

2. Readings & Research – evidence of:
- thoughtful efforts to put your daily weekly practices into conversation with class material
- careful reading process
- learning (where applicable)



NOTES
→ the plant journal ←

RATIBIDA PINNATA

Part of the Asteraceae family

OTHER NAMES: Pinnate prairie Coneflower, Yellow Coneflower, Gray-head Coneflower, Prairie Coneflower

DESCRIPTION: About 1 metre in height. Stem is hairy and slender. Flower head has drooping, yellow oval-shaped petals. Flower head is a grey-brown cone, with tiny brown discs covering its entirety. There are around 15 petals per head. Leaves are near the base of the plant. They are long and triangular.

RELATED SPECIES:
→ *Ratibida Columnifera* (Upright prairie Coneflower)
→ *Rudbeckia laciniata* (Cutleaf Coneflower)

OTHER:
• blooms in early summer to early fall
• prefers full sun to partial shade
• Drought resistant; can survive in various; varying levels of soil moisture

HISTORY

Word "Pinnata" meaning "feather-like" due to its leaf shape
• name "Ratibida" comes from an older classification name: "Rudbeckia" which was decided by French botanist Étienne Pierre Ventenat



LOCATION OF PICTURE:
Western University
London, ON

ORIGINS: Central; Eastern Canada; United States

TRADITIONAL USES + OTHERS

- Meskwaki Nation used the roots to cure toothaches
- leaves and stems are analgesic (meaning pain-relievers)
- Infusion is used to relieve headaches and treat stomach aches and fever
- Used to draw out poison from rattlesnake bites
- Cone, leaves, & flower can be steeped to make tea

SOLIDAGO CANADENSIS

Part of the Asteraceae family

OTHER NAMES: Canadian Goldenrod, Meadow Goldenrod, Common Goldenrod, Canada Goldenrod

DESCRIPTION: 1 to 7 ft tall. tall stems with small pyramid shaped yellow flowers (multiple), found usually in large groupings. Stems are hairy. Leaves are rounded with a pointed tip.

RELATED SPECIES
→ *Solidago altissima* (Tall Goldenrod)
→ *Solidago gigantea* (Giant Goldenrod)

ORIGIN: North America (Canada, USA)

OTHER:
• Often grazed by cattle, sheep, horses; deer
• low maintenance, blooms July → October
• often found in meadows, waterways; ditches
• Typically the first plant to grow in a damaged area
• Pollen attracts a variety of insects
• Considered an invasive species in Eurasia
• Spoils in full sun, needs partial shade
• aggressive growth rate

HISTORY

Name *Solidago* comes from Latin word *Solidus* which means whole; "ago" meaning "to make". After the Boston Tea Party Goldenrod was used to make tea. Assumed that Goldenrod was used as a defense remedy against the evil eye and witchcraft



LOCATION OF PICTURE:
Western University
London, ON

TRADITIONAL USES + OTHER

- First Nations used Goldenrod to treat burns and chewed the flowers to relieve sore throats
- Can be used as a diuretic (helps body get rid of excess fluid)
- Scientific testing shows it reduces inflammation, relieves muscle spasms, fight infections, lower blood pressure
- In Europe, it can be used to treat kidney stones
- First Nations steeped to make tea to relieve ailments.

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TRITICUM

AESTIVUM

↳ Part of the Poaceae family

OTHER NAMES: wheat, Bread wheat, Spelt Wheat, Common wheat

DESCRIPTION: → Grass like pillars, base is green and progressively gets lighter towards the top. Leaf sheath can be smooth or hairy. Top of plant has clustered flower that turns golden brown before harvest. The image provided is a very young wheat plant.

RELATED SPECIES:

- ↳ *Triticum Durum* (pasta/durum wheat)
- ↳ *Triticum Compactum* (Club wheat)

OTHER:

- Triticum has hollow stems
- best adapted for rainfall ranging between 30-90cm
- 95% of wheat produced worldwide is Triticum AESTIVUM
- TRITICUM AESTIVUM needs full sunlight
- widely cultivated for its seed, the cereal grain
- The kernel is a type of fruit called Caryopsis
- China, Russia, USA and Canada are the top producers of wheat
- excellent energy source

HISTORY:

Domesticated in Western Asia during the Holocene era (around 10,000 years ago) believed to have originated through hybridization of *Aegilops tauschii* (DD) tetraploid *T. turgidum* hence the name Triticum Aestivum ancient "naked wheat" was found in Roman burial sites (100 BCE - 300 CE)



LOCATION OF PICTURE: University of Guelph, Guelph, ON

ORIGIN: The "fertile crescent" (Jordan, Syria, Palestine, Lebanon, Turkey, Iran, Iraq)

TRADITIONAL USES + OTHER:

- pharmacological properties include anticancer, antimicrobial, antidiabetic, hypolipemic (fats in blood), antioxidant, laxative, moisturizing
- Can use to treat strep infections, inflammation
- Traditionally used to relieve Gout (arthritis), and balancing the immune system.

EUPHORBIA MILII

↳ Part of the Euphorbiaceae family

OTHER NAMES: Crown-of-thorns, Christ plant, Christ's thorn

DESCRIPTION: shrub-like with bright (rounded) green leaves and small colourful flowers. Has a wooden stem, and long branches with sharp black thorns. Petals on flowers have indent/line through the centre. Typically grows 2-6 feet tall, depending on environment.

RELATED SPECIES:

- ↳ *Euphorbia Pulcherrima* (Poinsettia)
- ↳ *Euphorbia obesa* (Baseball plant)

OTHER:

- very toxic to domesticated animals like sheep, horses, dogs, cats.
- likes full sun and dry-medium moist soil
- recommended to wear gloves when handling due to its toxicity
- relatively easy to care for - does not need to be watered often
- Needs/likes warm climates

HISTORY:

The name "Mili" honours Baron Milius - Governor of Reunion - who brought the plant to France in the 1800's. has historical presence in Middle East. Believed that this plant was included in Christ's Crown of thorns worn during his crucifixion.



LOCATION OF PICTURE: University of Guelph, Guelph, ON

ORIGIN: Madagascar

TRADITIONAL USES + OTHER:

- used in South Brazil to treat warts
- used as a treatment for Cancer; hepatitis in Eastern Asia
- Believed that it has antifungal properties
- can be used as a natural molluscicide (kill slugs & snails)
- Can prevent schistosomiasis (disease caused by parasitic worms)
- is toxic on skin; dangerous if ingested

LONICERA MAACKII

(part of the Caprifoliaceae family)

OTHER NAMES: Amur honeysuckle, Bush honeysuckle, Late honeysuckle

DESCRIPTION:

Shrub-like that grows up to 6 metres tall, large dark green leaves on wooden stems. The flowers are in pairs, about 2cm long and white with multiple yellow stamens. Stem of leaves are fuzzy and red. The fruit is a bright red, shiny, round berry about the size of a pea - maricle. Seeds inside berries.

RELATED SPECIES:

- ↳ *Lonicera morrowii* (Morrow's Honeysuckle)
- ↳ *Lonicera tatarica* (Tatarian Honeysuckle)
- ↳ *Lonicera x bella* (Bell's Honeysuckle)

OTHER:

- Blooms from May - June
- needs full sun to part shade
- Attracts birds (Humming birds, for example) and butterflies

HISTORY:

The name "maackii" is from a 19th Century Russian naturalist named Richard Maack. The common name "Amur Honeysuckle" is from its ranging around the Amur river (Russia/China). It was planted in New York as an ornamental plant. Discovered that it helps wildlife; controls erosion.



LOCATION OF PICTURE: Western University London, ON

ORIGIN: Eastern Asia: Japan, Korea, China

TRADITIONAL USES + OTHER:

- berries are mildly poisonous when consumed
- Ability to decrease inflammation and swelling. Can also apply to skin to kill germs and relieve itching.
- Commonly used for digestive problems such as swelling in the small intestine
- Sometimes used to reduce sweating
- Possibly a form of birth control counter to poison
- Seeds, leaves and flowers can be used for medical purposes

STRELITZIA

(part of the Strelitziaceae family)

OTHER NAMES → Crane flower, Bird of Paradise, Mzimvubu Crane flower

DESCRIPTION → Stiff, leathery leaves very tall, about 1.5 metres. Leaves are green with a slight bluish tint. Flower has triangular pointed petals and five stamens. Resembles the head of a bird. Singular blue petal/nectary

RELATED SPECIES:

- *Strelitzia alba* (white bird-of-paradise)
- *S. nicolai* (giant bird-of-paradise)

ORIGIN: Subtropical coastal areas of Southern Africa (Madagascar, South Africa)

OTHER:

- Stalks can grow up to 5 feet in height
- Flowers bloom from September → May
- Grows in sunny, warm environments
- needs water every 1-2 weeks, depending on sun level
- low maintenance once established
- Official flower of the City of Los Angeles

HISTORY:

18th century British botanist Sir Joseph Banks brought Strelitzia from South Africa to England. The name Strelitzia was after the (Ghana) queen Charlotte of Mecklenburg-Strelitz.

Wife of King George III



LOCATION OF PICTURE: University of Guelph Guelph, ON

TRADITIONAL USES + OTHER:

- poisonous when large quantities are consumed
- fruit; seed not edible (most toxic)

Zulu peoples;

- Abakwa Mhethwa Clan** → Indigenous peoples of South Africa use (a) root of plants for medical treatment
- used crushed roots for STD relief
- strained decoction of inflorescences for inflamed glands; venereal diseases
- Seeds used to sour milk

TODAY: mainly used for decorative purposes

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ACER SACCHARUM

Part of the Sapindaceae family

OTHER NAMES: Sugar maple, Hard maple, Rock maple, Sennock's Sugar maple

DESCRIPTION:
Usually reaches height of 25-35m but can be 45m. Leaves are relatively large. They form the iconic maple leaf shape

RELATED SPECIES:
 ↳ Acer Saccharinum (Silver maple)
 ↳ Acer Rubrum (Red maple)
 ↳ Acer platanoides (Norway maple)
 ↳ Acer nigrum (black maple)

OTHER:
 • Primary source of maple syrup
 • has a clear sap in leaf petiole
 • Can live from 200-300 years
 • it has a need for cold winters
 • Sap collection is not possible in the south as it doesn't get cold enough
 • Extremely shade tolerant

HISTORY:
 • a popular street and park tree due to its easy transplantability
 • It became too sensitive to car pollution and was then replaced by the Norway Maple
 • Its leaf is the emblem of Canada!
 • Word "Acer" meaning sharp in Latin to the shape of the leaves, and "Saccarum" meaning sugar - describing the tree's sap

ORIGIN: North America (Canada, Alaska)

TRADITIONAL USES + OTHER:
 • Primary source of sweetener for Indigenous Peoples and European settlers
 ↳ Cherokee, Algonquin, Dakota; Iroquois
 • Ojibwe peoples let sap sour to create a Vinerygury taste (mixed in sugar for sweet; sour sauce)
 • Iroquois used maple sap to treat sore eyes and infused bark in water as drops for the blind
 • Purifies blood; has dermatological acid
 • Mohegans used inner bark as cough remedy



(LOCATION OF PICTURE: Western University, London, ON)

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RHAMNUS CATHARTICA

Part of the Rhamnaceae family

OTHER NAMES: Buckthorn, European buckthorn, Common buckthorn, flying buckthorn

DESCRIPTION: A small tree or shrub, with grey-brown thorny branches, long oval/circular green leaves. Leaves turn yellow in fall. Has flowers that are yellow-green. Four petals per flower. Has a black berry-like fruit resembling a blueberry.

RELATED SPECIES:
 ↳ Fraxinus alnus (Alder buckthorn)
 ↳ Comus Sanguinea (Dogwood)

OTHER:
 • does well in shade
 • usually first to get leaves in the spring and the last to lose them in fall.
 • has generally good environment tolerance but does best in moist; undisturbed sites
 • it is dioecious (each bush produce only a male or female flowers)
 • Considered an invasive species

HISTORY:
 • Was introduced to North America in the late 1800's as an ornamental shrub, and was then rapidly planted
 • It has since spread all over Ontario; Canada
 • The "Rhamnus" is the ancient Greek name for buckthorn
 • "Cathartica" means Cathartic, which reflects the effects on a person after consuming

ORIGIN: Europe, Northwest Africa; west Asia (Morocco, Kyrgyzstan)

TRADITIONAL USES + OTHER:
 • Seeds; leaves
 • The berries are mildly toxic for humans
 • Can possibly be used as a laxative
 • Is also violently purgative, so can be used to induce vomiting
 • Reduces aflatoxine B1 (a carcinogen)



(LOCATION OF PICTURE: Western University, London, ON)

