

<https://bit.ly/UrbanEcologySyllabus2024>



Urban Ecology  
ENYC-GE 2070

Saturdays 10:00 AM - 2 PM

September 7 - October 19, 2024

Room 403, East Building and various sites around NYC

**Robert Wallace, Ph.D.**

Office Hours by appointment

917 885-7916

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Also

**Quin Hricik**

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Grad Co-Teacher

In Urban Ecology, students will explore ecological concepts and processes in the urban environment. Through lectures and fieldwork, students will learn about the dynamics of urban ecology and the impacts of land use and pollution on wildlife and local habitats. Topics will include population ecology, ecosystem services, and human impacts. Specifically, we will study exotic and invasive plants and birds in local wetlands and woodlands, the migration of neo-tropical songbirds, and population fluctuations of birds and plants as indicators of environmental change while examining the interface between natural and built environments in the urban landscape.

### **Course goals**

1. Learn significant science content through participation in several extended inquiries as a model for your own classrooms;

2. Know how to inquire about the living environment & the physical environment through observation, experiment, & consulting expert knowledge;
3. Recognize characteristics of organisms and properties of matter;

### **Course Requirements/Assignments**

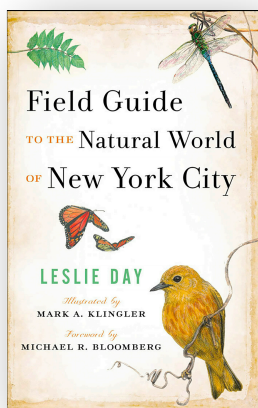
1. Attendance and Participation - Contribute to the science inquiries in this class with the aims of increasing your scientific understanding, improving your skills at using scientific tools, and bettering your understanding of ecological learning; (32 PERCENT)
2. Notebook - You will create a notebook that includes information about each of the day's investigations. This will be shared on the last day; (11 PERCENT)
3. Reflections on the week's activities will be submitted four times. These will then be inserted into your notebook (est 500 words); TOTAL 13 PERCENT)
4. A science autobiography (7 PERCENT)

What are your connections to ecology and/or urban ecology? Are they positive, negative, or mixed? This is an opportunity to examine your thinking about the urban environment and how it connects to ecology in general.

This is a chance for me, and others in the class, to learn about you and also for you to learn about yourself. What is important here is an honest personal examination. Est 300 words

5. Revisit the Science Autobiography (7 PERCENT)  
Re-read your Science Autobiography. Have your perspectives on urban ecology grown or changed? Est 200 words
6. Read the textbook. You will submit 3 reflections on the parts of the text that are relevant to you. You may select these parts on your own ; (15 PERCENT TOTAL)
7. FINAL PRESENTATION - SHARING OF AN IMPORTANT CONCEPT LEARNED IN THIS CLASS (This should reflect an investigation as well as a connection to other aspects of urban ecology.) (15 PERCENT)
  - The final presentation should include a movie (about 2 minutes long) suitable for a diverse audience that explains one scientific concept that you feel is important for them to understand.

## The Text



Field Guide to the Natural World of New York City by Leslie Day (Author), Mark A. Klingler (Illustrator), © 2007 The Johns Hopkins University Press

Also, You will need an 8" x 11" spiral-bound notebook (70 page size is large enough) or it can be electronic if you prefer.

DATE	GENERAL TOPIC	INVESTIGATION	ASSIGNMENTS
<b>September 7</b> <b>1A Session FIRST HALF</b> 10 AM - 12 PM	INTRODUCTIONS, SCIENCE ACTIVITY, NOTEBOOK PLAN, FIELD TRIP INFORMATION	INVESTIGATION - MODEL INQUIRY Sharing and Intros	
<b>1B Session HALF</b> 12:30 - 2:00 PM	IT ALL STARTS WITH ROCKS Big Idea - Rocks were once something else — liquid, sediment, other types of rock.	CRYSTALS AND ACID RAIN WEATHERING	
<b>September 14</b> <b>2A Session FIRST HALF</b> 11:00 - 12 PM	MEET AT INWOOD PARK	ROCKS IN NATURE	00 SCIENCE AUTOBIOGRAPHY DUE
<b>2B Session SECOND HALF</b> 12 - 2 PM	TREES How to investigate trees in the forest.	Tree measurements and analysis.	Week 1 reflection due Sunday (Rocks and Inwood Park forest).
<b>September 21 - Sunday</b> <b>3A Session FIRST HALF</b> 11-12PM	MEET AT PROSPECT PARK, Grand Army Plaza entrance, Brooklyn	Birds, Glacial Geology, Freshwater data collection	
<b>3B Session SECOND HALF</b> 12 - 2 PM	WATER STUDIES	Freshwater data	First Textbook Reflection

DATE	GENERAL TOPIC	INVESTIGATION	ASSIGNMENTS
<b>September 28</b> <b>4A Session FIRST HALF</b> 11 - 12 PM	MEET At Newtown Creek		Week 2 Reflection due Sunday (River Project or the meeting at NYU)
<b>4B Session SECOND HALF</b> 12 - 2 PM			
<b>October 5</b> <b>5A Session FIRST HALF</b> 11 - 12 PM	Meet at NYU EAST BUILDING LOOKING AT PLANTS Big idea - Nature can be a rich source of science study in elementary schools.	Lichen Mapping, coastal resilience.	
<b>5B Session SECOND HALF</b> 12:30 - 2 PM		NYU Garden	Second Textbook Reflection
<b>October 12</b> <b>6A Session 10 - 12PM</b>	MEET AT BBPC - Plankton & Oysters Class.	<a href="#">Estuary Ecology</a>	
<b>6B Session SECOND HALF</b> 12:30 - 2PM			Week 3 Reflection due Sunday (Central Park)
<b>October 19</b> <b>7A Session FIRST HALF</b> 10- 12PM	MEET AT NYU EAST BUILDING ROOM 403 INTERACTIVE NOTEBOOKS	Share notebooks. <b>Interactive Maps</b> Links: The Welkia Map: <a href="https://welikia.org/explore/manhattan-map/">https://welikia.org/explore/manhattan-map/</a>  The Visionmaker Map: <a href="https://visionmaker.us/nyc/">https://visionmaker.us/nyc/</a>  The Green Roofs Map: <a href="https://www.greenroofs.org/?lat=40.718400&amp;lon=-89.000000&amp;zoom=16.193&amp;locationKey=146">https://www.greenroofs.org/?lat=40.718400&amp;lon=-89.000000&amp;zoom=16.193&amp;locationKey=146</a> <a href="https://greenroofs.org/">https://greenroofs.org/</a>  The Street Trees Map: N <a href="https://tree-map.nycgovparks.org/tree-map/tree/13151535">https://tree-map.nycgovparks.org/tree-map/tree/13151535</a> The Community Gardens Map: <a href="https://www.grownyc.org/gardens/our-community-gardens">https://www.grownyc.org/gardens/our-community-gardens</a>  NYU Wallerstein Bees Alive Project: <a href="https://steinhardt.nyu.edu/wallerstein/bees-alive">https://steinhardt.nyu.edu/wallerstein/bees-alive</a>	08 share your notebook in class
<b>7B Session SECOND HALF</b> 12:30 - 2PM	Share your presentation		Week 4 Reflection due Sunday (Meeting at NYU or the Central Park trip).  Third Textbook reflection - (submit during the next week)

Attendance will count toward the grade. Since this course values student sharing and participation, a student with more than one unexcused absence cannot get an A in the course.

Any modification of this plan will be announced in class and posted on NYU Brightspace.

### **POLICY ON ACADEMIC DISHONESTY—**

All students are responsible for familiarizing themselves with the NYU policy on Academic Dishonesty and Plagiarism

[http://steinhardt.nyu.edu/policies/academic\\_integrity](http://steinhardt.nyu.edu/policies/academic_integrity)

### **Student Resources**

- Students with physical or learning disabilities are required to register with the Moses Center for Students with Disabilities, 719 Broadway, 2nd Floor, (212-998-4980) and are required to present a letter from the Center to the instructor at the start of the semester in order to be considered for appropriate accommodation.

Writing Center: 269 Mercer Street, Room 233. Schedule an appointment online at [www.rich15.com/nyu/](http://www.rich15.com/nyu/) or just walk-in.

### **Environmental Ethics**

Recycling. Bring any food in recyclable containers. In disposing, rinse these containers (especially, glass, plastic and metal beverage containers) and separate from the “trash.”

Use of paper. Whenever possible, use two sides of printed sheets, though, to ease the burden on the eyes of the instructor, present handwritten papers on single-sided pages.

Collecting specimens. Generally we are not allowed to collect any specimens from the parks.

Precautions in the natural environment. We are guests in the natural spaces around the City Parks. We venture into the meadows and forests to discover for ourselves the workings of the natural world.

You are generally safe in nature provided you are alert to the hazards, four in particular.

- *Snakes.* The snakes we have seen are harmless garter snakes. Nevertheless, we urge you (both adults and children) not to approach or handle snakes unless you are an expert. We do not want anyone to suffer from a case of mistaken identity, however unlikely.

- *Ticks.* There are many kinds of ticks. Ticks are active all year 'round, though particularly in the warm weather. Ticks feed on the blood of animals. Since deer ticks may carry Lyme Disease, you should dress to prevent the tick from gaining access to your flesh. Wear sturdy shoes and light-colored slacks. Tuck the trouser legs into your socks when you are outdoors. Shower, rubbing well over your whole body with a wash cloth, and check your whole body in front of a full-length mirror at the end of the day.

- *Rabies.* Some animals may have contracted rabies. It is not something to worry about because no recent cases have been reported. Nevertheless, we should all recognize the signs. A rabid animal behaves strangely. E.g. nocturnal animals may appear in the daytime; animals that would normally flee people may approach people. If you see a fox, raccoon or skunk (or other nocturnal animal) in broad daylight, or if such an animal approaches you, move away quickly. In any event, you should never touch a wild animal.

Recycling. I make every reasonable effort to conserve, re-use and recycle materials. I urge you to do likewise in this room.

Weather alert: Some of the sessions are dependent upon the weather. I expect to decide whether to cancel by 7 AM the morning of the session. I will send an email at that time. If weather interferes with an outdoor event we will meet in the classroom at NYU.

- You can call my cell if concerned 917 885-7916

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**Communication:** Please feel free to text me, call me, or e-mail me about any questions, confusion, difficulties, or thoughts you may have. If you need to reach me on the day of a trip texting 917 885-7916 is more effective than email — often I cannot check email during a trip.

### Thoughts about Generative A.I.

- Generative A.I. is a useful tool but it should not be used to complete an assignment but rather as a brainstorming tool and/or a feedback tool.

- You may use artificial intelligence tools for creating an outline for an assignment, but the final submitted assignment must be original work produced by the individual student alone.
- You may use artificial intelligence tools for critiquing and editing an assignment for purposes of revision, but the first draft must be original work produced by the individual student alone.