



Landcare Research
Manaaki Whenua

Animal Welfare, Environmental Ethics, and Vertebrate Pest Management

Bruce Warburton,
Landcare Research, Lincoln, NZ



Contents

- Animal welfare (traps and poisons)
- Ethics (costs and benefits)
- Dealing with uncertainty (the 3Es)

Animal Welfare

- Animal welfare focusses on the “how” – i.e. the methods used: welfare cost or humaneness
- Animal Welfare Act 1999
 - Section 32-37 relates to traps and their use
 - Live-capture traps must be inspected daily
 - Traps can be prohibited
- The AW Act does cover pest control.
 - Need to follow generally accepted practice (if you don't, you could be prosecuted for ill-treatment)
 - Pesticides have to be used in accordance with labels

NAWAC trap-testing guideline

NAWAC GUIDELINE 09:

Assessing the welfare performance of restraining and kill traps

1. Introduction

The purposes of this guideline are to:

- (a) standardise the testing of welfare performance of traps;
- (b) encourage the continuing development of new and existing traps to improve the effectiveness of kill traps and the welfare of animals caught in restraining traps, including the reduction of injuries and minimisation of suffering;

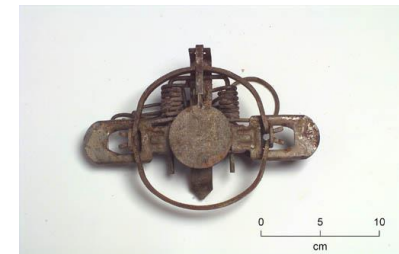
Note: This guideline focuses on the assessment of the welfare performance of traps NOT on how effectively the traps capture target animals or how target-selective, mechanically robust or user safe they are.

2. Scope

This guideline applies to all types of traps designed to restrain or kill animals. This guideline confines the measurement of animal welfare associated with the use of traps to physical trauma, and does not include psychological and physiological distress. This is because insufficient information exists on what physiological parameters to measure and, for any one parameter, what levels could be considered as the minimum.

Restraining traps

- Leghold (foothold) traps
- Cage/box traps



PATHOLOGICAL OBSERVATIONS OF TRAUMA FOR RESTRAINING TRAPS

Mild Trauma

1. No identifiable trauma
2. Claw loss
3. Oedematous swelling or haemorrhage
4. Minor cutaneous laceration
5. Minor subcutaneous soft tissue maceration or erosion (contusion)
6. Major cutaneous laceration, except on foot pads or tongue
7. Minor periosteal abrasion

Moderate Trauma

8. Severance of minor tendon or ligament (each)
9. Amputation of one digit
10. Permanent tooth fracture exposing pulp cavity
11. Major subcutaneous soft tissue maceration or erosion
12. Major laceration on foot pads or tongue
13. Severe joint haemorrhage
14. Joint luxation below carpus or tarsus
15. Major periosteal abrasion
16. Simple rib fracture
17. Eye lacerations
18. Minor skeletal muscle degeneration

Moderately Severe Trauma

19. Simple fracture at or below carpus or tarsus
20. Compression fracture
21. Comminuted rib fracture
22. Amputation of two digits
23. Major skeletal muscle degeneration
24. Limb ischaemia

Severe Trauma

25. Amputation of three or more digits
26. Any fracture or joint luxation on limb above carpus or tarsus
27. Any amputation above the digits
28. Spinal cord injury
29. Severe internal organ damage (internal bleeding)
30. Compound or comminuted fracture at or below carpus or tarsus
31. Severance of major tendon or ligament
32. Compound rib fracture
33. Ocular injury resulting in blindness of an eye
34. Myocardial degeneration
35. Death

Test outcomes & trap prohibition

From 1 January 2011:

- no unpadded leg-hold traps of size 1 ½ can be used. Traps cannot be modified to make them padded.



The Lanes-Ace trap



Size 1½ hard-jaw



Size 1½ padded-jaw



Size 1½ +



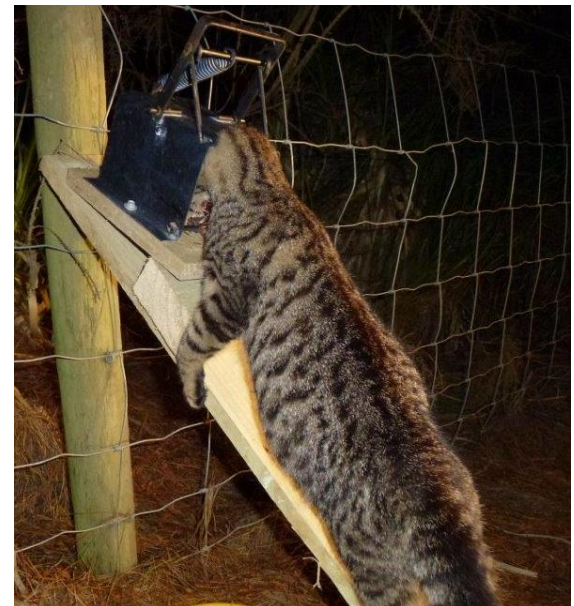
Size 1



Size 1 padded-jaw

Kill trap testing

- Pen tests
- Animals must be rendered irreversibly unconscious within 3 minutes
- To pass, need 10 of 10 successful kills
- <http://www.landcareresearch.co.nz/science/plants-animals-fungi/animals/vertebrate-pests/traps>



Test results: Possums



	Pass	Fail
Sentinel	✓	
Set-n-Forget	✓	
Warrior	✓	
Goodnature A12	✓	
Timms		✓*
Steve Allan Mk2		✓
Possum Master		✓
Conibear 160		✓

Test results: Ferrets



	Pass	Fail
DOC 250	✓	
PodiTrap	✓	
Timms		✓
Timms tunnel		✓
Tunnel		✓
Conibear 120		✓
Belisle super X 120		✓
Warrior		✓
Possum Master		✓
Holden Multikill		✓

Test results: Stoats



	Pass	Fail
Modified Victor	✓	
DOC 150, 200, 250	✓	
Goodnature A24	✓	
Fenn Mk IV		✓
Fenn Mk VI		✓
Victor snap trap		✓

Test results: Feral Cats



	Pass	Fail
SA2 Kat trap	✓	
Steve Allan Mk2	✓	
Belisle super X 220	✓	
Timms	✓	
BMI 160		✓
Conibear 220		✓
Set-n-Forget		✓*
DOC 350		✓

* 1 captured by limb

Test results: Rats



N = Norway; S = Ship	Pass	Fail
DOC 150, 200 (N)	✓	
DOC 250 (N & S)	✓	
Victor snap trap*(N)	✓	
Nooski (N)	✓	
Modified Victor (S)	✓	
Goodnature A24 (S)	✓	
Rat Zapper (N)		✓

Snap-E trap????



X



X



✓

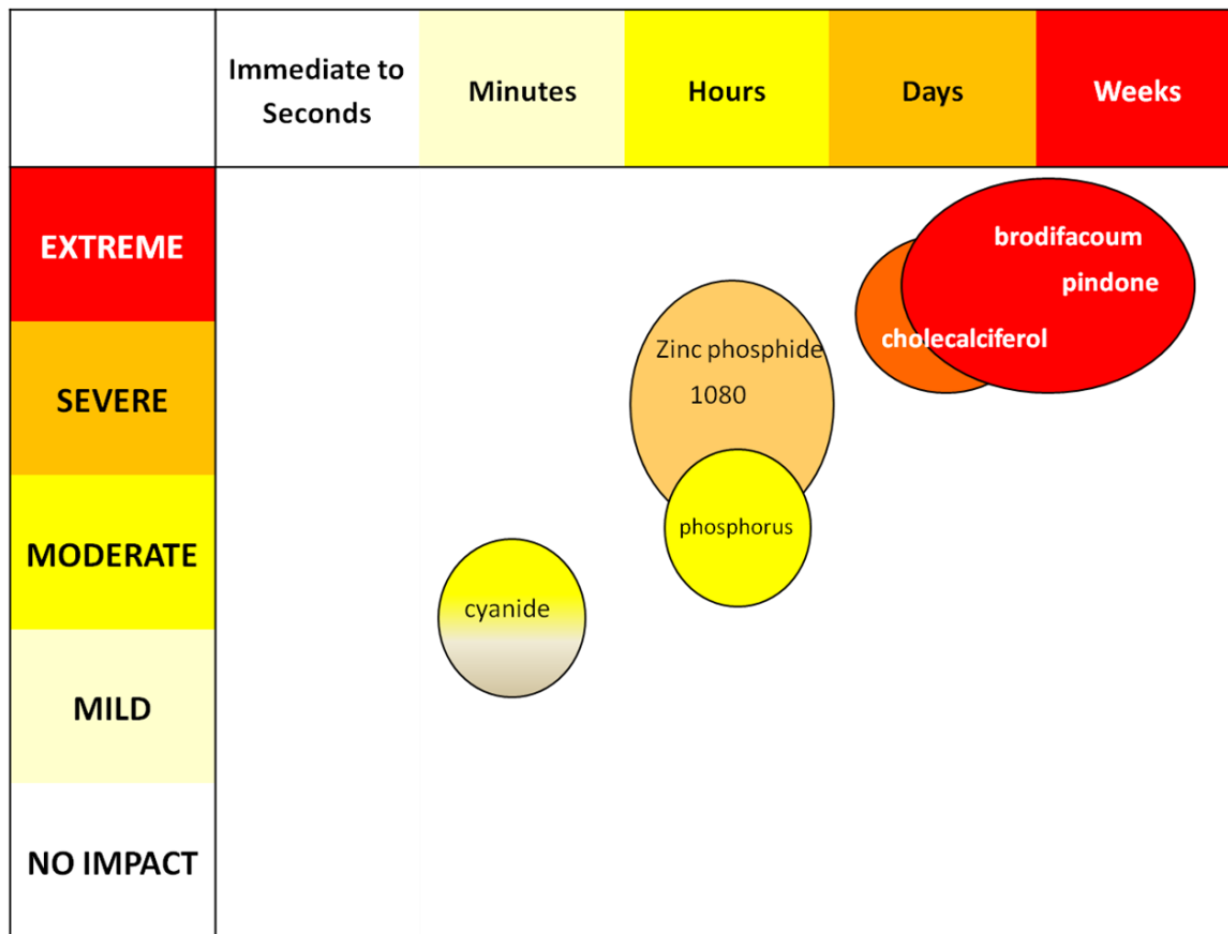


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Poisons

Duration of suffering

Severity of suffering



Ethical issues...1

- Vertebrates are sentient
- Animal welfare scientists and physiologists agree they have the capacity to suffer
- Peter Singer: Animal Liberation 1975
Interests of sentient animals should be given equal moral consideration and their capacity to suffer must be considered: It is not can they reason, nor can they talk, but, can they suffer?

Ethical issues...2

- If you cannot inflict the same amount of pain on a baby or intellectually handicapped person as you choose to do to a sentient animal, then you are **speciesist**.
- If you cannot inflict the same amount of pain on your pet as you do to its wild counterpart (pest) then you are **discriminatory**.



Wider Community Values

	A Anthropocentrism	B Nonanthropocentrism
I Individualism	Anthropocentric individualists <i>Traditional ethics</i> <i>(animal welfare)</i> <i>Mainstream economics</i> <i>(anthro-utilitarian)</i>	Nonanthropocentric individuals <i>Animal rights (Regan)</i> <i>Animal liberation (Singer)</i> <i>(nonanthro-utilitarian)</i>
II Holism	Anthropocentric holists <i>E.g. Leopold & Norton</i>	Nonanthropocentric holists E.g. Rolston, Callicott (Ecocentrist)

Monists: E.g. Callicott
Pluralists: E.g. Norton

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Animal rights

- Categorically protects individuals.
- Does not address conflicts between ecological and individual values.
- Therefore provides no protection for species or ecosystems
- Simply at odds with ecologically based management

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Utilitarianism

Animal Ethic Committees

- Animal Ethics Committees usually assess the ethical justification for research on the costs and benefits of the research – **a utilitarian approach**.
- A utilitarian approach seeks to reduce the amount of suffering (bad), and increase the amount of pleasure (good).
- Animal Ethics Committees have to deal with considerable uncertainty.

Pest programmes and uncertainty

Community-based pest control programmes:

Uncertainties about:

- Critical target species (single or multiple species)
- Relationships between pest density and impacts
- Non-target impacts
- Poison residues
- Does the control achieve the desired outcomes?
- Will the programme/funding be sustained?
- Do the control methods have a high welfare cost?
- Your pest is my resource

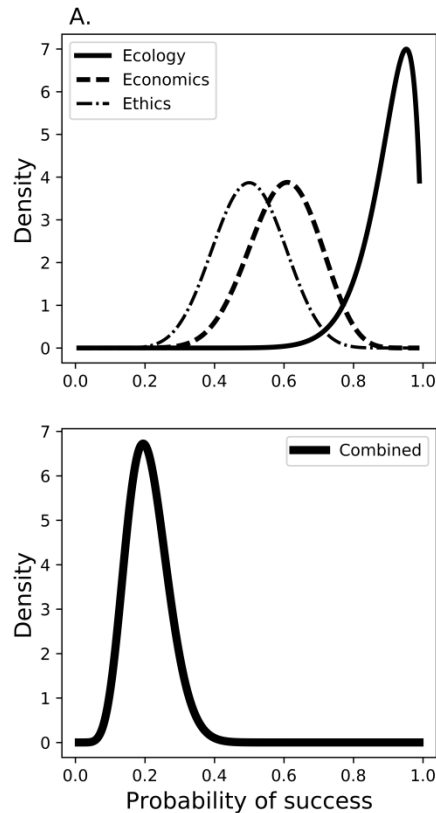
Uncertainties relate to the ecology, economics, and the ethics.

Addressing uncertainty

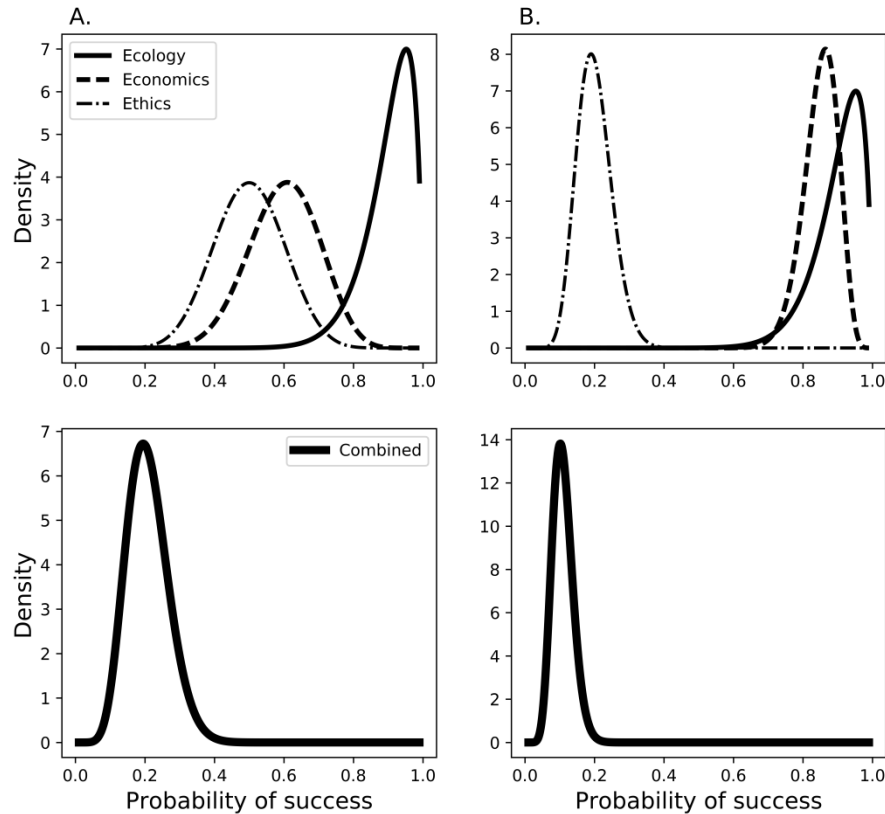
The 3 Es

- Ecological
- Economic
- Ethical

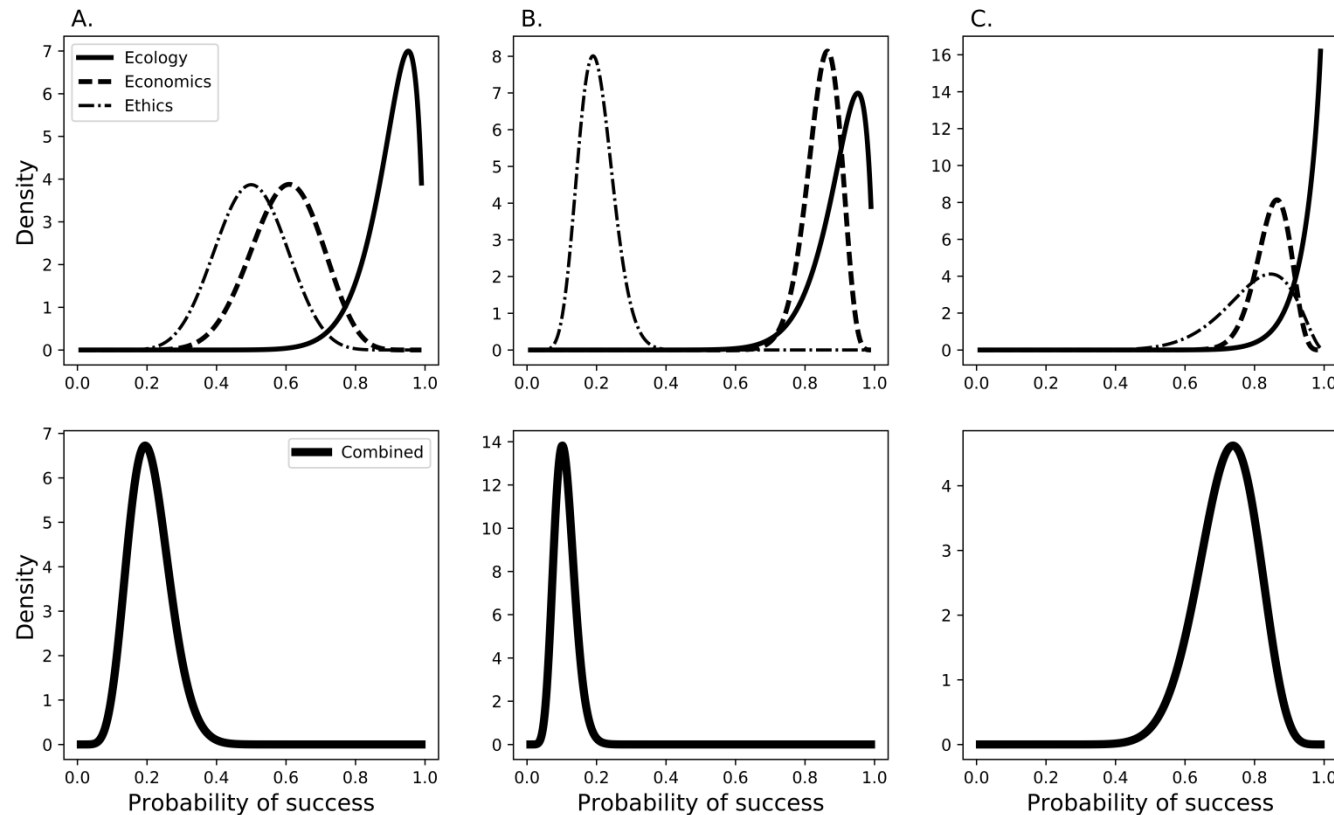
The 3Es & successful pest control programmes



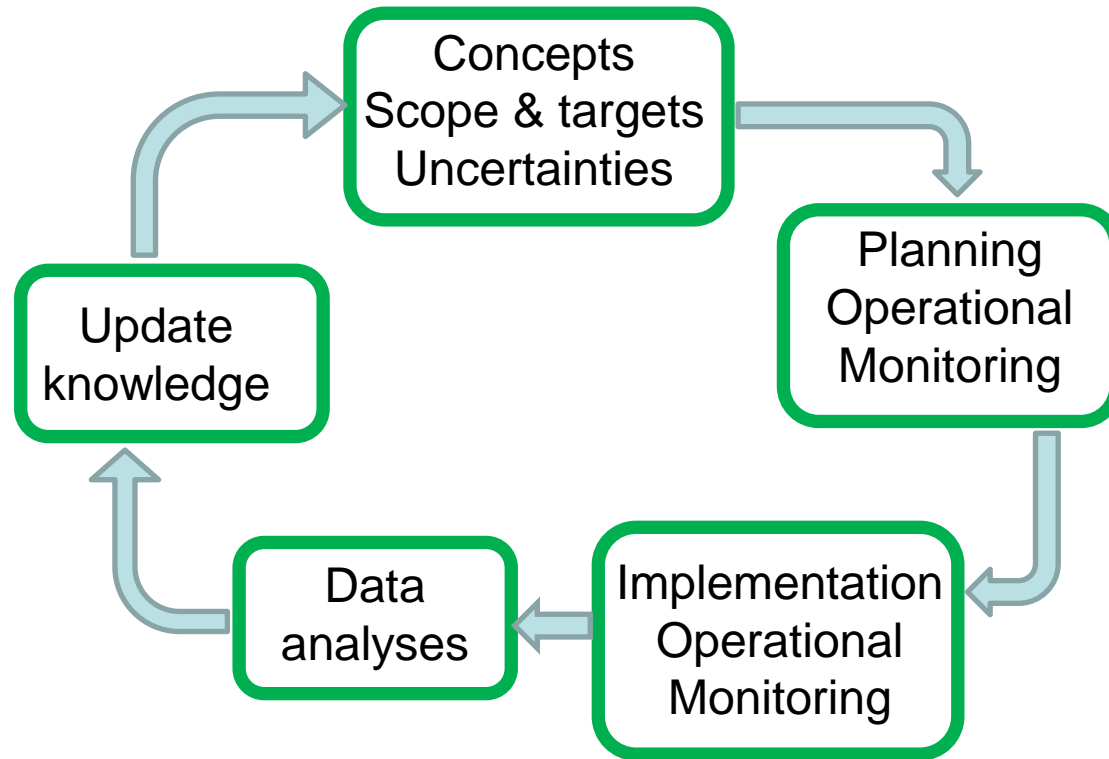
The 3Es & successful pest control programmes



The 3Es & successful pest control programmes



Uncertainty & Adaptive Management



Embrace the uncertainty as a way of building understanding
– increasing knowledge, both about science and ethics:

Applying a knowledge-based ethic

Valuing Knowledge

- A requirement of Adaptive Management is to monitor outputs and outcomes.
- Many agency staff and individuals in community groups will prefer allocating funds to kill more pests not for monitoring.
- Challenge is how to value knowledge – i.e. what willingness is there to pay for monitoring and increasing knowledge?

An Evaluation Committee for Pest Control Plans

Given the level of ecological, economic and ethical uncertainty should all pest control programmes before they start be required to have a pest management plan that is evaluated by the equivalent of an AEC

Is the understanding of the ecological, economic, and ethical issues high enough to proceed, and if not, is the programme structured as an adaptive management programme to enable learning?

Conclusions...1

- Vertebrates are sentient and have the capacity to suffer.
- Pest control programmes should consider this capacity to suffer and be aware of potential inconsistencies (discrimination - pets and pests).
- The tools with the least welfare cost should be selected given they are cost-effective.
- All pest control programmes have multiple uncertainties (science and ethical).

Conclusion...2

- An option for addressing uncertainty is to use adaptive management to increase our knowledge.
- Increasing knowledge is a possible way to address conflicting values – **apply a knowledge-based ethic based on good science.**
- Operationalise this through requiring pest control programmes to be reviewed by an appropriate review committee.