13 THIRSTY SPECIES

Mr Brumby, Mr Baillieu, buy me a drink!

A call for action by the Victorian National Parks Association & Environment Victoria

Our River Red Gum parks and threatened species are dying of thirst

environment victoria

VICTORIAN NATIONAL PARKS ASSOCIATION Inc.

13 THIRSTY SPECIES

Acknowledgements

The Victorian National Parks Association and Environment Victoria acknowledge the Yorta Yorta and Wadi Wadi as Traditional Owners and Victoria's first co-managers of River Red Gum national parks and protected areas. We also acknowledge all Traditional Owner groups as part of the Murray and Lower Darling Rivers Indigenous Nations (MLDRIN).

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Victorian National Parks Association is an independent, non-profit, membership-based group, which exists to protect Victoria's unique natural environment and biodiversity through the establishment and effective management of national parks, conservation reserves and other measures. We will achieve our vision by facilitating strategic campaigns and education programs, developing policies, through hands-on conservation work, and by running bushwalking and outdoor activity programs that promote the care and enjoyment of Victoria's natural heritage.

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Environment Victoria is a non-government, not-for-profit environment organisation that believes our future depends on all Victorians. That's why our goal is to mobilise all 5 million Victorians to safeguard our environment. At the heart of our work is a belief that people are a part of the environment, and not separate to it. So we work with people from all walks of life and levels of environmental awareness to solve the challenges common to all of us.

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Introduction

A failure by past Victorian governments to arrest declining river health has left large tracts of River Red Gum forests and globally significant wetlands struggling to survive.

This failure, the result of taking too much irrigation water combined with below average rainfalls associated with a drier climate, is also risking the survival of many flood-dependent native plants and animals threatened at either a national or state level.

Our rivers and wetlands have been starved of water for so long that we can no longer rely on good rainfalls to restore them. Instead, we need to address the root causes of their long-term decline by guaranteeing new environmental water allocations for our River Red Gum parks, before it's too late.

Only then can we hope to ensure the future healthy survival of more than 100,000 hectares of River Red Gum parks and protected areas across northern Victoria.

What needs to be done

The Victorian Government demonstrated strong leadership by creating four new national parks to protect River Red Gum wetland forests. But there remains unfinished business: without water, these new parks face a grim future.

The 2008 State of the Environment Report called on the Victorian Government to "act with urgency" and buy back water for stressed rivers and wetlands.

The Victorian Government must immediately secure environmental water allocations as a priority to ensure the survival of our River Red Gum parks.

Furthermore, a legally-entitled, secure and reliable allocation of environmental water for the River Red Gum parks must be a high-reliability entitlement.

The Victorian Government should:

- Guarantee environmental water sufficient to sustain Victoria's River Red Gum national parks, delivered from 2012.
- Purchase in partnership with the Federal Government at least 300GL of new water for the Goulburn River and 250GL of new water for the Murray River by 2012.[i]
- Amend the Stage 2 Food Bowl project to include a major environmental water purchase component.
- Develop ecologically robust environmental watering plans for River Red Gum national parks within two years.
- Immediately remove all barriers to water trade to enable purchases of environmental water.

This report highlights the plight of just 13 flood-dependent species under threat from a lack of environmental water in the new River Red Gum parks. There are many more at risk. Secure water allocations will help ensure the survival of these "Thirsty 13".

Thirsty 13	Listed as a threatened species (Flora and Fauna Guarantee Act)	Flood dependent?	Found in River Red Gum parks	At risk?
1. Blue-Billed Duck	Yes	Yes	Yes	Yes
2. Silver Perch	Yes	Yes	Yes	Yes
3. Inland Carpet Python	Yes	Yes	Yes	Yes
4. White-Bellied Sea-Eagle	Yes, also migratory	Yes	Yes	Yes
5. Broad-Shelled Turtle	Yes	Yes	Yes	Yes
6. Brolga	Yes	Yes	Yes	Yes
7. Murray Cod	Yes, also listed under national threatened species legislation	Yes	Yes	Yes
8. Moira Grass	No, limited locations in Victoria	Yes	Yes	Yes
9. Superb Parrot	Yes, also listed under national threatened species legislation	Yes	Yes	Yes
10. Plumed Egret	Yes	Yes	Yes	Yes
11. Mueller Daisy	Yes, also listed under national threatened species legislation	Yes	Yes	Yes
12. Giant Banjo Frog	Yes	Yes	Yes	Yes
13. Squirrel Glider	Yes	Yes	Yes	Yes

13 THIRSTY SPECIES

Victoria's new national parks

On July 1, 2010, the Victorian Government showed strong leadership by declaring four new national parks to protect River Red Gum forests and wetlands across northern Victoria.

The new parks span Victoria's northern border along the Murray River between Wodonga and Mildura and encompass parts of the Heritage-listed Goulburn and Ovens rivers.

And while the decision remains an important one, there is still unfinished business. If these parks do not get significant amounts of timely and reliable environmental water they could perish.

Red gum parks, a global gift in need of a big drink

Victoria's new River Red Gum parks protect an incredibly rich and diverse environment that relies on regular flooding for its survival.

Many of the floodplain ecosystems found within these parks, such as those at the Lower Goulburn River National Park, contain nationally significant wetlands and support a range of flood-dependent threatened plants and animals.

The Barmah and Gunbower national parks are internationally recognised Ramsar wetlands, and need regular water flows to support the thousands of nesting waterbirds that breed within them every year.

The new parks are also important breeding and spawning sites for rare and threatened native fish species, including Silver Perch and Murray Cod, making them some of the most interesting, biodiverse and important ecosystems in the world.

However, unless governments deliver significant amounts of environmental water to these new parks they face a grim future, and the ecological values for which they were protected will be put in jeopardy.

With the recent rains breaking a decade long drought, now is the time to ensure our River Red Gum forests and wetlands, and their many threatened species, are guaranteed secure and reliable environmental water long into the future.

Report urges water buy-back

In 2008 Victoria's first ever State of the Environment report called on the Brumby Government to "act with urgency" and buy back water for stressed rivers and wetlands.[ii]

The report made some deeply disturbing findings about the health of Victoria's waterways, including a warning that a lack of flooding was threatening the existence of tens of thousands of hectares of River Red Gum forests and wetlands.

It revealed that many species dependent on inland waters were now considered threatened, including 21 freshwater and estuarine fish species, 11 frog species, and 29 waterbirds.

The report also found that in more than half of Victoria's river basins less than a fifth of major rivers and tributaries had flow regimes in good condition.

In one of his key recommendations, the Victorian Commissioner for Environmental Sustainability said the State Government must "act with urgency" to increase environmental water reserves where they are currently insufficient to keep rivers in a sustainable condition, including buying back water.

"In particular, floodplains need floods to continue functioning as floodplain ecosystems," then commissioner Ian McPhail said.

In response the Victorian Government gave "in principle" support to this recommendation. However, we are yet to see any real action that will secure environmental water flows and protect and promote healthy freshwater ecosystems, including our River Red Gum parks.

In that same year the Victorian Environmental Assessment Council (VEAC) released its final River Red Gum Forests Investigation report after comprehensive scientific investigation and community consultation.

In this report, VEAC stated that the most urgent and serious environmental problem in the investigation area was the need for sufficient environmental water to halt the imminent loss or degradation of large areas of flood-dependent riverine forests and wetlands.

The Barmah and Gunbower national parks are internationally recognised Ramsar wetlands, and need regular water flows to support the thousands of nesting waterbirds that breed within them every year.

Time for Victoria to pitch in

Many national water experts have called for environmental water to be made a priority for River Red Gum floodplain ecosystems.

The Productivity Commission strongly supports the purchase of water for environmental use. In 2009 it said that buying water from willing sellers is "generally the most effective and efficient means of acquiring water".[iii]

It also warned that funding irrigation infrastructure upgrades is generally not a cost-effective way for governments to recover water for the environment.

Victoria lags behind on environmental water recovery

In its response to the Murray-Darling Basin Plan, the Federal Government revealed a commitment to guaranting that our rivers, wetlands and threatened species get more water to ensure their health and ultimately, their survival.

It's now up to the Victorian Government to pitch in at a state level by supplying environmental water and building on the wonderful creation of our new River Red Gum national parks.

The Goulburn River, for example, is the major Victorian tributary running into the Murray River, yet it is also one of the Murray Darling Basin's most degraded rivers. A recent audit by the Murray Darling Basin Commission graded the Goulburn as one of the basin's most ecologically degraded rivers.

By delivering greater environmental flows into the Goulburn and Murray rivers, the Victorian Government will demonstrate strong leadership by fulfilling part of its national obligation to look after the internationally significant wetlands and threatened species in its part of the Murray-Darling Basin.

"It's now up to the Victorian Government to pitch in at a state level by supplying environmental water and building on the wonderful creation of our new River Red Gum national parks.

Rains only temporary reprieve

Victoria's recent drought-busting rains have brought some relief to the state's River Red Gum wetlands, and flooding in a few of the new parks has highlighted the benefits of increased rainfall.

However, one wet winter will not solve our River Red Gums crisis, and there is no guarantee that the recent rains will provide the sort of prolonged flooding levels needed to keep alive the spawning and breeding grounds of threatened species.

Victoria's decade-long drought means that the state's new River Red Gum national parks, which have no secure or legal water allocation of their own, are literally dying of thirst.

These parks desperately need a reliable and legally-protected water allocation that will ensure their floodplain ecosystems remain healthy and strong long into the future.

The Victorian Government can secure such water allocations now and in the process make sure that in future, drier years, our new River Red Gum parks will not be left to the mercy of unpredictable and sporadic rainfall events.

Climate change science tells us that continuous patterns of decent rainfalls in this region will no longer be the norm. Secure water allocations will help protect River Red Gum ecosystems against future variability.

Victoria's River Red Gums enjoy a break from recent drought conditions. Photo: Shepparton News

Waiting until the eleventh hour for nature to step in and again avert the catastrophic loss of these biologically rich ecosystems is not an option. The next State Government has the power to avert this kind of crisis through secure environmental water flows.

To remain healthy River Red Gum forests and wetlands need regular water, in most cases every two, three or five years, at the most.[iv] If we are going to provide this, we need to give them high security water entitlements just like we do our farmers and households.

Red gums need a decent drink

The recent rains also demonstrate that if the Victorian Government had acted on the 2008 State of the Environment Report's recommendations and secured water for our stressed rivers and wetlands we'd now be seeing far greater and prolonged watering of critically important habitat.

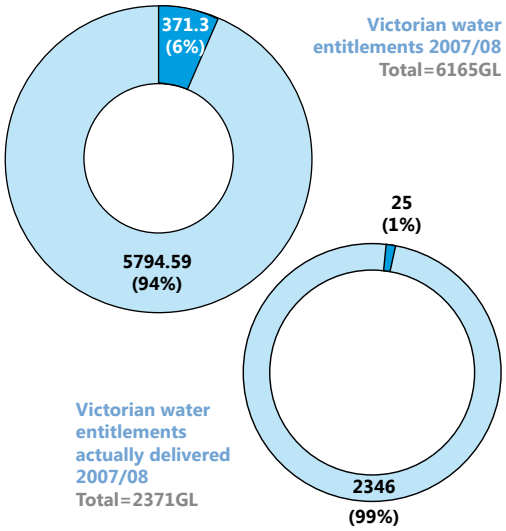
Such a move would have led to healthier River Red Gum parks and wetlands, and would have created a much-needed boost for the region's threatened plants and animals.

Short-changing environmental water flows

The Brumby Government argues that it has recovered substantial amounts of environmental water for northern Victoria, but fails to recognise that the delivery of this water is either often unreliable or no longer available during low rainfall years and a drier climate.

Using the most comprehensive, publicly available figures these graphs show the huge discrepancy between the amount of water we allocate for consumptive uses such as agriculture, industry and personal consumption, and how much water we set aside for the natural environment.

In 2007/08 Victoria allocated just 6 per cent of total water entitlements to the environment. In the same year only 1 per cent of all water delivered actually made it into our rivers and wetlands.



In dry times all water users have taken a hit, but the environment has been hit much harder.

Just like humans, our rivers and parks need reliable and secure water entitlements. Only then will they flourish and survive.

Without a secure allocation of environmental water from 2012 the future of our River Red Gum floodplains hangs in the balance.

Note: See References for an explanatory note about environmental water entitlement figures.

Large old red gum close to the Murray River. Photo: Paul Sinclair

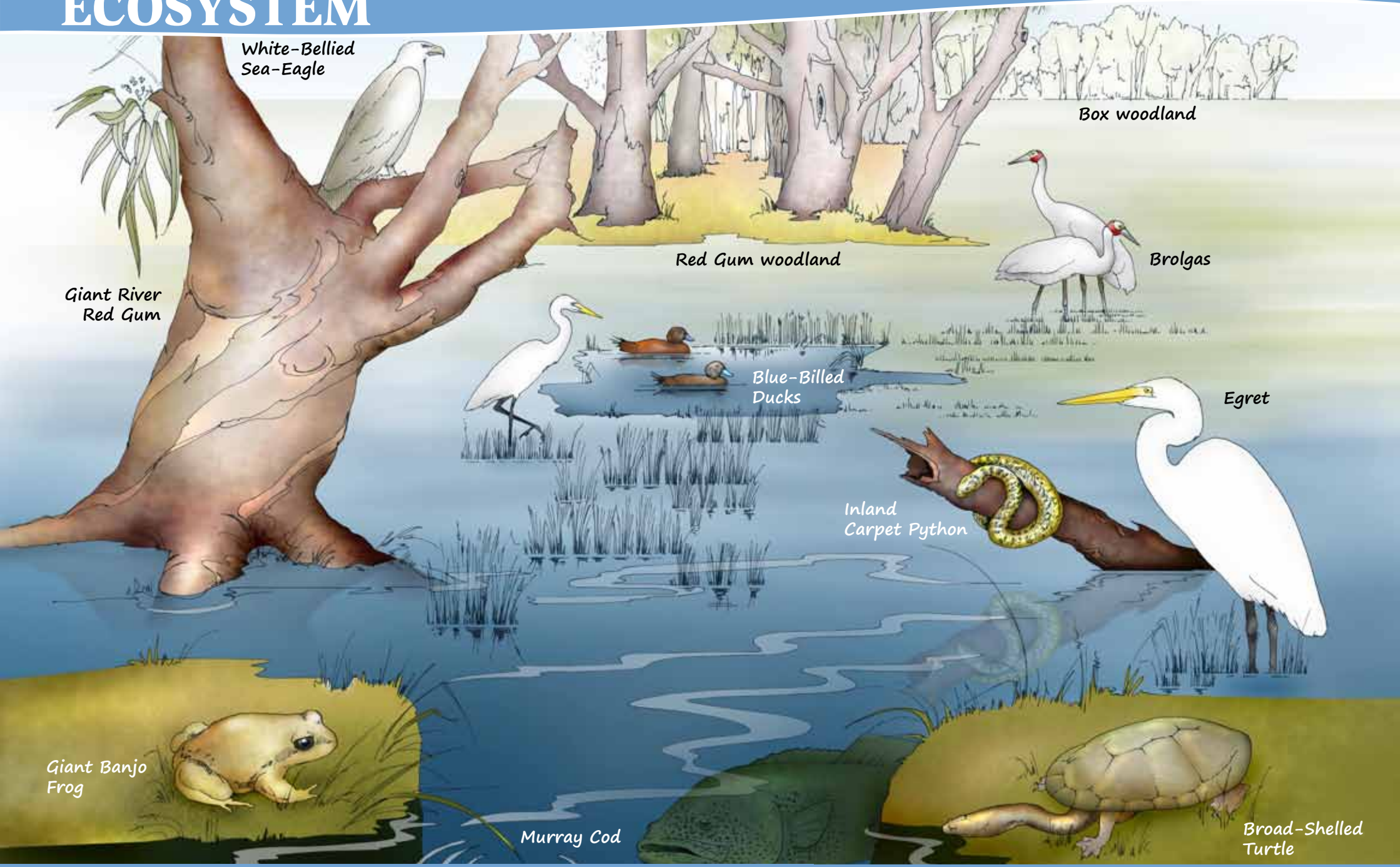
Take action now!

Email the Premier and Opposition leader, telling them you want more water for River Red Gum parks to ensure they flourish.

CLICK HERE or go to www.thirsty13.vnpa.org.au to email them now!

A RIVER RED GUM ECOSYSTEM

Illustration by Rhyll Plant & Jess McGeachin



13 THIRSTY SPECIES

1. Blue-Billed Duck

Scientific name: *Oxyura australis*

Photo credit: Valorix

Like a duck to water

The Blue-Billed Duck is found only in Australia, and likes the temperate wetlands of the country's southeast and southwest corners.

It spends most of its time on the water, and is seldom seen on land. Non-breeding flocks, often several hundred strong, gather on large, deep, open freshwater dams and lakes in autumn.

It spends daylight hours alone on small concealed bays, hiding in the shrubbery, or with other Blue-Billed Ducks in large exposed rafts far from shore.

What does it eat?

This compact little duck, also known as Blue Bill, Stiff Tail, Spinetail, and the Little Musk Duck, feeds at the water's surface, but also loves to dive for food.

It eats aquatic insects including chironomid fly larvae, caddis flies, dragonflies, flies and water beetle larvae. It may also eat the seeds, buds, stems, leaves and fruits of a wide variety of plants.

Threats

The Blue-Billed Duck is threatened by habitat destruction, particularly as a result of drainage works, clearing, cropping or burning.

Why it needs more water

To promote the best feeding conditions for the duck, clear and permanent freshwater bodies must be maintained by regular environmental water flows.

To protect and restore the dense vegetation it uses for nesting, seasonal inundation is needed.

2. Silver Perch

Scientific name: *Bidyanus bidyanus*

A matter of scale

The natural range of Silver Perch includes most of the Murray-Darling Basin, except for the cool, upper reaches of streams on the western side of the Great Dividing Range.

It can also be found in southern Queensland, western New South Wales, northern Victoria and South Australia.

The Silver Perch lives in rivers and large streams, as well as lakes and impoundments, favouring debris, occasional stands of common reed, and areas where the water is very turbid.

Surveys conducted in the Murray River in June 1996 recorded the capture of Silver Perch mainly from open waters off sandy beaches.

It is one of the few large native Australian fish that appear near the water's surface.

Threats

Silver Perch can spawn in flooded backwaters where there are gently rising streams, as well as in confined pools of water, provided there are increases in both water and temperature levels.

Changes in natural flooding and water temperatures can seriously affect the ability of the Silver Perch to breed, with spawning success at least partly initiated by rises in water levels.

River regulation may alter both the quality and availability of floodplain habitats for Silver Perch, including favourite haunts such as backwaters and billabongs.

Why it needs more water

The Silver Perch stands the best chance of survival if flow regimes designed to mimic natural frequency and quantity of water are restored to the wetlands and rivers in Victoria's new River Red Gum parks.

Help save the Thirsty 13!

Go to www.thirsty13.vnpa.org.au and find out how you can help give the Blue-Billed Duck and Silver Perch a drink.

13 THIRSTY SPECIES

3. Inland Carpet Python

Scientific name: *Morelia spilota metcalfei*

Snakes alive!

Hollow-bearing trees and logs, large rocky outcrops, thick litter and shrub cover are all essential to the existence of the Inland Carpet Python, which uses them to avoid predators, ambush prey, and even maintain its body temperature.

Whenever these elements are removed from the bush where this python lives its survival is put at risk.

Inland Carpet Pythons were once widespread in woodlands, along major watercourses, and rocky outcrops of northern Victoria.

However, since European settlement it has suffered from serious human-induced threats leading to population declines.

Threats

Within woodlands and along watercourses, the Inland Carpet Python

Photo credit: Gunther Schmida. © MDBA

is continually exposed to disturbance by people fishing, camping and cutting firewood.

In rocky hill habitats, where the shrub layer is particularly important, grazing and firewood collection can dramatically reduce habitat quality.

This species is endangered in Victoria.

Why it needs more water

Frequent flooding of riverine areas is important for this python by helping to maintain the types of native vegetation it uses as habitat.

4. White-Bellied Sea-Eagle

Scientific name: *Haliaeetus leucogaster*

Where eagles dare

The White-Bellied Sea-Eagle is the second largest bird of prey found in Australia, playing second fiddle to the Wedge-Tailed Eagle.

Nests are usually near water, in tall live or dead trees, or on remote coastal cliffs. River Red Gums are commonly used as nesting trees.

White-Bellied Sea-Eagles are normally seen perched high in a tree, or soaring over waterways and adjacent land.

They form permanent pairs and patrol the same territory throughout the year.

The eagle's wingspan can be up to two metres in length.

Young Sea-Eagles are brown and slowly grow to resemble their parents, acquiring the complete adult plumage by their fourth year.

The White-Bellied Sea-Eagle feeds mainly off aquatic animals, such as fish, turtles and sea snakes, but it takes birds and mammals as well. It is a skilled hunter, and will attack prey up to the size of a swan.

Photo credit: Dean Ingwersen

Sea-Eagles also feed on carrion (dead prey) such as sheep and fish along the waterline.

Threats

A loss of nesting sites because of habitat destruction is the most significant threat to these birds.

Why it needs more water

Increased environmental flows will help ensure there are sufficient tall trees for White-Bellied Sea-Eagles to nest in long into the future.

Help save the Thirsty 13!

Go to www.thirsty13.vnpa.org.au and find out how you can help give the Inland Carpet Python and White-Bellied Sea-Eagle a drink.

13 THIRSTY SPECIES

5. Broad-Shelled Turtle

Scientific name: *Chelodina expansa*

Give me shell-ter

The largest of the long-necked turtles, when this guy sticks his neck out its combined length can exceed 80cm.

The Broad-Shelled Turtle has an extraordinary ability to extract oxygen from fresh water by pumping it through veined cavities in the throat and vent, allowing it to remain submerged for long periods of time.

Broad-Shelled Turtles are rarely seen on land and love large, slow-moving or still bodies of water.

During the winter they hibernate by burrowing into muddy river floors.

They are found across southeastern Australia, from southern Queensland to eastern South Australia, but are listed as threatened in Victoria.

When hunting for food these turtles lie in ambush, partially hidden in the mud on the river bottom. The head is all that is visible, awaiting a passing fish or frog,

Photo credit: Gunther Schmida. © MDBA

which is snatched with tremendous speed by thrusting out the neck with the mouth open wide.

Prey as big as ducklings may be taken by particularly large turtles.

Threats

These turtles are often caught by fresh-water fishermen in their lines and wild turtles are sometimes found with the hooks still embedded in their mouth.

Why it needs more water

Environmental watering is critical for this species because the timing and duration of floods contribute to the creation and maintenance of large bodies of water Broad-shelled Turtles live in.

6. Brolga

Scientific name: *Grus rubicunda*

Shall we dance?

With their striking red heads and grey crowns, Brolgas cut a distinctive figure across tropical northern Australia as well as central New South Wales and western Victoria.

At any time of the year they can be seen putting on one of the most energetic and spectacular dances of any bird species.

The Brolga lives in large open wetlands, grassy plains, coastal mudflats and irrigated croplands. Less frequently it can be found in mangrove-studded creeks and estuaries.

They feed on both vegetable and animal matter, but prefer tubers and some crops. Insects, molluscs, amphibians, and even mice are on the Brolga's menu.

A match made in heaven

It is believed Brolgas mate for life, and the bonds between partners are strengthened during elaborate courtship displays that involve dancing, leaping, wing-flapping and loud trumpeting.

Photo credit: Chris Tzaros

Threats

Changes to flood regimes during the breeding season can force these giant birds to abandon their nests. They also suffer when wetlands used for breeding are modified or disappear altogether.

The grazing of wetlands by stock also reduces vegetation, leaving insufficient materials for nest construction.

Why it needs more water

A robust environmental watering program is critical to the Brolga's survival and will provide the prolonged flooding events needed to create good nesting and breeding conditions.

Help save the Thirsty 13!

Go to www.thirsty13.vnpa.org.au and find out how you can help give the Broad-Shelled Turtle and Brolga a drink.

13 THIRSTY SPECIES

7. Murray Cod

Scientific name: *Maccullochella peelii*

Photo credit: Gunther Schmida

Old man of the river

Australia's largest freshwater fish, this charismatic underwater giant is synonymous with the Murray-Darling river system.

Primarily a carnivore, Murray Cod mainly eat other fish and can grow up to a metre in length, although there are records of specimens growing to nearly two metres.

As a survival tool Murray Cod are very long-lived, ensuring they will be around for at least one major spawning event, usually linked to very wet La Nina years.

As well as eating any fish smaller than themselves, Murray Cod also feed on yabbies, shrimp and Murray River Crayfish. They have also been known to take snakes, frogs and mice as well as the introduced pest species carp.

Threats

Listed as a nationally vulnerable species, Murray Cod numbers have plummeted since water flows in the Murray-Darling Basin were restricted through regulation.

To breed naturally the Murray Cod relies on increased flows that traditionally come in late winter, but now, this water is held back in reservoirs, dams and weirs for human use.

Spring flooding has also dropped off, and floodplain conditions are now very poor throughout the Murray-Darling Basin, putting the survival of this iconic fish at great risk.

Why it needs more water

Floods are essential for the survival of the Murray Cod, especially in its early stages of development when it needs the additional food sources more water can supply.

8. Moira Grass

Scientific name: *Pseudoraphis spinescens*

Fundamental as anything

This semi-aquatic grass, also known as Mud Grass and Spiny Mud Grass, grows well after flooding and provides food for kangaroos, habitat for water birds, frogs and insects.

Its leaves stretch to about one metre high and are divided into a fringe of hair-like structures. When it grows along the water's edge it resembles turf, but can also grow in a floating mass.

Moira Grass is fundamental to the ecology of the Barmah and Millewa forests, collectively the largest contiguous stand of River Red Gum in Australia and an ecologically significant wetland ecosystem.

Threats

Changes to river flooding patterns introduced by human management have caused a decrease in the number of Moira Grass populations.

A lack of flooding has allowed rush and reed plant species to outcompete this key indicator of wetland health, encroaching on areas where Moira Grass once grew.

Why it needs more water

Environmental watering in Victoria's new River Red Gum parks will support the existing Moira Grass populations and give the species a fighting chance of survival.

Help save the Thirsty 13!

Go to www.thirsty13.vnpa.org.au and find out how you can help give the Murray Cod a drink.

13 THIRSTY SPECIES

9. Superb Parrot

Scientific name: *Polytelis swainsonii*

On a wing and a prayer

South-eastern Australia is the only place in the world where you can find a Superb Parrot in the wild.

In NSW and northern Victoria it occurs on the inland slopes of the Great Divide and adjacent plains, especially along major river systems.

In Victoria, it is confined to the north of the state, with records mainly around Barmah National Park, although occasional sightings have also been made near Strathmerton, in the Killawarra State Forest, and along the Goulburn River near Mooroopna.

Superb Parrots breed in either River Red Gum forests and woodlands or box woodlands.

In the Riverina region they breed in forests dominated by large mature River Red Gum trees, typically close to watercourses.

Threats

The exploitation and regulation of water throughout the Superb Parrot's range directly affects the health of its breeding and foraging habitats.

This bird is nationally vulnerable.

Why it needs more water

The Superb Parrot relies on biologically rich, multi-aged forests and woodlands for its survival.

Starving River Red Gum ecosystems of water reduces the growth and complexity of plant species this bird needs for food and nesting.

A regular environmental watering program is essential to ensure its survival.

10. Plumed Egret

Scientific name: *Ardea intermedia*

Sanctuary at Gunbower

The critically endangered Intermediate Egret has a very special relationship with Victoria's River Red Gum wetlands – they are the only place in the state these ethereal birds will nest, and they only nest during flooding events.

Historical records show breeding sites have existed in the past both at Gunbower and Barmah national parks, where the egrets would have taken full advantage of River Red Gum saplings and mature trees standing out from the flooded forest below.

However, these days only Gunbower Forest supports a breeding colony of Intermediate Egrets in Victoria, and numbers are down. In 1974 there were an estimated 500 nests, but by 1982 that figure had plummeted to just 100.

Sections of the forest also support breeding colonies of the Rufous Night Heron, the Little Egret, and the Eastern Great Egret.

Threats

In the 1930s Intermediate Egrets bred on wetlands along the Murray River in their thousands, but sadly such numbers have not been recorded since.

The lack of major flooding in suitable wetlands for the required period can lead to abandonment of breeding sites.

The absence of any major breeding events in Victoria since the 1930s implies that a major ecological change has occurred in the suitability of riverine habitats.

Why it needs more water

A secure water allocation for Victoria's new River Red Gum parks will promote flood events that attract the Plumed Egret to nest and breed, with the water providing nesting vegetation and food for adults and chicks.

Help save the Thirsty 13!

Go to www.thirsty13.vnpa.org.au and find out how you can help give the Superb Parrot and the Intermediate Egret get a drink.

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11. Mueller Daisy

Scientific name: *Brachyscome muelleroides*

Daisy, daisy, give me your answer do

The Mueller Daisy is a small, annual herb that only grows in south-eastern Australia, where it is restricted to the floodplains of the Murray and Murrumbidgee rivers, and some of their tributaries.

The inconspicuous nature of this plant makes it hard to find, but we do know it grows in Victoria's Barmah National Park, where it lives in flooded depressions with heavy, cracking topsoil.

The daisy grows to about 7cm tall and has several slender, grass-like leaves. Its stem carries a single white-petalled flower with a yellow centre, and it flowers from September to November.

Threats

It is believed this nationally vulnerable plant species relies on seasonal floods

to germinate and grow, so major changes to the way rivers flow and the reduction in flooding events represents a major threat to its survival.

Weed invasion and grazing also threaten the Mueller Daisy.

Both Victoria and New South Wales list this daisy as a threatened species, and it is listed as nationally vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Why it needs more water

An ecologically robust watering plan for Victoria's new River Red Gum parks should provide ideal conditions for this attractive plant to bloom into the future.

12. Giant Banjo Frog

Scientific name: *Limnodynastes interioris*

The life aquatic

This powerfully built burrower and jumper is the largest frog species in Victoria, where it is quite uncommon and restricted largely to the Murray River floodplains.

Spending a great deal of its life concealed underground, the Giant Bullfrog, as it is also called, can be coaxed out of its hidey hole after heavy rains to feed and spawn.

Adults frequent open and disturbed areas and woodlands, and are often found in quite dry forest, despite being associated with floodplains.

They produce their eggs in water, in swamps, ponds, and dams, and sometimes in flooded burrows along stream banks. Tadpoles are aquatic and usually associated with slow moving or still water.

Male Giant Banjo Frogs call while either floating in vegetation or in burrows along the streambank, emitting a short, deep hollow note similar to that of the

Photo credit: Gunther Schmida. © MDBA

Eastern Banjo Frog, but of a much lower pitch – "gunk", "donk", or a reverberating "bonk".

Threats

The victim of habitat loss, the Giant Bango Frog is listed as critically endangered in Victoria.

Why it needs more water

Environmental water will not only promote and maintain the wetlands and woodlands this frog calls home, but it will also encourage breeding and provide water for young tadpoles to grow in.

Help save the Thirsty 13!

Go to www.thirsty13.vnpa.org.au and find out how you can help give the Mueller Daisy and Giant Bullfrog a drink.

13 THIRSTY SPECIES

13. Squirrel Glider

Scientific name: *Petaurus norfolcensis*

Photo credit: DSE, Peter Robertson, © The State of Victoria

At home in the hollows

The shy, nocturnal Squirrel Glider, so named because of its dense bushy tail, relies on the tree hollows of Victoria's River Red Gum wetlands for refuge from predators, to maintain its body temperature, and for shelter.

A gliding possum, it feeds on acacia and eucalypt sap, nectar, pollen, flowers, caterpillars, beetles and other insects, as well as the green seeds of the Golden Wattle.

At night it forages for food at a variety of heights, sweeping down from tree crowns to visit the shrubby understory below.

A sure-footed and agile climber, it can glide as far as 50 metres between trees.

River Red Gum forests containing Squirrel Glider colonies occur from Gunbower National Park to the Kiewa Valley, and are all strongly associated with major rivers or well-watered creeks.

Threats

The removal of trees for both sawn timber and firewood in the Victorian and New South Wales Riverina has led to a considerable loss of suitable habitat for the Squirrel Glider.

Poor tree and shrub regeneration because of stock grazing and macropods has also taken a toll on Squirrel Glider habitat, as has inappropriate fire regimes.

Why it needs more water

A lack of environmental water has reduced the amount and health of native bushland this mammal needs to feed on. Giving River Red Gum forests a drink will help secure its future.

Take action now!

Email the Premier and Opposition leader, telling them you want more water for River Red Gum parks to ensure they flourish.

CLICK HERE or go to www.thirsty13.vnpa.org.au to email them now!

Help save the Thirsty 13

Go to www.thirsty13.vnpa.org.au and find out how you can help give the Squirrel Glider a drink.

13 THIRSTY SPECIES

Endnotes

i Environment Victoria and the Victorian National Parks Association, 2010. A Victorian River Rescue Package: 2010 State Election Policy Priorities, accessible at www.environmentvictoria.org.au/rescueourrivers

ii State of the Environment Report, 2008. Part 4, Inland Waters, Recommendation Iw1.6.

iii Productivity Commission, 2009. Draft report Market Mechanisms for Recovering Water in the MDB, Draft finding 6.4.

iv Victorian Environmental Assessment Council, 2008. River Red Gum Forests Investigation, Final Report.

References

Amphibian Research Centre website: www.frogs.org.au

Australian Reptile Park website: www.reptilepark.com.au

Birds Australia website: www.birdsaustralia.com.au

Department of Sustainability and Environment Flora and Fauna Action Statements for species listed in this document can be accessed at www.dse.vic.gov.au/DSE/nrenpa.nsf/LinkView/5C06524B60919FED4A2567C1001223BFBB0E97E481BC427BCA256BB300271ACC

Environment Victoria and the Victorian National Parks Association, 2010. A Victorian River Rescue Package: 2010 State Election Policy Priorities, accessible at www.environmentvictoria.org.au/rescueourrivers

Murray Darling Basin Commission (former MDB Authority) website: http://kids.mdbc.gov.au/encyclopedia/wildlife/plants/moira_grass.html

State of the Environment Report, 2008. Part 4, Inland Waters, Recommendation Iw1.6.

Productivity Commission, 2009. Draft report Market Mechanisms for Recovering Water in the MDB, Draft finding 6.4.

Victorian Environmental Assessment Council, 2008. River Red Gum Forests Investigation, Final Report.

Victorian Environmental Assessment Council, 2008. River Red Gum Forests Investigation, Final Report. The VEAC Report, and the species table referenced for this report, are accessible at www.veac.vic.gov.au

Explanatory note about environmental water entitlement figures:
The Victorian State Government's recent River Health Report Card identified that in the period 2002-2009, 402 GL of high and low reliability water was recovered and added to the Environmental Water Reserve (the report card can be viewed at http://www.ourwater.vic.gov.au). However, State Water Accounts for the year 2008-09 are yet to be released so the most comprehensive publicly available figures are used in this report to demonstrate the current inequity between environmental and consumptive water entitlements. A legally-entitled, secure and reliable allocation of environmental water for the River Red Gum parks must be a high-reliability entitlement.