

Anson Bay Community Rat Baiting

Program



Throughout 2023, the Norfolk Island Regional Council has been facilitating a community-based rat baiting program in the Anson Bay area. Initially started by WildMob in 2014, NIRC was able to pick up where they left off following the reception of some grant funding from the Invasive Species Council, through the Lord Mayors Charitable Foundation. After engaging with and involving over 80% of the community, we've seen some great results!



3 Rounds of baiting

1st Round: January 2023 using Surefire Couma (coumatetralyl)

2nd Round: May 2023 using Surefire Difenate (difenacoum)

3rd Round: September 2023 using Rampage (cholecalciferol)

Chew-card monitoring indicates that rat density is down to as low as 6%!

A 78% reduction from pre-baiting numbers!



Why Anson Bay?



Anson Bay is well situated on the Northern tip of the island. It is completely bordered by National Park except for a thin stretch of area that is Selwyn Reserve. The National Park already has a thorough baiting regime in place and with the combined efforts of the park and the Anson Bay residents, we are seeing some huge reductions in rat numbers, alongside a decrease in crop losses, and an increase in bird sightings!

It is also a great place to trial the effectiveness of a community-based program like this and to determine how scalable it might be for the rest of Norfolk, if the broader community wanted to get on board.

What does baiting look like?

When rodents are baited constantly and with the same bait and active ingredients, they can begin to develop a resistance, as well as learn to steer clear of the bait. By withholding bait for a while, it allows the rats to go about their normal behaviour, consuming a normal diet. After a holding period, exposing the rats to an environment saturated with delicious deadly bait increases uptake and efficacy. This is the concept that we've based our baiting model off.

Every 3 months, the entire community baits for 4-5 consecutive weeks, after which time all uneaten bait is then collected. We also change the bait type for each new round of baiting to avoid the rodents developing a resistance to any one particular bait.

This method, combined with careful planning around seasons (e.g., porpieh fruiting, kentia seed, breeding birds), and the constant rotation of bait types, gives us the best results with the least amount of effort.





Bait types



We're using a combination of 3 different active ingredients in our program. By rotating the use of these baits, we hope to avoid the development of any resistance or 'bait shyness'.

Surefire Difenate (active ingr. difenacoum)

The most lethal of our 3 baits, difenacoum works by interrupting the Vit K processes in the body. Vit K is needed by the body to clot, so when the stores are depleted, excessive internal bleeding occurs (or external bleeding from an injury). This is a fast acting, single feed anticoagulant. However, prolonged use can result in toxin tolerance. Increased risk of secondary poisoning due to the long half-life.

Surefire Couma (active ingr. coumatetralyl)

Coumatetralyl works in the same way as difenacoum, interrupting the Vit K processes in the body and resulting in internal bleeding. It is however a slower acting bait that requires multiple feeds. It is more suitable for longer term use however should be incorporated in an alternating use program. Lower risk of secondary poisoning.

Rampage: (active ingr. cholecalciferol)

Cholecalciferol, or commonly known as Vitamin D3, is an effective non-anticoagulant rodenticide. After ingestion, the cholecalciferol accumulates in the liver and will cause the blood calcium levels to rise. This causes kidney failure, internal bleeding and heart problems resulting in death within a few days. A highly effective single feed bait, particularly effective for rats that have developed a resistance to traditional anticoagulants. Very low risk of secondary poisoning.

We're also excited to soon be incorporating some Good Nature traps into our rodent control programs. Initially we'll roll them out in the reserves and hope to conduct some trials on their effectiveness in different environments, including private property.