

CVCIA Landcare submission to Federal Government's Inquiry into the control of cane toads

31 January 2019

The 'Biological effects, including lethal toxic ingestion, caused by Cane Toads (*Bufo marinus*)' is listed as a Key Threatening Process (KTP) under the Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act). This KTP was listed in 2005.

The Clarence Valley Conservation in Action Landcare Group (CVCIA) established in November 2008 with a primary objective to undertake community-based control of cane toads and at the same time raise awareness and promote this control to the wider community. The Clarence Valley forms the southernmost limit of persistent breeding populations of cane toads in Australia. This line has been held relatively constant over a 10-20 year period by CVCIA volunteers, NSW National Parks and Wildlife Service staff, contract toaders engaged by the NSW Government and a growing number of private landowners and community members who are joining the battle against this 'perfect pest'.

Effective control of any pest species relies heavily on correct identification to ensure non-target species are not adversely impacted by control efforts. The sighting of a cane toad in Canberra in late-2018 provides a poignant example of this need for good identification as in the aftermath of the toad sighting there were reports of many native frogs being harmed as community members thought they were dealing with cane toads. In order to limit non-target species being harmed it is recommended that quality identification guides are available to the community, especially in areas where toads are known to occur or likely to occur with a foreseeable period of time.

In addition, to the correct identification of toads themselves, the toad spawn and toad tadpoles (or toadpoles) must also be correctly identified prior to control measures being activated. The spawn is unmistakable with its long, jelly-like strands, often several metres long, resembling shoe laces as it is wrapped around aquatic weeds, sticks and submerged grass. Toadpoles are a much harder quarry to correctly identify and native frog tadpoles can easily be mistaken for toadpoles as well-meaning community members take measures to eradicate what they believe to be toadpoles. Not a good outcome!

CVCIA control cane toads by manual collection by volunteers at night, trapping and scoop netting of toadpoles, and removal of toad spawn from waterways. Trapping of toads themselves is not undertaken and whilst there are a variety of traps that do trap toads they are considered to have limited effectiveness. Traps are static and hence, even the most effective trap will not catch toads if no toads are present at that location or toads are not moving into that site. Traps do have their place in enabling early detection of toads in marginal areas as they do not need to be attended or managed 24 hours a day and can be checked every 12-24 hours.

CVCIA's manual collection has been very successful. In the 2016/17 season a total of 14,003 toads were collected on our regular Friday night toad round-ups. A total of 23 nights between 28 October 2016 and 5 May 2017 (inclusive) resulted in a total of 97 different volunteers getting out and being active in collecting toads with our Landcare Group. More complete results for 2016/17 are provided in Table 1.

| LOCATION | No. OF ROUND-UPS | TOTAL TOADS | AVERAGE PER ROUND-UP | VOLUNTEER HOURS [#] | TOADS PER HOUR OF EFFORT [#] |
|---------------------|------------------|--------------|----------------------|------------------------------|---------------------------------------|
| Yamba Golf Club | 8 | 4722 | 590.25 | - | - |
| Brooms Head | 6 | 5205 | 867.5 | - | - |
| Micalo Island | 4 | 3055 | 763.75 | - | - |
| Carrs Drive (Yamba) | 2 | 715 | 357.5 | - | - |
| Maclean | 1 | 109 | 109 | - | - |
| Chatsworth | 1 | 45 | 45 | - | - |
| Woombah | 1 | 152 | 152 | - | - |
| TOTAL | 23 | 14003 | | - | - |

Table 1 – CVCIA Landcare Friday night toad round-up data for season 16/17.

[#] Data not extracted at the time of preparing this submission.

In 17/18 volunteer effort significantly increased and CVCIA Landcare conducted 32 consecutive Friday night toad round-ups between 29 September 2017 and 4 May 2018 (inclusive) and in the process collected 14,347 cane toads, with 126 unique volunteers contributing a total of 1060 volunteer hours at locations across the lower Clarence Valley. Table 2 contains more complete results for the 17/18 season.

| LOCATION | No. OF ROUND-UPS | TOTAL TOADS | AVERAGE PER ROUND-UP | VOLUNTEER HOURS | TOADS PER HOUR OF EFFORT |
|---------------------|------------------|--------------|----------------------|-----------------|--------------------------|
| Yamba Golf Club | 9 | 5224 | 580.4 | 344.48 | 15.16 |
| Brooms Head | 8 | 3256 | 407 | 234.5 | 13.9 |
| Micalo Island | 7 | 2782 | 397.4 | 212.75 | 13.07 |
| Carrs Drive (Yamba) | 1 | 556 | 556 | 21.5 | 25.86 |
| Maclean | 6 | 1398 | 233 | 226.5 | 6.17 |
| Chatsworth | 0 | - | - | - | - |
| Woombah | 0 | - | - | - | - |
| Ashby | 1 | 140 | 140 | 29 | 4.8 |
| TOTAL | 32 | 14347 | 448.34 | 1068.73 | 13.4 |

Table 2 – CVCIA Landcare Friday night toad round-up data for season 17/18.

For this current 2018/19 season, since 19 October 2018, 76 different volunteers have completed 15 consecutive Friday night round-ups (as at 25 January 2019) and collected 5,208 toads with over 421 volunteer hours given. Table 3 contains catch data of the season to date.

| LOCATION | No. OF ROUND-UPS | TOTAL TOADS | AVERAGE PER ROUND-UP | VOLUNTEER HOURS | TOADS PER HOUR OF EFFORT |
|---------------------|------------------|-------------|----------------------|-----------------|--------------------------|
| Yamba Golf Club | 4 | 1862 | 465.5 | 138.08 | 13.48 |
| Brooms Head | 3 | 791 | 263.67 | 78.58 | 10.07 |
| Micalo Island | 3 | 872 | 290.67 | 64.78 | 13.46 |
| Carrs Drive (Yamba) | 0 | - | - | - | - |
| Maclean | 3 | 164 | 54.67 | 34.33 | 4.78 |
| Chatsworth | 0 | - | - | - | - |
| Woombah | 0 | - | - | - | - |
| Ashby | 2 | 1053 | 526.5 | 63.65 | 16.54 |
| Ilarwill | 2 | 205 | 102.5 | 35.67 | 5.75 |
| Warregah Island | 1 | 261 | 261 | 6.45 | 40.47 |
| TOTAL | 18* | 5208 | 289.33 | 421.54 | 12.35 |

Table 3 – CVCIA Landcare Friday night toad round-up data for season 18/19 (as at 25 January 2019).

*Only 15 Friday nights completed however on some nights more than one locality is checked.

Dry climatic conditions in recent months are thought to have kept toad numbers below average in most areas. However, increased pressure at key sites over the last few seasons is also likely to have contributed to these reductions as there has been a downward trend at key sites over the last few seasons. On locations that have received more consistent and higher levels of effort over recent seasons, such as Yamba Golf Course, Brooms Head, Micalo Island, and more recently Maclean, there has been a drop in average numbers of toads collected. At locations like Ashby and Ilarwill where CVCIA has been only more recently active in collecting toads the averages are rising as we learn more about where the toads are located and being successful at removing them from the environment.

Given that January to April are typically the months when bigger numbers of toads are collected, the CVCIA would expect a minimum of 10,000 toads to be collected before the end of this season (around early May 2019) in the lower Clarence Valley during their Friday night round-ups.

In addition to the CVCIA Landcare 'formal' toading sessions on Friday nights a number of our volunteers and local landowners also conduct their own private round-ups of cane toads and this makes a substantial contribution to the total number of toads collected in the lower Clarence Valley through each toading season. CVCIA Landcare has been very active in promoting it's cane toading activities, especially in recent years, and this has contributed to a greater community awareness of cane toads and how to control them.

Toadpole and metamorph (newly emerged baby toads) control efforts rely typically on daytime control when they are more easily detected through visual inspection of waterbodies. Again, this work is completed by a small number of CVCIA Landcare volunteers, landowners and some NSW

Government funded toading contractors. In recent seasons in the order of 150,000-200,000 toadpoles have been collected in the lower Clarence Valley. Most are netted using hand-held scoop nets and traps are also used to remove a lesser number. Traps require more effort to set and check and CVCIA volunteers have found traps to have inconsistent results. CVCIA has been involved in trialling different traps and different baits or attractants over the last few years. At times it appears as though toadpoles are avoiding entering traps because the traps have been used. It is quite possible that toadpoles can detect the smell of their own kind from previous trap settings and hence, avoid entering the trap. More scientific research is needed to refine the effectiveness of toadpole trapping. Control of toadpoles is considered a significant benefit in the battle against cane toad populations.

CVCIA would be pleased to offer a more thorough submission with respect to cane toad control in the Clarence Valley to future stages of this Inquiry process and would welcome any opportunity to progress control of the cane toad in Australia. In the meantime we will be continuing our volunteer work in the Clarence Valley and encouraging other community members and landowners to take action to remove cane toads from their local environment for the benefit of our native fauna.

Yours faithfully

Scott Lenton

CVCIA Landcare

Vice Chairperson and Cane Toading Contact

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