

For our Environment

Umwelt   
Bundesamt

# Presentation of a Draft Guidance for the Evaluation of Rodent Traps

## a) Criteria for efficacy and humaneness of traps

Anke Geduhn

German Environment Agency  
Section IV 1.4  
Health Pests and their Control

# Draft guidance for the evaluation of rodent traps

## Part A break back/ snap traps

Developed and discussed by the

### NoCheRo working group

- Experts from 7 countries
- Authorities, trap and chemical industry, pest control industry, academics

Name	Affiliation	Country
Baker, Sandra	University of Oxford, Department of Zoology	UK
Brigham, Andy	Rentokil Initial plc	UK
Cropper, Ian	Health and Safety Executive	UK
Endepols, Stefan	Bayer CropScience/RRAC	DE
Fischer, Juliane	Federal Environment Agency	DE
Friesen, Anton	Federal Environment Agency	DE
Geduhn, Anke	Federal Environment Agency	DE
Haikonen, Tero	Antitec Oy - PestControl Fin Ltd	FI
Kjellberg, Håkan	Anticimex AB	SE
Klute, Oliver	Futura GmbH	DE
Le Laidier, Gabriel	Swissinno Solutions AG	CH
Lombardi, Luca	Enthomos srl	IT
Martenson, Nils	Swedish Environmental Protection Agency	SE
Nugent, Hannah	Health and Safety Executive	UK
Puschmann, Markus	Puschmann GmbH	DE
Schmolz, Erik	Federal Environment Agency	DE
Schlötzelburg, Annika	Federal Environment Agency	DE
Schroerer, Daniel	Futura GmbH	DE
Urzinger, Markus	Swissinno Solutions AG	DE
Warburton, Bruce	Manaaki Whenua - Landcare Research	NZ
Wiesener, Robert	GSG Urban Guard GmbH	DE

# Draft guidance for the evaluation of rodent traps

## Part A break back/ snap traps

- **Aim: Evaluation of rodent traps for efficacy and animal welfare impact**
  - Provide information to authorities and users based on agreed methods
  - Data basis for the evaluation of rodent traps as an alternative to rodenticides
  - Certification system for rodent traps to manage problems with animal welfare
- Part A) break back / snap traps

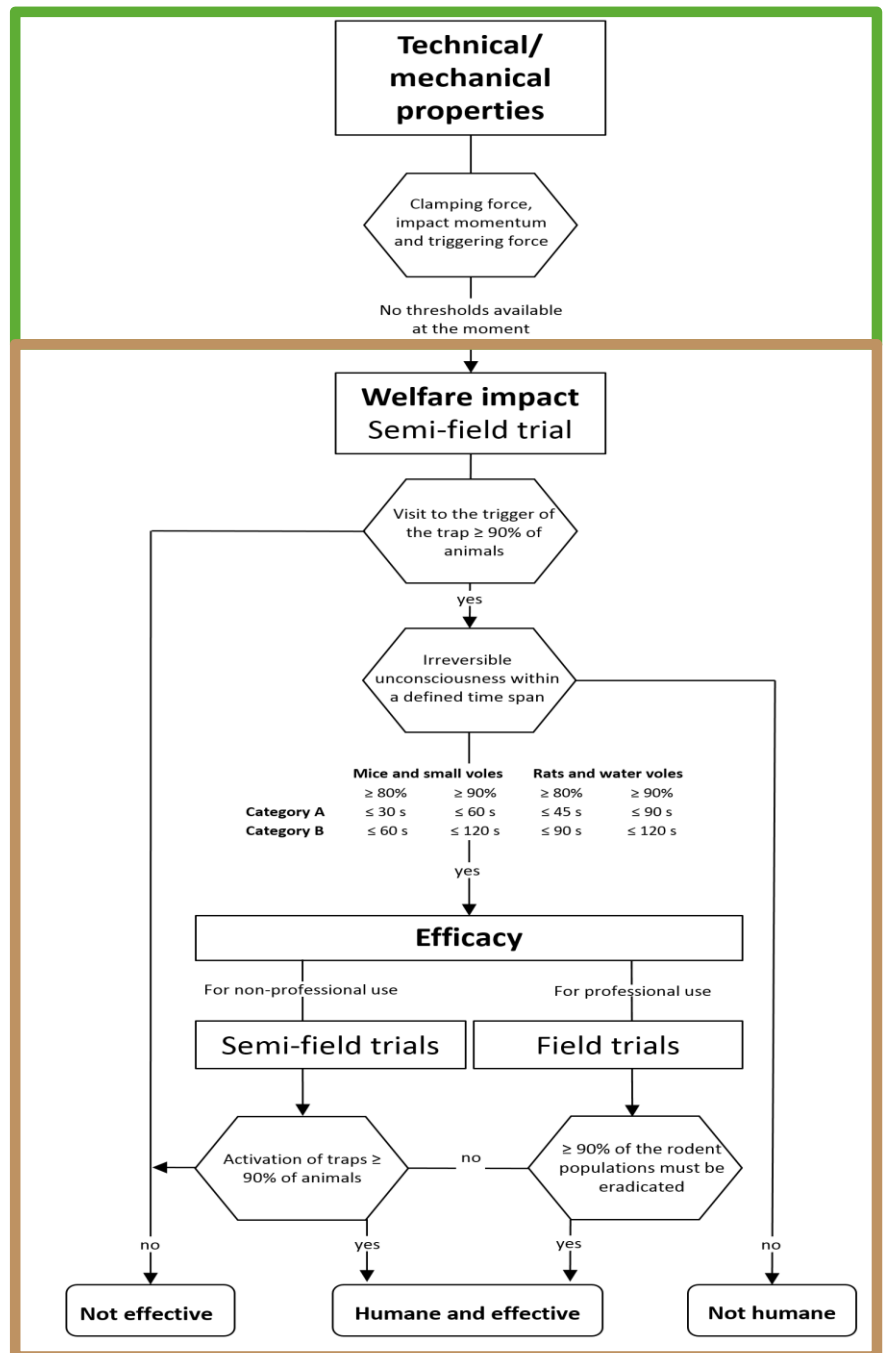
# Dossier requirements

Data on technical/mechanical properties, welfare impact and efficacy

- Mode of action (type of trap);
- Representative organism(s)
- The intended uses and category of users of the product;
- **Efficacy data**
- **Welfare impact data**
- Observations on undesirable or unintended side effects
- Instructions for use
- **A detailed technical description of the trap**
- High quality photographs and drawings of the entire trap,
- Rat traps for use in sewer systems additionally need to fulfil specific requirements for enclosed spaces of waste water facilities according to local laws.

# Testing principle

- 1) Technical / mechanical properties
- 2) Welfare impact (semi field test)
- 3) Efficacy (semi field / field test)



# Practical advises

## How to conduct welfare impact and efficacy tests?

- No specified rigid protocols for tests
  - Ideally: recognised testing protocols
- Scientifically valid data
- In accordance with Directive 2010/63/EU

Standard/Source	Title	Where	Target Organism(s)	Mode of operation	Scope
AIHTS	Agreement on International Humane Trapping Standards (AIHTS)	all EU member states, Canada, Russian Federation	Fur-bearing animals:	Restraining and killing traps	Trap testing guideline
The Humane Trapping Standards Regulations 2019 (based on AIHTS)	The Spring Traps Approval (England) Order 2018	England	Rats and mice among others mammals	Restraining and killing traps	Approval of traps
NAWAC Guideline	National Animal Welfare Advisory Committee (NAWAC)	NZ	Rats and mice among others mammals	Restraining and killing traps	Trap testing guideline
Carnivore Ecology and Conservation	Proulx and Barrett 1994, Proulx 1999		mammals (particularly minks, martens, raccoons)	Restraining and killing traps	Trap Testing
BPCA Code of Best Practice	The Use of Break Back Traps/Snap Traps	UK	Rodents	Killing Traps	Use instructions
BPCA Code of Best Practice	Spring Trapping	UK	Rodents	Killing Traps	Use instructions
British Association for Shooting & Conservation (BASC)	Trapping Pest Mammals	UK	Rats and mice among others mammals	Spring Traps and Cage Traps	General information/ List of approved traps
Chartered Institute of Environmental Health	Code of practice for the use of vertebrate traps	UK			
see Meerburg et al. 2008	Nuffield Council on bioethics (animal experimentation)		Particularly rodents		Lab rodents / welfare impact

# Welfare impact test (humaneness)

## Test criteria and test setup

Time until irreversible unconsciousness:

	Mouse and small vole traps		Rat and water vole traps	
	≥ 80% of animals	≥ 90% of animals	≥ 80% of animals	≥ 90% of animals
Category A	≤ 30 s	≤ 60 s	≤ 45 s	≤ 90 s
Category B	≤ 60 s	≤ 120 s	≤ 90 s	≤ 120 s

2 parts of the test:

- Conditioning period
- Actual welfare impact test

# Welfare impact test (humaneness)

## Test animals

Wild rodents, offspring of wild rodents, strains that resemble wild strains

Tests must be done with at least one species:

	Mouse and small vole traps	Rat and water vole traps
	e.g. house mouse, bank vole, common vole	Norway rat, Black rat, Water voles
<b>Weight class 1 (50% of animals)</b>	< 22 g	< 150 g
<b>Weight class 2 (50% of animals)</b>	> 22 g	> 150 g

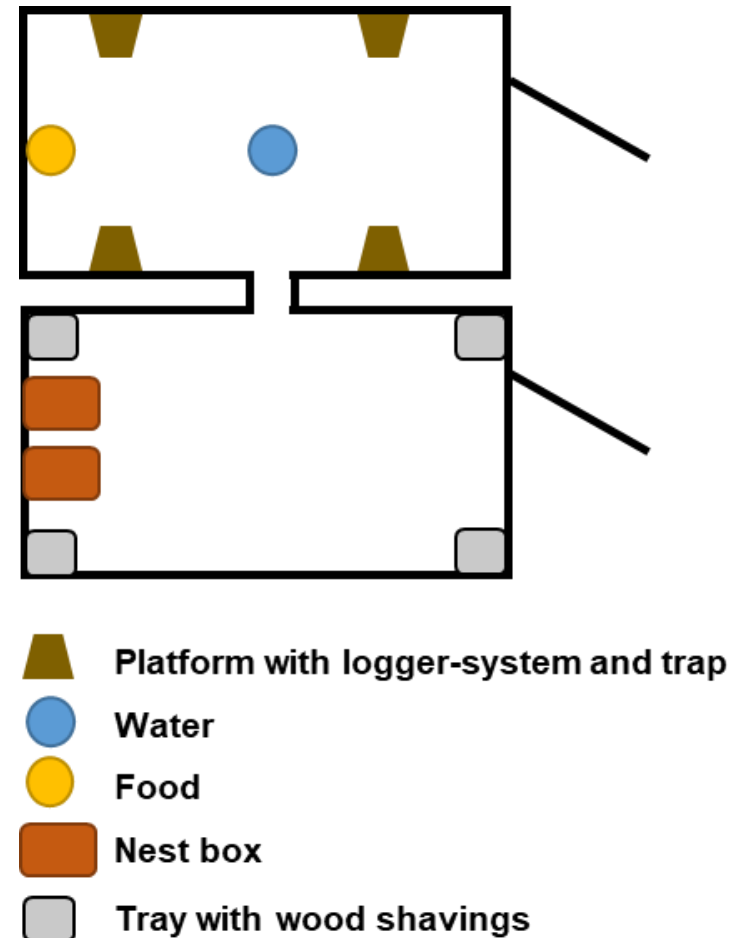




# Welfare impact test (humaneness)

## Conditioning period

- Traps are baited, but **not activated**
- Duration depends on species:  
3 to 14 days
- 90 % of test animals must have entered a trap in the conditioning period



# Welfare impact test (humaneness)

## Actual welfare impact test

### Welfare impact test:

- Traps are **activated** and baited
- Time until irreversible unconsciousness is measured by loss of eyelid reflex
- Body strike location is noted
- Animals are euthanized after 120 seconds, or if an animal is struck at a non-vital region



# Efficacy tests

## Test criteria and test setup

### Required tests:

	Professionals	Non-Professionals
2 Semi field trails		or X
2 Field trails	X	X

- Semi field tests: **90% of test animals must have activated a trap**  
(in advance: 90% of test animals during the conditioning period of the welfare impact test must be recorded at least at one trap)
- Field tests: **census bait consumed (or rodent activity) after control  $\leq 10\%$**

# Efficacy tests

## Test animals

### Semi-field test for efficacy:

- Wild rodents, or offspring of wild rodents
- Species for intended uses must be tested



### Field test for efficacy:

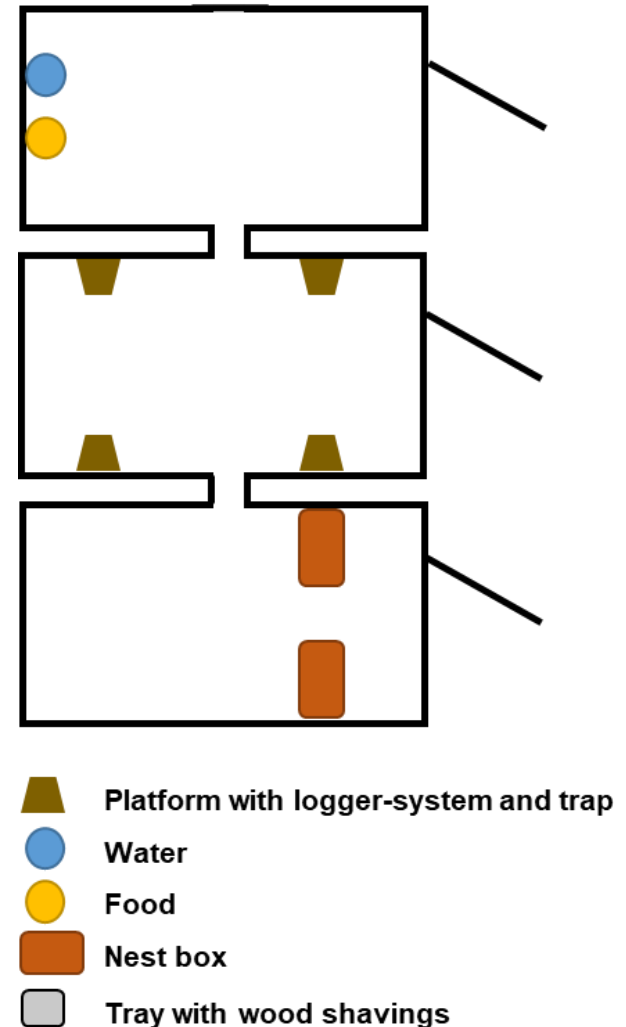
- Wild rodent infestations
- Species for intended uses must be tested



# Efficacy tests

## 2 semi field tests

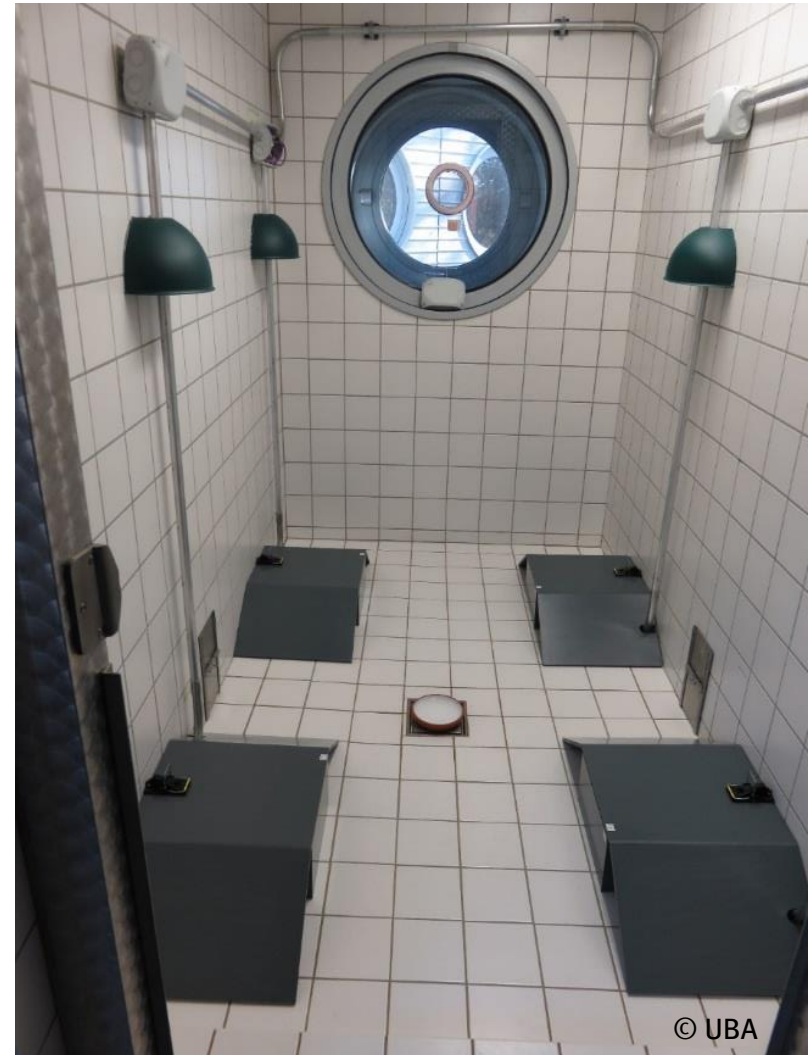
- Traps are baited, and **activated** but fixed (e.g. cable tie)
- $\geq 90\%$  of test animals must activate at least one trap
  - E.g., chipped animals are recorded via a logger system and video
- Duration of the semi field trail:
  - 7 days for mice, voles
  - 28 days for rats



# Efficacy tests

## 2 semi field tests

- Traps are baited, and **activated** but fixed (e.g. cable tie)
- $\geq 90\%$  of test animals must activate at least one trap
  - E.g., chipped animals are recorded via a logger system and video
- Duration of the semi field trail:
  - 7 days for mice, voles
  - 28 days for rats



# Efficacy tests

## 2 Field trials – rats, mice and bank voles

- Site requirements:
  - representative for the intended use of the trap
  - sufficient numbers of target rodents (but no rapid re-invasion)
- Rodent population size before and after the treatment (two census methods)
  - Census baiting
  - Tracking
  - Electronic census
- Rodent population after the treatment must be  $\leq 10\%$  than before



# Efficacy tests

## 2 Field trial – common, field and water voles

- Comparison of one test and one control plot
  - Duration: maximum 14 days
- Pre- and post-treatment census:
  - counting occupied galleriesor
  - reopened burrows
- Rodent population / activity after the treatment must be  $\leq 10\%$  than before





# Take home messages

- The Working group developed a draft guidance for trap testing:
  - Efficacy
  - Animal welfare impact
- Detailed test methods based on
  - National and international test protocols
  - Practical experience of the experts
- Efficacy testing is comparable to PT 14 (rodenticide approval)
  - Traps can be evaluated as alternatives to rodenticides
  - Traps can be evaluated on their animal welfare impact

# Thank you for your attention!

Anke Geduhn [Anke.Geduhn@uba.de](mailto:Anke.Geduhn@uba.de)



Name	Affiliation	Country
Baker, Sandra	University of Oxford, Department of Zoology	UK
Brigham, Andy	Rentokil Initial plc	UK
Cropper, Ian	Health and Safety Executive	UK
Endepols, Stefan	Bayer CropScience/RRAC	DE
Fischer, Juliane	Federal Environment Agency	DE
Friesen, Anton	Federal Environment Agency	DE
Geduhn, Anke	Federal Environment Agency	DE
Haikonen, Tero	Antitec Oy - PestControl Fin Ltd	FI
Kjellberg, Håkan	Anticimex AB	SE
Klute, Oliver	Futura GmbH	DE
Le Laidier, Gabriel	Swissinno Solutions AG	CH
Lombardi, Luca	Enthomos srl	IT
Martenson, Nils	Swedish Environmental Protection Agency	SE
Nugent, Hannah	Health and Safety Executive	UK
Puschmann, Markus	Puschmann GmbH	DE
Schmolz, Erik	Federal Environment Agency	DE
Schlötterburg, Annika	Federal Environment Agency	DE
Schroeer, Daniel	Futura GmbH	DE
Urzinger, Markus	Swissinno Solutions AG	DE
Warburton, Bruce	Manaaki Whenua - Landcare Research	NZ
Wiesener, Robert	GSG Urban Guard GmbH	DE

# Testing principle

- 1) Technical / mechanical properties
- 2) Welfare impact (lab/semi field test)
- 3) Efficacy (semi field / field test)

