

Domestic cats - who is in control?

By Louise Greenaway

Historically, cats are said to have nine lives. Recent figures suggest that in Australia they have 21 million lives. Of this number, around 18 million are feral and the remaining three million are domestic, with some being classified as stray. Feral cats are implicated in the decline and the extinction of many of Australia's unique birdlife and fauna. The impacts on wildlife are three-fold: predation, competition and disease transmission.

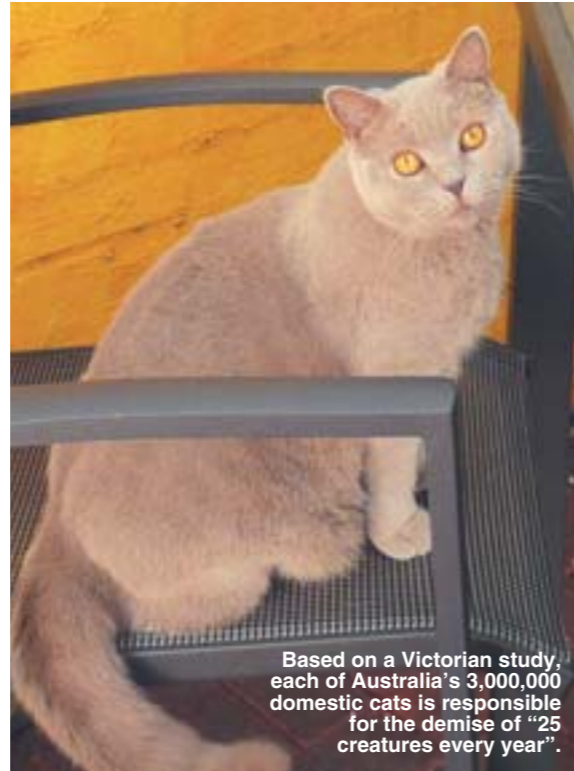
Yet domestic cats also contribute to the decline of native species. One study warned, nearly 20 years ago, that an average domestic cat accounts for the demise of "at least 32 vertebrates per year". Another more contemporary figure, from Victoria, is "25 creatures every year". This equates to animals being preyed upon at the staggering rate of around 8500 per hour. Many victims are unique native species which when lost to Australia are lost to the world. The combined impact of domestic, stray and feral cats is devastating to wildlife, Table 1.

Further, there is a recognised transition from domestic to stray to feral and it is known that feral cats breed with domestic cats. In addition, the rate of cat neglect and abandonment is reportedly increasing every year.

Cat welfare enthusiasts who are dismayed by the shameful euthanasia rates in this country are a driving force behind some cat management regulation. National estimates indicate that as many as 130,000 cats are euthanased annually by councils and animal shelter operators, a rate of around 15 per hour.

Cats are often overlooked in discussions about invasive animals due to our familiarity with them as beloved family pets. They are, however, among the most ecologically damaging introduced animals in the world.

Predation by feral cats is listed as a key threatening process under the Federal Government's Environment



Protection and Biodiversity Conservation Act 1999 (EPBC Act). Of those species on the EPBC Act threatened species list, feral cats are considered a threat to 35 species of birds, 36 mammals, seven reptiles and three amphibians, with four of those being critically endangered. Yet calls for uniform domestic cat management on a national level have so far gone unheeded with governments merely reiterating that "the responsibility for managing domestic cats ultimately rests with their owners with the assistance of state and local government initiatives".

So what state and local government initiatives are in place to protect native animals and to arrest the burgeoning domestic cat population?

ACT has legislation

The ACT government has introduced some cat-specific legislation to attempt to manage the problem. The Domestic Animals Act 2000 generally

requires that cats be de-sexed. It also provides for permanent cat containment in the suburbs of Forde and Bonner. These two suburbs are adjacent to the Mulligans Flat Nature Reserve, a declared Endangered Ecological Community of Yellow Box-Red Gum Grassy Woodland with high nature conservation value.

Predator-proof fencing has been installed around the perimeter of the 1500-hectare site. Efforts are being made to free the sanctuary from threats such as cats prior to the re-introduction of native animals. Peter Mills, the Mulligans Flat Woodland Sanctuary

project co-ordinator, says the cat containment legislation has been received with "fantastic acceptance" by residents. A significant reason for this is that it came into effect well in advance of the development of the new suburbs. Therefore there were no new obligations being imposed on existing cat owners.

The cat containment laws are accompanied by the promotion of conservation in the community. Mills says education is being undertaken to create a nexus between wildlife and people. Stickers directed at children with slogans such as "Curlews are cool" aim to create awareness and appreciation of unique wildlife. It is hoped that the eventual reintroduction of bettongs and bandicoots to the sanctuary will be regarded by the community as a significant and valued achievement.

A three-kilometre section of the boundary of the sanctuary is within 150 metres of the NSW border. Fortunately, the sanctuary project enjoys good relations with its

Table 1: The cat is implicated in, but not solely responsible for, the extinction of the Australian species/subspecies shown. Other contributing factors may include habitat destruction and predation by foxes.

Species/subspecies	Population
Brush-tailed bettong <i>Bettongia penicillata penicillata</i>	0
Lewin's water rail (western) <i>Rallus pectoralis clelandi</i>	0
Pig-footed bandicoot <i>Chaeropus ecaudatus</i>	0
Rufous bristlebird (western) <i>Dasyornis broadbenti litoralis</i>	0
Short-tailed hopping-mouse <i>Notomys amplus</i>	0
White-footed rabbit-rat <i>Conilurus albigipes</i>	0
Cat <i>Felis catus</i>	21,000 000

neighbouring NSW graziers, who are sensitive to the efforts of the ACT. Unfortunately, however, there is no cat containment or cat desexing legislation in NSW.

NSW no confinement law

The NSW Companion Animals Act 1998 fails to address the problems associated with free roaming cats. Despite its stated objective "to provide for the effective and responsible care and management of ... cats", there is no requirement to desex or to confine domestic cats in NSW. Nor is there a limit to how many cats a person may own. The Act merely requires that cats be registered and microchipped.

Of concern to many people is that Councils lack authority to introduce local laws relating to cat management. Worse, local governments can potentially contribute to the problem of dumped or abandoned cats. In Wyong shire for example, the council has increased the surrender fee for pets by 150%. It now costs a breathtaking \$188.10 to surrender a cat.

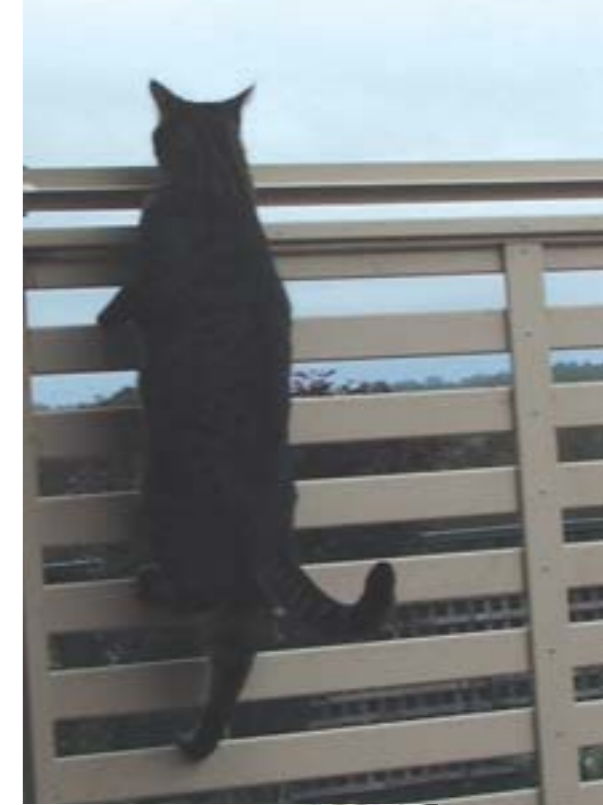
Yet Council recognises the potential for wildlife predation by domestic cats and has resolved to embark on a media campaign to highlight to residents the need to night curfew cats. It has also developed a draft Keeping of Animals Policy which emphasises the same point. Additionally, Council is establishing a Wildlife Corridor to assist native fauna migration and to provide habitat for fauna and birds; a project that could be undermined by free-roaming cats.

The Hon Barbara Perry, NSW Minister for Local Government has recently stated that her government "considers that educating cat owners about the benefits of desexing and confining cats, rather than imposing regulations such as compulsory desexing, cat curfews or cat enclosures... is more likely to be effective in managing cats and protecting wildlife". Unfortunately there has been no obligation to provide meaningful education campaigns since the Act was introduced in 1998, so the problems have continued unabated in most cat-populous state.

NT councils take action

The Northern Territory does not have Territory-wide cat management regulations. However, councils do have the authority to enact by-laws to address the issue of domestic cats. Darwin City Council, for example, recognises that a large feral cat population exists in the area and acknowledges that domestic cats are sometimes abandoned and left to become stray and ultimately join the feral cat population.

Darwin City Council has introduced regulations to minimise the impact of cats on wildlife and on the general community. Such bylaws include compulsory registration (including microchipping), generally limiting the number of cats to two per property and requiring that cats



Innovative ideas have been developed to keep cats on the owners property. These paddles on the top of the fence designed by Paul Bok Oscillot Pet Containment Systems P/L, Tailem Bend SA, stop cats escaping.

be kept inside or in a suitable enclosed area. Owners are also required to have their cats on a lead or in a container when they are not being confined to the owner's property. Council will also provide residents with cat traps in order to capture nuisance or unowned cats.

Although desexing isn't compulsory, if a high level of compliance with the confining regulations is achieved this should go some way towards arresting domestic cat overpopulation. Council also hosts free microchipping days during which time desexing is actively promoted.

Queensland is 'Cat Smart'

Queensland has emerged from behind as a possible front-runner in cat management in Australia, having

■ **The current cat euthanasia rate in Australia is around 15 per hour**

■ **Predation by domestic cats in Australia is around 8500 animals per hour**



Domestic cats are not feral cats but if they become homeless they must fend for themselves. This feral cat was shot at Roxby Downs and its stomach contained 24 painted dragons, 3 juvenile bearded dragons, 2 earless dragons, 3 Ctenopus skinks, a house mouse and a zebra finch. This catch represented just a single days hunting. Photo: Arid Recovery

developed a new multi-pronged approach recently. The Animal Management (Cats and Dogs) Act 2008 was passed on December 11 2008 and is designed to encourage responsible pet ownership by introducing compulsory registration and identification. The Act took effect throughout south-east Queensland councils on July 1 2009, with the rest of the state scheduled to come in line within two years.

In addition to the new Act, the Queensland Government has also funded four council areas to trial strategies aimed at reducing the number of cats being euthanised each year. Such trials include an approved breeder permit scheme, a targeted education campaign focusing on appropriate enclosures for cats and a dedicated community animal desexing clinic. The results of the trials should assist councils throughout Australia to develop best-practice cat management.

The new laws are underpinned by a promotional campaign Cat Smart which seeks to educate the community about the benefits of responsible cat ownership. It has the tagline "Tag, desex, keep safe" and has complementary resources including posters and bumper stickers. The cat management

package also includes a voluntary code of practice for pet shops.

SA Cat Act

In South Australia laws relating to the management of cats generally come under the Dog and Cat Management Act 1995. The Act provides for non-compulsory identification of cats and enables councils to introduce laws to manage cats in ways consistent with the needs of their area. The Dog and Cat Management Board of South Australia, the only statutory authority of its kind in Australia, was also established under the Act.

Kangaroo Island Council has enacted by-laws requiring that a cat be permanently confined to the property of its owner and be desexed, microchipped and registered.

Roxby Downs Council has had the benefit of stomach analyses from local feral cats to demonstrate the predatory impact of cats. In response, it too requires that cats be registered, microchipped and desexed. It provides a general limit of two cats to each premises and creates an offence of a cat being at large.

More recently, the City of Tea Tree Gully sought to introduce a bylaw which would require cat owners to microchip their pet and would limit the number of cats that could be owned. The bylaw also sought to provide recourse against nuisance cats. Although the bylaw was never passed, the Council of the City of Mitcham is seeking to introduce a bylaw in similar terms.

Tasmania landmark legislation

The Tasmanian government recognised the need, some time ago, to act as a leader in cat management. In August 2008 it released the position paper Cat Management in Tasmania – Taking the Initiative to seek public input into formulating a preferred approach to cat management. There was a large and encouraging response, with 171 submissions that revealed overwhelming support for the development of cat management legislation and for the key proposals.

The Department of Primary Industries, Parks, Water and Environment says the cat management legislation has three aims: to reduce the number of unwanted cats in the community, to promote more responsible cat

ownership and to reduce the impact that cats have on the environment. Parliament passed a Bill on November 19 2009 which requires the microchipping and desexing of pet cats. The new measures will be phased in over four years. Other provisions relating to controls on the sale of cats and on breeders, and clarification of legal issues for cat shelters and those dealing with feral cats, will have effect from proclamation of the Bill, which is anticipated in July 2010. In the meantime, the government is developing regulations and administrative processes to support the implementation of the new laws.

Significantly, the legislation also enables councils to make by-laws to meet the individual needs of their area or the expectations of their constituents. By-laws could relate to issues such as limiting the number of cats able to be owned, curfews or local registration schemes.

In Victoria councils act

In Victoria the Domestic (Feral and Nuisance) Animals Act 1994 gives councils the responsibility for registering and controlling cats. The Act promotes the responsible ownership of cats and the protection of the environment by providing for the registration and identification of cats and for the implementation of a scheme to protect the community and the environment from feral and nuisance cats.

Individual councils can also introduce local laws to further enhance domestic cat management. Of the 79 Victorian councils, 24 have made cat confinement laws, five have made microchipping laws and 10 have introduced mandatory desexing.

The former Shire of Sherbrooke (now part of the Yarra Ranges Shire Council) was the first in Australia to introduce a cat curfew. This milestone was achieved in 1991, largely in response to wildlife concerns in particular the superb lyrebird.

Yarra Ranges has additional local laws requiring that cats be confined at night. There is a general limitation of two cats per person. In addition, an offence has been created to the effect that it is unlawful for people to feed or encourage feral or stray animals onto their property. This compels people to either take full responsibility for strays in their

area by assuming complete ownership or to relinquish them altogether so that such animals can be more readily identified and managed as strays.

WA statewide action attempt

Western Australia has no state-wide legislation specifically addressing domestic cat management. However, the Local Government Act 1995 provides for councils to enact their own local laws. Of the 141 council areas in WA, 13 have introduced cat laws relating to various issues including desexing, confining, microchipping, trapping and limiting the number of cats an individual may own.

Joondalup City Council proposed to introduce compulsory sterilisation laws in its area but these were postponed amid concerns that enforcement of such laws went beyond the jurisdiction of the council.

However, it is anticipated that all councils will soon have the obligation to administer compulsory sterilisation regulations. Joe Francis, Jandakot MLA, is currently drafting a Bill which would require cat owners across the state to sterilise and microchip their pets by the time the animals are six months old.

Francis is conscious of the fact that the implementation of such laws may prove to be a challenge. However, he considers that governments can no longer ignore the euthanasias of thousands of cats every year – a situation that is entrenched throughout Australia. He is also aware of critics who claim the cost of sterilising will make cat ownership out of reach for many people.

"The cost of a one-off sterilisation operation will add little to the overall cost of keeping a cat for its lifetime," he said.

It is expected that the highly anticipated Bill will be drafted by the end of 2009.

This will be the second attempt at a statewide cat law in recent years, an earlier one having been made by Giz Watson MLC in 2003.

Towards a national approach

The thrust of existing and pending legislation does provide some hope that uniform national regulations can be introduced to minimise the

Cat control nationally

Predation by feral cats is listed as a key threatening process under the Federal Government's Environment Protection and Biodiversity Conservation Act.

The responsibility for managing domestic cats ultimately rests with their owners with the assistance of state and local government initiatives.

The ACT has legislation that provides for permanent cat containment in two new suburbs.

NSW has no requirements to confine or desex cats, nor does it authorise its local councils to introduce such laws.

State legislation in the Northern Territory, Victoria, South Australia and Western Australia enables councils to enact legislation to address domestic cat concerns in local areas.

A Bill just passed in Tasmania

aims to reduce the number of unwanted cats in the community, to promote more responsible cat ownership and to reduce the impact that cats have on the environment.

Plans for WA include state-wide legislation requiring cats to be microchipped and desexed.

National legislation could draw from the collective experiences of every state and territory and include the key components of each.

Education campaigns are required to increase public awareness of the effects of maintaining stray cat populations.

Making it unlawful for people to feed stray cats compels people to either assume complete ownership of them or to relinquish them altogether so that such animals can be more readily identified and managed as strays.

Education campaigns are required to increase public awareness of the effects of maintaining stray cat populations and of predation by domestic cats (The support of a high-profile personality who could influence the next generation of pet owners would be ideal – for example, Anthony Field, the much-loved Wiggle who also presents *RSPCA Animal Rescue* on television); and

• the introduction of cat confinement buffer zones in residential areas that abut bushland of significant conservation value.

It appears that cats occupy a unique

position of dual classification in our society. On the one hand they are identified as a key threatening process: an invasive species costing Australia some \$144 million per year, creating one of our most challenging environmental issues. On the other, they are seen as beloved and valued companion animals.

Cats are perhaps the only highly invasive introduced species that is the beneficiary of multi-million-dollar government-funded rescue programs. They are surely the only invasive species to court the attention of governments Australia-wide which are endeavouring to ensure that cats are accommodated by society.

In some ancient civilisations, cats were considered sacred or to possess magical powers. Down through the centuries and across continents, it seems they have lost little of their mystique.

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Find out more:

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The content is believed to be accurate at time of publication, but the writer will be pleased to be informed of any developments or inaccuracies. Additionally, details of domestic or feral cat management programs implemented in Australia will be welcomed. References are available from the author.

\$1.27 million allocated to fauna reconstruction in world heritage region

WA Environment Minister, Donna Faragher, announced in November that \$1.27 million would be allocated over the next 18 months for a fauna reconstruction project at Lagoon Point in Shark Bay's Francois Peron National Park.

Faragher said the Department of Environment and Conservation (DEC) would pave the way for increasing the populations of threatened species by creating a feral-animal-free area of approximately 1600 hectares within the park.

"DEC will construct a 3.9-kilometre exclusion fence and remove all feral animals from the fenced peninsula area so specific species can be introduced in an environment free from feral predators," she said.

"Captive-bred mala and banded-hare wallabies will then be released into this area so that these threatened species can survive and reproduce in a protected area.

"The new funding will also be used to initiate an intensive captive breeding program for these two species to continue to improve the genetic diversity of their populations.

"The long-term aim of the project will be to provide a secure mainland site for possible transfer of animals to Dirk Hartog Island as part of the ecological reconstruction of the island."

The funding allocation will be distributed to three integral projects and provide for:

- the establishment of a predator-free island within the Francois Peron National Park, to be created by fencing off a peninsula into Shark Bay;
- a new and expanded program involving re-establishment of populations of threatened species at former sites across WA, which is a key step to eventually being able to delist the species as threatened; and
- emergency feral cat control and intensive survey and management of remaining habitat areas to prevent the western ground parrot from facing extinction.

Faragher said the project would dovetail into the work of Project Eden, which aimed to control introduced predators to protect native wildlife and had been run by DEC with the help of volunteers on Peron Peninsula for more than a decade.

The Minister also announced the creation of a national park on Dirk Hartog Island, which would become the home of many of the animals bred in the Lagoon Point project.



1



2



3

1. The Lagoon Point project will dovetail into the work of 'Project Eden', which includes a feral proof fence on Peron Peninsular.
2. Populations of threatened species within Shark Bay's Francois Peron national Park will benefit from the creation of a feral-animal-free area of about 1,600 hectares within the park.
3. One of the project aims is the creation of a national park on Dirk Hartog Island, which will become the home of many of the animals bred in the Lagoon Point project.

Bats are not the bad guys

Hendra has given bats a bad name. It's understandable, given that Hendra virus has killed people and horses, and scientists have discovered that Hendra virus is carried by bats. But it's not all the bats' fault.

"Flying foxes or fruit bats are large, very mobile animals that can fly long distances – possibly hundreds of kilometres – overnight. They are also very social animals and roost during the day in large communal groups. We are very aware of them because they are so visible at dawn and dusk when we see them leaving or returning to their roosts," says Billie Roberts, an expert in flying fox ecology and behaviour.

"Because flying-foxes roost and feed within urban and coastal landscapes, people have the impression there are more flying foxes than ever, when in fact some species are actually undergoing dramatic decreases in numbers because of habitat loss and shooting of flying foxes to protect crops."

We've long had a mixed relationship with bats. These species are important to Australian forests because they are the major pollinators and seed dispersers in the forests, and tourist operators regard them as a key ecotourism species. In urban areas, though, local governments are interested in the impact of flying fox camps on residential areas because people are disturbed by the bats' noise and smell. Farmers are concerned about fruit damage and loss. And now health departments and horse owners are worried about Hendra virus.

But some of the negative outcomes we blame on bats are of our own making.

"As urban development sprawls, the flowering eucalypt trees that flying foxes should be feeding on are



Because flying-foxes roost and feed within urban and coastal landscapes people have the impression there are more of them than ever. Photo: Andrew Breed.

being chopped down. As a result, hungry flying foxes have to travel more to search for food and sometimes they find an orchard with ripe fruit as a substitute to their natural food.

"We should think of flying foxes as the canary in the coalmine; they are messengers of what we're doing to our environment. We shouldn't be shooting the messengers but regarding them as important indicators of the health of our environment."

Scientists are starting to think that the recent appearance of Hendra virus is a symptom of bats showing stress as a result to changes we've made to the environment.

"The actual virus is uncommon in flying-foxes and does not appear to cause them any problems. All indications are that Hendra virus spills over from bats to horses and then from horses to humans – there are no known cases of people contracting Hendra virus from flying foxes," says Dr Stephen Prowse, CEO with the Australian Biosecurity CRC.

Despite recent annual outbreaks, Hendra infection is rare in horses and people. Hendra virus does not appear to be highly infectious and does not spread easily; however, when it does the consequences can be devastating.

"More research is required to get a better understanding of how the virus persists in bats and spreads to horses and for the development of vaccines and treatments. However, the public should not be unduly concerned about fruit bats but treat them as they would any other wild animal and enjoy having them in our urban environment. We need to learn to live with bats."

So, if you find a sick or injured bat, don't try to pick it up but call the RSPCA or the bat rescue helpline on 0488 228 134. Horse owners need to try to minimise the likelihood of contact between fruit bats and horses. And horse owners and veterinarians need to improve their biosecurity and infection control practices.

In this way we can better manage and reduce the risks of Hendra virus outbreaks and allow bats, horses and people to safely share our environment.

Find out more:

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For more information about Hendra virus research visit www.abccrc.org.au



Breakthrough in fight against Hendra virus

There has been a breakthrough in the fight against the deadly Hendra virus with the development of a treatment which shows great potential to save the lives of people who become infected with the virus.

A scientific team from CSIRO and the US has demonstrated that administering human monoclonal antibodies after exposure to Nipah virus, which is closely related to Hendra virus, protected animals from challenge in a disease model.

According to CSIRO's Dr Deborah Middleton, who led the experiments at Australia's maximum biosecurity facility, CSIRO's Australian Animal Health Laboratory (AAHL) in Geelong, Victoria, says the findings are extremely encouraging.

"Our research clearly suggests that an effective treatment for Hendra virus infections in humans should be possible. Photo: CSIRO

possible, given the very strong cross-reactive activity this antibody has against Hendra virus," she says.

Antibodies – proteins found in blood or other bodily fluids of vertebrates – are used by the immune system to identify and neutralise bacteria and viruses.

First identified in Brisbane and isolated by CSIRO scientists in 1994, Hendra virus, which spreads from flying foxes, has regularly infected horses in Australia. Of the 12 equine outbreaks, four have led to human infection, with four of the seven known human cases having been fatal, the most recent of these in September 2009. Human infection results from close contact with the blood and/or mucus of infected horses.

Middleton says the success of the antibody will probably depend on dose and time of administration.



Estuary fish grow with the flow

The number and size of barramundi and king threadfin caught in Australia's tropical estuaries have been found to correlate directly with the size of river flows pouring into the sea.

Barra and king threadfin are the two most-caught fish species in the north's inshore fisheries.

"Many people think that, in the north, river water flowing into the sea is wasted," says Ian Halliday of Queensland Primary Industries and Fisheries. But this river water is what makes an estuary an estuary – that connection between freshwater and saltwater that our commercial fisheries depend on."

Halliday's research is part of the

Tropical Rivers and Coastal Knowledge (TRaCK) research hub. He looked specifically at the Mitchell and Flinders rivers in Queensland and the Daly and Roper rivers in the Northern Territory.

Comparing flow data with fish catch data logged by commercial fisheries in the past 20 years, he found a distinct correlation: the bigger the flow, the bigger the catch.

"It's surprising how consistent the results are. Whatever estuary you look at, the higher the flow rates, the higher the catch. The timing of the flow, of course, also has an impact."

It's not just the catch size that gets bigger with bigger flows.

"In years of higher river flow,

breeding success is higher and growth rates go up. Flow affects the number of larvae and juveniles – the 'young of the year' – but also their growth rate."

While other TRaCK projects are working out what exactly causes the fish to grow bigger, Halliday says he suspects that river flow "gives the estuary a huge nutrient shot. There's only one way to grow faster: eat more. So there's got to be more food available to the fish."

Find out more:
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Saving native fish from irrigation pump systems

The Murray Darling Basin Authority is funding the creation of screening systems to save native fish from being drawn into irrigation pump canals.

The authority has commissioned the New South Wales Department of Primary Industries (now Industry and Investment NSW) to scope, install and assess innovative ways of retrofitting economical screens to selected pumping systems.

The project follows an authority-funded study on the effects of irrigation practices on fish in the Murrumbidgee and Namoi rivers and the Mulwala Canal system.

This study was the first to measure the extent of entrapment and stranding of native fish in irrigation offtakes. It found that up to 200 fish a day were extracted through the pumps.

The project is part of the authori-

ty's Native Fish Strategy which aims to rehabilitate native fish populations in the basin back to 60% of their estimated pre-European-settlement levels, after 50 years of implementation.

The program has been in place since 2004, when experts estimated that levels were about 10% of those pre-European-settlement.

Contact: www.mdba.gov.au/programs/nativefishstrategy

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Birds in serious decline

An unprecedented investigation of Victoria's bird life has found it is collapsing, with two out of three woodland species in significant decline. The 12-year research into native species has found that generations of land clearing and more than a decade of drought linked to climate change has reduced numbers for more than 80 species. Those affected include the laughing kookaburra and species of honeyeaters, thornbills and lorikeets.

Deakin University ecologist Andrew Bennett said he was cautious about blaming climate change, but the decline in the state's centre and north might be "what we have to get used to".

"Clearly it shows when we have sustained change in rainfall and sustained change in climate it is having a marked effect," he said. "In this case it is on birds. What is concerning is that we don't know what's happening to other groups - to reptiles, to mammals, to invertebrates."

Bennett said the report underlined the need for systematic monitoring of wildlife.

"When we have a financial crisis

we put vast resources into it, but we have a biodiversity crisis and nothing happens. There is some good restoration and revegetation by landcare groups and others but the scale of what we're doing doesn't match the scale of the problem."

A State Government report last year warned Victoria had the most devastated landscape in the country. More than half of all native vegetation and 80% of private land has been cleared since European settlement. A land and biodiversity white paper explaining how the Government plans to tackle the crisis is due before the end of the year.

The bird research, published in the journal *Diversity and Distributions*, brings together the results from three long-term studies surveying across 30,000 square kilometres. It found the fall in numbers was as great in remaining woodland areas as in cleared landscapes, suggesting that current reserve systems alone were not enough to enable species to survive as the climate changed.

The decline was most dramatic in the past five years as food shortages increased and breeding nosedived. Bennett said red ironbark trees – a

major food source for nectar-feeding birds – had hardly flowered in five of the past eight years.

"One of the things that concerned us is that it's not just threatened species that have declined but also some of the common species like laughing kookaburras, red wattlebirds and grey shrike-thrush," he said.

Victoria Naturally Alliance, a collection of eight environment groups, said the state was facing an "extinction crisis". CSIRO has reported that 30% of the state's animals and nearly half its plant species were threatened or already extinct.

"There is a critical need to improve the quality of existing habitats and restore habitats, especially in more fertile areas adjacent to existing bushlands," alliance spokeswoman Karen Alexander said.

– Adam Morton, *The Age*

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Download the report fact sheet from www.victorianaturally.org.au

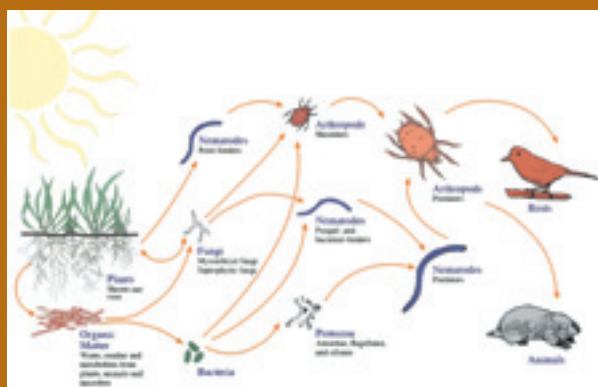
Comment

Soil food web plays vital role

This report fails to acknowledge the soil food web as the key component to supporting most birds and other wildlife. Restoration of the web requires farmers addressing their whole farm grazing, cropping and conservation programs.

Victorian farmers are particularly fortunate in this regard with ready access to an environment best management practice (EBMP) program developed during the early 2000s by the Department of Primary Industries. It has received significant support from the Victorian Farmers Federation but it is not part of mainstream farming. EBMPs involve farmers monitoring all aspects of the business, including biodiversity, so they are in a better position to make the links between their management and its impacts.

While Andrew Bennett's report is



quick to blame a "climate change-related 13-year-long dry period" for the demise of bird species, that is too simplistic. A more relevant reason is how landowners manage the dry period and whether or not they keep the soil food web intact.

Bare, scorched pasture and crop paddocks cannot support a soil food web yet this is common from December

A key factor in the survival of birds and other wildlife is whether or not landowners manage to keep the soil food web intact over dry periods.

to May in many districts, particularly in the north of the state. Landcare conservation programs help to support the web but their impact is limited

to a small percentage of total land area.

Calling for more land devoted to conservation is not the complete answer for many bird species relying on a healthy soil food web. Ensuring healthy pasture and crop soils with 100% groundcover to protect the web provides a way forward for biodiversity as well as the livelihoods of professional farmers.

– Patrick Francis