**PHYLO: The Wissahickon Card Game**

Explore the biodiversity of the Wissahickon Valley in this exciting nature-themed card game! Build interconnected ecosystems by playing species cards representing the plants, animals and fungi found in this urban forest oasis. The goal is to create food chains by placing cards based on their diets and compatibility with other species. But watch out for invasive species and other disruptive events that can destabilize your ecosystem!

Made by IDHP "The Great Confrontation" 2023-24 seminar class

### The Wissahickon Card Game

**SETUP:** 1) Place the Wissahickon Map in the center, 2) Shuffle the deck and place in the pick-up pile slot, and 3) Each player draws 5 cards to form their starting hand.

**PLAY:** On each turn, a player draws ONE new card from their PICK UP pile and may take ONE of the following ACTIONS:
- **PLAY** a card (SPECIES or EVENT).
- **DROP** one card into a DISCARD PILE and PICK UP three new cards.
- **PASS**

Remember to play your cards facing you so that you can tally your points at the end!

**ENDING A GAME:** The last round starts when a player draws the last card from their pick up pile. This player gets TWO final moves in their last turn, and so does their opponent. In the end, players will then add up all points.

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**Red Oak Tree**

*Quercus rubra*

- **3 PTS**
- **FACT:** Did you know that the Red Oak Tree can live anywhere between 200 and 300 years and are a sign of wisdom, courage and endurance?

**Common Name**

*Quercus rubra*

- **Non-Native**
- **Species Diet:**
  1: Autotrophs
  2: Herbivores
  3: Carnivores
  Omnivores
  Others

**Point Value**

1 PTS

**Classification**

Phylum, Order, Class

**Species Info**

*Image by Elizabeth Figiel and Glenda Garcia*

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**Christmas Fern**

*Polystichum acrostichoides*

- **2 PTS**
- **FACT:** The smallest ferns are only a fraction of an inch tall. The largest ferns measure from 30 to 80 feet (10 to 25 meters) tall. Young fern leaves are tightly curled. When they grow and begin to unfurl, they resemble the neck of a violin.

**Common Name**

*Polystichum acrostichoides*

- **Non-Native**
- **Species Diet:**
  1: Autotrophs
  2: Herbivores
  3: Carnivores
  Omnivores
  Others

**Point Value**

2 PTS

**Classification**

Phylum, Order, Class

**Species Info**

*Image by Rebecca Dalton*

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**Ostrich Fern**

*Matteuccia struthiopteris*

- **2 PTS**
- **FACT:** It is one of the largest species of fern in Eastern North America

**Common Name**

*Matteuccia struthiopteris*

- **Non-Native**
- **Species Diet:**
  1: Autotrophs
  2: Herbivores
  3: Carnivores
  Omnivores
  Others

**Point Value**

2 PTS

**Classification**

Phylum, Order, Class

**Species Info**

*Image by Hilton Oyamaguchi*

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**Red Maple Tree**

*Acer Rubrum*

- **3 PTS**
- **FACT:** Red Maple Trees can start producing seeds at just 4 years old.

**Common Name**

*Acer Rubrum*

- **Non-Native**
- **Species Diet:**
  1: Carnivores
  Omnivores
  Others

**Point Value**

3 PTS

**Classification**

Phylum, Order, Class

**Species Info**

*Image by Rebecca Dalton*
Sugar Maple  
*Acer Saccharum*  

**FACT:** Primary source for maple sugar and maple syrup.

Image by Erin McCarthy

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Tulip Tree  
*Liriodendron tulipifera*  

**FACT:** The tulip tree is one of the tallest hardwood trees in North America, capable of reaching heights over 190 feet (60 meters) and living over 500 years.

Image by Erin McCarthy

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Spice Bush  
*Lindera benzoin*  

**FACT:** The spicebush is versatile in the way it helps other organisms. First, it provides food through its drupes. Second it provides a habitat for other organisms.

Image by Elizabeth Figiel and Glenda Garcia

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Eastern Redbud  
*Cercis canadensis*  

**FACT:** This species is capable of growing flower buds directly on its bark, which is an uncommon feature.

Image by Hilton Oyamaguchi

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White Oak  
*Quercus alba*  

**FACT:** The White Oak is native to eastern North America. They tend to grow anywhere from 60 to 100 feet.

Image by Robert Sabatino

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Virginia Wildrye  
*Elymus virginicus*  

**FACT:** The Virginia Wildrye blooms in the spring and is wind pollinated. It is native to North America.

Image by Robert Sabatino

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Virginia Creeper  
*Parthenocissus quinquefolia*  

**FACT:** Native to Virginia, and hardy of hot and cold weather. It is not at risk of extinction, and it is a great source of food for primary consumers.

Image by Grant Brugger

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Multiflora Rose  
*Rosa Multiflora*  

**FACT:** This species hails from Japan and thrives in the full sun. It is at no risk of extinction and it is highly invasive on the east coast of the U.S.

**INVASIVE EFFECT:** Use this card on your opponent to prevent them from placing a native producer for 2 turns.

Image by Grant Brugger

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Garlic Mustard  
*Alliaria petiolata*  

**FACT:** It crowds out native woodland plants and releases a chemical that kills beneficial fungi in the soil.

**PLAY (INVASIVE EFFECT):** Prevent your opponent from placing producers for 2 turns.

Image by Anna Sanverdine (CHC Student)
**Lesser Celandine**  
*Ficaria Verna*  

**FACT:** This species hails from Japan and thrives in the full sun. It is at no risk of extinction and it is highly invasive on the east coast of the U.S.  

**Play (INVASIVE EFFECT):** Prevent your opponent from placing producers for 2 TURNS.

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**Japanese Maple**  
*Acer palmatum*  

**FACT:** It is a popular ornamental tree prized for their delicate foliage, graceful form, and brilliant fall colors. Invasive/Non-native  

**Play (INVASIVE EFFECT):** Prevent your opponent from placing producers for 1 TURN.

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**Tree of Heaven**  
*Narcissus pseudonaricssus*  

**FACT:** Despite its alluring appearance the tree of heaven releases a foul smell if crushed.  

**Play (Invasive Effect):** Prevent your opponent from placing producers for 2 TURNS.

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**Japanesn Barberry**  
*Berberis thunbergi*  

**FACT:** Barberry is a very dense plant due to the multitude of small twigs and branches. Invasive/Non-native  

**Play (Invasive Effect):** Prevent your opponent from placing producers for 2 TURNS.

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**Canada Goose**  
*Branta canadensis*  

**FACT:** They are highly vocal and have at least 10 distinctive calls. Native.

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**Grey Squirrel**  
*Sciurus carolinensis*  

**FACT:** Grey Squirrels are native to North America.
**Green Frog**
*Lithobates clamitans*

**FACT:** Females lay egg clutches of up to 7,000 eggs in water attached to aquatic vegetation.

**Common Garter Snake**
*Thamnophis sirtalis*

**FACT:** Males leave hibernation and form "Mating balls" around emerging females. Females give birth to 10-40 young in summer. This is a highly adaptable species.

**Raccoon**
*Procyon lotor*

**FACT:** Native to North America and live in moist areas. Predator to clams, catfish, frogs and snails.

**Northern Two-lined Salamander**
*Eurycea bislineata*

**FACT:** An amphibian native to the temperate forests of Canada and The US. Amphibians tend to be "at risk" species. This salamander feeds on aquatic and terrestrial invertebrates.

**White Tailed Deer**
*Odocoileus virginianus*

**FACT:** Due to the elimination of predators, most notably wolves, there has been an unbalanced amount of deer in the Wissahickon. Causes depletion and loss of vegetation.

**Spotted Lanternfly**
*Lycorma delicatula*

**FACT:** It has spread invasively to Japan, South Korea, and the U.S. The introduction of Invasive Species throws of the ecological balance of a given ecosystem.

**Honey Fungus**
*Armillaria sp.*

**FACT:** The honey fungus grows underground and attacks the roots of other organisms to then feed on the decaying wood.

**Honey Bee**
*Apis mellifera*

**FACT:** Honey Bees help other plants to reproduce by transporting pollen from flower to flower. Introduced to the USA in the 1620s for honey production & crop pollination! Play (Invasive Effect): Prevent your opponent from placing producers for 1 turn.

**White Tailed Deer**
*Odocoileus virginianus*

**FACT:** Due to the elimination of predators, most notably wolves, there has been an unbalanced amount of deer in the Wissahickon. Causes depletion and loss of vegetation.

**Play:** Place on any native plant species to eliminate it. Once you place it, only event cards can remove it.
**Spotted Lanternfly**

*Lycorma delicatula*

**Facts:**
- It has spread invasively to Japan, South Korea, and the U.S. The introduction of invasive species throws off the ecological balance of a given ecosystem.
- **Play:** Prevent your opponent from placing producers for 1 turn.

**Deforestation**

*Event Card*

- **Play:** Eliminate two species card.
- **Effect:** Deforestation results in the loss of biodiversity, disruption of ecosystems, soil erosion, increased greenhouse gas emissions, climate change, and adverse impacts on local communities and wildlife habitats.

**Flooding**

*Event Card*

- **Due to the heavy rainfall water overflows from the creek causing damage to local parking lots.**
- **Play:** Place on any plant or animal species to eliminate it.
- **Effect:** Pollution due to runoff.

**White Marsh Country Club**

*Event Card*

- In close proximity to the Wissahickon is the White Marsh Country Club and Golf Course. The golf course's use of fertilizer, pesticides, and excess mowing creates harmful runoff into the Wissahickon Valley.
- **Play:** Place on any species card to eliminate it.
- **Effect:** Causes pollution and loss of habitat.

**Wind Storms**

*Event Card*

- **Fact:** Wind storms produce wind gusts, anywhere from 34-100 mph. They cause destruction to plants and land animals.
- **Play:** Play this card at any time to eliminate one plant or one land animal.

**Park Size Increase**

*Event Card*

- **Cause:** Expansion of the Wissahickon Park
- **Effect:** One Extra Slot for Food Chain.
- **Play:** Allows to expand the placement for food chain. Place this card besides the * symbol on the map board.
**Planting Gardens**

**Event Card**

**FACT:** Plants act as highly effective air cleaners, absorbing carbon dioxide, plus many air pollutants, while releasing clean oxygen and fragrance.

**PLAY:** Play this card at any time to add an additional species card besides the * symbol on the map.

![Image by Robert Sabatino](Image by Robert Sabatino)

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**Friends of the Wissahickon**

**Species Protection Card**

Friends of the Wissahickon (FOW) is a volunteer organization that works to protect, advocate, and maintain the Wissahickon Valley.

**PLAY:** Place on top of negative event card

**EFFECT:** eliminates the negative event card

![Image by Friends of the Wissahickon](Image by Friends of the Wissahickon)

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**The Great Confrontation Seminar Class**

**Event Card**

The Great Confrontation Seminar Class is one of the Interdisciplinary Honors Program (IDHP) classes at Chestnut Hill College. In the class, students learn about the interaction between humans and the environment both at a local and global scale.

**PLAY:** Place at beginning of turn, draw an extra card

**EFFECT:** increased awareness of The Wissahickon

![Image by Elizabeth Figiel and Glenda Garcia](Image by Elizabeth Figiel and Glenda Garcia)

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**Environmental Education**

**Event Card**

**FACT:** People are becoming much more aware of the dangers of human influence on the environment, and are taking action.

**PLAY:** Remove any invasive species and freely play a native species card

![Image by Grant Brugger](Image by Grant Brugger)