

The effects of two types of steel traps upon captured stoats (*Mustela erminea*)

C. M. KING, 3 Waerenga Road, Eastbourne, New Zealand.

The gin-trap (a traditional leg-hold type) has been banned in Britain on the grounds of cruelty. In its place, several new types of "humane" traps have been developed, of which the one most suitable for ground vermin (stoats, weasels and rats) is the Fenn. The assertion that Fenns are less cruel than gins appears reasonable, although not, so far as is known, based on empirical evidence. In Britain such evidence could not now be obtained, so it seems worth reporting some from New Zealand, where gin traps are still legal.

Stoats are introduced in New Zealand and are widely regarded as pests, especially in the major bird sanctuaries such as the National Parks. Parks' rangers therefore attempt to control stoats wherever possible, using various means including gin traps. Stoats are also often caught accidentally in gin traps set for Brush-tailed opossums, *Trichosurus vulpecula*, an introduced fur-bearer common in some of the Parks. In 1972 a survey was started of the biology of stoats in the National Parks of New Zealand (King & Moody,

TABLE I
Comparison between stoats caught in gin and in Fenn traps

	Gin	Fenn	<i>P</i>
Total number examined	336	966	
Proportion with gross external injuries	41%	8%*	< 0.001
Proportion that were still alive when collected	32%	4%*	< 0.001
Number of guts examined	317	928	
% empty	28%	13%	< 0.001
Mean number of items per gut	1.61 ± 0.88 ^{sp}	1.73 ± 0.87	0.02 < <i>P</i> < 0.05
% with only one item	59%	49%	0.01 > <i>P</i> > 0.001
Number of stoats examined for fleas	311	924	
Proportion infested	18%	11%	0.01 > <i>P</i> > 0.001

*Many of these were caught in traps incorrectly set crosswise or in too large a tunnel: see illustrations in King & Edgar (1977).

in prep.), in which Fenn traps were used in 14 study areas. By 1976 a total of 1599 stoats had been collected, of which 1302 were known to have been caught in one or other type of trap. Table I shows that fewer of the stoats caught in Fenn traps had gross external injuries (broken legs or teeth, crushed or severed feet); fewer were still alive when the traps were checked; fewer had partially or wholly evacuated their guts; and fewer had fleas (i.e. they had been cold for longer) compared with those caught in gins. If part or all of the foot of a stoat was found in the gut of an individual which had the same part missing, this stoat was considered to have chewed off its own foot in the trap. Of 29 stoats so classified, 21 were caught in gin traps. Six stoats had well healed injuries suggesting that they had escaped from a previous trap, in which three left one front leg, two left part of their tails and one left four toes from one front foot. Several others had deformed leg bones which had apparently been broken and healed out of line. All these cases were recorded in areas where gin traps were used regularly for opossum hunting.

These data support the general assumption that Fenn traps, correctly set, kill stoats more humanely than do gin traps.

REFERENCE

- King, C. M. & Edgar, R. L. (1977). Techniques for trapping and tracking stoats (*Mustela erminea*): a review, and a new system. *N.Z. J. Zool.* 4: 193-212.