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TO THE EDITOR . . .

Re-evaluation of the C120 Magnum and Bionic® Traps to Humanely Kill Mink

In the search of humane killing traps, Proulx et al. (1990) and Proulx and Barrett (1991a) evaluated the ability of the C120 Magnum (no registered trademark) and the Bionic® (W. Gabry, Vavenby, British Columbia, Canada V0E 2A0) traps to humanely kill mink (*Mustela vison*) in simulated natural environments. Both traps initially passed mechanical evaluation tests, approach tests, and preselection tests; they also rendered nine of nine mink irreversibly unconscious in ≤3 min in kill tests. The researchers estimated that these traps could be expected, at a 95% level of confidence, to humanely kill >79% of mink captured on traplines. We now believe that this performance level is incorrect. If a one-tailed binomial test is performed with an outcome of nine of nine or 13 of 14 successful kills, the traps can be expected, at a 95% level of confidence, to render ≥70% of mink captured on traplines irreversibly unconscious in ≤3 min (Zar, 1984). We consider that such a performance level still is very high since most commercial traps and inventions tested to this date did not pass the initial tests or have failed to meet the acceptance criterion of nine of nine or 13 of 14 successful kills in the kill tests in simulated natural environments (Proulx and Barrett, 1989, 1991b).

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