

How to Weigh and Measure NZ Lizards

This document has been created to help captive holders of native lizards in New Zealand collect morphometric data from the animals that they keep. It is against the law to handle any wild lizard in NZ without a dedicated Wildlife Act authority allowing you to do so.

Taking morphometric data can be a difficult process for inexperienced reptile handlers, but can be improved with patience and practice. If possible, consult someone who is experienced at collecting such data to demonstrate the appropriate techniques.

The more efficient you become at weighing and measuring the animals that you keep, the less stressful the experience will be for the lizards (and handler).

If possible, it is recommended to have a second person with you to help / assist. This will minimise the risk of animals escaping while they are being handled.

The collection of such information is usually only a requirement for the rarer species that are kept in captivity, not those on lower levels such as the General Authorisation. However, it is a useful habit to get into if you intend to eventually keep these rarer species, and is an effective way to keep track of your animals to check on their growth and condition annually.

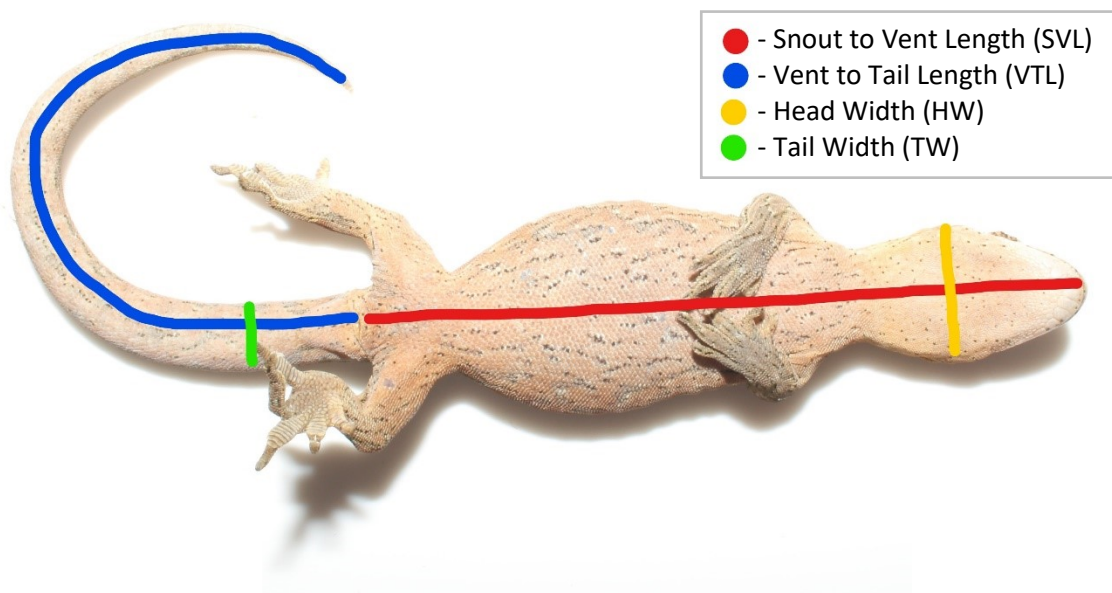
Avoiding stress to animals when processing

If an animal shows signs of excessive stress while handling, processing should be discontinued and not attempted again until the animal has recovered which may be several days later.

Signs of stress include: Heavy breathing, Sunken eyes, Eyes closed (skinks), Lethargy or Limpness.

If your animal is showing these signs, it is important to not extend the process which may risk permanent harm to the animal.

The diagram below illustrates the various measurements that are mentioned in the following pages:



Snout to Vent Length (SVL)

To measure the SVL of a New Zealand Gecko or Skink, there are a couple of methods which can be used.

Method 1:

This method is recommended for those less experienced with collecting measurements from native lizards, or when the lizard involved is a particularly fast species (i.e. most skink species)

Once you have caught the animal, place it into a snap-lock bag and seal the top.

Once the lizard has settled, press the animal against one edge of the bag (either the side or the bottom) until the animal is fully stretched out.

You can then use a ruler to measure the SVL as shown in figure 1.



Figure 1

Method 2:

This method is a faster and more efficient way to measure native lizards, but is only recommended for experienced handlers as it is a more difficult technique to master.

Once you have caught the lizard, place the animal's head between your index and middle finger, so that the animal's dorsum (back) is against the palm of your hands.

Next place your thumb and little finger either side of the lizard's body, just in front of the back legs.

Applying light pressure stretch the animal until it is straight, then using your other hand measure the SVL as shown in figure 2.



Figure 2

Vent to Tail Length (VTL)

Make sure to measure any tail regeneration (regen), regenerated tails are often a different colour/pattern, the red arrows in figure 3 indicate the point at which the tail has been autotomised (dropped) and regenerated.



Figure 3

Method 1:

As above but measure the VTL as shown in figure 4.



Figure 4

Method 2:

Holding the animal firmly in one hand with the back half and tail hanging below your palm, lightly use your finger to straighten the animal's tail along the length of a ruler to measure the VTL, as shown in figure 5. Be gentle and do not 'pull' the lizard's tail, as it may autotomise (drop the tail) if roughly handled or overly stressed.



Figure 5

Head Width

Head width relative to body size may help inform keepers about the sex or age of their animals, and possibly about dominance and social structure within groups of lizards. It is an easy measurement to take which involves holding the animal in the hand you're most comfortable then measuring the maximum width of the head behind the eyes, this can be done either from the top (dorsal) or from underneath (ventral) both methods should yield the same measurement, though one may be easier than the other depending on the species involved. Figure 6 shows how to take this measurement.

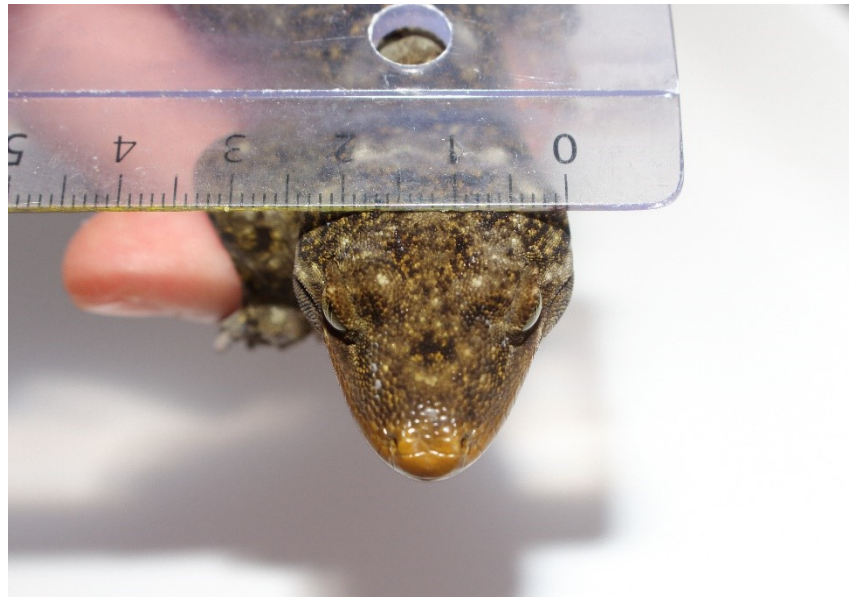


Figure 6

Tail Width

Tail width (in particular, relative to body size) is a useful measurement that can help inform keepers about the condition of their animals. Once a lizard is a full-grown adult the tail should not 'bulge' out too much beyond the vent. Lizards often use their tails for fat storage, so a grossly distended tail would indicate the animal is overweight. Keeping track of this measurement can help inform keepers about whether their animals are gaining or losing too much condition. To measure Tail Width, hold the animal with the back legs and tail exposed then across the dorsal surface of the tail measure the width of the tail at its widest point (this should be close to the base of the tail), as shown in figure 7.

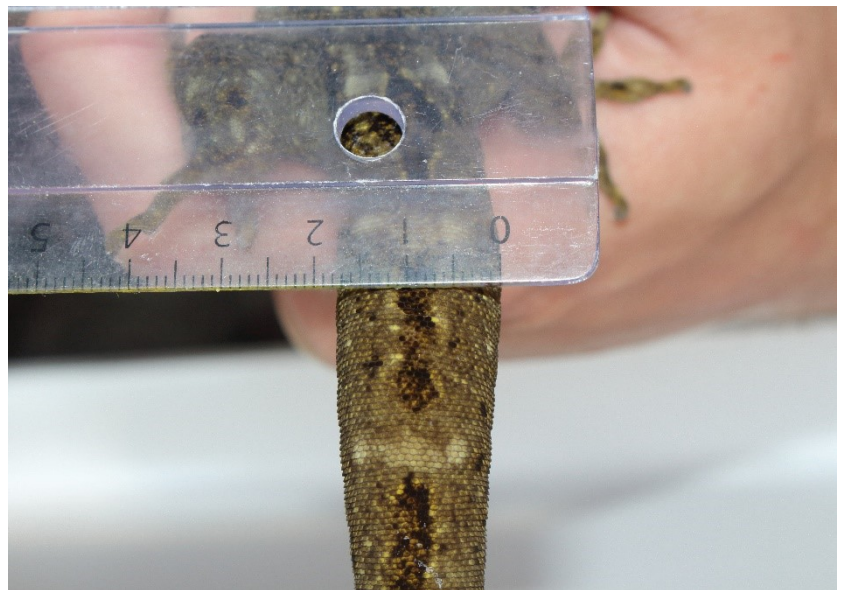


Figure 7

Weight

Method 1:

Place a container onto some electronic scales, place a snaplock bag or cloth bag (which will be used to contain the animal) into the container and tare / set the scales to zero. Remove the bag, place the animal inside, seal / close the bag, then place the bag with the lizard inside, into the container to weigh the animal. Figures 8 and 9 show this method being used both with and without a bag respectively.



Figure 8



Figure 9

Method 2:

Using some Pesola hanging scales clip a snaplock bag onto the scales and zero the bag. Place the lizard into the bag and holding the scales by the hook read the weight once the meter has stabilised. If choosing this method make sure that you are sheltered from the wind, which can make using the scales difficult.



Figure 10