

Message from the Marsh

QFS are applying for 2 grants - one for new display materials, the other for a new website:

- We have been asked to advise on a Frog Forest display (to be situated within the Southbank rainforest) for Riverfestival (29 August to 7 September) and will also be allocated display space at the festival. As Riverfestival is very well attended this seems an ideal time to freshen up our displays.
- The prompt to redesign the website was an email pointing out that some of our picture pages were so huge and slow to download that some folks wouldn't have even realised there were photos on them! (This person was kind enough to resize and reformat the photos). A complete redesign will produce a website that is easy for us to update and easy for the user to locate information.

The Leap Day bbq was a success with about 40 adults and 20 children attending. We were delighted to have Harry Hines from QNPWS welcome our guests and give a short presentation - on 29 frogs, it being 29 February! The wildlife show by Geckoes was popular with younger members who asked many questions and shared their experiences of amphibians. Hopefully the message 'look-don't-touch' was implicit as the frogs were not handled. We were able to get up close and personal with some of the frog predators - lizards and snakes. While the adults enjoyed Harry's talk the youngsters enjoyed the 'jump-to-the-pond' games and destroying a beautiful frog piñata! Sorry there wasn't much time left for folk to actually cook and eat..

We decided not to register with Amphibian Ark's Year of the Frog (due to philosophical differences; QFS are more interested in in-situ conservation rather than preserving species in an 'ark'). However, we will still hold the events mentioned in previous newsletter. (We do need some help with the 'jump for frogs' idea - now that we know that the official world record for leapfrog is 1197 participants! Any ideas for an alternative competition?)

This year our **AGM** will be held on the SOUTHSIDE at **Indigiscapes**, 17 Runnymede Rd, Capalaba on **Saturday 13 Sept from 4 to 6pm**. Come a little early so you have time to enjoy the grounds or a cup of tea and a cake in the lovely cafe. Please put this date in your diary NOW!

Cont'd on page 4

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FROGSHEET BY EMAIL

We can send the Frogsheet by email (pdf of about 1MB) - or send you an alert by email that the newsletter is available for download (at your leisure) from the website. Send your email address to Jenny at qldfrogs@bigpond.net.au stating your preference.

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Most of the Co-ordinators now hold the
“Frogs of Brisbane” poster and you can pick
up your FREE (to members) poster from
them.

**No co-ordinator in your area?
Please get in touch and we'll tell
you how to get involved.**

DIARY DATES 2008

SPECIAL

21 May “**Some natural history of the frogs
of the Southeast Queensland Bioregion**”

Talk by Harry Hines.

See details on page 3

FROG HABITAT SITE WORKING BEES

Bowman Park, Bardon.

First Sunday every other month from
8-10.30am. April 6th, June 1st.

Grinstead Park, Alderley (off Shand St).

First Sunday every other month from 9-11.30am.
April 6th, June 1st

MAY 18 HABITAT BRISBANE DAY.

Activity at Grinstead Park. Contact Janet for
more info.

QFS MANAGEMENT MEETINGS

Third Wednesday of month 7.30pm.

Contact Jenny for venue.

April 16, May 21, June 18.

AGM

Sept 13 Indigiscapes 4-6pm

FAIRS

Apr 12-13 Qld. Council of Gardens Clubs Show
with theme 'Focus on Frogs'. Frog
Competition for Kids. Contact your
local Garden Club
<http://www.qcgc.net/>

May 17 Caboolture Sustainable Living
Expo 150 Rowley Rd, Burpengary,
9am – 3pm.

June 1 City Smart Neighbourhood Fair
10am - 1pm Keong Park, Quandeine
St., Stafford.

Aug 5 “What’s Cooking in the Park”
Redcliffe Botanical Garden

Aug 29 - Frog Forest, Riverfestival, South
Sep 7 Bank.

QFS display and sales at above events.

WORKSHOPS

Aug 16 Frog Identification Workshop –
(AM) Kumbartcho Env. Centre. Contact
Jenny for details.

NEW MEMBERS

Jane Chappell, Austspray Environmental,
Susan & Peter Mot, Ethan Stanley, Shirley
& Paul Moore, Debbie & Jessica Dolby,
Beth Hooper, Zewe Family, Anne &
Gordon Stewart, Mason Family, Belinda
Barnett, Morgan O'Connell, Tyrone
Lavery, Brad Dreis, Christine McNamara.

FROG HABITAT BUSHCARE

Contact us if you are doing bushcare
in frog habitat and would like your
working bees listed in diary dates.

XXX FROG X-INGS XXX

Is there a road that you know of where you
have often seen squashed frogs?

Please let us know the location.

We plan to lobby for Frog Crossing Signs for
such areas.

Contact Pearl

pearl66@bigpond.com.au

A BCC Grant helped to
cover the printing
costs of this
newsletter



QFS SCHOLARSHIPS

The trust fund was created to help frogs
through funding education and
research.

QFS is currently in discussions with our
trustees and researchers about how to
set up scholarships for amphibian
research.

With the money currently available this
may take the form of, for example,
scholarships of \$1000 available as funds
allow or an annually available
scholarship.

If you are interested please contact
QFS.

The QFS Public Trust Fund balance
now stands at **\$6,999.27**

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SOME NATURAL HISTORY OF THE FROGS OF THE SOUTHEAST QUEENSLAND BIOREGION.

talk presented by Harry Hines

About 50 species of frogs occur naturally in the Southeast Queensland Bioregion. Harry Hines of QNPWS will discuss the reasons for this richness and the biogeographical affiliations with anecdotes of some other aspects the frogs of the region which he has gleaned from over a decade of research.

If the evening is popular we will host another talk later in year on the south side.
(If you know of a suitable venue please let us know).

Wednesday May 21, 7.30pm
RSVP (so we know numbers for supper afterward) to Jenny on 3366 1868.
Downfall Creek Bushland Centre, 815 Rode Rd, McDowall.



What else have committee been doing on behalf of frogs and QFS members? As well as heavy involvement with frog games for bbq VP Pearl has been researching & writing articles on transport of frogs, responding to sick frog enquiries, looking into Amphibian Ark and investigating frog costumes. VP Rod has been organising and leading camps and fielding queries at the QFS stand at fairs. Treasurer Karen has been ensuring we stay solvent, writing the grant application and seeking quotes for display materials and playing games with kids at the bbq. Minutes Secretary Jennifer has been keeping our minutes in order (which keeps us in order), soliciting letters of support for grants and writing the grant application for web redesign, obtaining plants for the bbq and organising the publicity for the event. Secretary Jenny has been a bit of a media star raising frog awareness by participating in talk back radio on ABC 612 with Kelly Higgins-Devine followed by a piece in the studio, an interview on NZ radio, and an article in the Courier Mail. Plus all her usual school visits and displays, answering email and phone enquiries and usual unending secretarial duties.

My thanks to all.

Newsletter ed (not on committee) has been doing the newsletter but afraid the Pres has been a bit of a slacker... will have to get newsletter ed to have a talk to her.

Janet White

CO-ORDINATORS' & CORRESPONDENTS' REPORTS

ASHGROVE

What a lovely, noisy Summer we have had; I even heard the Green and Graceful Treefrogs for the first time in years. There were tadpoles in the ponds at QFS Bowman Park habitat site and fingers crossed, there was enough follow-up rain this time for some of the tadpoles to fully develop. The weeds (and plants!) have really grown in the past few months.

I visited the St. Pius X, Salisbury, prep class this week as they have been learning about local frogs in preparation to develop a frog-friendly area with pond. At times I am amazed at how interested 4 to 5 year olds are on this subject and I am sure they will continue this through their years at school.

With my Secretary's hat on, I can report an overwhelming supply of emails and phone calls from all over Queensland and NSW. It was very good to hear reports of frogs, long thought to have died or moved on, breeding for the first time in many years.

Jenny Holdway

BRISBANE VALLEY/ESK

What a summer! With the highest rainfall in nearly a decade, the Brisbane Valley has literally exploded with frogs.

It's difficult to know where to start, so I'll start at home. We have several dams within a few hundred metres of our place, and these have been the centre of loud choruses for several months. Species present around the dams include Green Treefrog (*Litoria caerulea*), Naked Treefrog (*Litoria rubella*), Emerald-spotted Treefrog (*Litoria peronii*),

Broad-palmed Rocketfrog (*Litoria latopalmata*), Graceful Treefrog (*Litoria gracilentata*), Eastern Sedgefrog (*Litoria fallax*), Short-footed Frog (*Cyclorana brevipes*), Spotted Marshfrog (*Limnodynastes tasmaniensis*) and Sandy Gungan (*Uperoleia fusca*). This is a pretty typical assemblage of species around dams in the wider locality. Ephemeral wetlands through the valley dominated by Queensland Blue Gum (*Eucalyptus tereticornis*) carry a slightly different mix of species including Ornate Burrowing-frog (*Limnodynastes ornatus*), Scarlet-sided Pobblebonk (*Limnodynastes terraereginae*), Great Brown Broodfrog (*Pseudophryne major*), Striped Marshfrog (*Limnodynastes peronii*) and Beeping Froglet (*Crinia parinsignifera*). The Bleating Treefrog (*Litoria dentata*) and Barking Frog (*Limnodynastes fletcheri*) are also scattered through the valley, although in lesser numbers.

I have only found the Barking Frog on one property at Toogoolawah. The Short-footed Frog was a real surprise to me, having only recorded this species further west and north.

Speaking of west, I headed out to Dalby and Chinchilla during the big wet, and was lucky enough to catch a few Holy Cross Frogs (*Notaden bennettii*) and Water-holding Frogs (*Cyclorana platycephala*); these were a real treat!

Jason Richard



SUNSHINE COAST

Hi to all my fellow froggy followers! What a summer frog-breeding season we have had here on the Sunny Coast. I have lost count of how many inches we have had over the past few months. We purchased a 10,000 gallon tank three years ago, but it has never been full until recently. Due to the huge rainfall we have experienced and a couple of articles in the local newspapers about frogs, I have received many phone calls. I still feel very disheartened when people ask me if I can supply them with tadpoles, even though the frog stories have clearly explained the decimation the chytrid fungus is doing to our frog populations worldwide.

Just before Christmas I had a phone call from John at Ridgewood. He had a lethargic Green Treefrog (*Litoria caerulea*) sitting in his pet's water bowl. As we were chatting he told me he also had a chocolate frog. As I was going on holidays the next day, we used the wonders of modern technology and John emailed me a few pictures of the Green Treefrog, as well as a picture of his chocolate frog (pictured). The story goes like this - A couple of weeks previous, he had had a BBQ with a few friends. After the main course his wife bought out a few sweet treats to snack on. As soon as the



chocolate was put on the table a Green Treefrog decided he liked the look of what was in the bowl. This frog and I surely have one thing in common, the love of chocolate. John now has this photo as the background picture on his computer. I think another frog lover has been born.

On a sadder note, I received a phone call from some people at Sunshine Beach who had picked up a Green Treefrog from the side of the road. It had been in their care for a week and from their description of its condition, I decided I needed to pick it up. The poor frog looked very emaciated, the whites of its eyes were over its pupils and it had a large haematoma above one eye. I decided it

definitely needed a trip to the vet. The vet that has helped me out in the past has moved on, so I decided to try another vet in the hope that they could help the frog. The vet checked the frog over but could not help much, as she didn't know much about frogs. I took the frog home and tried to feed it a meal worm, via a teaspoon, but noticed it had something wrong with its jaw. I could not leave the frog as it was, so off the frog and I went to the Australia Zoo animal hospital. Upon inspection by the vet on duty, it was decided that the frog needed to be put out of its misery, as the frog had a few broken bones in its head. It wasn't a happy ending but at least the frog is not suffering any longer.

As I hope everyone knows, 2008 is the Year of the Frog. Due to this great exposure for the frog population, I have done several talks at local schools recently, and it looks like I am signed up to help refurbish a frog pond on school grounds, along with building another pond with a group of slow learning children. I urge anyone involved with the public to let people know of the dangers of moving eggs, tadpoles and frogs.

Cheers for now

Trish Espin.

An interview with Trish appeared in the Sunshine Coast Daily on 14 January. <http://www.thedaily.com.au/news/2008/jan/12/going-frog-friendly/>

Thanks for keeping frogs and QFS at the forefront Trish!

GIBSON DESERT

Victor and I recently spent five weeks in the Gibson Desert, Western Australia, in the aboriginal community of Kiwirrkurra. It is very remote, some seven hundred kilometres WNW of Alice Springs.

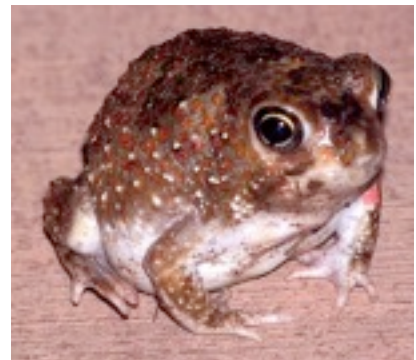
After some rain in the first few days of our stay, a young girl presented me with a tubby frog, hoping to scare me with it. Some of the mob had visited Walla Walla, their temporary swimming hole, which was alive with frogs.

A few days later Victor and I found some fat-looking tadpoles in a pond next to the airfield. There were still a couple of frogs hopping about our garden weeks after the rain had gone and the days were very hot (40 degrees) and dry. Unfortunately we didn't hear the frogs call.

From the frogs location and physical appearance I think it was the Desert Spadefoot (*Notaden nichollsi*).

Janece
Eckhardt

photo by
Robert
Warren



CABOOLTURE & BRIBIE ISLAND

In the last couple of months I have heard some frogs in my local area (Narangba). In my backyard I have heard *Litoria fallax* (Eastern Sedgefrog), *Limnodynastes peronii* (Striped Marshfrog) and (very exciting!) *Adelotus brevis* (Tusked Frog), which called nearly all day and night for a couple of days.

Further afield I am always surprised at the number of *Crinia parinsignifera* (Beeping Froglets) that I hear next to the Woolies at Narangba. This is interesting because way back when I first built my house (about 10 years ago) there was a good population down the local creek. I also had an individual that stayed around my house for a couple of years (which is why I have its call imprinted on my brain!) However, I am not sure where these *Crinia* will move to, because I am sure the empty block of land (next to Woolies) will soon be developed. (*Move? I don't think they stand a chance of out hopping the dozers - Ed*)

The Caboolture Region Environmental Education Centre (CREEC) at Burpengary is always a great place to go frogging. A wetland (with a significant pond) located at the front of the Centre is home to: *Litoria rubella* (Naked Treefrog), *Litoria latopalmata* Broad-palmed Rocketfrog, *Litoria caerulea* (Green Treefrog), *L. fallax* and *C. parinsignifera*. I think I also heard *Litoria gracilentia* (Graceful Treefrog). Oh, and there were some very lively Cane Toads that liked my foot and, dare I say, "attacked" me. So after a long dry spell, it seems our frogs are doing OK.

Pauline Fitzgibbon

MITCHELL

Dear Frogsheet Readers,
Most of us in this part of South West Queensland have been lucky enough to be under some fantastic rain this summer. For the first time in years the grass is tall and green, dams and waterholes are full and even the rivers are running!!!! All the wildlife is responding and breeding with gay abandon.

About 200 metres below the station buildings there is a good-sized dam which has spent most of the last seven years dry, to the point where the horses had a dust roll in the bottom of it! Several times it has filled and dried up again, but this time even the by-wash has had water in it since last October. The frogs have had a ball. It was wonderful to hear their multitude of songs each time we got a storm. They sang in every key

available and, above them all, a big old bull-frog in the timber, called 'Quart Pot' in a deep bass, night after night. I do hope his lady/s turned up!

They are all quiet now. Book Case Frog (see *Frogsheet Spring 2007*) is back here in the office and the Bathroom Tribe are complicating the plumbing again. The best part is the number of young ones that are turning up in the garden and all sorts of places. Even two little green chaps I had never seen before. I promptly rang Jenny Holdway who told me that they are Eastern Sedgefrogs. Thanks Jenny.

So, the land is coming alive once more, in a way that we wondered if we'd ever see again. Hope returns!

Best wishes to you all, Elizabeth Gearey

Cane Toads Will Keep Hopping

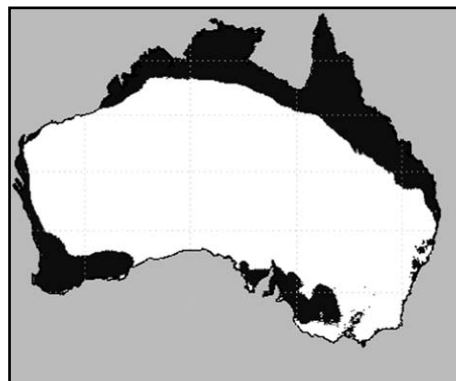
It has been obvious to anyone with foresight that cane toads would one day colonise north-western Australia; the only question was when. What is less obvious is their potential to invade southern Australia, especially in the wake of global warming.

A team of biologists led by Mark Urban at Yale University looked at the climatic envelope occupied by toads in Australia today and found it is much broader than the range occupied by cane toads in Latin America. This is a common finding in invasive species research – that animals introduced to a new region can spread outside their known climatic range, the implication being that they are limited in their native range by interactions with other species rather than by climate extremes.

In the case of the cane toad, Urban's team concluded: "Results demonstrate that Australian cane toads may already have the ability to spread across an area that almost doubles their current range and that triples projections based on their native distribution."

New regions (see map) deemed suitable for canetoads include Melbourne, north-western Victoria, most of southern South Australia including the Adelaide region, and all of south-western Australia, as far north as North-West Cape.

FeralHerald February 2008 (edited version)
Newsletter of the Invasive Species Council, Australia.



Qld Frog Society Inc.

ORDER FORM

ITEM	Price (QFS Member)	Price (Non-Member)	Qty	Amount Enclosed
Booklet – ‘Frogs of Brisbane’ by Lex Morley A small booklet describing about 45 species from Brisbane and surrounding areas. A good field guide.	\$7.00	\$7.00		\$
‘Australian Frogs, Amazing Amphibians’ by Jill Morris A beautifully illustrated and enjoyable book to read packed with heaps of information on Aussie frogs. A great coffee table book to be enjoyed by both adults and children.	\$20.50	\$23.50		\$
‘Attracting Frogs to your Garden’ by Kevin Casey All about making your garden super frog-friendly. A real must for every frog lover!	\$18.00	\$22.00		\$
A pocket sized waterproof field guide titled ‘Wet Forest Frogs of South East Queensland’ by Meyer,E., Hines,H., Hero, J-M.,	\$6.00	\$6.00		\$
“It’s True! Frogs are Cannibals” by Michael Tyler. A small book of many facts on Amphibians & suitable for all age	\$13.95	\$13.95		\$
Poster – ‘Frogs of Brisbane’ QFS A colourful poster with life-size photographs of all frogs in the Brisbane area. Good for visual identification.	\$5.00 postage cost	\$12.50		\$
Poster – ‘Green Frogs’ Illustrated A beautiful poster introducing you to the 11 species found in Qld all hanging out on one branch..	\$10.50	\$10.50		\$
CD’s - ‘Australian Frog Calls’ by David Stewart (please tick) CD One – Sub-tropical East: 70 species between the Tropic of Capricorn and the Shoalhaven River. CD two – Tropical North-east: 67 species between the Tropic of Capricorn and Cape York Peninsula	\$24.95	\$29.95		\$
QFS T-shirt – Sizes: (please circle) Please place a tick beside your choice of shirt. Cream shirt with large green logo on front S, M, L, XL Bottle green with bright green logo on front S, M, L, XL	\$18.00	\$20.00		\$
QFS Polo Shirt – Sizes: L XL (please circle) Cream shirt with green logo on upper left	\$20.00	\$23.00		\$
NEW T SHIRT – ‘Frogs with Attitude’ Sizes: S M L XL Grey with rusty red frog drawings front and back	\$22.00	\$25.00		\$
Individual Membership New/Renewal (please circle)	\$15.00	\$15.00		\$
Family Membership New/Renewal (please circle)	\$15.00	\$15.00		\$
Junior Membership (to 17yrs) New/Renewal (please circle)	\$7.50	\$7.50		\$
THANKYOU FOR SUPPORTING QFS	TOTAL OF ORDER			\$

Donation to QFS Public Trust Fund \$..... Tax deductible over \$2.00
Made out to the QFS Public Trust Fund

Name: _____	
Address: _____	
Postcode: _____	
Membership No. _____	Signature: _____

NB: Postage is included in the price.

Please make cheques payable to
Queensland Frog Society Inc
PO Box 7017
EAST BRISBANE Q 4169

LIMITED EDITION T-SHIRT

Gary Clark of Swamp-cartoon fame kindly created this image for us - to raise frog awareness in the Year of the Frog.

The cartoon will be printed on a navy t-shirt.

An order form is included with this Frogsheet.

thanks Gary!

Queensland Frog Society



ALIEN INVADERS

Other than the fact that they are often green, have huge eyes and large webbed feet there is probably only one other thing frogs have in common with aliens - and that is the ability to travel and colonize new lands. The fact that they can



travel so far to completely new environments is of course no fault of their own but assisted greatly by the carelessness of humans.

Frogs, as seen in this picture from the web, end up in a variety of products that are shipped, trucked, railed and flown around the country and even globally. Commonly they survive best in moist vegetative products such as fresh greengrocer items, plants, timber and landscaping products. They are often inadvertently caught up in the harvesting process and may not be detected in the high-throughput factory processing that occurs.

So what happens when these frogs are found at the other end of their journey? If they don't go unnoticed then many are 'rescued'.

Unfortunately it is Queensland National Parks legislation that transported frogs are to be relinquished to them where they are subsequently euthanased. Many people find this distasteful (and not only those of Buddhist or Hindu persuasion) and in this age - and in the Year of the Frog - it seems somewhat hypocritical to be promoting the conservation of our declining frog species on the one hand and disposing of healthy frogs on the other. So what are the options? 'Rescuing' the frogs and letting them go in the backyard occurs more often than it should and will subject the frog to a lot of stress and trauma before it most likely ends up dying. Imagine yourself being dumped in the middle of a city you have never seen before, where you don't speak the language and you have no money or packed lunch. Many of these displaced animals, frogs or other creatures, are easy picking for predators and are entering an environment they have no idea how to navigate. Sure, some may hang around even years but unless the environment is already suited to frogs they have a low chance of surviving.

Conversely, here is the other problem; introduced frogs will be more likely to survive and reproduce in habitat that is ideal for frogs - habitat that already has a resident frog species. Each living animal is a walking ecosystem. It is estimated for

example that the human gut alone is home to an average of 400 000 species of microscopic organisms. When you introduce a frog to a new frog-habitat miles from home you are not only introducing the species but all the other parasites, bacteria, viruses and protozoa that it may be carrying; organisms that the resident frog species have not encountered before. Chytrid fungus is of course the main example of this here (in North America they have a problem with rana viruses). In the case of chytrid, as for many pathogens, tadpoles can be carriers too.

So let's highlight the problem with a couple of examples; a recent paper has been published looking at the introduction of the North American bullfrog (new name *Lithobates catesbeianus*) in Europe. Now this frog, through no fault of its own, is a survivor and when introduced into other frog populations it delivers a double whammy; not only is it a healthy carrier of the chytrid fungus but it is also a voracious predator. This paper reports the species being introduced at least 25 times on separate occasions into Europe, the highest density surviving in the West of France. Only five of these introductions occurred for farming although the American bullfrog is regularly introduced in other countries for the harvesting of its legs for the dinner plate. Of importance most of these introductions occurred by what is called 'personal initiatives' with at least two occurring after the importation of the species into Europe was banned. The other really important issue highlighted in the paper was the positive correlation of successful introductions with habitat of high frog diversity. In other words the Bullfrogs survived best in habitat that was already teeming with native frogs.

If a species is released often enough the odds are it will become established. We now have Australian frogs exported to a number of island ecosystems, New Zealand being one of them. Southern Bell frogs (*Litoria raniformis*) have been established in New Zealand for over 100 years. They were first observed dying from chytrid in 1999 and then chytrid turned up in 2001 in an endemic New Zealand species – *Leiopelma archeyi* (Archey's Frog). New Zealand frogs are evolutionarily unique due to prolonged island isolation and are unlikely to have any prior resistance to this disease. It is believed the fungus became established first in the feral population and has now moved into native frogs. Fortunately the Auckland Zoo has a state of the art enclosure in which to rear an ark population of *Leiopelma*. The biggest irony of course is that the Southern Bell frog is endangered back home in Australia.

It is understandable why people feel they are being kind by relocating what they think are lost frogs. I hope these real examples, of the type of

disasters that can occur, clarify why the QFS **cannot** condone this activity.

So what other options are we left with? Well by far the best and most sensible is **prevention**. How can we prevent the accidental transportation of frogs? To give us some hope here is another example from a seminar given by Keith MacDonald of QNPWS at the Frog Symposium in 1999. He wanted to do something to stem the flow of banana frogs from tropical North Queensland. He visited one of the largest growers and suppliers and found that during the processing of bananas the frogs were often blasted out of the bunches in the wash room. However, after packaging, the boxes of bananas waiting to be loaded the next day were left outside the packing sheds overnight - and the frogs then crept back into the nice snug banana bunches. Adding the simple practise of storing the packed banana boxes indoors in a frog-secure room prevented the majority of the frogs being transported.

Now frogs still do turn up in fresh food produce, and nursery plants and forest mulch and the best thing we can do is to **check before we buy**. If we do find a frog hidden in a water lily or a bunch of bananas and they have not travelled far, then many conscientious individuals will transport the frog back to where it came from. However if there are a number of displaced frogs turning up at a shop or outdoor centre then we need to follow the chain of supply back to its source, inform the suppliers and hopefully gain their support in preventing the movement of these frogs. Sure, there may be resistance. Sure, some even think it's a bonus to get a free frog with every plant or salad. But if enough people are informed and aware of the consequences then we can influence others to have a conscience and 'do the right thing'.

Remember, we can vote with our wallets.

It takes a little time and effort to ensure that these hitchhikers do not end up with an one-way ticket to death and disaster; surely in the Year of the Frog we owe it to our froggy friends to help them stay where they are, healthy and happy, and not become aliens.

Pearl Symonds

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RARE FROGS IN BURNETT MARY REGION AMONG THE WORLD'S MOST ENDANGERED

Three species of very rare frogs in the Burnett Mary region are now on the list of the world's most endangered amphibians. Last month, the Zoological Society of London released a list of the 100 most endangered species of amphibians which it says are threatened by extinction.

Biodiversity Conservation Regional Coordinator Rachel Lyons said that she was sad to see that the region continues to be over represented with threatened species. "I hope that the Zoological Society's list will get people interested in protecting the habitat of these species," she said. "Frogs are highly sensitive to pollution and climate change, but because they are not cute and cuddly, they attract little or no conservation attention."

The three species from the Burnett Mary region on the list are:

19 Kroombit Tinkerfrog. Occurs only at Kroombit Tops in 200 ha of habitat.

31 Fleays Barred Frog. Occurs in the Conondales (upper Mary catchment) down to NSW.

32 Giant Barred Frog. Occurs in the middle and upper Mary catchment and down to mid-eastern NSW.

Ms Lyons said that the key to saving these species was protecting their habitat for the future and getting local people interested in education about the species. "Hopefully this will ensure that they can keep on surviving for millions of years to come," she said.

The Bugle Regional Natural Resource Management Newsletter 29 February 2008

DOWN TO THE LAST CROAK AS FROGS PUT ON ENDANGERED LIST

...The Queensland Museum's Greg Czechura said it appeared the three Queensland species had been hit hard by chytrid fungus, a disease that appeared to prosper at higher altitudes. Other theories include climate change and agricultural chemicals... (edited version)

Brian Williams, Courier Mail 7 March 2008

CAMP REPORTS

HARRY'S HUT FEBRUARY 15 -17

I have been going to the Great Sandy National Park in the Cooloola region for many years. It is an area of spectacular beauty and significant environmental importance. All though there are many species of frogs in this region the draw cards are the acid frogs. QFS has now had three camps to Harry's Hut. On the first trip we drove through the flooding rains of a huge thunder storm to get there. As the old saying goes 'you have to be there on the night' and that night was no exception. Frogs were everywhere including species we didn't even know were in the area. With the drought the second camp was completely the opposite. The swamps were dry and apart from the old die hards like the Green Treefrogs hanging around the toilet block, barely a frog was found. And as for our last camp, well the perfect forecast for rain was just a little understated. The rangers closed Harry's Hut just because it was a meter under floodwaters. It's a sad fact but legalities and plain old-fashioned common sense have left these rangers with no since of adventure! At least not from a mad froggers point of view...

So what's a frogger, who is all geared up with no place to go, to do? Holler for a Marshall. No! no! Not the battery type Marshall. I'm talking about our fellow mad-frogger type Marshalls - Bill and Leanne - who generously offered their nearby property as a replacement venue. Bill had concerns that the lower paddock could suffer flash flooding so my tent went up right beside their house. Talk about doing it tough. With toilets, hot showers, running water and even electricity next to the tent I don't know how we survived. When night came it was off to the dam in the lower paddock where we found *Litoria fallax*, *L. gracilentia*, *L. caerulea*, *L. nasuta*, *L. latopalmata*, *L. peronii* and of course *Bufo marinus*. Then it was off on a drive down the Rainbow Beach road where we later found *L. olongburensis*. *Crinia tinnula* were calling around the same site but they proved too elusive for us to find on this occasion. In keeping with the weekend's theme of adventure the next night we engaged four-wheel drives and headed off down the sand track to little-known Lake Cooloomera behind the North Shore. Was it worth the long rough drive in? Absolutely. The recent rain had filled the lake to over-flowing and the frogs were having a party. The lake is about six hundred

meters across and mostly covered with sedges. There was barely a sedge that didn't have a *L. cooloolensis* on it. I have never seen so many of these acid frogs at one site. There was also no shortage of *L. peronii* and *L. tyleri*. *Limnodynastes peronii* were calling from the sedges as well. *Pseudophryne raveni* was calling all around the lake and in the flooded ponds further down the track *Limnodynastes terraereginae*, *L. gracilentia* and *C. tinnula* were also calling. Once again the Cooloola region gave QFS two great night's frogging. Well that's all for now and until next time keep your head lamp shining and good frogging to all.

Rod Pattison

MT BARNEY MARCH 14-16

Fourteen campers and two Saturday night visitors enjoyed a weekend away from Brissie despite it being dry and unfroggy weather (the last rain here being three weeks ago). The group included a student from China (who had arrived in Australia just two days earlier and only camped once in her life) and Shelley's youngest, Oakley, who participated by having a Broad-palmed Rocketfrog make a temporary home on his stroller!

Friday night was all very quiet frog-call wise. We started by checking the creek by the campsite - where almost every rock had a male Stony-creek Frog (*L. Wilcoxi*) perched on it. We then went to the dam near the camp site, blundering through sticky grass, spiders webs and curse of the trip, Cobbler's pegs. Although no frogs were calling, within a few minutes we had found juveniles of four species comprising Green-striped Frog (*Cyclorana alboguttata*), Broad-palmed Rocketfrog (*Litoria latopalmata*), Ornate Burrowing-frog (*Limnodynastes ornatus*) and possibly Scarlet-sided Pobblebonk (*Limnodynastes terraereginae*). There were also cane toads (*Bufo marinus*) of all sizes and stages of development including huge adults. The water was alive with all manner of aquatic invertebrates and the air full of insects which the bats were snapping up (except for the one I swallowed). We then went up! up! up! the hill to an elevated reed and sedge-filled swamp where we could see and hear Eastern Sedgefrog (*Litoria fallax*) and Striped Marshfrog (*Limnodynastes peronii*) and hear Sandy Gungan (*Uperoleia fusca*). Couldn't find them though...despite triangulating with torches and kneeling in cowpats to get a frog's eye view of the ground! Descending we enjoyed the view of hoop pines by moon and starlight and the gentle call of a Boobook.

We finished the evening trying to find a spring above the lodge near a water tank that Innes had told us about but merely managed to collect

more Cobbler's pegs. Last stop for Janece and me was the ladies - where we found two Green Treefrogs (*Litoria caerulea*).

Saturday morning I woke early and walked to Yellowpinch pool and enjoyed watching a platypus and an azure kingfisher. Saturday night we were joined by Rob Morgan who immediately found a Naked Treefrog (*Litoria rubella*) on one gatepost and a Bleating Treefrog (*Litoria dentata*) on another. We again investigated the creek - this time there were fewer Stonys about (maybe because there had been a lot more playing and picnicing in the vicinity until late in the day?) but we did find one female further up stream. No frogs were calling. We then drove downstream to a marshy area at the edge of the road where we found *L. fallax* and *L. ornatus* and the lads from Shelley's tribe found *L. terraereginae*. Earlier in the day Rod had heard a Red-backed Broodfrog (*Pseudophryne coriacea*) calling here. Finally we hiked to the first creek crossing on the Lower Portals track but found only one Broad-palmed Rocketfrog (*L. latopalmata*). Later Debbie and I went back to the dam and found *C. alboguttata*, *L. ornatus* and metamorphs of possibly a few species. Also toads, toads, toads.

Sunday we packed up, spent an hour picking cobbler's pegs off our gear and enjoyed a swim and a splash in the creek before we left.

As ever thanks to Rod for organising the trip and generously sharing his camping gear so we could have a comfortable set-up in rain or sun.

Janet White

IMPLAUSIBLE EXPLANATIONS !!

It was with amusement I read those articles (in the *Summer 2007 Frogsheet*) about powerlines and cannibalistic cane toads. I know I am part of the scientific community but what is going on!! Do scientists feel they have to have the most outrageous and implausible explanations in order to attract attention!!

We all know chytrid exists in lowland frog populations exposed to quite high summer temperatures (though of course the froggies aren't sunbaking when the mercury reaches 37 degrees; they are hunkered down somewhere cool and damp).

I believe the reason species such as the Green Treefrogs (*L. caerulea*) have not declined is that they have a high fecundity and have a large metapopulation that replaces frogs lost to chytridiomycosis. If land clearing is going to save frogs - why isn't *Mixophyes balbus* (in a previous story) thriving?? Don't get me started on the cane toads stuff! Pearl Symonds

'FROG FROM HELL' FOSSIL UNEARTHED



A 70-million-year-old fossil of a giant frog has been unearthed in Madagascar by a team of UK and US scientists. The creature would have been the size of a "squashed beach ball" and weighed about 4kg, the researchers said. They think the fossil, nicknamed Beelzebwo or "frog from hell", was strikingly different from present-day frogs found on the island. Details of the discovery are reported in the journal *Proceedings of the National Academy of Sciences (PNAS)*.

The team from University College London (UCL) and Stony Brook University, New York, said the frog would have had a body length of about 40cm, and was among the largest of its kind to be found.

"If it shared the aggressive temperament and 'sit-and-wait' ambush tactics of [present-day] horned toads, it would have been a formidable predator on small animals. Its diet would most likely have consisted of insects and small vertebrates like lizards, but it's not impossible that Beelzebwo might even have munchled on hatchling or juvenile dinosaurs." The researchers added that the discovery of the fossil supported the theory that Madagascar and the Indian and South American land masses could have been linked until the late Cretaceous Period (75-65 million years ago). "Our discovery of a frog strikingly different from today's Madagascan frogs, and akin to the horned toads previously considered endemic to South America, lends weight to the controversial model," Professor Evans explained.

BBC News - One-Minute World News 18 Feb 2008
(edited version) <http://news.bbc.co.uk/1/hi/science/nature/7251666.stm>

CHEMICALS LINKED TO LOST FROGS

AGRICULTURAL chemicals have been linked to the collapse of frog populations, which experts have previously attributed to a combination of climate change and a deadly fungus. Brisbane environmental consultant Glen Ingram, who has studied some of the eight Queensland frog species that have become extinct since the late 1970s, said: "There is a growing view that pesticides have a role in the extinctions of these frogs. People had assumed it was a fungus, probably being spread by global warming. Now, we're not at all sure."

Scientists have previously highlighted the extinctions of dozens of frog species worldwide as a dramatic indication of the consequences of climate change arising from increased greenhouse emissions. Many frogs have been killed by the chytrid fungus, which infects their skin, impairing their breathing and nervous systems. However, the fungus can be harmless to frogs and some experts claim it has become deadly because of climate change. They suggest that increases in cloud cover, temperature or ultraviolet radiation have spread the fungus.

However, several recent studies in California implicated chemicals in frog population declines. California has experienced similar collapses in frog populations to Australia. Four pesticides and herbicides identified in the studies are used widely in Australia. Californian biologist Gary Fellers, of the Western Ecological Research Centre, who has participated in some of the studies, said pesticides could be a more significant factor in frog declines than the chytrid fungus. "The role of the fungus is not well understood in many areas, including some of the places where scientists have declared it to be the primary or only factor causing amphibian declines," Dr Fellers told *The Weekend Australian*. "The fungus might not be the whole story."

Queensland's wave of frog extinctions began in the late 1970s, at the same time as organochlorine chemicals such as DDT were being phased out. The organochlorines were replaced by organophosphorus and other chemicals. The Californian studies have implicated three organophosphorus pesticides and the herbicide atrazine in frog population declines. All four chemicals are used widely in Australia.

Limited sampling in Australian rainforest streams in the early 1990s where frogs became extinct failed to find evidence of chemicals. However, one of the scientists who collected samples, Ross Alford of James Cook University, said chemicals would not necessarily have been detected. "Chemicals with potentially strong effects

Cont'd on page 13

could be there at levels we wouldn't have detected, the studies we need haven't been done." Dr Alford said.

In California, chemicals were found to have drifted long distances from agricultural areas to pristine mountain frog habitats. "It is plausible that this has happened here, There have been huge increases in the quantities of plastic PCBs, pesticides and all sorts of chemicals being generated." Dr Alford said.

Griffith University researcher Jean-Marc Hero, who has conducted several studies into chytrid fungus in Australian frogs, said he was convinced the fungus was not acting alone. "Whether it's agricultural chemicals or climate, there is a good possibility that something else is going on," Dr Hero said.

Greg Roberts The Australian January 05, 2008

Also see in-depth article "Down to last Croak" by Greg Roberts at <http://www.theaustralian.news.com.au/story/0,25197,23007420-30417,00.html>

Jungle frog helps diabetics

*The South American "paradoxical frog" (*Pseudis paradoxa*) owes its name to an uncanny ability to shrink as it grows older. Scientists studying its slimy skin have found a substance that can stimulate the release of insulin, the vital hormone that is deficient in sufferers from diabetes. Scientists have made an artificial copy of the peptide, a protein-building block that protects the frog from infection, and have suggested it could be used to boost insulin production in people with type-2 diabetes.*

In laboratory tests, researchers found the frog's peptide, known as pseudin-2, increased release of insulin in cultured cells by 50 per cent. The joint team from the University of Ulster in Northern Ireland and United Arab Emirates University believe a synthetic version of pseudin-2 could join a new class of medicines, called incretin mimetics, that help diabetics control their condition when dietary changes or other medicines have failed.

David Rose | March 03, 2008 The Times (edited)
Full article at <http://www.timesonline.co.uk/tol/news/uk/science/article3471372.ece>

YET'S CORNER

QFS received the following enquiry from Diane Goodwillie :

"A friend recently phoned and then sent this photo of a frog (*Litoria caerulea*) with a large lump. Edwin says he started seeing the bump about 18 months ago and it was pea-sized but has grown considerably since his last sighting. He lives on Eastern Court, Mt Coolum. ...Should we just let nature take its course or would someone, like a vet or wildlife carers or QFS, want to isolate the frog for testing of the fungus? Thanks".



Pearl Symonds replies:

"The bump looks suspiciously parasitic in origin to me (i.e. a large growing worm living under the skin). Frogs are great hosts for a range of parasitic critters. Some can be quite large (nearly as large as the frog itself). Another cause could be an abscess - either a slow growing bacteria, a fungus or even a protozoan-like organism. My advice would be to take it to a local vet who can lance it and take a smear of the contents for analysis. I'm sure you have someone local who would be helpful - how about Aust Zoo? - John Hanger does frogs".

FOSSIL FROGS YIELD SOFT TISSUES

Scientists have extracted marrow from the bones of frogs and salamanders that died 10 million years ago in the muddy swamps of north-eastern Spain. It is preserved in remarkable detail; The soft tissue may yield traces of protein and DNA, researchers report in the journal *Geology*. Usually only hard tissue such as bone survives in the fossil record.

The bone marrow was preserved because the bones acted as a protective shell, preventing microbes from invading and breaking the soft tissue down. Bone marrow is the tissue that fills the centre of large bones, acting as a factory for producing new platelets and red and white blood cells. There are two types: haematopoietic (which can produce blood cells) and stromal (which can produce fat, cartilage and bone). The ancient bone marrow was preserved in 3D, retaining the original texture and red and yellow colour of haematopoietic and fatty marrow. "The fact that we've got red bone marrow in the salamander shows that their blood cells were produced in the bone marrow; in the modern salamander it is not, it is produced in the spleen," Maria McNamara of University College Dublin told the BBC News website.

The frogs and salamanders were found in a fossil-rich deposit dating back to the Miocene Epoch, the period of time that extends from about 5.3 to 23 million years ago.

Helen Briggs, Science reporter, BBC News 26 July 2006

(edited version) <http://news.bbc.co.uk/2/hi/science/nature/5214798.stm>

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I saw a lovely and entirely appropriate spelling error recently – The Great Bard Frog. What an image that conjures! On that note, my thanks to all contributors whether articles printed or not. Apologies – I had too many articles to put them all in.

Deadline for next Frogsheet Sunday 18 May.

POSITIONS VACANT - FROGSHEET EDITOR & JUNIOR EDITOR

CONTACT JANET OR JENNY FOR MORE INFORMATION

(in case you are confused, strip was drawn in 2007)



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