



The 1152<sup>nd</sup> meeting of the New England Botanical Club, Inc. will be held **Saturday, 1 May 2021, at 7:00 PM EST via Zoom.**



**“A Species-Complex Approach to Taxon Delimitation  
in *Amelanchier* (shadbush)”**

**By**

**Dr. Eric Doucette**

**Dept of Biology**

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**PLEASE READ:**

- 1) **PRESENTATIONS & MEETINGS WILL BE VIRTUAL:** Although since March 2020 all our presentations, field trips, and special events had to be cancelled because of COVID-19, New England Botanical Club is offering meetings and presentations via Zoom. The link to join our Zoom Monthly Meetings will be reoccurring and is below. After this presentation, we invite attendees to stay on Zoom and participate in some “virtual visiting.” Feel free to provide your own refreshments!
- 2) **DR. ERIC DOUCETTE’S ABSTRACT:** *Amelanchier* (shadbushes or serviceberries) are shrubs and small trees related to apples and hawthorns and are most conspicuous in the spring for their white flowers. Shadbushes grow throughout North America, often in abundance, and less frequently in southern Europe, northern Africa, western Asia, and eastern Asia. They are most common in early successional habitats, their fruits are eaten by many species of wildlife, and some species are sold horticulturally. Identification of *Amelanchier* to the species level has a deserved reputation for difficulty owing to well-documented characteristics that create morphological complexity: interspecific gene flow, multiple ploidy levels generated by hybridization, and near-obligate apomixis (asexual seed production) in polyploids. These processes create entities that fill the phenotypic space between both diploids and other polyploids, and they weaken taxon cohesion. Many of these polyploids are geographically restricted, yet morphologically distinguishable “microspecies,” while others become widespread, successful polyploid species. Recognizing all “microspecies” as species may burden *Amelanchier* taxonomy and nomenclature and mischaracterize the temporal position of the speciation processes in these taxa. Conversely, including all of this diversity into the conventional, currently circumscribed species greatly widens their morphological breadth and obscures real morphological, ecological, and phenological differences between them. A species-complex approach to taxon delimitation recognizes diploids and distinct widespread polyploids, but places hybrid-derived “microspecies” in diploid-centered species complexes as opposed to naming them as distinct species. This species-complex approach serves the goals of recognizing taxa and the mechanisms that form them, minimizes the identification error rate prevalent in the field and herbaria, acknowledges the frequent inter-complex hybridization, and does not burden the formal taxonomy.

- 3) **NEBC SPECIAL PUBLICATIONS:** In association with Dr. Bertin's April presentation, NEBC offered his most recent flora as a free PDF download or as a 390-page print copy for only \$25 postpaid. Please see the [Special Publications](#) webpage to find or purchase: **Bertin, R. I., M. G. Hickler, K. B. Searcy, G. Motzkin, and P. P. Grima. 2020. *Vascular Flora of Franklin County, Massachusetts*.** Previous Special Publications cover the vascular flora of the city of Worcester, Worcester County, and the Greater Mount Holyoke Range, Massachusetts. These and other Special Publications, including the "Field Guide to *Carex* of New England," are available as free PDF downloads on the [Special Publications](#) webpage.
- 4) **SURVEY OF MEMBERSHIP FOR FUTURE PLANNING:** In late May, please watch for an online survey of membership for planning New England Botanical Society's future, including questions about future meetings, activities, and involvement. Your feedback is important!
- 5) **VIDEOS of PAST PRESENTATIONS:** Please see [Past Meetings](#) for videos of past lectures, including Dr. Robert Bertin's April presentation.

*The Council will meet 5 - 6 PM on Monday, 17 May 2021, via Zoom.*

### **ZOOM INVITATION FOR NEBC MONTHLY MEETINGS**

Topic: NEBC Monthly Meeting  
Date and Time: First Saturday of the month at 7:00 PM

Join Zoom Meeting  
<https://zoom.us/j/98845538584>

Meeting ID: 988 4553 8584  
One tap mobile  
+19292056099,,98845538584# US (New York)  
+13017158592,,98845538584# US (Germantown)

Dial by your location  
+1 929 205 6099 US (New York)  
+1 301 715 8592 US (Germantown)  
+1 312 626 6799 US (Chicago)  
+1 669 900 6833 US (San Jose)  
+1 253 215 8782 US (Tacoma)  
+1 346 248 7799 US (Houston)

Meeting ID: 988 4553 8584  
Find your local number: <https://zoom.us/u/adKxNNXCOj>

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**NEBC WEB SITE:** <http://www.rhodora.org/>  
[New England Botanical Club brochure](#)

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[Program Calendar 2020-2021](#)  
(past and upcoming programs)

[Mission and Vision Statements](#)  
[Strategic Goals for 2020-2025](#)