

Trapping

A Niche Management Tool for Tasmanian Pademelons (rufous wallaby) and Brushtail Possums



Species

Trapping is only effective for brushtail possums and Tasmanian pademelons (rufous wallaby). It is not an effective tool for Bennett's wallabies which are very trap shy.

When

The effort and cost that goes into setting up and running a trapping program for wallabies and possums can seem high compared to shooting.

It can however be effective in many situations for example:

- where there are high populations of Tasmanian pademelons (rufous wallaby) or brushtail possums that are either difficult to fence out or shoot and are causing unacceptable levels of browsing damage;
- as a complement to shooting in areas where the terrain makes shooting very difficult, such as in marshy areas or near rivers and gullies,
- where land managers do not have the skill, time or equipment to manage an effective shooting program,
- on smaller land holdings, eg. market gardens where it is quick and easy to get around the traps on a regular basis,
- where land managers are simply sick and tired of going out shooting after a long day's work and can't find others who would be willing to shoot for them,
- where land managers have neighbours who do not appreciate shooting at night. Trapping still allows a land manager to capture and remove pest animals, but the control activity can be done in the morning with a quieter, low calibre firearm,
- as a complement to shooting or fencing, e.g. trapping could be used during the summer months when long days and short nights make shooting a less viable option, and then shooting could be done in winter.

Trap Designs

There are currently two approved trap designs available in Tasmania for capturing and destroying wallabies. The Mersey Box Trap and the Stubby Tent Trap, which has evolved from the Edwards Tent Trap. The Mersey Box Trap was designed within the Mersey District of Sustainable Timbers Tasmania and is widely used by Sustainable Timbers Tasmania to control browsing wildlife on coupes as an alternative to 1080 poison. The Edward Tent Trap has been discontinued.

Trapping Effectiveness

The effectiveness of trapping can often be under-estimated.

The **Alternatives to 1080 Program** ran a trial on a small property where, in the previous 12 months, the owner had shot 70 wallabies, but was unable to get the browsing problem under control.

After two weeks of free feeding, 68 wallabies and possums were captured in three days of trapping. Virtually the same number as in a full year's shooting.

An owner on another trapping trial property in the North East noted that after the trapping operation, he was able to "get back on top of the problem by shooting". Partly because trapping had removed the gun-shy / light-shy animals, but also because it had broken the back of the control problem.

Even though it is costly, trapping can be cost-effective, especially in conjunction with other control options such as shooting and fencing, and when combined with other farm activities.



The Mersey Box Trap; Note the modified extra bottom wire which is now a requirement which prevents the animals head protruding from the cage.

The Australian Government funded Alternatives to 1080 Program conducted trials comparing the two different trap designs for capture effectiveness and found high variability in catch-effectiveness for both trap designs at different sites, so it comes down to availability of traps and which trap design suits your needs.

Mersey Box Trap

This is a simple metal trap, based on the design of possum traps but with a closing lid that prevents animals panicking and injuring themselves in the traps. They are very easy to set up, quite durable, though welds and springs will wear out over time and will require fixing or replacing. Anyone with some basic welding equipment can make running repairs to these traps for most problems, though an adult wombat will destroy a trap quite easily trying to dig their way out.

On the downside, when it comes to putting out and collecting these traps, they are quite heavy (10 kgs) and bulky to handle and transport. The traps are 60 cm long, 32 cm wide, and 31 cm high, so even a large dual axle trailer with a cage can only carry up to 125 traps. If putting them out in rough country you can be doing a lot of shuffling back and forth to get them on site.

Operationally, these traps have a very well thought out shooting cage, which makes day to day operation quick and simple, and when you want to leave the traps open without being set, you just need to remove the door, then

place it back when you reset the traps. Cleaning out and replacing spoiled bait is very easy as you can just lift the cage and either move the grain, or just reposition the whole trap.

Catch efficiency can be a problem with these traps when not set up correctly due to animals pushing the door up with their backs when entering the trap, thus releasing the trigger mechanism, with the animals then being able to back out of the cage and escape. Heavy wind can trip the trap. Factor this in by setting traps late in the day, protecting them from wind or don't set at all during periods of prolonged strong wind.

One other small issue is that food (particularly chopped carrots) can be caught under the treadle preventing the trap going off, but like all things, with a bit of training and experience this can be overcome.

These traps have been used for several years now by Sustainable Timbers Tasmania, so are well proven and tested, and there is a commercial provider (Tas Wire Products, Spreyton) who sells these traps.



Bait caught under the treadle plate can prevent effective trap operation.

Stubby Tent Traps

The Stubby tent trap comprises a metal skeletal frame with a 'springshut' mechanism covered by a nylon wool pack. They are open on three sides when set and weigh 2.1 kgs. The trip weight for these traps is adjustable. Animals are trapped when they tread on a trip plate, causing the trap to collapse and contain the animal in the pack.

The Stubby Tent Traps are easier to transport to and from site. The nylon covering only take ten minutes to replace should they become damaged.



Stubby Tent Traps are easily transported and erected.

These traps can be a bit more finicky to set up for the inexperienced user, and new users in particular should be aware of the potential of the traps being set off accidentally. Some other small things to be aware of with these traps include that they can be blown about in strong winds, they can collect water after heavy rain, and because the food is inside the trap, cleaning out and changing feed is slightly more time consuming than the Mersey Trap.

These traps come with a shooting net, which takes a little more getting used to than the Mersey Shooting Cage, but which is very serviceable once you are used to it. It also has the advantage that because the animal is readily confined within the net, it is very easy to shoot.

Animal Feeders

These particular feeders have been designed to look like the traps. They can be filled with approximately eight kilos of grain with the aim of reducing the number of site visits during the pre-feed period.



Animal feeders are used for pre-feeding prior to trapping.

Approaches to Trapping

Like shooting or fencing, trapping can be done in different ways. It can be used as an intensive knock down tool where a large number of traps are used to intensively reduce numbers in a particular area or traps can be used as an ongoing permanent control tool, much like shooting, where traps are left in place, but only set and checked every fortnight, month or whatever is appropriate.

Intensive Trapping

A typical intensive trapping program would involve up to a day's effort to set up. This initial work involves free feeding the animals and putting out the traps. Once in place, trials have shown that it takes one to two weeks for the animals to get used to the different foods, so the traps need to be left open, and the food in the traps needs to be refreshed every 3 or 4 days, until it is obvious that food is being taken from quite a number of the traps.

There is no hard and fast rule about how many traps to use, or how far apart they should be placed. A rule of thumb is every 10-30 metres, but some operators like to place traps on every run or every major run, and sometimes several traps are placed on a single run.

Essentially the cost of additional traps needs to be weighed against the extra time it takes with fewer traps. An Alternatives to 1080 Program Trial was run in the north east of the state to look at the issue of optimal trap density: Mersey Box Traps were used in this trial. This trial indicated that with 120 traps, spaced at 10-15 metre intervals, the trapping success (catch per trap) did appear to drop off compared to another site with just 60 traps, but in absolute terms more animals were caught when more traps were present. On a third site, where only 20 traps were used, virtually every trap was full every night,

mainly with possums, requiring a lot more trapping nights to clear the area.

Some operators recommend free-feeding along the proposed trapping line for a couple of weeks before putting out the traps to 'tune' animals into the feed, thus speeding up the time it takes to get animals used to the traps. This may be particularly appropriate if hiring traps and wanting to minimise these costs, or if moving a smaller number of traps progressively around your property to maximise the efficiency of trapping.

If you have lots of possums in the area, you will tend to catch mainly possums in the first week of trapping, simply because they are a more curious animal, and more likely to go into a trap.

Again, if time is a factor, it may be worth considering shooting along the trap line (particularly effective after two weeks of free feeding before setting out the traps) to try to remove as many possums and the easier to shoot wallabies before setting out the traps.

Trapping in forestry situations is normally done over 2-3 nights, followed by resting the traps for 3-10 days before repeating the trapping effort. However, historical data is showing that the first nights trapping is usually the highest in a 2 to 3 night trapping cycle, and so a single night per week trapping cycle may be more time effective for farming situations.

On the first day, the bait in traps is freshened up or replaced and the traps set. As early as possible the next morning, the trap line is checked for any traps that have been set off. Any captured target species are dispatched using the appropriate shooting cages. Non-target species are released and traps and baits are reset.

Depending on catch success this is repeated for a second or third day, after which the traps can be left open with food in place for 3-10 days and the whole process repeated as many times as required to knock down the local population.

Once this has been done, ongoing sustained control will still be required. This could be achieved through longer term permanent trapping, shooting or fencing. The timing of this needs to reflect your operational and business requirements. As young wallabies and possums disperse



Example of an intensive trapping operation.

throughout summer, this can be a good time to catch new animals moving onto your property. Winter, when females are with pouch young or young at foot, can also be another very effective time for trapping, so long as the young are humanely dispatched.

Permanent Trapping

This can be used as a follow up to an intensive trapping program, or as a substitute or complement to a shooting or fencing program.

Much the same approach is used as in an intensive trapping program, except traps, generally fewer than in an intensive trapping program, are left in key places around a property. These might be where there are high numbers of target animals, or spots which are particularly sensitive to losses. To minimise the time taken to travel to the traps and maintain them, traps may be sited in places that are frequently visited during routine farm operations.

The advantage of this approach, is that once set out, traps can be locked open, and then it can be quite a simple job to free feed them on a regular basis (in conjunction with other routine jobs) and carry out periodic trapping operations. But remember set traps must be checked and cleared each morning.

Record Keeping

The purpose of keeping a trapping log is to have information that can be used for evaluation purposes. The amount of information recorded is really up to the individual. For example, just keeping a record of effort and the number of animals caught may be sufficient for one individual, whereas another may prefer to also record sex and pouch young. This additional information may be used to monitor breeding cycles or the increased efficiency gained by trapping prior to young dispersal.

Labelling traps and monitoring individual trap performance is another option so that trap performance based on location is optimised.



Mersey Box Traps ready for distribution.

What Feed Should I Use?

There has been no obvious difference in a particular bait's ability to attract wallabies or possums into a trap. Based on this, the recommendation is that you use whichever bait is most accessible and affordable to you, and if you've got a secret recipe, all the best with it.

Two caveats on this are that

- (1) some feed, for example, the Wallaby and Kangaroo Feed you can buy at rural suppliers, becomes a gummy mess when wet, so it is best to choose more rain resilient feed such as chopped carrots, maize or barley,
- (2) different baits may be better at different times of the year; for example moist carrots may be more attractive during drier times of the year.

Essentially it will be a trade off between what is available, its longevity, and cost. Maize, barley or feeds like horse mix which have a mix of foods are very easy to use as they require no preparation (eg. chopping of carrots) and have quite a long life.



A variety of baits from top to bottom include: carrots, barley, maize and horse mix.



A set Mersey Box Trap using two parts horse mix and one part barley.

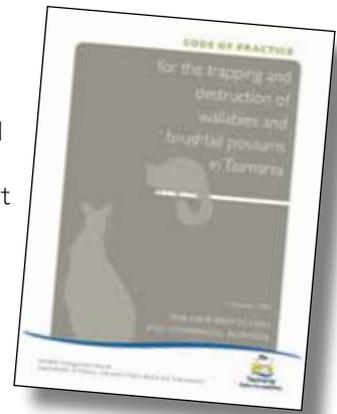
What About The Costs?

The Mersey Box Trap costs around \$175 per trap to purchase. The Stubby Tent Traps costs around \$85 to purchase or \$3 per week to hire from December 2010. Replacement nylon packs are \$25.

Holding devices to shoot the animals once caught are an additional cost. The shooting cages used for the Mersey Box Traps are \$220. A shooting net for the Stubby Tent Trap are \$95. Additionally, you may need a trailer to move the trapping equipment on site, plus the costs of free feeding, ammunition and of course the time it takes to trap. Keeping a trapping log will enable the trapping program, including costs to be evaluated.

Legal Requirements

Crop Protection Permits are required when trapping brushtail possums and pademelons. Permits and advice can be sought from the Wildlife Management Branch, (DPIPWE) by phoning reception 03 6233 6556 or emailing wildlife.reception@dPIPWE.tas.gov.au.



There is a *Code of Practice for the trapping and destruction*

of wallabies and brushtail possums in Tasmania which is available from the Wildlife Management Branch.

Anyone trapping and shooting must comply with all sections of the *Firearms Act 1996*, including section 113 that requires the consent of the occupier of the dwelling house if shooting within 250 metres of a dwelling house.

Trap Manufacturers

Mersey Box Trap

Tas Wire Products
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Stubby Tent Trap

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