A short guide for identifying footprints on tracking tunnel papers.
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We have put together this short guide to assist you identify prints found on tracking tunnel papers until you are familiar enough with the various prints you will encounter. In many cases the prints are not as clear as the examples we have shown here and only practice will enable you to recognize prints that are faint, smudged or only partially visible. The pictures we have used for this guide are scans selected from papers found in various surveys carried out around the country and from research programs where marked animals were allowed to run through tunnels. If you print out this document on A4 paper the scans should be reproduced at actual size. The print quality isn't the best but if we made the resolution any greater the file size would become too unwieldy for the DOC computer network.

Rats. (Figs 1a – 1d)

The layout of rat tracks are fairly circular in shape, and if a line is drawn between the toes 1 and 4 on the fore foot (Fig 1a Line A-B) or between toes 1 and 5 on the hind foot (Fig 1b Line C-D) the line will bisect or lie behind of the central foot pad.

Mice. (Figs 2a – 2b).

Mouse tracks are similar in layout to rat tracks but are much smaller. Even the footprints of a juvenile rat would be about twice the size of the tracks from a mature mouse. Sometimes mice only leave sets of three toe prints. These may difficult to spot particularly if they are mixed in with many rat tracks (Figs 1a & 1b). Look for patterns that repeat themselves at regular intervals.

Mustelids (Figs 3a – 3h).

Mustelid tracks differ from rat tracks in a number of details; mustelid tracks are more oblong than rat tracks, they are often furry (small hair marks may be visible between the toe pads) and toes 2 and 3 on the fore foot are often close together. Using the same protocol as for the rat prints i.e. drawing a line between toes 1 and 4 the line will generally run in front of the central foot pad (Fig 3a Line A–B). There is a certain degree of overlap in mustelid footprint size but you can be reasonably confident that the really large prints are ferrets (Fig 3d & f).

Hedgehogs (Figs 4a – 4d).

Like rat prints, hedgehog prints are reasonably circular in layout, and the central foot pad is bisected by a line drawn between toes 1 and 4 (Fig 4a Line A-B). Adult hedgehog prints are often confused with those of a ferret, this confusion can easily be eliminated by drawing a line between the toes. Prints from juvenile hedgehogs (Fig 4c & d) are often confused with those of rats. The hedgehog footprint layout is similar to that of a rat but is generally larger and the toe pad prints are generally closer to the central foot pad print than in rats. Large hedgehogs can only just fit through the tunnels, so their tracks are often messy, their belly fur often marks the tracking paper, and they frequently drag the sponge and paper out of the tunnel as they pass through. The toe prints of hedgehogs appear fairly long, their claws are sometimes visible but they don't have hair between their toe pads like a mustelid. If a rat walks backwards out of a tunnel after stepping on the sponge it will usually leave long toe prints but they will still be more clearly defined and smaller than hedgehog tracks.

Possums Fig 5a – 5d).

We have included a few typical examples of papers that have been removed from tunnels by possums and have some identifiable prints. Generally possums simply pull the papers out from the tunnel and don't leave much in the way of prints that can be easily identified. It is difficult to confuse possum prints with anything else as they are usually much larger than those of other species, the toe pad marks are quite small relative to the centre pad marks and spaced further than those of other species.

Cats (Fig 6a – 6b).

It is extremely rare to find cat paw prints in tracking tunnels. However, when the tracking tunnels are baited with meat occasionally cats will reach in and attempt to remove the bait. It can be very difficult to distinguish cat prints from those of ferrets. The easiest way we've found to distinguish cat prints from ferrets is to look at the centre pad. The centre pad prints from a cat are generally larger relative to the whole print than that from a ferret. The three lobes of the centre pad on the cat print are connected and this almost always shows up on the print, whereas on a ferret print the lobes often appear separated. The toe pad prints of cats are also more oblong, slightly bulkier and much closer to the centre pad than those of ferrets, cat prints are also more rounded than those of ferrets.

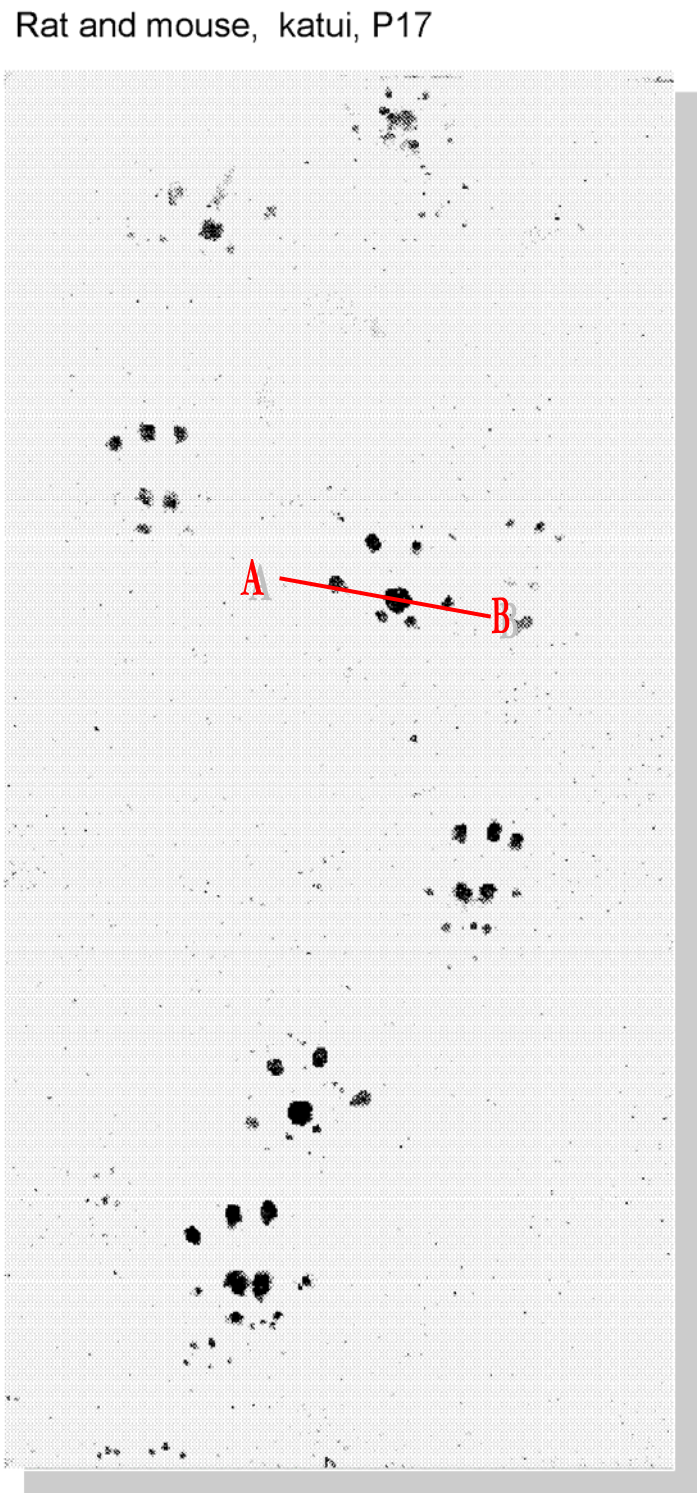

Fig 1a. Rat and mouse prints.

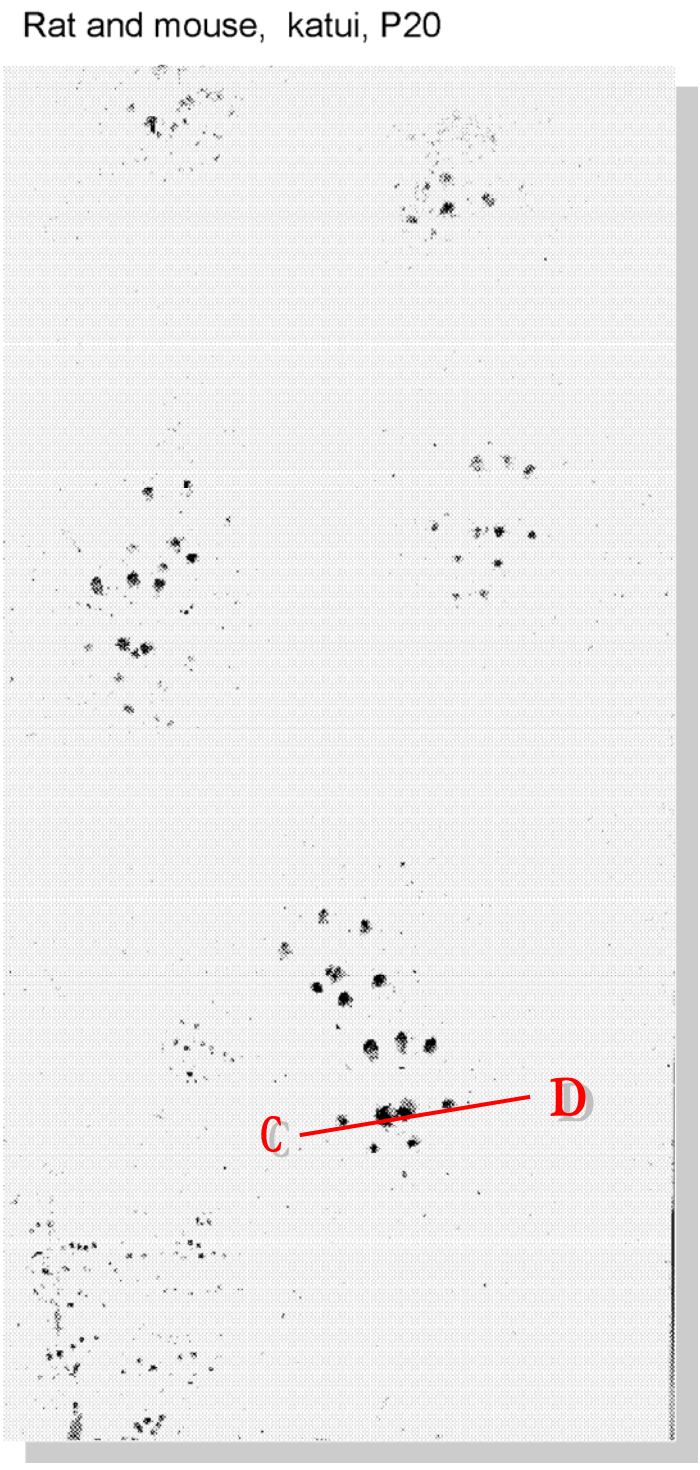

Fig 1b. Rat and mouse prints.

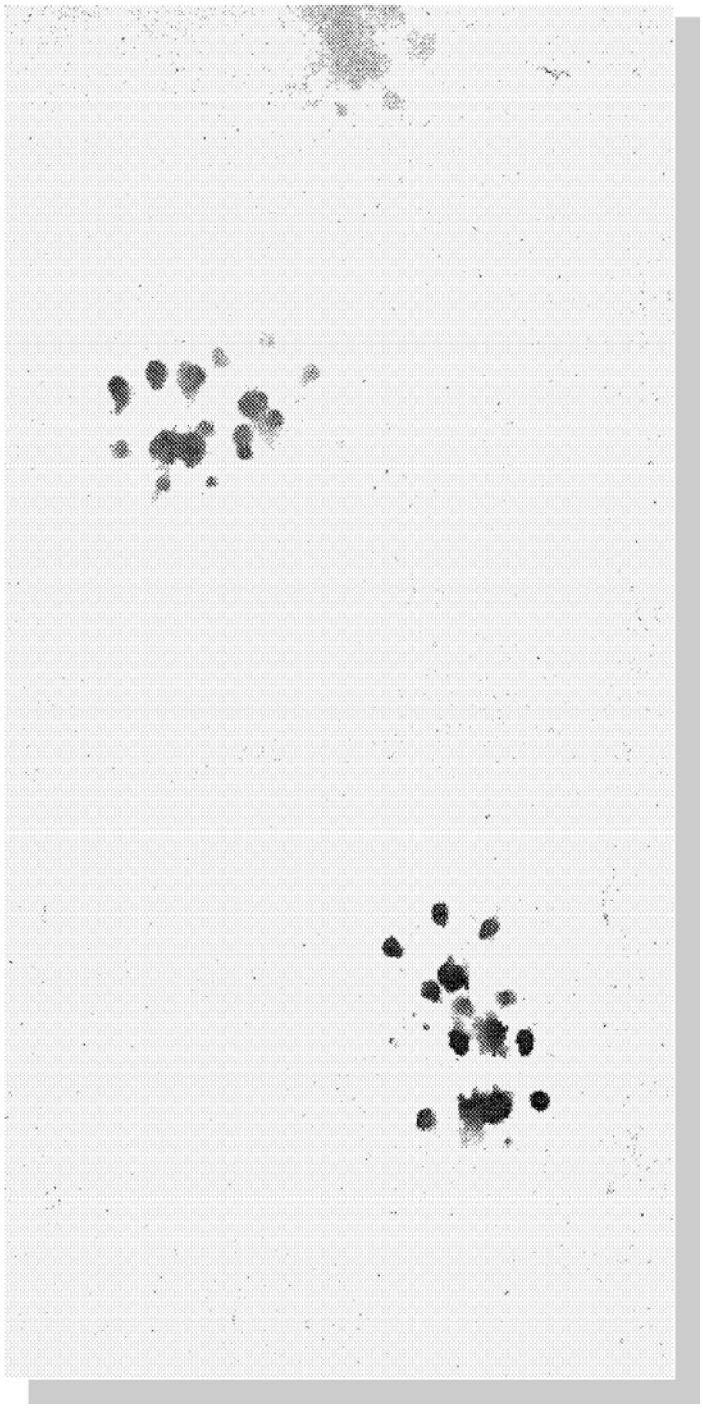

Fig 1c. Rat prints.

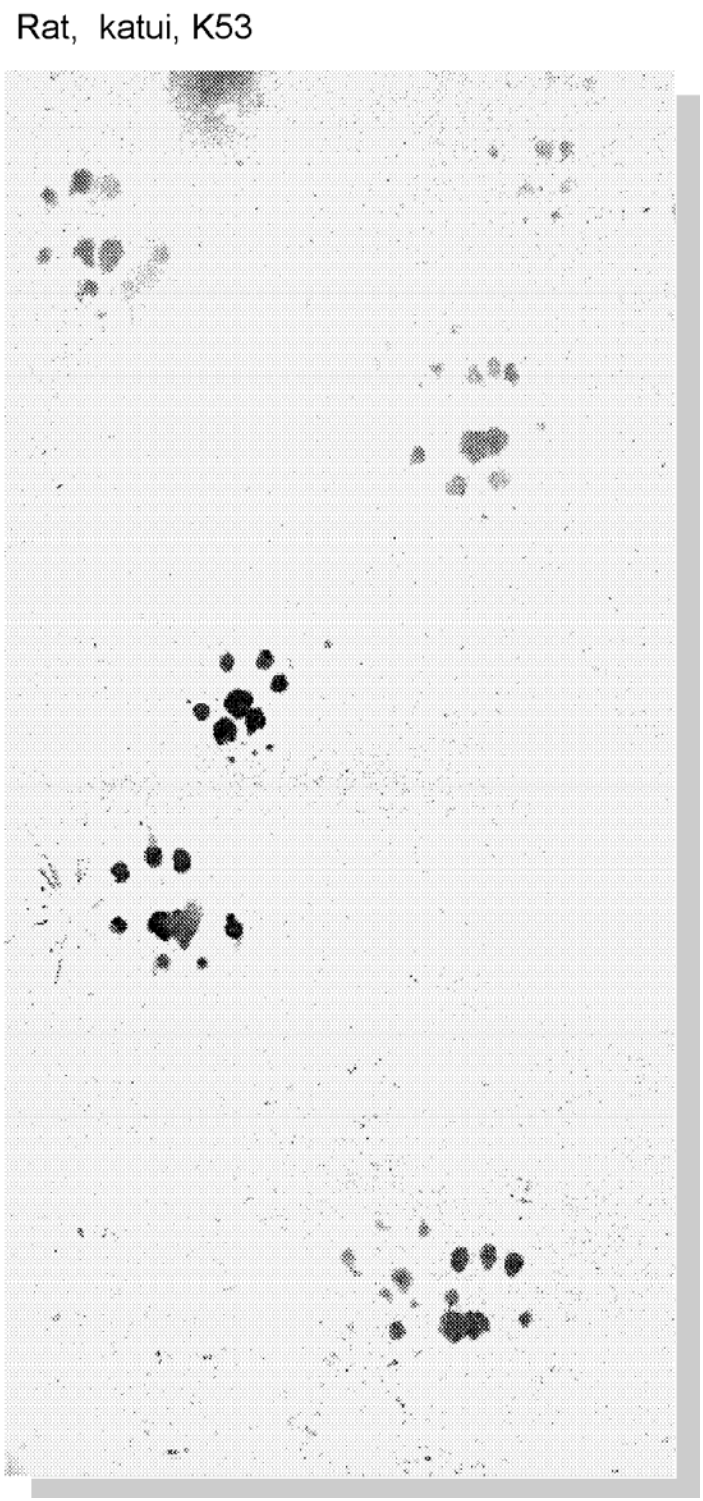

Fig 1d. Rat prints.

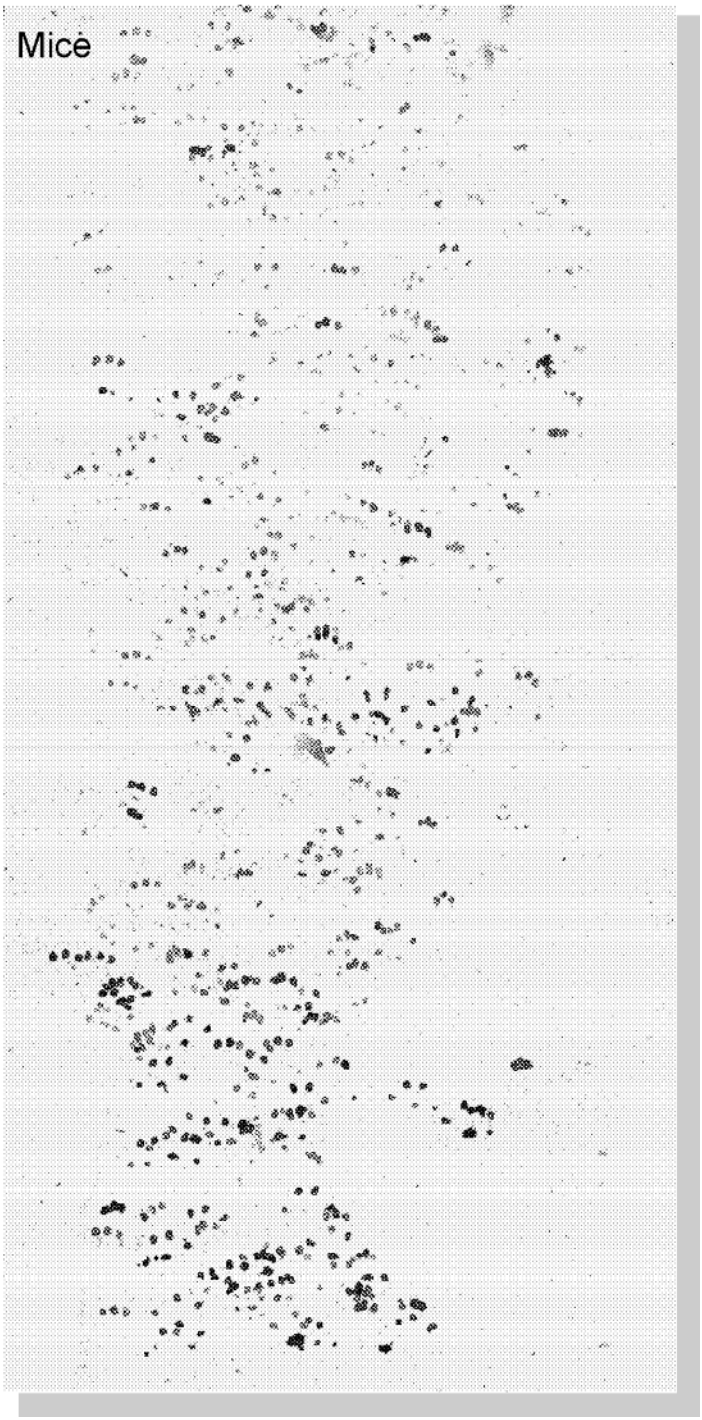

Fig 2a Mouse prints.

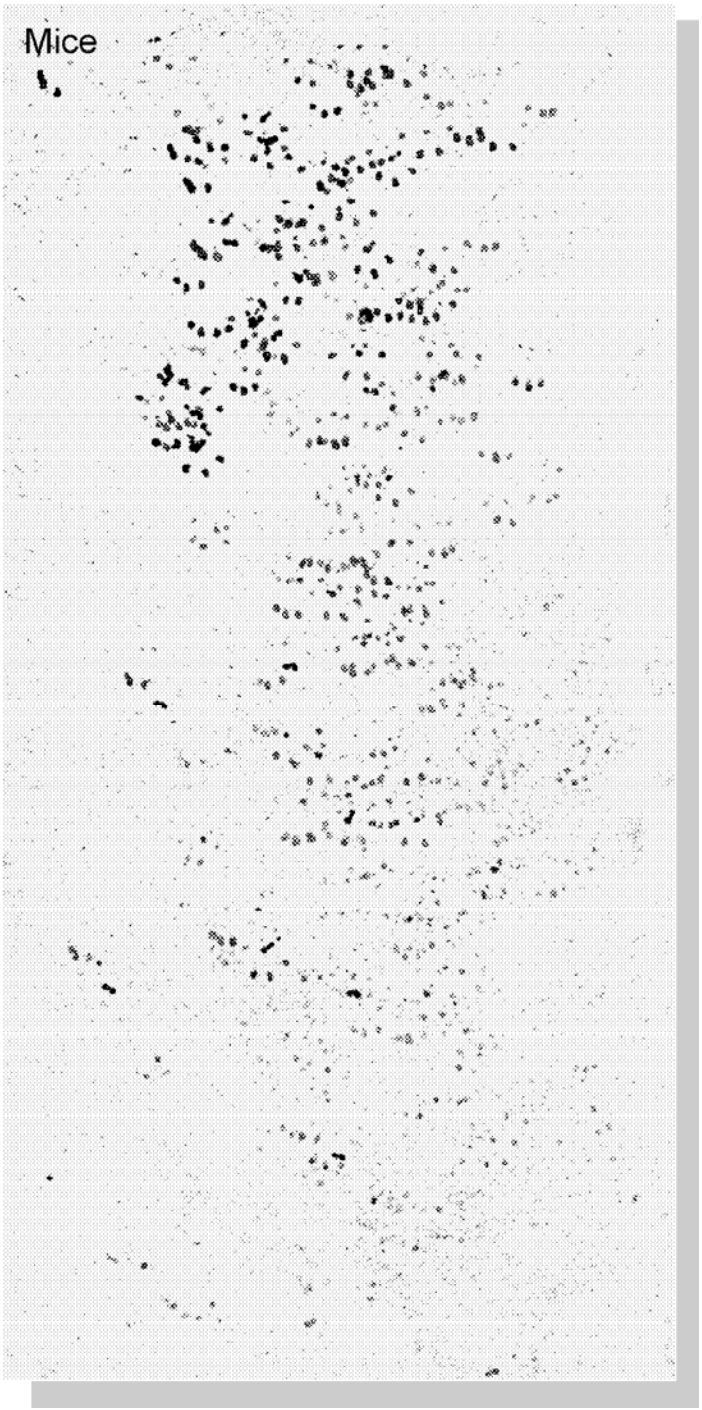

Fig 2b Mouse prints.

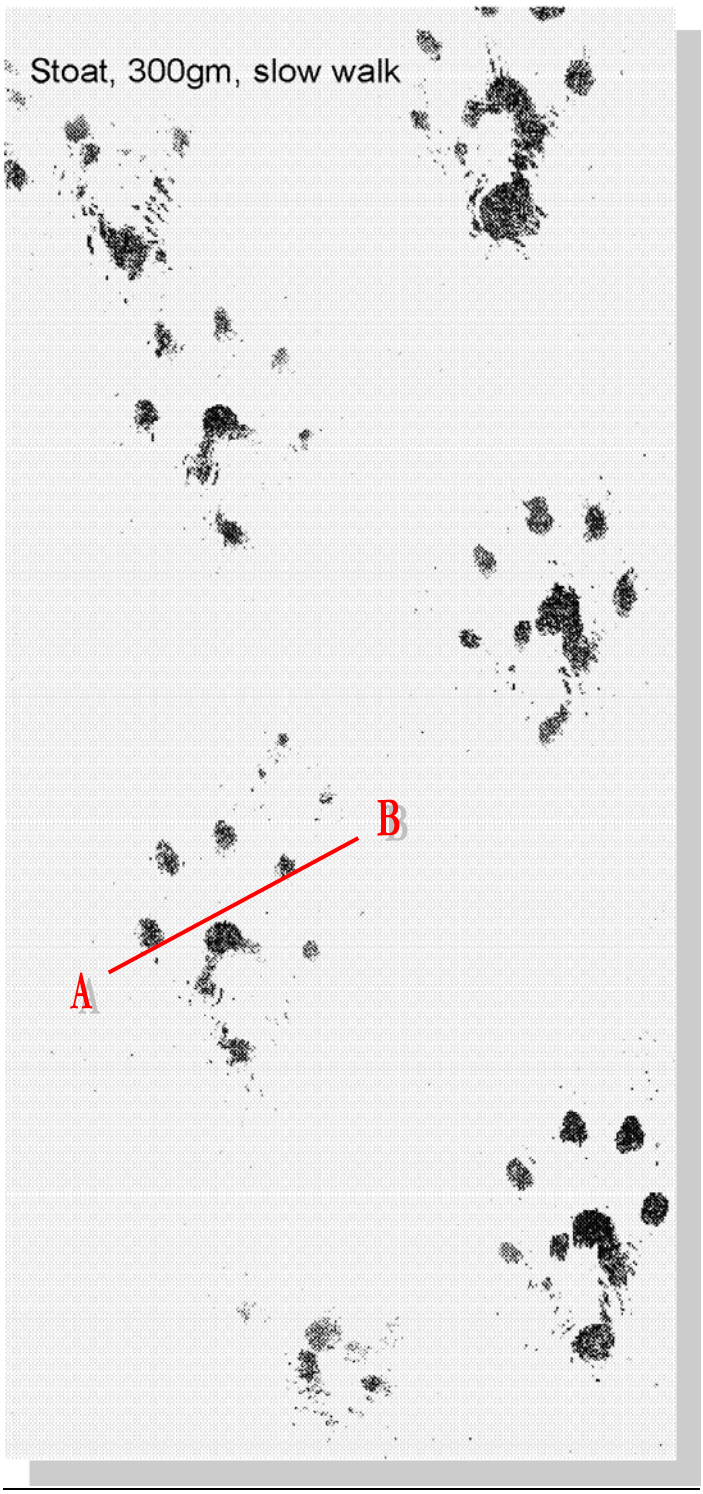

Fig 3a Mustelid prints (stoat).

Fig3b Mustelid (stoat).

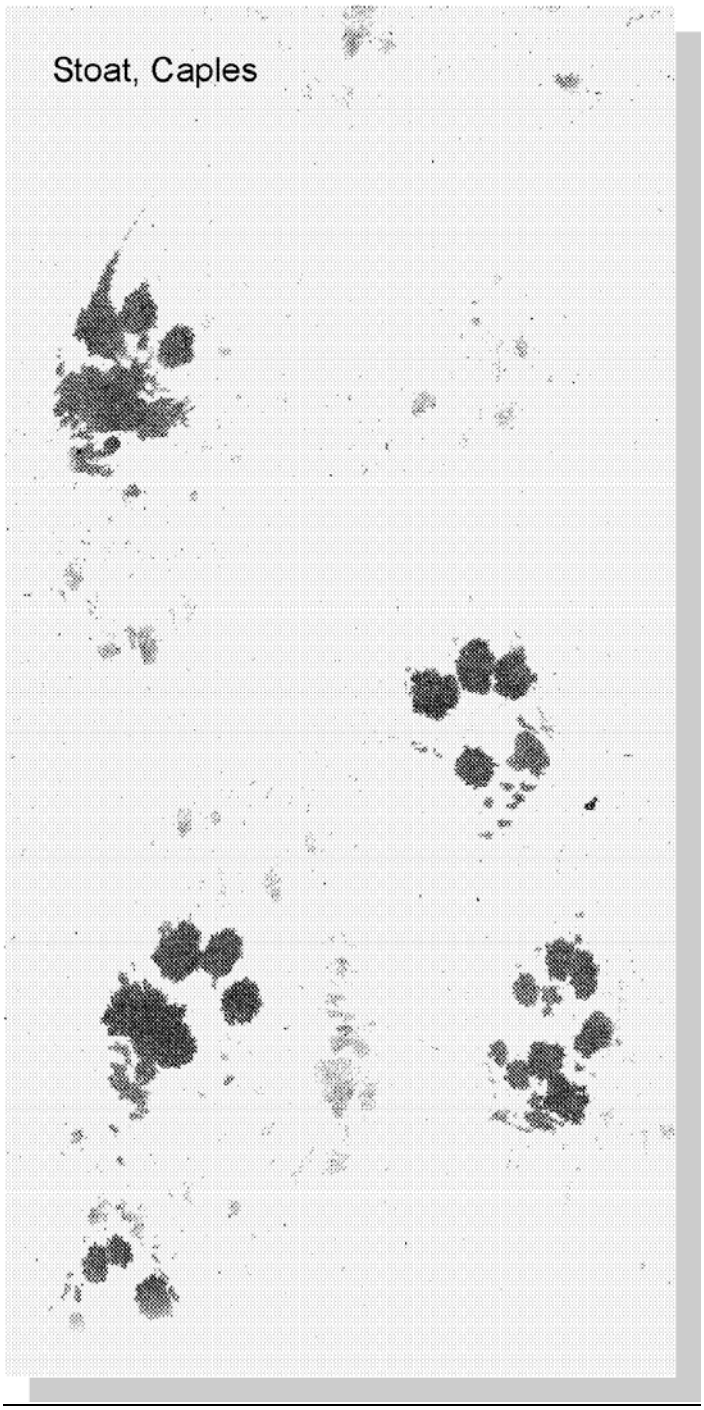

Fig3c Mustelid (stoat).

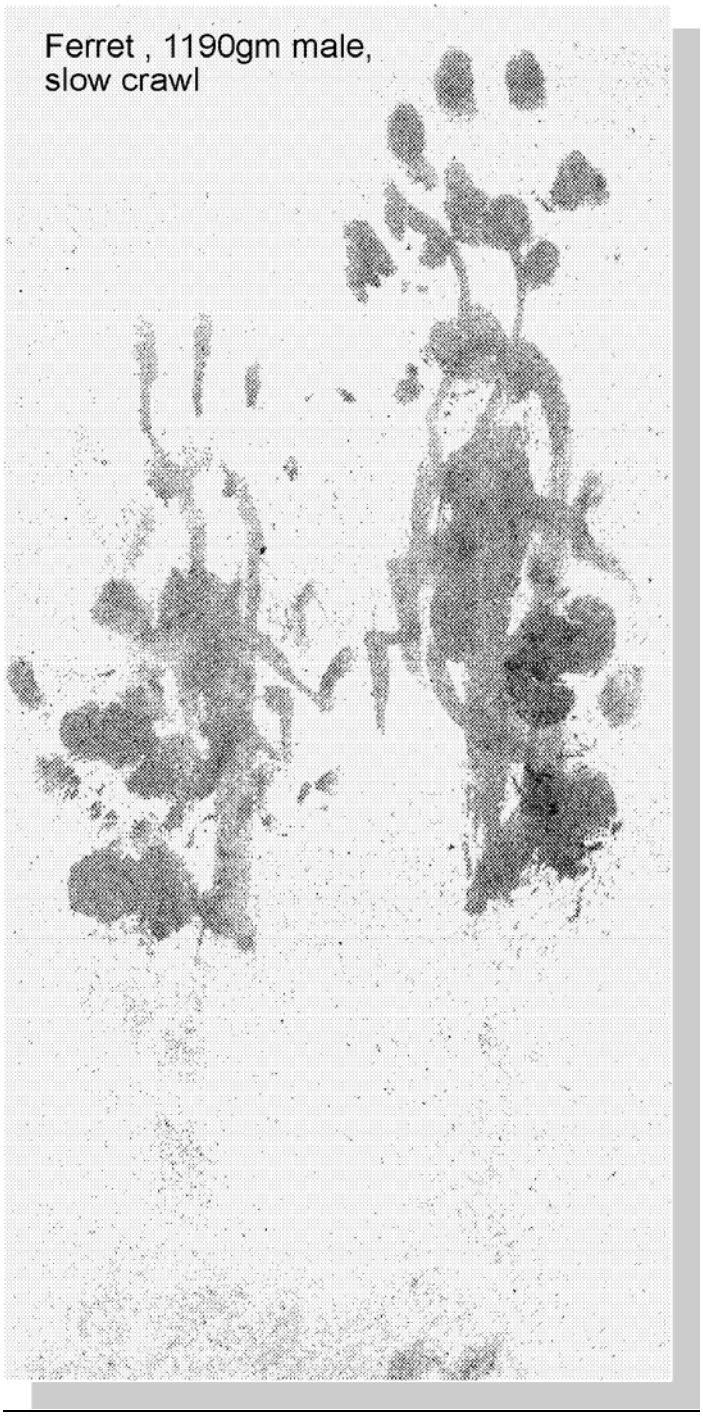

Fig 3d Mustelid (ferret).

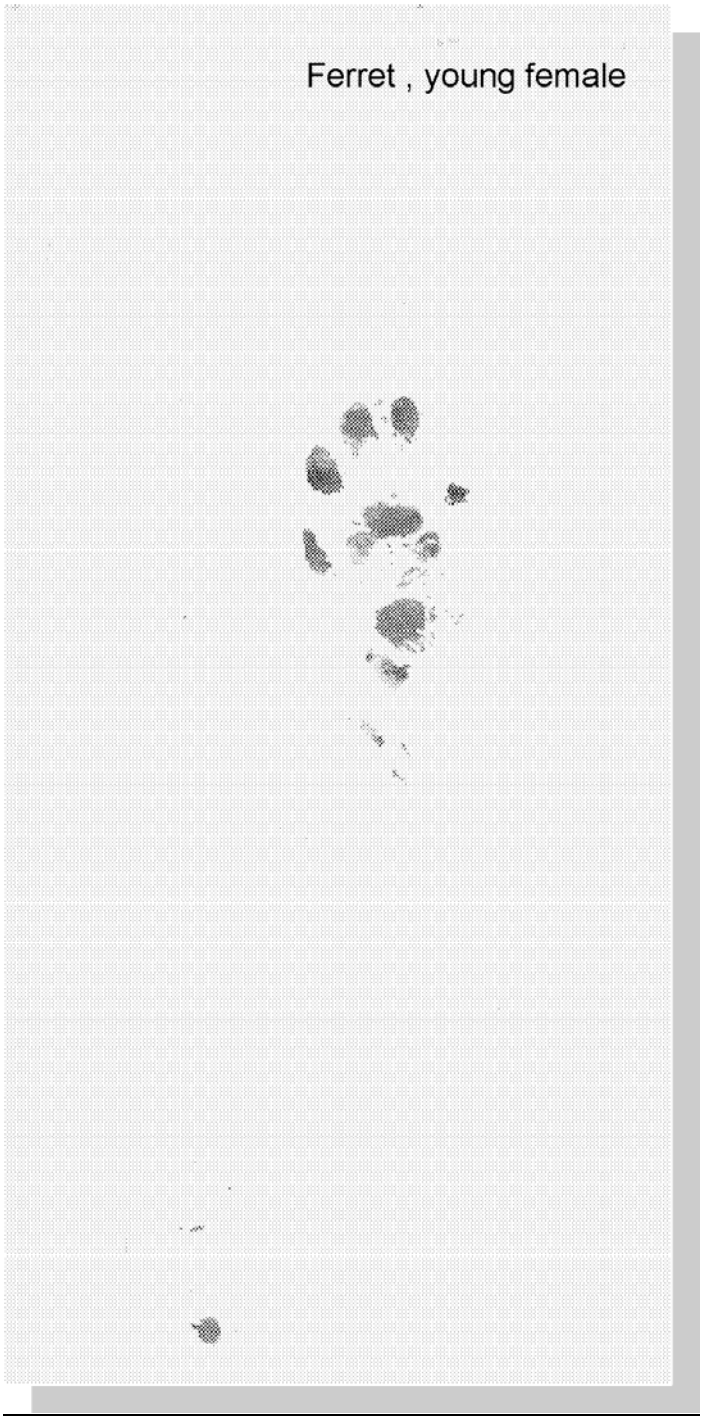

Fig 3e Mustelid (ferret).

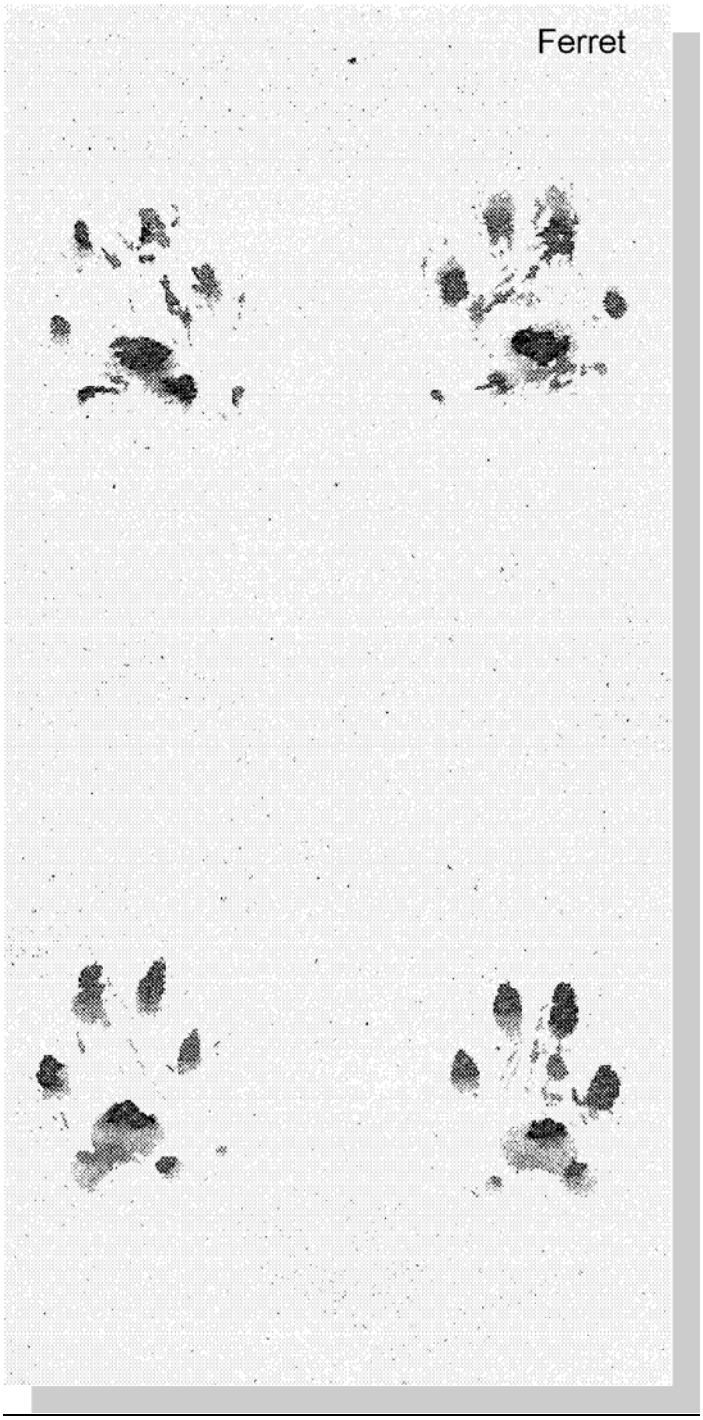

Fig 3f Mustelid (prints taken from dead adult male ferret).

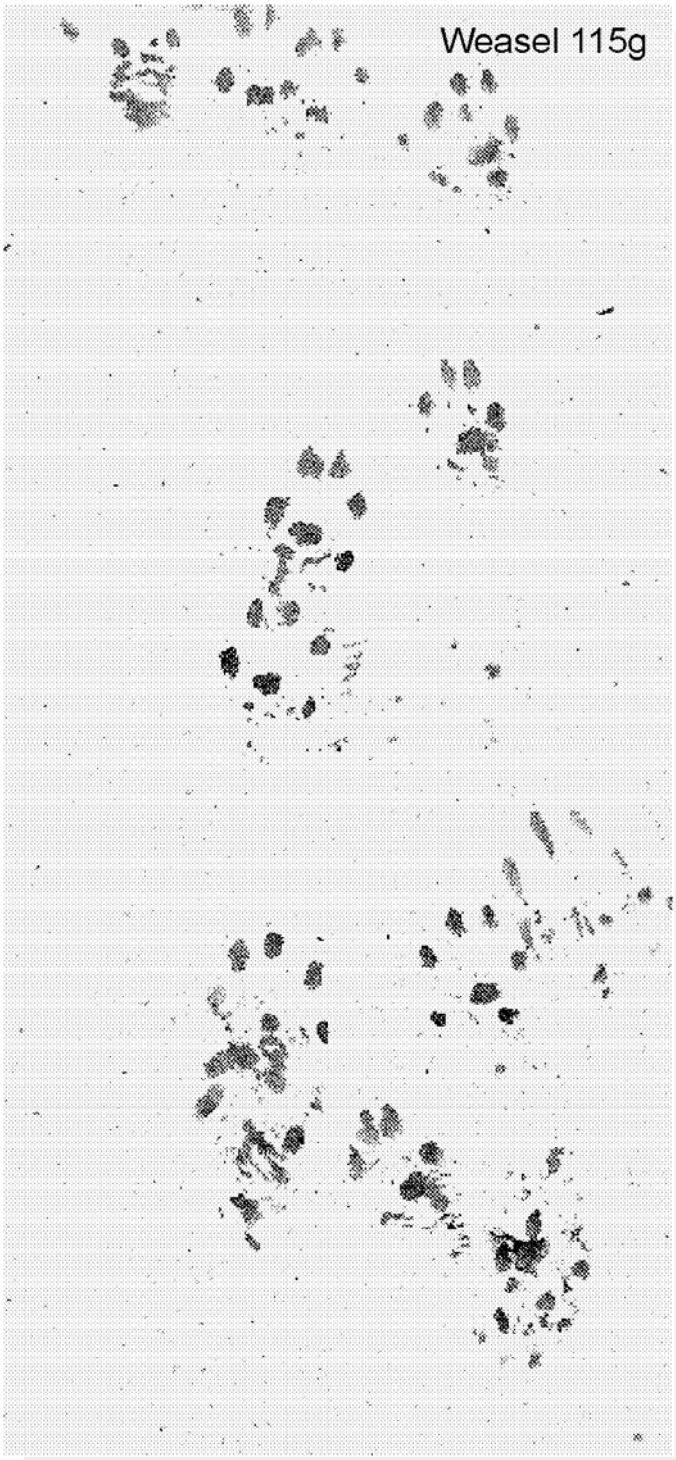

Fig 3g Mustelid (male weasel).

Fig 3h Mustelid (male weasel).

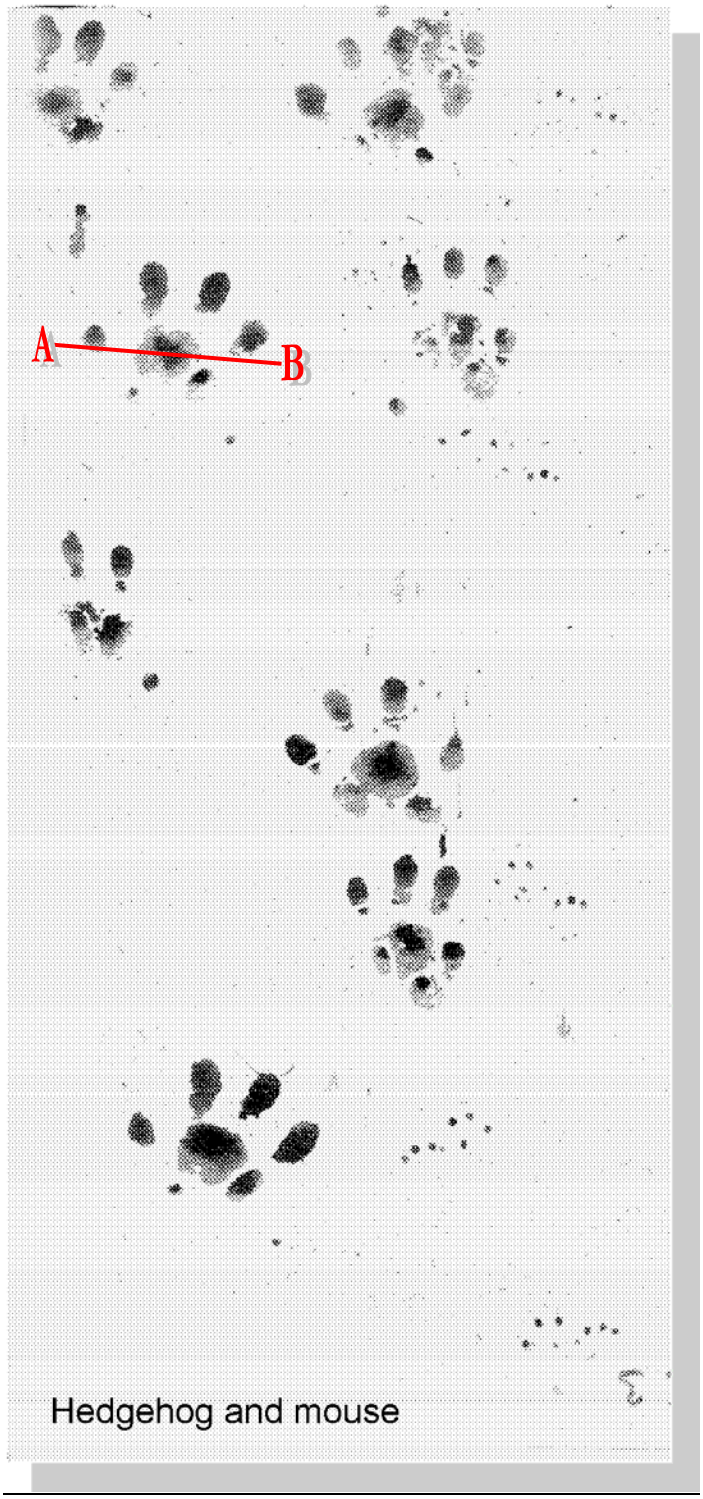

Fig 4a Hedgehog and mouse prints.

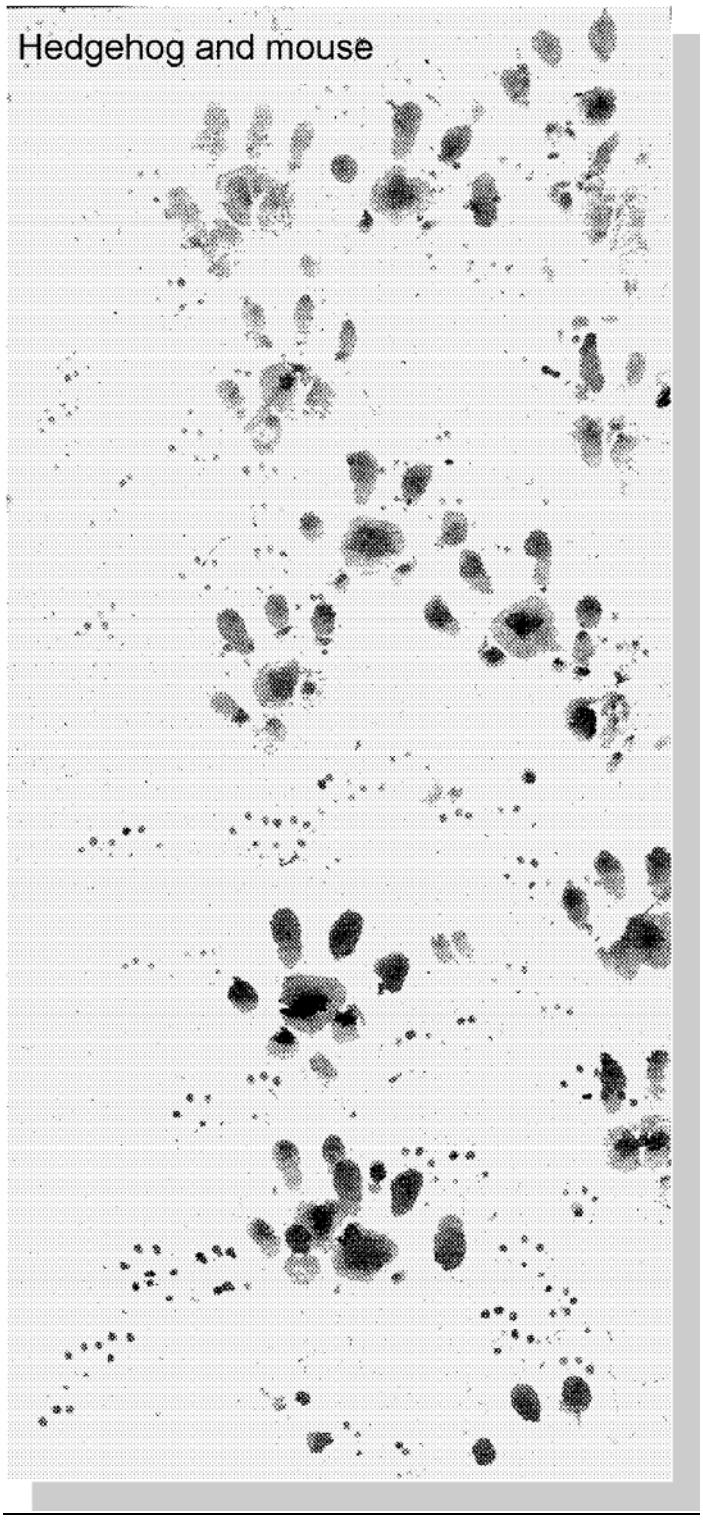

Fig 4b Hedgehog and mouse prints.

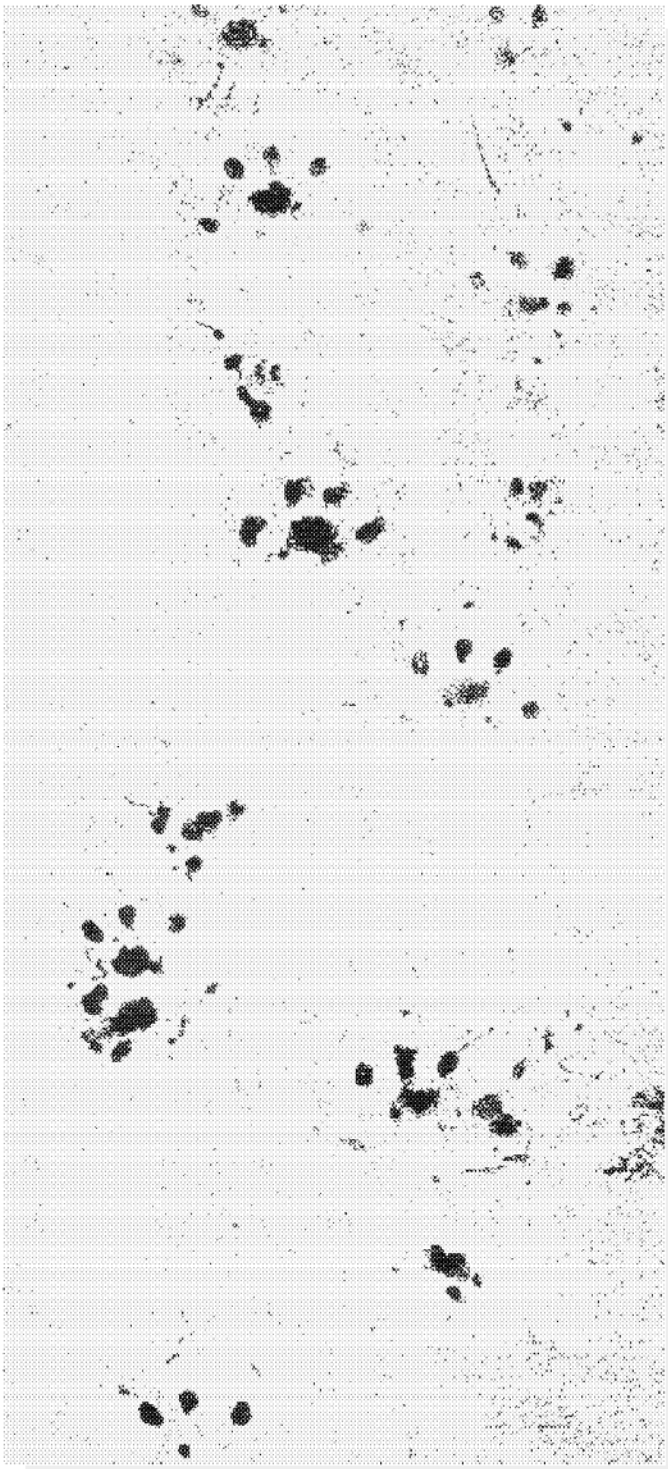

Fig 4c Hedgehog prints (juvenile).

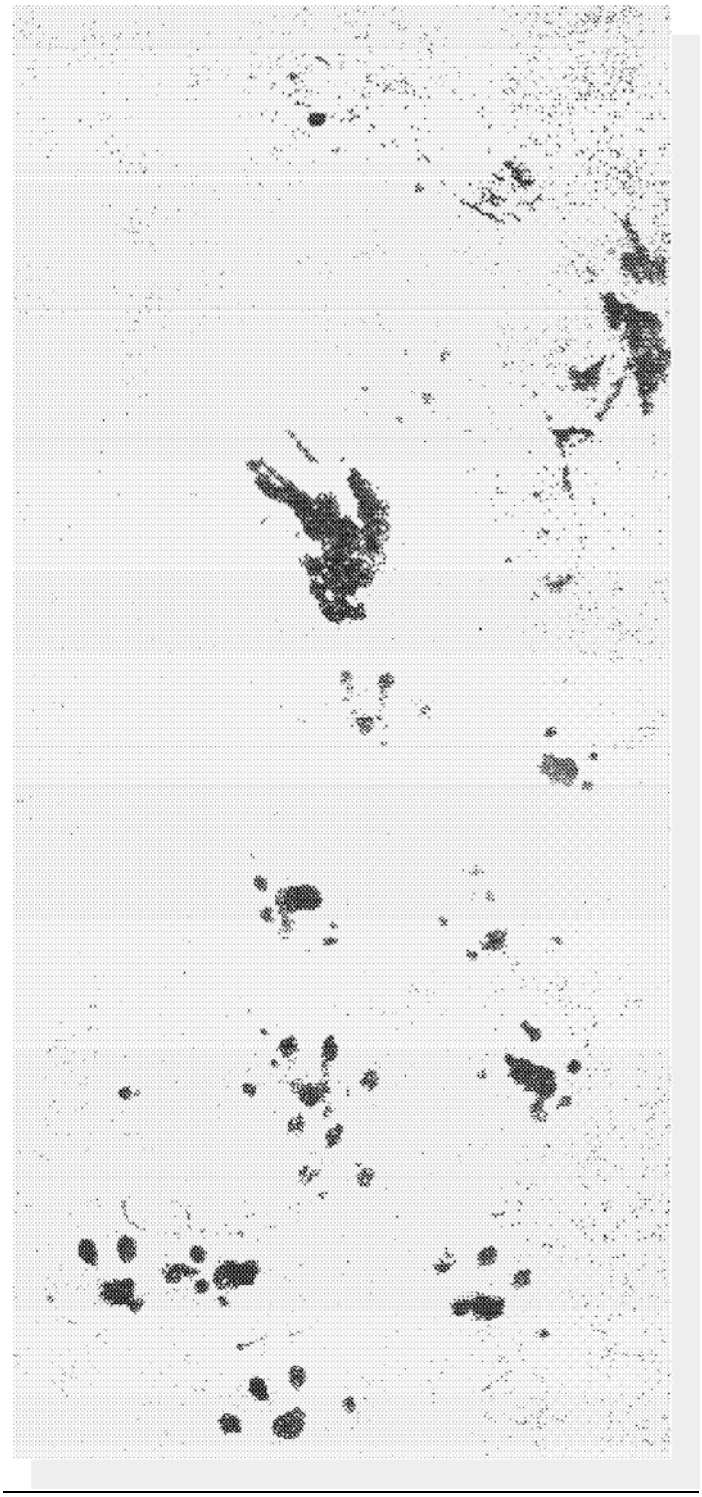

Fig 4d Hedgehog prints (juvenile).

Fig 5a Paper pulled out by possum.

Fig 5b Paper pulled out by possum.

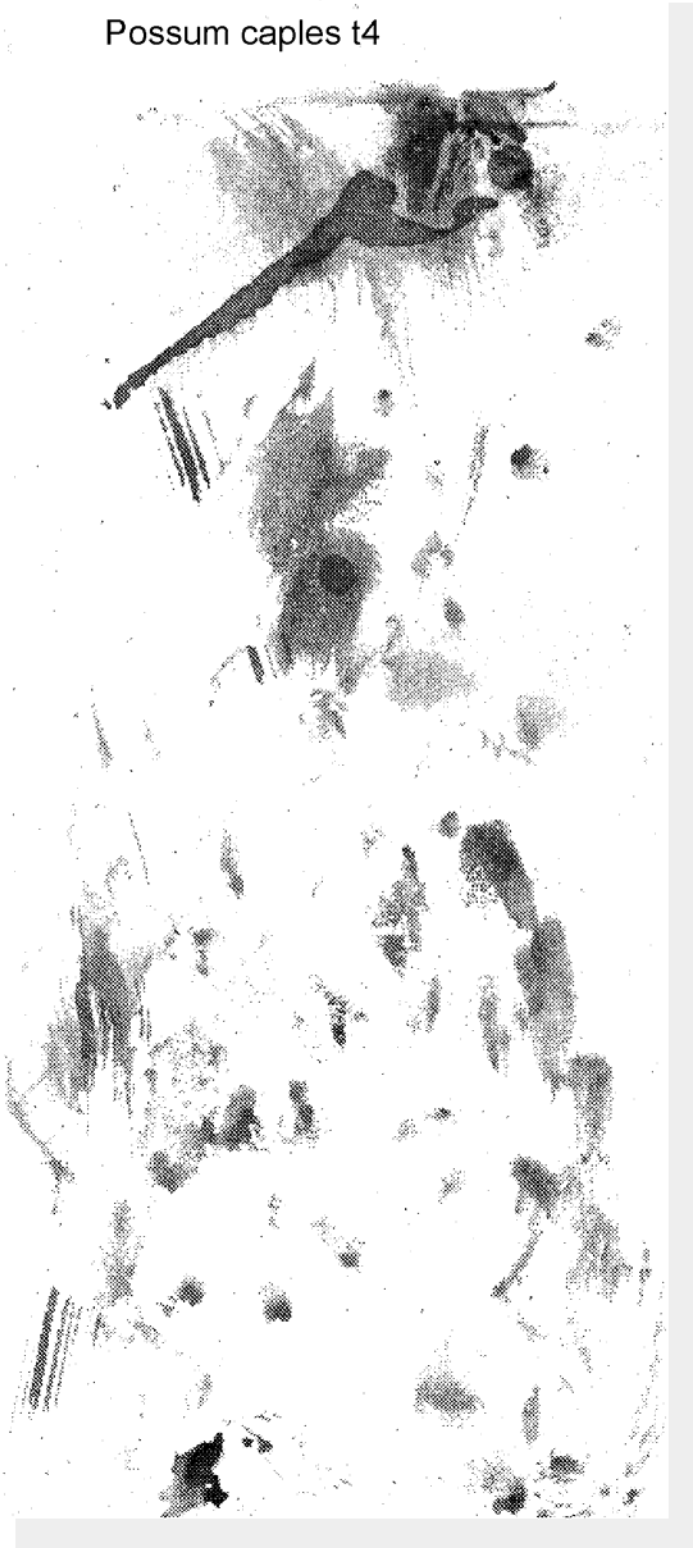

Fig 5 c Paper pulled out by possum.

Fig 5d Paper pulled out by possum.

Fig 6a Cat (prints are from a kitten that has crawled into the tunnel).

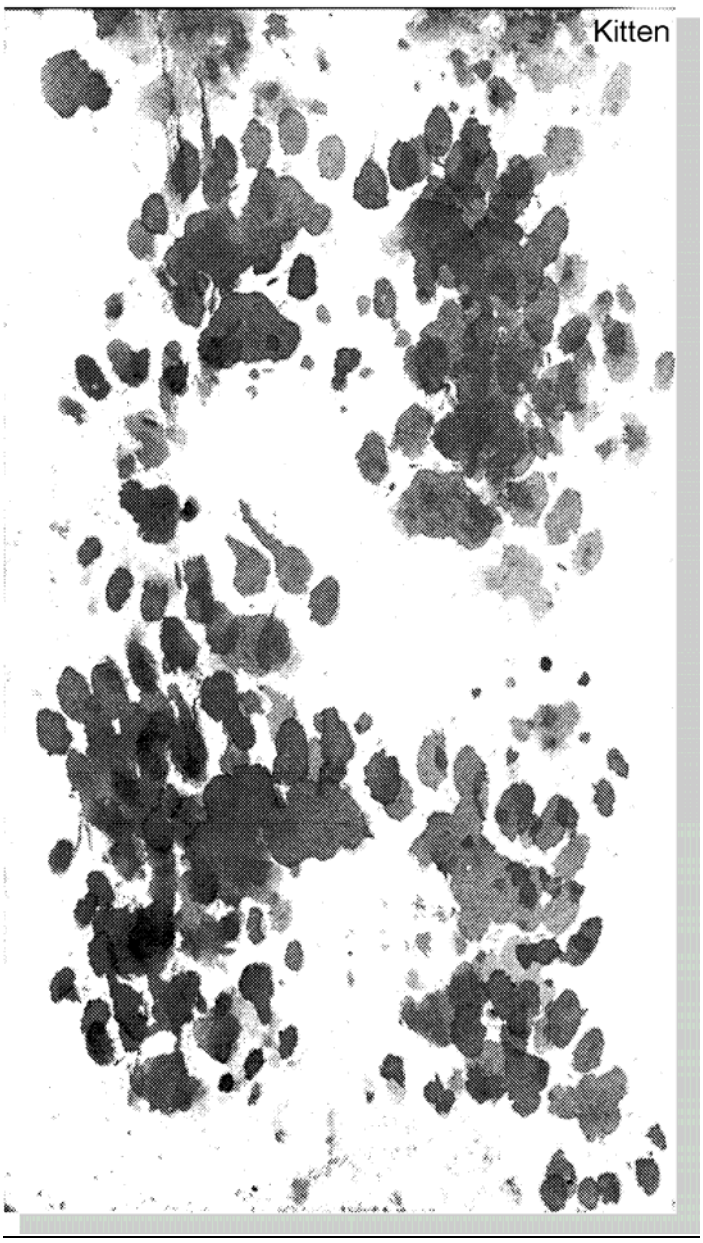

Fig 6b Cat (prints are from a kitten that has crawled into the tunnel).

Acknowledgements.
Thanks to Chris Edkins DOC Science & Research Unit, Wellington for scanning the tracking papers. Thanks also to Ralph Powlesland and Natasha Coad for the hedgehog prints and to Dawn Palmer for the prints from the Dart and Caples surveys.