

The Canadian Sweet Chestnut

-Newsletter of the Canadian Chestnut Council-

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<http://www.canadianchestnutcouncil.ca>

Council Mission - to help restore the American Chestnut to the areas of Canada it once occupied.

Current Priorities

- 1) Breeding resistance
- 2) Breaking Isolation / Establishing Gene pool Nodes
- 3) DNA Analysis
- 4) Survey of existing Chestnuts in the wild

In this issue:

- Breeding Resistance – Spring Tree Planting 2019
- DNA Analysis – update (Sophia Stoltz)
- Book reviews – (Terry Anderson)
- Annual General Meeting – speaker information

Breeding Resistance – Spring Tree Planting 2019

On Monday June 3rd, members of the Canadian Chestnut Council and volunteers planted 3100 chestnut saplings at Onondaga Farms, just north of Brantford, Ontario. Onondaga Farms is the major site of the Canadian Chestnut Council's initiative to breed a blight resistant Chestnut tree. The saplings were the result of nut planting in late February and early March of this year at the University of Guelph Simcoe Research station (see March 2019 newsletter). This spring we have planted our second generation which is intercross between selected trees from our first generation. The parents of our second generation were selected based on lowest rate of blight growth after two years of

inoculation. Our first generation was back-crosses of pollen from Dr Sandra Anagnostakis to native Ontario trees and intercrosses between native Ontario trees.



John Hill seated on planter, placing saplings in furrow



Volunteers staking saplings and adding tree guard



Successfully planted field



The Council would like to thank all the volunteers that helped with the undertaking including 14 WALTERFEDY employees and friends. Suffice to say, we couldn't have done it without them.

DNA Analysis - Update

Graduate student Sophia Stoltz is working under the supervision of Dr. Brian Husband at the University of Guelph. For her Master's thesis, she intends to explore the distribution of genetic diversity and rates of hybridization within native populations of American chestnut (*Castanea dentata*) in southern Ontario. A key to her research is the DNA analysis of chestnut tree leaf samples of wild origin from across the native range and some reference samples of known pedigree from the Connecticut Agricultural Experiment Station. To date she has processed about 80% of the ~400 samples of American Chestnut. By the end of August, she expects to have completed her analysis of the data. At this point, she hopes to be able to provide a baseline for identifying hybrid trees and give insight on the extent of genetic diversity and the spatial organization of this diversity across Ontario.



DNA analytical equipment at University of Guelph

Book Reviews by Terry Anderson

CCC members have some hidden talents that have recently come to light. Below are 3 books written recently. Please give them some consideration for your collection or as gifts. You can e-mail the authors if you have questions regarding purchasing.

My Tree, My Forest by Pat Kerr , Photos by Dan Kerr kerrpad@sympatico.ca
P & D Publishing (2018) 200 pages, 1st Edition: Cliffe Printing Inc., www.cliffeprinting.ca

The book was written with a broad knowledge and understanding of native trees common of both northern and southern Ontario. The first half of the book is dedicated to many important aspects of tree culture that standard tree books overlook. Chapters include: Hobby vs. Legacy trees, Oak Overview, native fruits, Autumn Colour, Tree decay, Composting, Preventing Construction Damage and How Sweet It Is, Tree Syrups. Many of these chapters provide insight into tree biology and suitability for urban planting. The remaining 22 Chapters are dedicated to the biology and folklore surrounding individual Ontario tree species. Most of these are native to the 'Carolinian Zone" but some are more northern in distribution. Each chapter contains a "Fast Facts" section with information on seed handling, site requirements, expected tree height, life expectancy, etc, that both urban

gardeners and forestry workers will find informative. There is also a chapter on the American Chestnut that will have special appeal to CCC members.

We are Planting a Forest by Pat and Dan Kerr

P & D Publishing (2018) 17 pages, 978-1-9994295-1-5 , 1st Edition: Cliffe Printing Inc.,
www.cliffeprinting.ca

This short book has numerous photos and simple language that will appeal to younger tree enthusiasts. It is intended to introduce simple tree facts and the importance of trees to our environment and well being.

Chronicles of an Ottawa Chestnut Lover by Luciano Pradal lpradal@bell.net

Legas Publishing (2013) 134 pages, ISBN 978-1-897493-45-8 , Gavin Press (Canada)
<http://www.legaspublishing.com>

This book consists of short stories by Luciano the chestnut roaster about the people that he observes and interacts with in the Ottawa Byward market district. Stories are related in a sensitive and incisive manner that emphasize the subtle and sometimes not so subtle interactions of individuals. Luciano has a keen interest in the personalities of his customers and has a unique ability to see the good and minimize any bad. I think you have to be an optimist to tolerate Ottawa streets in winter and his stories tell more of the author than they do of his subjects. Some stories are in French, some in Italian but most are in English. This book is best read in short intervals to allow time for some meditation of the contents.

31st Annual General Meeting 2019

Mark your calendars for Saturday, Oct. 19, 2019

Guest Speaker – Dr. Myron L. Smith, Professor of Biology and Biochemistry, Carleton University will speak on Hypovirulence – Dr. Smith’s research encompasses genetics, molecular biology, microbiology and general biology and focuses on four main themes: i) deciphering the biochemical and genetic bases of nonself recognition-associated cell death, ii) identification and characterization of new antibiotics from ethnobotanical leads and from agroforestry and bioprocessing ‘waste’ for use in health, food and industrial applications, iii) development of methods to identify and enumerate microbial strains for environmental monitoring, and iv) application of genetic markers to life history studies. This research spans questions of basic biological interest and has biotechnology applications in diverse areas that include health, agri-food, environment, and biofuels.

Want more information:

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Interim Directors – Don Campbell, Nathan Munn, Pete Smith

Members Photo Gallery



Former chestnut roaster Luciano Pradal makes a sale to former Prime Minister Joe Clarke