

## **Slow and steady: results from 23-year nest protection program in one population of Blanding's turtles in Nova Scotia**

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Nova Scotia supports a small, isolated, and genetically distinct population of Blanding's turtle comprising at least four distinguishable subpopulations near the northern limit of the species' range. This population has been designated as Endangered federally (SARA) and provincially (NSESAs), with Population Viability models projecting that without intervention the population is at considerable risk of decline. Nest protection, aimed at boosting survivorship of eggs to hatchlings, is a key element of the recovery strategy; it began in the Kejimikujik National Park and National Historic site subpopulation (NS1) in 1992 and expanded to two subpopulations outside the park (NS2, NS3) in the early 2000s. We examine the results from the nest protection program of subpopulation NS2 from 2000-2022. Turtles in this subpopulation nest on slate beaches and outcrops along the lakeshore and inland on abandoned logging roads and borrow pits, gravel roads, and rocky outcrops. During nesting season, staff and volunteers conducted evening patrols at known nesting sites and in some years radio-tracked females to identify new nesting locations. In most years, a wire-mesh nest cage was placed over each nest to protect the eggs from predation and at-risk nests were moved to a less vulnerable nearby location. In 2000, 2001 and 2020 nests were left uncaged until hatchling emergence to document predation. Nests were monitored daily during emergence and hatchlings were given a nest-specific mark prior to release. Over the 23-year period 282 nests were identified and > 800 hatchlings were released. In 2022 the first confirmed female from a protected nests matured.

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