## Eastern massasauga (EMR) suitable habitat

Eastern massasauga (EMR) suitable habitat includes a variety of wetland habitats and associated uplands. Populations in southern Michigan are typically associated with open wetlands, particularly prairie fens, while those in northern Michigan are known from open wetlands and lowland coniferous forests, such as cedar swamps. Some populations of Eastern massasaugas also utilize open uplands and/or forest openings for foraging, basking, gestation, and parturition (i.e., giving birth to young).

Massasauga habitats generally appear to be characterized by the following: (1) open, sunny areas intermixed with shaded areas, presumably for thermoregulation; (2) presence of the water table near the surface for hibernation; and (3) variable elevations between adjoining lowland and upland habitats.

Suitable hibernation habitat are areas where EMR can use for shelter to survive the winter. EMR usually hibernate below the frost line in crayfish or small mammal burrows, tree root networks or rock cervices in or along the edge of wetlands or in adjacent upland areas with presumably high-water tables (areas where the soil is saturated but not inundated).

Following egress from hibernacula in the spring, EMR typically remain above ground in the vicinity for a week or two, and return to these areas in the fall for several weeks prior to entering hibernation. Surveys in the spring (shorting following egress) or fall (prior to ingress) when snakes are congregating in the vicinity may help identify these important areas. Maintaining stable hydrology of these areas is important during the inactive season.