
City of Montevideo, Uruguay

**Urban Conditioning Department
Public Spaces and Buildings Division
Green Areas Service**

Montevideo, Uruguay 25 November 2013

The City of Montevideo has been performing studies to determine the vegetative condition of hundreds of trees in parks and roads with the objective of improving the management of urban trees.

Mr. Andrés Vernengo was hired to perform non-invasive studies of the root system and internal condition of trunks. Mr. Vernengo utilizes an innovative technology manufactured by TreeRadar, Inc. (USA) called the TRU™ (TreeRadar Unit), that implements ground-penetrating radar to perform 100% non-invasive inspection of both trunks and roots.

A number of trees were taken down in the beginning states of this effort to prove the effectiveness of the TreeRadar Unit technology. In all cases there was very good agreement between predicted and actual conditions within the trunk and subsurface structural roots.

This technology has proven to be a fast and effective method that is applicable on a massive scale to determine the risk of failure of urban trees.

So far, Mr. Vernengo's company has inspected over 1,000 trees in the City of Montevideo in a 3-month period beginning in October 2012 and the work is still on-going.

During the last two years, many new utilities have been installed underground and in the process have greatly damaged the root system of our trees. Understanding the extent of the damage using this technology has allowed our division to make informed decisions regarding what trees need to be taken down for public safety purposes.

In addition, Mr. Vernengo has developed an on-line web portal for graphically displaying the status of our urban forest based on his radar inspections. This is a great on-line tool that has allowed our technicians to quickly determine priority lists of trees that require immediate attention.

Ing. Agr. Mario Lazaro