**Training volunteer dog-owner teams to detect conservation targets**

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Conservation Detection Dogs (CDDs) are trained to locate biological targets relevant to conservation efforts, such as endangered animals and invasive weeds. CDDs can be more effective than other survey methods. However, the financial costs associated with training and maintaining CDDs, alongside concerns around meeting dogs’ welfare needs, prohibit their use by smaller, volunteer-based, conservation groups.

We developed and evaluated a 12-week program in which 19 volunteers from the general community learnt to train their own companion dog to detect myrrh in controlled laboratory conditions. Search effectiveness was evaluated in weeks 8, 12, and after a 14 week training break, week 26.

Seventeen volunteer owner-dog teams completed the 12 week program. During the week 12 assessments, teams accurately located myrrh presented amongst nine unscented pots on a scent board in 96% of trials, and 85% of trials when a novel distractor odour was present. Teams located the target in 94% of empty room trials and 100% of trials in a room containing obstacles. No significant differences in odour-present search performance were found between weeks 12 and 26.

Volunteers can successfully train their pet dogs to locate a target scent in controlled laboratory conditions in under 12 weeks, even when their prior dog training experience is limited. This volunteer model offers a sustainable way to help address financial and welfare considerations associated with professional CDDs. It also suggests that trained teams could assume a regular pet-owner lifestyle without regular training during a non-working period and retain a high level of search performance.