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Introduction to the Veterinary Profession

VETS30030 / VETS90122













Module: Care and welfare of domestic animals

Animal welfare

Case study wrap-up

Andrew Fisher

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All Animals are Equal
But Some Animals are More Equal than Others
George Orwell, Animal Farm





'We feel like we let Doble down': the unseen dangers of 1080 wild dog baits

Australian farmers and government agencies say 1080 poison is critical for controlling feral animals, but it has been phased out in other countries

- Sign up for the Rural Network email newsletter
- Join the Rural Network group on Facebook to be part of the community



□ Jane Canfield and Creese Syred, believe their wheaten border collie, Doble, died after being exposed to a 1080 bait that was not signposted as required. Photograph: Creese Syred

ainter Jane Canfield and her partner, Creese Syred, first realised something was wrong when they were woken at their campsite to the sound of their 10-month-old wheaten border collie, Doble, screaming.

Australia is one of only a few countries to still use the pesticide, which has been phased out elsewhere in the world due to the risks it poses to non-target animals. It is regulated by the Australian Pesticides and Veterinary Medicines Authority, and further governed by state and territory authorities, who are responsible for ensuring its safe use.

The NSW Farmers Association considers 1080 a critical tool in the management of pest species, estimating that wild dog attacks on livestock cost the national economy more than \$89m a year.

"Beyond the financial cost is the emotional and mental distress farmers face when they discover a wild dog attack upon their animals," a spokesperson for the association said.

The NSW Environment Protection Authority (NSW EPA) says landholders are subject to strict obligations when using 1080 baits: training, alerting neighbours and removing unused baits. A spokesperson for the NSW EPA said: "All areas where 1080 baits are applied must be signposted at all authorised entry points to warn people that baits have been applied."

According to Canfield and Syred, there were no signs at or near their campsite. The NSW EPA says there are cases of landholders not following regulations when setting baits or acquiring the poison unlawfully. There is also anecdotal evidence of baits being picked up by birds and foxes and moved out of baiting areas.







CSIRO PUBLISHING

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The myth of wild dogs in Australia: are there any out there?

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Abstract. Hybridisation between wild and domestic canids is a global conservation and management issue. In Australia, dingoes are a distinct lineage of wild-living canid with a controversial domestication status. They are mainland Australia's apex terrestrial predator. There is ongoing concern that the identity of dingoes has been threatened from breeding with domestic dogs, and that feral dogs have established populations in rural Australia. We collate the results of microsatellite DNA testing from 5039 wild canids to explore patterns of domestic dog ancestry in dingoes and observations of feral domestic dogs across the continent. Only 31 feral dogs were detected, challenging the perception that feral dogs are widespread in Australia. First generation dingo \times dog hybrids were similarly rare, with only 27 individuals identified. Spatial patterns of genetic ancestry across Australia identified that dingo populations in northern, western and central Australia were largely free from domestic dog introgression. Our findings challenge the perception that dingoes are virtually extinct in the wild and that feral dogs are common. A shift in terminology from wild dog to dingo would better reflect the identity of these wild canids and allow more nuanced debate about the balance between conservation and management of dingoes in Australia.

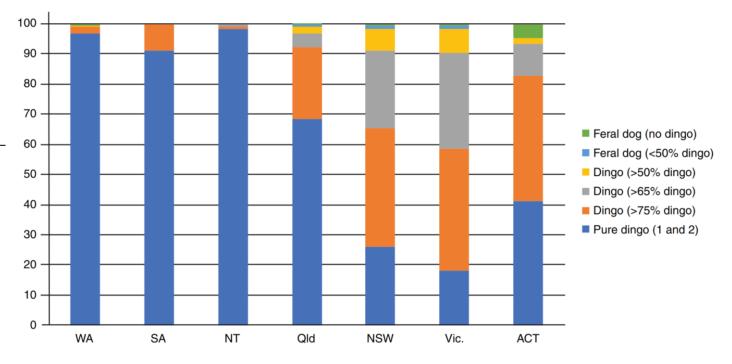


Fig. 1. Proportion of Australian wild canids that were pure dingoes, dingoes with domestic dog introgression, possible F1 dingo \times dog hybrids, and feral domestic dogs, by state.

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Is sodium fluoroacetate (1080) a humane poison?

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Abstract

Sodium fluoroacetate (1080) is widely used for the control of vertebrate pests in Australia. While the ecological impact of 1080 baiting on non-target species has been the subject of ongoing research, the animal welfare implications of this practice have received little attention. Literature relevant to the humaneness of 1080 as a vertebrate pest control agent is reviewed in this paper. Previous authors have largely concentrated on the perception of pain during 1080 toxicosis, giving limited attention to other forms of distress in their assessments. Authors who suggest that 1080 is a humane poison largely base their conclusions on the argument that convulsive seizures seen in the final stages of 1080 toxicosis indicate that affected animals are in an unconscious state and unable to perceive pain. Other authors describe awareness during seizures or periodic lucidity that suggests central nervous system (CNS) disruption cannot be assumed to produce a constant pain-free state. Some literature report that 1080 poisoning in humans is painless and free of distress, but this is contradicted by other clinical studies. Using available data an attempt is made to reassess the humaneness of 1080 using the following criteria: speed and mode of action, appearance and behaviour of affected animals, experiences of human victims, long-term effect on survivors, and welfare risk to non-target animals. It is concluded that sodium fluoroacetate should not be considered a humane poison, and there is an urgent need for research into improving the humaneness of vertebrate control methods in Australia.

Keywords: 1080, animal welfare, bait, poison, sodium fluoroacetate, vertebrate pest

How often must leghold traps be checked?

Traps must be inspected at least once every 24 hours.

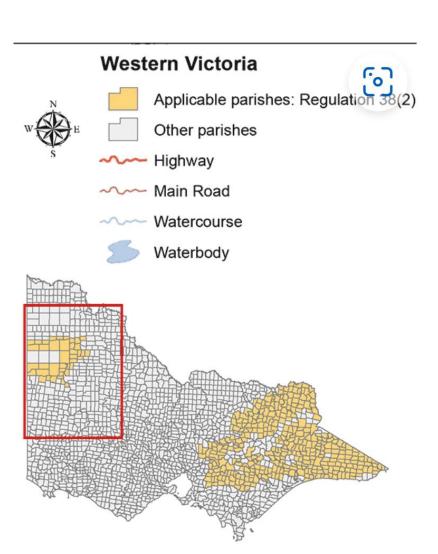
Leghold traps should be checked as regularly as possible, to minimise injury, pain and distress of trapped animals. An animal must not be left alive in a leghold trap for more than 24 hours.

Until 1 December 2024, the Minister may approve a longer period — up to 72 hours— for leghold trapping of wild dogs under the Victorian Wild Dog Program. Any approval applies only for leghold traps set for wild dogs by a person employed or authorised for the purposes of the Victorian government program for managing wild dogs.

Approval has been granted from 1 April 2020 to 30 June 2022, for the areas listed in this legal instrument: <u>POCTA</u>

<u>Regulation 38(2) Instrument</u> .

The areas are shown in these maps.



Recommended shot placements - Wild dog

Diagram 1

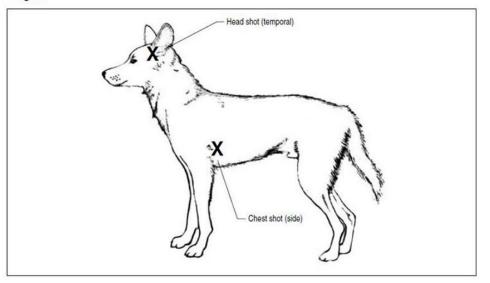


Diagram 2 - Side view (skeleton)

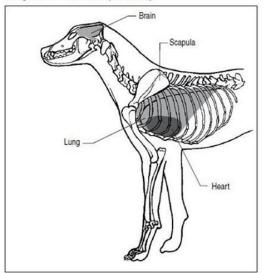


Diagram 3 - Head shot (frontal)



Note: Head shots (temporal or frontal) should be used for shooting wild dogs caught in traps.



A model for assessing the relative humaneness of pest animal control methods







Worksheet Part A: Assessment of overall welfare impact CONTROL METHOD: place an X in the relevant box **Domain I** Water food restriction No impact | Mild impact | Moderate impact | Severe impact | Extreme impact Domain 2 Environmental challenge External inputs No impact | Mild impact | Moderate impact | Severe impact | Extreme impact (e.g. approach of human) Domain 5 Anxiety, fear, pain, distress No impact | Mild impact | Moderate impact | Severe impact | Extreme impact Domain 3 Disease, injury, functional impairment No impact | Mild impact | Moderate impact | Severe impact | Extreme impact Overal impact grade= **Domain 4** Behavioural, interactive restriction No impact Mild impact Moderate impact Severe impact Extreme impact

OVERALL IMPACT GRADE =					
DURATION OF WELFARE IMPACT:					
Very rapid (immediate) to rapid (seconds)	Minutes	Hours	Days	Weeks	

	Duration of impact				
Overall impact on welfare	Immediate to Seconds	Minutes	Hours	Days	Weeks
EXTREME	5	6	7	8	8
SEVERE	4	5	6	7	8
MODERATE	3	4	5	6	7
MILD	2	3	4	5	6
NO IMPACT	I	I	I	ı	I

SCORE FOR PART A=

Part B: Assessment of mode of death

CONTROL METHOD:

Time to insensibility/unconsciousness (minus any lag time that may occur prior to the onset of clinical signs). This is the duration of suffering caused by action that causes death:

Very rapid (immediate) to rapid (seconds) Minutes		Hours	Days	Weeks

Level of suffering experienced after application of the method that causes death but before insensibility is achieved (components of suffering includes anxiety, pain, fear, distress, apprehension)

		Moderate		Extreme
No suffering	Mild suffering	suffering	Severe suffering	suffering

	Time of insensibility				
Level of suffering	Immediate to Seconds	Minutes	Hours	Days	Weeks
EXTREME	E	F	G	н	н
SEVERE	D	E	F	G	н
MODERATE	С	D	E	F	G
MILD	В	С	D	E	F
NO IMPACT	A	Α	A	Α	A

SCORE FOR PART B=



May 2016

Known as DOGABAIT and FOXECUTE®, new baits containing the chemical para-aminopropiophenone (or 'PAPP') are being released in Australia. PAPP works by inducing methaemoglobinemia following ingestion. Veterinarians may be presented with cases of off-target poisoning of domestic pets, so will need to know how to manage these cases.

PAPP is considered to be a humane toxin, and has the potential to replace 1080 use in many situations. It has an additional advantage in that it has an antidote, Methylene Blue. Details about where to access supplies of the antidote, and

Methylene Blue. Details about where to access supplies of the antidote, and treatment protocols, will be made available in the form of a Fact Sheet that you can print out for your hospital.

The information we have received is that if an animal is administered the antidote relatively guickly by IV injection.

The information we have received is that if an animal is administered the antidote relatively quickly by IV injection hour of bait exposure), it can recover. At this stage, the antidote can only be administered by a veterinarian.

Products containing PAPP have been approved for use by the APVMA, and are manufactured and distributed by

Resources

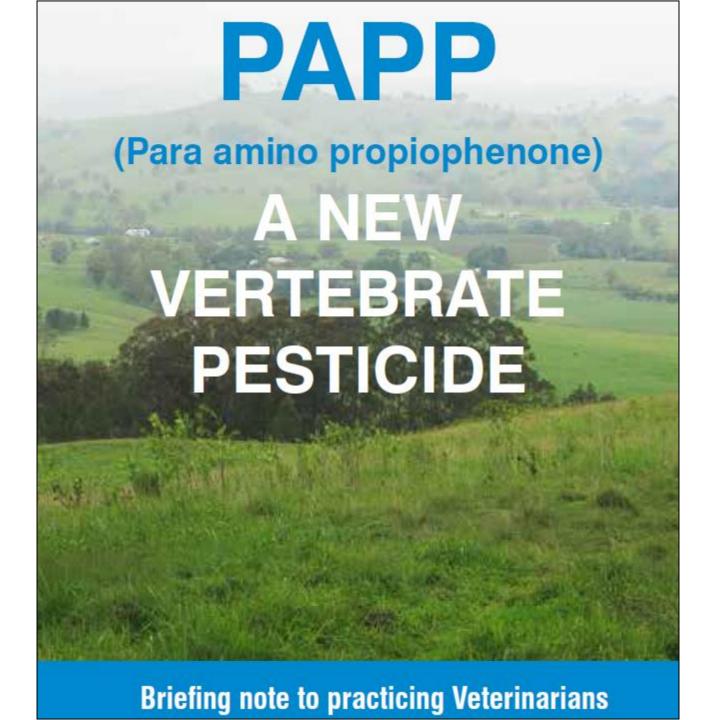
ASAV

Cattle

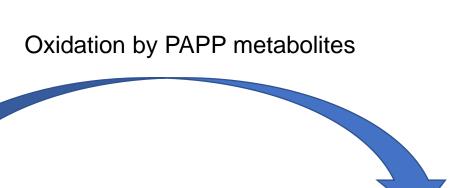
Equine

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Practice Management



Para amino propiophenone (PAPP) is an amine substituted propiophenone that can be administered orally to induce methaemoglobinaemia. To oxidise haemoglobin, PAPP must first undergo hydroxylation in the liver. Due to different metabolic pathways in different species the effects of PAPP vary between species. Foxes and dogs amongst the most sensitive due to their rapid hydroxylation of PAPP. These species also have a relative lack of *methemoglobin reductase* that normally protects against methaemobglobinaemia.







Reduction by methemoglobin reductase, methylene blue

