

Public concern over wildlife deaths in the Hauraki Gulf

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You may be concerned about recent media reports of dog, fish and other marine wildlife deaths in the Hauraki Gulf. DOC is also concerned about this issue and has been working as part of an inter-agency group lead by the Auckland Regional Council to investigate the causes of the deaths.

Summary of the investigation results

Dogs

- Tests done by the Cawthron Institute have identified the toxin found in the vomit of a dog that died after visiting Narrow Neck Beach as tetrodotoxin.
- Tetrodotoxin (TTX) is a naturally occurring substance, found in tropical puffer fish, and has also been found in sea slugs taken from the beach. Its presence in sea slugs found at Narrow Neck and Cheltenham beaches where the dog deaths occurred is unusual and has not been previously described.
- Independent toxicology tests that DOC commissioned on vomit from one of the dogs that died at Narrow Neck beach were negative for brodifacoum.

Dolphins

- Necropsy tests on the dead dolphins to date revealed that the deaths were not related to the rat poison, brodifacoum, used by DOC in its recent restoration programme on Rangitoto and Motutapu islands.
- DOC is concerned about recent dolphin deaths in the Hauraki Gulf, and has commissioned toxicology tests to try to determine how they died.

Penguins

- Penguin mortalities have been reported in the Far North, Rodney, Auckland, Coromandel and Bay of Plenty regions. Penguin mortalities in winter, particularly following winter storms, are not uncommon.
- The New Zealand Centre for Conservation Medicine (NZCCM) carried out post-mortems on six penguins. They found that the birds were in poor body condition and that starvation was the likely cause of death. Histology on two birds has shown no evidence of acute poisoning.
- John Potter, who carried out the post-mortem on the penguins sent to the NZCCM, says none of the birds showed “any sign of a haemorrhagic effusion consistent with rodenticide poisoning. Each of the birds was very thin and their stomachs were empty, consistent with starvation being the cause of death.”



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Despite the results of investigations being widely publicised, a number of reports in the media have attempted to link the deaths with the aerial application of rodent bait on Rangitoto and Motutapu.

- This has included inaccurate reporting in some media that 1080 was used in the recent operation. The pest control agent being used in the Rangitoto/Motutapu restoration project is brodifacoum in cereal baits, not 1080 (sodium monofluoroacetate). Brodifacoum and 1080 are entirely different chemicals. Brodifacoum is a commonly used rat poison and is easily available at the local supermarket.
- Testing carried out by scientists, veterinary surgeons and veterinary pathologists ruled out brodifacoum poisoning from the very beginning of the investigations. Brodifacoum is an anticoagulant - signs that could indicate brodifacoum poisoning are bruising, internal bleeding and haemorrhaging. None of these signs were found in the dolphins, penguins and dogs.
- The agencies involved are confident that the dog and marine deaths and the aerial use of brodifacoum are not related. Those agencies were the Auckland Regional Public Health Service, MAF Biosecurity NZ, Auckland Regional Council, North Shore City Council and Auckland City Council.
- It was expected that a small amount of bait would enter the marine environment. This was necessary to ensure complete coverage of the coastal area critical to the success of the operation. Approval for this was granted as part of the Resource Consent.
- DOC went to considerable effort, using aerial GPS technology, to ensure the bait containing brodifacoum was accurately targeted.
- In total, DOC dropped 147 tonnes of cereal-based bait over Rangitoto and Motutapu. The toxin content of that 147 tonnes was only 2.7kg.
- The amount of toxin assimilated into the marine environment is many orders of magnitude lower than the lethal limits known to be toxic to fish.
- No traces of brodifacoum have ever been detected in shellfish or fish species following aerial application of baits for rodent control on other offshore islands.
- While brodifacoum has been ruled out as a cause of death by the investigating agencies, because of the ongoing level of public concern DOC has commissioned further tests on the dolphin, penguin and pilchard samples that will specifically look for brodifacoum poisoning. Results are expected by the end of next week.

If you have any further questions or concerns please don't hesitate to contact Sandra Jack, Community Relations Ranger - email sjack@doc.govt.nz or phone 445 9751, or Brett Butland, Auckland Area Manager - email bbutland@doc.govt.nz or phone 445 9314.