tackled through the combination of immediate remedies and long-term strategies for effective biodiversity protection, management and capacity building.

The Neotropical Biodiversity Mapping Initiative (NeoMapas) is a model for surveying biodiversity in developing countries that attempts to overcome the above-mentioned difficulties. It simultaneously addresses the problems of costs and time required for large-scale surveys, while strengthening the local capacity necessary to undertake them. I was lucky enough to partake in the first NeoMapas Aves program, surveying birds in Venezuela in March 2010. I will talk about the program and my personal experiences.

Judit Szabo is a research fellow at Charles Darwin University. Her interests are threatened bird conservation, optimal monitoring, bird surveys and ecological modelling. Her current work is to write the Action Plan for Australian Birds 2010, reassessing the status of all Australian bird species and subspecies according to the IUCN criteria and assess the economic and sociological implications of bird conservation in Australia.



The Northern Helmeted Curassow (*Pauxi pauxi*) is Endangered due to habitat loss and hunting. This village mural informs local people: "Northern Helmeted Curassow – in danger of extinction. We look after it or it will disappear forever."

Notice of Annual General Meeting

This meeting will also include the Club's Annual General Meeting. For more details, see page 9.



September field trip. Birdwatching (mainly), Mary River / South Alligator region. Sept. 11-12.

A day (Saturday) or weekend away, with Marc Gardner showing us some birding hot-spots.

Meeting at 9am on Saturday Sept. 11 by the shelter just off the Arnhem Highway at the turn-off to Bird Billabong. Bring water, sun and insect protection, and lunch and snacks for Saturday; also overnight gear if you're staying on.

We'll check for finches, treecreepers and other birds on the way to the Bird Billabong car park and then walk to Bird Billabong. Mary River Billabong, a bit further down the same road may be a lunch spot. We plan to move on to Mary River Park where Buff-sided Robin and just possibly Great-billed Heron may be seen on one of the walks. Mary River Park (www.maryriverpark.com.au, 8978 8877) has camping, accommodation, boat cruises and meals so is a possible location overnight. Other nearby camping/accommodation and/or meal options are the Bark Hut Inn (8978 8988) and Annaburroo Billabong (8978 8971).

On Sunday morning (probably about 7 – 7.15am), we'll visit the nearby Mary River borrow pits to see birds coming in to drink early. Gouldian and other finches, many honeyeaters and various birds of prey are often seen in the area and there are some nice localised plant communities – if they haven't been burnt. We'll then move on (probably via Bark Hut for breakfast) to the South Alligator floodplain, where we'll visit the Mamukala bird hide and Gungarre walk. As this area is in Kakadu National Park, NT residents (and all children under 16) are exempt from the \$25 park use fee and should carry an NT driver's licence or similar photo ID showing their home address. We plan to return to Darwin sometime on Sunday afternoon.

If you want to pool cars, contact Fiona Douglas (fiona.douglas@octa4.net.au, 8985 4179, or at the Club meeting on 8 September), who will try to coordinate this.



October meeting Wednesday 13 October. Emma Francis: *Mangrove snakes*.

November meeting Wednesday 10 November. Azlan: *Mangrove birds*.

Club notices

Welcome to new members: Ross & Helena Trevena; Geoff Car

Thank you: The previous issue was collated and mailed by **Susan Jacups**. It was printed by **Stuart Young** and **Don Franklin** using equipment kindly made available by **Collections, Biodiversity and Biological Parks** from the Department of Natural Resources, Environment, the Arts & Sport, and the **School for Environmental Research** at Charles Darwin University.

Newsletter contributions welcome: Sightings, reports, travelogues, reviews, photographs, sketches, news, comments, opinions, theories , anything relevant to natural history. Please forward material to Don at eucalypt@octa4.net.au or the Club's postal address, or contact him on 8948 1293.

Deadline for the October newsletter: Friday September 24.

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 Don Franklin at CDU Casuarina (Red 1.2.34). These can be accessed directly during working hours, or by ringing Don on 8946 6976 (w) or 8948 1293 (h).

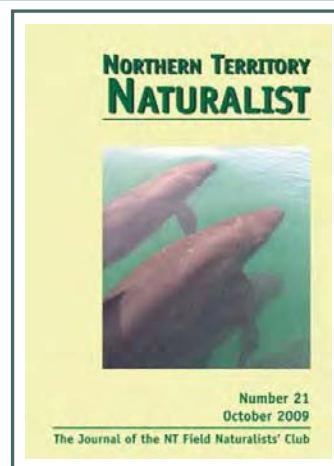
Northern Territory Naturalist

The Editorial Committee is pleased to have received an excellent number and variety of submissions for issue no. 22. Preparations for a bumper issue are well underway and we anticipate publication in about November.

The Editorial Committee of the Club's journal, the *Northern Territory Naturalist*, is now calling for manuscripts for issue no. 23. 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) and is recognised as a Category C publication by the Australian Research Council (http://www.arc.gov.au/era/era_journal_list.htm). 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. Editors of the journal are Dr Lynda Prior, Dr Michael Braby and Dr Chris Tracy.



Sewage Pond Keys – Leanyer NT Field Naturalists have access to this world-famous bird-watching spot. The key can be collected from Graham Brown, (h) 8945 4745. A refundable \$50- deposit is required upon collecting the key, which is available only to members. Conditions imposed by PowerWater Corporation apply; these are not onerous and are made clear at time of picking up the keys.

Top End Native Plant Society activities

September 16 meeting. Garry Cook: *Thorned Acacias and ancient herbivores*.

October 21 meeting. Dave Liddle: *Vegetation of Top End Coastal Islands*.

November 18 meeting. AGM & Ian Morris: *The Channel Country*.

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.

Change to land tenure in the tropical savannas

Major shifts have occurred in land tenure across the north Australian savannas in recent decades. Figures for these changes are provided by Holmes (2010) for the period 1976 to 2006 for each of the three north Australian states and in sum for all three. The area occupied by private pastoral leases declined from 75 to 57% while Aboriginal pastoral leases increased from less than 1% to 6.5%. Aboriginal freehold increased from zero to 21% whilst Aboriginal reserves declined from 14.5% to zero. Conservation lands increased from less than 1% to 8%. Holmes also provides a detailed discussion of the processes involved, noting that the marginal nature of some private pastoral operations renders them vulnerable to competing land uses.



Land clearing and the law

Mark Cowan, Principal Solicitor with the Environmental Defender's Office NT, has written a scathing review of land-clearing laws in the Northern Territory, describing them as "archaic" and a "hodgepodge" (Cowan 2009). He provides two examples. The first is that the clearing of something like 30,000 ha of "tall old eucalypt forest" on the Tiwi Islands for forestry plantations since 2001 occurred without a single permit. The second is that the conservation zones for Darwin Harbour mangroves have been established under Planning legislation with opt-outs on socio-economic grounds without consideration of environmental integrity, opt-outs he claims "are being heavily utilised by private developers of residential canal estates and industrial land (particularly LNG facilities)". (*Ed: consistent with Mark Cowan's statement, the Ludmilla Creek – East Point marina proposal related to a conservation zone but that it was public pressure, not that zoning, that stopped the development [for now].*)



What happens after eradication of an exotic ant?

To eradicate an introduced ant species is rare enough; to identify the recovery trajectory of the area afterwards is even rarer. When a five hectare infestation of the African Big-headed Ant (*Pheidole megacephala*) was discovered at the Dinggirriyet (Brown's Creek) campground on the Daly River in 2005, Aboriginal rangers undertook an eradication program. Ben Hoffman (2010) describes the eradication process and the results of post-treatment surveys of ants (both to check for African Big-headed Ants and native ants) in May 2007 and again in May 2008. No African Big-headed Ants were detected in the follow-up surveys, indicating the success of the program. Whereas there was no change in ant diversity in control survey plots (nearby areas that were never infested), the diversity of native species in those subject to treatment increased over the study period. Furthermore, in 2008 the composition of the native ant community in the treated areas could not be distinguished from those of nearby never-infested areas. A great achievement!



Fire

Anecdotal evidence suggests that, if areas remain unburnt for a while then subsequent fires will be more intense due to the accumulation of fuel. Brett Murphy & Jeremy Russell-Smith (2010) took the argument beyond anecdote using a detailed 10-year fire history and a "semiquantitative fire severity index". The intensity of fires increased with the time since the previous fire up to at least 5 year intervals. The probability of a subsequent fire being severe increased from 3–8% over time if the subsequent fire was early in the dry season, and from 21–43% for late dry-season fires. This negative feedback process presents a difficult challenge in reducing the impact of fire on our vegetation and wildlife.

Problems with frequent fire are not confined to the northern Top End. Russell-Smith *et al.* (2010) analysed 11 years of fire history in the larger (10,300 km²), western block of Gregory (Jutpurra) National Park. Within that block, they also examined fuel loads and seedlings of Lancewood (*Acacia shirleyi*) patches in the far south-west of the block, and fuel loads and the nature of resprouting in shrubs growing interspersed with spinifex (*Triodia* spp.) on sandstone in the east of the block. The annual extent of fire varied greatly, with an average of 29% burnt each year, most of it late in the dry season. Thirty percent of the block experienced a repeat fire in successive years and 80% within three years. Lancewood was the only fire-sensitive tree (of 26 species), being fairly slow growing and regenerating from seed after a fire, but most (58%) of the 105 shrub species were obligate seeders that thus require a fire-free interval to re-establish after a fire. Lancewood patches fared poorly, with reductions in the density of both adults and juveniles along boundaries. In sandstone areas, spinifex fuels accumulated at similar rates to those recorded on the higher-rainfall Arnhemland Plateau. The authors' conclusion is that current fire regimes pose a threat to many seeder species in the Park and thus that "Contemporary fire regimes of Gregory National Park are not ecologically sustainable".

Grevillea in bloom

Photos taken in the Top End by Don Franklin



Left:
Grevillea angulata.

Right:
Grevillea byrnesii.

Below left:
Silver Grevillea,
Grevillea parallela.

Below:
Dryander Oak,
Grevillea dryandri.



Left:
Pink Grevillea,
Grevillea decurrens.

Right: Christmas
Holly Grevillea
Grevillea longicuspis.



A naturalist/photographer in Borneo

Report on Jon Clark's talk to the August meeting

Peter Holbery; photos by Jon Clark

Jon Clark and his wife, Erica, travelled across the Malaysian state of Sabah in north Borneo for two weeks last April. Jon gave a fascinating rundown of what they saw there, accompanied by many excellent photographs.

Borneo is the third largest island in the world. Politically it is divided between three countries - Indonesia (Kalimantan Province), Malaysia (the states of Sabah and Sarawak) and Brunei. The island has 664 species of birds, including 51 endemics. There are also a large number of endemic species of plants in Borneo.

Sepilok, located just outside the city of Sandakan, is one of four Orang Utan (*Pongo pygmaeus*) sanctuaries. The sanctuary aims to promote public awareness of the plight of Orang Utans because only 15,000 are left in the wild. It is 40 square kilometres in area and rehabilitates Orang Utans which have been injured or orphaned by hunters or kept illegally as pets. Sepilok is open to the public twice a day, at feeding times, and is visited by up to 700 people each day. The sanctuary is also home to Macaques (*Macaca* sp.).



Orang Utan.

Abai Lodge is quite isolated, being located on the Kinabatangan River 90 minutes by boat from Sandakan. The lodge takes tourists on morning and evening boat trips to view the wildlife. There are also boardwalks in the rainforest. Animals seen near the Lodge included Orang Utans, Proboscis Monkeys (*Nasalis larvatus*), Silvered Leaf Monkeys (*Presbytis cristata*) and Smooth River Otters (*Lutra (Lutrogale) perspicillata*). Many species of birds may also be seen in the vicinity, including Bornean Blue Flycatchers (*Cyornis superbus*). One impressive sight was a tree that was lit up like a Christmas tree by Fireflies.

Upriver from Abai Lodge is Sukau Lodge. A distinctive feature of this Lodge is a frog pond where it is possible to see Harlequin Tree Frogs (*Rhacophorus pardalis*), a species which is threatened by habitat loss. Birds seen in the area included Buffy Fish Owls (*Ketupa ketupu*), Little Green Pigeons (*Treron olax*) and four kingfishers, the Blue-eared (*Alcedo meninting*), Collared (*Todiramphus chloris*), Stork-billed (*Pelargopsis capensis*) and Common (*Alcedo atthis*). Twelve of the world's 84 kingfisher species occur in Borneo, the Stork-billed being the largest in

Borneo at 35cm in length. Other birds included Storm's Stork (*Ciconia stormi*), a species which is common along the Kinabatangan but generally considered endangered, Pacific Swallow (*Hirundo tahitica*) which are Borneo's only resident swallow species, and Olive-backed Sunbird (*Nectarinia jugularis*) which also occurs in Australia (usually known here as the Yellow-bellied Sunbird).

At Sukau it is possible to travel by boat to see caves where Mossy Nest Swiftlets (*Aerodramus salanganus*) build their nests. It is one of four Bornean Swiftlets that use echo-location to navigate in dark caves. Another species of Swiftlet is the source of nests used in bird's nest soup, Borneo being a major supplier of these nests. Long-tailed Macaques (*Macaca fascicularis*) may be seen in the trees above the river.

Eight of the world's 48 species of hornbill are found in Borneo. Because they feed on about 25 of the 100-odd species of fig found in Borneo, hornbills play an important role in dispersing these trees. Hornbills pair for life and nest in tree hollows. At nesting time the male walls the female into the tree hollow to avoid predators. He also bears responsibility for bringing her food. Jon saw both Oriental Pied (*Anthracoceros albirostris*) and Rhinoceros (*Buceros rhinoceros*) Hornbills on his trip.

Turtle Island is small, white sand island off the north coast. It is possible to walk around the island in about 30 minutes. Denizens of the island include Monitor Lizards (*Varanus* sp.) and various species of terns, as well as Green (*Chelonia mydas*) and Hawksbill Turtles (*Eretmochelys imbricata*). The two species of turtle on the island breed at different times of year and the eggs are taken by the park authorities to be incubated artificially in a protected environment. Like crocodiles, the sex of the hatchlings is dependant on temperature. Green Turtles can live to 80 years and are endangered because of hunting, fishing and real estate development.

It is possible to see wildlife in the city of Sandakan on Borneo's east coast. At the large Buddhist temple there are Wagler's Pit Vipers (*Tropidolaemus wagleri*). They are thought to be attracted by the aroma of burnt incense.

Labuk Bay Proboscis Monkey Sanctuary was created by the owner of the local Oil Palm plantation who decided to leave some land aside for the monkeys. Only about 3,000 Proboscis Monkeys remain in the wild. They are endemic to Borneo. At Labuk, the monkeys are provided with some dietary supplements but are otherwise left to find their own food. The large nose of the Proboscis Monkey is thought to be used to amplify their calls, apparently this is attractive to the female monkeys. Proboscis Monkeys have large bellies which are used to ferment their diet of leaves. Silvered Leaf Monkeys also occur at the Labuk Sanctuary.

Poring Hot Springs has tropical gardens, an orchid conservation centre, butterfly farm, rainforest canopy walk as well as baths built by the Japanese. Nearby are Kupungit and Langanan Waterfalls. Langanan is the highest waterfall in Borneo. It is possible to see Forktails (*Enicurus* spp.), Munias (*Lonchura* spp.), and Greater Racket-tailed Drongos (*Dicrurus paradiseus*). Large Golden Orb Spiders (*Nephila* sp.) live in the area, as do Rhinoceros Beetles (Family Scarabaeidae). The Rhinoceros Beetle is purportedly the strongest land animal, allowing for its size. It can lift 850 times its own weight - equivalent to a human lifting 65 tons. Other denizens at Poring included Crickets (Family Gryllidae), Uraniid Moths (*Lyssa menoetius*), White-eyed Stick Insects (Order: Phasmatodea), Paper Kite Butterflies (*Idea leuconoe*) and Birdwings (*Troides* sp.). *Rafflesia* flowers grow around Poring, These are the world's largest flower, up to 1 metre across.

Mount Kinabalu National Park has more than 4,500 species of plants, greater than the species count for Europe and North America combined. The Park has 100 species of mammals and 326 species of birds, of which 34 species of birds are endemic. Birds in the area include Ochraceous Bulbuls (*Criniger ochraceus*), Indigo Flycatchers (*Eumyias indigo*) and the endemic Bornean Flowerpeckers (*Dicaeum monticolum*). Borneo is the world centre of Flowerpecker distribution.

Mount Kinabalu is 4,095m high and the two day return hike to the summit involves a 2,200m gain in elevation from the starting point at the end of the road. The final leg of the hike to the summit involves a 2:00AM start, in order to see the 5:45AM sunrise from the summit. A race to the summit is held each year, the record time being 2 hours and 40 minutes for the 21km return journey. About 30,000 people



The Paper Kite butterfly, also known as the Rice Paper butterfly.



climb the mountain annually, sometimes as many as 140 per day. Although the temperatures on the mountain can be near freezing, it does not receive snow. The average daily temperature at Laban Rata (located at 3,272m) is from 13 to 20° C.

The mountain has poor soil and this has limited the spread of farming in the area. Vegetation on the mountain varies with altitude. Between 900 and 1,800m there are creepers, ferns, orchids, oaks, laurels and chestnuts. Above this is the rhododendron zone. The rocky summit has patches of shrubs (*Leptospermum* sp.).

At least 650 spp. of orchids, with 50 endemics, occur on Mount Kinabalu. The mountain is also home to 13 spp. of Pitcher Plants (*Nepenthes* spp.), including 5 endemics. Hikers on the mountain are also likely to see Mountain Tree Shrews (*Tupaia montana*) and Jentink's Squirrels (*Sundasciurus jentinki*). These animals take advantage of food scraps left by hikers. A couple of bird species found at higher elevations include the endemic Mountain Blackeye (*Chlorocaris emiliae*) and the widespread Island Thrush (*Turdus poliocephalus*).

The Club would like to thank Jon for his most interesting and informative talk.

Pitcher Plant, Mt Kinabalu.

Pine Creek

Report on the August field trip

Jan Allen

Good company, good food and a few adventures in Pine Creek – plus great bird sightings!! All made for a fantastic weekend on 14 & 15 Aug.

The 5 of us – Fiona Douglas, Jan Allen, Craig Bellamy, Sherry Prince and Peter Holbery– met at renowned Maysie’s Cafe (if it’s good enough for Tommy Lewis, it’s good enough for us!!). Yes, their mango smoothies are memorable!

None of us had been to Umbrawarra Gorge – so Saturday afternoon we enjoyed an easy walk (and swim) in the picturesque, peaceful gorge. Peter’s weekend was made by seeing (many) Common Crow butterflies (plus grass-yellows, Orange Ringlets and a Common Tropical Sharp-tailed Grasshopper). Birds seen included the Great Bowerbird, Rufous Whistler, Rufous-throated / Brown / White-throated / White – gaped and Dusky Honeyeaters, and Mistletoebird.



Peaceful pool: Umbrawarra Gorge. Photo: Sherry Prince.

Back at the car park, our weekend, more particularly, Fiona’s weekend, became complicated when the only other people in the gorge car park failed to restart their Hertz Tarago. After considerable male tinkering, the modern day electrics failed to respond. So, after considerable repacking, we squeezed the marooned French family of 4 plus baggage into our 2 cars and helped them organise a unit at the Playford Hotel, Pine Creek. We had an interesting evening trying to cross the language barrier to discuss the problems with Belgian politics, PAP smears, the lack of Australian fashion, the loss of megafauna in Australia and more. Fiona’s French is impressive!!



Birdwatchers: left to right – Craig Bellamy, Jan Allen, Fiona Douglas. Photo: Sherry Prince.

Dawn on Sunday in open woodland at the southern area of the tailings dam off the Gorge road was an excellent spot. The area was alive with visiting flocks of birds – the attraction? – Peter could hear the grass seed popping in the sun! A mob of Gouldian Finches posed in a dead tree for some time. They were mainly juveniles and black-headed with one red-headed. Other flocks included Diamond Doves, Cockatiels, Friarbirds, Long-tailed and Double-barred Finches. We also saw a small number of Hooded Parrots.

We indulged ourselves back at Maysie’s for a hearty brunch and helped sort out the French again. Next the Pine Creek cemetery – few birds but highly entertaining headstones, for example, “Here lies Shorty, rattling along, 40,000 blowflies can’t be wrong.”

The nearby sewage ponds had peaceful families of Black-winged Stilts, Rajah Shelducks and a couple of Black-fronted Dotterels. Further into the bushland was a tree full of feeding Red-tailed Black Cockatoos and in a disturbed sandbank, a hole with a pair of Striated Pardalotes nesting.

Yet another Pine Creek habitat was Copperfield Dam where we finished off with sightings of Darters, Black Cormorant, a Pheasant Coucal, Grey-crowned Babblers, Partridge Pigeons and the most robust bower I have ever seen.

A final visit to the lookout and dam in Pine Creek, then Fiona’s French saga continued to Darwin (but that’s another story...).



Great bower of the Great Bowerbird. Photo: Craig Bellamy.

Interesting bird sightings

24 July to 20 August 2010

Compiled by Ian Hance

Sightings are as reported (unvetted, unconfirmed) and have been mostly compiled from the e-mail digest of the NT birder website (<http://groups.yahoo.com/group/ntbirds>) moderated by Niven McCrie.

Species	Date	Location	Observer/s	Nos./comments
Seabirds & waders				
Frigatebird sp.	5/08	Lee Point	Bas Henson	1 female
Brown Booby	13/08	Lee Point	Bas Henson	2 to 3 present for some weeks prior
Beach Stone-curlew	15/08	Leanyer Swamp, headwaters	Buffalo Ck Ian Hance	5 or 6, unusual nos.
Common Sandpiper	2/08	Palmerston Sewage Ponds	Sheryl & Arthur Keates	20 – large nos.
Birds of prey				
Grey Goshawk	c. 7/8	Black Jungle Springs, Kakadu	Stuart Young	1, white morph
Spotted Harrier	1/08	South Alligator Floodplain	Marc Gardner	1
Grey Falcon	mid July	Humbles Ck, Gregory Nat. Pk.	Mike & Jenny Ashton	1
~	mid July	Barkly Tableland	Mike & Jenny Ashton	2 near nest
Black Falcon	7/08	Fogg Dam	Sheryl & Arthur Keates	1
Rufous Owl	4/08	Botanic Gardens	John Rawsthorne	1; & on 14th – Niven McCrie
Other non-passerines				
Red-winged Parrot	7/08	Buffalo Creek	Peter Kyne & Barry Davies	c. 200 – large nos.
Channel-billed Cuckoo	29/07	Frogs Hollow, Darwin	Sheryl & Arthur Keates	1
Horsfield's Bronze-Cuckoo	30/07	Harvey St., Darwin	Sheryl & Arthur Keates	1
Passerines				
Rainbow Pitta	c. 9/8	Marlow Lagoon, Palmerston	Friend of Fiona Douglas	1
Grey-headed Honeyeater	15/08	East Point	Niven McCrie	1
Buff-sided Robin	7/08	Margaret River	Mike Jarvis	2 +

Annual General Meeting

This is to be held as part of our September monthly meeting, on Wednesday Sept. 8 at 7:45 PM in room Blue 1.14 (Business Bldg.), Charles Darwin University Casuarina campus. The audited accounts and financial statement will be presented for consideration, and we will elect office bearers and the management committee (form below).

Your editor did promise to include the financial statement in this newsletter, but was rather overwhelmed to see that is 6 pages long. Below is a summary. Members can obtain a full copy of the statement from Fiona Douglas, phone 8985 4179 or email fiona.douglas@octa4.net.au. Copies will also be available at the AGM.

Summary of Profit & Loss Statement and Balance Sheet for NTFNC for the financial year 2009-10

Income	Expenditure	Deficit for year	\$ 208.75
Subscriptions 2,387.50	NT Naturalist 1,472.23		
NT Naturalist sales 431.80	One-off items * 546.60	<u>Assets and liabilities, 30 June 2010</u>	
Interest 116.13	Newsletter 351.55	Assets: money**	\$ 21,305.45
Donations 50.00	Insurance 350.00	Other assets***	\$ 284.00
Total \$ 2,985.43	Other items 473.80	Liabilities	0
	Total \$ 3,194.18	** term deposit, bank account & cash	
		*** books, journals, cabinet	

* Natural History Medallion, brochures, poster re-print

NOMINATION FOR NTFNC COMMITTEE, 2010/11

Name of person being nominated: _____

Position being nominated for (circle):

President Secretary Treasurer Committee Member (up to 7 needed)

Signature of Nominee: _____

Proposer's name: _____ and signature: _____

Seconder's name: _____ and signature: _____

Under our Constitution, written nominations received by our Secretary (Ian Hance) prior to the commencement of the Annual General Meeting (AGM) have precedence. Either: (1) mail nominations to NTFNC, PO Box 39565, Winnellie, NT 0821, (2) hand deliver to Secretary or current committee member, or (3) bring them to the AGM.

A copy of the Club's constitution may be obtained by emailing our Public Officer: fiona.douglas@octa4.net.au.

The NT Associations Act can be found at http://www.austlii.edu.au/au/legis/nt/consol_act/aa153/.

Recent literature about Top End natural history

Back listings and summaries may be viewed at <http://www.cdu.edu.au/ser/profiles/ecologyintepend.htm>.

CONSERVATION, LAND MANAGEMENT, FIRE

Compiled by Don Franklin

Not so technical

Hancock D. 2010. Safe hands. *Australian Geographic* 97:21. [declaration of Indigenous Protected Areas in Arnhemland]

McKaige B. 2009. Traditional fire management in Kakadu wetlands, N.T. *Wetlands Australia* 17: 18-19.

Fire

Atkins S, Winderlich S, eds. 2010. *Kakadu National Park Landscape Symposia Series 2007–2009. Symposium 3: Fire management, 23–24 April 2008, Aurora Kakadu (South Alligator), Kakadu National Park*. Supervising Scientist Internal Report 566: Darwin. 149 pp. Available at <http://www.environment.gov.au/ssd/publications/ir/index.html>.

Gill AM, Williams RJ, Woinarski JCZ. 2009. Fire in Australia's tropical savannas: interactions with biodiversity, global warming and exotic biota. In *Tropical Fire Ecology. Climate Change, Land Use and Ecosystem Dynamics*, ed. M Cochrane, pp. 113-141. Springer-Praxis: New York.

Kanniah KD, Beringer J, Tapper NJ, Long CN. 2010. Aerosols and their influence on radiation partitioning and savanna productivity in northern Australia. *Theoretical and Applied Climatology* 100: 423-438.

Murphy BP, Russell-Smith J. 2010. Fire severity in a northern Australian savanna landscape: the importance of time since previous fire. *International Journal of Wildland Fire* 19: 46-51.

Murphy BP, Russell-Smith J, Watt FA, Cook GD. 2009. Fire management and woody biomass carbon stocks in mesic savannas. In *Culture, ecology and economy of fire management in north Australian savannas: rekindling the Wurrk tradition*, ed. J Russell-Smith, P Whitehead, P Cooke, pp. 361-378. CSIRO Publishing: Collingwood, Vic.

Ristovski ZD, Wardoyo AYP, Morawska L, Jamriska M, Carr S, Johnson G. 2010. Biomass burning influenced particle characteristics in Northern Territory Australia based on airborne measurements. *Atmospheric Research* 96: 103-109.

Russell-Smith J, Murphy BP, Meyer CP, Cook GD, Maier SW, Edwards AC, Schatz J, Brocklehurst P. 2009. Improving estimates of savanna burning emissions for greenhouse accounting in northern Australia: limitations, challenges and applications. In *Culture, ecology and economy of fire management in north Australian savannas: rekindling the Wurrk tradition*, ed. J Russell-Smith, P Whitehead, P Cooke, pp. 329-359. CSIRO Publishing: Collingwood, Vic.

Russell-Smith J, Yates CP, Brock C, Westcott VC. 2010. Fire regimes and interval-sensitive vegetation in semiarid Gregory National Park, northern Australia. *Australian Journal of Botany* 58: 300-317.

Vigilante T, Murphy BP, Bowman DMJS. 2009. Aboriginal fire use in Australian tropical savannas: ecological effects and management lessons. In *Tropical Fire Ecology. Climate Change, Land Use and Ecosystem Dynamics*, ed. M Cochrane, pp. 143-167. Springer-Praxis: New York.

Williams RJ, Barrett D, Cook GD, Gill AM, Hutley L, Liedloff A, Myers B, Woinarski JCZ. 2009. Landscape-scale fire research in northern Australia: delivering multiple benefits in a changing world. In *Culture, ecology and economy of fire management in north Australian savannas: rekindling the Wurrk tradition*, ed. J Russell-Smith, P Whitehead, P Cooke, pp. 181-199. CSIRO Publishing: Collingwood, Vic.

Woinarski JCZ, Russell-Smith J, Andersen AN, Brennan K. 2009. Fire management and biodiversity of the western Arnhem Land Plateau. In *Culture, ecology and economy of fire management in north Australian savannas: rekindling the Wurrk tradition*, ed. J Russell-Smith, P Whitehead, P Cooke, pp. 201-227. CSIRO Publishing: Collingwood, Vic.

Land management

Chessman BC, Townsend SA. 2010. Differing effects of catchment land use on water chemistry explain contrasting behaviour of a diatom index in tropical northern and temperate southern Australia. *Ecological Indicators* 10: 620-626.

Cook GD, Williams RJ, Stokes CJ, Hutley LB, Ash AJ, Richards AE. 2010. Managing sources and sinks of greenhouse gases in Australia's rangelands and tropical savannas. *Rangeland Ecology & Management* 63: 137-146.

Cowan M. 2009. Native vegetation management in the Northern Territory: preserving one of the last remaining expanses of natural areas on Earth. *Impact: A national journal of environmental law* 88: 11-15.

Hoffmann BD. 2010. Ecological restoration following the local eradication of an invasive ant in northern Australia. *Biological Invasions* 12: 959-969.

Holmes J. 2010. The multifunctional transition in Australia's tropical savannas: the emergence of consumption, protection and Indigenous values. *Geographical Research* 48: 265-280.

Northern Australia Land and Water Taskforce, ed. 2009. *Northern Australia Land and Water Science Review 2009 Chapter Summaries*. Department of Infrastructure, Transport, Regional Development and Local Government: Canberra. 65 pp. http://www.nalwt.gov.au/files/337388_NLAW_Review_2009.pdf.

Winderlich S, ed. 2010. *Kakadu National Park Landscape Symposia Series 2007–2009. Symposium 4: Climate change. 6-7 August 2008, Gagudju Crocodile Holiday Inn, Kakadu National Park*. Supervising Scientist Internal Report 567: Darwin. 120 pp. <http://www.environment.gov.au/ssd/publications/ir/index.html>.

Miscellaneous

Bowman DMJS. 2009. Time's up for Australia's last frontier. In *Prepare for impact! When people and environment collide in the tropics*, ed. N Stacey, G Boggs, B Campbell, W Steffen, pp. 109-115. Charles Darwin University Press: Darwin.

Garnett S, Woinarski JCZ, Crowley GM, Kutt AS. 2010. Biodiversity conservation in Australian tropical rangelands. In *Wild Rangelands: Conserving Wildlife While Maintaining Livestock in Semi-Arid Ecosystems*, ed. JT du Toit, R Kock, JC Deutsch, pp. 191-234. Wiley-Blackwell: Oxford.

Northern Australia Land and Water Taskforce. 2009. *Sustainable development in northern Australia, a report to Government from the Northern Australia Land and Water Taskforce*. Department of Infrastructure, Transport, Regional Development and Local Government: Canberra. 38 pp. Available at http://www.nalwt.gov.au/files/337281_NLAW.pdf.