



Stanley Park Ecology Society Ivy Environmental Art Project

Background

Invasive species management is a key priority for the Stanley Park Ecology Society (SPES) and the Vancouver Park Board (VPB) in restoring naturally functioning ecosystems in Stanley Park. As such, significant effort and amounts of invasive species are removed from the park, with the main species being English ivy (*Hedera helix*).

Currently, all invasive plants removed from Stanley Park are incinerated. This ensures that these species will not re-grow and spread in other areas. This process involves a large amount of energy and time, from moving invasive plant material to appropriate incineration sites and the resulting incineration process. In addition, the management of invasive species removes a large amount of biomass from the park. At sites where natural restoration processes are allowed to proceed, there may be a substantial time lag in the replacement of this biomass.

Given these two circumstances, the Ivy Project was initiated in the spring of 2009 by SPES and local artist Sharon Kallis through the Stanley Park Environmental Art Project. The project was completed in the spring of 2010.

Project Objective and Goals

Working together, our overall goal was to re-purpose invasive plant materials in ways that would turn their negative impacts

into positive ecological and social benefits through an artistic and ecologically restorative process. This goal resulted in the following objectives:



English ivy, a common non-native, invasive species removed from Stanley Park (Photo: Greg Ferguson).

- re-purpose invasive species (in particular English ivy) that are removed from Stanley Park into environmental art works so to reduce the amount of biomass being removed from management sites and being incinerated;
- create art works that mimic natural habitat structures found in Stanley Park;
- find alternative ways of restoring degraded sites with re-purposed plant materials;
- investigate the re-growth of invasive species, the use of structures by wildlife, and their benefit as a restoration material; and
- involve and educate the public in invasive species management and habitat restoration.



Project Results

- ❖ 3 sites were selected for the project: a control site, a treatment site, and a restoration site.
- ❖ Approximately 25 m³ of English ivy biomass was re-purposed into environmental and restorative works.
- ❖ 9 natural habitat structures were created and installed on the control and treatment sites: 3 nurse logs; 1 snag; and 5 hanging nests.
- ❖ 6.58m² of English ivy bio-netting, 5 native plant berms/wattles, and 32 native plants were used to stabilize and re-vegetate a 43.6m² section of eroding slope
- ❖ All structures were made by crocheting and weaving English ivy and Himalayan blackberry (*Rubus discolor*), both common invasive species removed from Stanley Park.
- ❖ 11 scheduled community events and 1 youth workshop were provided.
- ❖ 188 participants were involved in the project: 23 seniors; 114 adults; 18 youth; and 33 children.
- ❖ Project promotion was undertaken through the internet, email, posters, press releases, and 2 television interviews.
- ❖ A website was created to inform the public and other stakeholders about the project.
- ❖ Workshops held at the Stanley Park Nature House proved to be most effective in engaging the public.
- ❖ Observations of the control and treatment sites over a ten month period indicated the following conditions:
 - ❖ no English ivy or other plant growth was observed on structures;
 - ❖ structural ivy was dry; minor to moderate amounts of leaf material accumulated on structures; and
 - ❖ there was minor use of structures by wildlife and native plants.
- ❖ Observations in the spring of 2011 indicated the following:
 - ❖ ivy has not re-grown and shows little use by animal or plant life;
 - ❖ the bio-netting is stable, allowing for the retention of soil, plants, and leaf litter.
 - ❖ native plant wattles and potted plants have low and moderate survival, respectively.



English ivy environmental art works established on treatment site to restore habitat (Photo: Greg Ferguson).



Volunteer weaving dried English ivy into restorative art work (Photo: Sharon Kallis).



Discussion

The Ivy Project was very successful in achieving the desired goal and its corresponding objectives. English ivy and Himalayan blackberry were found to be particularly useful and effective invasive plant species for re-purposing into wildlife habitat structures and restorative materials, and in maintaining or enhancing site biomass.

No re-growth of invasive plant material was observed following the plant drying process and after material was installed in the park. Native wildlife and plant use of structures was minimal, but may increase with time and structure decomposition.

There was excellent outreach and public education accomplished regarding the concerns of invasive species in our environment and how they can be re-purposed in beneficial ways.

Overall, this project proved to be very environmentally, economically, and socially rewarding.

Acknowledgements

SPES would like to thank the following people, organizations, and funders for supporting this successful project: Sharon Kallis (the artist), the Vancouver Board of Parks and Recreation, the Community Arts Council of Vancouver, the Vancouver Foundation, Vancity & Citizens Bank of Canada, the British Columbia Arts Council, and the Canada Council for the Arts.

Further information on the Ivy Project can be found at <http://theivyproject.wordpress.com/> or by contacting SPES's Stewardship or Public Programs departments: Phone: 604-718-6547.



Volunteers restoring habitat with re-purposed English ivy bio-netting and planting of native species at slope restoration site (Photos: Thomas Strand).