GLADSTONE TOADBUSTERS

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Abstract

Toadbusters is a unique program run by Port Curtis Waterwatch in Gladstone, Qld. It is a very simple program, designed to encourage community participation in environmental action. Its success has had many flow on benefits, such as frog habitat planting, a 'Frogs of Central Queensland' poster and extensive media coverage. Participants have become interested in wider environmental issues. They have also enjoyed a fun family activity with their children. This paper is a coordinator's perspective on running the program.

When I was interviewed for the position of Port Curtis Waterwatch Coordinator, one of the questions I was asked was 'How do you feel about Cane Toads?'. Never having actually met a Cane Toad in the flesh, I replied that I had no strong feelings one way or the other. 'Would you be able to pick one up?' Never having been squeamish, I replied 'Yes'. Little did I know what I was letting myself in for!

For those of you from the southern States who may never have even seen a cane toad, let alone picked one up, here is a brief overview of the biology of *Bufo Marinus*, commonly known as the feral Cane Toad. The following information was sourced mainly from the CSIRO website section on Cane Toad research.
(http://www.csiro.au/index.asp?type=faq&id=CaneToadControl&stylesheet=sectorInformationSheet at 20/1/05)

Cane Toads are a native of Central and South America. They were introduced to Australia in 1935 from Hawaii, in a vain attempt to prevent the French's Cane Beetle and the Greyback Cane Beetle from destroying sugar cane crops in North Queensland. 101 Cane toads were released at Gordonvale, south of Cairns, by the Australian Bureau of Sugar Experimental Stations. The Cane Toads quickly naturalised and began to spread. They were unsuccessful in controlling the cane beetles, being much more interested in ground level insects.

They have now spread south into New South Wales, as far as Port Macquarie, and west into the Northern Territory. They reached the wetlands of the World Heritage listed Kakadu National Park in March 2001, and are expected to be in Darwin this summer.

In their native habitat in South America, Cane Toads are found in sand dunes, coastal heath, mangroves and around rainforests. In Australia, however they have highest densities in urban areas and in areas with grassland or woodland. They are a terrestrial animal, but use waterways for rehydration and for breeding. Breeding peaks in the summer months, and toads prefer still or slow moving water. Even a puddle on the ground will be used to lay eggs in. The spawn is very unique in appearance, being long strings of clear jelly, with rows of black eggs. One female can lay 8 000 to 35 000 eggs at a time, and will usually breed twice each year. The eggs will hatch in 48-72 hours into tadpoles and develop into toadlets in between 17 days and six months. Sexual

maturity is reached between 6 and 18 months, and they have a lifespan of about five years in the wild. All parts of the Cane Toad life cycle are poisonous to most Australian native wildlife. Adult toads have poison glands at the back of their necks, and locally many dogs are killed each year from biting Cane Toads.

The Gladstone Toadbuster Program began in 2002, when the previous Port Curtis Waterwatch coordinator, Janine Sigley, was doing a Waterwatch activity with children in a local park. They literally could not take a step without crushing a juvenile toad. For those of you who have never encountered a toad swarm, when all the tadpoles grow legs, they move away from the water in very large numbers. Sometimes it literally looks as if the ground is moving. So she investigated removal and disposal options. The Gladstone City Council have been very supportive of the program, and they gave permission for the activity to take place. They also, through the local pound, provide freezing and incineration for the toads which we collect at night each week during December to March. The Gladstone program has been focused on removal of adult Cane Toads from breeding sites by hand, hence the question in my initial job interview. The main reason for removing only adults is that there is a native frog in our area which looks very similar to a juvenile toad, and a small burrowing frog which can sometimes be mistaken for a Cane Toad. In any case, the tiny toads are too hard to catch. So during summer evenings we pick the adult toads up with the protection of gloves and safety glasses, place them in bags, and they are frozen, which is the most humane, and effective method of killing them.

Port Curtis Waterwatch, with the support of local industries and the Natural Heritage Trust, provides gloves, bags and glasses, as well as organising the removal and disposal of the toads. All volunteers need to do is turn up. And they are, in increasing numbers. One session in January had 45 volunteers turn up, netting almost 450 toads. One of the secrets of the success of the program is that children enjoy it immensely, and pester their parents into coming along. I have family groups who turn up again and again, having found a way to connect with their adolescent children in a positive way. Not only do they return, but they drag their friends, other family members and even the neighbours along with them.

The success of Toadbusters inspired a successful Envirofund project which planted 5000 reeds and lomandras around the edge of the ponds where toads had been breeding in large numbers. This was to provide frog habitat so that the toad removal program would have a more wide reaching effect. Another positive outcome from that project was the production of a ‘Frogs of Central Queensland’ poster which was so successful that I have managed to get corporate sponsorship for a second print run.

Also produced have been Toadbuster T-shirts, Toadbuster stickers (which are also in their second print run), and we have a barbeque every year to thank the volunteers. The local mayor presents certificates, and prizes.

Because volunteers pestered me for information about how many toads were collected at each session, I recently set up a weblog at www.pcwaterwatch.blogspot.com which has all the latest Toadbuster statistics, but also links and articles about other environmental matters, such as the competition for effective Cane Toad traps now being run in the Northern Territory, with a $10 000 prize.

I now have a database of 85 Toadbuster households to send mail to, and I include them when organising other Waterwatch activities. We are planning this year to put the energy of the Toadbusters to work doing drain stenciling over winter, when Toadbusters is in recess.

As a coordinator, I have watched the Toadbuster program turn into a local phenomenon and myself into a minor celebrity, even making the front page of the local paper. More and more people are saying to me that although they can't make it to the Toadbuster sessions, they go over their own backyard every couple of nights and remove the toads. People who live near the parks in which we do the activity say that the juvenile toads have stopped swarming through their backyards, and the volunteers are complaining about having to walk further and search harder to find what they deem a reasonable quota of toads. This year the extra publicity over toads reaching Kakadu National Park must have helped because volunteer numbers have grown by 400%.

I am very proud of my local community for being so supportive of a practical environmental initiative, and I would hope that other coordinators are inspired to set up programs in their own areas. If we each look after our own back yard, Cane Toads will become a much rarer sight than they are today.

Port Curtis Waterwatch is supported by the Natural Heritage Trust, Fitzroy Basin Association, Calliope Landcare, Port Curtis Catchment Working Group, and Waterwatch Queensland.

REFERENCES:

CSIRO website, CSIRO Cane Toad Research Information Sheet. http://www.csiro.au/index.asp?type=faq&id=CaneToadControl&stylesheet=sectorInformationSheet at 20/1/05