

THE BRODIE CLUB



Established 1921

Website: <http://thebrodieclub.eeb.utoronto.ca>

THE 1,132nd MEETING OF THE BRODIE CLUB

The 1,132nd meeting of the Brodie Club was held on Tuesday, 21 February 2023 in Room 432 of the Ramsay Wright Laboratories of the University of Toronto.

Chair: Jean Iron
Secretary: Ken Abraham

The meeting was called to order at 7:30 pm and was attended by 19; 13 members and 6 guests.

Roll Call:

Present: Abraham, E. Addison, R. Addison, Bacher, Bertin, Coady, N. Dengler, R. Dengler, Eckenwalder, Iron, Kortright, Miller, Rising, Thomas

Guests: Peggy Haist (guest of Bertin), Jim Dickenson (Eckenwalder), Jasmine Kortright (Kortright), Alan Hirsch and Marion Lord (Rising), Mary-Lou Backer (Bacher).

Regrets: Bell, Bryant, Crins, DeMarco, Dunlop, Dunn, Falls, Hussell, Lindsay, Martyn, McAndrews, Obbard, Pittaway, Riley, Seymour, Stones, Sutherland, Xamin.

Minutes: Miller moved acceptance of minutes of the January 2023 meeting. Seconded by Eckenwalder. Approved.

Committee Reports:

Treasurer Bob Kortright reported good number of members have renewed, and finances are in good shape. There was a question about current committee membership. Katie noted that the list had been sent in the fall, but that she could re-send it to the membership.

Announcements:

Katie Thomas reported that a member had contacted her about masks, indicating they were not comfortable coming to a meeting if everyone was not wearing a mask. Katie said she would put the question to the membership so she asked whether the group would agree to mandatory mask wearing? Discussion followed. A member asked if there would be some people who would not attend if masks were mandatory, i.e., the converse situation? A member noted that the University's practice is to respect individual choices, so no mandate. Katie asked the membership (including those not present at this meeting) to let her know their thoughts on the matter.

Please note that the date for May meeting is usually moved forward to minimize interference with spring birding and other field work. **The date suggested is 9 May**, a date acceptable to that month's speaker. This will be ratified at March meeting unless there is general objection.

Meetings:

On 21 March, Nick Eyles will speak on the life and work of J. Tuzo Wilson, based on his book 'Tuzo: the unlikely revolutionary of plate tectonics'

SPEAKER:

Our speaker, Daniel Chevalier, was introduced by Gavin Miller. Daniel grew up in Brampton and obtained a Bachelor's degree in Environmental Sciences at University of Waterloo, followed by a Master's degree in Forest Conservation from University of Toronto; he is a Certified Arborist with a specialty in tree risk assessment and management. After four years of work in the U.S. and Port Credit, he joined the Mount Pleasant Group as Head Arborist, where he is responsible for trees at Mount Pleasant Cemetery and 9 other cemeteries. In the 10 cemeteries combined there are over 18,000 trees to manage. At Mount Pleasant Cemetery alone, which was established in 1876, there are currently over 4000 trees of up to 400 species spread over 205 acres. Mount Pleasant Cemetery is an internationally accredited arboretum listed in the Morton Register of Arboreta: see <http://arbnet.org/morton-register/mount-pleasant-cemetery>.

**Arboretum Management Concerns and Considerations,
with a focus on Mount Pleasant**

In addition to the cemetery's primary function, the land is managed as a multiuse green space where consideration is given to the arboretum plantings, wildlife use, urban use such as running trails, sculptures and gardens. The arboretum managers collaborate with the University of Toronto and Fleming College, providing practical experience and programs for students.

These multi-use objectives provide many management challenges. For families of the interred, aesthetics of the cemetery are a primary issue, but Daniel must also be concerned with other values, including the ecology and environmental benefits of the trees and use of the plantings by wildlife. Cemetery operation, for example excavation of graves, carries the risk of root damage to the older trees on site. Heavy equipment traffic may lead to soil compaction over the tree rooting zone and their operations may damage bark and tree limbs.

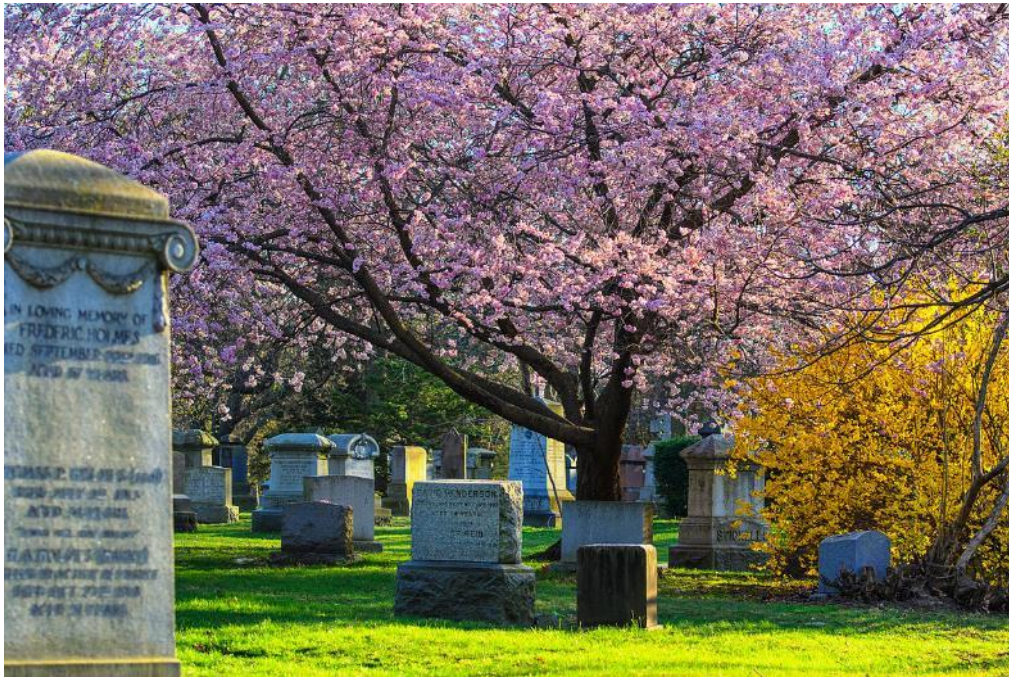
Daniel identified three major considerations in making decisions for arboretum management: addressing risk of damage, proactive protection, and planning for the future.

Risk assessment takes place when a tree is in a position to damage something of value, such as people, buildings or vehicles. To determine best course of action, risk is assessed both for the tree itself and for the impact of failure to take action. The risk for tree failure (such as dropping branches or falling over) is scored on a scale of unlikely to somewhat likely to likely. Risk for failing to take action (such as the tree falling on something) estimates the fallout of inaction on a scale of low, moderate or high. The example given was of a large, old Norway Maple with co-dominant trunks formed by a U intersection. In this case, the risk assessment led to a prediction that failure was somewhat likely, and impact would be moderate. The management action taken was to do a lateral reduction of less than 15% of the canopy and to install a cable connecting the two trunks.

A second management area is to promote natural resilience of the trees. This involves pro-active management, pest and disease management. All trees get maintenance pruning every 7-10 years.

Certain trees get inoculations, e.g., ash which need injections every year, and elm which need injections every third year. Action is taken to protect against the LDD (*Lymantria dispar dispar*), also known as sponge moth, by deploying traps and burlap tree skirts. The latter attract caterpillars to gather underneath, which can be then be removed and destroyed daily. This past year (2022) was wet and there were fewer larvae present than in recent years.

Planning for the future includes considering which tree species to plant and where. Species selection factors include the light available and shade tolerance of the species, proximity to roads (salt impact), proximity to graves (for long term planning) and diversity of existing species, including consideration of native and non-native origins. Climate change is causing shifts in hardiness zones and appropriate species selection will be important to future tree diversity in the arboretum.



Questions following the presentation:

Q: Gavin Miller. Is tree species rarity a consideration in terms of deciding need for management, e.g., cabling?

A: Yes, viewed in terms of best use of resources; commoner species may not warrant expense.

Q: Bob Kortright and John Bacher asked about management of invasive non-natives

A: The Arboretum has been good at removing things like Buckthorn and Dog Strangling Vine.

Q: Oliver Bertin. Is there a tree species directory for Mt. Pleasant Cemetery?

A: Yes. A cursory map of tree species is on their website, but details are mostly not on line to the public.

Q: Glenn Coady. Are there any American Chestnut and American Elm trees?

A: Yes. There are a couple chestnuts with 45 cm DBH (diameter at breast height) that are doing well. There are also American Elm of similar size doing well, near the Crematorium. All get injected with fungicide. Glenn followed up with a comment that there is a large old American Elm on the CNE grounds by the Press Building.

Q: Ed Addison. Is there a concern about age diversity?

A: Yes. Although there are no criteria for age diversity as such, it is considered. Shade tolerant trees are planted as understory that will eventually become canopy trees and replace the older ones.

Q: Katie Thomas. What is the oldest tree in the arboretum?

A: There is a Red Oak with 245 cm DBH estimated to be about 260 years old, around before Canada was established. There are a number of oaks in that age realm, along Yonge Street.

Q: Trudy Rising. What about black walnut?

A: One estimated about 185 years old. Slower growing species. One near Yonge Street entrance with about 120 cm DBH. Some were planted.

John Bacher commented that *Juglans* species are good for combating Dog Strangling Vine. He also suggested naming something for the former arborist, Jack Burdesky.

Daniel announced that the arboretum tours which were halted during the pandemic are scheduled to resume in the autumn of 2023.

The speaker was thanked by Rose Addison.

OBSERVATIONS

Gavin Miller went to the Dominican Republic with a UK agency (Martin Royal) to take part in a search for two rare and unusual mammals, the Solenodon (https://en.wikipedia.org/wiki/Hispaniolan_solenodon) a small distant relative of the shrew (also known as agouti) and the Hispaniolan Hutia (https://en.wikipedia.org/wiki/Hispaniolan_hutia) a small muskrat-like but arboreal mammal. They found both species.



Oliver Bertin commented on a palm tree that existed Toronto in the 1960s-1970s in front of the Ports of Call restaurant. It was at 1145 Yonge St., just north of the Summerhill railway station/LCBO. It was a very trendy, modern, elegant restaurant/bar (see the pic) that included the very popular Bali Hai room with a Tikki theme. He remembered that they had real trouble keeping the palm tree alive through the Toronto winters and thought that they wrapped it in canvas and ran heating wires around the trunk. It worked as the tree was there for a long time and his mother, who was Italian, was very impressed that palm trees grew in Toronto. She used to tell all her friends back home that Toronto really was tropical!

John Bacher commented on the distribution of Cherry Birch, which thrives in St. Catherines and occurs in the Beaches area. He suggested its planting could be encouraged now with climate change expanding its suitable range. He recommended reading the recovery plan.

Jim Eckenwalder noted that a new ROM Guide to Trees will be released about April 3rd. He is author and was assisted by Tim Dickinson. There are lots of photographs.

The meeting ended at 8:43.