

# THE BRODIE CLUB



*Established 1921*

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

## **THE 1137th MEETING OF THE BRODIE CLUB**

The 1137th meeting of the Brodie Club was held on Tuesday, 17 October in Room 432 of the Ramsay Wright Laboratories of the University of Toronto.

Chair: Katie Thomas

Secretaries: Ricky Dunn and Nancy Dengler

The meeting was called to order at 7:37 pm and was attended by 17; 13 members and 4 guests.

### **Roll Call:**

Present: Bacher, Beadle, N. Dengler, R. Dengler, Dunn, Eadie, Harris, Iron, Kortright, Larsen, Miller, Rising, Thomas.

Guests: Rachel Gottesman (guest of Kortright), and guests of the club: Al Hirsch, Meredith Swartwout and Christopher Boccia.

Regrets: Abraham, E. Addison, R. Addison, Bell, Bertin, DeMarco, Dickinson, Lindsay, Peter, Riley, Seymour

**Minutes:** Minutes of the September, 2003 meeting were approved with typos corrected.

### **Committee Reports:**

*Program:* The next meeting, on 21 November, will be Meredith Swartwout, speaking on "All about eggs: patterns of reproductive life history in North American snakes."

*Membership:* Al Hirsch was introduced as a pending member. His bio will be circulated shortly.

### **Announcements:**

Aarne Juhola, member since 2003, died on 13 September. Aarne served the Club for many years as Treasurer before retiring from active participation in 2017. For current members who did not know Aarne well, his membership bio is reproduced at the end of these minutes. We send our best wishes and condolences to Helen.

Because the May meeting is often poorly attended because the Club's many birders are in the field, we decided to move the meeting date to the last Tuesday in the month (**May 28**), when most birders are back from field excursions.

Members are also reminded that the December meeting is traditionally moved forward a week, to avoid proximity to the holidays. This year the date will be **12 December**.

David Beadles' photographic guide to Ontario moths is now available (see <https://mattholderfund.com/product/ontario-moths-volume-4/>). Volumes 1-3 will come later!

### **Annual Meeting:**

Committees were updated from last year, as follows:

- Treasurer (*Manages finances*): Bob Kortright
- Corresponding Secretary (*Manages email and announcements*): Katie Thomas
- Recording Secretaries (*Take notes and writes draft of presentation*): Ken Abraham, Kevin Seymour, Ricky Dunn, Nancy Dengler
- Editing Secretary (*Produces newsletter*): Ricky Dunn, Nancy Dengler
- Program (*Arranges speakers for monthly meeting*): Trudy Rising, Marc Johnson, Don Sutherland, Gavin Miller
- Refreshments (*Organizes food and drink after the meeting*): Jerry DeMarco, Anne Bell, Nancy Dengler, Oliver Bertin
- Membership Committee (*Recruits new members*): Trudy Rising, Bill Crins
- Website (*Manages the website with U of T*): Ricky Dunn,
- Field Trip (*Organizes the annual field trip*): Justin Peter, Katie Thomas
- Ontario Nature (*Liaison with Ontario Nature*): Carolyn King
- Archives (*Manages the archives*): Ricky Dunn, Kevin Seymour
- By-Laws (*Revision of the by-laws*): Ricky Dunn, Katie Thomas, John Riley

You don't have to be a member of a committee to contribute ideas or occasional help. Contact anyone on any committee if you have something to offer!

### **SPEAKER:**



Ellie Larsen introduced botanist Dale Leadbeater whose botanical career was launched by her early connections with people familiar to the Brodie Club: Jim Cruise, Paul Catling, John Riley and Jock McAndrews, all of U of T's Botany Department. Dale worked as an environmental consultant, most notably as Principal Ecologist for SLR Consulting, and in retirement continues to work on favorite projects, including those for the Couchiching Conservancy Land Trust. She spearheaded the long-term Flora of the Kawarthas project, culminating in the 2021 publication of *The Flora of Kawartha Lakes: An Illustrated Checklist* with co-author Anne Barbour.

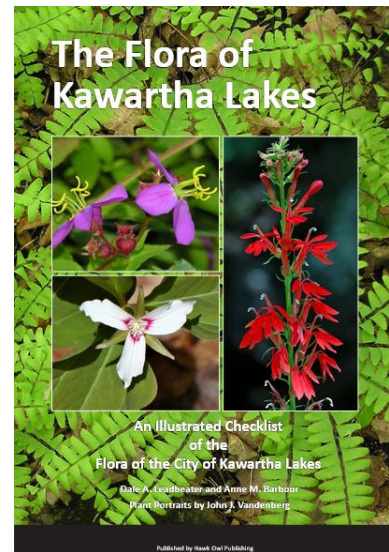
### **City of Kawartha Lakes: Botanical CSI**

Dale stressed that any published flora represents a record of the plants growing at a particular place and at a particular time. This particular place, the City of Kawartha Lakes, stretches from the northern edge of the Lake Ridges Moraine, across the watersheds of the Kawartha Lakes, to the southernmost Canadian shield. Landscapes as diverse as the kame moraines of the Alderville Black Oak Savanna, the Shomberg Clay Plain (where a lake created by glacial ice dams deposited fine-

grained sediments), and the bare limestone of Carden alvar, are all found within the boundaries covered by the Flora and represent a combination of landforms, soils, water movement and history of human activity unique in southern Ontario.

Analyzing a particular flora tells the back story of a landscape's history and, in turn, those historical features and functions determine what plants are able to grow at a specific location. Key features include bedrock geology, the patterns of successive glaciations that remodeled the landscape many times over, hydrological patterns and cultural impacts.

Geological factors underlie all plant distributions. Glaciers scraped limestone plains clean of soil, or left very little, resulting the harsh conditions found at Carden alvar where plants such as scarlet paintbrush (*Castilleja coccinea*) and prairie smoke (*Geum triflorum*) must be adapted to the floods of spring and the droughts of summer. On the Precambrian Shield, plants are adapted to deeper and more acidic soils; for example, American ginseng (*Panax quinquefolius*) prefers those deeper soils and south-facing slopes.



Glacial melting left drumlins, eskers and huge amounts of sandy glacial till, all of which allow water to infiltrate quickly. Pringle's coralroot (*Corallorhiza odontorhiza* var. *pringlei*) is a rare orchid that occurs only on well-drained sandy soils throughout its limited range. In a 2018 publication Mike Oldham, a mentor for the flora project, predicted that the coralroot's range would expand northward into the Flora area and, indeed, new locations for this tiny orchid were found during the project.

Hydrologic cycles can have dramatic impacts on plant distributions. Water percolating through drumlins and eskers can become impounded when it reaches less permeable layers, forming extensive wetlands. Sprager's bog in Carden Township is a bog mimic where peatland plants like sheep laurel (*Kalmia angustifolia*) can thrive. About 11,000 years before present, the weight of the melting glaciers depressed the elevation of the land surface, making it possible for Atlantic saltwater to extend up the St. Lawrence. This created a pathway for plants more typical of the Atlantic coastal plain to extend their ranges to the Kawartha Lakes area. Virginia meadow-beauty (*Rhexia virginica*, illustrated on the front cover of the Flora) is one of these; 15 other species from this group were discovered during the project.

Human cultural history has affected Kawartha's flora in many ways. Damming the Trent-Severn waterway flooded Manoomin (wild rice, *Zizania palustris*) habitat; now, however, indigenous peoples are restoring those habitats on Pigeon, Mitchell and other lakes. The agricultural practice of harvesting 'beaver hay' (naturally occurring sedges and grasses) maintained open wetland habitats in many places, including Sedge Wren Meadow on Wylie Rd. Without this cultural influence, shrubby willows and alders have invaded this graminoid marsh, altering the habitat required by birds such as the yellow rail.



The Kawartha Lakes Flora project began over 14 years ago and has involved hundreds of volunteers, both in the field and indoors creating voucher herbarium specimens. Key funding was obtained from the Victoria Stewardship Council, and staff from the Royal Ontario Museum's Green Plant Herbarium (Tim Dickinson, Deb Metsger) were instrumental in guiding the collection of scientific data and preserving specimens. *The Flora of the Kawartha Lakes: An Illustrated Checklist* includes an extensive introduction to the factors affecting plant distributions, a listing of scientific and common names, along with conservation status, for 1218 vascular plant species, and a checklist with information on specific distributions within the Kawartha Lakes area. Information on where to purchase this non-profit book is below.

### **Questions following the presentation:**

Miller: Are there bur oaks in your study area?

- Yes, but mostly red oak and some white. No black oaks, but we're collecting acorns from appropriate locations for possible transplant.

Dunn: Is there an online site for adding new records to this Flora?

- Not a public entry site, but Dale compiled new records (including from iNaturalist) and keeps her own list updated.

Rising: I've read about plants found on Atlantic coast occurring in a few places on shores of Georgian Bay.

- Yes, and also in a few other places around shores of the Great Lakes. Glacial depression of land mass allowed salt water to reach farther into the St. Lawrence than now, and seeds from Atlantic coastal plants were distributed to the Great Lakes via fresh meltwater from glaciers.

Bacher: The 'Land Between' portion of Kawartha Lakes area (diverse zone where northern and southern landscapes transition) has also been heavily degraded by human activity.

Dunn: Where can the book be purchased?

- Via [website](#), which also names places to purchase book in person (since mailing is expensive).

### **OBSERVATIONS**

Bacher recommended two books that sound like great guides for finding good places to visit – perhaps good ideas for Club field outings. Check out the websites for descriptions.

[Southern Ontario National Parks](#), by N. Glenn Perrett

[Toronto's Ravines and Urban Forests](#) second edition, by Jason Ramsay-Brown

## **Aarne Johola's Brodie Club bio**

Born: Finland, ON, 1935

Brodie Club: 2003

Interests: I am an amateur field naturalist, interested in all aspects of natural history, particularly trees and geology

Education: B.A.Sc. (Geological Engineer), Toronto. C. A. Ontario

Key influences: Moved to Sudbury when I was 4. We lived on the edge of town and evenings and weekends I roamed the woods and hills. As a teen I hunted and fished the Key, Pickerel and French river country. I worked more than a mile underground for INCO

Early mentors: My father taught me the trees and common woodland plants. My grade three teacher got me interested in birds and plants. In fact, the following year I was elected president of the Junior Audubon Club in our public school. I met and married Helen at university, and then my natural history education really began.

### Activities

We have travelled extensively in Canada for more than 40 years, from climbing Gros Morne to floating down the Yukon River. Many years of canoe camping in Algonquin, Quetico and Killarney Parks, until we gave up sleeping on the ground. Numerous nature trips all across the country. Trips on the Rideau and Trent canal systems.

I was active in Federation of Ontario Naturalists in the 1960, and was Treasurer of Toronto Field Naturalists for 23 years. When we retired from the TFN Board and as editor (Helen) and Treasurer (Aarne), the TFN named a 75 acre Nature Reserve on the Uxbridge River, the "Helen and Aarne Juhola Nature Reserve.

