

USING GPS LOGGERS TO TRACK THE ENDANGERED BLANDING'S TURTLE (*EMYDOIDEA BLANDINGII*) IN NOVA SCOTIA.

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Freshwater turtles are particularly vulnerable to disturbances, such as road mortality, increased predation, and collection when undertaking seasonal movements. In Nova Scotia, Blanding's turtles are long lived, mature at a late age and are restricted in distribution to the southwestern interior of the province. They show strong site affinities and make regular seasonal movements to and from overwintering sites, nesting sites, and feeding areas. As their precise movements are unpredictable, and since turtles can move long distances remarkably quickly, accurate identification of travel routes has proven challenging. Conventional radio tracking is labour intensive, may disrupt turtle movement, and does not provide fine scale movement data; as a result most travel routes remain unknown. Most current GPS tracking devices rely on transmission to and from satellites; they are costly and exceed acceptable weight limits for small freshwater turtles. In this project, we have developed a small, custom-built GPS logger that stores data directly in the unit. Data is retrieved from the units following subsequent re-capture facilitated by the inclusion of a small radio transmitter in the unit. If successful, this technology will provide a cost-effective means of documenting previously unknown travel routes, nesting areas, overwintering and feeding habitats, as well as identifying several components of critical habitat.