



Garry Oak Ecosystems Recovery Team

Annual Highlights 2005 – 2006

Strategic Planning/Program Development

- Completed **draft GOERT Five-Year Report Card** to assess progress made under the *Recovery Strategy for Garry Oak and Associated Ecosystems and their Associated Species at Risk in Canada, 2001 – 2006*. Will be published in 2006 (GOERT Secretariat)
- **Three multi-species recovery strategies completed** and consulted on for 20 species at risk existing in Garry oak woodlands, maritime meadows and vernal pools. Strategies tabled with Minister of Environment for approval (Plants at Risk Recovery Implementation Group [RIG])
- **Consultation with 59 First Nations bands and the public** undertaken on the above strategies. Summary of consultation produced (Parks Canada and Secretariat)
- Draft **Rigid Apple Moss Recovery Strategy** completed (Plants at Risk RIG)
- Draft **Island Blue Butterfly Recovery Strategy** completed (Invertebrates at Risk RIG)
- **Residence descriptions** completed for four butterfly species (Invertebrates at Risk RIG)
- Draft **Coastal Vesper Sparrow and Streaked Horned Lark Recovery Strategy** completed (CWS and Vertebrates at risk RIG)
- Organizational and administrative structure improved at the **GOERT Secretariat** to ensure the most effective use of funds/contractors and to improve support of GOERT and its working groups
- **RIG** (Recovery Implementation Group) **Coordinator hired**. Summer student and co-op student assisting with public consultation, fundraising and organization of the GOERT Secretariat

Outreach and Education

Initiatives primarily aimed at reducing threats to species at risk; increasing protection of priority sites; promoting best management practices for land stewardship; and engaging local governments and other specific target audiences in the protection of Garry oak ecosystems were undertaken by GOERT outreach contractors:

- **Three field and three classroom workshops** organized for **94 park managers/municipal staff**; resulting in development/implementation of management guidelines for species at risk (SAR) in all three municipalities
- **New posters created to help reduce damage by recreation** in sensitive Garry oak areas: > 143 posters at > 122 venues, 57 meetings/presentations to recreational groups, with > 300 participants
- Distribution of > **3,400 brochures and reports** to inform public, researchers and partners
- **GOERT display located at 19 venues**, reaching > 3,000 people
- GOERT and Garry oak researchers collaborated with the Times Colonist to produce weekly articles on species at risk; **7 interviews**, **14 newspaper articles** and four **technical publications** done

- Distributed 38 stewardship manuals to land stewards; distributed **five new invasive plant species accounts** to the **817 current holders of the invasive species manual**
- Overall, > **42,000 estimated outreach contacts** made by GOERT contractors, including distribution of extension materials, workshops, presentations, meetings, via the GOERT display and website, electronic and print media, and other communication vehicles
- Funding secured from Parks Canada to organize and implement **three outreach workshops** in 2006-2007:
 - “Why and how should local governments and land developers protect Garry oak habitats?”
 - “How do I protect or restore Garry oak habitat in my backyard?”
 - “How can GOERT, land trusts, conservancies and other groups collaborate to deliver an effective landowner contact program for the protection of Garry oak ecosystems and their 118 species at risk?”

Site Securement

- 26 key Garry oak sites prioritized for securement; **briefing packages prepared for key sites** (Conservation Planning and Site Protection RIG)
- Presentations made by GOERT outreach contractors at 14 public and other meetings with local government/land developers to promote the protection of **12 key Garry oak sites** at risk and to provide factual information on species at risk and Garry oak ecosystems (>400 people)
- The Salt Spring Island Conservancy, a GOERT partner in the protection of Garry oak sites, purchased **40-ha on Mt. Erskine, on Salt Spring Island**, in collaboration with the Nature Conservancy of Canada (B.C. Region) and the B.C. government

Site Restoration and Management

- **Restoration** undertaken at **four key sites**: Cowichan Garry Oak Preserve, Mt. Tzuhalem Ecological Reserve, Somenos Garry Oak Protected Area and the Nanaimo/Cassidy Airport, over ~ 44 ha (Nature Conservancy of Canada, BC Parks, BC Environment)
 - Up to 18 species of invasive plants removed over 44.5 ha
 - ~ 60,000 seeds from 36 species collected and propagated
 - ~ 21,000 plugs/bulbs of native plant species propagated
 - > 18,350 grass plugs and 12,850 bulbs from 14 species were planted
 - 40 native shrubs planted at the Nanaimo Airport to benefit the coastal vesper sparrow
- Funding proposal developed for **re-introduction of western bluebird** (Vertebrates at Risk RIG)
- **Propagation tips** developed for another **16 native plant species** - 106 done to date (Native Plant Propagation Steering Committee)
- **Native plant demonstration garden created** at the Pacific Forestry Centre (Forestry Canada and Native Plant Propagation Steering Committee)
- New species accounts and annotated literature reviews on **management of five additional invasive plant species** were prepared and distributed for inclusion in the GOERT stewardship manual on invasive species (Invasive Species Steering Committee)

- Two **guided walks** in restored areas for 60 people; **restoration help** provided at two private sites (Invasive Species Steering Committee)

Surveys and Monitoring

- A **plants at risk survey** was completed at the **Somenos Garry Oak Protected Area**, over 9 ha
- **Vegetation monitoring** also occurred at the **Somenos** site, over 2 ha
- **Photo-point monitoring** continued at the **Cowichan, Somenos and Mt. Tzuhalem** sites, at 14 locations established in previous years
- **Monitoring and banding of coastal vesper sparrows** for the first time allowed the mapping of nine active territories. Six adults and six juvenile sparrows were banded
- **Long-term monitoring program for butterflies** developed (Invertebrates at Risk RIG)

Research and Development

- **Invertebrate Research Symposium** organized: 64 attending, 6 researchers presenting (Invertebrates at Risk RIG)
- **Garry Oak Research Colloquium** organized: 78 attending, 16 presenting (Research RIG)
- **List of 111 Garry oak researchers** and **93 projects** maintained, as well as **> 200 reports** included in the Restoration of Natural Systems library at the University of Victoria (Research RIG)

Financial Highlights 2005-2006

- Total **GOERT budget** was \$1,011,334, of which \$225,590 was provided in cash by the Habitat Stewardship Program, \$143,000 by Parks Canada, \$55,000 by BC Environment and \$9,000 in private donation's (Cash total \$432,590; in-kind contributions \$578,744)
- GOERT and RIGs (Recovery Implementation Groups) contributed respectively \$97,500 and \$177,100 in matching in-kind contributions
- GOERT public fundraising campaign raised approximately \$9,000, of which \$3,000 was contributed by the Tree Canada Foundation
- For fiscal 2005-2006, a total of \$3.1 M was documented for work on Garry oak ecosystems recovery efforts. This included ~6 FTEs in volunteer time, and 9.6 FTE in paid/contracted work. \$2.2M cash was spent, which includes the \$625,000 acquisition of Mt. Erskine on Salt Spring Island by GOERT partners (\$1.56M in projects).

In comparison, for fiscal 2004-2005, a total of \$2.3 M was documented, which included 2.5 FTEs in volunteer time and 9.45 FTE in paid time. \$2.3 M in cash was spent, which included the \$1M Matson Land acquisition (\$1.3M in projects).



Parks
Canada

Parcs
Canada



Partners in Garry Oak Ecosystems Recovery Selected Projects 2005 – 2006

Garry Oak Site Protection

- City of Nanaimo: Planning initiative to protect Harewood Plains
- Habitat Acquisition Trust: new covenant created for the protection of Camas Hill, Victoria
- Islands Trust, Ardice Neudorf: chair of GOERT Conservation Planning RIG; helped write Regional Conservation Plan for the Gulf Islands, including objectives for Garry oak habitat protection
- Parks Canada: two areas on Saturna Bluffs and Tumbo Island proposed for special Preservation Area designation
- The Land Conservancy: covenants held and education of owners to protect Garry oak ecosystems

Outreach

- City of Victoria, Parks Division: outreach and education to ensure protection of natural areas
- District of Saanich: produced Garry oak educational resource for school students; train and manage volunteers
- Habitat Acquisition Trust: sharp-tailed snake and Garry oak ecosystems Good Neighbours Program

Garry Oak Restoration (primarily invasive species removal)

- B.C. Ministry of Environment/Friends of Salt Spring Island Parks: removal of carpet burweed at Ruckle Park
- Capital Regional District: Restoration and recovery of Garry oak ecosystems/species at Mill Hill Regional Park
- City of Nanaimo: Invasive plant removal at Harewood Plains
- City of Victoria Parks Division: Removal of carpet burweed, ivy and broom in municipal parks
- Cordova Bay Residents Association, Norman Mogensen, volunteer: extensive invasive species removal at Haro Woods
- District of Saanich: removal of invasive plants in nine municipal parks
- Habitat Acquisition Trust, Matson Lands: completed baseline inventory, naturesscaping, removal of invasive plants
- Nature Trust of BC: Scotch broom removal and species at risk survey on Mt. Maxwell, Salt Spring Island
- Parks Canada, BC Region: extensive removal of invasive plants from Gulf Islands National Park Reserve and Fort Rodd Hill National Historic Site
- Southeast Woods Ecological Recovery Project, Cornelia Lange and Jeff Ralph (Masters student at UVic): Restoration project at Beacon Hill Park, Victoria

Garry Oak Research

- Judith Carder, Natural Systems Restoration Program, UVic: Restoration of Garry Oak Ecosystems: Is It Working? Chatterton Hill Park: A Case Study.
- Magnus Bein, UVic: Testing site preparation, planting methods for restoring a Garry oak plant community at UVic.
- Rebecca Best and Dr. Peter Arcese, UBC: Inter-trophic invader interactions: Impacts of Canada goose disturbance on non-native plant species in British Columbia's protected Gulf Islets.
- Dr. Adolf and Dr. Oluna Ceska, botanists, Victoria: "Restoration or Conservation? Fundamental issues of dealing with Garry oak associated plants and Garry oak ecosystems"
- Dr. Elizabeth Elle, SFU: Plant and Pollinator Diversity in Fragments of the Garry Oak Ecosystem.
- C. Engelstoff (Alula Biological Consulting) and L. Byrne (Canadian Forest Service): Scotch broom removal and its impact on grazing of white-top aster.
- Erickson, Wayne & Del Meidinger, BC Ministry of Forests and Range: Plant community targets for restoration in Garry oak habitat of south western British Columbia (Garry Oak ecosystem guide).
- Emily Gonzales, Ph.D. student, UBC: The Mystery of the Disappearing Ecosystem.
- Ted Lea, Ministry of Environment: Historical Garry oak ecosystems of Vancouver Island: 1800 to 2005
- Patrick Lilley and Dr. Mark Vellend, Department of Botany, UBC: Landscape and environmental drivers of plant distributions in Garry oak ecosystems.
- Marian McCoy & Dr. Marlow Pellatt, SFU: Fire history of GOEs inferred from pollen and charcoal in lake sediments.
- Dr. Terry McIntosh, Vancouver: Rare bryophyte elements in Garry Oak ecosystems incl. new species to Canada
- Dr. Mile Meagher, Forestry Canada: Growth rates and Acorn frequency of Garry oak

- James Miskelly: Victoria Grasshoppers and crickets of the Garry oak ecosystem
- Jacqueline Shaben, graduate student, UBC: Impact of Scotch broom on plant diversity of the Garry oak ecosystem mediated by nitrogen fixation
- Shyanne Smith and Ze'ev Gedalof, Univ. of Guelph: Garry Oak Savannah dynamics in the Gulf islands National Park Reserve: Pattern and Process of stand change.
- Dr. Amanda Stanley, Institute for Applied Ecology and TNC, Corvallis, Oregon. Regional strategies for restoring invaded prairies: a multi-site, collaborative approach for controlling invasive weeds.
- Erica Wheeler, UVic: Phylogeography and conservation genetics of the slim-leaf onion (*Allium amplectens*)

Profile of a Garry Oak Volunteer

Among other things, Moralea Milne sits on the GOERT Native Plant Propagation Committee; has removed broom and created a 10-acre covenant to protect Garry oak habitat on her 20-acre property; is helping to restore the municipal Garry Oak Heritage Meadow Garden in Metchosin; participates in Metchosin Day to encourage people to remove broom from their property; donates native plants from her nursery for Garry oak restoration projects; writes articles for the Native Plant Study Group Newsletter and the Metchosin Muse (local newspaper); and participates in the Metchosin Environmental Advisory Committee.