



Annual Report 2011-2012

2011-2012 was a busy year with a lot of focus on planning to adapt to the changes all around - climate, new invasive species, economic constraints, and in new and old partners' programs. We also participated in our provincial association, Forest Genetics Ontario's (FGO) review of its organizational structure in preparation for the end of the Ministry of Natural Resources (MNR)-FGO agreement in December 2012. It was an opportunity to promote our gene conservation program and its value to several MNR Initiatives such as Biodiversity Conservation, Species at Risk and Climate Change.

As always I look forward to working with all FGCA members and associates in the coming year. The challenges and opportunities continue!

Barb Boysen, FGCA Coordinator

This report is presented as per the Goals in the *FGCA 5 year Strategic Plan 2010-2014*:

- I. Biologically Appropriate Reforestation** - Increase quality and quantity of source-identified, native species seed
- II. Gene Conservation Principles Integrated in Forest Management Programs** - Increase awareness and use of genetic resource management principles to help conserve and improve existing native forests
- III. Species Conservation & Restoration** - Increase awareness of native species diversity and threats to their status and develop programs for recovery
- IV. Communication of Gene Conservation Principles** - Increase awareness of FGCA program among forest management and conservation sectors.
- V. Effective, responsive, fiscally viable organization** - Maintain a not for profit corporation and serve its membership.

Our programs could not succeed without our many partners; these **people** are bolded and organizations underlined. Contact Barb Boysen if you want more detail on any of the programs described briefly below.

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I. Biologically Appropriate Reforestation

Ontario's Natural Selections (ONS) Seed Source Certification Program

- Certified Seed Collector (CSC) workshops were held with 50 students, led by **Brian Swaile** and **Ron Thayer** in partnership with Trees Ontario and the Ontario Tree Seed Plant at the Seed Plant and with Haldimand County Stewardship Council in Cayuga. **Melissa Spearing**, current CSC and horticulture student/grower assisted as part of an FGCA Succession plan.
- Many SeedWhere analyses were completed to help direct use of source identified seed and stock to collectors, growers and forest industry and planting agencies.
- The Seed Manual for Ontario and ONS workshop curriculum revisions were continued including the addition of more southwestern Ontario species.
- Forestry Colleges expressed interest in adopting ONS workshop curriculum.

Trees Ontario (TO) and 50 million Tree Program

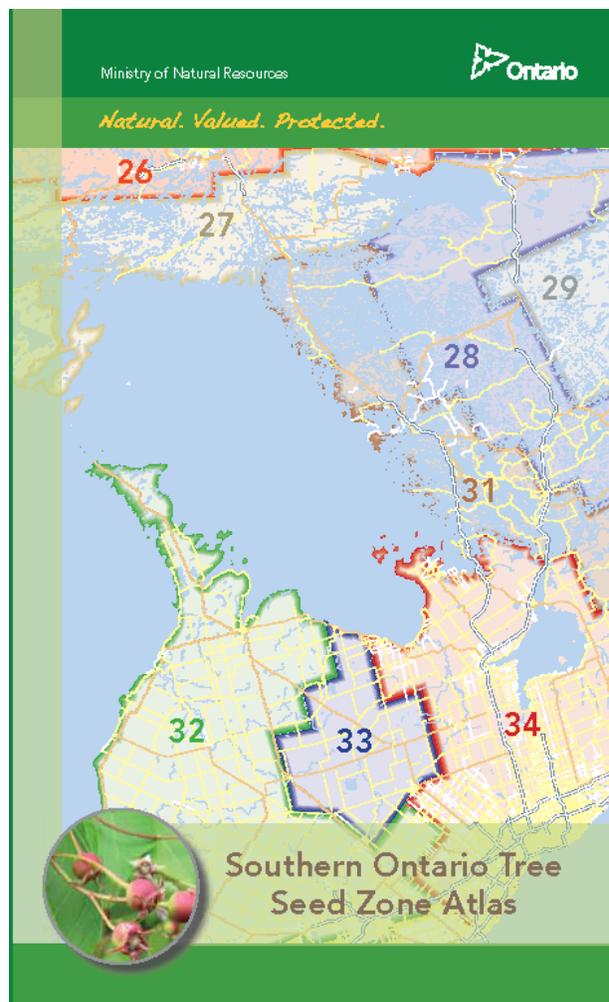
- MNR/Trees Ontario 50 million Tree Program Advisory Committee representation was maintained to address seed management, grower standards and climate change.
- Assisted TO in a successful Trillium Foundation proposal for a strategy to ensure reforestation competencies are maintained and transferred to next generations.

Southern Ontario Tree Seed Zone Atlas

- FGCA collaborated with MNR Species at Risk Branch and Southern Region Science on a map book with seed zone boundaries and seed collection guidelines. This tool makes it easier for collectors, growers, and buyers to respect zone boundaries and seed source.

Seed Collection Area Network - SCAN

- FGCA collaborated with Trees Ontario and the 50 MTP seed management program and MNR's Climate Change Initiative to continue SCAN 36 (seed zone 36), began SCAN 35 and generate partners in Seed Zones 32, 33, 34, 37 and 38. The objective is to contact landowners to locate, assess and map good seed collection areas for the top 10 to 20 afforestation species in each zone, as well as consider species of conservation concern.



White Pine Seed Orchard Management

- Funding from FGO (2007), Trees Ontario and the 50 MTP's seed management program and MNR Forest Health & Silviculture Section (FHSS) supported the following:
 - Cone beetle was assessed but not controlled in Cayuga (7E)
 - Crown Management via remedial topping and pruning were continued to maintain crown access in Cayuga (7E) by **Terry Schwan**, MNR Guelph and the Haldimand and Area Woodlot Association, and in Scugog (6E w) during cone collection and in Conger (5E Georgian Bay) by Westwind Forest Stewardship.
- 2011 Seed Collection - none to light to medium crops which ripened early in late August
 - Cayuga (7E) where **Terry Schwan** and volunteers collected 50 hl for MNR's Ontario Tree Seed Plant (OTSP), starting Aug 22.
 - Scugog (6E w) where **Barb Boysen** managed a crew of contract collectors to collect 94 hl of cones for OTSP starting Aug 23.
 - St Williams 7E (breeding orchard) - contractor collected 5 hl for Trees Ontario.
- Climate Change Monitoring Project supported by MNR FHSS
Glencairn (6E w) and Cayuga (7E) orchards were chosen to begin a climate change monitoring project to determine differences in phenology and seed production by origin of clones and to eventually inform clonal roguing and seed use strategies.
 - Clone labelling for easy monitoring
 - Draft tree assessment
 - Clonal origin UTM database
- White Pine Realised Gain Trials
 - Supported OFRI and Westwind Forest Stewardship to maintain 3 trials.
 - Established plots of Seed Orchard stock within plantations of general collection stock with Program Delivery Partners in the 50 MTP.



Climate Change

➤ Assisted Migration and Seed Production Area Trials:

FGCA worked with Trees Ontario, the MNR Climate Change Initiative and local partners:

- Maintain the 2010 red and white oak trial with **Phil Holst**, an Oxford County landowner. Growth and survival are excellent, and Mr Holst has hosted several tours re climate change, assisted migration and seed production. FGCA worked with Oxford Ontario Stewardship Council, the main landowner contact to maintain the trial.
- Planted a bur oak trial on an Oxford County property, with plots of local hardwoods to diversify the site. FGCA worked with Oxford Ontario Stewardship Council, the main landowner contact (photos below) to maintain the trial.



- Planned and site prepared a bur oak trial which will include plots of mixed local and Carolinian hardwoods for diversity. Planting is scheduled for late April 2012. FGCA worked with Cataraqui Conservation Authority and Friends of Lemoine Pointe.
- Several groups in central and southwestern Ontario are interested in similar trials.

➤ Used SeedWhere climate analysis program to guide questions from consumers and growers about seed movement under climate change

II. Forest Conservation & Management

- Participated in MNR's Forest Forum and Southern Ontario Forest Task Team.
- Responded to Forest Audit recommendations re white pine tree improvement program status in the Bancroft Minden Forest Inc SFL.

III. Species Conservation

CONFORGEN - Conservation of Forest Genetic Resources in Canada (www.conforgen.ca)

- Monitored activities of Standing Technical Committee.

MNR

- Provided input re gene conservation in Renewal of Ontario's Biodiversity Strategy

Butternut Conservation

- Endangered Species Act 2007
 - Worked with MNR SAR staff re the exemptions (Section 5 of O. Reg. 242/08) and an amended regulation to facilitate recovery and 'ESA overall benefit' activities.
 - Supported communications with hundreds of MNR designated Butternut Health Assessors (BHA) regarding assessment protocol
 - Developed protocol re source identity and purity of butternut seed collection.
 - Reviewed tree removal permit conditions that would require planting or cloning of trees to result in an over all benefit to the species (ESA, 2007, Section 17 - 2c)
 - Proposed expansion of grafting/archiving as an option for Overall Benefit Permits
 - Contributed to an MNR District Data Tool to track BHAs and permit activities.
 - Contributed to creation of an Ontario Addendum to the National Recovery Strategy

Tree Number: Original Tree Was: DBH(cm): Archived: Seed Tree:

Regulation Agreement Permit

- Butternut Research Collaboration;
 - Collaborated with **Dr John McLaughlin**, MNR OFRI on an FGO funded Project: *Genetic diversity of the Endangered Species butternut (Juglans cinerea L.) in Canada*, Project Co-Leaders Barb Boysen and John McLaughlin with **Keith Woeste**, **David Belyea**, **Glenna Halicki Hayden** and **Sylvia Greifenhagen**
 - Attended and spoke at Juglandaceae Colloquium, Penn State July 2011 with experts from across North America to discuss butternut canker and thousand canker disease.

➤ **FGCA Butternut Recovery Program**

- Received funding from ESA Permit holders to archive 5 putatively resistant trees
- Received a \$42,500 from MNR Species at Risk Stewardship Fund toward a \$100,000 annual program with 5 Ontario Stewardship Recovery Programs assisted by Ferguson Forest Centre and MNR's OTSP and Ontario Forest Research Institute (OFRI):
 - Held 2 Butternut Health Assessor workshops for people with an interest in landowner assistance in areas lacking tree reports in east central and southwestern Ontario
 - Private land assessments to locate seed crops and putatively resistant trees.
 - DNA testing of trees selected for seed crops and putatively resistant trees
 - 20,000+ seed from native butternut collected and sown.
 - 2011 OTSP workshop to refresh/train grafters
 - Collected Scions and grafted 10 putatively resistant trees from eastern and central Ontario at Ferguson Forest Centre and OTSP in April 2011
 - Located 10+ putatively resistant trees in eastern and central Ontario to be grafted in 2012; prepared black walnut rootstock
 - Planted and tended grafts in the Eastern Ontario Butternut Archive (see photo) and developed additional archive area in the Central Ontario Archive.



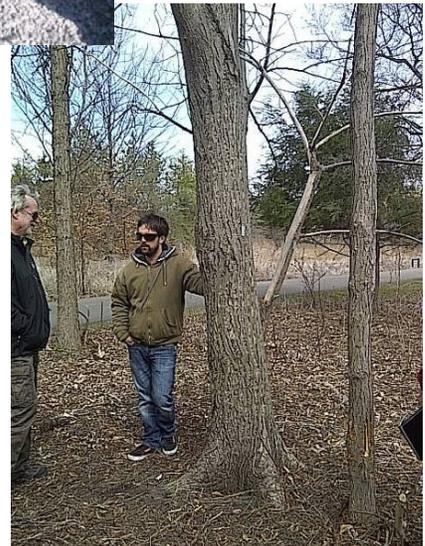
Top = June 2011
at the EOBA,
Kemptville



Bottom = COBA
grafts summering
in hoophouse at
OTSP

Other SAR

- Assisted Chestnut Recovery Partners with interpretation of ESA Regulations
- Began collaborations and fund raising with OFRI re Beech conservation promotion.
- Began discussions with Charitable Foundations re a long term Trees in Trouble foundation.
- Initiated discussions with Humber Arboretum regarding collaboration on conservation of butternut and other species (photo of Al Winters, Ontario Stewardship and Al Corlett, Trees Ontario at Humber Arboretum)



IV. Promotion:

Presentations & Displays:

- Marmora Woodlot Association meeting, April - Species Diversity and Reforestation
- Huntsville CIF Meeting, August - Butternut and Forest Management
- Somerville Seedlings Stock Viewing Day, September - Butternut Seed Sourcing
- Guelph Growing Native Trees Workshop, October - Seed Sourcing & Genetic Diversity
- Spreading Roots Urban Forest Council AGM, November - Moderated assisted migration panel; Seed Source Talk
- New FGCA Display Units created
- Trenton Woodlot Conference, November - FGCA Display and Seed Collection Talk
- Lindsay Woodlot Conference, February - FGCA Display and Seed Collection Talk

E-mail Distributions

- Dozens of articles and news items were distributed to hundreds of FGCA members and associates.

Website

- maintained and started revision of www.fgca.net and www.ontariosnaturalselections.org

Meetings:

- June 2011 FGCA AGM in Brockville with a greater Eastern Ontario Field Trip:
 - Seed forecasting in a promising year - oak, pine, spruce, maple, cedar, tamarack, etc
 - Seed Collection Area management to help secure high quality seed supplies
 - Species and stock type forecasting
 - White pine - blister rust resistance and seed orchard stock trials
 - Butternut recovery - seed production, grafting and archive operations
 - RVCA & Trees Ontario and 50 MTP planting sites

AGM Field Trip Photos:

Rose Fleguel with EOBA 2010 & 2011 butternut grafts at Ferguson Forest, Kemptville



Pengxin Lu & Darren Derbowka, MNR OFRI in Pw Blister Rust Trial at Ferguson Forest, Kemptville



Left - Newly planted oak on private plantation in 50 Million Tree Program managed by Rideau Valley CA
Right - 5 year old private plantation managed by Rideau Valley CA (right) with precocious Tamarack producing a small cone crop with some developing seed.



V. Administration

FGCA Board

- Meetings were held in March, June, January and other discussions via conference call/e-mail.

FGO

- FGCA FGO Directors **Gary Nielsen** and **Brian Swaile** participated in FGO meetings and calls
- The FGCA Board contributed to reviews of FGO organizational structure
- Barb Boysen participated on the Provincial Technical Forum via conference call

NFP Corporation

- Minutes were kept; Financial Reports reviewed, and Board Insurance maintained.