**Rachelle Cariño, Saint Francis College.** The Efficacy of Catnip Oil as a Botanic Tick Repellent.

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**Abstract:** The blacklegged tick, *Ixodes scapularis*, is a vector for many tick-borne diseases and applying repellents can prevent the spread of these pathogens. Three different catnip oils: Catnip oil C, Berjé and MG, were evaluated based on how effective they repel the *I. scapularis* nymph. Horizontal assays were conducted in a plastic petri dish where a filter paper, which contained two sides: treated with catnip oil, and untreated with no catnip oil. On top of the filter paper was an O-ring and the assay was conducted over a grid. A series of concentrations were tested and the main ones that were focused on were: 100 µL, 200 µL, 300 µL, and 1000 µL. A total of five nymphs were used per assay and three assays were conducted per concentration. Each assay lasted for a total of twenty minutes. To quantify tick movement over time photos would be taken every two minutes. For catnip oil C, Berjé and MG, there were significant differences in the mean number of ticks on both the treated and untreated sides at 100 µL-1000 µL. A series of comparisons were conducted between the concentrations of Catnip oil C, Berjé, MG, and DEET. There were no significant differences among the four concentrations. A final comparison between the three catnip oils and DEET indicated that there was no significant difference between DEET and catnip oil as an effective repellent at six to twenty minutes.