

Monitoring of a common hackberry population

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Precarious status plant species are excellent indicators of the state of health of natural habitats. Human activities often have a direct impact on this state of health. Parc national de Plaisance, for its part, is not immune to the negative effects that human activities can have. In fact, two factors directly influence the park's health, namely the ever increasing number of visitors and the fact that the park's territory is bounded by highly urbanized and farming environments.

The common hackberry (*Celtis occidentalis*) is a tree species belonging to the *Ulmaceae* family which includes, among others, the scotch elm. Uncommon in Québec and not often noticed, the common hackberry is on Québec's list of species likely to be designated as threatened or vulnerable. Despite the small forested area of Parc national de Plaisance, there are a few populations of this rare species. Prior to 2006, this species had never been monitored in the park, although one study (Dignard, 1994) mentioned its presence and pinpointed the location of several specimens. In 2006, as part of the Ecological integrity monitoring program, the park's Conservation and Education Service began monitoring the species on its territory. Once each of the populations is located and characterized, the long-term objective of the monitoring operation will be to determine the state of health: good, stable, deteriorating or improving.

Our first surveys were carried out on a nice population of at least 30 specimens. We began by counting the number of adult specimens and stems (new growths). We then noted the various parameters. For specimens measuring 5 cm or more in diameter, we took the following measurements: size at breast height (SBH), plant quality and verticality data. All specimens were geo-referenced and an identification number was assigned to them. As for stems measuring less than 5 cm in diameter, they were counted and marked with tape. Data describing the type of habitat as well as the companion species were also noted. Finally, positioning data were collected to evaluate the possible expansion of the population. We intend to proceed in this same manner for each of the populations (more than five specimens) that we locate. In addition, each of the other adult hackberry trees surveyed in the park will be assigned a number and will be positioned.

This monitoring operation will enable us to not only better protect this fragile species and to guide us in our management choices, but also to learn more about this species.