A new method for controlling poison-ivy is being tested at Parc national d'Oka

By Alain Meilleur, Researcher specializing in plant ecology, Consultant, Primula Environnement Inc.

Poison-ivy causes its share of problems for individuals who come into contact with this plant. Indeed, poison-ivy (*Toxicodendron radicans*) produces urushiol, an oily compound that is an irritant and that can cause painful dermatitis, depending on how allergic the person is. The onset of this dermatitis occurs from 24 hours to one week after contact with the plant. However, to provoke an allergy, the plant's tissues must be broken in order for the irritant to come into contact with the person's skin.

This plant poses a particularly tricky problem in that it tends to reproduce near disturbances associated with human activities, especially alongside trails. This species reproduces by means of rhizomes extending in every direction. Capable of growing one metre per year, these rhizomes are only inhibited by physical obstacles or by the presence of an environment that is overly damp and shaded. This method of development, which takes the form of clones, allows the plant to cover large surfaces and to reduce local biodiversity.

To combat the negative effects of poison-ivy on visitors to Québec parks, Parc national d'Oka has been conducting tests to reduce the species' presence on its territory. One of the methods proposed in 2006 was to spray a salt-based herbicide known under the name of "*Adios Ambros*" with a view to controlling poison-ivy. We selected 30 experimental plots comprising 100 numbered stems which were treated with the product when the leaves of the clones had developed fully. The experimental sites were spread throughout the park to cover the different growth situations of poison-ivy clones. The collection of data, such as the number of leaves, the height and the number of divisions of the stems as well as the presence of flowers, was done before and after the treatment.

The results show that the treatment eliminates about 67% of the stems, regardless of their height and the location of the experimental site, while reducing the height of the remaining live stems after treatment. A second treatment, which we had planned to carry out before the end of the poison-ivy growing season, was performed in early September 2006. The salt concentrations found in the soil following treatments have only a short-term adverse effect on the environment, whereas more toxic herbicides tend to accumulate in the soils, especially when applied repeatedly. In several cases, the stems covered by the second treatment appeared to be dead, but we will have to wait until next summer to confirm this observation. The study will be completed in the summer of 2007. However, if this method proves effective and has a limited impact on the environment, park officials may begin using it already in the month of June.