



*'Volunteers are the voice and conscience of the planet. They DO make a difference'.*

Kimberley Toad Busters Incorporated.

## **Submission to the inquiry into controlling the spread of cane toads.**

### **Terms of Reference:**

- The effectiveness of control measures to limit the spread of cane toads in Australia.
- Additional support for cane toad population control measures.

### **Brief Background on Kimberley Toad Busters Volunteer Organisation.**

KTB is a community driven volunteer organisation that started toad busting in the NT, 5 years prior to the toads crossing into the Kimberley WA. The objectives were to find out more about the cane toad; determine where the front was?; work out when the toads would get to WA and determine if there was a way in which community efforts could stop the toad from actually crossing the border? A broader objective was to engage the aboriginal youth to become active in the community fight against the cane toad. Of the 10,000 registered KTB volunteers, over half were aboriginal.

### **The effectiveness of community volunteer efforts!**

1. **KTB Research:** KTB Community volunteer efforts have removed uncountable numbers of toads out of Kimberley ecosystems. Established that the cane toad front consisted of multiple fronts. Toads were moving faster than was thought. Front line colonising toads were largely male and that they and the females had longer back legs, moved faster and had the most immediate impact on native biodiversity. Toads were not just restricted to fresh water. Toads were adjusting to saline water and desert conditions. The toad breeding cycle was increasingly shorter. Toads were climbing and jumping higher. Toads were beginning to use daylight hours to eat. Effectively added many endangered species to the known list. Determined the degree of toad impact on desert environments. Established that the colonising front line toads had the most devastating impact on native biodiversity. Keeping toad numbers down during the first arrival of toads reduced impact on food supplies and took some of the pressure off native wildlife competing for these same resources. Intensive effective community toad busting efforts on all toad-breeding cycles appears to produce a shift in the breeding results with numbers of females reduced.

2. **KTB Community Engagement:** Engaged troubled aboriginal youth through Save the Children and the Justice System in a highly successful fully funded and effective program to hit frontline populations of toads. This successfully reduced the number of toads invading a new area; reduced the degree of impact on the invertebrate food supply. Provided an adjustment period for many species otherwise wiped out when toads first arrive into a new area. Reduced the number of frontline toads moving forward. Prepared aboriginal and the community at large across the Kimberley for the arrival of toads.
3. **KTB Cane Toad Community Education and efforts.** Successfully innovated and promoted an Australian wide awareness of the cane toad issue. Implemented a number of sustainable education and community awareness programs. Given hundreds of educational talks and TV and radio interviews. Won many prestigious awards. Featured in numerous national and international documentaries. Sponsored multiple research projects on the impact and potential biological controls of cane toads. Stimulated like-minded groups to start their own toad busting efforts across the North of Australia.
  - **The effectiveness of control measures to limit the spread of cane toads in Australia.**

**Biological Solution:** It is clear that an effective biological solution is critical if we are to stop the horrific and rapid spread of cane toads across Australia. Despite the cracking of the cane toad Genome, it is still at least 10 years away from providing a biological weapon that will not impact native biodiversity. However, KTB support that government work closely with, and support those scientists working on this solution. Research into ‘tweaking’ the DNA to produce daughterless toads is another program KTB support and feel the government should be putting more resources into.

**Taste Aversion programs:** While KTB support this program it is limited in that it is only successful on a few of the main native predator species, does not work on the majority of threatened native species or on the majorly threatened invertebrate species. Not clear however, is the impact of these sausage ‘baits’ on other native biodiversity species or the loss rate of the native species the program is targeting. It is also only limited to small specific locations. KTB suggest that if scientists and government agencies were to work with community in the distribution and monitoring of these sausage baits, this field program would cover a greater area. Community monitoring would also produce the evidence we need to determine the full impact on other native species.

**Lungworm:** KTB research determined that the lungworm had caught up with the colonising frontline, although in very small numbers. KTB field research also showed that work

undertaken in the laboratory by Professor Rick Shine proved that the lungworm in high density in toads caused toads, particularly at the juvenile stage, to lose weight, impact on their breeding ability and eventually die. KTB would like to see the government support further research in this area to look at ways of increasing the lungworm density in colonising front lines as a means of slowing them down. Cane toad faeces from toads with the lungworm infection have a high level of larvae and may be one way of increasing the density of lungworm in frontline populations.

**Live toad metamorph distribution ahead of the front line:** No matter the scientific explanation for this program KTB do not support this in any way. The 1935 release was, and continues to be, a major ecological disaster and should have been a lesson learnt. There is no way that scientists or government agencies can account for every metamorph released, monitor the impact and loss of small native vertebrate biodiversity, or follow the movement of every metamorph. Small toads (metamorphs) are more adept than the adult toad at hiding and climbing vertical escarpments. They consume large amounts of food and are at breeding size in just a few months.

**Community Toad Busting:** KTB have shown that community toad busting alone will not stop the migration of cane toads across Australia. However, in areas where there is an immediate and consistent toad busting response when toads first hit an eco-system, community efforts:

1. Do slow the rate and number of colonising toads moving forward.
2. Does take the pressure of large and small-threatened vertebrate species by taking the pressure off the food supply.
3. Lessons indirect impacts on Native wildlife invertebrate species,
4. Reduces impact on native wildlife burrows and ground burrowing species (large numbers of toads very quickly take over these burrows).
5. Shows intensive community efforts in busting toads at every life cycle produces a dominance of males to female adults.

At a social level, community toad busting efforts provide a 'glue' that brings people of all races together to fight for a common cause. It also:

1. Engages troubled youth, particularly young indigenous youth, in an activity that takes them into the bush, teaches them about the environment, provides an activity that gives them the opportunity to excel, brings kids of all colours together in a pro-active way, and engenders pride in doing something positive.
2. Brings together 'at risk' adults in troubled families, helps them become involved with their children in a pro-active way and stimulates better communication.
3. Stimulates and encourages aboriginal corporations and groups (Save the Children; Warrangari; KLC; MG as examples) to incorporate and work together taking troubled youth out toad busting.

The social implication of toad busting, while not stopping the cane toad invasion, has assisted towards mitigating the indirect and direct impacts of toads across the Kimberley. There is also some evidence that concentrated efforts will slow the toads down (see points above).

- **Additional support for cane toad control measures.**

Government support for scientists working towards finding a biological solution is paramount. However, continued community action and involvement across Australia is critical. Suggestions of Government support for this are:

1. The endorsement of One Nations suggestion of a bounty\*. This would provide a further incentive for young 'at risk' indigenous youth, and remote indigenous communities, to become involved in toad busting activities.
2. The endorsement by government for toad busting to become a part of the 'work for the dole' and all other indigenous and non-indigenous work incentive programs.
3. The endorsement of the re-establishment of 2<sup>nd</sup> year visa programs to include volunteer toad busting as a viable activity.
4. Providing small 'up front' grants for new community toad busting groups wanting to prepare for, and tackle the colonising front line toad numbers as they arrive into a new area.
5. Providing support to shire councils, caravan parks, vet clinics, indigenous corporations, remote communities and other appropriate venues for the provision of toad drop-off boxes and disposal of toads.
6. Releasing a major national cane toad awareness educational program.

\*KTB are aware that Introducing a cane toad bounty would require very careful administration in order to monitor a program such as this and would be happy to contribute ideas if the government should deem this as a way to go.

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