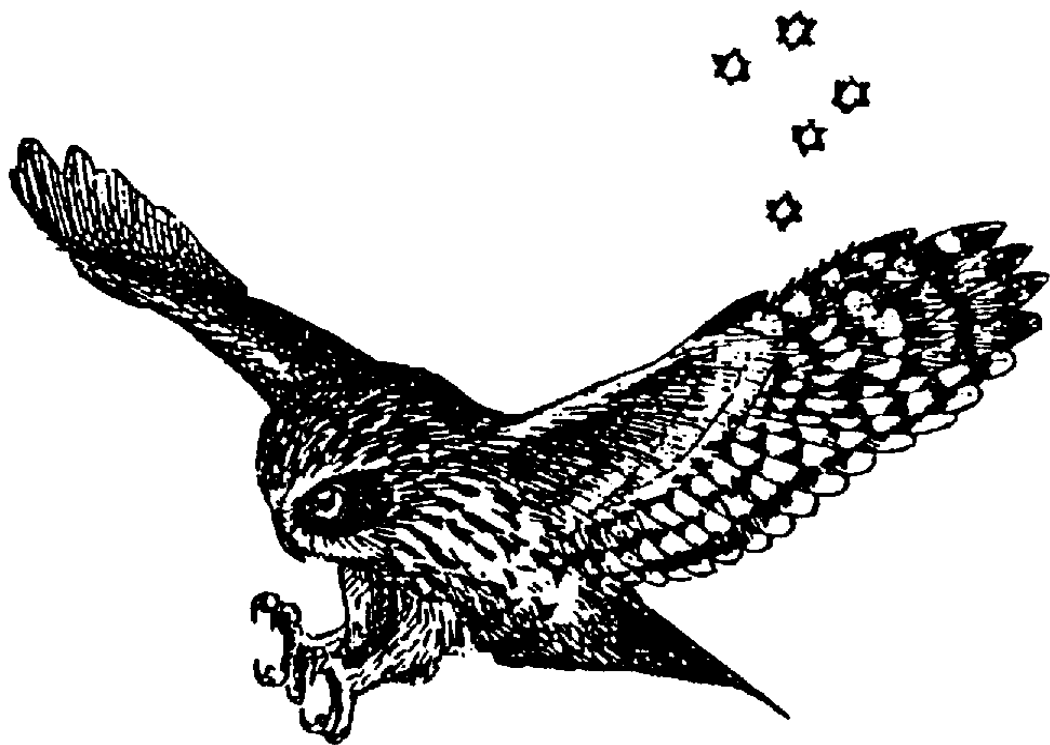


# BOOBOOK

*JOURNAL OF THE AUSTRALASIAN RAPTOR ASSOCIATION*



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*The aims of the Association are the study, conservation and management of diurnal and nocturnal raptors of the Australasian Faunal Region.*

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## FROM THE PRESIDENT

2010 saw the ARA hold its second recent national conference, at Leeton in NSW. Fortunately, the organisers of the Australian Birdfair incorporated a raptor theme, so we could bring speakers from the ARA actively involved in raptor projects in Australia. I thank the organisers for arranging a very well run event. A good turn-out with a wide variety of speakers and topics ensured that it was highly successful. Abstracts appear in this issue of *Boobook*. Nick Mooney gave a very inspired talk as guest speaker at the conference dinner. The ARA Executive also met at the end of Birdfair and resolved to host another ARA conference in 2012. So, Regional Reps, this is a call for you to step up and host the next ARA conference. NSW has now hosted two, so it seems time for another state to rise to the challenge.

Another task set for the ARA Executive members is to develop meaningful raptor projects that actively involve the membership. As many of the ARA Area Reps work in natural resource management agencies or similar, they are often the best placed to know which species are most in need of research or conservation actions. Stephen Debus has kindly pulled together species accounts, to start members and Area Reps filling in the blanks for useful projects.

I am sometimes asked why the ARA isn't doing more: why we don't produce more issues of *Boobook* each year\*, or why we don't host conferences every year. The simple truth is we are all volunteers, and these things not only take time, they require wider involvement than just the individual Area Reps to accomplish any of these activities. That is, it requires more of our members to give time and energy to make these things happen.

We are currently designing Web pages for the ARA, to be hosted on Birds Australia's website. As the raptor specialist group of Birds Australia, this is a natural fit, and the Executive approved this move at the September meeting. Members can contribute by sending electronic images (medium to low resolution is best), so that we can fill out the species pages. I am constantly asked to identify raptors, and fortunately with digital photography and email I can usually receive an image that I can then identify for the public. Improving this process, and providing a quick reference with high-quality images, would get people more interested in raptors if they can find on our website useful and up-to-date species accounts. To get things rolling, I am calling for some good diagnostic images of Australian Hobby (Little Falcon). This species is seldom correctly identified by the average member of the public, and yet it is common in urban areas. With enough images we should also be able to show regional variation. For example, the pronounced reddish brown of the more northern forms, and adult versus juvenile. With all of these illustrated, it would make a comprehensive resource.

So please, make a commitment to the ARA this year. Re-join if your membership has lapsed, and ask your Area Rep how you can get involved. Raptorially yours,

***Victor Hurley***

*\*...as I keep saying ad nauseam, these days I don't receive enough original material from members to carry more than one issue a year. If you want more, then watch raptors more, write down and send in your significant behavioural observations, and encourage other members you know to do the same! (Ed.)*

## EDITORIAL

Recently it's been widespread flooding, a cyclone, and bushfires in WA. Amid our sympathies for the human victims, we shouldn't overlook the wildlife casualties, which may well include raptors and owls and their nest trees. No doubt there'll be simplistic clamouring for more flood-mitigation dams, when we should also be reflecting on the root causes of devastating floods. For instance, the steepness of over-cleared catchments, the treelessness of riparian zones, and the extensive hard-pan runoff areas caused by overgrazing and over-tilling during dry times. Rivers running brown with topsoil should be a major community concern at any time, not just during the worst floods; long-term abuse of the land is coming back to bite us. And maybe there needs to be review of what human activities or constructions are permissible on steep catchments and flood-prone land, particularly now that climate change may bring us more or worse floods and cyclones.

Those who attended Birdfair heard some good raptor talks (see abstracts, p. 23), and a great after-dinner talk by Nick Mooney. The official program was followed, on the Sunday afternoon, by an ARA general meeting (see p. 3). Among the outcomes were a new Secretary (Nick Mooney), an undertaking to compile a list of Australian raptor research and conservation priorities (see pp. 3–4), and discussion of the ARA website. On the last matter, any members who have recently tried to access our website <www.ausraptor...> will have noticed something weird: it inexplicably bounces to a site that has nothing to do with raptors. Without going into details here, it was resolved to have Birds Australia host the ARA's Web presence through a link on the BA website, and BA has helpfully agreed to do so (though the ARA site will need rebuilding). From now on, to visit the ARA website please go via the BA website <www.birdsaustralia.com.au/ara>.

Be alert, though, to the possibility that BA and its website may have a name change if the proposed merger with BOCA happens after May 2011. The proposed new name for the resulting new organisation, if it happens (and it's in the best interests of our birds that it does), is BirdLife Australia. And on that note, if you are a member of BA or BOCA (or both), please VOTE on the proposal, either way, as it's vital that all members of the respective organisations do vote.

Further to my request for assistance to compile the 'Recent literature' segment of *Boobook*, Stacey McLean has kindly undertaken to provide citations from the 'Raptor science literature' website. Thanks, Stacey. And *Australian Raptor Studies* (1993) is now available as a PDF from the ARA link on the BA website. Would anyone like to scan *Australian Raptor Studies II* (1997) for the website too?

Also in this issue we have some news on Sea-Eagles, declines of forest owls in Victoria, Square-tailed Kites nesting in south-east SA, and persecution of Wedge-tailed Eagles in Tasmania; 'Raptor file' items on relationships of falcons, raptors taking conspicuous prey, raptors in orchards, and pigeon-fanciers versus raptors; a good variety of 'Field notes'; a book review (*The Wind Farm Scam*); and abstracts of the Birdfair talks. The last, along with the ARA meeting report, pretty much carried this issue of *Boobook*, when it looked like it might be 'thin' or delayed.

I can only repeat my previous comments and pleas: that's it from *Boobook* for now, until there is enough (preferably original) material, on Australasian raptors, for another issue, whenever that might be. It's disappointing how few items are received (well, almost none actually) in direct reply to those items in *Boobook* that specifically invite a response or comment.

After some member enquiries about the DVDs mentioned in the last issue, see p. 22 for information on how to obtain them. If you haven't already, check out a great raptor website: <www.globalraptors.org>, searchable in various ways.

Finally, as it's well past membership renewal time, please complete and return your subs renewal form. And a postscript: our sympathy and condolences to President, Victor Hurley, at his time of bereavement. Note also new email address for David Whelan (Vic. Area Rep), inside the front cover.

*Stephen Debus*

## REPORTS AND NEWS

### ARA meeting at Birdfair

At the close of the raptor-themed Australian Birdfair 2010 at Leeton (see abstracts, p. 23), those members of the ARA Executive present, and a few other members as observers, held a general meeting. Those present were Victor Hurley, Jonny Schoenjahn, Simon Cherriman, Stephen Debus, Ian Falkenberg, Stuart Rae, Nick Mooney and Matthew Stanton, with apologies from Jerry Olsen, Ray Chatto, Stacey McLean and Rod Kavanagh. A précis of the more general topics, of interest to members, in the minutes follows.

Secretary: Nick Mooney elected as new secretary (thanks and congratulations, Nick!).

Website: needs an overhaul and update, and low-res diagnostic photos of raptors; Birds Australia will be hosting the ARA website via a link through the BA website.

ARA terms of reference and mission statement to be revised, after the executive members have reviewed the constitution and a draft new mission statement.

Rehab: ARA policy on rehab and use of falconry techniques to be reviewed, and draft alternatives to be considered by the executive.

Conservation priorities: Stephen Debus to identify a series of short- and long-term projects for raptors in each state and territory, and circulate a list to all members of the executive. A draft list follows.

### Conservation and study priorities for raptors

The following list deliberately omits projects currently underway, or recently completed but not published (e.g. ecology of Letter-winged Kite in Qld; biology of Red Goshawk on the Tiwi Islands; biology of Sea-Eagle in Vic.; taxonomic assessment of Tas. Wedge-tailed Eagle; ecology of Barking Owl in Vic. and NSW; ecology of Masked Owl in Tas. and Tiwi Islands). ‘Honours, masters or PhD level’, below, need not imply formal academic research, only the standard of professionalism that some (including amateur, spare-time) studies might aspire to. Any proper study could be conducted by non-academics or non-professionals, perhaps with guidance and mentoring from the ARA, with a view to publishable quality.

**All states** as applicable (species etc. ranked in order of importance; a 5-year plan is needed to refine the workload and approach):

**Red Goshawk** – monitoring of occupancy and productivity of breeding territories found during previous studies or surveys (WA, NT: RAOU study; Cape York Peninsula: Qld survey).

**Grey Falcon** – all manner of practical support for Jonny Schoenjahn’s study (e.g. sightings, nests, logistical, permissions); additional population surveys and quantified ecological studies with a management emphasis.

**Black Falcon** – quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level (especially SA, NSW, Qld).

**Black-breasted Buzzard** – quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level.

**Atlas** – encourage raptor enthusiasts to contribute sightings of the above species, and Letter-winged Kite, Square-tailed Kite, White-bellied Sea-Eagle, Little Eagle and all owls, as incidental records to the ongoing Birds Australia atlas.

**BOPWatch** – revive an ongoing BOPWatch, as least for the aforementioned diurnal species. Atlas and BOPWatch need geographic and taxonomic foci, to better engage members and partners/sponsors.

**Collared Sparrowhawk, Australian Hobby** – quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level (any state/territory).

**WA:** quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level, of any diurnal or nocturnal species in the south-west (except Osprey and Wedge-tailed Eagle), especially Square-tailed Kite, Barking Owl, Masked Owl, plus population survey and taxonomic assessment of the latter two owl species. Population survey and ecological study of the Rufous Owl in the Kimberley.

**NT:** quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level, of Pacific Baza, Brahminy Kite, Grey Goshawk and any owl species near Darwin. Population survey and quantified ecological study of Masked Owl in the Top End.

**Qld:** resurvey of the Red Goshawk in the South Eastern Qld bioregion; quantified ecological studies (including telemetry?) of Red Goshawk, with a management emphasis. Quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level, of Pacific Baza, Brahminy Kite, Rufous Owl, Masked Owl, Grass Owl. Population survey of Rufous Owl, Masked Owl (both subspecies). Taxonomic assessment of 'Red Boobook', Cape York Masked Owl. Determine the impact of continued urban and industrial growth in SE Qld and the central-coastal Qld urban growth hotspot, especially on the Red Goshawk and coastal raptors. For some species, established monitoring methods are in place (e.g. Moreton Bay). Regarding Atlas and BOPWatch, Important Bird Areas could form the spatial basis for targeted action in Qld, e.g. Moreton Bay and Pumicestone Passage; Cooloola and Fraser Coast; Bunya Mountains and Yarraman; Fitzroy Floodplain and Delta.

**NSW:** population survey of Red Goshawk, with a view to protecting any breeding sites found. Quantified ecological study of Red Goshawk, with a management emphasis. Quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level, of Pacific Baza, Brahminy Kite, White-bellied Sea-Eagle, Spotted Harrier, Little Eagle (including telemetry).

**Vic:** quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level, of Spotted Harrier, Grey Goshawk, Black Falcon.

**Tas:** quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level, of White-bellied Sea-Eagle (including critical disturbance distances and impacts of coastal development), Grey (White) Goshawk, Wedge-tailed Eagle (including telemetry; population-level impacts of windfarms; impacts of loss of Tasmanian Devils to disease), Southern Boobook. Taxonomic assessment of Tas. Boobook (cf. mainland, NZ).

**SA:** quantified studies of any aspect of ecology and breeding biology, at honours, masters or PhD level, and population survey, of Square-tailed Kite (plus prescriptions and guidelines for forestry operations around breeding habitat), Black Falcon, Grey Falcon, Powerful Owl, Barking Owl, Masked Owl. Ecology of Wedge-tailed Eagle (telemetry; population-level impacts of windfarms and persecution). Long-term monitoring of raptor breeding populations and productivity on the Strzelecki Creek.

Thanks to Nick Mooney, Ian Falkenberg and Stacey McLean for comments so far, and to Jerry Olsen who notes (and I concur):

1. In our raptor sphere we have lost the Norfolk and Lord Howe Island Boobooks and the Laughing Owl, i.e. island taxa.
2. There are too few of us. How have we spent our research time and money since the 1960s? Well, probably we concentrated on glamorous iconic mainland species, especially the Powerful Owl, Wedge-tailed Eagle and Peregrine Falcon. Look at the publication lists, and books.
3. My guess is that we will continue along these lines – study iconic mainland species, and maybe lose another island subspecies, or Indonesian species, in the meantime.

*Stephen Debus*

### **Birds Australia Eagle Cam at Sydney Olympic Park**

[As at 10 July 2010] it is week 2 from the date of the first-laid egg of the White-bellied Sea-Eagles; ... and finally today we saw the second egg. We don't know when this egg was laid; it is much cleaner than the first egg so it may have been a week or more later than the first. I have attached a link to the photo: female is on the left, there is just a glimpse of the second egg, we have had lots more views of the second egg as they rotate and move them around.

<<http://www.flickr.com/photos/ghutch/4763246543/sizes/l/>>

Both adult eagles have been spending a lot of time sitting on the eggs, with the female putting in most of the time, but the male is doing his fair share. He brings in all the food for the female. It is interesting to see, with temperatures getting down to 4°C, that they do leave the eggs uncovered for short periods of time. We have not noticed any other bird (currawong, magpie, Noisy Miner) swoops (attacks) on the eagles.

As part of this study we would like any sightings and photos if possible of any Sea-Eagle within 100 km of Homebush Bay, Sydney Olympic Park, as we are trying to see what the home range of the White-bellied Sea-Eagle is. Any nest locations would also be of benefit. Information required: location, date, time, direction travelled, activity, adult or juvenile, number of birds, etc.

This study has been made possible with the help of Birds Australia, Sydney Olympic Park Authority, Judy Harrington (SOPA & BA) Jon Irvine, Simon Mustoe and the BA volunteers, thanks.

**Geoff Hutchinson**, Birding-Aus 10.07.2010 per Shirley Cook

At 0713 h on 30 June, the first signs of one of the eggs being pecked from the inside. By 0728 there was a hole; at 0801 the first wing was out; at 0809 the shell had split in half. The first good look at the chick was at 0956, but still pink with wet down. At 1250 h the male brought a live fish (whiting) back to the nest, the female immediately claimed the fish but did not eat it straight away. At 1412 the female tried to encourage the chick with some fish. The chick was having problems holding its head up and staying upright, at only about 6 hours old. By 1604 the chick was taking small bits of fish.

Some videos will be posted on <Bird-O.com>; I will send the links when they are loaded.

**Geoff Hutchinson**, Birding-Aus 31.07.2010 per Shirley Cook

At Birds Australia, Sydney Olympic Park the two White-bellied Sea-Eagle chicks took their first flight off the nest [in late Oct. 2010]. This year we have had two chicks grow to the fledgling stage. In the last few years there has only been one chick survive to fledge, and last year the chick left the care of the adults very quickly after fledging. [*Or did it die? Post-fledging period should be several months. –Ed.*]

The juveniles are coming back to the nest when the adults bring in food, so we think that they are not venturing far from the nest area at this time. Today they returned to the nest about five times, and when feeding they were staying for a long time. We are all very relieved and very proud that they have got this far, there are so many things that can happen during the nesting process. For those of you who are thinking Homebush Bay, dioxin, the adults and the kids are looking extremely healthy. I know dioxin is a slow build-up. We have been informed about a test that can be done on the feathers to check for this, not sure how much it costs but when they leave the nest area we will collect some feathers and see if we can find some funding to have them tested. The remediation of Homebush Bay has now been completed and they are on the final stage of the Rhodes Peninsula, so the residue in the fish and the gulls will only get less; here's hoping for a bright future for our eagles.

If there are any sightings of White-bellied Sea Eagles from the Sydney Harbour Bridge west to Silverwater Bridge it would be very much appreciated if they could be reported to this email address: <eaglecam2u@yahoo.com.au>

To see the latest videos and photos go to:  
<<http://www.birdsaustralia.com.au/the-organisation/eaglecam.html>>

**Geoff Hutchinson**, Birding-Aus 29.10.2010 per Shirley Cook

*STOP PRESS: latest news (per Rod Kavanagh, 09.02.2011) is that the nest branch has just fallen down. We await with interest any news on whether the eagles will accept a mooted replacement platform next to the tree, or shift to a new nest tree. (Ed.)*



## Sea-Eagles and Ospreys in SA

Mission accomplished! Well, nearly. Thanks to the Nature Foundation Appeal fund topping-up, the survey work around the State is now 98% complete. Just a few more islands to visit and maybe a quick trip back to the Riverland. After nearly three years, tens of boat hours, hundreds of volunteer hours and thousands of km travelled, new boots for me and the Landrover (plus various other bits!), the fun part is now nearly over. Next comes the write-up phase... (groan!). Who was it said that one hour of fieldwork generates two hours of bookwork? Anyway, it was a hopeless underestimate!

### *What's been happening*

During the May–June Sea-Eagle courting and nest-building period, several specific surveys were conducted to follow up on reports where eagles are seen from time to time: three days were spent conducting morning and evening telescope-watch sessions overlooking Baudin Rocks at the northern end of Guichen Bay – but no Sea-Eagles were seen. Then the same result after four days of searching and scope-watch in the Point Clinton–Price area. These were followed by several boat-based surveys to islands in the Investigator and Sir Joseph Banks Group; along the northern and eastern coastlines of Kangaroo Island; then, last week, the wildest ride of all – the western end of Kangaroo Island! Although no new sites were found on the latter survey, it is pleasing to report that overall, 19 Sea-Eagle territories were confirmed for Kangaroo Island – two more than were found in 2005 and one more than the 26-year average.

### *Survey results*

Although it may yet be possible to survey more islands, given the evident stability of the KI population and the numbers of territories confirmed on other islands so far, we are very close to being able to confidently model the total Sea-Eagle population. So here goes: the best estimate is ~70 Sea-Eagle territories statewide, with the greater majority of these (77%) being based on island habitats. This is ~15 more breeding territories than was estimated in the mid-1990s, but should not be regarded as an increase. No, it simply reflects the outcome of a more comprehensive habitat survey rather than another conservative estimate based on part survey and part anecdotal records.

### *Osprey season*

The story for the Osprey will have to wait until after the outcome of the Osprey season on Kangaroo Island. However, the final number appears to be very close to that published in 2007, i.e. 55 pairs, and appears unlikely to exceed 60 pairs. In contrast to Sea-Eagle habitats, only a small number of these were found on islands, which seems to confirm my view that these two species do not live happily side-by-side. For the absolute final numbers, we will all have to wait for these to appear in the *South Australian Ornithologist*.

### *Volunteers... take a bow!*

As this will be the last scheduled project newsletter, I really must say a huge thankyou to all those who contributed to the project in so many large and small ways. Well-done to all of you! It would just not have been as thorough without your assistance and shared local knowledge. You can all take some pride and satisfaction in having contributed to a significant result. Where, for the first time, and unique in Australia, we now have a relatively complete picture of two endangered species' population dimensions; where their important habitats are found; and an understanding of some of the threats that they face in our changing coastal landscapes.

**Terry Dennis**, Ph 08 8552 7659, mobile 0409 527 654, email <osprey84@internode.on.net>  
*Coastal Raptor Project Newsletter #4, August 2010*

## Something is knocking the state's owls off their perches

What's happened to Victoria's carnivorous owls? A significant number have vanished, and the Department of Sustainability and Environment isn't sure what's going on. It's assumed the top end of the woodland food chain is either starving to death because its food source has been killed off by the drought and fires, or it is relocating to parts unknown, but it will take years to find an answer.

The DSE has been monitoring the owl populations – including that of the Powerful Owl, Australia's largest owl – since 2000. Since then, detection rates in South Gippsland and the Bunyip State Park have dropped by half. In some areas of the Bunyip State Park – half of which was lost to the Black Saturday fires – detections of the Sooty Owl have dropped to a third.

DSE owl specialist Ed McNabb says: 'We don't know what's happened to them. We can only assume that drought has played a major role. We noticed the downward trend before the fires. They're very mobile birds, but the fires would have had an impact on their prey.'

Powerful and Sooty Owls, both officially listed as vulnerable, mainly eat Sugar Gliders and Ringtail Possums. The possums in particular are known to have little resistance to chronic hot weather, and their failure to thrive in the drought is probably the main reason why owl numbers have dropped. While owls may have escaped the Black Saturday fires, many possums would have been incinerated.

Mr McNabb says the smaller carnivorous birds, such as the Barking Owl, are able to sustain themselves on insects. Powerful and Sooty Owls can also eat rabbits and birds such as magpies and kookaburras, but they need to make the change in their diet before energy loss reduces their ability to effectively hunt. 'They'll either starve or take something else', said Mr McNabb.

Equally disastrous for the owls was the loss of old trees with large hollows that they require for nesting. They might have shifted elsewhere to recolonise, but this would mean taking over an already occupied territory. 'And there tends to be a home-ground advantage in these battles', said Mr McNabb. The occupying bird has inside knowledge of the territory and a greater capacity to defend its patch, because its energy store will be higher. Flying great distances in search of food saps the strength from large birds and even causes them to starve.

The DSE's biodiversity team leader for West Gippsland, Dr Rolf Willig, said the top-order carnivores were 'an indicator species as to the well-being of the ecosystem. Theoretically, if they're happy, the rest are happy.' For five years Dr Willig has been running a playback monitoring program in South Gippsland, where recordings of owl calls are played into the dark and answering calls are recorded. The number of birds answering calls has dropped significantly this year. 'The results indicate we may be having a delayed reaction from the fires', he said. 'The possums not actually killed in the fires might have been exposed afterward, and the owls picked them off, eating all the food that was left.' It will take years to find out what's happened. 'And not just three or five years. We'll be out here for a long time', said Dr Willig.

*John Elder, Melbourne Age, 13.06.2010 (Birding-Aus 13.06.2010 per Shirley Cook)*

## Square-tailed Kites nest in Mount Crawford Forest [SA]

During the spring of 2008 two pairs of Square-tailed Kites nested in Mount Crawford Forest [South East of SA]. Rose Slade and Sue Gredley located one nest and Frank Dennis located the other. One pair raised two young that fledged successfully; the outcome of the second nest is less certain. In the spring of 2009 both pairs returned to their 2008 nests and engaged in incubation activity, but no young were produced. The reasons are unclear. A November heatwave is one possible factor.

Department for Environment and Heritage (DEH) and Forestry SA staff took action to ensure the sites were documented so that any interference at the sites, such as through forestry activity or intrusive public access, would be minimised. Details of the site localities were not revealed. I was invited to meet DEH and Forestry SA staff to discuss further measures for the 2010 season. Unexpectedly and disappointingly, we

have been aware of no reports of Square-tailed Kites in the Mount Crawford Forest area so far [in 2010]. The reasons for this are also unclear. Many aspects of the season [were] running late; there have been fierce winds causing breeding failure in many raptors, according to Ian Falkenberg. Conditions may be very favourable elsewhere. Perhaps it is simply a matter of finding breeding sites nearby but remaining undetected.

Forestry SA wishes to do what they can to protect the birds and especially their breeding activities, but they can do little unless they know where they are, so any sightings of the species over the next few months will be helpful.

Please, whenever you are in the area (from Lyndoch and Williamstown in the north to Kersbrook, Forreston and Cromer CP in the south), keep a lookout for Square-tailed Kites. Make sure you have adequate view and field-notes or photographs so that identity is certain, and please pass any record on to me or to Colin Rogers as for any important record [in SA] on 08 8272 7271 or <abblack@bigpond.com>

*Andrew Black, Birds SA Newsletter 216, Nov. 2010: 5–6*

### **Persecution of Wedge-tailed Eagles in Tasmania**

Over the years I have come across a small number of Tasmanian farmers with a hatred of Wedge-tailed Eagles, people who will happily tell you they kill eagles and will keep doing so. Having proof is another matter. Recently I revisited this distasteful subject when a farmer told me about a farmer acquaintance of his on a big Midlands super-fine wool property, who claimed to have killed 230 Wedgies (he called them ‘big crows’) in the 18 months up to a year ago, including several days of eight per day. The ecological vandal in question was reportedly an 84-year-old war veteran, drove a little Suzuki 4×4, and my informant insisted he was ‘honest’ and accurate with his records and clearly believed him. This quickly cross-referenced with other reports we had of a person in that area who shot and buried eagles, and someone we had been trying to catch for years illegally poisoning eagles and Tasmanian Devils, and an angry old man who once told me on talkback radio he didn’t care what I said, he’d just keep killing ‘big crows’ as long as he liked. A quick parley with a wildlife ranger who knows that area and the people in it well, came up with a likely candidate and a question to my informant confirmed it. This depressing anecdote has shades of a similar farmer Ian Falkenberg is dealing with in South Australia. We all agree such people are increasingly rare, but let’s not kid ourselves they don’t exist. As the ranger said – just hope they die soon because they are not being replaced, most farmers now being a lot more sensible. Putting the offensive nature of the story aside, it’s hard to imagine one person, however obsessed, patient and crafty they may be, killing that many eagles in a few square km anywhere, let alone Tasmania. It seems odd, considering I see eagles most times I drive past his farm; they are still about there in similar numbers to elsewhere in the Midlands. Perhaps the person in question has created a regional sink and all manner of immature Wedgies drift into that area of low density.

Several of us ‘experts’ have tried to estimate numbers of Wedgies in Tasmania, and we usually come up with about 2000, but that number of course could not produce the claimed kill per month per area. Perhaps Chinese whispers exaggerated the total killed or compressed the time over which the kills occurred, but I’m cautious about taking that easy way out. We might also be more in error than we like to think. We know local densities of Wedgies can be high at some times – even in the relatively stable environment of Tasmania. I have seen a photo of 14 at once in Tasmania, and talked to someone who knows eagles who claims to have seen 17 at once recently very near the problem farm. I will keep pursuing the issue, both to hope to stop it, but also to make sense of the report from a population point of view.

*Nick Mooney*

*...Maybe the area attracts exceptional numbers of hungry, scavenging juvenile eagles (Ed.)*

## RAPTOR FILE

### Relationships of Australian falcons

Olsen *et al.* (1989) proposed a radical new concept of the relationships of the Australian falcons (genus *Falco*), in the process accidentally transposing the subgeneric names of the Peregrines (*Rhynchodon*) and 'desert' falcons (*Hierofalco*). On the basis of the chemical profiles of feather proteins of the various species, they suggested that the Grey Falcon and Black Falcon were part of a group of 'Australasian hobbies' that included the Australian Hobby and Oriental Hobby, and that these were in turn part of a group of 'Gondwanan hobbies' that included the Brown Falcon and New Zealand Falcon, and the Sooty Falcon, Eleonora's Falcon (both Middle Eastern/African) and the Bat Falcon (South American). This proposal had great appeal for us Aussies, and was taken up by *HANZAB 2* (cautiously) and more enthusiastically by its derivative field guide (Debus 1998, *The Birds of Prey of Australia*, OUP).

However, recent DNA studies show this proposal to be incorrect. On the basis of DNA (Wink & Sauer-Gürth 2004), the Australian Hobby clusters with the Eurasian Hobby and its close relatives (Sooty and Eleonora's Falcons), and the Black Falcon clusters with the 'great' or 'desert' falcons (Lanner, Saker, Gyr and Laggar, minus the Prairie Falcon which clusters with the Peregrine). Although the positions of the Brown and New Zealand Falcons are not yet finely resolved, they do not cluster closely with each other or with the hobbies, and the DNA results are widely divergent from the feather-protein scheme. DNA results on the Grey Falcon will be available soon (is it a 'desert' falcon too? or maybe a Peregrine type?).

These preliminary DNA findings show that earlier opinions about the affinities of the Australian Hobby with the Old World hobbies, and Black Falcon with the 'desert' falcons, were correct after all (e.g. Cade 1982, *The Falcons of the World*, Collins, London). It's worth noting that Jerry Olsen has maintained all along that the Black Falcon's affinities were with the Laggar Falcon of India (e.g. see the March 2011 *Corella* rare raptors issue). DNA reveals genetic affinities, but the biochemistry of feather proteins is probably a phenotypic expression of feather structure, which is adaptive. Therefore, unrelated falcons with similar habits could convergently have similar structure of the primary feathers (e.g. flexibility or rigidity), and therefore similar feather structural proteins.

This case of changing taxonomic opinion is a good example of having to discard a theory or position when subsequent scientific evidence shows it to be wrong. It also shows that we can be wrong about our own raptors.

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*Stephen Debus*

### Conspicuous prey taken by raptors and butcherbirds

#### *Conspicuous prey*

Raptors are known to select out conspicuous prey, like birds that look or behave abnormally. For example, they catch a white pigeon from a flock of dark birds. Charles Darwin in *The Origin of Species* counselled pigeon fanciers that 'hawks are guided by eyesight to their prey – so much so that on parts of the continent people are warned not to keep white pigeons, as being most liable to destruction'. It may not be colour itself, but individuality in the flock which draws a hunting falcon to the 'odd bird out'. Derek Ratcliffe, the eminent British Peregrine expert, believed that this 'odd bird out' notion showed how Peregrines, as agents of natural selection, weed out sub-standard individuals in the prey population. The German falconer, Gustl Eutermoster, flew a trained Peregrine at Rooks and shot a similar-sized sample of Rooks at random. Forty

percent of the Rooks caught by the falcon were in less than peak condition, including moult or illness, whereas only 23% in the shot sample were so classified.

In 1990 Robert Kenward reported on trials with trained Northern Goshawks that hunted Wood Pigeons in England. He found that Goshawks were less likely to catch defective prey during a surprise attack, when the flock of pigeons saw the hawk only at the last moment. Goshawks were more likely to catch defective prey during prolonged chases, particularly when the goshawk had time to see that certain individuals would be easier quarry.

Olsen (1994) compared Galahs and Little Corellas caught by a trained Peregrine, on the Wilmington plains in South Australia, with those shot from the same flocks with a shotgun. The sample was small, but cockatoos caught by the Peregrine weighed less than those shot and a disproportionate number were thin and sick with matting around the vent.

Another small sample of Rock Doves caught by a Peregrine was compared with a sample collected by hand, and analysed for pesticides. As with Galahs and Corellas, the pigeons caught by the falcon weighed less. There appeared to be higher levels of pesticide in the falcon-caught sample. Only the pigeons killed by the falcon contained residues other than DDT or its metabolites – heptachlor epoxide, lindane and dieldrin. In addition, one pigeon killed by the falcon had a fully formed egg in its cloaca.

Prey can also be conspicuous because it is new to an area.

#### *Examples of rare species in the ACT and Armidale taken by raptors or butcherbirds*

- 1- Long-tailed Jaeger (Peregrine): first ACT record (storm-blown?), never seen by COG (Boles *et al.* 2004).
- 2- Black Falcon (Peregrine): rare, never seen in mountains by COG (Rose, Boles & Olsen unpublished).
- 3- White-browed Babbler (Boobook, Sparrowhawk, Little Eagle): almost never seen by COG (Trost *et al.* 2008; Olsen *et al.* 2010; Rose, Boles & Olsen unpublished).
- 4- Budgies (Hobby): rarely seen by COG, commonly taken by Hobbies (Olsen *et al.* 2008). [See also p. 17.]
- 5- Eastern Yellow Robins (Grey Butcherbirds): Armidale; robins wearing tail-mounted radio-transmitters, translocated to new sites, transmitter initially affected flight (making robin look injured) or antenna glinted in sunlight (Debus unpublished).
- 6- Bandicoots (Wedge-tailed Eagle): 'extinct in ACT' (Olsen *et al.* 2010).

#### *Comment*

Raptors and butcherbirds will take odd-looking birds new to an area, and this should be considered when native birds and mammals are released into new areas.

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*Jerry Olsen and Stephen Debus*

## Raptors and orchards

On 28 Jan 2011 I was asked by Craig Webb, of the Raptor and Wildlife Refuge at Kettering near Hobart, to help with a White (Grey) Goshawk *Accipiter novaehollandiae* caught under a net over a 2-ha cherry orchard at Margate. The orchardist had reported the trapped bird to the Parks and Wildlife Service, who asked Craig to help (increasingly Tasmanian wildlife authorities rely on volunteers for such things), but Craig was otherwise engaged. The pen was huge – 2 ha in area and 4 m high, but the bird obvious flapping about, intermittently clinging to the netting in a corner adjacent to an agitated looking adult pair in a tree outside the pen. From its size, leg and eye colour it was clearly a juvenile female. Now, it might seem an impossible task to catch such an adroit flyer in such a big area, but the goshawk was clearly flustered and disoriented and I knew to keep her that way. After a few bounces off the walls she just gave up and I easily caught her on the ground; if an adult I'd still be chasing her round. She was fat at about 1 kg and was absolutely perfect. Tom Ferguson, the owner, was happy to have her in there (it's not the first), but was worried she'd hurt herself. After the obligatory photos, oohs and aahs and a breather, we released her. She again showed her inexperience by trying to land downwind. Let's hope she is a bit more wary next time she encounters people and their things. Good news all round, especially because I got a kilo of prime cherries, a good new contact and more importantly, I bet I will find a nearby nest for the records.

All manner of Tasmanian orchards are now protected from blossom-eating possums and fruit-eating birds by netting – only feasible since the invention of tough, UV-resistant nets that can be tensioned and left up. In my experience, hawks that get caught inside are usually inexperienced juveniles of Brown Goshawk *Accipiter fasciatus*, Collared Sparrowhawk *A. cirrocephalus* and Grey Goshawk (and also once a Wedge-tailed Eagle *Aquila audax*), variously interested in the Blackbirds and rabbits that get in and try to get out, fluttering about and looking attractive. With these enormous structures a few holes or occasional unclosed doors are inevitable, and the odd raptor literally blunders in. I have come across orchardists who are very keen to have hawks in the pens during fruit ripening and harvesting, to act as additional deterrents to fruit-eating birds, and a few who even lured interested hawks into orchards (one enterprising fellow used to stock his orchard with Guinea Pigs) for that critical few weeks. I tried it years ago with crippled Swamp Harriers in fenced orchards (Harriers because they are not inclined to climb trees and get over fences), but the Blackbirds soon twigged that the Harriers were crippled and forged on regardless. There have been some recent experiments in New Zealand using New Zealand Falcons *Falco novaeseelandiae* at hack as deterrents in vineyards, with much success claimed.\*

**Nick Mooney**

\*see abstract, p. 30 (Ed.)

## Raptors and racing pigeons

Paul M<sup>c</sup>Donald was recently sent a series of articles in the *Australian Pigeon Fancier* (vol. 49–52, circa 2005) on the Peregrine Falcon, on the theme of 'Knowing the enemy is half the battle' (five parts on 'Hunting habits of the Australian Peregrine Falcon') and 'Know your competition' (two parts on Peregrine research and ecology), plus Australian wildlife's 'call for help' [from raptor predation] and an Irish tirade and call for a falcon cull (in Ireland). These articles contain specious arguments, woolly thinking, unsupported speculation, misrepresentation of data on Peregrine ecology, appeal to emotion rather than reason, demonisation of raptors ('ruthless killers', 'nasty birds', 'bloodthirsty' etc.), anthropomorphising of pigeons (e.g. 'war heroes'), and sheer falsehood or error. Above all, they show a lack of understanding of ecological principles (e.g. the Eltonian pyramid of numbers, ecological carrying capacity, density-dependent population regulation), or indeed just the web of life or ecosystem function (role of predators etc.). Basically, the platform of the pigeon lobby seems to be [my responses in *italics*]:

- There is a raptor overpopulation ('plague proportions'), partly arising from the higher raptor fledging rate during the last 20 years or so of drought. [*The breeding and fledging rate, though initially high in dry years, could be expected to decline in prolonged drought, through food shortage. The apparent increase may have been drought refugees moving into coastal, i.e. densely human-populated, areas where they are more visible. How many of these unspecified raptors were gregarious species like*

*Black or Whistling Kites, irrelevant to the pigeon 'fancy'? In fact, raptor numbers Armidale–Sydney are not a patch on what they were in the 1980s BOPWatch 1; see also Atlas 2.]*

- There was a secret and denied captive-breeding and release program, which was intended to bring the Australian Peregrine back from the brink of extinction. *[There was no official (government) program, and wildlife officials were correct to deny that there was one. There was no 'secret', just probably no official knowledge, other than among licensing personnel. Specific licensing officers, if asked, could have confirmed that some private rehabbers were breeding from a few permanent-care birds, but releasing offspring in numbers too low to make any difference to wild raptor populations. The Australian Peregrine was never on the brink of extinction, and official classifications and publications in the 1980s were wrong to suggest that it was.]*
- The ARA (a 'radical element of raptor enthusiasts'!) has rapidly increased raptor numbers through captive breeding and release, has facilitated the Peregrine's colonisation of cities with hand-reared birds that have no fear of people, and the 'plan' grew to breeding and releasing other raptors, endangered or not. *[The low level of breeding and release (no coordinated plan as such) has never been enough to make any difference to the long-term, national wild population level, of Peregrines or others. The hacking method of release deliberately avoids imprinting on humans, to maintain released raptors' 'wildness'. Wild Peregrines colonised cities (globally) under their own steam, by adapting to nesting on buildings, attracted by the abundance of prey there. More likely, wild falcon numbers have simply tracked prey numbers; all of the Peregrine's major native prey species (Silver Gull, Galah, rosellas) have either increased or not changed in abundance, nationally or in NSW, since 1980 (e.g. compare Atlas 1 with Atlas 2). The same applies to many other common parrots and bush birds that are sometimes taken as Peregrine prey (see the published ornithological [evidence](#)).]*
- The resulting excess of wild falcons is threatening native birds (a 'crisis in the prey world'), and predation and uncontrolled increase in predators (alongside habitat clearance) 'heads the list' of causes of decline of now-endangered species; the real sufferers are Australian native birds (and the pigeon industry), etc. *[What 'excess' in ecological terms? None of the species in the pigeon article's cited list of our most endangered birds has ever been recorded as Peregrine or raptor prey (e.g. see HANZAB). Predation by the Peregrine or other raptors has not been identified as a major or significant cause of decline of any of our threatened bird species, in the latest scientific assessment (e.g. the Garnett & Crowley 2000 action plan).]*
- The ARA failed to appreciate the impact of habitat clearance, and the decline of native 'prey' birds. *[Many of the ARA executive and members have been working for years to address the impact of habitat loss, fragmentation and degradation on threatened or declining woodland songbirds, parrots etc. There is no decline in the major Peregrine prey species, none of which is endangered.]*
- Crowding into remnant habitat makes native birds easy prey. *[For reasons of territoriality and ecological carrying capacity, displaced birds can't simply crowd into remaining habitat. The displaced individuals die, for lack of food, shelter and living space, a concept that non-ecologists can't seem to grasp (hence the developers' furphy of 'There's other bush they can relocate to').]*
- Peregrines must be having an impact because each pair delivers [allegedly] 60 items per day to their nestlings, multiplied by x number of Peregrine pairs plus offspring and floaters per unit area = so many thousands of native birds killed, etc. *[This is a tenfold exaggeration; the article correctly quotes 7 items per day, declining to 5.5 items per day near fledging, i.e. a mean of about 6, then somehow gets 60 per day from the cited graph, apparently by confusing n with %. Besides which, the 'disturbing' kill rate per se is meaningless without knowing prey densities and breeding productivity, to gauge the effect of predation on prey population dynamics. More likely, it's 'sustainable harvest'.]*
- Falconry is surely practised in Australia (by the ARA?), because how else do the falconers sometimes engaged by councils or airports, for bird control, learn their skills? *[Falconry as a pastime and bloodsport is illegal in Australia, not least because flying falcons at native birds would also be illegal. The ARA is opposed to falconry as a sport, although certain falconry techniques are used in raptor rehab. At least initially, the falconry expertise at airport bird-deterrence trials was from overseas (e.g. see Jerry Olsen's book). All such work is under strict permit provisions.]*
- Racing pigeons are the saviour of native birds, because they contribute to wildlife preservation by providing food for raptors, and hence there is less predation on native birds. Without pigeons, native birds will bear the brunt of predation and become endangered or extinct; the industry is vital to the conservation of endangered bird species, etc. *[Although feral pigeons (the pesky, overabundant urban and rural offspring of AWOL homing pigeons) may take some of the 'heat' off native birds, predation*

by native raptors is not the cause of endangerment or extinction of native birds. The major native prey species are also abundant (or overabundant, e.g. Galahs); raptors and their native prey have coexisted over evolutionary time; the pigeon industry is irrelevant to the true causes of endangerment and extinction (which are habitat loss, feral species etc.)]

- Peregrines are a threat to the racing pigeon ‘fancy’ and industry; the Passenger Pigeon is a warning of the possible effect of predation on domestic pigeons and the industry. [*The decline of the industry may be more related to the causes of decline of other community interest groups such as national parks associations, field naturalist groups, amateur ornithology, and even the ARA (!). That is, Generation Y, permanently plugged in to electronic gadgetry, seems oblivious to such things. The Passenger Pigeon was affected primarily by ecological change, i.e. settlers’ agricultural or pastoral practices that removed its food and habitat. Peregrines could hardly duplicate the predation effect of a large human population armed with shotguns.*]
- Peregrines need to be controlled (i.e. culled), because since the increase in falcons the predation and impact ‘rules’ have changed (falcons are now the threat, not the threatened). [*The increase in Peregrine atlas reporting rate has been only moderate over 20 years, i.e. no change nationally and up 34% in NSW (e.g. see Atlas 2), and may be partly explained by the falcons’ increasing visibility in cities (where the observers are). There is no scientific evidence that Peregrines are a threatening process for any of our endangered or declining native birds, and hence no scientific (ecological) support for a cull.*]

The pigeon fanciers have demonised the ARA as ‘predator handlers’ whose membership has ‘quietly grown to 400’, and they have stated that they ‘don’t like what the ARA stands for’. They seem to equate the ARA, and raptors, with the hated Nazi falconers who used trained Peregrines to catch British wartime carrier pigeons, and they use this history to justify their stance against falcons. That saga featured in a recent documentary on the ABC, ‘War of the birds’. In it, the script uses loaded terms like ‘killer falcons’. Predation is what all animals high up the food chain do to survive, be they lions, songbirds, or whatever (and carnivorous humans!). All predatory species have to be efficient, or go extinct. The Peregrine and ancestral wild Rock Dove *Columba livia* have co-evolved as natural predator and prey over evolutionary time; wild-type pigeons have a white rump for good reason (i.e. Peregrine avoidance).

Most of the ARA executive are (and were) not raptor rehabbers or breeders, and the same probably applies to the membership (our main thrust being as a specialised branch of field ornithology, i.e. bird study); the print run of *Boobook* is now about 250 (including libraries, institutions, overseas and unfinancials), so we’re nowhere near 400 nowadays. A quick scan of our membership list shows that most of the names known to me (and that’s most of the list) are ornithologists, ecologists, wildlife officials or bird-watchers. In short, the pigeon fanciers’ claims, and call for a falcon cull, don’t stand up to objective, evidence-based scrutiny, and it is apparent that they misunderstand (and misrepresent) what we’re primarily about. They should not present supposition as fact, or misuse ‘conservation’ to promote a cull that is really about livestock and cash. They claim they wanted dialogue with the ARA (which was, and is, welcome), but it is the fanciers who have declined to pursue the dialogue (as indeed the pigeon articles have noted). Comments welcome.

*Stephen Debus*

## Windfarms

Andrew Bolt (who writes for the Melbourne *Herald Sun*) has claimed that the Roaring 40s windfarms in Tasmania have not turned a profit in their 5 years of operation (for lack of sufficient wind), and have cost the taxpayer nearly \$13 million. If true, this is a scandal, given the number of therefore pointless deaths of endangered Tasmanian Wedge-tailed Eagles at windfarms that are effectively white elephants. See his blog:

[http://blogs.news.com.au/heraldsun/andrewbolt/index.php/heraldsun/comments/so\\_what\\_power\\_must\\_we\\_use\\_when\\_the\\_wind\\_wont\\_blow/](http://blogs.news.com.au/heraldsun/andrewbolt/index.php/heraldsun/comments/so_what_power_must_we_use_when_the_wind_wont_blow/)

This revelation partly answers the question posed on p. 19 (bottom) herein. Thanks to David Whelan for this information and link. (Ed.)



## FIELD NOTES

### Grey Goshawks near Cygnet, Tasmania

I've noticed, over the past few years, Grey (White) Goshawks *Accipiter novaehollandiae* on a block of land opposite where I live at Nicholls Rivulet, south of Hobart (Tas.). I assume I've been observing a pair. There are usually two, one somewhat larger than the other and therefore probably a female. Wow, a pair of possibly breeding, threatened birds nesting close by which are easy to observe, being bright white and distinctly noisy. The land has a creek running through it most of the year and has plenty of eucalypts, Blackwood and Silver Wattle, reputedly ideal Grey Goshawk habitat. It will be my mission to find the likely nest one day, with an expert to confirm it.

In 2010, a neighbour and I saw one Goshawk carrying small prey into the same area. Also in 2010, I saw one of the hawks carrying sticks in its claws into the area. In 2009 or 2010 I stepped out the back door and looked up in the eucalypts around our house, in response to the Goshawks' calling, to see them mating! Some time later there were three Goshawks, one apparently a youngster flying with them, calling incessantly. Towards the end of 2010, the Goshawks' block of land sold and the new owners cleared the land of trees and undergrowth for a house site. I was horrified to see 40-tonne excavators clearfell and burn my precious Grey Goshawk habitat, and lamented the possibility of their nest being destroyed or the birds being frightened off by two weeks of noise and smoke. The excavators left and the smoke diminished and all was quiet, except for the call of the Goshawk in the distance. Amazingly, they were not put off by the massive human disturbance so close to them.

Also, in 2010 Tasmanian Native-hens *Gallinula mortierii* returned to our area after a few years' absence. We have some nice marshy areas, suitable for raising a family of about eight Native-hen chicks, which the parents shepherded across our road several times a day. The Goshawks sure knew they were there, rising out of the marshes sometimes without a meal, but sometimes successful. The Goshawks are also showing much interest in my pet rabbits and bantam chickens, which are kept in hutches and coops in my garden. These pets are usually let out of their cages to exercise, but not lately. Two Goshawks were in my garden, perched in fruit trees or on top of the rabbit hutches. My shepherding has prevented any losses and that's just the way I want it.

Now in 2011, there were three Grey Goshawks once again and they were calling a lot! One is apparently a youngster, which seems to fly after the adults and call constantly. In the last couple of weeks I have only seen two birds, very noisy, flying together mostly, and I can't see a size difference. My latest observation happened to be on 30 January, and Targa Wrest Point (a road race) was scheduled for a circuit covering Nicholls Rivulet Road: an event we locals watch each year. The Goshawks were visible and audible, but couldn't compete with the thundering sound of a hot 1960s Ford Mustang overtaking a modern vehicle on a sharp left-hand bend just in front of us. As we watched the successful overtake and the cars leaving the scene, we all saw one of the Grey Goshawks fly low into the path of these rockets... It didn't get hit! What a relief, and another tale of survival.

**Louise Jerrim**

*... Louise is being modest, and she demonstrates the advantages of straightforward observation. She works with State wildlife authorities in the Threatened Species Section of DPIPW and is an excellent observer, perhaps all the better for her lack of preconceptions. Louise's second-last observation may have been of an adult male and juvenile male or adult female and juvenile female, since there seemed no size difference. She may have missed a second young (they do not often all stay together), and they were two juveniles of the same sex finding their feet – the timing is the usual start of independence for this species in Tasmania. Maybe the risk-taking Goshawk mistook the Mustang for a Brown Falcon. –Nick Mooney*

### Hall's Babbler evades predation by Grey Falcon

At a location in central Queensland and about 300 m away from a Grey Falcon *Falco hypoleucos* nest with three young, on 30 September 2010, I witnessed the following incident. A group of about half a dozen Hall's Babblers *Pomatostomus halli* flew from one cluster of acacia trees with some undergrowth to a similar cluster, a distance of maybe 20 m over open flat ground, sparsely but evenly covered with 20 cm high vegetation. When the last Babbler, which had fallen slightly behind the rest of the group, was out in the open, an adult Grey Falcon appeared out of nowhere, flying parallel to the ground at considerable speed with few but powerful wing-beats, clearly targeting the isolated Babbler. At the very last moment the Babbler evaded the attack by dropping to the ground like a stone, and the Falcon disappeared. As the Babbler did not appear again, I wondered whether I had missed the kill or whether the Babbler was injured after all. So, I walked the ~12 m to the area of the attack, and found the Babbler motionless on the ground in an extraordinary position. The bird was lying on the ground on its upper breast, the head slightly tilted to one side with the tip of the bill also touching the ground. The body, supported by the legs, pointed upwards at an angle of about 45 degrees, and the tail was held almost vertically. At first, I mistook the bird for a burnt piece of wood like the remains of a burnt bush, mainly because of the near-vertical black tail and because I did not detect the slightest movement despite a lively wind. A second look, however, revealed the white tip of the tail and also the prominent markings on the head. Only when I was about to grab it, the obviously uninjured and perfectly well Babbler 'unfroze' and flew off. The behaviour of the Babbler, and its seemingly not accidental position, suggested that the Babbler had used that position purposely to evade predation by the Falcon.

*Jonny Schoenjahn*

*... I had a similar experience with an adult male Australian Hobby and an adult Common Starling at Tamworth (NSW) in spring 2010; just as the Hobby closed for the aerial strike, the Starling dropped ~2 m into long grass and hid. A little later, the Hobby returned and took a fledgling Starling in full flight. (Ed.)*

### Grey Falcon 10-day-old young left alone for the night

In August and September 2010 I repeatedly visited a nest of Grey Falcons *Falco hypoleucos* in central Queensland. The nest was ~80 m above ground on a 120 m tall telecommunications repeater tower. On 22–23 August I considered the female to be incubating, as she did not feed young but fed only herself on the prey delivered by the male. On my next visit, 6–8 September, two young had hatched. From the dates and the growth of their feathers I estimated the young to be ~10 days old, acknowledging that my experience with judging the age of Grey Falcon pulli is limited. In the afternoon of 7 September at 1602 h, one of the adults arrived at the nest; a brief cackle was heard from either the adult or the young. Immediately, the adult started to piecemeal-feed both young. Two minutes later the prey item was eaten and the adult left. The previous feeding had occurred at 1326 h on that day, the young being left unattended in the time between feeding. Watching with a telescope, I hardly took an eye off the nest until one hour after sunset when it was completely dark. Also, I was alert to any noise from the nest. I frequently checked the entire structure of the repeater for the adults, the grey birds being not easy to detect when perched on the grey steel structure. The nearest trees considered suitable as nocturnal roosts, >100 m away, were also checked from where I was standing. I camped within earshot. I did not record either of the adults returning to the nest or to the repeater or its vicinity that evening. At first light the following morning, well before sunrise (which was at 0636 h), I did not see any adult at the nest or nearby. It was not until 0745 h that both adults arrived at the nest, the adult female begging vigorously. At 0751 h the male left, and the next feeding of the young occurred at 0824 h. It appeared that the parents had left their two young of ~10 days old unattended during the night, a total of ~15.5 hours. The temperature at sunrise was a mild 14°C, with only a very slight breeze during the entire night. During the period concerned I did not record any other raptor near the nest site, although before and after that period were Little Eagle *Hieraetus morphnoides*, Whistling Kite *Haliastur sphenurus* and Brown Falcon *Falco berigora*. I would be interested to hear whether such behaviour has been reported for other falcon species.

*Jonny Schoenjahn* <jonnybird@bigpond.com>

### **Black Falcon or juvenile Swamp Harrier?**

On 14 June 2010, while observing a pair of Australian Hobbies *Falco longipennis* in pre-nuptial behaviour at Melton railway station in Victoria, I observed a dark brown raptor in a high-altitude, slow flapping, mostly gliding flight ~450 m away. I observed it for 1–2 minutes passing from east to west, and my immediate thoughts were that I had seen a Black Falcon *Falco subniger* in typical flight behaviour. I managed to take some photos of it and sent them to Steve Debus for confirmation. Even viewing the images at high magnification I wasn't certain of the identification, but Steve indicated that the shape of the wings, the primaries and the shape of the tail made it more likely this sighting was a juvenile Swamp Harrier *Circus approximans* in atypical flight behaviour. After viewing the images again I concurred. I had never seen Swamp Harriers exhibit this type of behaviour before.

*David Whelan*

*...My main recollection of David's photos is that the trailing edges of the wings were slightly curved inwards (i.e. wings narrower) near the body, rather than straight (as in Black Falcon) or even slightly broadening at the body as in many falcons. With only a ventral view, the pale rump (not clean white as in an adult Swampie) was not visible. I recall also a case where a uniformly very dark brown raptor was photographed in the Riverina (NSW) and the image circulated for identification; despite the ventral-only view, its long yellow legs gave it away as a juvenile Swamp Harrier. (Ed.)*

### **Wedge-tailed Eagle takes Emu chick**

I was in the Mount Tingaringy area of the Snowy Sector (Snowy River and Alpine National Parks, Vic.) [in 2009, no date/time given], when I noticed an male Emu *Dromaius novaehollandiae* 10–15 m away, behaving oddly. He seemed panicked, but made no effort to move away. As he looked frantically about, I noticed the six chicks he was trying to round up – but I mistakenly thought that my intrusion was the reason for his panic. As I watched, a Wedge-tailed Eagle *Aquila audax* appeared from nowhere, swooping and coming to perch in a tree above old man Emu. The Emu frantically tried to keep his chicks together as he attempted to move them to cover, but one was a little slow. The Eagle dropped from the tree, snatched the chick and disappeared as quickly as he had arrived. Old man Emu and his remaining chicks moved off into the bush.

*Simon Ruff* (reprinted in part from *Bird Observer* 866, Aug. 2010: 14)

### **Wedge-tailed Eagle and foxes contest prey**

A friend who has a farm situated on the Korkiperrimul Creek, on the outskirts of the township of Bacchus Marsh, Victoria, recounted the following to me. He has located a Wedge-tailed Eagle *Aquila audax* nest ~450 m from his house, and sees possibly two (or even three) recently fledged eagles which hunt around his property. On 8 January 2011, he heard a rabbit giving a typical alarm vocalisation from his house. Upon investigation, he discovered that a Fox *Vulpes vulpes* had killed the rabbit and was carrying it away, when suddenly a Wedge-tailed Eagle flew down to the fox and forced it to relinquish the rabbit. The eagle then attempted to fly off with the rabbit in its talons when a second fox, as well as the first one, appeared and in turn forced the eagle to give up the rabbit to them. A second eagle was observing the proceedings nearby but did not assist. I observed two Wedge-tailed Eagle chicks in a nest further north on this creek in November 2009, with a possible (unconfirmed) second nest with chick 700 m away. The current nest is ~1.5 km from the 2009 nest, and I have yet to establish if these nests belong to the same pair of adult eagles.

*David Whelan*

## Black Falcons hunting

On 16 November 2009, on 'Westward Ho' station near Boulia (south-west Qld), I was watching the immense flocks of Budgerigars *Melopsittacus undulatus* that had formed in the region. At daylight at a large dam, many thousands of Budgies came in to drink, and shortly after were attacked by two Black Falcons *Falco subniger*. It took about five or six stoops before each Falcon succeeded in making a kill. Again, after daylight (~0600 h) on 17 November, the same sequence of events occurred. Each morning, after drinking, the flock of Budgies gathered in two huge concentrations out on the plain, and were free from attack.

About an hour after daylight (i.e. 0740 h), in mid-August 2010, my attention was drawn to a very tightly packed flock of ~30 Rock Doves *Columba livia* (domestic pigeons) whirling around on the outer urban edge of Inverell (northern inland NSW), at a height of ~60 m. The reason for this behaviour was revealed when a large, black-coloured falcon made a powerful stoop down through the swirling mass, but without success. It took a total of about five stoops before the falcon caught one, and flew off with it in level flight to a clump of eucalypts 400 m away. As the light was good, and the falcon appeared quite black, I concluded that it was a Black Falcon, albeit a rare sighting in this area. As the pigeons were flying at a much greater height than the Budgerigars (above), the speed and grace of the strikes at the pigeons was an awe-inspiring sight.

**John Courtney**

*...John notes that aviculturists who breed 'bush Budgies' (wild green stock) report that their genetically 'wild' type birds commonly throw a blue or yellow colour mutation, whereas despite much scrutinising of large wild flocks John never saw such a mutant in the field. John speculates that predators, such as the falcons in the above episode, 'weed out' colour mutants (which are genetic defects) rapidly (see also the article on p. 9, on raptors taking unusual prey). I've heard that many (or most?) of the Budgies taken by Hobbies in Canberra are escaped domestic colour varieties. (Ed.)*

## Chance observations

Recently I was reminded of how much pure chance, glancing up at the right moment while doing something unrelated to raptors, can influence our sightings of raptors. I was at a kite-flying day at the Domain in Hobart (Tas.) on 16 January 2011 and was looking up, watching a kite, and a Grey Goshawk *Accipiter novaehollandiae* (from its proportions and buoyancy I think a juvenile female) was soaring overhead ~500 m above. It drifted rapidly across the Derwent River, then 10 minutes later returned even higher. I wouldn't have known it was there unless I was watching kites right then. Beyond making me envious, the incident reminded me of the confidence and tremendous mobility of even a forest-adapted raptor. No wonder such birds can disperse so well. In its turn the incident reminded me of another pure-chance observation – in 1969 I was lying back on a trapeze, covered in spray while sailing a lightweight sharpie (a racing yacht) off the mouth of the Tamar River, and saw five Wedge-tailed Eagles *Aquila audax* so high as to be almost unrecognisable, crossing the river (about 5 km wide there). Kind of sobering to know all these sorts of activities are happening all about and we see just the very tip of the iceberg.

**Nick Mooney**

## Brown Falcon prey items

In December 2010 a hobby-farmer friend of mine, whose farm is located near the Lerderderg River at Bacchus Marsh, Victoria, reported having recently fledged juvenile Brown Falcons *Falco berigora* on his property. He said that amongst the prey items at least one of the two had had in their talons over the month of December 2010 were: Rabbit *Oryctolagus cuniculus*, Eastern Rosella *Platycercus eximius*, Common Myna *Sturnus tristis* and some sort of small (less than 1.5 m long) snake (most likely an Eastern Brown Snake *Pseudonaja textilis*). Interesting variety of prey items.

**David Whelan**

### **Grey Goshawk takes Common Starling**

On 28 November 2010 I was standing in Betty Hanson's garden, ~3 km inland from Margate (itself ~30 km south of Hobart, Tas.), watching for a Swamp Harrier that had been about the paddocks at the back of the property, in hope it would reveal where it might be nesting. There was a family of Common Starlings *Sturnus vulgaris* feeding on the ground under some large trees. Suddenly a Grey (White) Goshawk *Accipiter novaehollandiae* swooped from a nearby tree, where it had been hiding, undetected by me or apparently the Starlings. It grabbed a juvenile Starling, pinning it to the ground, then rose into the air with the Starling in its talons. Also, Betty tells me that the landlord of the Franklin Tavern (just south of Huonville, ~50 km south of Hobart) has a White Goshawk that visits, and takes his chickens from an open chicken run at the back of the pub. Apparently, the landlord doesn't seem to mind, and is quite happy to sacrifice a few chickens for the pleasure of seeing the Goshawk, although I reckon he might eventually build a cover over the run if the loss gets too high. I go to Franklin occasionally, and might pop in and interview the landlord for a column.

**Don Knowler**

*(Don writes a weekly bird column 'On the Wing' for the Saturday Mercury, and is hence a repository for all sorts of bird stories. He rarely misses a chance to mention raptors, and is a great and open supporter of raptor conservation in Tasmania and an enthusiastic advocate of Craig Webb's Raptor and Wildlife Refuge, featured on p. 11. – NJM)*

### **Peregrine takes burdened Starling**

On 3 November 2010 I was driving near Elizabeth Town, northern Tasmania, doing my BOPWatch equivalent as I have for decades, and saw a Common Starling *Sturnus vulgaris* flying along about 20 m above the paddock, struggling to stay airborne with a huge length of grass (1 m+), no doubt for nest-building. As if reading my thoughts about the Starling's vulnerability, a compact dark form rose vertically, merged with the Starling, and continued upwards. A quick pull over, out with the binocs and yes, there was an adult male Peregrine Falcon *Falco peregrinus* rearranging the Starling, bending down probably to administer the *coup de grâce* bite, then soaring in the warmth, wings and tail fully spread, grass still trailing. I think I know most of the nests in that area, so I waited to see the line of flight. After 5 minutes he had risen to ~500 m and set off straight toward a nest I know, exactly 6 km from the point of contact. Interestingly, other Starlings nearby didn't react at all. Perhaps they didn't even know it happened. Lessons on the risks of enthusiastic nest-building (not only was the Starling's flight impaired, it probably couldn't see clearly to watch for danger, and it was a very obvious target), and the crisp efficiency of a falcon in its element when all works in its favour.

**Nick Mooney**

### **Peregrine dust-bathing**

After the Birdfair talks and ARA meeting at Leeton (NSW Riverina) on 19 September 2010, Victor Hurley, Chris Field, Keith Fisher and I went to check out an active Peregrine Falcon *Falco peregrinus* nest. The nest was in a hollow dead River Red Gum *Eucalyptus camaldulensis* standing in the Murrumbidgee River channel. In mid-afternoon (around 1600 h), the adult female Peregrine emerged and flew to the ground above the river bank, where she dust-bathed in some loose soil, on an apparently man-made earthen mound, near the carpark for a picnic area and boat ramp. Our wait was also rewarded with the arrival of the food-bearing male, a food pass to the female, and a glimpse of the surprisingly advanced chick (almost fully feathered) for so early in the season.

**Stephen Debus**

## BOOK REVIEW

***The Wind Farm Scam* by John Etherington.** Stacey (UK), 2010. 198 pp, ISBN 9781905299836.

This new book by British ecologist, Dr John Etherington, is well worth getting (and giving) as soon as you can secure copies. It's available in the US via the Internet from Amazon for \$14.00, Books-A-Million for \$16.15 and Borders for \$17.95 (Barnes & Noble apparently haven't awakened yet). It took about 10 days to get the book from Amazon, but that time probably will shorten as knowledge of the book gets around and orders flow in.

The book should be required reading for every high-school, college and university student, especially in those institutions offering energy and environmental programs. [Although] written in the UK, most of the facts about windfarms are applicable worldwide. It explains wind energy and its limitations and environmental insults in easily understood terms. It explains why wind will never provide a significant, reliable source of electricity.

As in the US, windfarms are being built in the UK primarily because of government fiat and huge government-forced subsidies, not because of their true environmental, economic or energy benefits. Apparently the tax breaks and subsidies in the US are even more attractive than those in the UK since two major oil companies, BP and Shell, have pulled out of UK 'renewable' energy programs with the intent of focusing their attention (and renewable rent-seeking) on the US and Canada.

Personally, I found Dr Etherington's well researched and clear-headed discussion of wind energy a very welcome relief from the wind-energy madness now underway in the US. For example:

A. Decisions by the wizards of the US Department of Treasury and Department of Energy to give hundreds of millions of taxpayer dollars to firms (mostly foreign) for windfarms, allegedly to promote job creation and economic activity, even though many of the windfarms had already been built!!! (These wizards also continue to ignore the fact that a huge share of windfarm capital investment dollars for turbines, towers and blades flows to other countries.)

B. Continued promotion by the US DOE's Office of Energy Efficiency and Renewable Energy (DOE-EERE) and the National Renewable Energy 'Laboratory' (NREL) of a fundamentally flawed economic model that allegedly identifies the Job and Economic Development Impact (JEDI) of windfarms, thus misleading local government officials and citizens who are called on to accept the massive, low energy-producing, environmentally disruptive facilities.

C. Extraordinary expansion of tax breaks (PTC, ITC, 5-yr-200% DB accelerated depreciation, bonus depreciation) and subsidies (direct cash grants in lieu of PTC; more money for DOE-EERE and NREL wind energy 'R&D' and propaganda) for wind-farms as a part of 'stimulus' bills enacted during the past year, all at the expense of US taxpayers and our children, grandchildren and great-grandchildren who will be saddled with the massive, rapidly growing national debt resulting from irresponsible actions by Congress and the last and current Administrations.

D. The DOE-sponsored 'study' that purports to show that 20% of US electricity requirements could be supplied by wind energy by 2030, a clear demonstration that most any outrageous, preconceived notion can be 'proven' if one makes the 'right' assumptions and ignores reality.

E. The recent release of a fundamentally flawed DOE-Lawrence Berkeley National Lab (LBNL) 'study' that defies common sense and real-life experience by using large amounts of poorly selected, inapplicable, and inadequate data – hidden behind seemingly sophisticated statistical techniques – in an attempt to support a preposterous claim that windfarms do not adversely affect the property values of the people who find themselves living in the shadows of the massive, noisy structures. (The LBNL report has numerous 'sound bites' that will undoubtedly be used by aggressive windfarm developers to confuse local government officials and ordinary citizens who will never have the time to find their way through the report.)

***Glenn Schleede*** (online review supplied by David Whelan)

*...and how much of this is applicable to the Australian situation? See p. 13. (Ed.)*

## RECENT LITERATURE

Thanks to Stacey McLean for providing some titles.

### Journals

#### *Animal Conservation* 13 2010

Large-scale human effects on an arid African raptor community (J. Anadón *et al.*), 495–504.

#### *Auk* 127 2010

Temporal instability of agricultural habitat reduces reproductive success of Barn Owls (*Tyto alba*) (J. Martin *et al.*), 909–016.

#### *Australian Field Ornithology* 27 2010

Breeding and diet of the Little Eagle *Hieraetus morphnoides* in central Queensland (K. Fisher), 119–127.

A failed breeding attempt of the Pacific Baza *Aviceda subcristata* near Grafton, northern New South Wales (P. Morgan & B. Morgan), 128–132.

Peregrine Falcon *Falco peregrinus* of the Siberian subspecies *calidus* on Christmas Island (M. Carter & A. Silcocks), 174–176.

Diet of an Eastern Grass Owl at Kamay Botany Bay National Park, Sydney (M. Schulz & E. Magarey), 177–178.

Diet of the Eastern Barn Owl *Tyto (javanica) delicatula* in Diamantina National Park, south-western Queensland, in 2008–2009 (S. Debus *et al.*), 179–183.

#### *Biodiversity & Conservation* 19 2010

Long-term ecological change in a conservation hotspot: the fossil avifauna of Mé Auré Cave, New Caledonia (A. Boyer *et al.*), 2107–3224. [Barn Owl pellets]

Potential impacts of wind farms on territories of large eagles in southeastern Spain (J. Martínez *et al.*), 3757–3767.

#### *Bird Observer* 866 Aug. 2010

Kestrel nursery (D. Jenkins), 16–17. [Anecdotal account of almost complete breeding cycle from eggs to independence, for Nankeen Kestrel]

Peregrines in penthouses (J. Berggy), 33. [Peregrine pair in residence, male feeding female, at disused rail railway grain silo, Albacutya, Vic.]

#### *Bird Observer* 867 Nov. 2010

Raptor incidents (S. Mearns), 27. [Juvenile White-bellied Sea-Eagle takes Little Red Flying-fox]

Sea-Eagles (D. Stephenson), 27. [Capture of rabbit; mate takes kill, then pirated by Wedge-tailed Eagle, including brief aerial talon-grappling between Wedge-tail and Sea-Eagle]

#### *Birding Asia* 13 2010

First observations of *Ninox (novaeseelandiae) rotiensis* on Roti island, Lesser Sundas, Indonesia (P. Verbelen), 85–89.

A further odyssey in search of the little-known owls of Indonesia (P. Verbelen & B. Demeulemeester), 105–108. [Togian Hawk-Owl, Taliabu Masked Owl]

**Condor 112** 2010

Factors influencing the detectability of forest owls in southeastern Alaska (M. Kissling *et al.*), 539–548.

**Conservation Genetics 11** 2010

Evidence for recent population bottlenecks in Northern Spotted Owls (*Strix occidentalis caurina*) (W. Funk *et al.*), 1013–1021.

**Emu 110** 2010

Nest-site selection of New Zealand Falcons (*Falco novaeseelandiae*) in plantation forests and the implications of this to forestry management (R. Seaton *et al.*), 316–323.

**Environmental Management 46** 2010

Minimizing collision risk between migrating raptors and marine wind farms: Development of a spatial planning tool (A. Basisner *et al.*), 801–808.

**Forktail 26** 2010

Notes on the roost sites of the Sulawesi Masked Owl *Tyto rosenbergii* (J. Fitzsimons), 142–144.

**Ibis 152** 2010

Social status influences microhabitat selection: breeder and floater Eagle Owls *Bubo bubo* use different post sites (L. Campioni *et al.*), 569–579.

Breeding season food limitation drives population decline of the Little Owl *Athene noctua* in Denmark (K. Thorup *et al.*), 803–814.

**J. Applied Ecology 48** 2011

The response of raptors to a windfarm (J. Garvin *et al.*), 199–209.

**J. Avian Biology 41** 2010

Aerial hunting behaviour and predation success by Peregrine Falcons *Falco peregrinus* on starling flocks (F. Zoratto *et al.*), 427–433.

Prey handling in raptors in relation to their morphology and feeding niches (T. Slagsvold *et al.*), 488–497.

Environmental constraints for plumage melanization in the Northern Goshawk *Accipiter gentilis* (I. Galván *et al.*), 523–531.

Life history events of the Eurasian Sparrowhawk *Accipiter nisus* in a changing climate (A. Lehikoinen *et al.*), 627–636.

**J. Raptor Research 44** 2010

The nest, eggs and diet of the Papuan Harrier from eastern New Guinea (R. Simmons), 12–18.

**J. Zoology 281** 2010

Hunting strategies and foraging performance of the Short-toed Eagle in the Dadia-Lefkimi-Sioufi National Park, north-east Greece (D. Bakaloudis), 168–174.

**Kukila 14** 2009

First breeding records of Shikra *Accipiter badius* in Indonesia (A. Nurza *et al.*), 54–58.



**Memoirs of the Qld Museum: Nature 55** 2010

The Julia Creek Dunnart and other prey of the Barn Owl in Mitchell Grass downs of north-western Queensland (P. Woolley), 107–117.

**Oecologia 164** 2010

Darker eumelanic Barn Owls better withstand food depletion through resistance to food deprivation and lower appetite (A. Driess *et al.*), 65–71.

Integrating the costs of plant toxins and predation risk in foraging decisions of a mammalian herbivore (S. Kirmani *et al.*), 349–356. [Effect of presence of Powerful Owl pellets on Brushtail Possum foraging]

**South Australian Ornithologist 36** 2010

The Powerful Owl, *Ninox strenua* (Strigidae), in South Australia (B. Haywood), 1–8.

**Wingspan 20(4)** Dec. 2010

Strangers in paradise (D. Milledge *et al.*), 26–29. [Masked Owl research on Lord Howe Is.]

**Thesis**

Schedvin, N. (2007) Distributional ecology of the Barking Owl *Ninox connivens connivens* in Victoria. PhD Thesis, Charles Sturt University, Albury.

**Books**

Dekker, D. (2009). *Hunting Tactics of Peregrines and Other Falcons*. Hancock House, Surrey (BC), Canada. ISBN 978-0-88839-683-9. [See *J. Raptor Research* 44, 2010, 331–332 for a review.]

Olsen, P. (Ed.) (1993). *Australian Raptor Studies* (ARA). PDF available from the new ARA website.

**DVDs**

‘A King on Outstretched Wings’ is a half-hour documentary about the breeding cycle of Wedge-tailed Eagles in the Perth region. For more information, including a trailer of the film, please visit <[www.simoncherriman.com/Simon\\_Cherriman/Films.html](http://www.simoncherriman.com/Simon_Cherriman/Films.html)> To order a copy please email Simon: <[aquila84@inet.net.au](mailto:aquila84@inet.net.au)> or write: 180 Glendower Street, Parkerville, WA 6081 (\$20 + p&p).

Osmotherly, J., Schofield, G. and Schedvin, N. (2008) ‘Where are ... the Barkers?’. Osfield Productions. Available by post at no cost, on request, from Reception, Department of Sustainability & Environment, PO Box 124, Benalla, VIC 3672 Ph 03 5761 1611.

Synopsis (37 minutes): entertaining and educational, this short docu-drama features the endangered Barking Owls of north-eastern Victoria. In this film we meet Betty, a Barking Owl, wildlife ecologist Dr Natasha Schedvin and local residents and children of the Chiltern-Mt Pilot National Park area near Beechworth and Chiltern. Join them and discover more about the fascinating Barkers. Betty shares with us some of the significant events of her life’s story – finding a mate, raising a family – the dangers that are always lurking in the bush. Betty and her partner Todd survive the disastrous wildfire of 2003, but Betty’s life is changed forever. What lessons can we learn about managing the land for future generations of Barkers? Filmed on location in the Chiltern-Mt Pilot National Park and surrounding area, this short local film is based on the research of PhD student Natasha Schedvin and the owls she came to know and love. It is intended to increase awareness and understanding of a little-known or understood species and its habitat requirements in order to help secure its survival as a species. The film has been developed to appeal to a wide range of audiences including landholders, land managers and students: primary, secondary or tertiary.

## Conference abstracts

### 2010 Australian Birdfair, Leeton (NSW), September 2010

#### An overview of the Australian diurnal raptors

Stephen Debus

There are now 25 species of diurnal raptor recorded for the Australian mainland, with a 26th on Australian territory in Torres Strait. Taxonomic affinities are according to the current Australian checklist and recent DNA work; <sup>E</sup> = endemic species, <sup>G</sup> = endemic genus (including New Guinea). Conservation status: M = 'Migratory' (i.e. subject to international treaty); R = Rare, N = near threatened, V = vulnerable, E = endangered, C = critically endangered.

Accipitriformes, Accipitridae:

**Ospreys:** Eastern Osprey *Pandion cristatus* (NSW: V; SA: E)

**White-tailed kites:** Black-shouldered Kite *Elanus axillaris*<sup>E</sup>, Letter-winged Kite *Elanus scriptus*<sup>E</sup>

**Pernines:** Pacific Baza *Aviceda subcristata*, Oriental Honey-Buzzard *Pernis ptilorynchus* (rare vagrant), Square-tailed Kite *Lophoictinia isura*<sup>EG</sup> (NSW: V; Vic: V, SA: E), Black-breasted Buzzard *Hamirostra melanosternon*<sup>EG</sup> (NSW: V; SA: R)

**'Old endemic'** of uncertain affinity: Red Goshawk *Erythrotriorchis radiatus*<sup>EG</sup> (Aust: V; WA: R, NT: V, Qld: E; NSW: C)

**Milvine kites:** Black Kite *Milvus migrans*, Whistling Kite *Haliastur sphenurus*, Brahminy Kite *Haliastur indus*, White-bellied Sea-Eagle *Haliaeetus leucogaster* (Aust: M; Vic: V; Tas: V; SA: E)

**Wood-hawks:** Brown Goshawk *Accipiter fasciatus*, Collared Sparrowhawk *Accipiter cirrocephalus*, Grey Goshawk *Accipiter novaehollandiae*<sup>E</sup> (Vic: V; Tas: V; SA: E)

**Harriers:** Spotted Harrier *Circus assimilis* (NSW: V; Vic: N), Swamp Harrier *Circus approximans*

**Booted eagles:** Wedge-tailed Eagle *Aquila audax* (Tas: E), Gurney's Eagle *Aquila gurneyi* (Torres Str), Little Eagle *Hieraaetus morphnoides*<sup>E</sup> (NSW: V; ACT: V)

Falconiformes, Falconidae (**falcons**, genus *Falco*):

Kestrels: Nankeen Kestrel *Falco cenchroides*

Uncertain affinity: Brown Falcon *Falco berigora*

Old World hobbies: Australian Hobby *Falco longipennis*

Uncertain affinity: Grey Falcon *Falco hypoleucos*<sup>E</sup> (Aust: N; Qld: R; NSW: E; Vic: E; SA: R)

Desert falcons: Black Falcon *Falco subniger*<sup>E</sup> (Vic: V)

Peregrines: Peregrine Falcon *Falco peregrinus* (SA: R)

There are unconfirmed reports in north Qld of the Long-tailed Buzzard *Henicoperis longicauda*, Grey-faced Buzzard *Butastur indicus*, Grey-headed Goshawk *Accipiter poliocephalus*, Gurney's Eagle and Oriental Hobby *Falco severus*.

The most common identification problems or errors include Osprey vs Sea-Eagle; 'red' raptors mistaken for Red Goshawk (especially Square-tailed Kite, female Swamp Harrier, rufous Brown Falcon); Brown Goshawk vs Collared Sparrowhawk; juvenile Spotted Harrier vs adult Swamp Harrier; dark Little Eagle often unrecognised; dark Brown Falcons vs Black Falcon; grey raptors mistaken for Grey Falcon (especially Grey Goshawk and Black-shouldered Kite, also adult Brown Goshawk/Collared Sparrowhawk, pale Brown Falcons).

Species most in need of study are Pacific Baza, Black-breasted Buzzard, Brahminy Kite, Collared Sparrowhawk, Black Falcon and Grey Falcon.

## A comparison of breeding by Peregrine Falcons in urban, rural and extensive natural environments

Victor G. Hurley

Peregrine Falcons have a near-global distribution and breeding populations appear to be increasing in urban environments wherever they are studied. In the current study, begun in 1991, 260 Peregrine Falcon *Falco peregrinus macropus* nest sites have been recorded across Victoria in temperate Australia. These were classified according to the major land use within a 5-km radius of each. Twenty-eight percent occur in extensive natural landscapes, 61% in rural and agricultural lands, and the remaining 11% in areas with greater than 33% urbanisation within the designated radius. Urban landscapes are the only type in which the proportion of nests has increased over the past ten years. A total of 126 nest sites across these three land-use categories have been monitored over 434 breeding attempts. Clutch size, brood size and the number of breeding Peregrines produced from each site were recorded. Clutch size was largest in urban environments (2.84 eggs) and smallest in territories found in extensive natural landscapes (2.48 eggs). Egg hatch rates showed the opposite trend, varying from the highest rate in extensive natural areas (70.8%) down to 67.4% in urban environments, but these did not differ significantly. Hence, brood sizes mirrored the size hierarchy of clutch sizes, with those in urban territories being highest (average 1.91 nestlings), extensive natural areas the smallest (1.76 nestlings), and rural territories in between with 1.88 nestlings. However, of all the nestlings fledged, 13.2% from natural areas became breeding adults, compared with 8.4% amongst rural areas and only 7.0% from urban areas. These last results are a true indication of the contribution territories within each land system make to the conservation of this species.

## Eagle Insight: Wedge-tailed Eagles in the Perth region

Simon Cherriman

Publishing scientific research is at the forefront of many researchers' thoughts, but it is not the only method of communication available. This talk outlined the life history of the Wedge-tailed Eagle in Australia, with emphasis on its breeding biology in the Perth region of Western Australia. Persecution and breeding-season diet were also discussed, to alert people to the methods required and challenges in researching Australia's largest raptor. The importance of long-term research in acquiring up-to-date information on species' response to continued human developments was emphasised. In the Perth region, eagles hold territories and breed successfully even on the fringes of a high-use urban area, and in the rest of the state they are still common despite their history of persecution, and more recent threats including illegal shooting/poisoning in some areas and deaths as a result of road kill. However, one of the main focal points of this talk was to emphasise that scientific journals are only one means of communicating facts about our environment, and a broad array of communication methods can be used to educate the wider public. The use of film-making was discussed as a tool in conveying a broader message to the public about environmental conservation, using the iconic Wedge-tailed Eagle as a pedestal from which this message can be launched. Simon Cherriman is currently completing his Masters in Science Communication (Natural History Filmmaking) at Otago University in Dunedin, New Zealand. The film 'A Wedged Tale' forms part of his Masters thesis and will be available in early 2011. Simon can be contacted via email: <aquila84@inet.net.au>

## How scarce is the Grey Falcon?

Jonny Schoenjahn

The Grey Falcon *Falco hypoleucos* is a little-studied rare species endemic to Australia. It is monotypic and considered to consist of one widely dispersed population. To date, one published estimate is available of its total population size, on pp. 28–29 of *Threatened Birds of Australia*, RAOU Report No. 68 (Brouwer & Garnett 1990). Based on *The Atlas of Australian Birds* (Blakers *et al.* 1984), the estimate was achieved by comparing the distribution area and the number of sightings per 1-degree grid block of the Grey Falcon with those of the Peregrine Falcon; it was computed that there 'may be only 1000 pairs of Grey Falcons'. *The*

*Action Plan for Australian Birds 2000* (Garnett & Crowley 2000) applied that result when assigning the conservation status 'Near threatened: d' to the species.

In the comparison mentioned above, it was suggested that 'the Grey Falcon may occupy only two thirds of the area occupied by the Peregrine Falcon in Australia'. During the five-year period from 1977 to 1981 of data collection for the 1984 Atlas, the Peregrine Falcon was reported from 365 grid blocks, whereas the Grey Falcon was reported from only 99 grid blocks. From the suggested ratio of two-thirds, however, one would expect the Grey Falcon had been reported from 243 grid blocks. The author of the estimate, however, did not deal with that disparity.

Several explanations for the disparity may be considered. The Grey Falcon may be under-recorded relative to the Peregrine Falcon because it is more easily missed, or because it utilises mostly a less accessible habitat. Both alternatives are as difficult to quantify as they are difficult to qualify. Nevertheless, both factors may affect reporting rates even for detailed searches for Grey Falcons. On the other hand, it has been pointed out that other raptor species are time and again misidentified for Grey Falcons; it appears very likely that the latter is over-reported relative to the Peregrine Falcon in this regard.

A different aspect introduces itself. The Peregrine Falcon is sedentary, whereas the Grey Falcon is known to typically use nests for a limited number of consecutive breeding seasons only, and apparently quite commonly for just one season. Because the data underlying the estimate were collected over a period of five years, they bear the likelihood that individual birds and pairs have been reported from multiple and possibly quite distant grid blocks. Further, the non-sedentary behaviour also provides a possible explanation for the above-mentioned disparity, because the population of the Grey Falcon as a whole may utilise, at any given season, only a part of its known overall distribution area.

The considerations above lend themselves to the suggestion to include the factor 0.4 (= 99/243) in the calculation provided in the RAOU Report No. 68. The thus amended relationship is:

$$(3000 \text{ to } 5000) \text{ [pairs of Peregrine Falcons]} \times \frac{2}{3} \text{ [suggested relative distribution area]} \times 0.4 \text{ [correction factor, } 99/243] \times \frac{1}{4} \text{ [relative 'density' of reports per grid block with reports]} = 200 \text{ to } 350 \text{ [pairs of Grey Falcons]}$$

It must be pointed out that most assumptions employed by the original estimate remain today untested by any field survey data. Further, it remains disputable whether the general approach to comparing the two species on the basis of atlas reports, incorporating a population size estimate of the Peregrine Falcon by Cade (1982), is sensible. It is evident that more research into the biology and in particular the ecology of the Grey Falcon is needed.

That study is impossible without the help of many people kindly reporting their observations to me: <jonnybird@bigpond.com> All information will be kept strictly confidential.

## **Breeding and diet of the Little Eagle in central-west Queensland**

*Keith D. Fisher*

Little Eagles were studied opportunistically from 2005 to 2009 around Longreach in central-west Queensland. From a small sample, the breeding diet was found to be 80% birds, including Hardhead duck and Australasian Pipit, and 20% reptiles, including Bearded Dragon and Gidgee Skinks. From observations, Galah and Eurasian Coot were also noted. The success rate to brancher/fledgling stage from nine breeding events was 0.67 young per attempt. From nine breeding attempts, there was one brood of two chicks which survived to brancher stage. A late breeding attempt after a failure was witnessed, with copulation occurring away from the nest tree. Comments were made about the pressures faced by these pairs from nearby Whistling and Black Kites, which were possibly increased at one nest through very high numbers of macropod carcasses.

... for the full paper, see *Aust. Field Ornithology* 27(3), Sept. 2010, 119–127.

## Sea-Eagles of Gippsland unmasked – removing the threats to a threatened species

*Jenny & Ken Hodge*

### *Introduction*

We are writers, teachers and photographers. In 2005 we commenced a 10-year study of the nesting sustainability of White-bellied Sea-Eagles in the Gippsland Lakes. Our study area encompasses 400 sq. km of the Gippsland Lakes and coastal region from Sale to Metung, and includes three main lakes, some minor lakes, rivers and morasses as well as sections of the Ninety Mile Beach. We are currently monitoring 19 nests, with a focus study being done on the Sea-Eagle pairs residing in Lakes National Park, and a book on Australian Sea-Eagles is well underway.

### *Man v wild*

As photographers with an interest in raptors, we both became individually enthralled with the magnificent Sea-Eagles and their marine, wetland and riparian environments. Having discernment of the threatened status of this species and the pressure caused by human interference and encroachment on nesting sites, we've undertaken to educate the Gippsland public by writing regular feature articles on the eagles in the local papers. Out on the lakes (the largest saltwater lake system in Australia) boats are essential for approach to many of the breeding sites, and boats also permit us to get up close and intimate with the wildlife. The joys and tragedies of photographing Sea-Eagles in Gippsland are many, but most of all you must be diligently passionate in all terrains, acquire a love of mosquitoes and be prepared to get very wet on many occasions!

### *Different by nature*

Sea-Eagle sexual dimorphism is usually obvious, with size being the main difference. The female is typically much larger and as they age, both acquire a black stripe at the back of the eye, which is difficult to detect in bright sunlight. There are other significant behavioural idiosyncrasies at rest, hunting and at the nest. Some differences include resting-period discrepancies, the female spending habitually longer periods resting than the male outside of nesting time; nesting territories being retained by the female more than the male; hunting behaviours, which include slower female wing pace; and differences in vocalisation, with the females' honking being both slower and sonorous in note. Females can also be sighted in the direct nest area for longer periods both inside and out of the breeding season.

Plumage colouration is analogous, though, and all juveniles will take up to 5 years to attain full mature feathers. Dimorphism in juveniles is harder to recognise, but can be observed by watching hunting behaviours, males generally being swifter on the dive and kill. Brown markings are slow to disappear. This was observed when the female of our detailed study took on a new partner directly after the collapse of her nest in 2008, and we were able to record his plumage colour change over a 1-year period. Having remaining brown spots when she took him on, they did not rebuild the nest for one year, possibly owing to his immaturity. Within a year he had lost all brown markings and went through a strong moult period to gain his adult white and grey feathers. In the following February we recorded some spectacular mating behaviour and a new nest was finished in a 3-week period in late May.

### *Raising a family*

A typical Sea-Eagle nest is built within sight of permanent water in the most dominant tree, which is re-used and can reach over 2 metres in height and diameter. Sometimes trees can be an exotic such as *radiata* pine. In the area in our study where there was no obvious dominant tree, we undertook a survey of trunk diameter to determine if the eagles were selecting a tree based on structural stability. Trees selected for nests had trunk diameters in the top 20%. Approximately 85% of nests in our study are built in vertical forks of two to three branches, and the remainder are built on horizontal forks. Average height of nests is dependent on the tree type, but the lowest nest is 15 metres from the ground. Size of nests is dependent on the availability of nesting material, and we observed very small nests in dead remnant eucalypts on farm properties, in contrast

to the large nests found in National Parks where building material is plentiful. One pair in our Park owns four nests.

In 2008 we were asked by Parks to assist in returning an unfledged juvenile to its nest, and we witnessed the nest crash to the ground 3 days later. Observing the nest in the preceding 3 days, we found that the female came back to repair it after the human intrusion, but would not feed the juvenile which died with the nest collapse. This highlighted again for us the requirement that Sea-Eagles need a zone that is free from human interference, and made us query the ethics of photographing chicks in the nest that has been done in the past.

Statistics about the freshly dropped sticks collected from beneath the new nest built in 2010 are:

- All were green, no dead sticks
- All side branches without exception had been removed
- Average length of stick 1.5 metres
- All were 20–25 mm thick
- Average stick weight was 450 grams
- This was 15% of female eagles' body weight
- An estimated 200–300 sticks were brought in over the 3-week period (20 per day)

We have witnessed Wedge-tailed Eagles frequently menacing Sea-Eagles by infringing nest territory boundaries and attempting to take over established nests. They are also a peril to newly hatched chicks. From our study we have researched the times of egg-laying and found they can vary from season to season by as much as 20 days but, surprisingly, all adjacent nesting eagle pairs in the Park still lay within days of each other, despite seasonal date disparities. Juveniles will be tolerated in the nest territory until commencement of the next breeding (4 months from fledging); however, if breeding is futile they may be tolerated until further breeding is successful. The most productive pairs in the study are the most undisturbed, with twins being common every year.

#### *The hunters*

Sea-Eagles are proficient hunters in the Gippsland area, and we have witnessed them taking a wide selection of prey. Some of these include:

- Bird species ( swan cygnets, Hardhead duck, shearwaters, grebes, cormorants, Fairy Penguins)
- Mammals ( possums, bats, gliders)
- Aquatic (eels, bream, mullet, carp)
- General carrion

Juveniles still on the nest are fed meticulously and regularly by parents for the 12-week phase, and because of this we have been able to study in detail the fishing dive sequence from boats, the female being slower in flight than the male. Part of our current study is to record and photograph the load of prey an adult eagle can carry, and the method of weight-bearing. Sea-Eagles not feeding juveniles will continue to take prey only if their crops are not too full, and can often be seen in the middle of the day quiescent for hours on lifeless edge trees overlooking water.

We became aware very early in the study that fishermen in the lakes had been feeding Sea-Eagles for over 20 years, and contact with these fishermen has been invaluable, leading to discoveries of new nests, detailed bird movements over water bodies, and interaction between eagles of different territories. The fishermen we know take a significant interest in the birds and are quick to offer help for the sake of eagle preservation.

Juvenile Sea-Eagles generally have very low strike rates when fishing, and can often be observed in backwaters, behind islands or in sheltered shallow inlets endeavouring to fish more than on the exposed lake. Competition between birds and inferior fishing skills are two reasons for the high mortality rate among juveniles.

In 2010 we began to find a collection of blue objects directly under Sea-Eagle nests, ranging from talon-pierced beer cans to blue balls and tape, all bearing talon or beak marks. In the Lakes, one in every five nests

has offered up blue objects which we first thought were jewels of bowerbirds, but it would seem that these could have been mistaken by the birds for fish in the water.

### *Too precious to lose*

As coastal real estate is appreciating in the Gippsland Lakes, one of the greatest threats to the birds is loss of habitat caused by human encroachment.

The lakes systems connect with both perched aquifers and regional aquifers, making them susceptible to pesticide contamination. The pesticide Dificol (10% DDT) was still used in the watershed of the lakes until 2004, and the byproduct DDE make take years to infiltrate the lakes system with a possible effect on breeding success.

Fire practices designed to keep humans safe can be disastrous for nesting birds and for the environment of the area. Recent hot burns conducted in Lakes National Park stopped 800 metres short of a main active Sea-Eagle nest, and on Boole Poole Peninsula the burn blistered its way right up to a main roost tree. We completed a ground transect for 100 metres 5 months after the burn and it was found that, despite good rainfall, only three germinated seedlings were present. Two of these were weed species.

The majority of nesting territories in the lakes area are vulnerable to even small increases in sea-level rise, with the hinterland being cleared farmland having few suitable nesting habitats. This aspect is being addressed in the 10-year study we are currently doing, which includes looking at positioning of nest trees within the demographics of the area.

### *The future*

Educating the public involves sharing information and creating interest, and our regular feature articles on the Sea-Eagles in Gippsland local papers focus on this matter. In the Parramatta River area, articles generated interest and now the Sea-Eagles there enjoy fame and notoriety, farmers and the general public being more cognisant of pesticides in rivers and the need to preserve remnant trees on private properties. If we are to conserve nest territories in Gippsland, we must educate the public and government bodies. As suitable remnant nest trees expire over time, new ones take years to attain the necessary height, and as populations of people increase, the optimum habitat for Sea-Eagles is always going to be in a delicate equilibrium, with no real guarantee of success without active involvement and awareness. With this in mind, in 2010 we formed a new association called SEA EAGLE (Sea Eagle Awareness Educational Association for the Gippsland Lakes and Environs), which we hope will allow a greater level of communication with the general public and will assist us in the continuation of the study.

## **Living with eagles – a South Australian perspective**

There is a common view that the widespread killing of eagles ceased many years ago. However, in some marginal agricultural areas of SA the killing of eagles is still practised today. Much of the killing of eagles is done in a clandestine way, with the carcasses removed from paddocks and disposed of secretly, usually in underground pits or abandoned mine shafts, or buried under rubbish. The movement and aggregation of juvenile and subadult Wedge-tailed Eagles in specific areas of the Mid North Region may be related to food availability.

Significant threats to Wedge-tailed Eagles in the Mid North Region of SA include:

- direct persecution by poisoning, shooting and trapping;
- loss of secure breeding habitat for eagles. (Windfarms are being constructed in areas of remnant native vegetation and eagle breeding habitat).

The combined effects of persecution and loss of habitat give reason for concern about the future of the eagle population in these areas. Preliminary survey results of raptors in these areas indicate low numbers of eagles in 2009.

### *Historical perspective*

- Historically, Wedge-tailed Eagles were widely persecuted in agricultural and pastoral areas of SA.
- In the early to mid 1900s pastoral station managers regularly sent out hunting parties to kill as many eagles as possible, because they believed that eagles kill lambs. On one pastoral property, station records show that up to 60 eagles were killed over 3 days.
- Reliable reports claim that some landowners burn down trees containing eagle nests.
- In the early 1990s, the authorities investigated a landowner in the Mid North who killed about 65 eagles and dumped the carcasses in a mine shaft.
- In 2010, one landowner was investigated by the authorities for killing nearly 180 Wedge tailed Eagles. This landowner was alleged to have killed many more eagles over a period of years on his property.

### *Common issues with landowners who claim eagles kill significant numbers of lambs*

- Predation appears to occur in marginal cropping and farming areas. There are few reports of landowners killing eagles in the more productive and reliable farming areas of SA.
- Landowners suffering from the effects of drought maintain moderate to high stocking rates, resulting in significant land management issues (e.g. minimal ground cover, soil erosion).
- Timing of lambing is usually in late summer/early autumn when conditions are dry and food nutrition is poor, often resulting in a high incidence of lamb and ewe mortalities.
- Few landowners that report eagle predation on lambs undertake regular fox control, and those that do, usually bait for foxes at lambing time only. There is little cooperation between neighbours and other nearby landowners to deal with fox predation.

### *Education programs*

In 2009 and 2010, education programs targeting the farming industry and schools were conducted in problem areas:

- Field days and workshops focussing on other land-management issues including soil erosion, fox and rabbit control, stock husbandry and nutrition, grazing strategies and predation by eagles. Stakeholder involvement includes Primary Industries and Resources SA (PIRSA), Natural Resource Management Boards (NRM), Department of Environment and Natural Resources (DENR), South Australian Farmers Federation (SAFF) and farmers, graziers and pastoralists. The aim of the field days and workshops is to engender an understanding that there are other reasons for high lamb mortalities, and that eagles are often wrongly blamed.
- Education days are conducted for local schools focussing on farming systems, soil, native plants, reptiles, fossils, birds, and living with Wedge-tailed Eagles. Stakeholder involvement includes NRM Boards, DENR and local Landcare groups. Approximately 400 students participated in this program in 2010. The aim of the education days is to engender an understanding that eagles are farmers' friends, and that we can all help to protect them.

### *Potential impact of windfarms on Wedge-tailed Eagle survival*

- The mid-north agricultural area of South Australia is characterised by a series of low ranges running in a north-south direction, which makes these areas preferred sites for windfarms.
- The Mid North Region is a highly fragmented landscape, with much of the native vegetation cleared for farming and cereal cropping in the early 1900s. Native vegetation occurs in remnant and fragmented stands, often in the less productive farming country and along ranges and ridgelines in steep hilly country.
- These remnant and fragmented stands of native vegetation often contain significant biodiversity and are the preferred nesting sites for Wedge-tailed Eagles and other raptors. Windfarms constructed along these ranges pose a threat to the long-term breeding success of eagles through loss of habitat and potential collision with wind turbines.



### *Strategies and techniques for influencing changes in attitudes and practices*

- Having empathy with and ability to relate to farming communities is very important. Acknowledgment that eagles do kill lambs (research has shown that eagles do sometimes kill lambs; however, predation usually accounts for less than 1% of mortalities). Predation by eagles on stock is only one element in the day-to-day management of agricultural properties.
- Encourage groups of landowners to actively participate in co-operative and integrated land-management programs on a landscape scale, for positive gains in pastoral production, rather than dealing with the eagle issues in isolation.
- Ability to influence a group of farmers is important, to bring about positive longer term changes in attitudes towards eagles. Develop an association with respected community members (leaders) and in particular those that protect eagles on their properties, so that you can help them bring about change as well (leading quietly through others).
- Knowing when you have genuine community support determines when to progress issues to the next level. For example, conducting field days and workshops and education programs for students. The support of farmers, school principals, teachers and industry is vitally important.

### *Ensuring conservation of eagles in the future*

- Community support is vital to achieving conservation and protection of eagles.
- Changing attitudes towards eagles starts with school children.
- Encourage groups of landowners to work co-operatively on a landscape scale for pastoral production.
- Through research and monitoring, determine and measure the impacts of large-scale persecution of eagles, and of windfarms on eagle survival and recruitment.
- Encourage community assistance and involvement in research and monitoring programs.

### ***Ecological Society of America Annual Meeting, Pittsburgh, August 2010***

#### **Reintroducing threatened falcons into vineyards reduces bird-damage to wine grapes**

*Sara M. Kross, Jason M. Tylianakis and Ximena J. Nelson, University of Canterbury (NZ)*

Land-use intensification is driving range reduction and even extinction of many iconic species, despite the potential ecosystem services provided by these species. Although it is well documented that conserving natural enemies of insect pests may provide direct biological control benefits, comparatively little research has examined the benefits of protecting natural enemies of vertebrate pests. In vineyards, pest birds directly reduce yield by feeding on grapes, and reduce wine quality through increased fungal infection on pecked bunches. In order to assess a joint conservation/pest-management project that reintroduced the threatened New Zealand Falcon *Falco novaeseelandiae* into vineyards, we estimated pest bird abundance and quantified grape damage in vineyards containing resident Falcons and vineyards without Falcons.

We found that Falcon presence significantly decreased the number of grape-removing introduced European pest species, and hence the incidence of grape removal and overall pest bird damage. Falcons did not affect the number of native Silvereyes *Zosterops lateralis*, which peck grapes and cause fungal infection, but Falcons did reduce the amount of pecking found on grapes. Our results indicate that reintroducing native birds of prey into vineyards can reduce both pest bird abundance and grape damage, resulting in considerable savings for the vineyards while protecting an endemic species.

## INTERNATIONAL NEWS

### Bald Eagles poisoned by brodifacoum

A rat-eradication program on Alaska's Rat Island led to the death of more than 420 birds, including 46 Bald Eagles. Island Conservation, the group based in Santa Cruz, California, that led the operation, applied poison in excess of that recommended by an advisory panel and probably above the legal limit approved by the US Environmental Protection Agency (EPA). After 1780, a Japanese sailing ship was wrecked near the coast. The invasive rats fed on the eggs, chicks and adults of ground-nesting seabirds. Island Conservation tested grain cakes to be laced with the anticoagulant rat poison brodifacoum on nearby islands. In November 2007, Island Conservation asked the Island Eradication Advisory Group, based in New Zealand, to review the possible baiting strategies that it had developed. The advisory group characterized Island Conservation's proposed poison applications as 'prodigious', noting that on New Zealand's Campbell Island, which was said to have had the highest density of rats in the world, only 6 kg per hectare of brodifacoum-laced bait was used on flat terrain. Island Conservation, however, decided to apply 12 kg/ha of the bait on coastal areas during its first application and 6 kg/ha during a follow-up several days later. In September 2008, helicopters and ground-based workers dumped all 46 tonnes of bait on the island's 2800 hectares over the course of a week. The first application on the coast was largely under the legal limit of 18 kg/ha set down on the pesticide label. However, the second application was estimated to be between 17 and 22 kg/ha, around twice the label limit of 9 kg/ha for this application and three times the target rate. Eight months later, biologists returned to the island and discovered the bird carcasses, which were found to contain traces of the poison. A few birds, including eagles, were expected to die from the operation, but not nearly as many. The initial environmental assessment suggested that Bald Eagles would leave Rat Island in September for the salmon run. However, when Glaucous-winged Gulls began eating poison baits and dying en masse, their carcasses attracted the eagles, which succumbed to secondary poisoning.

Summarised from *Nature News* online 18 January 2011 (per Craig Webb, via Nick Mooney)  
<http://www.nature.com/news/2011/110118/full/news.2011.24.html>

*...a lesson on what can happen when people are too gung ho. If some poison should do the trick then lots will make absolutely sure, right?*

### Pigeon fanciers prosecuted for killing raptors

Nick Mooney recently sent in a story in the *Backpacker* of May 2008, about an undercover operation to prosecute the culture of raptor persecution endemic in American pigeon clubs. A US Fish and Wildlife Service special agent, disguised as a novice pigeon-fancier full of questions, infiltrated and gained the confidence of clubs that fly 'roller' pigeons. He calculated that if nearly every member he met, among their hundreds, was illegally killing (sometimes by 'revenge' cruelty) a few to tens of raptors per year, the grand total would be thousands per year in California alone, with clubs in other states too. So, wired with surveillance gear (miniature video camera), he gathered evidence to go after particularly the influential club presidents, and so 'take down' the high-profile fanciers. This gave a strong message to the rank-and-file that illegal persecution of publicly owned native wildlife, formerly subject to an expensive recovery program (i.e. the Peregrine), will not be tolerated.

*..And is clandestine, illegal raptor persecution by pigeon fanciers still happening here too? Some would apparently like it to be, if they can't argue convincingly, on defensible scientific grounds, for a sanctioned falcon cull (see p. 11). (Ed.)*

### *Journal of Raptor Research*

To scan recent content, go to <[www.bioone.org/loi/rapt](http://www.bioone.org/loi/rapt)> or <<http://raptorresearchfoundation.org>>

## Golden Eagle nest in exotic eucalypt in USA

I first saw this Golden Eagle nest from a distance while driving down a rural highway. I made my way to the tree and saw the tail of an incubating eagle sticking out from the nest, but the land under the nest was being converted from grazed cattle pasture to a new vineyard. The eaglets hatched and fledged. The pair even used the nest the following year, but subsequently abandoned the site, and so the tree is still there but the nest has disintegrated. Prey in the form of jackrabbits is very abundant, but the disturbance of vineyard workers is not accepted by the eagles. I believe the adults are now living a mile or so away in oak trees, which are much shorter, but more remote from human activity.

*Stan Moore* (per Nick Mooney)

*The first two photos shows what could pass for a Wedge-tailed Eagle nest in Australia, in a large eucalypt. The second photo shows the tall nest-tree now isolated in a bare field covered with grapevine stakes. Nick comments: interesting that exotic eucalypts are being utilised; boutique development can be as deadly as industrial forestry.*

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