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## **\*\*TESTING AN eDNA MARKER FOR COMMON SNAPPING TURTLES (POSTER)**

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Common snapping turtles (*Chelydra serpentina*) are a species of concern in southeastern Montana and some southern states; however, they are invasive to the Crown of the Continent ecosystem. Although raccoons and foxes destroy over 90% of the eggs, the few remaining survivors that reach adulthood are enough to raise serious concern as they prey upon many native species and have no natural predators. According to the Montana Natural Heritage Program, there have been only three documented reports of snapping turtles in the Flathead Valley, yet we have observed an additional 19 unreported individuals. We tested a previously developed environmental DNA (eDNA) marker for common snapping turtles to help determine their distribution in the Flathead Valley. We extracted DNA from snapping turtle tissue samples collected in the Flathead Valley to verify marker effectiveness. We hypothesized McGilvray Lake and a nearby small pond would be positive for snapping turtle DNA, while Spencer Lake would be negative. Painted turtles (*Chrysemys picta belli*) were visually detected in all of the waterbodies while snapping turtles have not been observed in Spencer Lake. We collected eDNA samples via water filtration in December 2016. All of the eDNA samples were negative for snapping turtle DNA. We believe our analysis produced negative results because during the winter the turtles bury themselves in the mud and the DNA can degrade or that we did not capture enough DNA. We plan to sample in the summer when the turtles are more active to increase our probability of detection.