

Utilizing the Companion Sniffer Dog Training Method to Develop Aptitude in Locating Target Scents

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Abstract

Scent work has garnered increased interest from government & business entities in addition to companion dog training enthusiasts. However, despite public perception that scent-related tasks (e.g., tracking, trailing, detection, search & rescue, etc.) are highly specialized skills, we demonstrate that novice canine/handler teams can rapidly learn to perform scent detection at a surprisingly high skill level.

Conclusions

Students participating in at least one Companion Sniffer Dog Training (CSDT) course achieve superior performance to students of a similar skill level (Agility or Rally-O) in detecting hidden hemp oil targets. This implies that properly trained companion dogs are suitable for many scent work tasks.



Related Work

- Johnson, G. R. (1977) Odorless gas detection by domestic canines. *Off-Lead & Animal Behavior*. Dec., pg. 18-19.
- Ashton, E. H. and Eayrs, J. T. (2008) Detection of Hidden Objects by Dogs. In *Taste and Smell in Vertebrates* (eds G. E. W. Wolstenholme and J. Knight), pg. 251-263.
- Pfiester, M., Koehler P. G. and Pereira, R. M. (2008) Ability of Bed Bug-Detecting Canines to Locate Live Bed Bugs and Viable Bed Bug Eggs. *J. Econ. Entomology* 101(4):1389-1396.

Experimental Setup

A live target was a cotton swab infused with hemp oil plunged into a cotton ball and placed in a 16.5cm x 8.25cm plastic bag. Control targets were identical except for the hemp oil. All targets were labeled with masking tape numbers. For CSDT students, the experimental materials were also present during classes, making the environment the only new variable.

$$\text{Recall} \leftarrow \frac{\# \text{live found}}{\# \text{total live}}$$

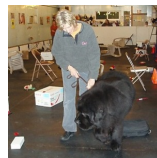
$$\text{Precision} \leftarrow \frac{\# \text{live found}}{\# \text{predicted live}}$$

Participant Instructions

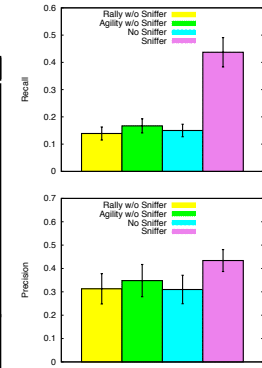
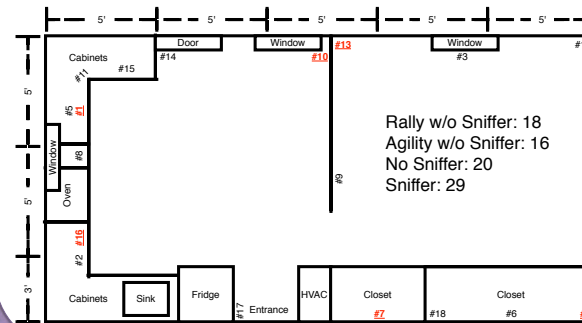
- Between 0 and ∞ live targets exist
- Students announce numbers as found
- Recorder remains at entrance
- Clockwise & CCW once per turn
- 10 minute time limit
- No discussion amongst nor observation of other participants
- All appliances/HVAC are off and no targets are hidden within

Future Work

Anecdotally, we see many reported canine behavior issues are resolved with CSDT – although the problems are only tangentially related to scent work.



18 Targets / 6 Live (7/12/10 – 7/15/10)



12 Targets / 4 Live (8/9/10 – 8/12/10)

