

Monteregian Flora - BIOL 240 (3 credits)

McGill Summer Studies

JULY 9-21, 2023

Instructor: Mélanie Lapointe (melanie.lapointe@mcgill.ca)

Prerequisites: BIOL 111 or permission of the instructor

Course description

The goal of this 3-credit course is to teach recognition of the common woody and herbaceous plants in the St. Lawrence River Valley, at the northern edge of the deciduous forest biome. The course will focus mainly on plant identification, including sight recognition and use of simple taxonomic keys. Information will also be given about the ethnobotany, conservation status, and ecology of the species. Students will learn about general forest and plant ecology, read scientific articles on the ecology of maple forests, and learn botanical terminology. Mélanie Lapointe, the course instructor, has more than 15 years' experience in environmental consulting and biological survey work in eastern Canada. The course will be taught at Mont St. Hilaire, near Montreal, Quebec, Canada. This is the largest remaining tract of primeval forests in the St. Lawrence Plain. The site has a wide variety of habitats, rugged and diverse topography, and an exceptionally rich flora. Students live in dormitories on the mountain.

Course content

Week 1 – July 9-14

Date	In-class	Fieldwork	Number of hours
Sunday evening	Course presentation Introduction to Mont-St-Hilaire		1
Monday	Bioclimatic zones and introduction to tree identification		2
		Trees and shrubs	5
Tuesday	Quiz		0.5
	Spring flowering herbs and introduction to herb identification		2
		Spring flowering herbs	5
Wednesday	Quiz		0.5
	Plant evolution and introduction to fern identification		2
		Ferns and allies	6
Thursday	Quiz		0.5
	Introduction to Newcomb's species identification key		1.5
		Field and roadside species	6
Friday	Quiz		0.5
	Plant major families		1.5
		Waban-Aki traditional ecological knowledge	3
		Summer flowering herbs	2
Total – Week 1			39

Week 2 – July 17-21

Date	In-class	Fieldwork	Number of hours
Monday	Midterm exam		2
		Shrubs and vines	6
Tuesday	Exotic invasive species and wetlands		6
		Aquatic and wetland species	3
Wednesday	Quiz		0.5
		Rocky peaks	7.5
Thursday	Quiz		0.5
		Review (vegetation survey) and practice with Newcomb	7.5
Friday	Review		3
	Final exam		3
Total - Week 2			39

Daily schedule

- Make your own breakfast, pack your lunch, and be ready to go by 8:30am sharp!
- Quiz: 8:30am
- In class lecture: 9:00 to 10:30am
- Fieldwork from 10:30am to +/- 4:30/5:00pm (45 min. lunch around 12:00)
- Review/discussion: 4:30/5:00 to +/- 6:00pm.
- Dinner: 6:00pm

Evaluation:

- Mid-term exam - 30 %: plant identification with fresh specimens (15 pts), short answers (12 pts) and Newcomb's key (3pts).
- Final exam - 45 % : plant identification with fresh specimens (25 pts), short answers (15 pts) and Newcomb's key (10pts).
- Quiz total - 20 %
 - Quiz (4 best quizzes, 5 % each): identifying plants seen the day before or previous days or identifying completely new plants using Newcomb's key.
- Participation - 5%
 - Contributions to group presentations and in-class discussions.

Readings:

- Newcomb. L. (1989). Newcomb's wildflower guide. Boston: Little. Brown & Company.
- Elliott, T.L. and Davies, T.J. (2019) Phylogenetic attributes, conservation status and geographical origin of species gained and lost over 50 years in a UNESCO Biosphere Reserve. *Biodiversity and Conservation* 28(3): 711-728.
- Laflamme, J., Munson, A., Grondin, P., Arseneault, D. (2016). Anthropogenic disturbances create a new vegetation toposequence in the Gatineau River Valley, Quebec. *Forests* 7, 254.

Course materials (powerpoints, scientific papers, etc.) will be available online for students. Printed species list will be provided.