

# KAIMANAWA DEER TB SURVEY

AUGUST 2017

**Kaimanawa's deer herds are informing the TB eradication programme about the spread of disease among wildlife.**

The first in a series of deer surveys in the Kaimanawa Range has been completed to assess the disease status of deer and wildlife to build a picture of bovine tuberculosis (TB) infection in the area. The sika deer population in this area is highly valued by recreational and commercial hunters. This factsheet explains why the deer survey is needed and the effect on deer populations.



*Sika deer in the Kaimanawa Range are surveyed for symptoms of TB infection.*

## OSPRI'S GOALS TO ERADICATE TB

Under the National Pest Management Plan for TB, OSPRI aims to eradicate TB from New Zealand by 2055. As a stepping stone towards that, OSPRI aims to declare all areas currently known or Suspected to contain TB-infected wildlife statistically free of TB by 2040. Under previous plans, TB infected wildlife in areas well away from farmed areas were often left unmanaged, something that OSPRI can no longer do under the new plan.

The Kaimanawa Range is one such area. TB infection has been found in livestock and wildlife on the fringes of the forest. OSPRI must consider that TB is present in wildlife until statistically proven otherwise.

There are two ways of ensuring an area is free of TB in wildlife – either the key maintenance host (possums) is subject to intensive control over a long period to break the TB cycle, and/or the wildlife populations are surveyed intensively to obtain high confidence that they are free of the disease.

OSPRI has therefore undertaken an initial low-intensity survey of the deer population to inform that decision.

## TB IN POSSUMS AND DEER

Bovine TB can cycle indefinitely in uncontrolled possum populations. Wild deer (and pigs) can also become infected from possums, but their densities are usually too low for the disease to persist within the deer population unless there is continued re-infection from possums. If TB is found in deer, it almost always means it came from an infected possum within their home range.

## MANAGING TB RISK IN THE KAIMANAWAS

To be sure that TB is not cycling or able to cycle in possums in the Kaimanawa Range, OSPRI could simply reduce possum numbers

to very low levels for 10–15 years with regular aerial 1080 operations.

Alternatively, the possum population could be surveyed directly to check whether any animals are infected. That option requires ground-based field surveys of well over half the possum population, which would be prohibitively expensive and difficult to carry out.

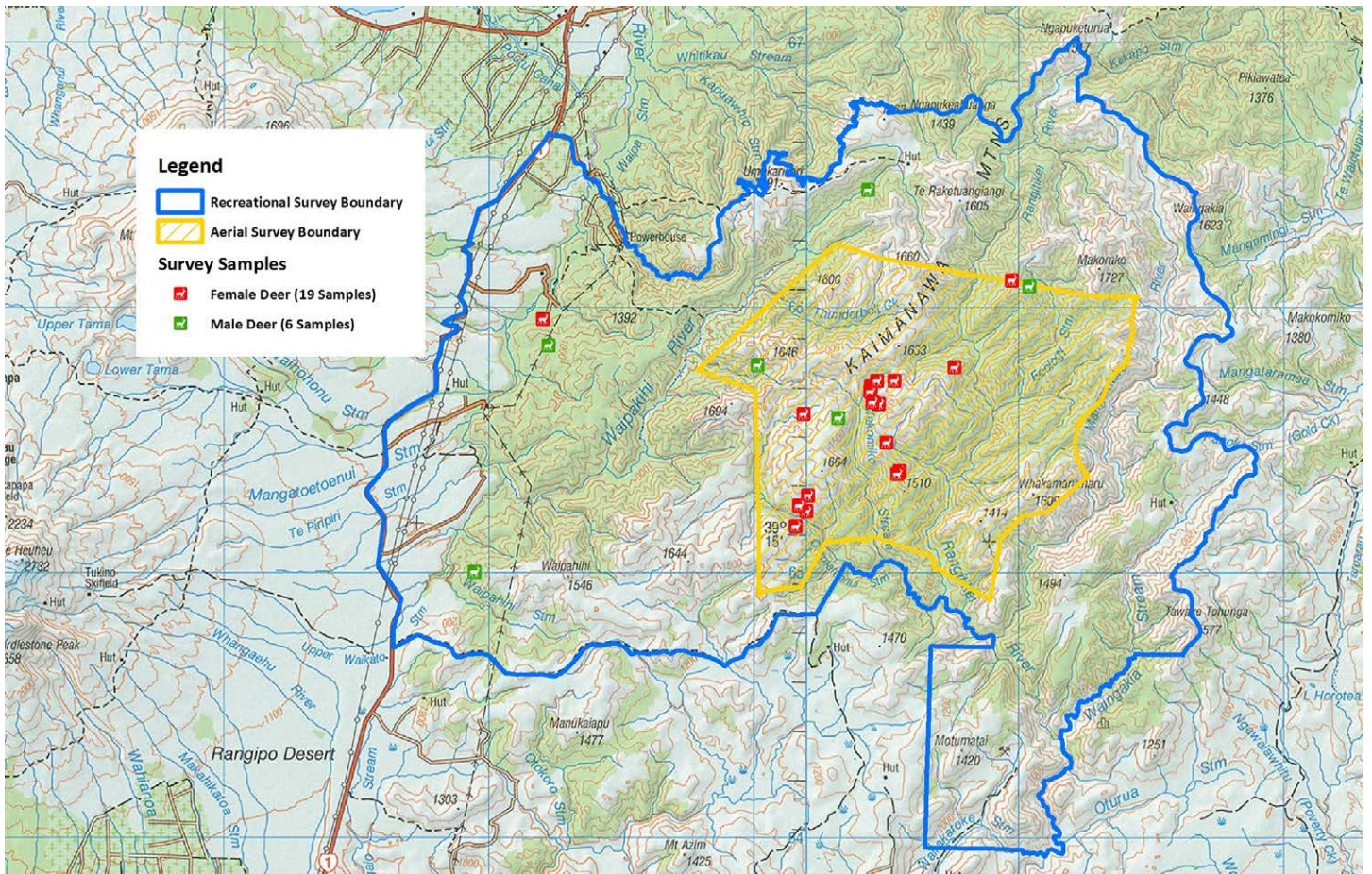
A third option is to survey the deer population for TB but because deer are poor sentinels, this would require surveying a very large number of animals.

Selecting the most appropriate method to achieve TB freedom in the Kaimanawa Range requires careful consideration of all the options and impacts.

## HOW THE SURVEYS WORK

Procurement of deer samples from recreational hunters is ongoing, with samples currently being accepted





from the area identified by the blue line on the map. During early winter 2017, targeted deer surveillance was undertaken in the yellow area on the map. The survey involved shooting deer from a helicopter by specialist contractors with the carcasses recovered for necropsy. The survey took place in June, after the roar, to minimise overlap with recreational hunters. This survey did not target trophy-quality animals.

## IMPACT ON DEER POPULATION

The impact of the survey on the deer population was low given that hunting sources suggest that deer densities are far higher than one per sq km. The target for 2017 was approximately 40 animals, either sika or red deer, with a bias toward hinds (approx 30) and fewer (approx 10) cull stags. All animals were photographed.

## UNDERSTANDING SURVEY RESULTS

The surveys alone will not definitively prove the area is free of wildlife TB. If more than a few percent of the deer are infected, the surveys will indicate that TB is well-established

and widespread throughout much of the area. This is unlikely but possible. If so, a long-term programme of intensive possum control will be required to break the TB cycle. If TB is found in only one or two deer, it will indicate TB is present at low levels in just a few places.

If so, a shorter programme of possum control combined with TB surveys of possum or deer might be enough to confidently eradicate TB. If no TB is found in the initial deer surveys, it will indicate that TB is possibly absent. However there would not be enough information to be confident that this is the case. More surveys will be required before an appropriate response is developed, and the results will be shared once the surveys are complete.

## SHARING DATA AND CONSULTATION

OSPRI consulted with the Sika Foundation and the Kaimanawa Hunter Liaison Group (KHLG) and accepted the advice around timing, sample sizes and other information for this survey. OSPRI has committed to supply, for the Sika Foundation's use, data on female reproductive status and jaws for aging. Further coordination is

planned between OSPRI and the two groups regarding future survey and control in this area.

Key facts about the 2017 survey:

- Approx. 40 animals, red or sika, mostly hinds with some cull stags
- Completed in June 2017
- All animals photographed
- Data to be supplied to the Sika Foundation



## FURTHER INFORMATION

Please visit [ospri.co.nz](http://ospri.co.nz) for factsheets on [TB information for hunters](#) and notices of upcoming operations.

For people interested in the supply of deer for survey they can contact the contractor for more information at:

[Yockneyl@landcareresearch.co.nz](mailto:Yockneyl@landcareresearch.co.nz)