Battling Aliens and Saving Species at Risk: A Case Study of Outreach That Works from the Garry Oak Ecosystems Recovery Team

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Extended Abstract: Garry oak and associated ecosystems are among Canada's most endangered ecosystems, and are home to more than 100 species at risk. The Garry Oak Ecosystems Recovery Team uses a diverse array of educational tools and outreach initiatives (brochures, posters, displays, web site, scientific publications and reports, presentations, workshops, etc.), directed to specific target audiences, to contribute to the recovery of these imperiled ecosystems and species. Among the most effective extension products are a series of stewardship manuals, including the interactive *Decision Support Tool for Invasive Species in Garry Oak and Associated Ecosystems.*

The Invasive Species Steering Committee of the Garry Oak Ecosystems Recovery Team and a contractor, ESSA Technologies Ltd., developed the Decision Support Tool to assist land stewards in making decisions about whether, and how, to manage invasive species in Garry oak ecosystems. It helps stewards identify and assess the scope of an invasive species problem, and provides management options for dealing with its control. The Decision Support Tool also includes an explicit focus on the needs of species at risk, which has been lacking in many of the invasive species control efforts undertaken in Garry oak ecosystems to date. It emphasizes the need for assessments to be done by experts when determining exact locations of species at risk and the potential that they will be harmed or helped by invasive species control. The Decision Support Tool, therefore, brings together the Garry Oak Ecosystems Recovery Team's coarse- and fine-filter approaches by integrating the needs of ecosystems and species at risk.

The contractor who helped develop the Decision Support Tool recommended application of an adaptive management strategy for developing, evaluating, and making revisions to the tool. Part of the strategy involved piloting and evaluating the draft Decision Support Tool in collaboration with a diverse group of partners at a range of sites.

Magnus Bien and Chris Ferguson, two students in the University of Victoria's Restoration of Natural Systems Program, were contracted as project team leaders to assist with testing the Decision Support Tool. The author (Chris Junck) and the students lined up four groups, the Municipality of Esquimalt and three volunteer stewardship groups, to participate in a piloting trial, and provided advice during field sessions, and collected participant feedback. One of the participating groups did not complete the piloting trial because their invasive species management

priorities changed, but they submitted most of the required recording sheets and provided many verbal and written comments. Feedback was also obtained from four groups that used the Decision Support Tool but were not part of the piloting trial. Other individuals also provided comments and recommendations.

In many ways, the piloting process became a type of outreach, and the project leaders functioned as ambassadors for the Decision Support Tool. They promoted its use, encouraged progression through all of the steps, and assertively collected recording sheets, evaluation forms, and comments. In general, there was a huge difference in the quantity and quality of feedback submitted by pilot participants, compared to others. For example, no recording sheets or evaluation forms have been received from the 75 agencies from around the world that requested and were sent the Decision Support Tool via email, or from those who downloaded the tool from our web site (> 2000 downloads between April 2003 and March 2004).

At the other end of the spectrum, piloting yielded an abundance of useful information for improving the tool. The project team leaders observed how the Decision Support Tool was being used, and collected feedback before, during, and after the tool was used. Additionally, observations made in the field of the piloting trial participants' nonverbal cues such as body language, gestures, and expressions permitted better interpretation of results than just using the participants' written or verbal feedback. The project leaders were also able to clarify comments and recommendations made by participants, where necessary.

The Garry Oak Ecosystems Recovery Team provided funds through the Habitat Stewardship Program for two of the groups that participated in the piloting trial to contract experts to conduct rare plant surveys and contribute to the development of their invasive species management plans. The manager of Esquimalt Parks was able to use the Decision Support Tool and subsequent invasive species management plan to secure funding to hire two term employees for invasive plant control work, and to hire a contractor to provide best practices training. Due to the rapport-building that occurred during the long-term period of the piloting trial, the project team and contracted experts were able to influence some of the participants' attitudes, beliefs and behaviors. This lead to improved management practices with two of the three pilot groups, and to consideration of species at risk in all of the invasive species management plans developed by the pilot participants.

Pilot testing outreach materials is more time and resource intensive than using only traditional evaluation methods such as feedback forms; however, the benefits of using piloting as part of an adaptive management strategy for testing and refining stewardship tools helps justify the costs and effort expended. The key results are more effective ways to battle alien and invasive species while saving species at risk. Piloting is an outreach method that really works.