

Supplementary Material

Effectiveness of dogs for detecting feral cat scats in wheatbelt reserves of Western Australia

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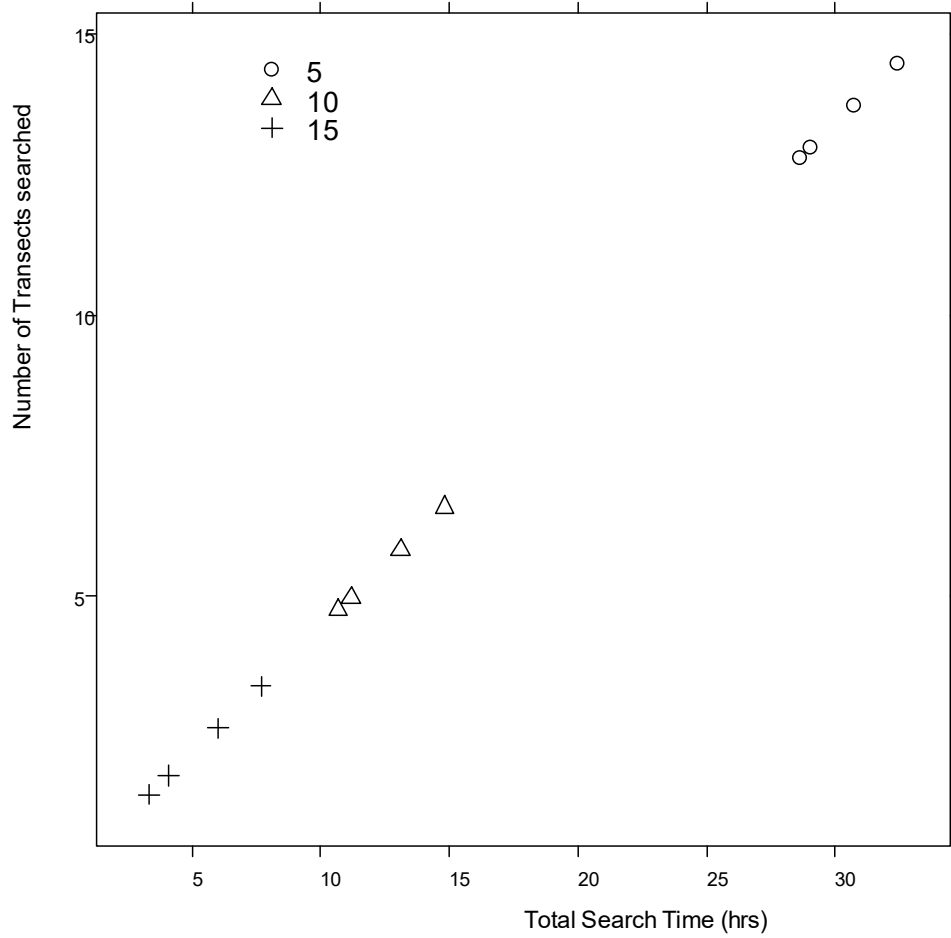


Figure S1. Average number of transects versus average total search time to achieve target detection probabilities of 0.9, 0.95, 0.99 and 0.999 (identified by increasing values of search time) for 5, 10, and 15 cats, and using transects placed at 100 m centres.

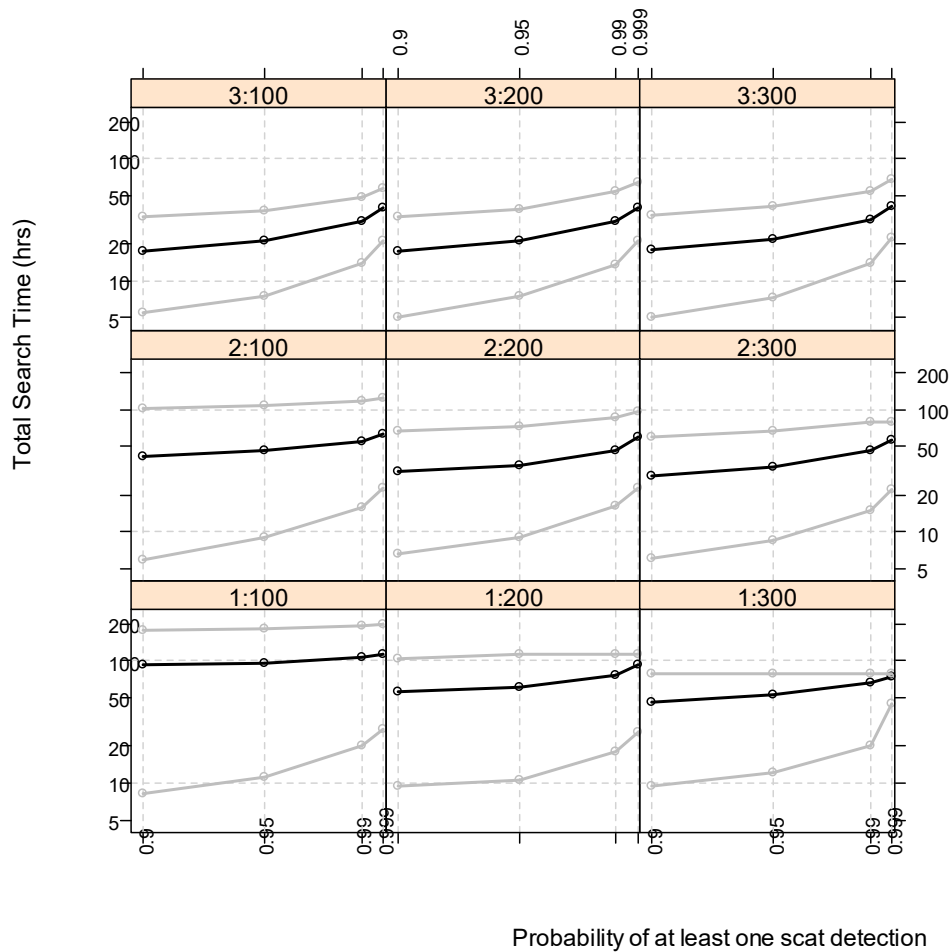


Figure S2. Total search time versus probability of a least one scat detection as a simulated search proceeded along 1.5 km transects for a sample of transects. The simulation applied the scat detection function and search time function (no cross-wind, average temperature of 15 °C). Quadrats were 150 m long by 100 m wide as in the experimental study. Panel labels show for three mutually exclusive areas, of 505 ha each, how many were occupied by a cat (all 3, 2, or 1) for a reserve area of 1,515 ha, and the spacing of transects used to search for scats. Sample transects searched were 100 m apart, 200 m apart, or 300 m apart. Scat-occupied quadrats were randomly selected within occupied areas (15 scats per cat, one per quadrat, aged from 2 to 30 days exposure at start of search). Unoccupied quadrats were assigned a probability of no detection of 1 and a search was terminated for a simulation when the probability achieved the highest nominal value of 0.999 (90% support bounds: grey lines).

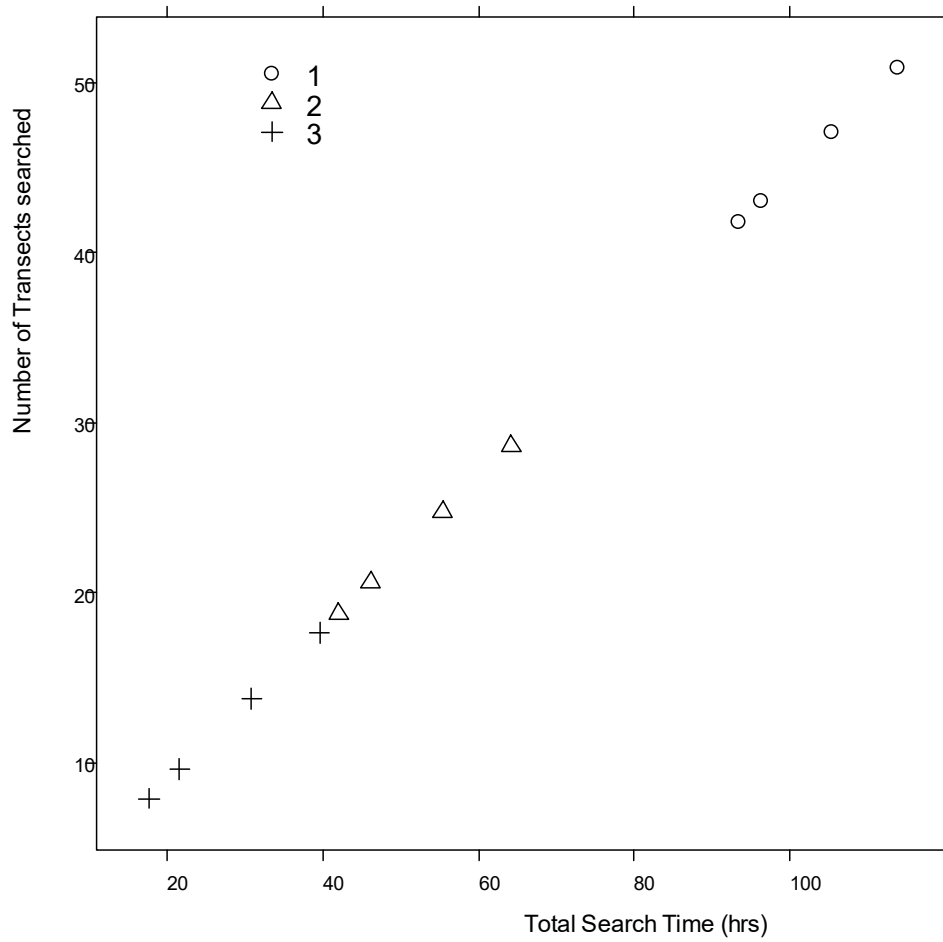


Figure S3. Average number of transects versus average total search time for transects 100 m apart for 1, 2, and 3 cats.