

Local Distribution of the Rare Plant *Triosteum aurantiacum* subsp. *aurantiacum*
in Northeastern Nova Scotia, Canada.

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ABSTRACT. *Triosteum aurantiacum* subsp. *aurantiacum* is a rare plant associated with rich woods and thickets throughout eastern North America. Little is known about the ecology of this species, particularly in Nova Scotia, where it appears to be at the northern edge of its range, and occurs almost exclusively in river floodplains. This study presents a census of *T. aurantiacum* along three river valleys in Antigonish County, Nova Scotia, from which it was unreported prior to 2008: Pomquet River, West River, and South River. Plant height and number of shoots and fruit per genet were measured. Qualitative measurements were recorded of habitat and surrounding flora where plants were found. Soil pH and Ca contents were measured beside plants and at paired sites outside the floodplains to determine if soil preference could explain the observed plant distribution. *Triosteum aurantiacum* genets along Pomquet River were the tallest of the three riverside subpopulations, with the most fruiting plants. The West River subpopulation was the smallest and lacked stems < 50 cm tall, indicating poor recruitment at this site. Surprisingly, robust clusters of plants were also found at three upland locations along South River, well out of the floodplain. At all sites, the plants grew best in clearings and light shade in early successional forest, and were never found beneath closed canopy. *Malus domestica*, *Prunus virginiana*, *Crataegus* spp., and especially *Fraxinus americana* were common overstory trees. Soils were significantly less acid at sites supporting *T. aurantiacum* than at upland sites where the plant was absent, but there was no consistent difference in Ca concentrations. Impediments to long-distance dispersal or lack of suitable disturbed habitat may account for the absence of the plant from other river valleys in the area.