

*Experiences with Tb in possums in New  
Zealand*

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# *Possum Facts*

- *Prevalence of Tb in NZ possums is about 3%  
Can be as high as 60% in 'hot spots'*
- *Over 50 million possums in NZ*
- *Possum control focuses on STCAs*
- *About 1 million ha of forest is subject to AHB-sponsored Tb control operations*
- *Possum control also important because of*
  - *declining kiwi population*
  - *endangered flora*
  - *public nuisance*
  - *being non-native*
- *Role in transmission of Tb*

## *Evidence for a role in Tb transmission*

- *The rate at which new Tb cases appear locally in cattle declines after possum control operations*
- *Main route of transmission is via aerosols and discharging fistulae. Not from urine or faeces*
- *Behavioural interactions between livestock and possums in paddocks*
  - *sniffing, nosing, licking, tossing*
  - *socially dominant stock – more curious – higher prevalence of Tb reactors*

# *Control Methods*

## *Commonly used methods*

- *1080*
- *Brodifacoum*
- *Potassium cyanide*
- *Phosphorus*
- *Cholecalciferol*
- *Timms trap*
- *Leg hold trap + hammer*
- *Shooting*

## *Less common methods*

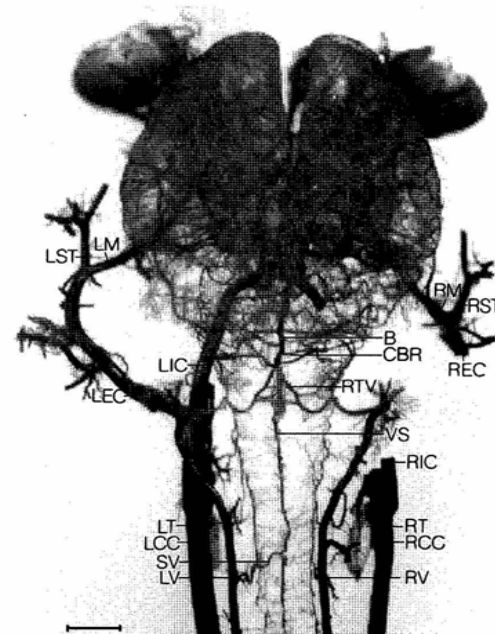
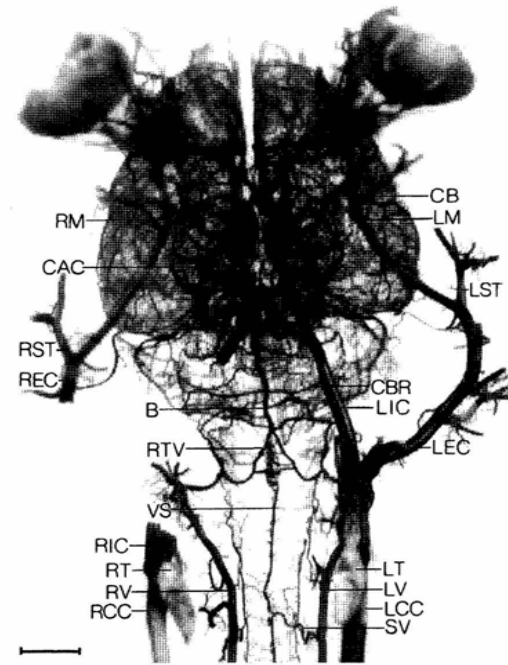
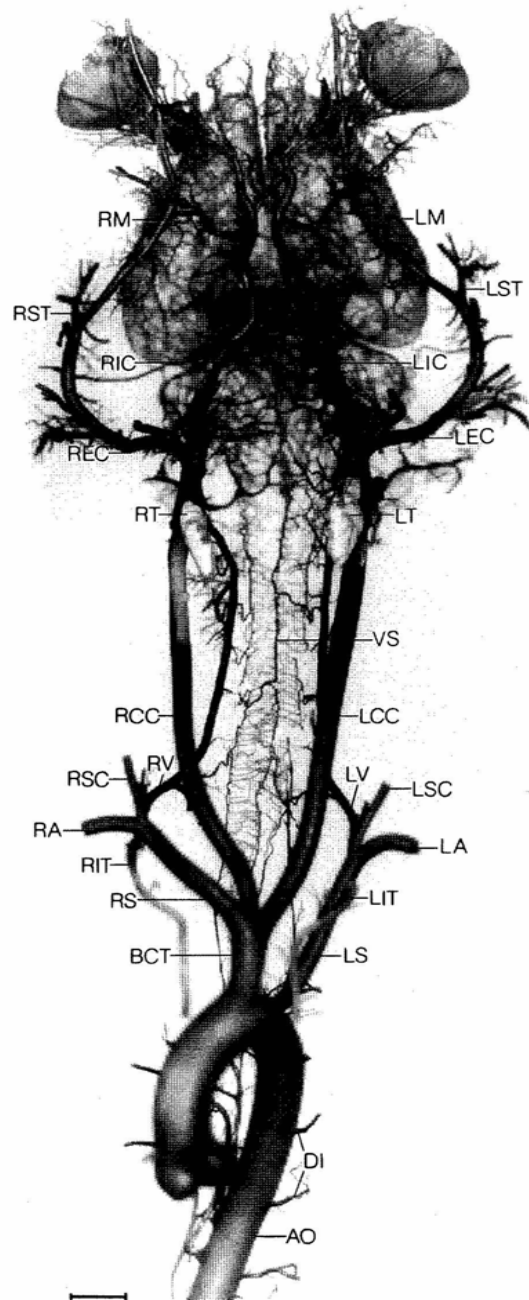
- *Electrocution*
- *Carbamate*
- *Fenamiphos*
- *Cage traps + gun*
- *Box trap + hammer*
- *Conibear trap*
- *BMI trap*
- *Road kill*

THE  
**timms**  
POSSUM  
**KILL TRAP**



## *Points to note*

- *Each method used in different circumstances*
- *Choice of method depends on*
  - *area to be covered*
  - *risk to livestock or wildlife*
  - *risk to people and farm dogs*
  - *recovery of fur*
- *Move towards padded leghold traps*
- *Lanes Ace trap has been banned*
- *Dogging is inappropriate*



## *Effectiveness of different traps*

<i>Trap</i>	<i>Number of possums</i>	<i>Both carotids occluded %</i>
<i>Timms</i>	<b>13</b>	<b>77</b>
<i>LDL</i>	<b>11</b>	<b>45</b>
<i>Conibear</i>	<b>9</b>	<b>22</b>

## *Effects of 3 poisons on possums*

	<i><b>KCN</b></i>	<i><b>1080</b></i>	<i><b>Brodifacoum</b></i>
<i><b>Time to onset of sickness behaviour</b></i>	<b>2 minutes</b>	<b>2 hours</b>	<b>15 days</b>
<i><b>Time to diminished consciousness</b></i>	<b>4<sup>3</sup>/<sub>4</sub> minutes</b>	<b>3<sup>1</sup>/<sub>2</sub> hours</b>	<b>20<sup>3</sup>/<sub>4</sub> days</b>
<i><b>Time to death</b></i>	<b>18 minutes</b>	<b>11<sup>1</sup>/<sub>2</sub> hours</b>	<b>21 days</b>

## *Additional points*

- *New Zealand has limited wildlife compared with UK, and this increases the opportunities for controlling possums*
- *Effect of aerial 1080 drops on other wildlife has been a very controversial topic*
- *Possum (and Tb ?) dispersal occurs during juvenile eviction from the dens*
- *Tb was not endemic in possums in Australia because of the low possum density*

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