

Gang-gang

March 2004

News letter of the Canberra Ornithologists Group Inc.

COG March Meeting

8 pm

Wednesday

10 March 2004

Canberra Girls Grammar School cnr
Gawler Cres and Melbourne Ave,
Deakin.

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Little Eagle (*Hieraaetus morphnoids*)
Photo courtesy Geoffrey Dabb



Where to watch birds on a hot summer morning

Just north of the O'Connor shops is a little surprise. The O'Connor urban wetland was constructed by the Sullivans Creek Catchment Group. It's a tiny dam with well planted reed beds and a backdrop of mature native trees. There is good paths and ample seating. Early in the day only a few **Australian Wood Ducks** decorate the fallen tree in the pond centre. There is still room for a **White-faced Heron** and small flocks of noisy **Galahs**. A couple of **Australasian Grebes** shepherd their brood to the far side of the pond where a **Dusky Moorhen** guards her remaining youngster. The **Pacific Black Ducks** have been very successful and their brood of five or six will soon gather near your feet, competent freeloaders on the system even before they have lost all their baby down. **Sulphur-crested Cockatoos** and **Red Wattlebirds** will serenade from the eucalypts while **Welcome Swallows** snatch breakfast from the clouds of midges rising from the reed beds. The coffee at the local cafe isn't bad either.

Tom Green

MYSTERY PHOTO: "This photograph was taken on the beach during the February camp-out at Croajilong National Park. But why is it NOT a photograph of a Hooded Plover? Answer page 6"



Field Trip Reports

Jerrabomberra Wetland Walk
8 February 2004

Twenty people participated in COGs outing at Kelly Swamp to mark World Wetlands Week. We were able to split into two groups with Sue Lashko leading the second one. As is usual with large groups not everyone saw all the species present but a good range of water and dry land birds were sighted. All the ducks that we could have hoped for were there except the Freckled Duck.

Kelly swamp was notable for its hyperactive **Royal Spoonbills** and a family of **Australian Shelducks**. An **Australian Hobby** flashed by on several occasions. Over the road we explored the Fyshwick sewerage ponds 4 and 6. **Hardhead**, male **Blue-billed Ducks**, and a few laggard **Pink-eared Ducks** were noted. Several **Little Grassbirds** were seen among the reeds. The lone **Australasian Grebe** tried hard to hide among the flocks of **Hoary-headed Grebes**.

Tom Green

COG Campout at Croajingolong National Park

13 – 16 February 2004

COG's first ever campout on Victoria's coast coincided with heatwave conditions. Despite this, twenty five intrepid Coggies found their way to remote Thurra River campground carrying or towing a wide variety of temporary accommodation. Sea

Letters to the editor

Please send letters, snippets etcetera intended for this column to the editor. Contact details are on page 16 of this gang-gang. As with all sections of the *Gang-gang*, space allocated to this section each month will be limited. Therefore entries are more likely to be published if they are kept to a minimum length.

breezes ameliorated somewhat the exceptional inland temperatures, but the birds were elusive.

The camp area and environs produced **Superb Lyrebird, Tawny Frogmouth, Australian Owlet-nightjar, Bassian Thrush, Pilotbird**, the improbably-white breasted **Black-faced Cormorant, White-fronted Chat** and two **Hooded Plovers** with an egg. Peter and June Gotham arrived from Chiltern bearing intelligence of a **Spotless Crake** lurking under Thurra River bridge and this was duly found, with young. A notable discovery, as the new Atlas data shows no Summer records for this species in the area, and no breeding records for Victoria!

On Saturday the group's four wheel driving skills were put to the test en route to Wingan Inlet, a journey of only 40 km absorbing 3 hours. Some were fortunate to see **Brush Bronzewing** and **Beautiful Firetail**. The shady picnic area produced **Eastern Whipbird, Wonga Pigeon, Black-faced Monarch, Satin Bowerbird, Brown Gerygone, Little Lorikeet, Rufous Fantail** and two male **Scarlet Honeyeaters** who, claws locked together, spun earthward from the heights of a tall eucalypt, looking for all the world like a falling leaf, only to separate and fly off just before reaching the ground. The Inlet and beach offered **White-bellied Sea-Eagle, Sooty and Pied Oystercatchers, Caspian and Crested Terns, and Pacific Gull**. While Australian Fur Seals baked in the hot sun on offshore islands, a bevy of COG nymphs embarked on an impromptu swim in the mouth of the Wingan Inlet, sheltered by a discrete sandbank.

By Sunday the heat grew even more intense. Small parties ventured in search of more birds and the cool waters of the Thurra and Mueller estuaries. Despite the less than ideal conditions, all present adapted

Cormorants>

Photo courtesy **Geoffrey Dabb**

Black-faced Cormorant>

(*Phalacrocorax fuscescens*)

Photo courtesy **Geoffrey Dabb**

enthusiastically to the range of challenges (including an absence of bathing costumes) which the weekend presented, and it was a relaxed and cheerful group that met at the COG shelter for the evening bird call. **Southern Emu-wren** and **Yellow Thornbill** were added to the list, which ultimately totalled almost 100 species. The consensus was that this was a lovely area and some were already planning another visit.

Trevor Lipscombe

From Your Committee

18 February 2004

The Committee met on 18 February and considered, amongst other more routine business matters, the following items. If any COG member would like more information on any of these issues, please contact the nominated Committee member.

The Birds Australia proposal for a pocket guide to the birds of the ACT, directed principally at the tourism market, is being further developed (Jenny Bounds – 6288 7802).

An Internet-based information management system for COG data, including online data entry and retrieval, continues to be investigated (David McDonald – 6231 8904).

The Committee is committed to updating our approach to education and



communications. A revised strategy is to be developed and all input would be most welcome. We are also keen to get a small working group together of members who are interested in helping with education and communication matters. (Tanya Rough –(h)61610151 (w)62742302)

Details of the new Griffin Centre are being provided, so the question again arises for COG as to whether we need a CBD office and, if so, what facilities we want to offer and what price the membership is prepared to pay for such a facility. Again, your input would be welcomed. (Barbara Allan – 6254 6520).

Conservation Matters in next months *Gang-gang*.

A number of requests have been received by COG for information on birds in given locations, or for us to do surveys. If anyone can help Lois Padgham of ACT Parks and Conservation Service (6207 2206) with information on the birds of the Woodstock Nature Reserve, please call her. The committee considered a draft letter to Environment ACT expressing concerns about the impact of uncontrolled dogs on Glossy Black-Cockatoos in Mt Majura NP, seeking better enforcement as well as offering help with wording etc of any signage which may be put up (Jack Holland – 6288 7804).

Barbara Allan, secretary

The Busy Cleaners

Having spent much time watching active nests of small birds, I find that something at which the adults spend much of their own time is *nest-cleaning*.

Feeding does not take long. The adult flies to the nest and passes food to the nestling, usually immediately. However, often there follows a period of what I can best describe as quite

intense *peering* at both the nestling and the nest itself. At that point a faecal sac might be presented and removed (swallowed or taken away), but every now and then there is a prolonged session of head-cocking inspection, with some consequent pecking at nestling(s) and nest.

The purpose of this is, I assume, the removal of intrusive insects and other unwanted creatures. In addition to probing the inside of the nest, agile birds like honeyeaters might take several minutes extending the inspection to the outside, pecking here and there and probing the wall and base. (see Figure 1)

Figure 1. White-plumed Honeyeater
(*Lichenostomus penicillatus*)

Photo courtesy Geoffrey Dabb



This summer, I noticed a particularly thorough job of nest-cleaning at the nest of a **Varied Sittella**. At the time, this held only a single advanced nestling, which was receiving care and attention from at least three adults.

Sittellas are not reluctant to linger around their little nest of tiny bark shingles, and a chick-feeding adult will frequently take a minute or so to go through the peering-and-pecking routine. (see Fig 2)



On the occasion in question, the adult was so enthusiastic about exploring the inside of the nest that it progressively edged out the fluttering chick until it was forced to cling precariously to the rim, while the cleaner worked away in the cup, head down and tail up. (See Fig 3, in which the industrious adult can be seen behind the chick.)

The effect was rather like a bed-ridden invalid being parked on a window ledge while their bed is straightened up.

With the cleaning operation complete for the moment, the adult left, and the nestling returned to huddle in the cup. This observation was the result of about 40 minutes of watching one nest; perhaps the routine described occurs regularly.

Geoffrey Dabb

Future Field Trips

Morning walk at Bibaringa; Sunday 7 March 2004

'Bibaringa' (a place of springs) is a horse agistment property adjoining Mt Stromlo to the west and bordered by the Cotter Road. Stuart Harris has been surveying a particular 10 ha remnant there since 1998, with a list of over 105 species compiled so far. Totally consumed by the January 2003 fires, Bibaringa is now in a state of regeneration as its regal Red Stringybarks and Yellow Box offer their epicormic growth to the returning insect and birds. It remains to be seen what summer migrants will still be present as we roam the hills and gullies of Bibaringa (please bring sturdy footwear, water and hat) and take in the wonderful scenery and birdlife it has to offer.

Meet Stuart (6232 4998 or sih@cea.com.au) at 08:30 am at the front entrance to Bibaringa, which is 1 km further west from the Mt Stromlo Observatory turnoff on the right hand side. Look for the pink gates. The walk will conclude around midday.

<Figure 2. Varied Sittella
(*Daphoenositta chrysoptera*)

Photo courtesy Geoffrey Dabb

Canberra Day Long Weekend at Thredbo; 13-15 March 2004 - accommodated

This visit to Thredbo will allow members to enjoy the early autumn

atmosphere in Australia's highest country and also to see the birds that occur there. In particular it's one of the more accessible places close to Canberra where **Pink Robins** and



Figure 3. Varied Sittella
(*Daphoenositta chrysoptera*)

Photo courtesy Geoffrey Dabb

Olive Whistlers can be reliably seen. There are also a number of walks of varying difficulty for members to enjoy.

A firm booking of eight double/twin share rooms has now been at Boali Ski Lodge where we will enjoy Michelle's legendary hospitality, with the option of full board or bed and breakfast. The cost for the former is \$90 for the first night reducing to \$75 for the second (\$165 for 2 nights), and for the latter is \$105 for 2 nights (\$60/45 per night). A \$6 COG admin fee will need to be added to each. A number of participants will also stay on Friday night 12 March, which is a further option. Michelle has indicated that she's happy to entertain a mix of full board, and B&B, which allows the option of the group having dinner out on one or more nights, eg Friday night. Final numbers had to be provided to Boali in mid February, and the meal options needed to be finalised by early March, when an information package was made available to participants. However, there may still be some places available and if you're interested please contact Jack Holland (6288 7840 AH or by E-mail on jack.holland@deh.gov.au) as soon as possible indicating your preference for the number of nights and for full board, a mix or B/B only.

Oakey Hill to Mt Taylor – Sunday 4 April 2004 – longish morning walk/car shuffle

The purpose of this outing is to look at the post-fire regeneration, to see which birds have returned there and the early season honeyeater movement along this important corridor just to the south of central Canberra.

The proposal is to do a car shuffle by parking at Mt Taylor, with some cars (and all participants) then moving to the northern end of Oakey Hill and parking near the ACTEW substation/Illoura Horse paddocks. Participants would then proceed to walk back to the remaining cars.

Doug Laing will be leading the Mt Taylor part, but is not familiar with Oakey Hill. Therefore some one to help lead this end is required. If you know this area well and are happy to help, please contact Jack Holland (6288 7840 AH or by E-mail on jack.holland@deh.gov.au) as soon as possible. If necessary we could be a bit flexible. Meet Doug (6287 7700, E-mail doug.laing@deh.gov.au) at 8 am in the car park at end of Waldock St off McFarland St, Chifley for this longish morning walk/car shuffle.

Easter Long Weekend trip to Yathong Nature Reserve; 9-12 April 2004

There are only a few places left for this trip as numbers have to be strictly limited to 20. Accommodation will be in the Shearers Quarters as camping is prohibited in the Reserve. The cost will be \$11 per night plus the COG admin fee.

Access to the Reserve is restricted to scientific purposes (of which bird watching is deemed to be one - provided we complete data sheets). The Reserve consists of two main habitats (mallee and woodlands) and has a number of dams (including a very large one at the homestead). This makes for a wide variety of inland birds, and it has a potential bird list of 185 birds. There is also a breeding program for **Malleefowl** with specially constructed pens and a very active fox baiting program to allow re-introduction of species which have long gone from the area. To register your interest and to obtain more details please contact Noel Luff (62883291) or by e-mail on noelluff@bigpond.com.

Honeyeater migration morning at Angle Crossing; Sunday 18 April 2004

The autumn movement of thousands of **Yellow-faced** and **White-naped Honeyeaters** (and lesser numbers of other species) from the mountains to warmer climes along the coast and further north is a feature of the Canberra birdwatching calendar. Last year, despite the bushfires, we still counted thousands of honeyeaters passing through the Angle Crossing area on a good migration day.

Darter chicks on nest

(*Anhinga melanogaster*)

Photo courtesy **Martin Butterfield**



To witness this spectacle and to help count the honeyeaters meet Nicki Taws at 8:30 am at Tharwa, in the first car park on the left immediately after crossing the bridge. Bring something to sit on, a hat, sunscreen and morning tea. Enquiries to Nicki (6251 0303, ntaws@austarmetro.com.au) or as Nicki will be away for the Easter week, returning late on Saturday 17 April, Jack Holland (6288 7840 AH or by E-mail on jack.holland@deh.gov.au), who will be in touch with her during this time. As usual if the weather's not the best for honeyeaters we will visit the Tharwa Sandwash for some general birding.

Wednesday walk at Kelly Road; 17 March 2004

A slightly more adventurous early autumn outing to visit the woodland at Kelly Road, which runs parallel to the Monaro Highway just outside the ACT border about 10 km north of Michelago. The "magic mile" along the road from just before the start of Travelling Stock reserve (TSR) 36 should provide a good mix of grassy woodland birds with **Hooded Robin**,

Brown Treecreepers, Restless Flycatchers, Diamond Firetail, Southern Whiteface, Dusky Woodswallows and Fuscous Honeyeaters very distinct possibilities.

Meet at the Williamsdale Service Station at 9.00 am, for car pooling etc prior to the 5-10 minute drive down the start of this outing. The main part will involve a 1-1.5 km easy walk along this quiet road and is suitable for all members. Bring morning tea. Jack Holland (6288 7840 AH or by E-mail on jack.holland@deh.gov.au) will provide more details on where to go and where the best birds are to some participants.

Longer trips

Long weekend at Green Cape 12-14 June 2004

COG has booked the two duplex cottages associated with the lighthouse at Green Cape for our outing over this long weekend in June. Peter Fullagar will be leading this outing, and in mid June he expects to see a mix of sea birds as well as whales close into shore (depending on the weather). In the nearby heath there are some specials such as the ground parrot and the **Tawny-crowned Honeyeater**, and there is likely to be a range of birds in the woodlands, also close by.

The cottages each hold a maximum of 6 people, consisting of separate rooms with a queen size bed, one with two single beds and a sofa bed in the family/lounge room. Due to the distance it has been anticipated that some members may want to go a little earlier, and therefore one cottage has been booked for Thursday to Monday, and the other from Saturday to Monday. As accommodation is limited to 12 people, if there is additional interest there will be the opportunity to camp at Bittangabee Bay, which is not far away.

The costs per person will be in the order of \$32 per night (costs vary a bit depending on week or weekend rates), plus a \$2 per day COG admin fee. Further details will be advised later. However, at this stage please register your interest, including the length of stay with Jack Holland (6288 7840 AH or by E-mail on jack.holland@deh.gov.au). A \$25 deposit per person (paid to the Treasurer COG) within a month will

then secure your place in the cottages.

Surveys and other Activities of Interest to COG Members

Mulligan's Flat Survey Sunday 28 March 2004

The autumn woodland survey in the reserve will occur on the last Sunday in March, meeting at the reserve carpark off Gundaroo Road at 7.15am. Regular surveyors, please leave a message to let me know if you are available in the week prior - ph 6288 7802. I will also email those on my list as a reminder. Wear sturdy shoes, and bring clipboard, pencil and eraser, and a mug or cup (for morning tea provided). There may be an opportunity for new volunteers to participate in these surveys - you do need to be able to recognise most of our local woodland birds - phone Jenny to discuss. We usually finish by 10.30am. Other survey dates to note for 2004: Sunday 27 June, Sunday 26 September and Sunday 28 November.

Jenny Bounds

The next **Cowra Woodland Survey** will be held over the weekend of 27-28 March. If you are interested in participating (note it clashes with the COG woodland survey dates) please contact Sue Proust on thebradybunch8@bigpond.com.

Environment ACT has contacted COG to indicate they are running a **ranger guided walk to Gooroo Nature Reserve** on Sun 28 March from 9-11 am. Bookings need to be made on 6207 2113.

COG has been contacted about the possibility of conducting some **bird surveys in the Dalgety area**, particularly relating to the vegetation regeneration program following the removal of willows from the Snowy River. The committee has agreed that due to other priorities COG is not in a position to undertake such bird surveys/ monitoring on a formal basis, and because Dalgety is well out of the area generally defined as COG's area of concern.

This is not to say that we may not be able to help in some way. Thus the purpose of this notice is to alert COG members to this request, in the event

that there are some members who, for example may have a property or a special interest in the area, and may wish and help on an individual basis.

We are also considering the possibility of a COG outing to the



Weebill and nestlings

(*Smicrornis brevirostris*)

Photo courtesy **Geoffrey Dabb**

Dalgety/Snowy River area either this spring or in 2005. Anyone who wishes to know more about these possibilities please contact Jack Holland (6288 7840 AH or by E-mail on jack.holland@deh.gov.au) who can provide further information or contact details.

For those who missed his talk at last months COG meeting, **Esteban Fuentes** will be talking about **raptors in our region** at the Field Naturalists meeting on **Thursday 1 April 2004**. COG members are welcome to attend.

They meet in the old Botany & Zoology Seminar Room at ANU, off Linnaeus Way, at 8pm. For further information contact Rosemary Blemmings (President) on 6258 4724.

Australian Bird Study Association AGM and Scientific Day Saturday 20 March 2004

Macquarie University
"The Tasman: A Bird's Sea"
Intro: John Dengate

Keynote Speaker: George Cresswell,
CSIRO Marine Labs, Hobart
Other speakers: Lindsay Smith
(SOSSA), Durno Murray, Harry
Battam, Nick Klomp (CSU), Andre
Chiaradi (Phillip Island), David Pridell
(Dept Environment and Conservation)
Simon Mustoe (Applied Ecology
Solutions, Melbourne).

Cost: \$33 (included morning and afternoon teas)

Print booking form
<www.absa.asn.au/booking.html>

Details on ABSA Website and in Newsletter out in two weeks.

Registration: 9.00 to 10.00am. Start 10.00 am. Finish 16.15. ABSA AGM 16.30. Dinner at the Ranch Pub Bistro across Epping Rd.

For further information contact Frances Czwalianna

BIGnet Coordinator
Tel/Fax (02) 9872 4185
secretarybird@bigpond.com

Significant Bird Event

Arguably one of the most extraordinary events associated with migratory waders in Australia in recent years is occurring right now in North Western Australia. Last Saturday and Sunday the 7 & 8 February 2004, Members of Birds Australia (BA) and our special interest group the Australasian Wader Studies Group lead by Dr Clive Minton (BA Fellow) counted between 2.4 and 2.8 MILLION Oriental Pratincoles at 80 mile beach (Anna Plains station). The previous estimate of the total Australian population of this bird was 60,000 !!!

An extract of Clive's email of Monday 9 Feb advising us of this remarkable event is reproduced here :

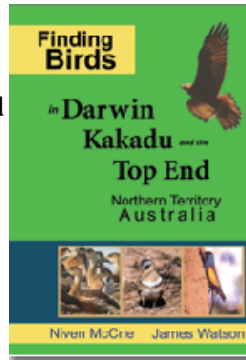
When we arrived here on February 2nd it was immediately apparent that an unusual situation existed. For the last 100km of the journey the bush on either side of the main highway was alive with feeding Oriental Pratincoles. In the late afternoon vast clouds (smokes) of birds could be seen swirling around over many parts of the plains and these gradually descended towards dusk to roost for the night in quite dense patches all over the agricultural grasslands of the plain. Next day their daily pattern became apparent. From dawn birds fed extensively all over the grassland of the station and further inland amongst the bush at least as far back as the Great Northern Highway.

As the day heated up (the weather was relatively settled and calm and sunny throughout) the birds gradually moved down to the coast where they collected in huge aggregations on the upper mud flats and as the tide rose on the sandy

COG SALES

- **Finding Birds in Darwin, Kakadu and Top End** by Niven McCrie and James Watson. \$24.00.
- **The Birds of Prey of Australia Field Guide** by Stephen Debus, \$12.50 (Special Price)
- **Messant Calenders 2004**, "Birds of Australia" and/or "Australian Wildflowers", \$8.00.
- **Wet and Wild** - A Field Guide to the Freshwater Animals of the Southern Tablelands and High Country" by M Lintermans and W Osborne, \$28.00 (RRP \$34.95).
- **Wildlife on Farms** - by David Lindenmayer RRP \$29.95, SPECIAL PRICE for COG members - \$25.00.
- **Where to Find Birds in NE Queensland** - Joe Wieneke - \$16.00.
- **Reptiles and Frogs of the ACT** - Ross Bennett - \$13.00.
- **Native Trees of the ACT** - \$6.50.
- **Birds of Rottnest Island** – by Denis Saunders & Parry de Rebeira -\$15.00
- **Birds of Rottnest Island** – a check list - \$1.00
- **Grassland Flora** – a Field Guide for the Southern Tablelands (NSW and ACT) – by David Eddy et al. - \$13.00
- **Our Patch** – Field Guide to the Flora of the ACT Region - \$13.00
- **The Nestbox Book** – Gould League - \$9.00
- **Birds of Queensland's Wet Tropics and Great Barrier Reef** by Lloyd Nielsen - \$25.00
- **Guide to the Bird Habitats of NSW (ACT)** NSW Atlassers -\$27.00
- **Field Guide to the Birds of the ACT** – by Taylor and Day \$14.00
- Simpson and Days' **Birds of Australia CDROM** Version 5.0 SPECIAL PRICE - \$45.00
- **Field Guide to the Birds of Australia** by Pizzey and Knight -\$35.00
- COG Birds of Canberra Gardens - \$25.00
- COG Atlas - \$12.00
- COG Car Stickers - \$2.00
- COG Birds of Canberra Gardens Poster - \$4.00
- COG Garden Bird Survey Chart (New Version) - \$1.00
- COG Badges – two colour versions - \$5.00
- COG Birds of the ACT – Two Centuries of Change – by Steve Wilson - \$25.00
- COG Annotated Checklist of the Birds of the ACT - \$1.00
- COG Bird Songs of Canberra – Cassette - \$10.00.

COG T-shirts, Polo shirts, all above and other books on local flora and fauna available at the monthly meeting sales desk or by contacting Carol Macleay (for post and packing costs) on 02 6286 2624.



beaches. We have obviously been speculating as to why such a huge number of birds is present here now but has never previously been recorded. The previous most similar situation was in January 2000 when a minimum of 50,000 **Oriental Pratincoles** were observed on Anna Plains Station. However, in that year there was extensive water on the agricultural pastureland and birds were therefore not needing to adjourn to the beach during the heat of the day. No extensive surveys or wider population estimates were attempted or possible at that time. It would appear that in 2004 conditions have been absolutely perfect to attract the maximum number of Oriental Pratincoles to feed in the area of farmland adjacent to 80 Mile Beach and that weather and habitat conditions have been the optimum to force them to use the beach during the day where they could be observed and counted. Nevertheless it is still quite a staggering increase of previous estimates of the population of this



MYSTERY PHOTO: Hooded Plover and reflection (*Thinornis rubricollis*) Geoffrey Dabb "The mystery photo from page 1, which has been turned upside-down, is in fact only a photograph of a reflection on the still surface of the Thurra River. Such reflections are usually a reliable sign that there are Hooded Plovers about."

species and one which would be difficult to believe by anyone who had not seen this phenomenal sight of beaches densely covered with pratincoles a kilometre or so wide for stretches tens of kilometres long.

Jim Downey
Chief Exec. Officer, Birds Australia

Notice to Garden Bird Surveyors

Could all email equipped completers of GBS charts send me an email (to mfbutter@bigpond.com) giving their COG registered name and:

- 1) their preferred email address for birding matters;
- 2) the latitude and longitude of their GBS site(s) or if that isn't known

- the exact street addresses; and
 3) the COG gridsquare in which they regard their site(s) as being located.

In most cases point 3 will simply save me some time in relating lat/long to grids. In other cases it is barely possible to identify the gridsquare from GPS readings: for example 4 squares join in the middle of our lounge but I know that my GBS area is all in the NE of the four possible squares.

For those who are not email equipped could they see me at the April meeting (I'll be in Moldova for the March one) or (i) drop a note to 4/18 Jaeger Crct, Bruce 2617; or (ii) send an SMS to 0431 036 606!

Martin Butterfield

Avian Whimsy # 18

I came, I soar, I conquer

Surprisingly, Physics was the only subject I ever actually failed. From the first lecture, Physics I was like an air crash that was inevitably going to happen at the end of the year. Ironic then that I'm now going to attempt to explain why birds don't (usually) suffer from air crashes. (Given the above, you



White-bellied Sea Eagle
(Haliaeetus leucogaster) Ian Fraser

may wish to turn to the crossword at this point.) In particular I want to look at soaring, the epitome of flying.

In very brief, we recognise four different levels of moving through the air. Parachuting is really just postponed falling by increasing the surface area;

the closer the descent is to 450 than 900, the less it resembles crashing. Gliding is more effectively postponed falling, at an angle of less than 450, with some control over where you're going to come down. Then there is flying, which is technically 'assisted aerial motion', but in lay terms – flapping your wings! The essential difference from gliding is the application of power derived from burning body energy, to climb, accelerate and keep going until the fuel is exhausted.

Most of us would regard this as the 'ultimate', but in fact there is another level of aerial virtuosity – soaring. Often overlooked as a 'simple' gliding offshoot of flying, soaring animals actually take flight to an extreme. They take their energy from their surrounds, so are using very little internal energy. A soaring animal does not flap its wings except to take off or to land, or to make slight adjustments while soaring. This efficiency means they go almost indefinitely.

The surrounding energy that they use is that contained in the air, from two essential situations. Rising thermal currents derive when the land beneath the air warms it – a sand dune is a good thermal current engine – so that it rises. Cool air drops to replace it and is warmed and lifted in its turn. Soaring birds tap into this energy source and ride it – we have all seen pelicans, ibis, darters and brolgas doing so. Energy for the taking is also contained in the rising air known as an obstruction current, produced when wind currents are forced upwards by mountains, cliffs, or even tall buildings.

Soaring is very complex behaviour, and requires specific adaptations of both physiology and shape. It is also limiting in that, for thermal currents at least, it is temperature dependent. Soaring then is harder in cooler conditions, so rarely occurs before mid-morning for instance. The wing form and its orientation must be such that the bird falls more slowly than the air is rising. One authority deliciously describes soaring as "falling down an up escalator". Only relatively large animals can be efficient soarers. This most "advanced" form of flight has only been achieved by a few animals over the course of evolution; the larger pterosaurs and some modern birds are the only known soaring animals.

What is the best wing form for a soarer

then? The accompanying slide of a **White-bellied Sea-Eagle** shows the most common form clearly – long broad wings, such that the ratio of body weight to wing area is low. This is not a good flapping shape though, so as ever, a trade-off has been made. Have another look at the eagle; you will see that the wing tips are broadly fingered. This is because the end of the wing is very broad relative to its length; this produces considerable air disturbance at the wing tips, dragging the bird down again. The 'slots' at the wing tip break up this disturbance.

The best way to eliminate the disturbance though is to have a very long slender wing with narrow tip, such as is possessed by albatrosses and tropicbirds (see the other slide) – and indeed this is the ultimate soaring wing form. Why then is it not used by soaring land birds? To simplify (and as ever I'm running out of room!), for the wing to be long enough to have the required area it will be too long to flap to take off from the ground! The great soaring seabirds rarely come down on land; when they do they must hurl themselves from a cliff to regain the air. On the sea though, extraordinarily they use the subtle layers of air produced by friction over the sea's surface to lift off. Once up, an albatross can defy the generalisation about needing warm conditions to soar by specialising in sub-Antarctic waters for much of the year, using the obstruction currents produced by wind rushing up the side of the waves. Rise, swing and soar, for hour after glorious hour...



Frigatebird
 Ian Fraser

Well that's definitely my space allocation for this month! Thanks for staying to the end. It occurs to me that

a related topic worth looking at might be that of hovering – but as ever I'd love to hear your suggestions.

The last word can be that of Hildegard Von Bingen (1078–1179); Soaring Power, encompass us with wings unfurled, and carry us, encircling all, above, below, and through the world.

Ian Fraser ianf@pcug.org.au

PS If anyone has a surplus copy of the Proceedings of the 1974 International Ornithological Congress (Canberra) I'd be very interested in purchasing it – I have foolishly 'lost' mine.



Regent Honeyeater
(*Xanthomyza phrygia*)

Photo courtesy **Geoffrey Dabb**

Next newsletter

APRIL deadline
Friday 26 March 2004

Send updates to
Tanya Rough,
Editor *Gang-gang*
rough.boden@apex.net.au or
Tanya.Rough@deh.gov.au
Ph: 6161 0151 (ah)

Articles should be less than 500 words (300 for reports of 1-day field trips; 150 for Atlassing Snapshots), except by prior arrangement with the editor. Print photographs with articles encouraged.

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Newsletter distribution

Lia Battisson and helpers

Canberra Birds Conservation Fund

Donations to this fund are tax
deductible. Funds are used to
support projects that protect and
enhance native birds and the
environments that sustain them.

COG website

<http://www.canberrabirds.dynamite.com.au>

COG membership

2003-2004 membership: Individuals,
families and institutions: \$35. school
students (under 18): \$17.50.

Office (6247 4996)

COG maintains an office in room
G5, Griffin Centre, Bunda Street,
civic.

Office volunteers are not in
attendance for regular opening
hours.

Members access by prior
arrangement.

COG E-mail Discussion List

COG has an email announcement
and discussion list for members and
friends of COG: 'Canberra Birding',
also known by the nickname 'cog-1'.
Join the list at

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or by sending a blank
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Gang-gang

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