

Trial of a Smartphone 'App' to record Invasive Alien Species

Background

Invasive alien species (IAS) are regarded as one of the greatest threats to biodiversity worldwide. They can also have a significant negative impact on our economy (within the EU the damage caused by invasive non-native species and the cost of associated control measures is estimated to be Euro 12 billion a year). In recognition of these threats, the Norfolk Biodiversity Partnership launched the Norfolk Non-native Species Initiative (NNNSI) in September 2008. Since this time the NNNSI has collated information on the distribution of IAS in Norfolk, published a Status Report and Action Plan detailing how to tackle some of the worst IAS, directly facilitated the control and eradication of IAS at a number of sites and worked to raise awareness of the threats posed by IAS, as well as the steps that can be taken to reduce their impacts.

Accurate and up-to-date knowledge of the distribution of IAS is essential in order to plan and implement effective control projects. To help ensure that distribution data are kept as up-to-date as possible, the NNNSI has encouraged a broad range of stakeholders to submit records of any IAS that they encounter. At the current time, these records are submitted to the NNNSI either on paper or by e-mail. Both of these methods can be time-consuming and allow for human error, in both identification of the species and in calculating the grid reference for the sighting.

At a EURISY workshop held in Norwich in January 2011, the NNNSI made contact with Galateia, a Belgian company which has developed a range of software products utilising GPS technology. In discussions between the two organisations, it became clear that it would be relatively straightforward for Galateia to produce an 'App' for BlackBerry smartphones which could be used to record invasive alien species. The use of such an 'App' could make it much less onerous for stakeholders to report sightings of invasive species, as the internal GPS in the smartphone means that there is no need to calculate the grid reference of the sighting. Records can also be accompanied by a photo, taken using the smartphones integrated camera, which allows each record to be verified by an expert. Galateia agreed to produce and provide the 'App' free of charge for a trial period of two months.

Progress of the trial to-date

The trial was launched on 5th April 2011, when representatives of Galateia and Eurisy met with NNNSI staff in Ghent. Four BlackBerry smartphones were provided for the trial. One of these was to be used by the NNNSI Co-ordinator, with the other three being provided to field workers in Norfolk who were likely to encounter IAS as a part of their work. These were also potential end users of the fully developed App. A training session was held for the staff involved in the trial on 18th April 2011 at Norfolk County Council's headquarters. Following the training session, BlackBerry phones were provided to the trial participants. Participants will now use the BlackBerry

phones to record any IAS that they come across as a part of their day-to-day work.

Although the trial of the IAS recording App is still ongoing, it is already clear that this technology could be an extremely useful tool for recording IAS, and also in other forms of biological recording. The trial should conclude on 5th June 2011. Following this date, feedback will be provided by the trial participants, which should help inform the development of a full version of the App in the future.



Pictures 1 and 2 – Field trialling the App.

Next steps

Should the trial be successful, the development of a final version of the 'App' may form a part of the RINSE (Reducing the Impacts of Invasive Non-native Species in Europe) project. This project is currently being developed in partnership with other organisations in the UK and across Europe, looking to tackle IAS in a more strategic and effective way. A full project proposal should be submitted to the Two Seas Interreg IVA programme in July 2011.

The NNNSI is also very interested in making the 'App' available for use on other smartphones, such as the iPhone. If the trial is successful and it seems appropriate to develop a final version, then we would also like it to be usable on these other platforms.