

FROG CALL



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NEWSLETTER No. 167 JUNE 2020



WE REGRET TO
ADVISE YOU
THAT OUR
FATS JUNE MEETING
IS CANCELLED.

PLEASE CHECK OUR
WEBSITE AND
FACEBOOK PAGE FOR
FURTHER
INFORMATION.

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IMPORTANT NOTICE

FATS WILL NOT BE MEETING IN JUNE 2020

In response to the novel coronavirus COVID-19 outbreak, the FATS committee has cancelled our June 2020 public meeting at Bicentennial Park. Please see page 2 for details and about the August AGM. We apologise for the inconvenience, but as you know, it is beyond our control. When it is considered safe to do so, bi monthly meetings will resume.

FATS may run an online trivia competition for members. Watch out for notices.

Please continue to communicate with us via the FATS website, by email and the FATS Facebook page.



The Axolotl Rider, pop surrealism, 11x14 inches Print by Mab Graves on archival Hahnemühle Photo Rag 308gsm paper in archival inks. UV treated and sprayed. Comes in a plastic envelope. Shipped in triple fortified cardboard mailer for non-bending! Signed & numbered, Edition of 150 No text on original.

FATS AGM NOTICE FRIDAY 7 AUGUST 2020

FATS hopes to hold our AGM at 7pm, Friday 7/8/2020. We will confirm how and where on our website and in the August newsletter. If you would like to ask any questions about joining the FATS committee, please give us a call. Contact our President Arthur White at least two weeks before the meeting for further information and to submit items. We appreciate fresh ideas and new members on our committee. No experience required. The committee usually meets in person, 6 times a year, however your executive are meeting by video conference at the moment. No task commitments or time expected of committee members, other than what you are able to spare. See contacts details on page 12. **Arthur White**

FATS FROGCALL NEWSLETTERS - HARD COPY

Just a friendly reminder that February and October FrogCalls are only sent out as pdf attachments to your email address. There is no hard copy posted to you for those 2 months. **MW**

JEMIMA AND PETER SPRADBROW'S WEDDING



Blackheath April 2020 - Congratulations

2020 FATS FROG-O-GRAPHIC COMPETITION

The FATS members' 2020 Frog-O-Graphic competition closes on the 31st August 2020.

Categories: Best Frog Image, Best Pet Frog Image, Most Interesting Image and People's Choice.

Category winners are decided by a panel of judges.

People's Choice is voted for by everyone present at the October FATS meeting. Alternate arrangements will be made if we can't meet in October. All entries are by email to photos@fats.org.au Please state: your name, confirm that you are a financial FATS member, **identify the frog species preferably by scientific name (in the file name) and location**, if known, whether the image is a pet frog and your contact phone number. Max 6 entries per person. Max attachment size 6 MB. Fabulous prizes awarded. Entries must be original and your own work. They don't have to be recent images. The entries may appear in FrogCall, FATS Facebook, our web site and other FATS publications. **Arthur White**

THE IMPACT OF COVID-19 ON FATS' ACTIVITIES

The COVID-19 pandemic has affected most people in some way. The restrictions that have been applied in the wake of the pandemic has meant that FATS has had to curtail many activities. Public meetings have not been possible- the June meeting is cancelled.

Other activities such as field trips and public exhibitions, workshops and public talks have also been cancelled. As a frog group interested in frog conservation, the hardest restriction has been that on travel and non-work activities. The 2019-2020 drought and the ensuing bushfires have devastated many areas where threatened frogs occur - but we have not been able to go to these sites to see if any frogs survived and how they are faring, however, the future looks brighter and restrictions are slowly being eased. We may be able to visit some of these sites soon. We will let you know when field activities are again possible.

At this stage, we are working on the likelihood that the August public meeting will take place. The August meeting is also our AGM. It is likely that some restrictions will still be in place that will affect the number of people who can attend the meeting. You will be informed in advance of what measures will be in place but we hope that it will be the opportunity for some of you to attend a FATS meeting.

All of you will still be receiving FrogCall and this will help to keep you up to date with the limited frog work that is taking place.

Please be patient with us, we will reinstate many of our activities as soon as we are able and you will be invited to participate again.

In the meantime, keep safe and well.

Yours Sincerely Dr Arthur White – FATS President

RARE FROG FIND AT LAKE CATHIE EXCITES ECOLOGISTS extract

An endangered frog species, (The Green and Golden Bell Frog) at high risk of extinction, has been found at Lake Cathie. Assistant clinical director at the Koala Hospital in Port Macquarie, Scott Castle, who also rescues wildlife for FAWNA, was eager to confirm his suspicion the frog he found was something special.Identification of the frog species was confirmed by ecologist Cameron de Jong, senior ecologist at Forestry Corporation NSW Chris Slade and frog ecologist Dr Frank Lemckert of Ecological Australia. **Article forwarded to FATS by Margot Pickering. 25 May 2020 Port Macquarie News - extracts**

<https://www.portnews.com.au/story/6768426/rare-frog-find-at-lake-cathie-excites-ecologists/?fbclid=IwAR0-OI1e9CTpcSek2PZtcNGcEebnal2LnnNiZ4BJKwvxlnb8RDDeii8LNVg>



Endangered *Litoria aurea*, classified under the NSW Biodiversity Conservation Act 2016. Photo: Scott Castle

SAVING FRAGILE ALPINE ECO SYSTEMS. VICTORIAN FERAL HORSES IN COURT AGAIN.

The Victorian Supreme Court will hand down a judgement at 2.15 pm on Friday 29/5/2020 on the fate of the endangered Alpine species affected by excess numbers of feral horses in the alpine national park. The feral horse cull was announced on 8 May, the same day the Federal Court delivered its judgement in the case between Parks Victoria and the Australian Brumby Alliance, ruling in favour of Parks Victoria to allow horse control programs to continue.

These horse management plans include trapping and rehoming programs. Parks Victoria regional director for northern Victoria Daniel McLaughlin said the unprecedented scale and impact of the 2019-20 Victorian bushfires required mobilisation across government and the community “to protect what remained and give Victoria’s native plants, animals and ecosystems the best chance of survival”.

<https://aboutregional.com.au/victorian-brumbies-in-court-as-traps-are-prepared-in-nsw/>

See background information on pages 8 to 11.

LOCK THE GATE & HORNSBY SHIRE CLIMATE ACTION

Group are running a NO to gas campaign and YES to Renewables. There is a current proposal to frack for gas at Narrabri. Coal Seam Gas (CSG) is an environmentally damaging fossil fuel that will hold us back from meeting crucial climate targets. CSG leaks methane directly into the atmosphere from wellheads, pipelines and compressor stations. Methane is a potent greenhouse gas 86 times more powerful than carbon dioxide over 20 years. Measurements from gasfields in the US show an apparent methane leakage rate of 5-10% - and anything greater than 3% makes gas even worse for our climate than coal. In shires surrounding Narrabri, 98.7% of farmers *oppose* the Project. The Narrabri CSG field would drill 850 CSG wells right through the Great Artesian Basin – one of the greatest underground water reservoirs in the world.

As well as climate impacts, the Narrabri CSG project would drain 37 billion litres of groundwater and produce 430,000 tonnes of toxic salt wastes over 25 years. We rely on farmers to grow our food. We should show them our support! Fracking also potentially creates serious impacts for local frog populations and biodiversity through contamination and degradation of habitat. In the Narrabri area this could put some of our most iconic frog species at risk, such as the Water-holding Frog and Crucifix Frog. Additionally, our precious Pilliga Forest is also at risk from the proposal – it is the largest area of native forest west of the Great Dividing Range in New South Wales.

Photo Grant Webster *Cyclorana platycephala* Moree NSW



If you would like to get involved there are several things you can do: Sign the petition at

https://www.lockthegate.org.au/narrabri_gas?recruiter_id=423873&fbclid=IwAR0LQU7vcQqZQGw_Naf8ejAQ-sVszN7VBnXnNL9MQDoJCKPz-PrkJQZw5Es Write to your

local MP or the State Environment Minister and ask for a Moratorium on Coal Seam Gas. Write a submission about this project to the Independent Planning Commission (currently submissions aren’t open yet, however we will notify people when they are). As this project has progressed to the determination stage this is probably the most important thing people can do.

If you would like more information please contact Hornsby Shire Climate Action Group on hornsbyclimate@gmail.com or visit Lock The Gate’s website at

https://www.lockthegate.org.au/csg_around_narrabri

Thanks, Grant Webster

ON THE PASSING OF MIKE TYLER AO (1937–2020), THE ‘FROGMAN’ OF AUSTRALIA



Mike Tyler has been an extraordinary ambassador for frogs in Australia from the 1960s to the present. However little connection you may have had with him, you are very likely to have heard his name, seen him speak or heard him interviewed during television and radio reports, often with a view to promoting the importance of frogs in our environment and the need to conserve them.

He has been involved in various nature documentaries including the world-renowned David Attenborough series, *Life on Earth* (1979), *Nature Australia* (1988) and others. As a result of his many media appearances, he was often fondly referred to as ‘The Frogman’. During his amazingly prolific career, Mike has produced 30 books and over 300 scientific papers, mostly on frogs. He can be considered as perhaps the main catalyst in awakening and inspiring the future of taxonomy and research on Australian frogs, in particular during the latter half of the twentieth century.

Although he worked extensively on describing many new species of Australian frogs, Mike’s research has been extremely broad, even including being in the forefront of research into Australia’s fossil frog record. But more significantly, he has understood that unless frogs could be seen as somehow useful to humans, they would be less likely to be protected.

Accordingly, he passionately promoted frogs not only as pets, but as indicators of environmental quality and as sources of substances that could potentially be useful to humans. He investigated novel chemicals found in frogs (especially in their skin), which have led to pharmaceutical and industrial uses such as fluid balance medications, sunscreens and adhesives. Some of the adhesives (e.g. from the skin of the genus *Notaden*) have even been synthesised for use in human orthopaedic surgery.

He has investigated frog populations as an indicator of the environmental health of entire aquatic systems and frog mutations as an indicator of pollution. He is one of many who have worked on the huge pest problem in Australia caused by the Cane Toad invasion (previously *Bufo marinus*, now *Rhinella marina*). He has been prominent in research into the world-wide disappearance of frogs, such as the two species of Gastric Brooding Frogs (*Rheobatrachus vitellinus* and *Rheobatrachus*

silus) and kept a number of *R. silus* alive and well in his laboratory for several years. Here he recorded the stomach brooding of tadpoles using an Xray, and photographed a metamorphosed froglet emerging from the mouth of a female. Sadly, both these gastric-brooding species were declared extinct in the wild (presumably due to chytrid fungus), only a short period of time after their discovery.

Mike’s love of frogs was a lifetime one. He was born in Britain, and at an early age developed an interest in entomology and then herpetology, especially frogs. For a time he worked as a volunteer at the British Museum, but given the limited species of frogs in Britain and Europe, he was encouraged to go to Australia and Papua New Guinea if he wanted to study them.

Unfortunately, life was never going to be easy for Mike, and during his lifetime he battled with three life-threatening illnesses, each stopping him completing the academic courses in which he had enrolled. The first of these began after he had enrolled in a BSc course at the University of London but was forced to withdraw after developing a tumour on his wrist for which he needed surgery and radiotherapy. As his prognosis was not good, he decided that this was the ideal time to make the trip to Australia and New Guinea.

During 1958–1959, he hitch-hiked to Australia and took up residence in Adelaide, joining the staff at the University of Adelaide as a laboratory technician in 1961 and continued his study and research part-time.

In 1962, he asked his special, longtime childhood friend Ella to come to Australia from Britain and marry him. After their wedding that year in Sydney, they settled in Adelaide, where they had three children. Mike enrolled in a BSc course at Adelaide University soon after their marriage, but again had to withdraw when he developed a life-threatening illness (*Polyarteritis nodosa*), which kept him in the Royal Adelaide Hospital for three months, and was to continue to plague him throughout his life.

Despite this set-back, by 1971 Mike had been promoted to Laboratory Manager in the Department of Human Physiology and Pharmacology at Adelaide University. During the next few years, Mike became the first student at Adelaide University to be permitted to work towards an MSc without first completing a BSc. By that time, he had published numerous papers in peer-reviewed journals, so receiving the honour of an MSc became a given, especially since he was still only a member of the technical staff! After attaining his MSc in 1974, he won a position as Lecturer in the Department of Zoology in 1975, where he must have at last felt ‘at home’! Then followed a promotion to Senior Lecturer in 1979,

and he was appointed Associate Professor of Zoology in 1984.

Later in Mike's career, he enrolled in a part-time PhD course by research, which would have taken him around 10 years to complete. However, once again he developed another life-threatening illness (Non-Hodgkin's Lymphoma) which forced him to withdraw. Eventually he was permitted to work towards a DSc, for which he submitted a massive research project, and was awarded a DSc in 2002. Following this and on his retirement from his full-time appointment he was appointed Visiting Research Fellow at The University of Adelaide.

During his life, Mike collaborated with a number of well-known zoologists, in particular Margaret Davies, Angus Martin and Murray Littlejohn, but also with many other academics from institutions both in Australia and overseas. These collaborations resulted in a great number of research papers recognised internationally. He also facilitated my own attempts to get started in research work as a young amateur in 1970, and I felt he was especially encouraging because he understood I was also in the same boat as he had been, not having a BSc but still trying to contribute and publish my research on tadpoles and frogs.



**A Gastric-brooding Frog giving birth via its mouth.
Photo: Professor Mike Tyler, University of Adelaide**

Mike received many awards, including medals from various societies, the City of Adelaide Citizen of the Year Award (1993), Order of Australia (1995), Michael Daley Eureka Prize for Science Communication (1997) and the Ig Nobel Prize for research into frog odours (2005). He also became an Elected Fellow of the Australian Institute of Biology (1988) and the American Association for the Advancement of Science (1998). In November 2019 he was presented with a Lifetime Achievement Award by the Australian Conservation Foundation.

His research into amphibians both in Australia and overseas has been continuous and extensive. Apart from descriptive, habitat, behaviour, identification and taxonomic work, which includes identification of new species, his research has investigated novel chemicals which have found or may find, pharmaceutical and industrial uses such as fluid balance medications, sunscreens and adhesives. He has investigated frog populations as an indicator of the environmental health of aquatic systems and frog mutations as an indicator of pollution.

Mike has been prominent in research into the world-wide phenomenon of the disappearance of frogs, even entire species,

notably in Australia the two species of gastric-brooding frog (*Rheobatrachus vitellinus* and *Rheobatrachus silus*), which were declared extinct shortly after their discovery). In the late 1980s he joined the Riversleigh Project studying fossil frogs. For his efforts in this regard Mike was awarded the Riversleigh Medal in 1998.

Mike has been very public in the promotion of frogs as pets, as sources of potentially useful substances, and as an indicator of environmental quality. He was a long-standing member of the board of the South Australian Museum and its chairman 1982–1992. Mike has been president of the Royal Zoological Society of South Australia and was President of the Royal Society of South Australia 1985–1986.

From this short life summation, it is clear Mike was made of extremely tough stuff. He persevered without complaint despite all the health trials thrown at him, and succeeded through sheer determination, refusing to give up under the most trying of circumstances.

Later in life, despite experiencing numerous operations to try to alleviate issues created by his illnesses, and being constantly dogged by pain that was only quelled to some extent by mind-altering drugs, he continued to persevere writing his books and research projects – even just finishing work on his latest project the night before he was admitted to hospital, his life ending there at the age of 83, with a massive heart attack from which he never recovered. This final manuscript will be submitted for publication posthumously.

Throughout his adult life, Mike had the greatest support possible from his wife Ella, who was his constant back-stop, secretary, friend and nurse during his periods of illness. Ella not only helped to type many of his manuscripts, but also assisted him to manage his daily schedule. Being trained as a Nurse, she continued to care for Mike's medical needs with meticulous dedication and amazing patience. He must surely owe many of his nine lives to her strength and support!

Mike Tyler will live on through the magnitude of his published works, and despite the big changes in taxonomy led by advancements in genetic research and technology during the 21st century, researchers will still continue to refer to Mike's publications in their future work.

All those who knew him in person will remember his commanding presence, affable nature and often mischievous sense of humour. His mind never stopped thinking and probing for new horizons in research, and his overall contribution to Zoological Science will never be forgotten.

His passing is a great loss to Australian science and he will be missed. **Marion Anstis and Arthur White** With thanks to Ella Tyler and Wikipedia

FROGGING IN CAPE YORK

Campsite in Cooktown. Toilet block, a frogger's delight. Fish fanciers at ANGFA, Australian and New Guinea Fishes Association, have nothing even remotely like it. Show me a row of loo cubicles with four different kinds of rainbowfish in them. With frogs, easy, no problem.

You go there after dark, when their pupils are big and dilated so that your photos will be really good. A pair of bulgy eyes looking out at you from under a cistern lid. Which button to press first, the camera's or the flush button? That little frog is trusting you, after all it already knows you back to front. So give it some excitement in its life? You push the button.

What I did after it leapt out at me, I gently put it back and tried to calm it down to get another shot. Until that night I was not particularly aware that I speak to frogs in such a silly voice. I must have told it that I only wanted to take a picture, that I wasn't going to hurt it, and I don't know what else I said but I have been wracking my brain ever since. Because just outside the cubicle I nearly bumped into this old pyjama-clad guy in his slippers. I think his mouth was open.

It was not my most articulate moment when I pointed over my shoulder and said "frog" to him. I know it came out as "croak".

I should have been more explicit. I should have said "rubella".

Litoria rubella is the Desert Tree Frog but lives not just in deserts, and is often even less sensibly called the Red Tree Frog for it is seldom red. And more offputtingly, the Naked Tree Frog, from its habit of turning a cadaver colour just as you are ready to take its photo. It is all over half of Australia but Cape York toilet blocks, that's heaven.



Litoria rubella Photo George Madani

It scurries up the wall, making itself long and thin like a small stretch limo, takes fright and quickly scurries

all the way back again, backwards. Reprieve for the moths and mozzies.



Litoria rubella calling Photo George Madani



Litoria infrafrenata White lipped Tree Frog
Photo by George Madani

There is one frog at Cape York that if seen you will remember forever because it is startlingly big. It is so big you can see it on the map. No, but it can comfortably dangle with all its legs over the edge of your dinner plate. If its first and second year, its main growing years, were really good with lots of food, it can grow into a gigantic leggy monster. This is *Litoria infrafrenata*, the White-lipped or Giant Green Tree Frog, GGTF.

I remember my first GGTF when Port Douglas was still a fishing village. They had a tiny zoo with some native exhibits. Around them grew some bushes, and that's where they were basking in the winter sun. That very first one and I, we stared at each other with bulging eyes, each seemingly mesmerised by the other's afflictions. Me, with my clunky camera stuck to my face. It, although brilliant green, had a

chocolate brown saddle across its back, a patch of skin shaded by a leaf above.

Later, I kept and bred them in solid green and in solid brown and in anything in between, and watched them change within minutes from one colour to the other, usually with no regard for what the other frogs around them were sporting. (And when their taddies grow up without enough sunlight, they metamorphose into GGTFs not green but blue.)

Cape York in the Wet is the place to be, if you can only get there somehow. It can be deafening, the thunder and downpour, the frog chorus and especially the GGTFs. They sound like Dobermans, louder and harsher than our “common” Green Tree Frogs even. Just great for having one on top of your tent at night.

As we all know, because our kids learn that at school, it is a universal truth that only the boy frogs make their racket. That’s their “advertisement call”, telling the girls to come hither and at the same time telling the other boys they’re wasting their time here. No wonder they seek out reverberating hollows to sound even bigger. The girls, you can’t get a peep out of them, other than the occasional little “release call”, like “I got a headache tonight”.

A long time ago I had some tadpoles that eventually turned into absolutely splendid but panic-prone Rocket Frogs. *Litoria nasuta* occurs from around Sydney all the way up the coast until there is no more coast left, and then westwards until that goes no further either. A Rocket Frog looks like a cigar with enormous hind legs, poised launch-ready at a 45 degree angle. And when it jumps, it easily does 3 to 4 meters, and it can do it again and again without pausing in between. (A GGTF can do 4 meters too, but then it tends to look around before it takes off again.)

Go to Weipa and before long you decide to take that precarious dirt and mud and makeshift bridge track to the Wenlock. A quick lunch (before my tin of baked beans I had strapped to the engine block gets cold again) at a truly magical spot. Because looking up, I suddenly found myself on the wrong side of the river! It took me a few perplexed moments to see I was still where I was meant to be but that the Wenlock was tidal there and had simply changed its direction. Phew!

At dusk the weird noises began. Someone sneaking through the dry leaf litter. More and more of them, all around me. But not another soul in sight. Then I saw them, Rocket Frogs. Launching themselves high up, the dry leaves flying aside, and a few meters further on crashing down into them again. Hunting insects. Everywhere.

Once I tried to replicate that. I was giving a hand in a film studio when they were doing an “Animal Athletics” snippet just before the Olympics and where they had learned that I had Rocket Frogs. What they

and I then also learned is that if you place them in a scary setting with scary lights and scary people around them, they will freeze up and simply not jump, and you can’t make them.



***Litoria nasuta* Rocket Frog Watercolour by Garth Coupland**

The next day I brought a young python along. And boy did the Rocket Frogs jump! It’s the undulations that did it. A rubber snake as it turned out worked just as well, as long as you wiggle it convincingly.

So next time you go to the Wenlock, maybe drag a length of garden hose through the grass behind you and twist and twirl it a bit. Or maybe to the Cooktown campsite, and see what the campers say. But seriously, the best way to find frogs (the males anyway) is by sound and triangulation, to get a bearing on them from two directions. It helps narrow the search if you know where the species usually calls from – inside grass tussocks, in caverns, on low branches, floating under overhanging plants, clinging above the water on reeds, for example.

Also look out for eye shine reflected from your torch. Check out their quiet hiding places (under dry cow pats, anyone?). That way you also get the girls. – I wish I had known that when I was young!

If you want to identify frogs from your own photos afterwards, make sure you take a clear picture of the side of the frog’s head and if possible also of its toes and its underside. You can send them to the free Australian Museum FrogID app which then also go into their data base. You can also do a search on Frogs of Cape York and look at the pics in https://frogs.org.au/frogs/of/Qld/The_Far_North.

Also look at frogging books, e.g. by Gunter Schmida, Gerry Swan, Marion Anstis or Hal Cogger.

And to hone your frogging field techniques you might join the FATS Group and join them on their field trips. If they hear you have been to Cape York and you haven’t found enough frogs there, I think they will send you straight back again. **Lothar Voigt with compliments from Sydney ANGFA**
<https://www.angfa.org.au/>

**ALL THE PRETTY HORSES
AND ALL THE DAMAGE DONE (extracts)**

Victorian and NSW are now sharply divided about what should be done to control wild horse numbers in alpine regions. When the Federal Court last week dismissed an attempt to stop Parks Victoria from culling feral horses in the Alpine National Park, it put the spotlight back on a long and bitter fight in the high country between brumby lovers and environmental scientists.

The fight is far from over. The biggest herds of wild horses are across the border in NSW's Kosciuszko National Park. And thanks to NSW Nationals leader John Barilaro, wild horses enjoy heritage protection in the state. But the horses in the Australian Alps - an astonishing 25,000 of them at last count - respect no border and continually drift into Victoria.

Shortly before bushfires swept the mountain country over summer, photographer Joe Armao and I visited the high border country to try to understand the dispute. We went in search of the source of Australia's only great river, the Murray, at the best of times no more than a soak on a plain in the wilderness of the Australian Alps.....

The ruined roof of Australia We land upon a wide green plain, Cowombat Flat - called by indigenous people Quambat, thought to mean camping place by water - a few hundred metres downstream of the dry soak. The grass is clipped to the texture of baize on a billiard table. We walk onto dried piles of horse dung and it is clear what had been doing the mowing. We are 50 metres into Victoria. I go in search of the stream that denotes the NSW-Victorian border, the genesis of the Murray River. It is trashed. There is a little water to be found in a depression in the shade of trees, but it is not even trickling. It lies in a muddied bog.



'We're in a horse paddock': Acacia Rose at the source of the Murray River. Credit: Joe Armao

Our guide, Acacia Rose, who has lived much of her life in the mountains, surveys the remnants of moss trampled and pugged by horses' hooves, the edges fouled by manure. "This is how we celebrate the very start of Australia's greatest river," she says. "We're in a horse paddock." Within a few weeks of our visit, the results of an aerial survey by the Australian Alps National Parks Co-operative Management Program, peer-reviewed by world-leading experts, puts the number of feral horses roaming the national parks at 25,000.

The local state MP, outspoken NSW Nationals leader John Barilaro, who has championed brumbies in the mountains to the point of giving them legislative protection, declared in an interview only a few weeks before that he thought 3,000 was the correct figure.

Days later, still opposed to any form of shooting program but clearly taken aback by the dramatic growth in horse numbers - doubling in five years - he suggested sterilising the herds. Such a task, snorted critics, would make the Man From Snowy River's pursuit of a runaway colt look like a pony club picnic.



Riverbanks show the damage done by hooves trampling the soil. Credit: Joe Armao

A fight with water at its heart A battle is raging in the fastness of the roof of Australia. It is a fierce argument between scientists concerned about ecological destruction by herds of hard-hoofed ferals and those, like Barilaro, who invest brumbies with heritage value.

It is also an argument about the way Australia's national parks should be run. On this driest of continents, water lies at the heart of the debate. Around 30 per cent of all the water in the Murray River system comes from the Australian Alps, which cover only 1 per cent of the system's catchment. In a dry year, the proportion is greater.

The mountains have evolved over many millions of years as giant sponges, slowly and reliably filtering their water catchments right through the year. The peatlands, bogs and fens absorb the meltwaters of winter snow and the bounty of rainstorms, sleet and hail. Sphagnum moss plants growing within these systems each hold water amounting to around 20 times their dry weight. Their sponge-like quality allows reliable trickles of water to become slow-moving streams until eventually they form rivers.

But scientists have spent decades proving that hard-hoofed animals like horses can destroy the moss' ability to hold water, and thus deny dependable, high-quality supplies to the Murray and the lowlands it serves.

The Murray - up here called the Indi - springs from the south-west of the mountains; the Murrumbidgee from the north. Eventually, way out in the Riverina, the Murrumbidgee flows into the Murray. The soak at the source of the Indi/Murray ought to be healthy, even in

last year's drought. The mountains through the winter and spring of 2019 had their longest snow season anyone can remember.

"Soil is a living organism," says Acacia Rose. She learned this at the feet of her father, acclaimed soil conservationist Dr Alec Costin. Costin's scientific work in the Australian Alps in the 1940s and '50s led to the decision to remove cattle that had been grazed on the Snowy Mountains for generations.

The cattle, he discovered, were degrading the high country and, among other things, disturbing the amount and quality of water flowing to the lowlands. Snowy Hydro engineers - who needed high-quality, unsilted water for their turbines - listened to him, as did those in favour of pristine national parks. Now, says Costin's daughter, the population explosion of wild horses is once again squeezing the life out of the mountain soils.

A creature unlike all others The horses down on the border are shy and skinny, hiding in the forest. But away to the north of the Snowy Mountains, on a wide stretch of open snowgrass known as the Long Plain, the brumbies rule the landscape.



Brumbies also known as feral horses or wild horses, are consuming native flora struggling to recover from the summer's bushfires. Credit: Alex Ellinghausen

After a summer of bushfires they are still there, and last week, when our photographer Alex Ellinghausen visited the country outside Kiandra in New South Wales, they could be seen scraping away early snow cover to get at the snowgrass that has already rebounded from the summer's fires. No more than a handful of the wily horses are believed to have died or been injured in the fires. Every few hundred metres there is a stallion and his harem of perhaps a dozen, led by a wise old mare. The herds are undeniably beautiful. Here, however, is a paradox.

The visual beauty of the horses grazing free in the mountains has won them a legal status in NSW denied to all other feral creatures of the high country. Deer and pigs are shot. Wild dogs are trapped. Foxes are poisoned and rabbits have their warrens dug out. But feral horses are protected not just by Barilaro's "Brumbies Bill", but by sentiment. It was what fired the unsuccessful legal challenge to culling in the federal court in Victoria.

To many people of the high country, brumbies represent the last visible reminder of a lifestyle taken from them.

Sheep and cattle grazing leases have long gone, cattle stations and homesteads have been resumed, even old towns like Adaminaby and Jindabyne were drowned by the Snowy Hydro scheme and rebuilt elsewhere.

One of the largest developments at the "new" Jindabyne is Nugget's Crossing, named for a famed local horseman, William "Nugget" Pendergast. His stock whip and leggings remain on public display alongside pictures of him with horse and dogs. The late Elyne Mitchell's "Silver Brumby" books, written in the shadow of the Alps near Corryong, Victoria, are still favourites, and above the ski village of Thredbo is Dead Horse Gap, where horses have perished, trapped by snow storms. The Snowy Mountains without brumbies are unthinkable to many.

But scientists, ecologists and water and soil conservationists contend the horses have been allowed to breed until they have become a pestilence on the land. Ironically, the scientists who want large-scale culling might have had an ally in Banjo Paterson, author of the stirring "Man From Snowy River". In a speech in 1930, Paterson spoke of how "in the early days, the wild horses got to be as big a plague as the wallabies and rabbits were in later times". "It seems a terrible thing to us nowadays to think of shooting horses wholesale ... but it had to be done," said Paterson.

Destruction and repair Geoffrey Hope, an environmental historian, expert on peatlands and Emeritus Professor of Archaeology and Natural History at the Australian National University, leads us past the numerous brumby herds in the northern Snowies to the far reaches of the Long Plain, where the Murrumbidgee takes its spring. He shows us where the snowgrass along the banks of the young river has been reduced to nearly bare earth. The banks have collapsed in places, pawed to black mud. The soil is compacted and when Hope tests the water, its pH level indicates large amounts of erosive material. Horse dung is everywhere, and here and there the shell of a squashed alpine yabby lies on a horse trail between tussocks. Unseen, saw-toothed native rats have had their burrows caved in.

For comparison, Hope leads us to Rocky Valley Creek, where horses have not yet invaded. Since cattle were removed in the 1950s, the valley has begun to repair itself. It is becoming a peat bog again, oozing water. Snowgrass tussocks grow thick, ensuring that when snow falls there remains space below for native creatures to scurry and thrive. "Eventually, this will become a boggy plain again," says the professor. "It will slow the movement of water and prevent erosion."

Then, looking up at the hill, he says: "Unless something is done to reduce the number of horses, they will come over that hill at some stage, and then all this repair will be reversed." **Tony Wright**

https://www.theage.com.au/environment/conservation/all-the-pretty-horses-and-all-the-damage-done-20200511-p54rte.html?fbclid=IwAR3hRd0LSkQ9CpRxno0eRdyE0qU_DCz41dD76FaE1UOUbJAMp2BfrhEhbA

PROTECTING BIODIVERSITY AND UNIQUE NATIVE SPECIES OF THE AUSTRALIAN ALPS

has never been so important. Please support the Victorian Government's action to remove feral horses and urge them to enact it as soon as possible. Backed by a body of scientific evidence, native plant and animal species directly threatened by the feral horse population in the Alpine National Park include: **Alpine Tree Frogs, Alpine Water Skink, Alpine Bog Skink, Guthegas Skink, Alpine She Oak Skink. Glossy Grass Skink, Dendy's Toadlet, Native Broad Toothed Rat, Alpine Spiny Crayfish, Barred Galaxid fish and Alpine Stone Flies as well as a myriad of Alpine plants including wildflower meadows, moss and peat lands.** The removal of feral horses is essential and given the added impacts of climate change and fires, must be implemented immediately.

“ Like many of my friends and colleagues, I am exhausted. Since the federal court decided in favour of allowing Parks Victoria to actually manage their parks by controlling all feral vertebrates (rather than all minus one!), the pro feral groups have, to put it mildly, gone nuts. What do I mean by ‘nuts’? They are threatening violence. They are talking about releasing more horses if horses are removed. They are running with some of the most egregiously ludicrous garbage I have ever heard (and trust me – that is saying something).



Want an example? I saw a comment today from a pro feral who literally said that we need to ‘save’ feral horses in the alps because Australia has an atrocious record on extinctions, and “are we willing to let the Aussie brumby go extinct too?”. I’m not kidding.

Read that again if you need to. It took me a few goes before it sunk in that this luminary was actually trying to argue that we should protect a feral mammal that is pushing critically endangered alpine endemic species ever-closer to extinction, so that the feral horse itself wouldn't become ‘extinct’...

This is one of those times, and one of those subjects, where I weep for expertise. I weep because of the dumbing-down of our society. I weep because we apparently have almost no chance of saving tiny alpine endemics because an

ignorant, entitled minority think the Silver Pony was actually a textbook. And yes, I know that some of the woke types will tense-up when I use words like ‘ignorant’ and ‘entitled’, because they’ve been trained that every fool is a ‘client’ that must be pandered to.

And how's that working out for us? Every entitled stooge thinks that their opinion deserves equal weight and a common platform with people who spend their entire lives studying and trying to understand the magnificent complexity of life, and what affects that life. And then trying to protect that fragile diversity. But just as anti-vaxxers do NOT get the same voice as immunologists; just as Flat Earthers do not get the same voice as geomorphologists; pro ferals do not get to pretend that their ignorance is a match for the available science.

Let's be clear: it is OK for people to love horses. It is even OK for them to say that they'd like to keep feral horses in our national parks. These things are value judgements, and people are free to hold whatever values float their boat.

But it is categorically NOT OK for anyone to claim that horses are not trashing threatened species' habitats. Or claim that they are not destroying ancient mossy seepages and bogs. We have science, and evidence, and photographs, and two decades of my lost summers, to tell us that horses unequivocally and undeniably ARE trashing the alps. That is not up for debate. And anyone who thinks it is does not deserve to be pandered to. Ignorance should NOT trump science. Ever.

So, because I'm exhausted, and because I am angry, and because I am sick and bloody tired of answering the same dumb “what aboutisms” 50 times a day right now, let's deal with this once and for all. **This article is from a Facebook post from Nick Clemann, and is his view as an alpine ecologist (as opposed to representing the view of any organisation).**

Here's a FAQ on feral horse management:

1. “What about deer-n-pigs?”. Sometimes it's one or the other, but usually both are put together. How could we possibly consider controlling those darling horses when these other awful mammalian ferals are also causing problems? Well, firstly, we ARE controlling deer and pigs. They are trapped and shot. And yes, we know that they, like horses, also cause damage. That is why they are trapped and shot. But it is ridiculous to suggest that we shouldn't control horses because other ferals ALSO cause damage. We must control all ferals. But so far we are controlling all ferals except horses. That must change if we want to mitigate damage. And here's a thing that this “deer-n-pigs” silliness fails to grasp: each of these 3 ferals has different ‘sign’. We know what causes what damage. We are NOT blaming horses for damage caused by other ferals. But even if we couldn't tell the difference in ‘sign’, we set remote cameras and record what causes what damage. So we damn-well know. (Point 1 is an extract. Full response available on Nick Clemann and FATS Facebook pages.)

2. “Humans are the biggest problem – what about that?”. Sigh. Yes, humans cause all the problems. And yes, humans introduced horses. So, whose responsibility is it then to fix the horse problem? Just like with “deer-n-pigs”, the fact that humans cause myriad problems is absolutely no reason to not fix some of the problems we have caused. Also, it’s illegal to cull humans. And before you even suggest it, check whether you have children; if you do, then you’ve contributed to this “biggest problem”, so maybe give the misanthropic trope a rest - it is not helpful.

3. “It’s not the horses fault”. Literally no one ever said it is. This is NOT a punitive thing. There’s no blame, and there’s no punishment. We are literally just trying to stop things going extinct, and trying to stop our national parks from being trashed by ferals. That is all.



4. “Can’t you trap them and re-home them?”. Yes. In very small numbers. But only in very specific areas. And it’s stressful to the animals. And they injure themselves. And there’s not enough homes for them anyway. And if you want to adopt a horse, you can go get yourself an ex-racehorse (in fact, please do!). Trapping and trucking them out will not even come close to keeping up with rates of increase (due to breeding), except in very small and specific parts of the High Country. But if you want to adopt a feral, knock yourself out.

5. “Can’t you just put a fence around the frog habitat?”. No. These are often massive areas. They are remote. They are rugged. Fences cost a lot of money. Fences fail. Trees fall on them. Fences channel the damage. Fences affect native mammals and their movement. In treeless areas fences provide perches for predatory birds, affecting the prey species around the fence. I know fences sound simple, and you can make them sound like a win-win, but it’s not. It fails too often. And it doesn’t solve the problem. And, while we’re on the subject, do you really, REALLY think that we haven’t already thought of this, and rejected the idea?? Come on.

6. “Can’t you sterilise the horses?” Nup. It can’t be done on a scale that will make a meaningful difference. It is expensive and stressful. It’s not a sensible option. ...Search my previous posts. It won’t work. <https://www.publish.csiro.au/wr/WR17136> Even the RSPCA says it’s not a realistic option. Again – do you honestly think these things aren’t considered / evaluated / discussed by the agencies involved?

7. “How can you live with yourself knowing a horse will be killed?”. The same way you live with yourself knowing that Alpine Bog Skinks are being pushed to the brink by horses.

8. “I understand that something must be done, but I cannot abide aerial shooting”. This one seems to stem from the misinformation spread about the cull 20 years ago in Guy Fawkes National Park (NSW). If you still believe that stuff, please read this: <https://www.environment.nsw.gov.au/.../pest.../english/Report.pdf>. I do not advocate for any specific management action, I just listen to what that best pros in the game tell us. And they say that helicopters provide a stable, close quarters shooting platform. They can access areas not reachable on foot. Modern FFAST protocols are very thorough. The world is watching, so scrutiny will be high. Modern cartridges and nightvision + thermal optics are next-level. All kills are confirmed prior to moving on. Any needed follow-up can be done quicker than on the ground. An important factor in any management (in combination with strict standards around humane considerations) is effectiveness. There is no point spending taxpayer’s dollars on something that is suboptimal compared to other options (and see here: <https://onlinelibrary.wiley.com/doi/10.1111/emr.12350>). No one complains about aerial culling of pigs, so maybe double-standards are at play? To be clear, sometimes one technique might be preferable over another for site- or situation-specific reasons. There are professionals in each field, and it is to them we look for guidance. That’s what sensible people do. Whatever method is ever actually applied will be decided based on a range of considerations, but all factors will be considered.



9. “Logging / salinity / feral cats / Japanese whaling / Adani / Covid-19 / fracking / plastic pollution / the Tiger King are bigger problems. Why aren’t you fixing them instead?” Gah, by this point I’m onto my second bottle. If I need to explain why none of these things make horse damage OK, not only have I failed, but our education system has failed. Think this one through yourselves - I’m off to get drunk.

But before I do, let me make one last point: if anyone threatens violence to any of my colleagues over this (or any other) issue, they will be receiving attention from the cops. I am not kidding.” **Nick Clemann**

THE JUNE 2020 FATS MEETING IS CANCELLED. Please check notices about our August public meeting and AGM. Some time in the future, they will recommence at 7 pm, (arrive from 6.30 pm) and end about 10 pm, at the Education Centre, Bicentennial Park, Sydney Olympic Park, Homebush Bay. They are usually held on the first Friday of every EVEN month February, April, June, August, October and December. Call, check our web site, Facebook page or email us for further directions. We hold 6 informative, informal, topical, practical and free meetings each year. Visitors are welcome. We are actively involved in monitoring frog populations, field studies and trips, have displays at local events, produce the newsletter FROGCALL and FROGFACTS information sheets. FATS exhibit at many community fairs and shows. Please contact Events Coordinator Kathy Potter if you can assist as a frog explainer, even for an hour. No experience required. Encourage your frog friends to join or donate to FATS. Donations help with the costs of frog rescue, student grants, research and advocacy. All expressions of opinion and information in FrogCall are published on the basis that they are not to be regarded as an official opinion of the FATS Committee, unless expressly so stated.

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FATS ON FACEBOOK: FATS has almost 3,100 Facebook members from across the world. Posts vary from husbandry, disease and frog identification enquiries, to photos and posts about pets, gardens, wild frogs, research, new discoveries, jokes and habitats from all over the world. The page includes dozens of information files.

<https://www.facebook.com/groups/FATSNSW/>

RESCUED FROGS are at our meetings. Contact us if you wish to adopt a frog. A cash donation of \$50 is appreciated to cover care and feeding costs. Sorry we have no EFTPOS. FATS must sight your current amphibian licence. Licences can be obtained from NSW National Parks and Wildlife Service, Office of Environment and Heritage (link below). Please join FATS before adopting a frog. This can be done at the meeting. Most rescued frogs have not had a vet visit unless obviously ill. Please take you new, formerly wild pet to an experienced herp vet for an annual check-up and possible worming and/or antibiotics after adoption. Some vets offer discounts.

<http://www.environment.nsw.gov.au/wildlifelicences/GettingAnAmphibianKeepersLicence.htm>

FATS now has student memberships for \$20 annually with electronic FrogCall (but no hard copy mail outs).
<https://www.fats.org.au/membership-form>



Thank you to the committee members, FrogCall supporters, talented meeting speakers, Frog-O-Graphic competition entrants, events participants and organisers David, Kathy and Harriet Potter, Sarah and Ryan Kershaw. The FrogCall articles, photos, media and webpage links, membership administration and envelope preparation are greatly appreciated. Special thanks to regular newsletter contributors, Robert Wall, George Madani, Karen & Arthur White, Andrew Nelson, Josie Styles, Wendy & Phillip Grimm and Marion Anstis.



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