NATURE TERRITORY

March 2008

Newsletter of the Northern Territory Field Naturalists Club Inc.
PO Box 39565, Winnellie, NT 0821

Meetings are *generally* held on the second Wednesday of every month, commencing at 7:45 PM, on the Casuarina Campus of Charles Darwin University. Our room booking is currently in flux but it looks like room 22.03 will be our regular new home – see notices on page 2.

Subscriptions are on a financial-year basis and are: Families/Institutional - $30; Singles - $25; Concessions - $15. Part-year discounts are available for new members from January 1 each year.

The north-west Australian form of the Cicadabird is uncommon, and as author and photographer Ashley Carlson states (p4), it is "more often heard than seen". As a consequence, breeding records such as the brooding female shown above, are scarce.

This form is a candidate for elevation to full species status, but this awaits a thorough study of the evidence. However, in a hot-off-the-press review and updated checklist of Australian birds, many other Top End birds have had name changes (p6).

Club activities

March meeting. Wednesday March 12, 7:45 PM. **Room 22.03**, CDU. *****Note venue******
We aim to update our web-site with directions to this room before the meeting.

Emma Woodward

"Community values of the Howard River"

The Howard River catchment and adjacent areas are a frontline for rural development in the Top End, particularly for rural residential and mango horticulture purposes. Inevitably, pressures and land-use conflicts are arising, most particularly over the use of ground-water for local domestic and horticultural purposes and to supplement Darwin's water supply. The Northern Territory Government is undertaking a major review of the issues and values at stake, and has contracted CSIRO to undertake an assessment of community values in the region. This is your chance to have a say – and the opportunity for bird-watchers and other field naturalists to emphasize the value and sensitivity of the catchment's environment.

Emma Woodward is a CSIRO project officer working on the assessment. She is here both to inform us about the process and the history of the region, and to listen to points-of-view.

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March field trip. *there is no field trip scheduled for March.*

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April 2008 meeting. Wednesday April 9. Carol Palmer: *Coastal dolphin research in the NT.*

May 2008 meeting. Note non-standard date and location: Friday May 16 at Mary River Park.
This will be a combined evening meeting with the Australian Naturalists Network. There will be four speakers:

- Bob Wasson: *Geomorphic development of the Alligator Rivers floodplain.*
- Stephen Garnett: *Climate change and tropical birds.*
- Peter Jacklyn: *Termites*.
- Don Franklin: *Life history of bamboo*.

Top End Native Plant Society activities

March 15-16. Plant sale at Open Garden event: Dale Dixon's place, 12 Triller Court, Bakewell.

March 20. General meeting. Speaker: Kristin Metcalfe: *Mangrove floristics and recovery from disturbance.*

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

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There remains much debate about relationships between populations of the Pied Oystercatcher. In the recently-released updated checklist of Australian birds (p6), Australian birds have been distinguished from those in New Zealand and elsewhere. This doesn't involve a change in scientific name for the Australian form, but the common name becomes "Australian Pied Oystercatcher" This photo was taken locally by Trevor Collins.

Club notices

Welcome to new members: Raymond Taylor; Karen Saunders; Ian Hance

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Thank you

The previous issue was proof-read, collated and mailed by Fiona Douglas. It was printed by Gay Crowley and Don Franklin using equipment kindly made available by the Biodiversity Unit, Department of Natural Resources, Environment and the Arts, Berrimah and the School for Environmental Research at Charles Darwin University.

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Newsletter contributions welcome

Sightings, reports, travelogues, reviews, photographs, sketches, news, comments, opinions, theories ..... , anything relevant to natural history. Please forward material to *don.franklin@cdu.edu.au* or the Club's postal address, or contact the editor on 8948 1293.

Deadline for the April newsletter: Thursday March 20 (the following day being Good Friday).

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Club library

Addition to Club library (retrieved from the Committee archives during a clean-up):
McKean JL. 1986. *Holmes Jungle and Northern Swamp - avifaunal records*. Unpublished photocopies of original typescript, and scanned copy on CD. 20 pages.
An annotated list of species observed from January 1974 to May 1986.

The Club's journal, magazine and reference collection is available to members. Lists of books, reports, CDs and journals held can be found on our web-site: http://www.geocities.com/ntfieldnaturalists. 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 4–6PM on Tuesday, or indirectly by phoning Lyn at work on 8985 3250.

Journals: in the office of Don Franklin at CDU Casuarina (room 31.2.34). These can be accessed directly during working hours, or by ringing Don on 8946 6976 (w) or 8948 1293 (h).

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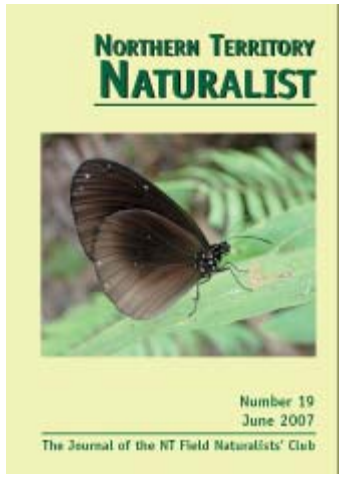
Northern Territory Naturalist



The Editorial Committee of the *Northern Territory Naturalist* is now calling for manuscripts for issue no. 20. Manuscripts may relate to any aspect of natural history or ecology relevant to the Northern Territory, and may include reviews, papers, research reports, species profiles and thesis abstracts.

Northern Territory Naturalist is a registered, peer-reviewed journal (ISSN 0155-4093). Author instructions may be downloaded from http://www.geocities.com/ntfieldnaturalists/journal.htm. If possible, manuscripts should be submitted in digital form by emailing to *lynda.prior@cdu.edu.au*. Editors of the journal are Dr Lynda Prior, Stephen Reynolds and Dr Michael Braby.

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Sewage Pond Keys - Leanyer and Alice Springs

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 $50.00 deposit is required at time of collecting the key, which is available only to members. Conditions imposed by PowerWater Corporation apply to all visitors to the ponds. These are not onerous and are made clear at time of picking up the keys.

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

Cicadabird breeding event at Girraween Lagoon

Text and photos by Ashley Carlson

It was during a quarterly bird and butterfly survey around Girraween Lagoon on the 18 December 2007 that Darryel Binns and Sheryl Keates heard the distinctive call of a Cicadabird (*Coracina tenuirostris*). More often heard than seen, further investigation located the male, which flew into an Ironwood Tree (*Erythrophleum chlorostachys*) where the bird was perceived to be in the process of nest building. This was confirmed on the December 23 when Arthur & Sheryl Keates returned to the site and located the female, silhouetted through the foliage, sitting in the position of the nest.

The female Cicadabird.

Ranging as far south as Victoria's Gippsland coastline during summer, Cicadabirds can be observed all the way up the east coast to Cape York and across the northern parts to the Prince Regent River area in Western Australia. Although poorly understood, birds in the southern and central parts migrate to northern Australia or New Guinea for the winter.

Typical of the *Coracina* species, the nest structure consisted of fine rootlets, twigs and bark strips bound heavily with cobweb to form a shallow saucer in the horizontal fork of a partially exposed branch. Positioned approximately 10 metres above the ground and decorated with lichen, the nest was basically invisible from below without the female present.

Late on 1 January 2008, following an outing to Kakadu in search of Leichhardts Grasshopper (*Petassida ephippigera*) of which we located a single specimen, Arthur, Sheryl and myself called by the site where we observed the female on the nest and the male perched on an exposed branch within close proximity (50 metres) of the nest. The male was observed in this location on several visits and it appeared to form a sentry post.

Being 250 mm in length and dark bluish-grey in colour, the male is unmistakable. The female however could be easily confused with either of the two shorter triller species, especially Varied (*Lalage leucomela*), being brownish above and barred below. Two sub-species are sometimes recognised within Australia, *tenuirostris* up the east coast to southern Cape York and *melvillensis* across the northern parts, with only slight plumage variation between the two. Vocalisations do however vary considerably between the eastern birds with a harsh, grating, insect-like buzzing (cicada-like) at 4 to 5 notes per second and the northern birds with their slower ringing *cree-cree-cree* at 1 to 2 notes/s.

Male (left) and female (right) tending to the nestling.

Cyclone Helen traversed the Northern Territory approximately 100 km south of Darwin late on January 4. Numerous trees within the Darwin area were downed. Girraween Lagoon is located approximately 30 km ESE of Darwin surrounded by various forest types, including *Melaleuca* and eucalypt species, with a sparse shrubby understorey.

continued next page

I returned to the site on January 12, and was relieved to see the female still silhouetted through the foliage and no visible signs of damage throughout the area. This was also the day I witnessed the feeding of a single chick less than three days old.

One week later, during the morning of January 19, I spent a period photographing and observing the brooding by the female and feeding by the pair from an adjacent Ironwood Tree. The female would alight from the nest prior to the male arriving to feed the juvenile. Approach to the nest by both parents was always cautious, taking several minutes. Birds arrived in the canopy of the tree, which is approximately 14 metres high, and staged the descent over several minutes to the lead limb slightly below the nest. Following every second or third meal, the female would remove and swallow a faecal sac prior to continued brooding or departing for another feeding foray.

Found in a variety of habitats throughout their range up to 1000 metres above sea level, they predominately forage within the upper canopy for arthropods and occasionally fruits and seeds. Prey is obtained by either gleaning from branches and twigs or hovering over leaves.

Having witnessed this special event to date, I was saddened to read an email posting by Arthur and Sheryl on January 20, that the Cicadabird nest had been destroyed and the adult birds were not located during the visit. Still requiring further information to complete details on a Birds Australia nest record form, I returned to the site late on January 23 and felt absolute joy to again view the silhouette of the female sitting on the nest.

On both January 26 and 28 I again spent time photographing and observing the routine of feeding and also witnessed aggression by the male towards a Varied Triller, consisting of a direct flight at the intruder, accompanied by a grating buzz. Aggression was also observed by Arthur and Sheryl on December 23 towards another Campephagidae species being a White-bellied Cuckooshrike (*Coracina papuensis*).

The nestling almost ready to fledge.

By February 2 the chick showed considerably more activity about the nest, which had considerable sagging between the forks, with wing stretching and standing on the nest edge. Due to the brownish-grey scalloped upper and streaked chest, the chick camouflaged beautifully with the rough bark of the Ironwood Tree. I knew my time with this family was drawing to a close which was confirmed on the evening of February 03, when I returned to find an empty nest. Following a 30 minute search of the immediate area and with no adults sighted, I resigned myself to the fact the chick had fledged for good.

Eds. comment: The first breeding record of the Cicadabird in the Northern Territory was reported in the *Northern Territory Naturalist* in 1997: Noske RA, Barnes TA, Barnes V. 1997. First breeding record of the Cicadabird in the Northern Territory. *Northern Territory Naturalist* 15: 43-44.

Interesting bird sightings 25 January to 23 Febuary 2008 *Compiled by Sheryl Keates*

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
Lesser Frigatebird	10/2/08	East Point	B Michael	3
Black Bittern	19/2/08	Berrimah	D Binns	in drain beside road
White-bellied Sea-Eagle	c. Feb. 08	Florina Road, Katherine	A Bell	1 feeding on carrion
Purple Swamphen	Feb. 08	Florina Road, Katherine	A Bell	"large numbers"
Australian Bustard	1/2/08	Bowerbird Ck., Kakadu Hwy	Zig Madycki	two on road verges
Little Ringed Plover	10/2/08	Leanyer Sewage Pongs	D Binns	1
Lesser Sand Plover	10/2/08	Leanyer Sewage Pongs	D Binns	1
Northern Rosella	Jan. 08	Mary R. Ranger Stn, Kakadu	Zig Madycki	2 feeding on Green Plum fruits
Rufous Owl	9&23/2/08	George Brown Botanic Gdns	A Carlson	2
Australasian Figbird	18/2/08 &c.	Berrimah	T Hertog	albino
Yellow Wagtail sp.	10/2/08	Leanyer Sewage Pongs	B Michael	c. 20

Changes to the names of Top End birds

For over a decade, the official names of Australian birds have been those in Christidis & Boles (1994). But much taxonomic water has gone under the proverbial bridge since then, warranting many changes. These changes have now been officially implemented with the recent release of Christidis & Boles (2008), who also provide an explanation and relevant references for each change.

Below is a summary of the main changes relevant to Top End birds. Several are of particular interest. Local populations of the Rufous Fantail are now known as the **Arafura Fantail** *Rhipidura dryas* and are readily distinguished from the brighter birds that occur in eastern Australia and elsewhere. The Arafura Fantail is known from north-western Australia, the Lesser Sundas and southern PNG. Somewhat analagously, local populations of the White-browed Robin are now known as the **Buff-sided Robin** *Poecilodryas cerviniventris* and are readily distinguishable from rainforest populations in eastern Australia.

The Yellow Wagtail is a more complex case. Studies overseas of this rare migrant to Australia, for which the Leanyer Sewage Ponds is a major site, have shown that the "species" is in fact a complex of species, but how many and what their definitive features are remains to be fully resolved. Most Australian records appear to be of the **Eastern Yellow Wagtail** *Motacilla tschutschensis*, but this requires confirmation.

Another change of interest is that Kimberley and Top End populations of the White-lined Honeyeater have been shown to be distinct (Norman *et al.* 2007; see *Recent literature*, page 9). The distinction has been recognised in the new checklist but doesn't affect the naming of Top End populations – the WA population is now known as the **Kimberley Honeyeater** *Meliphaga fordiana*.

Common name only changed

Nankeen Night Heron > Nankeen Night-Heron
Pied Oystercatcher > Australian Pied Oystercatcher
Singing Bushlark > Horsfield's Bushlark
Richard's Pipit > Australasian Pipit

Common and scientific name changed

Darter *Anhinga melanogaster* >	Australasian Darter *Anhinga novaehollandiae*
Great Egret *Ardea alba* >	Eastern Great Egret *Ardea modesta*
Osprey *Pandion haliaetus* >	Eastern Osprey *Pandion cristatus*
Painted Snipe *Rostratula benghalensis* >	Australian Painted Snipe *Rostratula australis*
Common Koel *Eudynamys scolopacea* >	Eastern Koel *Eudynamys orientalis*
Barn Owl *Tyto alba* >	Eastern Barn Owl *Tyto javanica*
Figbird *Sphecotheres viridis* >	Australasian Figbird *Sphecotheres vielloti*
Rufous Fantail *Rhipidura rufifrons* >	Arafura Fantail *Rhipidura dryas*
White-browed Robin *Poecilodryas superciliosa* >	Buff-sided Robin *Poecilodryas cerviniventris*
Clamorous Reed-Warbler *Acrocephalus stentoreus* >	Australian Reed-Warbler *Acrocephalus australis*
Yellow Wagtail *Motacilla flava* >	?Eastern Yellow Wagtail *Motacilla tschutschensis*

Scientific name only changed

King Quail *Coturnix chinensis* > *Excalfactoria chinensis*, **Little Pied Cormorant** *Phalacrocorax melanoleucos* > *Microcarbo melanoleucos*, **Striated Heron** *Butorides striatus* > *Butorides striata*, **White-browed Crake** *Porzana cinerea* > *Amaurornis cinerea*, **Grey-tailed Tattler** *Heteroscelus brevipes* > *Tringa brevipes*, **Red-backed Button-quail** *Turnix maculosa* to *Turnix maculosus*, **Chestnut-backed Button-quail** *Turnix castanota* > *Turnix castanotus*, **Bridled Tern** *Sterna anaethetus* > *Onychoprion anaethetus*, **Sooty Tern** *Sterna fuscata* > *Onychoprion fuscata*, **Little Tern** *Sterna albifrons* > *Sternula albifrons*, **Gull-billed Tern** *Sterna nilotica* > *Gelochelidon nilotica*, **Caspian Tern** *Sterna caspia* > *Hydroprogne caspia*, **Whiskered Tern** *Chlidonias hybridus* > *Chlidonias hybrida*, **Lesser Crested Tern** *Sterna bengalensis* > *Thalasseus bengalensis*, **Crested Tern** *Sterna bergii* > *Thalasseus bergii*, **Silver Gull** *Larus novaehollandiae* > *Croicocephalus novaehollandiae*, **Black-headed Gull** *Larus ridibundus* > *Croicocephalus ridibundus*, **Galah** *Cacatua roseicapilla* > *Eolophus roseicapillus*, **Horsefield's Bronze-Cuckoo** *Chrysococcyx basalis* > *Chalcites basalis*, **Black-eared Cuckoo** *Chrysococcyx osculans* > *Chalcites osculans*, **Little Bronze-Cuckoo** *Chrysococcyx minutillus* > *Chalcites minutillus*, **Pallid Cuckoo** *Cuculus pallidus* > *Cacomantis pallidus*, **Oriental Cuckoo** *Cuculus saturatus* > *Cuculus optatus*, **Azure Kingfisher** *Alcedo azurea* > *Ceyx azureus*, **Little Kingfisher** *Alcedo pusilla* > *Ceyx pusilla*, **Red-backed Kingfisher** *Todiramphus pyrrhopygia* > *Todiramphus pyrrhopygius*, **Great Bowerbird** *Chlamydera nuchalis* > *Ptilonorhynchus nuchalis*, **Green-backed Gerygone** *Gerygone chloronotus* > *Gerygone chloronota*, **White-throated Gerygone** *Gerygone olivacea* > *Gerygone albogularis*, **Black Honeyeater** *Certhionyx niger* > *Sugomel niger*, **Banded Honeyeater** *Certhionyx pectoralis* > *Cissomela pectoralis*, **Australian Magpie** *Gymnorhina tibicen* > *Cracticus tibicen*, **Grey Fantail** *Rhipidura fuliginosa* > *Rhipidura albiscapa*, **Mangrove Robin** *Eopsaltria pulverulenta* > *Peneonanthe pulverulenta*, **Fairy Martin** *Hirundo ariel* > *Petrochelidon ariel*, **Tree Martin** *Hirundo nigricans* > *Petrochelidon nigricans*, **Red-rumped Swallow** *Hirundo daurica* > *Cecropis daurica*.

References

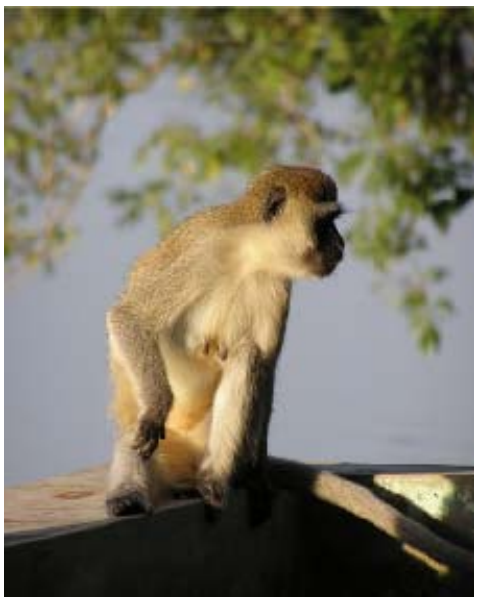
Christidis L, Boles WE. 1994. *The Taxonomy and Species of Birds of Australia and its Territories*. Royal Australasian Ornithologists Union: Hawthorn East. 112 pp.

Christidis L, Boles WE. 2008. *Systematics and taxonomy of Australian birds*. CSIRO Publishing: Collingwood. 277 pp.

Logging, native herbs, and elephants in Uganda

Reporting back on the talk at the February Club meeting ***Louise Harrison***

Photos by Mike Lawes



One of many primate species at Kibale: a Chimpanzee.

Michael Lawes started his talk on his research on vegetation dynamics in a Ugandan forest with a quick tour around the small east African country. He introduced us to some of the major landscapes and national parks, and in doing so gave us a glimpse of his passion for the country.

Mike's study sites were located in Kibale National Park (795 km^2), which is located in western Uganda at the foothills of the Ruwenzori Mountains. The Park is dominated by forest mixed with swamp and grassland, and has a history of selective logging prior to its declaration. Soils are fertile and the forest is surrounded by a burgeoning population, who see the forest as a source of income. Kibale National Park is probably best known because it home to numerous species of primates including the Red Colobus, Black-and-white Colobus, Red-tailed Monkeys and Chimpanzees, and it has consequently attracted a long history of research by government and non-government organisations.

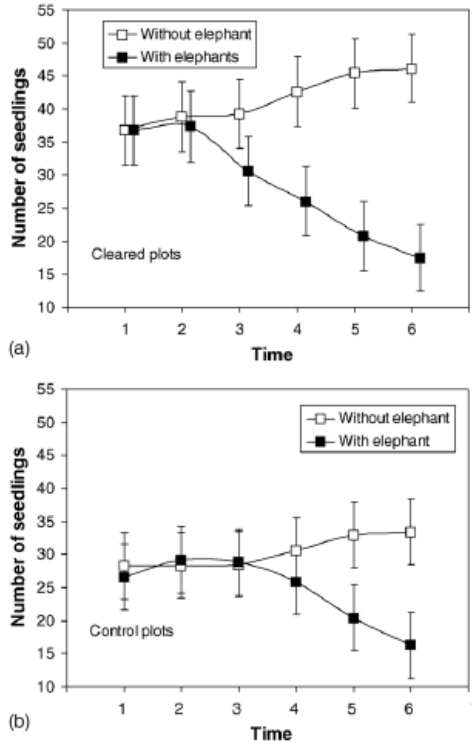
Mike's research was conducted between 2001 and 2004 in an area of forest that had been selectively logged in the late 1960s. The aim was to investigate the impact of abundant growth of the native herb *Acanthus pubescens* on regenerating woody tree species and thus forest recovery after logging. *Acanthus pubescens* is a common tropical plant generally associated with swampy forest environments. It grows abundantly in open disturbed areas and was believed to be smothering regenerating tree seedlings.

Undisturbed forest (left) and logged forest regrowth (right), Kibale National Park, Uganda.

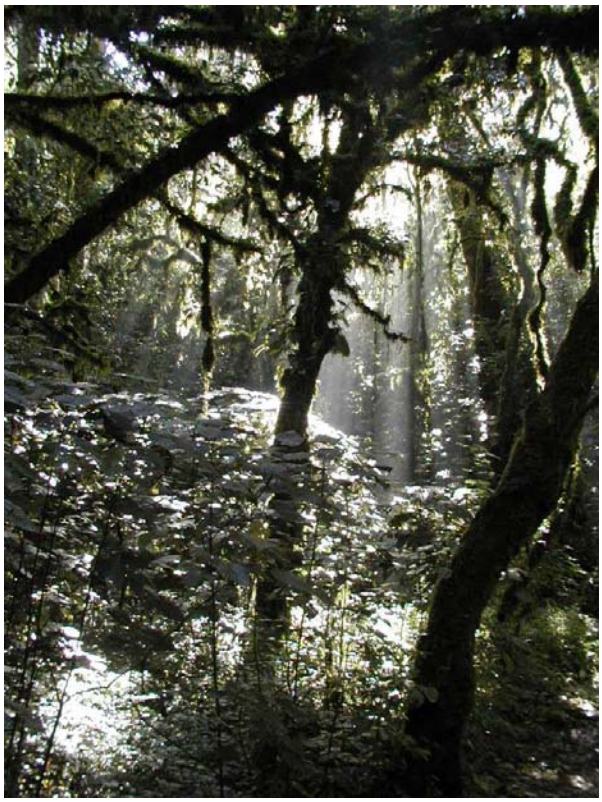
Contrary to what was expected, the native herb was not found to be significantly impacting on the number of regenerating seedlings or species in sites over time and so the research team was forced to look for other reasons why regeneration might be low in logged areas. It soon became apparent to them that there was often elephant damage in cleared plots, so they recorded all signs of elephant damage, did some modelling of the data, and found that elephant damage in logged sites was restricting tree regeneration. The elephants favoured *Acanthus pubescens* as a food source, were commonly feeding in disturbed areas, and accounted for reduced tree seedlings in logged sites over time. The native herb was hence indirectly affecting regeneration in logged sites.

Which is the real culprit behind the failure of logged forest to regenerate: the tall perennial herb Acanthus pubescens *(left) or elephants (above)? Answer: neither without the other is likely to prevent regeneration.*

In concluding the talk, Mike drew parallels from his research in Africa to some of the natural resource management issues we face here in the Territory, especially the impact of disturbance by feral animals on ecosystem resilience. Michael has recently arrived in Darwin from South Africa to take up the position of theme leader, Wildlife & Landscape Science, with the School for Environmental Research at CDU. We would like to thank him for a fascinating presentation.



In both the plots cleared of Acanthus pubescens *and control plots in which the herb remained, the number of seedlings declined over time where elephants had been (left). Elephants were attracted to the herb (which was still nearby the cleared plots), incidentally destroying the forest tree seedlings. Graph from Lawes & Chapman (2006).*



Home of the Mountain Gorilla: Bwindi Impenetrable Forest, Uganda.

Reference
Lawes MJ, Chapman CA. 2006. Does the herb *Acanthus pubescens* and/or elephants suppress tree regeneration in disturbed Afrotropical forest? *Forest Ecology and Management* 221: 278-284.

Recent literature about Top End natural history

BIRDS

Compiled by Don Franklin

Not so technical

Northey A. 2007. Helping the Purple-crowned Fairy-wren in the Victoria River District. *The Web* Summer 2007: 9.

Patterson P. 2007. Shady Camp. A paradise for birds. *The Bird Observer* 849: 14-15. [includes records of Yellow Chats]

Pierce F. 2007. Finding the northern subspecies of the Crested Shrike-tit. *The Bird Observer* 851: 18-19.

Ramsay B. 2007. Bird notes series 180. *The Bird Observer* 848: 26-31. [includes 3 photos of Javan Pond-heron, taken in Darwin by Ashley Carlson]

Willis M. 2006. Gouldians at Gregory. *The Bird Observer* 844: 8-9.

Various topics

Eguchi K, Yamaguchi N, Ueda K, Nagata H, Takagi M, Noske R. 2007. Social structure and helping behaviour of the Grey-crowned Babbler *Pomatostomus temporalis*. *Journal of Ornithology* 148: S203-S210. [Coomalie]

Franklin DC. 2007. Sulphur-crested Cockatoo *Cacatua galerita* feeds on nectar. *Northern Territory Naturalist* 19: 46-47.

Gillis M, Noske RA. 2007. Orange-footed Scrubfowl in Darwin - horticultural pest or partner? *Northern Territory Naturalist* 19: 76-80.

Gregory P. 2007. Second mainland Australian record of the Oriental Honey-Buzzard *Pernis ptilorhyncus*. *Australian Field Ornithology* 24: 90-92. [Gunlom, Kakadu National Park; includes photos]

Healey C, Healey E. 2007. Diet and roost-site fidelity in the Common Koel *Eudynamys scolopacea* in suburban Darwin. *Australian Field Ornithology* 24: 184-186.

Maurer G. 2007. Love is in the air: arboreal copulations in the Pheasant Coucal *Centropus phasianinus*. *Northern Territory Naturalist* 19: 48-50.

Norman JA, Rheindt FE, Rowe DL, Christidis L. 2007. Speciation dynamics in the Australo-Papuan Meliphaga honeyeaters. *Molecular Phylogenetics and Evolution* 42: 80-91. [split of White-lined Honeyeaters]

Noske RA. 2007. Nesting biology of Striated Herons *Butorides striatus* in Darwin, Northern Territory. *Northern Territory Naturalist* 19: 69-75.

Palmer C, Brennan K, Morrison S. 2007. Short-term effects of a Category 5 cyclone on terrestrial bird populations on Marchinbar Island, Northern Territory. *Northern Territory Naturalist* 19: 15-24.

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Cooperative breeding in Grey-crowned Babblers

Cooperative breeding, in which more than a pair of birds contribute to raising young, is a common feature of the Australian avifauna but has received little attention in the north. Well-known Australian cooperative breeders include fairy-wrens, Varied Sittellas, some treecreepers, Apostlebirds, White-winged Choughs .... and babblers. Eguchi *et al.* (2007) report details of cooperative breeding in Grey-crowned Babblers from a 4-year study at Coomalie Farm near Batchelor. With a little editing and paraphrasing, the following is lifted directly from the paper's abstract:

Most groups comprised a single socially monogamous pair with up to seven helpers. The sexes occurred in close to identical numbers. Helpers included stay-at-home previous offspring, immigrating juveniles and immigrating sexually mature birds. Adults of both sexes moved frequently between groups. Pairs without helpers were unable to raise young to fledging and often divorced, suggesting that cooperative breeding was obligatory in this population. However, for groups with helpers, the group size effect was weak; there was no significant correlation between the number of fledglings and number of helpers. Breeding females exclusively contributed to incubation. Breeders contributed more to provisioning of nestlings than non-breeders. Although helpers did not enhance the total provisioning rate to nestlings, small groups should recruit helpers to maintain the group and enhance reproductive success.

Usually in groups ...Grey-crowned Babblers. Photo: Trevor Collins