STEP Matters

Number 180 April 2015

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STEP EVENTS

Wed 29 April – Tour of Sydney Institute of Marine Science

Time: 10.15 pm

Place: Chowder Bay, Mosman

The visit will consist of a talk, tour of the facilities and a visit to the interpretive centre.

The cost is \$20 including a light morning tea.

Numbers are limited so please RSVP to secretary@step.org.au as soon as possible.

Sun 17 May – Walk Rocky Creek, Gordon Creek Loop

Time: 9.45 for 10 am

Length: 3 to 4 hours, approx 7.5 km

Grade: Medium

Meet: Rosebery Road opposite Killara Park Bring: Water and shoes with good grip Contact: Andrew Little (9924 7212 after

7.30 pm, aalittle@optusnet.com.au)

This walk covers a wide range of vegetation communities including gallery rainforest, tall open forest, dry sclerophyll, mangrove and salt marsh with some attractive views of Middle Harbour.

The opening of a track crossing Gordon Creek allows for full appreciation of this beautiful area. Track is steep in parts and rocks may be wet and slippery along portions of creek lines.

Tues 21 July - Talk: What is Coal Seam Gas?

Time: 8 pm

Place: St Andrews Uniting Church, cnr Vernon Street and Chisholm Street, Turramurra

Coal seam gas has polarised the community. It is argued that it is essential for our future gas supplies by some and that it will destroy aquifers essential for food supply by others.



Anita Andrew will talk about the science of coal seam gas from its formation to extraction and environmental issues.

Anita is a geologist with a BSc Hons (1976) and PhD (1981) from the University of Sydney and a Masters in Environmental Management from Macquarie University (2009). She is the Editor of the *Australian Journal of Earth Sciences* and an Adjunct Professor at UNSW.

In 2004, after more than 20 years as a research scientist in CSIRO, Anita established a small consulting company that specialises in the application of isotopic techniques for government and industry.

Anita has published widely in the scientific literature with over 60 papers and book chapters. Anita is a member of the STEP committee.

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OTHER LOCAL EVENTS

The Friends of Ku-ring-gai Environment (FOKE) are presenting a series of walks and talks during the National Trust Heritage Festival. Each event runs from 9.45 am to noon.

3 May Annie Wyatt walk from Gordon Station – discover the areas that inspired Annie Wyatt to fight for Sydney's bushland and heritage.

10 May Sheldon Forest, Warragal Road walk explores the endangered Blue Gum High Forest between Turramurra and Pymble stations.

17 May Turramurra Heritage Walk from Turramurra Station – learn about FOKE's vision for a heritage precinct in Turramurra.

See <u>www.nationaltrustfestival.org.au/events</u> for more details.



CLEAN UP AUSTRALIA DAY – NO LET-UP IN RUBBISH FROM VEHICLES

Participants in Clean Up Australia Day once again noticed the massive extent of littering and rubbish dumping from vehicles. The Comenarra Parkway is a prime example. Take-away food containers were the dominant item. It seems that people think it is okay to toss anything out the window. Inadequate securing of loads is also a major problem.

Fortunately, in the future, it will be possible for beverage containers to be returned to a reverse vending machine. The container deposit legislation announced by the NSW Government prior to the election is expected to take two years to implement.

The government also introduced a scheme on 1 March where littering from vehicles can be reported to the EPA via a website or app. See www.epa.nsw.gov.au/litter/from-vehicle.htm.

To report littering from a vehicle, you must have observed the litter being discarded or blown from the vehicle. Seeing litter next to a vehicle and assuming that it came from that vehicle is not sufficient for a valid littering from a motor vehicle report.

WRAP-UP OF NSW STATE ELECTION

The NSW State Government election demonstrated the high level of concern about coal mining and coal seam gas. Several seats affected by mining and coal seam gas had strong swings away from the Liberals and National Party. Ballina, Wyong and Campbelltown were lost to the Greens or Labor.

Prior to the election Premier Mike Baird responded by cancelling 12 coal seam gas exploration licenses. However ongoing operations in the Pilliga, Gloucester Valley and Camden have not been proven to be safe for local communities and agriculture.

Marine sanctuaries had been compromised when the shore fishing restrictions were placed on hold by the government while an expert panel reviewed the social values and risks to marine life of recreational fishing. In December two-thirds of the sanctuaries were restored. The other third have been rezoned as habitat protection zones, meaning that beach and rock platform fishing will be permitted.

The government has promised to protect Sydney Harbour's marine life but no details have been provided. Labor is supporting a marine park.

There is a long way to go to protect our threatened species. The government pledged \$100 million to the Saving Our Species program that was launched in December 2013. The funding would be spent over four years and, the government says, would be used to fund programs to protect all 970 native species from pests with measures such as fencing and improved soil quality.

The government's 'saving our species' approach divides animals into streams according to the likelihood they can be saved successfully and the cost and benefit to society of protection. The very low funding previously provided (\$5 million) could only cover protection for 70 species. Critics said that this approach was prioritising iconic species such as the koala.

This good work could all be undone if they follow through on their announcement to simplify the biodiversity legislation by repealing the Native Vegetation Act and replace it with a new law.

The appalling 10/50 bushfire prone vegetation clearing legislation is still wreaking havoc in our beautiful tree-lined streets with large habitat trees being removed for non-bushfire protection reasons. The reported count is now more than 1200 trees converted to mulch in northern Sydney. We hope the public inquiry will lead to the return of a scientific basis for assessment.

VITAL BYLES CREEK WILDLIFE CORRIDOR UNDER THREAT FROM DEVELOPMENT

The residents of Malton Road and the Beecroft Cheltenham Civic Trust have been working for many months to try and save some 2 hectares of privately owned land in Malton Road, Beecroft from subdivision and residential development.

Development of these residential blocks at 79–87 Malton Road will necessitate the loss of canopy and understorey over most of these lots, due to the Rural Fire Service requirements for a 50 m inner Asset Protection Zone. This zone has to be maintained in perpetuity, destroying this critical bushland corridor habitat.

Malton Road is located within the Byles Creek Catchment which is environmentally significant. The land is part of a vegetation corridor along Byles Creek between Pennant Hills Park and Lane Cove National Park, allowing species to disperse between the reserves and national park and for the transferral of genetic material. The high conservation value of this corridor is further emphasised by its inclusion as a 'core area' in the pilot NSW Biodiversity Investment Opportunities Map as part of the NSW Government Green Corridors Program.

It contains a unique set of environmental elements including a natural watercourse, sandstone benches and cliff faces, locally significant Blackbutt Gully Forest, habitat for a diversity of native flora (over 100 species) and fauna (19 species) including several threatened species such as the Gang-gang Cockatoo, Grey-headed Flying-fox and the Powerful Owl.

The Gang-gang Cockatoo is listed both as 'vulnerable' and as an 'endangered population' under the Threatened Species Conservation Act with only 14 observed in the Hornsby local government area in 2013, with the Byles Creek corridor being their stronghold providing known habitat and potential breeding with suitable large hollows located throughout the corridor and at 79–87 Malton Road.

The Powerful Owl is listed as 'vulnerable' under the Threatened Species Conservation Act and is also known from Byles Creek, with seven sightings in the vicinity and a nearby breeding pair.

The development application was reviewed at Hornsby Council meeting on 11 March with a motion passed to allow council sufficient time to approach the NSW Government and determine if there is an opportunity to have the site acquired due to its environmental and heritage characteristics.

Hornsby Council will next consider the development application on 10 June.

What can you do?

Demonstrate your support for the acquisition of the land and the preservation of this bushland by signing the petition on the Beecroft Cheltenham Civic Trust website (www.2119.org.au/index.php/news) and/or write to the Minister for the Environment.

A MEMORIAL FOR NEROLI LOCK

Several past and present members of the STEP committee were delighted to be invited to a function at Ingleside on 19 April celebrating the unveiling of a memorial to the life of Neroli Lock (see *STEP Matters* 178, p7).

Neroli and her husband Harry had helped the property's owner transform a creek from a willow and weed invested bog into a beautiful stream.

This was another example of the tireless energy and imagination that Neroli devoted to all facets of her life.



Helen Wortham and Harry Lock testing the memorial bench



ISSUES RAISED BY THE STRINGYBARK RIDGE SPORTS PROPOSAL

This article was written by former president of STEP, Barry Tomkinson, who has had a close involvement with the Berowra Valley National Park proposals.

The art of leadership is saying no, not saying yes. It is very easy to say yes. Tony Blair, ex British Prime Minister.

Local and state politicians might well consider the words of Tony Blair when they assess their level of support for the push to have Hornsby Council establish a large sporting complex within the boundaries of their local national park, the Berowra Valley National Park. Do any of them still have the intestinal fortitude to say no to what has for years now seem to be a well-organised campaign to build team sports grounds, with associated parking facilities, night lighting and change room facilities, in an area specifically set aside by legislation 'to conserve nature and cultural heritage'?

Brief Background

STEP members may recall that in June 2012 we reported on The Curious Saga of Stringybark Ridge (*STEP Matters* 165 p2–4).

Stringybark Ridge, once the site of a long abandoned pony club, is part of the Berowra Valley National Park (BVNP).

- All physical traces of the pony club have long since been removed and the site was substantially remediated by Hornsby Council during the years of its joint tenure with NPWS in its earlier status as a regional park.
- For some unknown reason two small level areas once used by the pony club have continued to be mown, but apart from that and a pathway into the site, you would now have difficulty in knowing the area was once anything other than good quality bushland.

The main parties involved seemed then to be in agreement that this is how it should remain.

- All NSW national parks are governed by a legally binding Plan of Management (PoM).
- 2005 A new Regional Park PoM was supported by both Hornsby Council and NPWS after more than two years of community consultation with a wide range of local sporting and recreational groups, neighbours and other community groups.
- This PoM stated that the main recreational use of the park was to be for bush walking, with some provision for limited dog walking on three management trails.

 2006 – Hornsby Council, after a careful review of potential sports grounds in the Shire, adopted a Sports Facility Strategy Plan, which specifically discounted the possibility of ever again using the old pony club site for active sporting purposes.

All of which would seem to indicate that the future of Stringybark Ridge as an easily accessible urban lung for the local community, rather than as a basis for team sporting ovals, was assured.

However, not so fast, where local politics are concerned.

above, then mayor, Nick Berman, unilaterally wrote to local state MPs asking for their support for the Stringybark Ridge site to be made available to provide additional team sporting facilities for soccer, cricket, AFL, netball and 'other sports', including attendant amenity blocks and spectator support arrangements and parking (see STEP Matters 165, p2–4 for full details of the ensuring events).

Fast forward to March 2015

NPWS has issued a new draft PoM (www.environment.nsw.gov.au/parkmanageme nt/berowra-draft-plan.htm) which, while specifically required under the relevant legislation 'to protect and conserve' the area, in point of fact proposes a spectacular reversal of their own previous policy.

Page 18 now identifies the Stringybark Ridge area as a potential area for a number of purposes, including 'activities of a recreational, sporting, educational or cultural nature'.

Precisely what has led to this turnaround is not mentioned, but a sense of it can be ascertained by the following paragraphs in the draft PoM:

Hornsby Shire Council (HSC) has expressed an interest to the Office of Environment and Heritage in the establishment of a sportsground in the modified natural areas of Stringybark Ridge. Consideration of sporting facilities at Stringybark Ridge is in response to a shortage of sportsgrounds in the southern areas of Hornsby local government area and increasing participation in organised sports.

Potential sporting facilities could include a single sportsground on the larger, open grassed area suitable for team sports such as cricket, rugby and/or soccer. The smaller open grassed area could potentially be utilised for field athletics such as throwing and jumping events.

Hornsby Council in addition proposes to build change rooms, amenities buildings, kiosks, parking and to erect tower lighting. The facilities would be used both mid-week and over weekends.

The draft PoM goes on to state that NPWS will, in consultation with the community and Hornsby Council, prepare a precinct plan for Stringybark Ridge to articulate the specific activities and facilities for future use, including possible planned future use.

So does it really matter?

Yes it does.

STEP understands and is sympathetic to the fact that local sporting groups sometimes wish for additional sporting facilities. However, our primary purpose has always been, and remains, the protection of our remaining natural urban bushland. No-one is making any more urban bushland and with Sydney's population set to grow substantially over the next two decades, Stringybark Ridge is in many respects a test of how our local society and political leadership will address the competing interests of urban growth and urban bushland protection.

We all know that it is bad debt management to pay off one credit card by racking up the debt on another and the same goes for our management of our ecological debt. Ultimately the quality of our urban life style is a wholly owned subsidiary of the health and quality of our natural environment and we as a society need to protect both. Taking our local environment for granted is no more sensible that taking our global environment for granted. One is simply a subset of the other and we can no longer plunder either with impunity. With human population impacts now so large in urban environments such as Sydney, past ways of thinking that there is always going to be enough 'free land' for all requirements can no longer prevail.

The Stringybark Ridge location is ideally suited to provide the vast majority of local residents safe and close contact with the natural bushland. The PoM quotes research which has time and again indicated the health advantages of this type of exercise.

Stringybark Ridge is also one of the relatively few significant ridge top sites still located within urban national park boundaries, making for easier walking by the many middle-aged locals.

The PoM (p20) also confirms that in terms of physical activities in NSW, walking is by far the most popular undertaken by any group (55%). Hornsby Council's own Unstructured Recreation Facility Plan (2009) reflects essentially the same finding, this time across the totality of the shire as a whole.

While the Environmental Defenders Office NSW has questioned the legality of the proposed sports fields' construction, if approved Stringybark Ridge will establish a precedent which other well-organised pressure groups will likely use in an attempt to have new team sporting facilities and amenities built in national parks throughout NSW. A netball complex here, a BMX track there, more space for team sports somewhere else.

All perfectly understandable in one sense, but signalling the death of a thousand cuts for our already small amount of land set aside for conservation. It is common knowledge that there are currently 'on hold' well-developed plans to also have an extensive mountain bike track system built around the Stringybark Ridge site, for which initial site planning has already commenced, and there is little doubt that this will be the next cab off the rank if the sports fields are approved.

After that, what? Quad bikes and motorised trail bikes?

STEP understands that in a civil society all groups are free to approach local elected officials to help them achieve their goals. We however also expect our elected representatives to fully represent our interest in protecting urban bushland and with regard to the Stringybark Ridge that effort seems to have been manifestly absent. While the bushland has no vote, the mass of local walkers who do so all want to have their interests protected, but we need to remind them. After all, the team sporting lobby groups do so all the time.

Make a Submission

The best way for STEP members (and their friends) to do this is to send a submission to submissions.berowravalley@envionment.nsw.gov.au.

While STEP will also make a submission, the way the game works is based on numbers. The STEP submission will count as one only and will be measured against all other submissions on that basis only, not on the merits of its contents. So a one line 'I support the Proposal' from anyone else in favour of the proposal will count equally alongside the STEP submission on behalf of its 400 members.

STEP members in their email need simply say that they do not support the BVNP PoM proposal on pages 18 and 19 to provide for 'activities of a ... sporting nature' on Stringybark Ridge as they do not believe such activities fit with the need to protect the and conserve the area, as required under the NPW Act.

RUSSELL VALE COLLIERY EXPANSION THWARTED

Previous issues of *STEP Matters* (173, p7–8 and 175, p2) have highlighted the damage that is occurring in Sydney's southern water supply catchment in the Woronora area caused by underground longwall coal mining. Cracking of the surface has drained upland swamps and creeks that are the filter system and source of water flowing into the Cataract and Woronora dams.

Note that the Chief Scientists report published in May 2014 On Measuring the Cumulative Impacts of Activities which Impact Ground and Surface Water in the Sydney Water Catchment pointed out that Sydney is the only city with longwall mining operating in publicly owned drinking water catchments.



Finally some good news.

Wollongong Coal applied to develop eight new longwalls that would yield 4.5 million tonnes of coal each year for five years. The NSW Planning Assessment Commission (PAC) held a public inquiry in February.

Wollongong Coal has failed to convince the PAC that it can expand the Russell Vale Colliery without causing 'substantial and irreversible' damage to Sydney's drinking water supply.

The Commission has advised the NSW Planning Department that more robust analysis of the risks is required to enable the Commission to make a recommendation on whether the project should be approved. The report also acknowledged the impact mining operations would have on local residents.

The commissioners' report found that:

... in relation to the potential impacts of water resources, the advice the Commission has received from ... independent experts is consistently critical of the residual uncertainties and risks relating to current plans.

The precautionary principle has been applied:

The Commission considers the likelihood of the proposed mine causing a significant detrimental impact on the Sydney water catchment quality or quantity is low, however the consequence, if such an event did occur, could be substantial and irreversible. The precautionary principle requires the Commission to have regard to likelihood and consequence of these risks for each proposal.'

Wollongong Coal's response so far is to carry on regardless in organising a refinancing package. They issued this statement: 'The PAC have raised some recommendations for review, [and] we've submitted a response to the Department of Planning, and a strategy of how we can meet those recommendations.' We will have to wait and see if the PAC report is a turning point for protection of our water catchment.

THIS EDITION'S PHOTO

John Martyn recently went to Lost City which is off the road to the Glowworm Tunnel near Newnes (NE of Lithgow). Lost City is in the Snow Gum Flora Reserve in Newnes State Forest. It isn't in Gardens of Stone NP but is essentially the same terrain of pagoda rock formations sculpted by weathering of sandstone laced with secondary ironstone bands and seams.

He discovered plenty of these flowers. John explains that pink flannel flowers *Actinotus forsythii* are a rare event: in this case a positive consequence of the State Mine fire in September 2013. He believes that they flower in fire's aftermath because they have a built in survival mechanism that lets them proliferate in following years when fires aren't possible.



INTERGENERATIONAL REPORT 2015 – WHY SHOULD AUSTRALIA BECOME SO BIG SO FAST?

The release of the 2015 Intergenerational Report (IGR) by the Treasurer Joe Hockey brings nothing new to raise hopes that the government is realistically managing the long-term future of our country. It is very odd that one of the major variables in the report's forecasts is presented with no discussion or justification. This is the expected level for annual net overseas migration (NOM).

The report fails to place NOM in a meaningful perspective. It simply assumes that the recent experience will continue. It states:

Net overseas migration has varied substantially over recent decades. During the decade to 2005, it averaged around 105,000 per annum. Over the period since 2005, net overseas migration was much more rapid, averaging around 220,000 per annum, and reaching a peak of 300,000 in 2008–09.

The assumption is then made that NOM will be 215,000 over each of the next 40 years. Why should this assumption be based on the experience of the past ten years? Of course actual experience could be lower (or higher) than projected but the assumption implies that politicians and economists are not contemplating any change in current policies.

The outcome of the NOM and demographic assumptions (births and deaths) is:

Australia's population is projected to grow at 1.3% per year, which is slightly below the average growth rate of the past 40 years. If this were to occur, the population would reach 39.7 million in 2054–55, up from 23.9 million today.

The population growth rate since 2006 has been higher than any time since 1990, as shown in Figure 1.

An increase of 1.3% per year sounds pretty innocuous doesn't it? But it leads to an extra 15.8 million people in just 40 years, more than today's size of our all our capital cities combined. Australia's current population growth

rate is the third highest in the OECD, exceeded only by Israel and Luxemburg. The average growth rate in the OECD is currently about 0.7% pa.

The government and other forecasters have a percentage increase mindset but they forget (or ignore) the effects of exponential growth. They fail to notice that 1.3% of today's population is a lot different to 1.3% of population 40 years ago. In 1975 our population was 13.9 million so that a 1.3% increase was 180,000 extra people each year that need housing, transport, water and other services. Today a 1.3% increase is 300,000, the size of the city of Canberra, which needs to be planned for and developed each year.

We have failed to planned for and provide adequate infrastructure for population growth as is now evident with traffic congestion, crowded schools and hospitals. How can we possibly cope with this level of growth in the future? Our quality bushland is already under threat from overdevelopment. The demand for land for development can only increase unless we accept high rise living, smaller houses and lower consumption of resources as the norm.

Quality of life is measured by individuals in many different ways. Is it acceptable for governments to impose the consequences of much higher population on Australians without any widespread public debate on the subject?

Arguments in Favour of High Immigration

There are several arguments that are trotted out by vested interests to support high immigration levels:

1. Higher Economic Growth

A quote from the IGR states:

Lower levels of net overseas migration would lead to lower population growth rates over time and, therefore, lower economic growth.

In other words the bulk of economic growth that is crowed about is from population growth. A large part of this growth is from more housing and construction. Growth on a per capita basis adjusted for inflation has hardly changed.

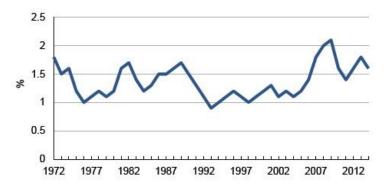


Figure 1. Australia's annual population growth rate from 1972 to 2014 (1)

The IGR makes this weak statement:

There is some evidence that high levels of net overseas migration might increase productivity, as the skills focus of Australia's migration program means that migrants may, on average, be better educated than the average Australian.

The Productivity Commission modelled the wealth impacts of higher migration and found that much of the higher income went to the migrants themselves while real wages for the incumbent population declined but returns from capital improved (2).

2. Reduced Cost of Aging Population

A study by Dr Katharine Betts (3) shows that, while high immigration can reduce the median age of the population by a few years, it comes at great cost. She argues that significant population growth lowers national productivity by taking resources away from productive investment and diverts it to supporting social and infrastructure needs.

The argument that there will be more people of working age is offset by the fact that there will be many more older people than would be the case were the population to stabilise. For example, if NOM averaged 200,000 over the rest of this century the median age would be 43.7 compared with a median of 47.7 if population stabilised at around 26 million. However the number of people over age 65 would have increased to 18 million by 2100, compared to a total of 3.2 million in 2012. With a stable population the number of over 65s would be about 8 million.

An older age structure is inevitable as life expectancy has increased and fertility rates worldwide have reduced. Going back to the bad old days of large families and shorter life expectancy is the only way to solve the aging problem. Is that a good idea?

3. Meeting Employment Shortages

Employers argue for immigration to meet labour shortages. Therefore, the recent slowdown in mining development should be leading to a slowdown in immigration.

A report by Bob Birrell (4) finds that that the number of migrants arriving in Australia since the beginning of 2011 who found jobs is equivalent to the total number of new jobs created in Australia over the same period. This has had a harmful impact on the level of employment participation in the labour market and the working conditions of other Australians, particularly young people.

There are many ways of overcoming workforce shortages, mostly related to improving employment opportunities and training for the young and older and better planning for future education needs.

4. Finance for Social and Environmental Improvements

The government argues that economic growth and strong environmental outcomes are complementary objectives. Policies that create strong economic growth and a sustainable budget will mean that governments are better placed to invest in environmental protection. Additionally, protecting the environment can also contribute to economic growth, particularly in sectors such as tourism.

On the other hand, the Productivity Commission (5) puts the cost of population growth into perspective:

Total private and public investment requirements over this 50 year period (2012 to 2060) are estimated to be more than 5 times the cumulative investment made over the last half century, which reveals the importance of an efficient investment environment.

Australia's permanent migration intake is determined by government policy (including the mix between skilled and family reunion places) and is subject to review each year as part of the Budget process to reflect evolving economic and social circumstances.

As STEP has been saying for many years, none of the major political parties wants to discuss the most significant issue that will affect our long-term future, that of the rate of population growth and whether we should aim for a stable population. And the IGR hardly mentions climate change! It is a matter for despair.

References

- (1) Krockenberger, M (2015) Population Growth in Australia. The Australian Institute
- (2) Population and Migration: Understanding the Numbers (2010) Productivity Commission
- (3) Betts, K (2014) The Ageing of the Australian Population: Triumph or Disaster? Centre for Population and Urban Research, Monash University
- (4) Birrell, B (2013) The Impact of Recent Immigration on the Australian Workforce Centre for Population and Urban Research, Monash University
- (5) An Aging Australia, Preparing for the future (2013) Productivity Commission

THE NOISY MINER: A FRIEND NOT A PEST?

STEP member Ralph Pridmore describes his personal experiences with his local feathered friends.

STEP Matters 179 (p6–7) contained an excellent article by Jill Green entitled A Threatening Species – The Noisy Miner. It correctly described the noisy miner as a 'threatening species in their aggressive defence of their territory against other birds' and even bats, cats, koalas, and cows (!) and that they are listed as a Key Threatening Process under two government acts. Streuth, they sound dangerous! However, I would like to offer some words in their defence.

In the 1980s and 1990s we neighbours on the borders of Twin Creeks Reserve, Turramurra, had about a dozen Indian mynas nesting here and up to some 40 m into the reserve. The Indian myna is an exotic, listed by the World Conservation Union as one of the World's 100 Worst Invasive Species. It is not to be confused with the Australian noisy miner, a native bird that I, for one, am fond of for its cheeky habits and fearless attitude to bigger birds.

The Indian myna in contrast is a city slicker, preferring the stink, noise, and rubbish of the city to the bush. Indian mynas in Australia are ferals that can be legally destroyed but are protected by law from cruelty. Also known as 'flying rats', they aggressively frighten off most other birds – but not the noisy miner! No way!

Groups of noisy miners would hassle singles or pairs of Indian mynas, chasing them from tree to tree and away. Sure, groups of noisy miners (aka 'soldier birds') also hassle other birds, even currawongs, and dive bomb (without quite hitting) the sleepy tawny frogmouths in their day roosts and nests. (Yet, when the parents are off the nest, I've never seen miners hassling the defenceless fluffy white chicks.) Both currawongs and frogmouths eat nestlings, so I accepted the noisy miners' assertive habits.

My point is, noisy miner groups can outnumber and dominate the Indian mynas locally, and possibly helped limit their numbers in my local area. Few other birds can do so, requiring the particular characteristics of fearless aggression and cooperating in groups against a common enemy. Of course, these are the very features that make the noisy miner the 'threatening species in their aggressive defence of their territory'.

My main story concerns the noisy miner's protection of other species' nestlings. Listen closely, those that claim miners 'break eggs and kill chicks' of other birds.

In 1993, my neighbour felled a tall thin tree that harboured a butcher bird's nest, from which his young kids were being dive-bombed. The kids showed us the dislodged nest and two frightened nestlings crawling on the ground, one with a broken leg. We took it away to get splinted.

My wife Lesley, a volunteer with WIRES, opted to rescue the birds and put them and the nest into an open cardboard box and set it on a stump. We planned to move the box 50 m every day towards the bush reserve 100 m away, hoping the butcher bird parents would feed their young. They did not, however. So Lesley fed them tinned baby food.

The immediate carers of the nestlings were a group of (very) noisy miners (varying from 4 to 12) gathered excitedly on or near the edge of the cardboard box, peering in, apparently keeping predators at bay.

Next day we saw a life-and-death running battle between pied currawongs and noisy miners. The cardboard box, now only 40 m from the bush, sat on a rock outcrop in our garden. Currawongs would attack from above, swooping low, and be chased off by the swarming miners. The mid-air battles resembled fighter aircraft attacking slower enemy bombers. I hurriedly fitted netting over the box. The miners remained on guard but the threat was much reduced.

On the third day, I fixed the nest into a tree in the bush. At last the butcher bird parents arrived to feed their young. The miners now left.

The larger nestling with the broken leg often fell off the nest, to which I returned him. But he eventually disappeared, taken by some predator. The smaller nestling soon fattened up and a week later was flying.

Later the male butcher bird (whom we'd been feeding) landed on my head from behind, reached its beak down to my right eye, and hooked a bloody cut right through my eyebrow. Unusual behaviour. So much for gratitude and for bird IQ – or should we question our own IQ for interfering with nature? And, by extension, for government plans to interfere with noisy miners in their natural habitats? I cannot really believe that miners 'break eggs and kill chicks' unless they themselves are threatened.

In summary, bear a kind thought for the much maligned noisy miners! They possibly help in restricting the spread of Indian mynas, and they sometimes protect the nestlings of other species from larger predator bird species.





Indian Myna (left) and Noisy Miner (right)

WHY ARE AUSTRALIA'S MARINE PARKS BEING REVIEWED SO SOON AFTER THEY WERE SIGNED OFF?

This article was written by Elizabeth Sinclair (Senior Research fellow), Diana Walker (Emeritus Professor) and Gary Kendrick (Winthrop Professor, Oceans Institute) all three at University of Western Australia. It was published in *The Conversation* on 20 April 2015 (http://theconversation.com).

Note: The states manage marine areas along the coast such as the Jervis Bay marine park (see http://www.mpa.nsw.gov.au).



Marine parks are valuable tools to help safeguard species such as seagrasses AAP Image/James Cook University

The current government review of Australia's proposed network of marine parks, called the Commonwealth Marine Reserves (CMRs), seems rather premature. After all, the management plans were approved only in March 2013 and as yet only the southeast region is being actively managed.

Back in June 2012, when the then federal environment minister, Tony Burke, unveiled the plans for the world's largest network of marine parks, it was the culmination of more than a decade's work on both sides of politics and a wide spectrum of sectors.

The work began in 1999, when the then Liberal Prime Minister, John Howard, established the National Oceans Office with the aim of putting protections in place around Australia's entire continental shelf. More than 80,000 submissions were received during the consultation process, ultimately resulting in the creation of reserves covering 13.5 million square km of Commonwealth waters.

These reserves were set up mainly outside existing commercial fishing zones, mining regions and away from population centres, and designed to have minimal impact of human maritime activities. The implementation of the CMRs has been suspended while the current review is under way.

Not Just Fish

The Commonwealth reserves (as well as similar reserves in state-administered waters) were part of the wider National Representative System of Marine Protected Areas, which aimed to:

... establish and manage a comprehensive, adequate and representative system of marine reserves (general and special-purpose zones and marine parks) to contribute to the long-term ecological viability of marine and estuarine systems, to maintain ecological processes and systems, and to protect Australia's biological diversity at all levels.

So, clearly, marine reserves are not just about fish but also about maintaining resilience in marine ecosystems and protecting valuable biodiversity. Their wider benefits have been demonstrated all over the world – for instance, in providing sanctuary zones for migratory species such as whales.

Marine reserves also help sedentary species such as seagrasses, kelp and corals to grow, reproduce and disperse their highly mobile offspring across a wider region. This helps to restock depleted areas or even establish new populations. Careful integration of marine parks with terrestrial national parks can also help wildlife such as nesting turtles.

Marine reserves are also extremely important in a changing environment. Increased sea surface temperatures, ocean acidification, increasing severity of storms and surges, and changing circulation patterns will all have significant impacts on marine and coastal ecosystems. This is on top of pre-existing stresses such as overfishing, coastal developments and pollutants.

In 2011, for example, a marine heatwave impacted 1,500 km of Western Australia's coastline. It resulted in severe damage to many species and habitats, particularly macro algae and seagrasses. This, in turn, led to higher death rates in the commercially important western rock lobster and abalone fisheries.

Events like this are set to increase in frequency and intensity over the coming century. Add to this the fact that 85% of Australia's population lives within 50 km of the coast and it is clear that management of marine ecosystems must account for climate-related impacts as an economic and social priority. Here are some more reasons why marine reserves are valuable:

 The Great Barrier Reef Marine Park now generates an annual revenue of \$5.5 billion, 36 times more than the income from the commercial fishing industry.

- No-take marine reserves produce far greater biodiversity outcomes than partially protected areas where fishing continues, with benefits increasing exponentially in larger, more isolated reserves such as those proposed for Commonwealth waters.
- Long-term studies have shown that no-take reserves provide more resilience against unexpected events such as the 2011 Queensland floods, which dumped huge amounts of runoff into the ocean.
- The total number of marine species known to science is about 226,000, versus an estimated one million currently unknown. Many of these discoveries will come from largely unexplored areas such as deep canyons or under ice sheets, many of them in existing or proposed marine reserves. A recent exploration trip surveying the 4000m deep Perth Canyon is expected to identify myriad new species.
- Thousands of kilometres of coastline around Australia are already being affected by rising sea levels and increased storm surges, causing coastal erosion. Globally, it is forecast that by 2100 losses from coastal flooding could cost up to 9.3% of gross domestic product per year.
- Seismic surveys used in petroleum exploration are known to influence the behaviour of some species of mammals, fish, squid, and plankton.

Holding the Environment to Ransom

The Abbott government's decision to review the CMRs is yet another illustration of its harsh environmental agenda. The government has cited a lack of consultation and science as the reason for the review. But the release of Burke's plans in 2012 came after more than 20 years of scientific, economic and social research, and years of consultation with commercial and recreational fishers, the oil and gas industry, conservationists and community groups.

It is important to remember that the overall CMR plan was not just about fisheries, but is part of a comprehensive system for managing all of Australia's Commonwealth waters and safeguarding its ecosystems. We are concerned that the new review has a strong bias toward the fisheries industry.

The period of consultation has just closed, but we wonder if it will do little more than provide a voice for opponents to ecosystem-based management in general and more specifically conservation zoning using no-take marine reserves. Reaching a compromise between commercial and recreational fishers, other commercial users such as the resources and shipping industries, tourism and those who believe that conservation should be a priority is always going to be difficult.

Surely Australia is smart enough to learn from other nations about the disastrous consequences of often irreversible collapses in fish stocks. Once they are gone, and the ecosystem is out of balance, it may not be possible to recover.

The signs are not encouraging. This week's revelation that the Abbott government has granted petroleum exploration licences in a proposed marine reserve near Western Australia's Abrolhos Islands does not inspire much confidence that conservation currently ranks high on the agenda.

STEP INFORMATION

STEP Matters

The editor of *STEP Matters* for this edition is Jill Green, who is responsible for all information and articles unless otherwise specifically credited. The STEP committee may not necessarily agree with all opinions carried in this newsletter, but we do welcome feedback and comments from our readers, be they STEP members or not.

All issues (from when we began in 1978) can be viewed online, usually in full-colour.

Feedback

Send complaints, praise, comments or letters to secretary@step.org.au. Please feel free to share your copy of the newsletter with friends, neighbours and business colleagues.

New Members

New members are always welcome to join STEP and to make themselves available for the committee should they wish to do so. The effectiveness of STEP is a factor of the numbers of members we have, so please encourage your like-minded friends and neighbours to join.

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