DISCLAIMER:
To the best of our knowledge, the edible history and medicinal uses of these plants are accurate. However, the authors and publisher of this field guide do not recommend eating plants that grow in Gowanus or in unclean soil. Additionally, many poisonous plants can easily be confused for edible plants.

We stress that you do not eat or use medicinally any part of any cultivated or wild plant until you have verified with your healthcare professional that they are non-toxic and safe for you to consume and touch and until you have had their identifications verified by an expert in the field.

Neither the publisher nor the authors accept responsibility for any effects that may arise from eating wild plants.
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AGASTACHE FOeniculum
• Anise Hyssop

Family: Lamiaceae
Native to: North-central North America, Canada
Habitat: Prairies, upland woods, thickets

Ecological value: Drought tolerant. Attracts many pollinators including bees, butterflies, moths, and hummingbirds.
Edible: Leaves used in tea.
Medicinal value: Used by indigenous peoples to treat fevers, wounds, coughs, and to alleviate itching associated with poison ivy and athlete’s foot. Used as a sedative, and to treat diarrhea. Research shown that essential oil from Anise hyssop is an antiviral toward Herpes simplex I and II.
Other: Long bloom season from June till first frost, and will bloom longer if plants are dead-headed. Needs good drainage. Common plant in pollinator gardens.
Gowanus: Native wildflower planted in gardens at the Salt Lot and in tree pits throughout the Gowanus neighborhood. Can be seen surrounded by bees throughout the summer.

AGERATINA altissima
• White Snakeroot

Family: Asteraceae
Native to: Eastern and Central US
Habitat: Urban areas, woodlands, often in shade

Ecological value: Attracts pollinators such as bees and butterflies.
Medicinal value: A tea from the root can be used to treat diarrhea, kidney stones and fever. A poultice made from the root can be used on snakebites.
Other: Contains the toxin tremetol which can contaminate milk in cattle. If the milk is ingested in large quantities it can be poisonous to humans (the poisoning is known as ‘milk sickness’). Thousands of European settlers were killed by milk sickness in the early 19th C, including Nancy Hanks Lincoln - the mother of Abraham Lincoln. Also poisonous to horses, goats and sheep.
Gowanus: Very common spontaneous native plant that can be found throughout Gowanus, particularly in the shade. Its striking white flowers can be observed in the fall.
**AMSONIA HUBRICHTII**  
• Hubricht’s Bluestar

Family: Apocynaceae  
Native to: South-central USA  
Habitat: Rocky woodlands, ravines, borders of streams, moist sandy meadows

Ecological value: Attracts butterflies, hummingbird moths, carpenter bees and ruby-throated hummingbirds.  
Edible: White latex from the plant is toxic.  
Other: April-May bloom. Foliage turns pink and gold in fall. Good for rain gardens.  
Gowanus: Native wildflower planted in rain gardens in Gowanus, particularly along the 6th Street Green Corridor. Can be observed blooming in the spring.

**ARTEMISIA VULGARIS**  
• Mugwort

Family: Asteraceae  
Native to: Europe, Asia, north Africa, Alaska  
Habitat: Roadsides and wastelands

Leaves: Alternate  
Total leaf length: 2.5”  
Leaves smell spicy when crushed.  
Common as a weed and tends to form clumps.  
Light underside.

Edible: Leaves raw or cooked. Used as potherb, tea, flavoring in beer.  
Medicinal value: Many. Can be slightly toxic - should never be ingested by pregnant women, especially in their first trimester as it can cause a miscarriage. Used in small quantities to aid in digestion.  
Other: Fresh or dried plant can repel insects. Can be made into an insecticide. Down on leaves make a good tinder. Has been said to elicit vivid dreams if left under pillow, smoked, drunk as tea or taken as a supplement. Can cause nightmares. Contains allelopathic compounds. Can be aggressive in the landscape and spreads easily via rhizomes and seeds.  
Phytoremediation: Effective at extracting heavy metals such as Cadmium.  
Gowanus: Prolific spontaneous non-native plant can be found throughout Gowanus in gardens, along sidewalks, and in tree pits. Mugwort is an aggressive spreader that can take over planted areas.
ASCLEPIAS INCARNATA
• Swamp Milkweed

Family: Apocynaceae
Native to: North America
Habitat: Edges of ponds, lakes, streams, ditches.

Ecological value: Attracts pollinators and only genus that hosts the Monarch caterpillars (Danaus plexippus)
Material uses: Fiber from stems can be made into twine and cloth. Seed floss can be used to stuff pillows and life jackets (water resistant). Low grade rubber from latex in leaves and stems. Oil can be extracted from seed pods. Fibers used to soak up oil spills at sea.
Edible: Potentially toxic if eaten in large quantities. Uncooked flower buds taste like peas, boiled down flower clusters make syrup and tips of old shoots can be cooked like spinach.
Medicinal value: Tapeworm tea made from roots. Treatment of asthma, rheumatism, syphilis.
Other: Suitable for wet soils and soils with little oxygen.
Phytoremediation: Arsenic.
Gowanus: Spontaneous and planted native wildflower that is planted in rain gardens and can be found along the banks of the canal.

ASCLEPIAS SYRIACA
• Common Milkweed

Family: Apocynaceae
Native to: North America
Habitat: Rich soils, waste areas and roadides.

Ecological value: Food source of several bees, butterflies, moths, insects and beetles such including the red milkweed beetle (Tetraopes tetrophthalmus) and large milkweed bug (Oncopeltus fasciatus). Milkweeds are the only food sources of monarch caterpillars. The plant’s latex is toxic to large mammals.
Material uses: Seed and bast fibers (inner bark) can be used to make a cloth, twine, and paper. The fibers are water resistant as well as a substitute for Kapok fiber which can be used to stuff life-vests or pillows. The yield of fiber is around 197 kg per hectare from wild stands. The seed contains up to 20% edible oil that can be used as sunscreen or for making liquid soap. Latex can be used as a substitute for gum.
Medicinal value: Treatment of asthma, kidney stones and antifertility concoction.
Other: Pollution tolerant. Prone to damage by slugs. Flowers are highly fragrant. Flea repellent.
Gowanus: Prolific spontaneous and planted native wildflower that can be found along the banks of the canal, in tree pits, and streetside gardens.
ASCLEPIAS TUBEROUSA
• Butterfly Weed

Family: Apocynaceae
Native to: North America
Habitat: Prairies, meadows, canyons and hillsides.

Leaves: Opposite and whorled

Ecological value: Attracts pollinators. Milkweeds are the only food sources of monarch caterpillars.
Material uses: Fiber from bark can be made into twine and cloth. Seed floss can be used to stuff pillows and life jackets (water resistant). Only member of genus that does not contain latex sap.
Edible: Potentially toxic if eaten in large quantities. Uncooked flower buds taste like peas. Boiled down flower clusters can be made into syrup, and tips of older shoots can be prepared like spinach. Flowers produce excess nectar in hotter months, that can be eaten like candy.
Medicinal value: Mainly used today to relieve pain and inflammation of pleurisy, but has a long history as a valuable medicinal plant for a range of ailments.
Gowanus: Native wildflower that is planted in the maritime meadow at the Salt Lot and in the 2nd Avenue street end garden.

Family: Brassicaceae
Native to: Eastern Europe and Asia Minor.
Considered an Archaeophyte in the US.
Habitat: Ruderal. Thrives in disturbed sites. Shade tolerant.

CAPSELLA BURSA-PASTORIS
• Shepherd’s Purse

Family: Brassicaceae

Ecological value: Seeds eaten by birds.
Edible: Used as wonton-fill in China. Leaves may be eaten raw or cooked, especially when young. With age, the leaves become ‘peppery’. Dried leaves and seeds make good addition to soup. Seed contains 35% fatty oil. Fresh or dried root can be used instead of ginger.
Medicinal value: Treats skin, kidney and cardiovascular disorders.
Other: Flowers year round. Produces several generations each year. Fumaric acid has been isolated from Shepherd’s purse, which is used as a food additive that can be found in baking powders, beverages and artificial vinegar flavorings. Fumaric acids are also used in mordants for dyes. Flowers year round. Produces several generations each year. Fumaric acid has been isolated from Shepherd’s purse, which is used as a food additive that can be found in baking powders, beverages and artificial vinegar flavorings. Fumaric acids are also used in mordants for dyes. The seed when placed in water, attracts and kills mosquitoes and mosquito larvae: the gummy seed-substance binds the seed to the mosquito’s mouth, and also releases a toxic substance. ¾ kg seed can kill 10 million larvae. Basel rosette leaves at base, alternate leaves on flowering stalks.
Phytoremediation: Used in agroforestry to reclaim salty or marshy land: Plants ‘sweeten’ the soil by absorbing the salt. Cadmium remediation.
Gowanus: Spontaneous non-native plant that can be found along the banks of the canal and occasionally in gardens.
CHASMANTHUM LATIFOLIUM
• Northern Sea Oats

Family: Poaceae
Native to: Central and Eastern US, Manitoba, Mexico.
Habitat: Wooded areas and riparian zones.

Ecological value: Minor source of food for birds, and wildlife habitat.
Edible: Seed can be cooked, and used as a cereal in bread. A traditional food crop of the Cocopa Indians of Mexico.
Other: Thrives in partial shade.
Gowanus: Native, resilient, spreading grass that is planted in a thick stand at Thomas Greene Park as well as in the Carroll Street Planters, at Gil Hodges Community Garden, and in the understory of the Salt Lot.

Bronze fall colors, flat seed heads.

CHENOPODIUM ALBUM
• Lamb’s Quarters

Family: Amaranthaceae.
Native to: Europe.
Habitat: Wastelands, roadsides, fields.

Ecological value: Valuable companion plant that attracts leafminers and diverts these pests from other plants. Hosts the beet leafhopper. Can be used as green manure by turning the plant into the soil as an amendment. Known to grow in coal-pit heaps.
Material uses: Green dye can be extracted from young shoots. Crushed fresh roots work as a soap substitute.
Edible: Extensively cultivated and consumed in Northern India. May be prepared like spinach and eaten in moderation. High in protein, vitamins and minerals.
Medicinal value: Wash or poultice is created to relieve bug bites, sunstroke, swollen feet.
Other: Archeological finds indicate the plant was a staple food of Vikings and Romans. Also used as poultry feed.
Gowanus: Fairly common spontaneous non-native plant found along the canal and at the Salt Lot.
**CIRSIUM ARVENSE**

- **Scientific Name:** Cirsium arvense
- **Common Name:** Canadian Thistle
- **Family:** Asteraceae
- **Native to:** Europe, Asia
- **Habitat:** Roadsides, croplands, fields, gardens

**Leaves:** Alternate

**Ecological value:** Food source for finches. Over 20 species of butterflies and moths, including Painted Ladies, use leaves as a food source. Flowers frequented by a variety of pollinators.

**Edible:** Leaves edible raw or cooked, but prickles need to be removed. Roots of first year’s growth can be eaten, but are bland and may cause flatulence. Has been used as an ingredient in gin.

**Material uses:** Seed fluff used as tinder. Oil can be extracted from seeds (22% oil).

**Phytoremediation:** Above ground parts accumulate lead, zinc and chromium, and can be regarded as a bioindicator for terrestrial ecosystem pollution and used as possible cleanup agent for heavy-metal contaminated soils.

**Gowanus:** Spontaneous non-native plant that occasionally appears in garden spaces in Gowanus.

**Total leaf length:** 2-6". Thistle head: 0.5-1". Bulls thistle is around 1.5-3". Leaves are slimmer than bull thistle leaves.

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**CIRSIUM VULGARE**

- **Scientific Name:** Cirsium vulgare
- **Common Name:** Bull Thistle
- **Family:** Asteraceae
- **Native to:** Europe, Western Asia, Northwestern Africa and naturalized in the US
- **Habitat:** Fields, forest margins, along roads, disturbed soils

**Leaves:** Alternate

**Ecological value:** Rich source of nectar for honey bees, wool-carder bees, butterflies and moths. Birds such as goldfinches, linnets and greenfinches feed on seeds. Pollen is a rich nectar source for honey bees, monarchs, butterflies, and wool-carder bees.

**Material uses:** Fiber obtained from inner bark can be used in paper-making. Oil can be extracted from seed.

**Edible:** Stems can be steamed or boiled once stems are peeled. The tap roots can be eaten cooked on young plants that have not yet flowered.

**Medicinal value:** Treats rheumatic joints, bleeding piles, sore jaws.

**Other:** Thrives in nitrogen-rich soil. Erosion Control - 2’ taproot. Considered a noxious weed in some states.

**Gowanus:** Spontaneous non-native plant that is one of the more common thistles in Gowanus, found along fences, building edges and rocky areas in the Salt Lot.

**Total leaf length:** 2.6". Thistle head larger than Canadian thistle. Leaves are broader.
COMMELINA COMMUNIS
• Asiatic Dayflower

Family: Commelinaceae
Native to: Asia
Habitat: Ditches, roadsides, waste places, fields, woods and marshes, likes shade

Leaves: Alternate

Ecological value: Lacks nectar, but "tricks" pollinators to drop by, flashing bright colors of blue petals and a mix of yellow fertile (with pollen) and infertile antherodes. Host plant of two species of fungi, and several insects, including beetles, moths, bees and true bugs which feed off of the plant/pollen.

Material Uses: In Japan, a blue dye from flowers for paper is made, which fades into green. Leaves, flowers and young shoots can be added to salads or cooked.

Medicinal value: Traditional Chinese medicine plant used as fever-reducer, anti-inflammatory and diuretic.

Other: Gets it’s name from it’s bloom which only lasts one day. Considered noxious weed. Phytoremediation: Good candidate for copper mine spoil revegetation and remediation. In addition to copper, can it sequester zinc, lead and cadmium.

Gowanus: Very common spontaneous non-native plant that can be found in shady garden spaces throughout the neighborhood. Readily establishes as a weed in gardens.

CONVOLVULUS ARvensis
• Field Bindweed

Family: Convolvulaceae
Native to: Asia, Europe
Habitat: Roadside, grasslands, along streams

Material Uses: Stem can be used as twine to tie up plants. Green dye can be made from entire plant.

Medicinal value: Diuretic, laxative, treatment of fevers.

Other: Might have been introduced as early as the 18th century through contaminated crop seed. Tricky to identify, as Convolvulus is often misidentified as Calystegia, a related genus. Can be confused with Morning Glory, which is an annual and prolific seeder (generally has pink to purple blooms). Bindweeds are perennials and grow from rhizomes. Phytoremediation: Cadmium, chromium and copper.

Gowanus: Prolific spontaneous non-native plant quickly establishes on bare ground in garden spaces in Gowanus, spreading with long rhizomes. Can be seen climbing fences and over shrubs if unabated, often crowding out other vegetation.

Bindweed leaves are triangular vs Morning glory leaves which are more heart-shaped.
**CONYZA CANADENSIS**
- *Horseweed*

*Family:* Asteraceae  
*Native to:* North and Central America  
*Habitat:* Disturbed areas, upland prairies, weedy meadows

- *Leaves:* Alternate  
- *Stem:* Often has bristly hairs. Narrow upright plant.  
- *Total leaf length:* 4-5"

**Ecological value:** Drought resistant, annual plant that grows in most soil conditions and loves disturbed areas and roadsides. One of a handful of native annuals in the Northeast US. Prefers full sun. Attracts bees.

**Material uses:** Essential oils, perfumes.

**Medicinal value:** Treats diarrhea, dysentery, internal hemorrhages, menstrual irregularities, and inflammation of the throat.

**Other:** Crushed leaves have faint smell of carrots. Can be dried and burned to ward off insects.

**Phytoremediation:** Can accumulate high concentrations of cadmium, and also treat the combination of cadmium, lead, copper, and zinc.

**Gowanus:** Commonly found spontaneous native plant in Gowanus along the edge of the canal, in vacant lots, and in sidewalk cracks.

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**COREOPSIS SPP.**
- *Tickseed*

*Family:* Asteraceae  
*Native to:* The Americas  
*Habitat:* Open fields and roadsides

- *Leaves:* Opposite  
- *Summer through fall blooms:*  
- *0.75-1"*

**Ecological value:** Provides nectar for pollinators, and is a food source for several species of caterpillars (Lepidoptera), including the moth Coleophora acamtopappi.

**Material uses:** A red to orange dye can be extracted from stems and flowers.

**Other:** Suitable for wet soils and high water tables.

**Phytoremediation:** Arsenic (*Coreopsis lanceolata*).

**Gowanus:** Native wildflower that can be found at Old Stone House and Washington Park.
DAUCUS CAROTA

- **Queen Anne’s Lace**

**Family:** Apiaceae  
**Native to:** Europe, southwest Asia  
**Habitat:** Fields and roadsides

**Ecological value:** Considered a beneficial plant in its native European or Asian habitat. The tiny red flower in the center of the flower umbel attracts beneficial insects.

**Material uses:** Oil is used in cosmetic creams.

**Edible:** Can be confused with poison hemlock so great caution should be used. Seeds are a substitute for anise, and root can be steamed or cooked.

**Medicinal value:** Has traditionally been used as a method of contraception and to induce abortions.

**Other:** Queen Anne of Great Britain, and Queen Anne of Denmark, are considered to be the plant’s namesake. The red dot represents a mythological drop of blood from when British Queen Anne pricked herself with a needle while making lace.

**Phytoremediation:** Effective in processing phenolic compounds and chloroderivatives.

**Gowanus:** Very prevalent spontaneous non-native plant found in Gowanus in vacant lots, gardens, and along the canal’s edge.

Queen Anne’s lace has a single dark red flower in the center of the umbel, along with fine hair on stem, vs Purple hemlock which has a smooth stem with purple streaking.

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ECHINACEA PURPUREA

- **Purple Cone-Flower**

**Family:** Asteraceae  
**Native to:** Central US  
**Habitat:** Dry open areas, including barrens and woodlands

**Ecological value:** Attracts pollinators such as birds and butterflies.

**Medicinal value:** This family of plants has been historically used by Native Americans, and is regarded as one of the most effective species in Western medicine, in detoxifying circulatory, lymphatic and respiratory systems.

**Other:** Drought resistant. Short-lived perennial.

**Phytoremediation:** Arsenic (Echinacea purpurea).

**Gowanus:** Commonly planted native wildflower that can be found in the 6th Street Green Corridor rain gardens.

Cultivar: ‘Kim’s Knee High’

Flower-head remains after petals fall. June - Aug bloom.

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Gowanus Field Guide: Herbaceous Plants  
Gowanus Canal Conservancy  
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Gowanus: Herbaceous Plants  
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ECHINOCHLOA CRUS-GALLI
• Barnyard Grass

Family: Poaceae
Native to: Asia
Habitat: Grows in moist fields along roads and in disturbed soils

Ecological value: Outcompetes cultivated plants; problematic in rice fields; depletes soils of nitrogen (removes up to 80%)¹.
Edible: Grain of some varieties are edible as young shoots. Seeds can be eaten like popcorn².
Medicinal: Treats indigestion, diseases of the spleen. Traditionally used in South Korea to lower blood sugar and cholesterol.
Other: Can produce up to 40,000 seeds per year³. Used as cattle feed.

Phytoremediation: Phytoextraction of heavy metals such as Cadmium (Cd), Lead (Pb), 2,4,6 trinitrotoluene (TNT), all which are typically found at shooting ranges⁴.
Gowanus: Fairly common spontaneous non-native plant in Gowanus, can be found in the rain gardens at the Salt Lot.

Flowers from June to October. Only summer grass with no hairs or membrane at collar.

EUPHORBIA MACULATA
• Spurge

Family: Euphorbiaceae
Native to: North America
Habitat: Pioneer species

Edible: Not edible. The sap is poisonous. Considered a carcinogenic¹.
Gowanus: Very common low-growing spontaneous native plant, frequently appears in gardens in Gowanus, in sidewalk cracks, and on wooden bulkheads.

Has a distinct spot vs. Euphorbia prostrata which also has slightly shorter and rounder leaves.
REYNOUTRIA JAPONICA
• Japanese Knotweed

Family: Polygonaceae
Native to: Japan, China and Korea
Habitat: Disturbed areas, roadsides

Ecological value: Important food source for honeybees. Honey from Knotweed is often called bamboo honey.

Material uses: Yellow dye from root.

Edible: Traditionally eaten in Japan. Young stems are edible and taste like a sour rhubarb.

Eat in moderation (contains oxalic acid).

Medicinal value: Treats a long list of ailments, including skin conditions, cardiovascular diseases and fungal infections. Extensive research has been done on the plant’s potential for treating neurodegenerative diseases. Considered an important herb in treatment of Lyme disease.

Other: Stems are hollow with raised nodes like bamboo, but the two are not related. Listed as one of the worst invasive species by the World Conservation Union. Strong root systems cause serious damage to concrete structures.

Phytoremediation: Zinc, lead and copper. Toxins are mostly stored in roots.

Gowanus: Prolific spontaneous non-native plant can be found along moist canal edges, often behind metal bulkheads. Can easily crowd out other plantings and is difficult to remove once established.

GALINSOGA QUADRIRADIATA or G. PARVIFLORA • Quickweed

Family: Asteraceae
Native to: Central America
Habitat: Disturbed areas, roadsides, fields

Edible: Used as an herb or in salads. Do not confuse with Tridax procumbens, which is poisonous.

Other: Can reduce crop yields by up to 50%, as an agricultural weed.

Gowanus: This genus of spontaneous non-native annual plants emerges in early spring in Gowanus. It sets seeds quickly and can spread prolifically.

Dense blooms in late summer.
HELIOPSIS HELIANTHOIDES
• False Sunflower

Family: Asteraceae
Native to: Eastern and Central North America
Habitat: Wooded areas, tallgrass prairies, roadsides.

Other: Often used in prairie restorations and as an ornamental plant.
Gowanus: Spontaneous and planted native wildflower planted in the 6th Street Green Corridor rain gardens. Grows spontaneously in gardens at the Salt Lot. Strong spreader in the landscape.

Flower-head lighter than head of Black-eyed Susan. June - Aug bloom.

HEMEROCALLIS SPP.
• Daylily

Family: Asphodelaceae
Native to: China, Korea, Japan, Northern India, Mongolia
Habitat: Swamps, seashore meadows, forests edges, mountain tops up to 10,000 ft.

Ecological value: Attracts species of caterpillars.
Material uses: Dried foliage can be braided into footwear.
Edible: Large quantities of leaves from this genus can be toxic and hallucinogenic. Cooked young leaves and shoots are edible. Flower buds contain vitamins A, C in addition to protein, and can be eaten raw or cooked. Traditional food of China.
Medicinal value: Juice of roots can be effective against arsenic poisoning. Root is used in traditional Chinese medicine, against cancer and has medically shown antitumor activity.
Gowanus: Non-native flower planted in formal gardens, tree pits, and planters throughout the neighborhood including Thomas Greene Park and the Carroll Street Planters.

Color of flower varies depending on cultivar. Bloom lasts only for a day. Typical bloom time: July - August.

Blue-green to yellow-green foliage, resembles corn stalks, slightly arching to sides.

Length of leaf: 2-4”

Length of leaf: 12-18”
HIBISCUS MOSCHEUTOS
• Swamp Rose Mallow

Family: Malvaceae  
Native to: South, Northeastern United States and East Canada  
Habitat: swampy forests, wet meadows, marshes

Ecological value: Attracts pollinators such as the Rose Mallow Bee (Ptilothrix bombiformis), a solitary ground-nesting bee, and Ruby throated hummingbirds. Hosts several species of caterpillars (lepidoptera), including, the Gray hairstreak (Strymon melinus), Painted lady butterflies (Cynthia), Skippers (Hesperiidae) and several moths including the Io Moth (Automeris io) and the Delightful Bird-Dropping Moth (Tarache delecta)¹.

Edible: Leaves and flowers are edible, though leaves are slightly hairy. Bitter taste.

Medicinal value: Infuse dry stalks to treat bladder inflammation².

Gowanus: Native wildflower planted in rain gardens along the street and at the Salt Lot. A white cultivar is planted at Sponge Park on 2nd street.

Habit: Grows up to 6’ tall. Short-lived bloom followed by seed capsule. Each flower petal is about 4-6” long. March - April bloom.

HYLOTELEPHIUM SPP.
• Sedum

Family: Crassulaceae  
Native to: Genus is generally native to the Northern Hemisphere  
Habitat: Thin dry soils on beaches, along rocks, wastelands, sandy meadows, drystone walls

Leaves tend to be alternate (but sub-opposite, opposite, and whorled leaves may also be present on a plant)

Edible: The leaves of Sedum telephium spp. can be eaten raw or cooked¹.  
Medicinal value: Popular against diarrhea, used in cancer treatments, astringent².  
Other: Highly tolerant of drought and wind. Some species of this genus are evergreen.  
Phytoremediation: Sedum alfredii is a hyperaccumulator of Cadmium and Zinc³.

Gowanus: Native and non-native species of this genus are commonly planted in green roofs in Gowanus. Sedums are planted in gardens at the Salt Lot and on the green roof of the blue storage container.
IRIS DOMESTICA
• Blackberry-Lily

Family: Iridaceae
Native to: Burma, Bhutan, China
Habitat: Hillside, roadsides, fallow fields, rocky bluffs

Ecological value: Attracts pollinators.
Material uses: The roots contain tannin.
Other: Formerly known as Belamcanda chinensis.
Gowanus: Spontaneous non-native plant can be found in the 2nd Avenue street garden, easily distinguished in summer into fall by its blackberry-like seeds.

IRIS VERSICOLOR
• Blue Flag Iris

Family: Iridaceae
Native to: Eastern US and Canada
Habitat: Marshes, meadows, streambanks, shores

Ecological value: Attracts pollinators.
Material uses: Leaves can be used to weave baskets and mats.
Edible: Toxic. No known edible uses.
Medicinal value: Popular among Native American Indian tribes, and used mainly as a detox. Note: This plant is poisonous.
Phytoremediation: Can be used as a vegetative filter strip, to reduce leaching of pesticides on places such as golf courts.
Gowanus: Native wildflower planted in rain gardens along 6th street and 3rd street, and at the Salt Lot.
JUNCUS EFFUSUS
• Common Rush

Family: Juncaceae
Native to: Europe, Asia, Africa, North America, South America.
Habitat: Wetlands, riparian areas, marshes

Material uses: Stems can be used for making baskets, weaving mats, thatching ropes and used as a candle when soaked in oil. Can be used to make an off-white paper, and if mixed with mulberry fibers, can be used as a stencil / transfer paper.
Edible: Young shoots can be eaten raw, with caution as it’s slightly toxic to mammals.
Medicinal value: The juice from the stem is used for a variety of ailments including sore throat and “morbid crying of babies”.
Phytoremediation: Phytostabilization of lead contaminated areas.
Gowanus: Native rush planted in rain gardens in Gowanus, notably at Carroll and Bond, the 6th street Green Corridor, and the Salt Lot.

LEPIDIUM VIRGINICUM
• Poor Man’s Pepper

Family: Brassicaceae
Native to: North America
Habitat: Open fields, roadsides, disturbed soils.

Edible: Young leaves can be eaten raw or cooked. Has a peppery taste because it is part of the mustard family. Rich in iron, vitamin A and C. Seed is a pepper substitute.
Medicinal: Eases rheumatic pain, treats vitamin C deficiency and diabetes, expels intestinal worms, used to treat coughs and asthma.
Other: Relatives of the North American variety were cultivated by the Incan people. Basal rosette leaves at base, alternate leaves on flowering stalks.
Gowanus: Spontaneous native plant occasionally found along the edge of the canal and in emergent patches along sidewalks.
**LINARIA VULGARIS**
• Butter-And-Eggs

**Family:** Plantaginaceae  
**Native to:** Europe, northern Asia  
**Habitat:** Ruderal species, found in disturbed areas such as urban, cultivated land, along roads and in dunes  

**Ecological value:** Food source for butterflies and moths. Visited by several species of bees. The flower remains closed and doesn’t open until a bee ‘forces’ her entrance: “When the bee alights on the orange palate, the colour of which is specially designed to attract the desired visitor, acting as a honey-guide, it falls a little, disclosing the interior of the flower, which forms a little cave, on the floor of which are two ridges of orange hairs, a track between them leading straight to the mouth of the long, hollow spur.”

**Material uses:** Yellow dye can be extracted from the flowers. Insecticide can be made by boiling plant in milk; infusion makes an excellent fly poison traditionally used in Sweden.

**Medicinal value:** Long history of medicinal use including liver ailment remedies.

**Other:** Cultivated for cut flowers. Also known as Common Toadflax.  
**Gowanus:** Spontaneous non-native plant whose yellow flower can be seen blooming in the fall in Gowanus often along sidewalks and along fence lines.

**LIRIOPE SPICATA**
• Creeping Lilyturf

**Family:** Liliaceae  
**Native to:** East Asia  
**Habitat:** Understory in forests and grassy slopes  

**Ecological value:** Good for erosion control. Minimum maintenance needed.

**Edible:** Cooked root is edible.

**Medicinal value:** Root used in Chinese medicine as aphrodisiac.

**Other:** Small wildlife value. Can become invasive in some areas. Drought tolerant ground cover. Purifies indoor air, particularly effective at removing ammonia. Easily confused with Liriope muscari. *L. spicata* has grasslike foliage (1/4” wide).

**Gowanus:** Non-native ground cover planted at Thomas Greene Park.
MEDICAGO LUPULINA
• Black Medic

**Family:** Fabaceae
**Native to:** Europe, North Africa, most of Asia. Naturalized in the US
**Habitat:** Meadows, fields, disturbed areas and roadsides

**Ecological value:** Pioneer plant, which occurs in early vegetational succession in barren or disrupted environments. Cold resistant. Used by honey bees. May be planted on dry land to create artificial meadows and can improve soil conditions as it fixes atmospheric nitrogen. Good green manure plant, which can be turned into the soil to increase nitrogen levels. Resistant to ‘clover rot.’

**Edible:** Leaves can be eaten cooked, or used as a potherb¹.
**Gowanus:** Spontaneous non-native plant can be seen emerging on bare ground in Gowanus. Grows along the bulkhead edge at the Salt Lot.

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MOLLUGO VERTICILLATA
• Carpet Weed

**Family:** Molluginaceae
**Native to:** Tropical America and archeological evidence suggests it has been in North America for around 3000 years
**Habitat:** Cracks in road, sidewalks, fields, disturbed areas, lawns

**Ecological value:** Minor source of food for terrestrial birds¹.
**Edible:** Used as a Potherb. Leaves, stems, flowers can be eaten raw when young, or boiled².
**Medicinal value:** Demulcent and poultice (relieving inflammation or irritation)³.
**Other:** Unusual in that it uses both C3 and C4 photosynthesis pathways, which minimizes transpiration, giving the plant an advantage in conditions of drought. Most of earth’s plants perform the C3 form of photosynthesis including rice, wheat, soybeans and all trees (quick-er pathway). C4 plants live in hot-moist or arid habitats. Plants include crabgrass, sugarcane and corn⁴.
**Phytoremediation:** Nickel, Zinc, Copper and Iron accumulation⁵.
**Gowanus:** Non-native, spontaneous, spreading plant emerges around the Salt Lot in a low-growing flat mat that looks like a carpet.
**MONARDA FISTULOSA**  
- *Wild Bergamot*

**Family:** Lamiaceae  
**Native to:** North America  
**Habitat:** Fields, thickets, clearings

**Ecological value:** Attracts pollinators such as bees, hummingbirds, butterflies and moths. Hosts the Hermit Sphinx, Orange Mint Moth and Raspberry Pyrausta\(^1\).

**Material uses:** Used in Oil of Thyme - an essential oil used in perfume etc.

**Medicinal value:** Traditionally brewed as tea by indigenous peoples to treat colds, headaches, stomach pains, and flatulence\(^2\).

**Other:** Strong spreader by root rhizomes.

**Gowanus:** Native wildflower planted in the maritime meadow at the Salt Lot.

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**MONARDA PUNCTATA**  
- *Spotted Beebalm*

**Family:** Lamiaceae  
**Native to:** Eastern Canada, Eastern United States and northeastern Mexico  
**Habitat:** Sandy prairies and fields, savannas

**Ecological value:** Attracts pollinators, in particular wasps, many of which are beneficial predatory wasps that control harmful insects such as grubs and pest caterpillars\(^1\). Also attracts butterflies, hummingbird moths, skippers and other native bees.

**Medicinal value:** Used in the treatment of colds, headaches, as a fever-reducer, and to relieve stomach cramps\(^2\). Contains an antiseptic and fungicide.

**Other:** Grows 1-3' in height and spreads about 9-12 inches. June-July blooms. Annual to biennial plant that self-seeds in ideal conditions.

**Gowanus:** Native wildflower planted in the maritime meadow at the Salt Lot and in the 2nd Avenue street end garden.
NEPETA X FAASSENII  
- Catmint

**Family:** Lamiaceae  
**Native to:** Southern and Eastern Europe, the Middle East, Central Asia and China  
**Habitat:** Disturbed areas, forests, fields

**Ecological value:** Attracts pollinators.  
**Material uses:** Essential oils can be distilled from flowers.  
**Edible:** Young leaves can be eaten raw, as an addition to salads, or used as an infusion for tea.  
**Medicinal value:** Nepeta cataria deters ants and flea beetles. An infusion can be applied to carpets and pet-fur. Herbal remedies against digestive disorders, colds, and reducing fevers.

**Other:** Nepeta x faassenii is a hybrid of the two parent species, Nepeta racemosa and Nepeta nepetella. Seeds are mostly sterile. Drought tolerant. Nepeta cataria (catnip) is a favorite of domestic cats. 20-30% of cats lack the ‘catnip gene’, and are not affected by the plant. Those with the ‘catnip gene’, are sensitive to the smell of nepetalactone, resulting in euphoric (and drunken-like) cat behavior.

**Gowanus:** Non-native flower planted in rain gardens.

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PANICUM VIRGATUM  
- Switchgrass

**Family:** Poaceae  
**Native to:** Canada, US, Mexico  
**Habitat:** Prairies, bluffs, stream banks, open woods

**Ecological value:** Forage and habitat for wildlife.  
**Material uses:** Renewable bioenergy crop, substrate for growing mushrooms, bedding for livestock. Potential source of a biodegradable plastic.  
**Other:** Uses C4 photosynthesis pathway which minimizes transpiration, giving the plant an advantage in conditions of drought. Long roots make it suitable for soil conservation.  
**Phytoremediation:** Chromium, anthracene, polycyclic aromatic hydrocarbon (PAH), pyrene, and total petroleum hydrocarbon (TPH).

**Gowanus:** Native, resilient, adaptive plant tolerant of a range of conditions, planted in rain gardens and parks throughout the neighborhood.
PARTHENOCISSUS QUINQUEFOLIA
• Virginia Creeper

Family: Vitaceae
Native to: East and Central North America, Canada, Eastern Mexico and Guatemala.
Habitat: Open woodlands, forest edges, roadsides, floodplains

Ecological value: Berries provide an important winter food source for fruit birds, including chickadees, nuthatches, mockingbirds, catbirds, finches, flycatchers, tanagers, swallows, vireos, warblers, woodpeckers, and thrushes. Host plant of several species of sphinx moths, including the Virginia creeper sphinx (Darapsa myron).
Material uses: Pink dye can be extracted from fruit.
Edible: Contains oxalic acid, which can cause liver damage in humans.
Medicinal value: Used as a wash on swellings and poison ivy rash. Tea from roots has been used to treat gonorrhea and diarrhea.
Other: Can be confused with Pennsylvania Smartweed. Prefers moist, rich soils, not lime.
Gowanus: Common spontaneous non-native plant found on Gowanus streets and in moist areas including rain gardens. The US native, P. pensylvanica can also be found in Gowanus and is distinguished by a rough stem compared with the smooth stem of P. maculosa.

PERSICARIA MACULOSA
• Lady’s Thumb

Family: Polygonaceae
Native to: Eurasia. Spread in the US via the Great Lakes where it was first discovered in 1843.
Habitat: Disturbed areas, roadsides, riverbanks, fallow grounds.

Material uses: Yellow dye can be extracted from plant.
Edible: Young shoots and leaves.
Medicinal value: Has been used to treat diarrhea and infections.
Other: Can be confused with Pennsylvania Smartweed. Prefers moist, rich soils, not lime.
Gowanus: Common spontaneous non-native plant found on Gowanus streets and in moist areas including rain gardens. The US native, P. pensylvanica can also be found in Gowanus and is distinguished by a rough stem compared with the smooth stem of P. maculosa.
**PHRAGMITES AUSTRALIS**
- **Common Reed**

**Family:** Poaceae  
**Native to:** Phragmites australis subsp. australis originated from Eurasia  
**Habitat:** Marshes, swamps, river banks and roadside drainage swales

**Ecological value:** Provides habitat for some birds and mammals. Can provide excellent erosion control due to rigorous rootstock.

**Material uses:** Reeds used for lattices are used in adobe building in the Southwest US. Can be converted into alcohol and burnt as fuel; the remains can be used as a fertilizer. Processed plant-mass can be used as filler in upholstery. Stems can be used for baskets & mats - can last up to 100 years, and contain over 50% cellulose, making them suitable for making paper. A fiber from this plant is used to make string; green dye can be extracted from flowers, and inflorescences are used in brooms. Can also be used as a cork substitute.

**Edible:** Root can be eaten raw or cooked like potatoes. Young shoots are also edible. Powder from dried stems can be moistened and roasted like a marshmallow.

**Medicinal:** Leaves and roots are traditionally used to treat cholera and food poisoning. Forms in monocultures on land disturbed by human activities and aggressively outcompetes other plants. Extremely difficult to remove once established. Another subspecies, which is very difficult to distinguish and much less common is the US native Phragmites australis subsp. americanus.

**Phytoremediation:** Chlorinated solvents, TNT, and heavy metals.

**Gowanus:** Aggressive spontaneous non-native grass emerges in lowlying rain gardens and along the canal’s edge in Gowanus. Can be found in Sponge Park, the 2nd Avenue street end garden, and the rain gardens at the Salt Lot. Easily spreads, crowding out other vegetation, especially native marsh grasses, and can be very difficult to remove once established.

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**PLANTAGO LANCEOLATA**
- **Narrowleaf Plantain**

**Family:** Plantaginaceae  
**Native to:** Eurasia  
**Habitat:** Meadows, wet forests, disturbed areas

**Material uses:** Textile fiber can be made from leaves; gold and brown dyes can be extracted from entire plant.

**Edible:** Young leaves can be eaten raw or cooked.

**Medicinal value:** Quickly stops bleeding, encourages repair of damaged tissue, antibacterial. Effective tea against cough.

**Phytoremediation:** Absorbs lead.

**Gowanus:** Common spontaneous non-native plant found along the canal and in gardens, including 3rd and 3rd garden and the Salt Lot.
**PLANTAGO MAJOR**  
• Broad-Leaved Plantain  

**Family:** Plantaginaceae  
**Native to:** Europe, northern and central Asia  
**Habitat:** Grows in lawns or fields, along roads and in disturbed and compacted soils.

**Ecological value:** Food source for mammals.  
**Edible:** Young leaves and seeds may be eaten raw or cooked. Leaves are highly nutritional\(^1\).  
**Medicinal value:** The plant is used in the treatment of a wide range of complaints such as indigestion, heartburn and ulcers\(^2\), or to relieve rashes, cuts and snakebites\(^3\).  
**Other:** Native Americans called it ‘white man’s footprint’ because it grew in the path of the early European settlers.  
**Phytoremediation:** Cyanophos insecticide\(^4\), and lead\(^5\).  
**Gowanus:** Occasional non-native spontaneous plant in Gowanus found in sidewalk cracks and gardens.

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**POLYGONUM AVICULARE**  
• Prostrate Knotweed  

**Family:** Polygonaceae  
**Native to:** Europe to Asia  
**Habitat:** Waste sites, sides of roads.

**Ecological value:** Rarely visited by pollinators (self pollinating). Seeds are a favorite of many birds\(^1\) and are an important food source of caterpillars of butterflies\(^2\).  
**Material uses:** Blue dye that is close in quality in color as indigo can be extracted from leaves\(^3\). Yellow and green dye can be extracted from entire plant\(^4\). Roots contain tannins.  
**Edible:** Young leaves and plants can be eaten raw or cooked\(^5\). Closed flowerheads containing seeds are ready to be collected, dried and ground, and used as a substitute for buckwheat flour\(^6\). Rich in zinc. Leaves are used as tea\(^7\).  
**Medicinal value:** Treats many ailments including bacterial dysentery.  
**Gowanus:** Spontaneous non-native plant found in gravelly areas around the banks of the canal.
**PORTULACA OLERACEA**

- **Purslane**

**Family:** Portulacaceae  
**Native to:** North Africa to Southern Europe, US archaeophyte  
**Habitat:** Waste sites, roadsides, fields

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**Ecological value:** Companion plant: as a groundcover it keeps moisture in soil. It’s deep roots extract moisture and nutrients that other plants can use. Corn will follow the roots of purslane where their own roots can’t penetrate (ecological facilitation). Prefers moist soil.

**Edible:** Leaves are eaten raw or cooked. Spinach replacement. Contains more omega-3 fatty acids than any other leafy vegetable. Contains antioxidants, vitamins and minerals and oxalate (which can cause kidney stones). Cooking reduces the oxalate. Australian Aborigines use seeds to make seedcakes. The Greek add it to Greek salads. Also in Egyptian, Syrian, Albanian, Portuguese and Pakistani recipes. The Ash of burnt Purslane can be used as a salt substitute.

**Medicinal value:** Treats insect or snake bites, bacillary, dysentery, diarrhea, hemorrhoids.

**Other:** CAM metabolic pathway: When harvested in morning, Purslane has a more ‘tangy’ taste, as at night the plant traps CO2 and converts it to malic acid, which during day is converted to glucose. An incredibly drought tolerant xerophyte.

**Phytoremediation:** Can remediate metals from areas with industrial effluent and extract salt from saline soils.

**Gowanus:** Spontaneous non-native plant can be found growing as a weed in the Lowlands Nursery and along sidewalk cracks.

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**RUDBECKIA SPP.**

- **Coneflower**

**Family:** Asteraceae  
**Native to:** Central US  
**Habitat:** Prairies, savannas, woodlands, openings, stream banks, sandy savannas

**Ecological value:** Hosts the Cabbage Moth (Mamestra brassicae) and Dot Moth (Melanchra persicariae), and attracts other pollinators such as bees, hoverflies and birds.

**Material uses:** A green or yellow dye is obtained from flowers.

**Edible:** Young stems of some cultivars (laciniata), can be eaten, but it is otherwise considered toxic to mammals.

**Medicinal value:** Used to treat indigestion (R. laciniata), colds, and worms in children (R. hirta).

**Other:** Effective against erosion when used with grasses and forbs.

**Phytoremediation:** Heavy metals. Arsenic (Rudbeckia hirta).

**Gowanus:** Native wildflower planted in rain gardens and gardens at the Old Stone House and Washington Park.
RUMEX SPP.

- Dock

**Family:** Polygonaceae  
**Native to:** Europe  
**Habitat:** Disturbed areas, field margins

**Ecological value:** Food plant of many species of butterflies and moths.  
**Material uses:** Yellow, dark green, brown and grey dyes can be extracted from root. No mordant needed.  
**Edible:** Raw or cooked (in very limited quantities).  
**Medicinal value:** Many medicinal uses including a topical treatment for blisters and burns.  
**Other:** Possible antidote to nettle sting  
**Gowanus:** Common spontaneous non-native plant in Gowanus distinguished by its long taproot and tall flower stalks that give way to seed heads in the summer.

SCHIZACHYRIUM LITTORALE

- Shore Little Bluestem

**Family:** Poaceae  
**Native to:** North America  
**Habitat:** Coast of New England to Texas

**Ecological value:** Host to the Cobweb Skipper, Common Wood Nymph, Crossline Skipper, Dakota Skipper, Dusted Skipper, Leonard's Skipper, Ottoe Skipper and Swarthy Skipper. Controls erosion, stabilizes dunes. Provides cover for small mammals and birds. Tolerates hot, dry soils.  
**Other:** In the wild is found with: Big bluestem (Andropogon gerardi), Indian grass (Sorghastrum nutans) and Switchgrass (Panicum virgatum). 2-3' high, orange-bronze in color. Distinguished from inland Little bluestem from by its smaller habit and the bent stems at base. Little bluestem stems are erect. Grows mostly lateral root systems, making it suitable for green roofs.  
**Gowanus:** Native grass planted in the maritime meadow at the Salt Lot.
**SETARIA VIRIDIS**  
- **Green Fox Tail**

**Family:** Poaceae  
**Native to:** Europe and Asia  
**Habitat:** Margins of upland woods, prairies, streambanks, disturbed sites, roadsides  

**Ecological value:** Seeds are eaten by insects including grasshoppers, flea and leaf beetles, aphids, stinkbugs, and the seed-eating larvae of a gall fly. Small mammals and birds also feed on the seed head and leaves.  
**Edible:** Seeds can be eaten as rice or millet. Roasted seeds can be used as coffee substitute.  
**Other:** Early to germinate and one of the first grasses to bloom.  
**Phytoremediation:** Petroleum Hydrocarbons, Polycyclic Aromatic Hydrocarbons.  
**Gowanus:** Common spontaneous non-native grass at the Salt Lot and around the neighborhood.

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**SOLANUM NIGRUM**  
- **Black Nightshade**

**Family:** Solanaceae  
**Native to:** Eurasia, introduced to the Americas  
**Habitat:** Cultivated land, roadsides, wastelands, pastures, exposed river beds and banks and woodlands  

**Ecological value:** Food plant to butterflies and moths.  
**Material uses:** Good for dying paper (purple).  
**Edible:** Can be toxic (ingesting unripe/ripe berries). In India, boiled leaves and ripe berries of edible strains are eaten.  
**Medicinal value:** Many uses such as anti-inflammatory, and antispasmodic.  
**Phytoremediation:** Can remove PCB’s from soil, and is more effective doing so when infected with the bacterial parasite Argobacterium tumefaciens. Can remove lead.  
**Gowanus:** Common spontaneous non-native plant can frequently be spotted in the summer growing around the neighborhood, distinguished by its tomato-like appearance with small dark fruits.
**SOLIDAGO SEMPERVIRENS**
- **Family:** Asteraceae.
- **Native to:** The east coast of the Americas, from the Caribbean to Newfoundland.
- **Habitat:** River banks, salt marshes, sand dunes, roadsides.

**Ecological value:** Food source for butterflies including Monarchs. Stems provide over-wintering habitat for gall-producing insects, some of which are predatory wasps that are beneficial to have near crops. Gall larvae provide food for birds. Provides nesting habitat between primary and secondary dunes for birds such as willets, killdeer, piping plovers and black skimmers.

**Material uses:** Thomas Edison created rubber from the latex of Solidago sempervirens. Mustard, orange and brown dyes are obtained from Solidago canadensis.

**Other:** Highly salt tolerant. Used in erosion control as initiate dune formation. Roots are a minimum of 1/4” and arise from short rhizomes. Contains the allelopathic compound dehydroamatricaria ester, which is lethal to nematodes and might inhibit growth of certain plant species if they are growing nearby.

**Phytoremediation:** Petroleum hydrocarbons, polycyclic aromatic hydrocarbons.

**Gowanus:** Common, spontaneous and occasionally planted native plant found along the banks and bulkheads of the canal near the elevation of high tide. Grows at the Salt Lot and 2nd Avenue street end garden and in tree pits throughout the neighborhood. Can become weedy and outcompete other plants.

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**SONCHUS OLERACEUS**
- **Family:** Asteraceae
- **Native to:** Europe and Western Asia
- **Habitat:** Disturbed areas, roadsides

**Ecological value:** Attracts pollinators.

**Material uses:** Stem contains 0.14% latex which is too low for commercial production.

**Edible:** Young leaves can be eaten raw or cooked, highly nutritious. Milky sap is used as chewing gum by Maoris of New Zealand.

**Medicinal value:** Latex in sap is used to treat warts.

**Phytoremediation:** Potentially effective at remediating saline soils.

**Gowanus:** Occasional spontaneous non-native plant emerges on bare ground in Gowanus and along cracks and seams.
SPARTINA ALTERNIFLORA
• Smooth Cordgrass

Family: Poaceae
Native to: Atlantic coast of the Americas
Habitat: Wetlands, particularly in estuarine salt marshes

Ecological value: Important source of food for snow geese. Salt marsh plants, including Spartina alterniflora and patens, provide habitat and nutrients for mollusks, crustaceans and birds such as seaside sparrows and ducks. Marsh plants also filter pollutants and prevent erosion of the shoreline.

Other: Found at elevations between high and low tide. S. alterniflora experiences daily tidal inundation. Considered the most important marsh plant species in the estuary of Chesapeake Bay. It accumulates sediment and sand, allowing other habitat engineers such as mussels, to settle. These activities gradually build up the marsh.

Phytoremediation: Heavy metals.

Gowanus: Along with Spartina patens, was once an abundant species in the historic salt marsh, which occupied approximately 400 acres of the Gowanus lowlands before industrialization. This native grass was planted and can currently be found in the only restored small patch of marsh in Gowanus, planted in 2013 at the Salt Lot.

SPARTINA PATENS
• Salt Hay/Salt Meadow

Family: Poaceae
Native to: The Atlantic coast of the Americas, from Newfoundland to the Caribbean and northeast Mexico.
Habitat: Coastal salt marshes.

Ecological value: Salt marsh plants including, Spartina patens and alterniflora, provide habitat and nutrients for mollusks, crustaceans and birds such as seaside sparrows and ducks. Marsh plants also filter pollutants and prevent erosion of the shoreline.

Material uses: Baskets.

Other: Found near the high tide elevation, S. alterniflora experiences occasional tidal inundation and salt spray. Small deep purple flowers bloom from June - October. Special cells within the plant exclude salt from entering the roots and prevent the loss of freshwater. Historically, Spartina alterniflora and patens were harvested for bedding and fodder for domestic animals. Salt hay is considered invasive in many non-native habitats. It is also often out-competed by the less beneficial Common reed (Phragmites australis) for space in areas altered or disturbed by human activity.

Phytoremediation: Petroleum hydrocarbons.

Gowanus: Along with Spartina alterniflora, was once a common species in the historic salt marsh, which occupied approximately 400 acres of the Gowanus lowlands before industrialization. This native grass was planted and can currently be found in the only restored small patch of marsh in Gowanus, planted in 2013 at the Salt Lot.
SYMPHYOTRICUM LAEVE  
• Smooth Aster

Family: Asteraceae  
Native to: North America  
Habitat: Fields, roadsides, open woods

Ecological value: Attracts pollinators such as bees, flies, beetles and butterflies. Host plant for the Pearly Crescent Butterfly (Phyciodes tharos). Browsed occasionally by deer, rabbits and groundhogs. Drought tolerant.  
Material uses: The flowers of Symphyotrichum laeve var. geyeri (Gray) Nesom, were used by the Native Western Keres people, along with white clay, to dye wool and/or eggs.  
Edible: Flowers were eaten by the Western Keres.  
Medicinal value: Native Meskwaski used smoke from plant in sweat-baths and to revive unconscious patients.  
Other: Blooms from September to October, and changes from a white-yellow to a purple-red, eventually turning brown. Grows well with Helianthus and Solidago. 1-3’ tall.  
Gowanus: Common spontaneous native wildflower in Gowanus along the banks of the canal. Can be seen sprouting up in gardens at the Salt Lot.

SYMPHYOTRICUM OBLONGIFOLIUM  
• Aromatic Aster

Family: Asteraceae  
Native to: Northeastern and central North America  
Habitat: Prairies, open areas, slopes

Ecological value: Attracts pollinators including birds, bees and butterflies. Host plant of the Silvery Checkerspot (Chlosyne nycteis) and larvae of multiple species of moths. Drought tolerant, controls erosion.  
Medicinal value: An extraction from the plant has been used as a lotion for protection from witches in traditional Navajo medicine.  
Other: August to September bloom, 1-2’ tall. Leaves are fragrant when crushed. Aromatic aster is distinguished by the number of ray florets per flowerhead (more than 20), the 1” flowerhead, and the linear spreading bracts under each flowerhead.  
Gowanus: Native wildflower planted in gardens at the Salt Lot, 2nd Avenue street end garden, and in the Carroll Street Planters.
**TARAXACUM OFFICINALE**  
*Dandelion*

Family: Asteraceae  
Native to: Europe and Asia. Naturalized in the US. *Taraxacum officinale* ssp. *ceratophorum* is reportedly native to North America, and was used by indigenous peoples as food and medicine¹.  
Habitat: Disturbed habitats. Can adapt to most soils.

Leaf length: 2–8"  

**Ecological value:** Important early spring food-source for pollinators.  
**Material uses:** Yellow and green dye can be extracted from flowers, brown from roots. Low quality latex from stems for making rubber.  
**Edible:** Originally imported to the US as a food crop. Highly nutritious. Flowers are used to make dandelion wine. Greens can be eaten raw in salads, or cooked. Ground, dried roots can be used to make a coffee substitute. Tea can be made from flowers, roots and leaves¹.  
**Medicinal value:** Treats many ailments including digestive disorders. White latex can be used as a mosquito repellent.  
**Other:** The flowers are one of the ingredients of ‘Quick Return - QR’, herbal compost activators, which speed up the composting process². Releases ethylene gas which stunts the growth of plants close by and can cause fruit to ripen prematurely³.  
**Phytoremediation:** Hyper-accumulator and bio-indicator of heavy metals, especially lead⁴.  
**Gowanus:** Common spontaneous non-native plant found in gardens, along sidewalks and in lawn areas distinguished by its easily-dispersed spherical seed-head.  

**YUCCA FILAMENTOSA**  
*Adam’s Needle*

Family: Asparagaceae  
Native to: Southeastern US.  
Habitat: Sandy soils, fields, rocky slopes.

**Ecological value:** Host plant to the Yucca Moths (Tegeticula yuccasella and T. intermedia).  
**Material uses:** Traditionally, cordage was made from fibers. Leaves were soaked in water and pounded with stones, then twisted to form strands, often with the incorporation of animal or human hair. The string was used for ropes, sandals, clothing and baskets¹. Leaves were also used as paintbrushes by the Southwest indigenous peoples, who chewed the tips into a fine fringe, to decorate pottery². Dry roots were used as soap or shampoo by mixing the pounded dry roots with cold water¹.  
**Edible:** Fruits can be cooked once seeds are removed. Flower petals can be eaten raw. Shasta Rootbeer uses *Yucca filamentosa*; it creates the white foamy head of the soda³.  
**Medicinal value:** Used by indigenous peoples to treat skin conditions and diabetes. Pounded roots are used to sedate fish⁴.  
**Other:** Evergreen. Flowers emerge along tall stalks in mid-summer. Grows well in clay soils in addition to sandy soils.  
**Gowanus:** This tough, resilient, salt-tolerant plant native to the Southeastern US is planted in tree pits and gardens throughout the Gowanus neighborhood.
LEAF CONFIGURATIONS

Compound leaves

Simple leaves

Compound leaf anatomy

Leaf arrangements on stem
CONYZA CANADENSIS, HORSEWEED
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

COREOPSIS SPP., TICKSEED
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

DAUCUS CAROTA, QUEEN ANNE’S LACE
1. Harris, B. C. Eat the Weeds. Pivot Health (1973-00-00)
Publication: January 1994, pg 58
Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.

ECHINACEA PURPUREA, PURLE CONE-FLOWER

ECHINOCOCHLA CRUS-GALLI, BARNYARD GRASS
4. Lee et al. ‘Phytoremediation of soil co-contaminated with heavy metals and TNT using four plant species’, J. Environ Health A Tox Hazard Subst Environ Eng. 2007 Nov;42(12):2039-45.

EUPHORBIA MACULATA, SPURGE
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

REYNOUTRIA JAPONICA, JAPANESE KISME-GRASS
Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.

GALINSOGA QUADRIRADIATA, QUICKWEED
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

HELICOPSIS HELIANTHOIDES, FALSE SUNFLOWER
Source: https://pfaf.org/User/Plant.aspx?LatinName=Helicopsis+helianthoides
Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.

HESPEROCALLIS SP., DAYLILY
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

HIBISCUS MOSCHEUTOS, SWAMP ROSE MALLOW
Text: Lauren Salas-Schumann/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

HYLOTELEPHIUM SPP., SEDUM
Text: Lauren Salas-Schumann/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

IRIS DOMESTICA, BLACKBERRY-LILY
Text: Lauren Salas-Schumann. Images: Christine Facella. Layout: Christine Facella.

IRIS VERSICOLOR, BLUE FLAG IRIS
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

2. Bell. L. A. Plant Fibres for Papermaking. Liliaceae Press (1988-00-00)
5. Him-Che. Handbook of Chinese Herbs and Formulas. Institute of Chinese Medicine, Los Angeles (1985-00-00)
Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.

LEPIDIUM VIRGINICUM, POOR MAN’S PEPPER
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Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.

LINARIA VULGARIS, COMMON TOADFLAX / BUTTER-AND-EGGS
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

Source: https://pfaf.org/User/Plant.aspx?LatinName=Heliopsis+helianthoides
Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.

Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.

Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.

Text: Christine Facella. Images: Christine Facella. Layout: Christine Facella.
PORTULACA OLERACEA, PURSLANE
2. Facciola, S. Cornucopia - A Source Book of Edible Plants, Kapmang Publications.
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

RUDBECKIA SP., CONEFLOWER
3. USDA plant fact sheet, Rudbeckia hirta.
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

RUMEX SP., DOCK
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

SCHIZACHYRUM LITTORALE, SHORE LITTLE BLUESTEM
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SEATIRA VIRIDIS, GREEN FOX TAIL
2. Kennan and Kirkwood, Phyto, Principles and resources for site remediation and landscape design, Routledge, 2015

SOLANUM NIGRUM, BLACK NIGHTSHADE
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

SOLIDAGO SEMPEVIRENS, GOLDENROD
4. Kennan and Kirkwood, Phyto, Principles and resources for site remediation and landscape design, Routledge, 2015

SONCHUS OLERACEUS, SOWTHISTLE
Text: Christine Facella/Sam Bishop. Images: Christine Facella. Layout: Christine Facella.

SYMPHYOTRICHUM LAVEE, SMOOTH ASTER
2. 3. Swink, George R., 1932, The Ethnobotany of the Acoma and Laguna Indians, University of New Mexico, M.A. Thesis, page 30
Text: Christine Facella. Images: Diana Gruberg. Layout: Christine Facella

SYMPHYOTRICHUM OBLONGIFOLIUM, AROMATIC ASTER
Text: Christine Facella. Images: Diana Gruberg. Layout: Christine Facella

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YUCCA FILAMENTOSA, ADAM’S NEEDLE
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Text: Christine Facella. Images: Diana Gruberg. Layout: Christine Facella

Gowanus Field Guide: Herbaceous Plants
Gowanus Canal Conservancy
DISCLAIMER:
To the best of our knowledge, the edible history and medicinal uses of these plants are accurate. However, the authors and publisher of this field guide do not recommend eating plants that grow in Gowanus or in unclean soil. Additionally, many poisonous plants can easily be confused for edible plants.

We stress that you do not eat or use medicinally any part of any cultivated or wild plant until you have verified with your healthcare professional that they are non-toxic and safe for you to consume and touch and until you have had their identifications verified by an expert in the field.

Neither the publisher nor the authors accept responsibility for any effects that may arise from eating wild plants.
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GOWANUS CANAL CONSERVANCY
Material uses: Boiled inner bark creates a purple color that can be mixed with lead sulphate to create a black dye and used as ink. Wood is used for basket splints and furniture making, but is not strong despite being hard and heavy (38 lb per cubic foot). Leaves are used to wrap and preserve apples and root crops. Sap can be extracted as syrup—only yields half of the quantity of sugar maple (A. saccharum). Seedlings, fresh in spring, or dried. Wings are removed and seeds can be boiled and eaten. Almost every part of the tree is used in traditional Chinese medicine. Nickname: 'Tree of hell', 'Stink tree', 'Ghetto palm'. Resprouts rapidly after being cut. Produces allelopathic chemicals to outcompete other plants. Makes a central, metaphorical appearance in A Tree Grows in Brooklyn, by Betty Smith. Brought to the US in the 1780s, and is today considered invasive. Shade intolerant.

Ecological value: Rapidly growing (3-6' per year), short lived tree. Pollution tolerant. Used to re-vegetate acid mine spoils. Extensive root structures are suitable for soil stabilization. Food source of butterflies, moths, arthropods and fungi in native habitat. Host plant of silkworms (Samia cynthia).

Material uses: Lumber, yellow dye and paper making (high content of cellulose). Crushed leaves and flowers as insect-repellent. Plant parts steeped in water as insecticide.

Medicinal value: Almost every part of the tree is used in traditional Chinese medicine.

Other: Most abundant native tree in North America. Nickname: 'Tree of hell', 'Stink tree', 'Ghetto palm'. Resprouts rapidly after being cut. Produces allelopathic chemicals to outcompete other plants. Makes a central, metaphorical appearance in A Tree Grows in Brooklyn, by Betty Smith. Brought to the US in the 1780s, and is today considered invasive. Shade intolerant.

Phytoremediation: Heavy metals including hexavalent chromium.

Gowanus: Very common spontaneous non-native tree that emerges wherever it can in Gowanus: along the banks of the canal, fence lines, sidewalks, and in garden spaces. Yellow to red fall foliage. Can be confused with Juglans cinerea, Juglans nigra or Rhus spp. Ailanthus leaves have distinctive notch at base with gland on underside. Clusters of seeds, each one measuring around 1-2". Prolific production.
AMELANCHIER SPP.  
• Serviceberry

Family: Rosaceae  
Native to: Eastern North America  
Habitat: Coastal plains.

Ecological value: Source of food for birds.  
Material uses: Strong wood, used for tool handles.  
Edible: Fruit can be prepared like raisins, eaten raw and used in pies and preserves.  
Rich in Iron and copper.  
Medicinal value: Dried berries or berry juice used traditionally by Native Americans as eye and ear drops, to treat upset stomachs or as a laxative.  
Other: Used as dwarf rootstock for crabapple and pear-tree spp. Wind tolerant and used in shelterbelts.  
Gowanus: Native shrub genus with many species planted in gardens in Gowanus, including at Degraw Street West and at the Salt Lot.

BACCHARIS HALIMIFOLIA  
• Groundsel-bush

Family: Asteraceae  
Native to: Eastern and southern parts of the US, the Bahamas and Cuba  
Habitat: Wetlands, salty or brackish shores, disturbed areas, ditches and old fields.

Ecological value: Flowers provide abundant nectar for various species of caterpillars, including the Monarch butterfly. The dense foliage provides cover for wildlife.  
Edible: The seeds are toxic.  
Medicinal value: In Southern Louisiana it has traditionally been used to treat inflamed kidneys.  
Other: Small white, silky flowers. Bare in winter. Hedge for coastal environments and salt tolerant. Extensive root system that binds sand/soil. Good fuel source due to secretions of resin from leaves and stem, although plant is relatively small. Baccharis has alternate leaf arrangement as opposed to Iva frutescens, which is opposite.  
Gowanus: Native shrub found at the upper elevations of the high salt marsh in Gowanus, along the Salt Lot’s coastal edge and rain gardens.
**BETULA NIGRA**  
- River Birch

**Family:** Betulaceae  
**Native to:** Eastern US  
**Habitat:** Floodplains and swamps  

**Leaves:** Alternate  
**Height:** 40-60’

**Ecological value:** Hosts moths and butterflies whose caterpillars eat the foliage, including Mourning Cloak butterfly and Luna, Polyphemus and Cecropia moths. These insects become food sources for birds, along with the birch seeds during fall and winter seasons.

**Material uses:** Young branches can be used for whisks and brooms. Wood may be used for furniture-making but is contorted and knotty, though light and strong (weighs 36 lb per cubic foot).

**Edible:** Extracted sap may be consumed raw or cooked. Native Americans traditionally boiled the sap to create a syrup similar to maple syrup. Fermented sap can be used as vinegar or beer.

**Medicinal value:** Highly valued in a variety of folk/traditional medicines world-wide (Betula genus). From B. nigra, a balm can be made from boiled buds and sulfur to cure ringworm and skin sores, leaves chewed or as infusion against dysentery.

**Other:** Heat-tolerant cold weather trees. Used for erosion control - extensive root system.

**Phytoremediation:** Heavy metals including, Manganese (Mn), Iron (Fe), Zinc (Zn), Cadmium (Cd) and Lead (Pb).

**Gowanus:** Native tree planted in the 3rd and 3rd Garden, Gil Hodges Garden and occasionally as a street tree.

---

**CERCIS CANADENSIS**  
- Eastern Redbud

**Family:** Fabaceae  
**Native to:** Eastern and Central North America  
**Habitat:** Understory tree, found along river banks and streams, forests, bluffs and ravine.

**Leaves:** Alternate  
**Height:** 20-30’

**Ecological value:** Attracts pollinators including bees. Seeds are eaten by bobwhite birds and a few songbirds and squirrels, but are not a highly desirable source of food.

**Material uses:** Red dye can be extracted from roots. Bark of shoots is used for making baskets.

**Edible:** Flowers can be cooked, pickled or eaten raw and are rich in vitamin C.

**Medicinal value:** A tea made from the bark can be used to treat diarrhea, dysentery, fevers, and leukemia.

**Other:** Dislikes ‘wet feet’, clay and/or dry soils. Fast growing, but often short lived in wild. Begins flowering on the trunk and branches once the tree is around 2-4 meters in height. Flowers from March to May. Despite it being a member of the Fabaceae family, it does not fix atmospheric nitrogen in the soil.

**Phytoremediation:** Petroleum degradation.

**Gowanus:** Native tree planted at the Salt Lot, 2nd Avenue Garden, and street trees along Bond Street.
CLETHRA ALNIFOLIA
• Summersweet Clethra

Family: Clethraceae
Native to: Eastern US
Habitat: Wet forests, wetlands, along streams

Ecological value: Attracts pollinators, including birds.
Material uses: Stalk of blossom can be used as a soap substitute.
Other: Good for erosion control. Fragrant.
Gowanus: Native shrub planted in rain gardens at the Salt Lot and along 6th Street as well as at Gil Hodges Community Garden.

GINKGO BILOBA
• Ginkgo

Family: Ginkgoaceae
Native to: China
Habitat: Deciduous forests, valleys

Material uses: Oil for fuel and soap. Wood is soft and light and repels insects.
Edible: Seed may be cooked (to destroy any possible toxicity) and eaten, with a flavor similar to pine nuts. Can be used in soups and stews. High in protein, low in fat.
Medicinal value: Leaves contain several health-beneficial phytochemicals. Used to treat many ailments such as high blood pressure, tinnitus, asthma and bronchitis.
Other: Listed as a threatened and endangered species, due to its rarity in the wild. The tree was thought extinct but had been preserved by Chinese monks through cultivation in two small areas of China, over a period of 1,000 years. Fossils date this tree back to 270 million years. Can live more than 2,500 years. 6 trees planted in Hiroshima in the mid 1800’s survived the nuclear bomb attack.
Phytoremediation: Accumulation of heavy metals.
Gowanus: Non-native tree commonly planted as a street tree throughout Gowanus.
**GLEDITSIA TRIACANTHOS**

- **Honey Locust**

  **Family:** Fabaceae  
  **Native to:** Central North America  
  **Habitat:** Plains, urban areas  

  **Ecological value:** Tolerant of a variety of conditions, including compacted soil, drought, heat, and alkaline soil. Fast growing pioneer species, first to emerge in disturbed or barren environments. Fixes atmospheric nitrogen.

  **Material uses:** The heartwood contains tannin. Timber is strong, hard and durable, weighing 42 lb per cubic foot and is used for rails, fencing and in construction.

  **Edible:** Young seed can be eaten raw or cooked and has a pea-like flavor. The sweet pulp can be made into sugar or eaten raw. A drink can also be made from the pods.

  **Seeds may be roasted and used as a coffee substitute.**

  **Medicinal value:** Pods can be brewed into a tea to treat ailments of indigestion, measles, smallpox, whooping cough etc. Might contain anticancer compounds.

  **Phytoremediation:** Petroleum degradation. Used to reclaim mining spoils.

  **Gowanus:** Native tree; the thornless variety is a very common street tree throughout Gowanus.

  **Leaves:** Alternate  
  **Height:** 60-100'

  **Bark**

  **Large seed pods can reach 20” long. Shape often twisted.**

  **Oblong leaflets with crenate margins. Thorns on branches, though there are varieties without. Bright yellow fall foliage.**

**IVA FRUTESCENS**

- **Bigleaf Marsh Elder**

  **Family:** Asteraceae  
  **Native to:** Coastal eastern North America  
  **Habitat:** Wetlands  

  **Ecological value:** Attracts birds.

  **Other:** Highly salt tolerant and tolerant of soils with poor drainage. Iva frutescens has opposite leaf arrangement, as opposed to Baccharis, which is alternate.

  **Gowanus:** Found in high salt marsh along the Salt Lot’s coastal edge and rain gardens.

  **Leaves:** Opposite

  **Total leaf length:** 1-4”

  **Leaflet length:** 1”

  **Gowanus Field Guide: Trees & Shrubs**

  **Gowanus Canal Conservancy**
**JUNIPERUS VIRGINIANA**

- **Family:** Cupressaceae.
- **Native to:** Eastern North America.
- **Habitat:** Prairies, oak barrens, old pastures, and disturbed areas.

**Ecological value:** The berry is an important food source for birds during winter.

**Material uses:** Fragrant and rot resistant wood. Essential oil from wood can be added to soaps, deodorants, perfumes, or used as an insecticide (moth repellent). The wood is used in furniture making (insect resistant) and both durable and light (30 lbs per cubic foot).

**Edible:** Cones are used to flavor gin. Crushed berries are used as flavorings in stews and soups.

**Medicinal value:** Traditionally used by Native Americans. Treats mouth ulcers. Can be brewed as tea to treat colds, rheumatism and worms. Contains the anticancer compound podophyllotoxin.

**Other:** Pioneer species, first to emerge in disturbed or barren environments, and can live to over 900 years. Widely used as a shelterbelt species to protect from wind during the 1930's Dust Bowl drought. Very drought tolerant. Needles that fall raise the pH of soil to alkaline, causing it to hold onto nutrients such as phosphorus and making it difficult for plants to access them. *J. virginiana* also removes nitrogen from soil and has proven to reduce soil carbon which results in less microbial diversity.

**Phytoremediation:** Benzene, toluene, ethylbenzene and xyylene.

**Gowanus:** Native evergreen tree planted along the coastal edge at the salt lot and in the 3rd and 3rd street garden.

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**LIQUIDAMBAR STYRACIFLUA**

- **Family:** Altingiaceae
- **Native to:** Eastern North America through Central America
- **Habitat:** Moist woods, coastal plains

**Ecological value:** Seed ball attracts birds.

**Material uses:** Important commercial hardwood, used in plywood, furniture, railroad ties, crates, floors and wood pulp. Fairly hard wood that is fine grained (weighs 37 lb per cubic foot). An aromatic resin (Styrex) can be obtained, by beating trunk of tree in spring. The resin is used as fragrance, soap and adhesive. It can also be chewed to clean teeth.

**Edible:** Chewing gum can be made from tree resin.

**Medicinal value:** The resin has antiseptic properties and is chewed to treat sore throats, coughs, asthma, dysentery. Can be applied externally to treat wounds, ringworm and scabies.

**Other:** The species was introduced to Europe in 1681.

**Phytoremediation:** Uranium (U) and Thorium (Th), trichlorethylene.

**Gowanus:** Native tree planted as a street tree intermittently in Gowanus.
**MORUS ALBA**
- *White Mulberry*

*Family:* Moraceae  
*Native to:* China  
*Habitat:* Rich, moist soils, sun/part-shade  
*Leaves:* Alternate  
*Height:* 30-50’

**Ecological value:** Food source for birds.  
**Material uses:** Leaves used in China since at least 2600 B.C. as the primary diet for silkworms. Introduced into colonial N. America to establish a silk industry. Fiber from bark is used for weaving. Bark from stem used in used in paper-making. Twigs are used in baskets. Wood is a source of ethanol and valued in furniture and sports equipment. Bark from stem used in paper-making. Twigs are used in baskets.

**Edible:** Fruit can be eaten. Rich flavor develops if fruit is dried. Young leaves and shoots can be cooked.

**Medicinal value:** Used to treat ailments such as colds, influenza, eye infections and nosebleeds.

**Other:** Tree produces berries from June to August. The non-native white mulberry is out competing and replacing native red mulberry (Morus rubra) through hybridization and a harmful root disease.  

**Phytoremediation:** Heavy metals such as lead, cadmium, zinc and copper.

**Gowanus:** Common spontaneous non-native tree can be found along the canal.

---

**PAULOWNIA TOMENTOSA**  
- *Princess Tree*

*Family:* Paulowniaceae  
*Native to:* Central and Western China  
*Habitat:* Disturbed areas, waste sites, urban areas  
*Leaves:* Opposite  
*Height:* 40’

**Ecological value:** In its native range is considered a pioneer species as it regenerates rapidly, stabilizes soil with roots, and replenishes soil with its nitrogen-rich leaves. It is eventually succeeded by taller trees as is intolerant of shade. Survives wildfires.  

**Edible:** Flowers are traditionally eaten with miso. Cooked leaves may be eaten as an emergency food.

**Material uses:** Seeds used as packaging material in crates by Chinese exporters in 19th C. before the development of styrofoam packing peanuts. When packaging cases break during transit, seed pods spread in new environment. Fast growing hardwood, lightweight and durable. Insect resistant.  

**Medicinal value:** A liquid extraction of the leaves is said to promote hair growth and prevent graying. Destroys intestinal worms and parasites, astringent for warts.

**Other:** In China, a Princess tree was traditionally planted at the birth of a girl and cut down and carved into wooden items for her dowry.

**Phytoremediation:** Heavy metals and hydrocarbons.

**Gowanus:** Very common spontaneous non-native tree can be found along the banks of the canal and along sidewalk cracks and fence lines.
**POPULUS SPP.**

- **Poplar**

  **Family:** Salicaceae  
  **Native to:** Canada to Mexico.  
  **Habitat:** Stream banks and low areas, upland woods, disturbed areas

  **Ecological value:** Hosts an array of birds, mammals and butterflies, including Eastern Tiger Swallowtail and Viceroy.  
  **Material uses:** The wood is strong but soft - used in making matches, paper and packaging (wood wool). Wood that has been heat treated is used in the interior of saunas and in Russia. The wood is used for making thin slats for roofing.  
  **Edible:** Inner bark, raw or cooked, can be ground into a flour. Catkins can be eaten raw or cooked, but have a bitter.  
  **Medicinal value:** Used by Native Americans for its antiseptic and analgesic qualities, but has a long list of applications (against excessive menstrual bleeding, fevers, infections, digestive disorders).  
  **Other:** Short lived, often plagued by disease and insect problems. Pioneer species.  
  **Gowanus:** Genus of native tree species that can be found growing along the canal in colonies at the Salt Lot.

*P. tremuloides has a flat petiole, which reduces aerodynamic drag when windy, reducing damage to branches. This is why the tree is called 'quaking aspen' - the leaves 'tremble' in the wind.*

---

**PRUNUS SEROTINA**

- **Black Cherry**

  **Family:** Rosaceae  
  **Native to:** North and South America  
  **Habitat:** Fields and sunny areas

  **Ecological value:** Food source for birds and small mammals.  
  **Material uses:** Green dye can be extracted from leaves and dark green/grey dye from fruit. Wood is strong and weighs about 36 lb per cubic foot and is used in furniture. Wood can be used for smoking foods.  
  **Edible:** Ripe fruit can be eaten raw or cooked in stews, jams and pies or used as flavoring in liqueurs, sodas and ice creams. Seeds and leaves contain hydrogen cyanide and are toxic, and in high doses can be fatal.  
  **Medicinal value:** Commonly used by Native Americans for a variety of ailments including alleviation of early labor pains, fevers, colds, diarrhea and dysentery.  
  **Other:** Often grows in companionship with black walnut, black locust and hackberry.  
  **Gowanus:** Spontaneous and planted native tree emerges along the banks of the canal.

*Female and male catkins on separate trees*
QUERCUS COCCINEA
• Scarlet Oak

**Family:** Fagaceae  
**Native to:** Central and eastern US  
**Habitat:** Sandy, acidic soils

**Leaves:** Alternate.  
**Height:** 60’ - 100’

**Ecological value:** Food source for small mammals and birds including blue-jays and red-headed woodpeckers.

**Material uses:** Mulch of leaves serves as an insect repellent for grubs and slugs, although fresh leaves may inhibit plant growth1. Vacated insect galls in leaves contain high amounts of tannin and can be used in dyeing2. Wood is strong and heavy, weighing 46 lbs per cubic foot and is used in construction and furniture3.

**Edible:** Cooked seeds, dried and ground into a powder can be added to cereals, stews and bread. Roasted seed is a coffee substitute4.

**Edible:** Seed can be eaten after bitter tannins have been washed out. Roasted seed is a coffee substitute.

**Medicinal value:** Galls are strong astringent Can be used to treat dysentery and diarrhea3.

**Other:** Popular as an ornamental tree with a bright red fall color.

**Gowanus:** Native tree occasionally planted as a street tree.

---

QUERCUS PALUSTRIS
• Pin Oak

**Family:** Fagaceae  
**Native to:** Eastern US  
**Habitat:** Floodplain and soils with high clay content

**Leaves:** Alternate.  
**Height:** 100’

**Ecological value:** Only host of the Bucculatrix domicola caterpillar.

**Material uses:** Mulch of dried leaves repels slugs and grubs1. Black ink can be made from abandoned galls (larva of different insects often produce galls, which are growths on leaves or branches, in the form of lumps or complicated structures). Wood is used for furniture and is strong, often knotty (weighs 43 lb per cubic ft)2.

**Edible:** Seed can be eaten after bitter tannins have been washed out. Roasted seed is a coffee substitute.

**Medicinal value:** Galls are strongly astringent and can be used to treat chronic diarrhea, dysentery and hemorrhages3.

**Other:** Pioneer species. Used in landscaping due to its pollution tolerance.

**Gowanus:** Native tree very commonly planted as a street tree in Gowanus, including along 3rd Ave, Smith street and President street.
**RHUS TYPHINA**

- **Family:** Anacardiaceae  
- **Native to:** Eastern North America  
- **Habitat:** Forest edges, disturbed areas, edges of roads

**Ecological value:** Erosion control, windbreak. Low canopy.

**Material uses:** Leaves contain 48% tannin, and can be collected as they fall in autumn and used as brown dye or mordant. Bark and fruits also rich in tannin[1]. Yellow dye can be extracted from roots, orange dye from inner bark. Black ink is made from boiling leaves and stems[2]. Oil from seeds can be used to make candles (emit pungent smoke)[3]. Pipes have been made from young shoots to draw sap from sugar maple[4]. Wood is soft and brittle (27 lbs per cubic foot)[5] – used as rough wood in construction, can be turned on a lathe[6].

**Edible:** Fruit is soaked, washed and strained to make a lemonade[7]. Dried leaves and berries have been traditionally smoked, mixed with tobacco. Seeds are used as a spice.

**Medicinal value:** Used by Native Americans. Infusion increases lactation flow of a nursing mother. Treats venereal diseases, diarrhea, stomatitis, improvement of appetite, used as an astringent. Sap can be used to treat warts[8].

**Other:** Beekeepers use seed head as a fuel for smokers.

**Phytoremediation:** Polycyclic aromatic hydrocarbons[9].

**Gowanus:** Spontaneous and planted native shrub can be found growing along the canal at Degraw street east and at the Salt Lot.

---

**ROBINIA PSEUDOACACIA**

- **Family:** Fabaceae  
- **Native to:** Eastern and central US  
- **Habitat:** Woodlands, prairies, pastures, urban areas

**Ecological value:** Fixes nitrogen in the soil. Attracts pollinators and seeds are eaten by birds and squirrels.

**Material uses:** Highly valued oil can be extracted from seed, used in perfumery[1]. The bark produces a yellow dye and it dyes cotton to a brown-orange shade[2]. Paper, silk and wool can be made from the bark[3], timber is hard and strong (weighing 45 lbs per cubic foot) and used for shipbuilding, fence posts, floors and as a fuel-wood[4]. It is a rot resistant wood, currently being used in Europe in outdoor applications in lieu of tropical species such as Ipe[5].

**Edible:** Entire tree is generally considered toxic, besides flowers, which can be used in jams and drinks[6]. Toxins are destroyed by heat[7].

**Medicinal value:** Used to treat eye ailments[8], toothaches[9] and the flower is believed to contain the anti-tumor compound benzaldehyde[10].

**Other:** Used in erosion control. Pioneer species - rapid growth, thrives in a variety of soils.

**Phytoremediation:** Phytostabilization of heavy metals such as Zinc (Zn), Cadmium (Cd), Lead (Pb) and Sodium (Na)[11].

**Gowanus:** Spontaneous native tree can be found at the Salt Lot and along the canal growing in colonies that spread tenaciously.
**ROSA PALUSTRIS**

- **Swamp Rose**

  **Family:** Rosaceae  
  **Native to:** Eastern US  
  **Habitat:** Marshes, meadows, fields, shores of rivers and lakes, swamps and edges of wetlands

  **Leaves:** Alternate compound leaves

  **Ecological value:** Attracts pollinators including birds and insects. Caterpillars of *Parasa indetermina* (Stinging Rose Caterpillar) feed off foliage and birds eat fruits.

  **Medicinal value:** Native Americans made a tea of bark and roots to treat worms, dysentery, and diarrhea.

  **Other:** Very fragrant.

  **Gowanus:** Native shrub planted in rain gardens along the 6th street Green Corridor.

**ROSA 'RADRAZZ' KNOCK OUT**

- **Knock Out Rose**

  **Family:** Rosaceae  
  **Native to:** Asia  
  **Habitat:** Mainly used in gardens and borders

  **Leaves:** Alternate compound leaves

  **Ecological value:** Attracts butterflies.

  **Edible:** Petals, buds and fruits from several species of roses are used in fruit teas and jams.

  **Material uses:** Used in commercial perfumery and for slope stabilization.

  **Medicinal value:** Used in traditional Chinese medicine. Research on the cancer inhibiting properties of phenolic antioxidant compounds found in *Rosa chinensis* is currently underway.

  **Other:** Rose thorns are prickles (thorns are modified stems, while prickles are outgrowths of the epidermis), which allows the rose to hang onto other vegetation when growing. It is believed that the densely-packed prickles in *Rosa rugosa* and *Rosa pimpinellifolia* are used to trap sand and reduce erosion to protect their roots, as both species naturally occur on coastal sand dunes. The prickles also reduce activity from browsing mammals, although deer still enjoy eating the flowers and leaves. Tolerant of air pollution. Low care.

  **Phytoremediation:** Promise shown using *Rosa pulverulenta* for remediation of soils contaminated with heavy metals such as cadmium, aluminum, and silicone.

  **Gowanus:** Non-native shrub used as a common landscape plant. Planted in the rain garden at Carroll St. and Bond St.
**TAXODIUM DISTICHUM**

- **Bald Cypress**

**Family:** Cupressaceae

**Native to:** Southeastern and Gulf coastal plains in the US

**Habitat:** Inundated soils along riparian wetlands.

**Leaves:** Alternate  
**Height:** 50-100’

**Ecological value:** Nesting habitat for birds, provides seeds for small mammals, hosts moth Isoparce cupressi, the Bald cypress sphinx moth.

**Material uses:** Bark can be used for rope¹. Wood is light (28 lbs per cubic foot)² and not very durable. Used for water pipes, shingles, and general construction.

**Medicinal value:** Resin from cones can be used as a pain reliever for wounds³.

**Other:** The trunk is surrounded by cypress 'knees,' knob-like growths poking out of ground or water, thought to be support structures for main trunk. Can grow to be more than 1,700 years old, and once dominated swamplands in the southeast US. Can withstand hurricane-strength winds. Can easily be confused with Dawn Redwood, which has an opposite leaf arrangement, unlike Bald Cypress, which is alternate.

**Phytoremediation:** Sewage effluent and potential heavy metals⁴.

**Gowanus:** Found at the Salt Lot and along the canal growing in colonies that spread tenaciously. Planted as a street tree including along Nevins and Baltic streets.

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¹ Bark can be used for rope
² Wood is light (28 lbs per cubic foot)
³ Resin from cones can be used as a pain reliever for wounds
⁴ Sewage effluent and potential heavy metals

Deciduous, not an evergreen, hence the name ‘bald’. Copper fall color.

Bark
LEAF CONFIGURATIONS

Compound leaves

- Trifoliate
- Odd-pinnate
- Even-pinnate

Simple leaves

- Palmatisect
- Palmate

Leaf arrangements on stem

- Opposite
- Alternate
- Sub-opposite
- Whorled

Compound leaf anatomy

- Leaflet
- Rachis
- Petiole

Leaflet configurations

- Crenate
- Incised
- Sinuate
- Lobed
- Entire

- Serrate (toothed)
- Serrulate
- Doubly serrate
- Dentrate
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- Amphipods & Isopods

**GAMMARIDEA**
Gammarid Amphipod

**ISOPODA**
Isopod

**CAPRELLIDAE**
Caprellid Amphipod

- Callinectes sapidus
  - **Infraorder:** Brachyura
  - **Native to:** N. American Atlantic Coast and Gulf of Mexico
  - **Habitat:** Estuaries. Female blue crabs lay eggs in the ocean (females mate once in their lives).
  - **Diet:** Blue crabs eat bivalves (oysters, clams, and mussels), other crabs and crustaceans, snails, fish, plants, and other blue crabs in their soft shell state.
  - **Ecosystem services:** Keystone species in estuary food webs as both predators and prey
  - **Edible:** Economically important fishery
  - **Special features:** “Callinectes sapidus” means savory, beautiful swimmer. The hind legs that allow the crab to swim can rotate 20-40 times per minute.
  - **Gender:** Crabs are sexually dimorphic, which means males and females look different. Examine the size of its abdomen to tell the difference between male and female. This works for nearly any crab.
  - **Gowanus:** Blue crabs can be found along the length of the canal, often burrowing in wooden bulkheads between slats of cribbing. Blue crabs are generally found from May - November, as they “hibernate” in the winter. Female crabs may be seen with eggs under their apron during this time.

**Orders:** Amphipoda & Isopoda

**Native to:** These small crustaceans are found all around the world.

**Habitat:** Found in a variety of habitats. Can build tubes that they will live in, or wrap themselves in seaweed for protection.

**Diet:** Detritivores, scavengers, omnivores, predators. Eating behaviors vary from species to species. They can scrape organic material, catch floating particles, filter feed, capture live animals, and collect food with their antennae.

**Ecosystem Services:** Critical in the food web as prey for larger animals. They can also help in controlling algae growth.

**Locomotion:** Amphipods often swim by flexing top to bottom in a “C” shape and can move relatively quickly. Isopods live on the bottom of their habitats and move by crawling.

**Notes:** Citizen scientists will likely encounter a few different species of each group of these crustaceans in the Gowanus Canal. It is difficult to identify these animals down to species level.

**Gowanus:** Can be found in traps and sediment nearly year-round

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HEMIGRAPSUS SANGUINEUS
• Pacific Shore Crab

Square shaped carapace. Dark brown, tan, dark red. Alternating bands and large circular pattern of dark red and tan on legs.

Infraorder: Brachyura
Native to: N. Western Pacific
Habitat: Subtidal and intertidal shorelines, especially rocky environments
Diet: Young fish, invertebrates, and algae
Non native: Often outcompetes native species for resources, eats native species, reproduces frequently. First seen in New Jersey in 1988 and was likely introduced from the ballast tanks of large ships.
Size: The scaled image represents an adult crab. Observers are most likely to come across young crabs that will look much smaller.
Gowanus: Seen burrowing along the canal in gaps between sections of concrete bulkhead.

LIBINIA EMARGINATA
• Portly Spider Crab

Triangular shaped carapace. Brownish tan. They camouflage themselves with other animals and algae. Known as “decorator crabs” because of their algae camouflage.

Infraorder: Brachyura
Native to: N. American Atlantic Coast, Gulf of Mexico
Habitat: Estuaries and coastal waters
Diet: Slow, nonaggressive scavengers. Sensitive organs on their legs help them find food.
Ecosystem services: Recycle organic and inorganic material because they scavenge.
Reproduction: Mate in large groups for protection.
Other: These crabs walk forward, unlike most crabs that walk side to side, but are capable of walking side to side. They have poor eyesight.
Gowanus: Portly spider crabs can be found in traps during the warmer months of the year.
**CNIDARIA**
• Cnidarians

**DIADUMENE LEUCOLENA**
Ghost Anemone

**ECTOPLEURA CROcea**
Pink-Mouthed Hydroid

Ghost Anemone are transparent, whitish or pinkish. When pulled out of the water they will retract their tentacles.

Pink-Mouthed Hydroids are pink in color. Clumped together and fuzzy looking. Most likely seen in summer.

**Phylum:** Cnidaria. This is a group of animals that include jellyfish, corals, and anemones. They are named for their special stinging cells that help them capture prey.

**Native to:** D. leucolena: N. American Atlantic Coast; E. crocea: N. American Atlantic Coast.

**Habitat:** D. leucolena: Intertidal, often found on hard surfaces like docks and rocks, but can also be found on the hard surfaces of other animals; E. crocea: Intertidal, often found on hard surfaces like docks and rocks.

**Diet:** D. leucolena: zooplankton, uses its tentacles to stun its prey; E. crocea: zoo/phyto-plankton and detritus, paralyzes prey with tentacles.

**Ecosystem services:** E. crocea helps keep their ecosystem clean by eating floating plankton and detritus in the water and also play an important role in the food chain as prey for other animals.

**Other:** D. leucolena can move fairly quickly at a few inches in a few hours.

**Gowanus:** The ghost anemone was observed along the dock near the dead end of Smith Street close to the mouth of the canal.

**CRASSOSTREA VIRGINICA**
Eastern Oyster

**DIADUMENE LEUCOLENA**
Ghost Anemone

**ECTOPLEURA CROcea**
Pink-Mouthed Hydroid

In the warm months oysters grow quickly, but are dormant in the winter when the new shell breaks down and constructs a ridge. Each visible ring can help determine an approximate age.

**Class:** Bivalvia; bivalves have two hinged shells: bi(two)valve(shell)

**Native to:** C. virginica: N. American Atlantic Coast and Gulf of Mexico

**Habitat:** Intertidal and subtidal regions of estuaries

**Diet:** Filter feeders eat plankton (tiny animals and algae) suspended in the water. Adult oysters can filter 50 gallons of water per day.

**Ecosystem services:** Help increase the clarity of water by removing particles and processing chemicals that might cause an imbalance in the ecosystem

**Ecosystem engineers:** They help build habitat for other animals by creating reefs.

**Edible:** Farmed and wild caught. Eaten raw or cooked. Economically important fisheries.

**Attachment:** Oysters cement themselves to a structure. Mussels use their byssal threads to stay in place; they can reattach if they are removed.

**Gowanus:** Oysters were once abundant in this former salt marsh. They are now installed in cages hanging from ropes on the esplanades at Whole Foods. They have also been spotted near the mouth of the canal clinging to concrete and stone.

**MYTILUS EDULIS**
Blue Mussel

**Phylum:** Cnidaria. This is a group of animals that include jellyfish, corals, and anemones. They are named for their special stinging cells that help them capture prey.

**Native to:** C. virginica: N. American Atlantic Coast; E. crocea: N. American Atlantic Coast.

**Habitat:** D. leucolena: Intertidal, often found on hard surfaces like docks and rocks, but can also be found on the hard surfaces of other animals; E. crocea: Intertidal, often found on hard surfaces like docks and rocks.

**Diet:** D. leucolena: zooplankton, uses its tentacles to stun its prey; E. crocea: zoo/phyto-plankton and detritus, paralyzes prey with tentacles.

**Ecosystem services:** E. crocea helps keep their ecosystem clean by eating floating plankton and detritus in the water and also play an important role in the food chain as prey for other animals.

**Other:** D. leucolena can move fairly quickly at a few inches in a few hours.

**Gowanus:** The ghost anemone was observed along the dock near the dead end of Smith Street close to the mouth of the canal.

Cloned of Blue Mussels
**GASTROPODA**

- Snails

**UROSALPINX CINEREA**  
Atlantic Oyster Drill

- Yellow, tan, or brown

- 4cm

**LITTORINA SPP.**  
Periwinkle

- Yellowish tan colored shell. Usually found on or near oysters. Eggs are greyish yellow.

- Light pinkish pattern on shell. Could be confused with juvenile oysters. Often found stacked on top of one another.

- 4cm

**CREPIDULA FORNICATA**  
Slipper Shell

- Yellowish tan colored shell. Usually found on or near oysters. Eggs are greyish yellow.

- Light pinkish pattern on shell. Could be confused with juvenile oysters. Often found stacked on top of one another.

- 1cm

Class: Gastropoda  
Native to: U. cinerea: N. American Atlantic Coast; Littorina SPP: There are different species of this genus that live throughout the world.  
C. fornicata: N. American Atlantic Coast  
Habitat: Intertidal and subtidal regions of estuaries  
Diet: U. cinerea: oysters, mussels, barnacles, and other invertebrates; Littorina SPP: algae; C. fornicata: plankton and detritus.  
Edible: There have been movements to create a market for slipper shells and oyster drills as food because they are invasive in some places and can be bad for shellfish farming.  
Other: U. cinerea senses chemicals in the water to find prey. They drill through the shells of oysters, mussels, and other animals using a special organ called a radula, a tongue-like organ that acts like a conveyor belt of small teeth to scrape away at surfaces.  
Gowanus: The periwinkle has been spotted near the mouth of the canal on a rip rap stone edge near Columbia Street.

**POLYCHAETA**

- Polychaetes

**NEREIS SPP.**  
Clam Worm


- 1cm

| 4cm |

**GLYCERA SPP.**  
Blood Worm

- Fan Worms are tube dwelling. They build tubes using mucus and materials they find. Tubes help keep them safe and support their bodies.

- 1cm

| 4cm |

**FABRICIA SPP.**  
Fan Worm

- Clam Worms have strong jaws, well developed parapodia. Crawls along the bottom and in crevices.

- 1cm

| 4cm |

Class: Polychaeta  
Native to: Different species found throughout the world's oceans  
Habitat: Nereis spp.: Epibenthic (crawls along the bottom), often found in mussel communities, rocks, and crevices; Glycera spp.: Cosmopolitan, intertidal.; Fabricia spp.: Intertidal tube dwellers  
Diet: Nereis spp.: Predators with strong jaws that eat small invertebrates; Glycera spp.: Deposit feeders that eat organic particles in sediment.; Fabricia spp.: Suspension feeders that sort through particles floating in the water using their tentacular crown  
Ecosystem services: Help with “bioturbation” which means they help break down organic matter and make it available for other animals to use.  
Special features: Polychaete worms are identifiable because of their parapodia (leg structures) that have bundles of hairs on the end called “chaetae”. Polychaetes use these appendages to move.  
Gowanus: Found often in sediment, occasionally in traps

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**Tunicata**

- Tunicates

**Molgula Manhattensis**

Northern Sea Squirt

Northern Sea Squirt are solitary tunicates. Translucent when clean, often covered in mud.

**Botryllus Schlosseri**

Golden Star Tunicate

**Botrylloides Violaceus**

Orange Sheath Tunicate

Golden Star Tunicate has a flower pattern; each “petal” is an individual that takes in water and releases it from the center of the “flower” or zooid.

**Phylum:** Tunicata, named for their outer covering layer called a “tunic”.

**Native to:** M. manhattensis: N. American Atlantic Coast and Gulf of Mexico; B. schlosseri: N. American Atlantic Coast, Medditteranean Sea, and North Sea; B. violaceus: Pacific Coast.

**Habitat:** Intertidal and subtidal, tolerant of a wide range of temperatures and salinity.

**Ecosystem services:** Helps increase the clarity of the water they live in by filter feeding.

**Identifying attributes:** B. schlosseri and B. violaceus can be differentiated by their form rather than color since they often look like orange slime. B. schlosseri has a flower shape. M. manhattensis will squirt water out of its siphon if gently pressed.

**Coloration:** B. schlosseri reproduces asexually by budding in a colony (making the same color) and sexually, causing genetic variations that result in a variety of colors.

**Gowanus:** Can be found on any hard surface around April/May, including traps, settlement plates, and pilings.

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**Fundulus Heteroclitus**

- Mummichog

**Family:** Fundulidae

**Native to:** N. American Atlantic Coast

**Habitat:** Protected coastal habitats, especially estuaries

**Diet:** Omnivores that eat algae and small animals including crustaceans and small fish

**Ecosystem services:** Plays an important role in the food web as prey for larger predators

**Scientific research:** Used as a model organism in environmental studies because of their tolerance to different environments

**Gowanus:** A common fish in the canal, mummichogs can be seen swimming near Sponge Park at the dead end of 2nd Street and along the edge of the Salt Lot. They are found mostly in or near the sediment, but can also be found in traps year-round.
MENIDA MENIDA
• Atlantic Silverside

Mostly silver and white. Silver stripe runs down the side. School in large numbers. Transient

Family: Atherinopsidae
Native to: N. American Atlantic Coast
Habitat: Estuaries, near the shore, often found in seagrass beds
Diet: Omnivores that eat algae and small animals, including worms and crustaceans
Ecosystem services: Plays an important role in the food web by feeding larger fish and shore birds
Special features: Silver color and schooling behavior is used to confuse predators. The coloration makes it difficult to tell what direction they are heading in. Schooling behavior makes it less likely for an individual to get eaten.
Gowanus: Atlantic silversides have been caught and released near the dead end of 2nd Avenue and have been spotted swimming near the mouth of the bay. They can be seen on the top of the water because of their shimmer.

POMATOMUS SALTATRIX
• Bluefish

Light blue and silver. Sharp spines on fins. Transient.

Family: Pomatomidae
Native to: Temperate coastal waters throughout the world, except the Eastern Pacific.
Habitat: Pelagic fish (live in water column, not bottom or shore) that are also found in estuaries.
Diet: Small forage fish
Fishery: Sport fish. Management of this fishery is important because bluefish are overfished world wide.
Other: Bluefish migrate in schools through the open ocean to find warmer waters in the winter months.
Gowanus: Bluefish can be found mainly in the summer months
TAUTOGA ONITIS

• Blackfish

![Blackfish Image]


26 cm

Family: Labridae
Native to: N. American Atlantic Coast
Habitat: Nearshore rocky environments
Diet: Mussels, gastropods, crustaceans
Ecosystem services: Predation is important in maintaining biodiversity of invertebrate populations. For instance, by eating mussels, they clear space for other animals to settle and live.
Fishery: Primarily a sport fish. At risk of overfishing because of slow reproduction and growth.
Gowanus: Blackfish can be spotted nearly year-round

Gowanus Field Guide: Marine Life
Gowanus Canal Conservancy
Gowanus Field Guide: Marine Life
Gowanus Canal Conservancy
GAMMARID AMPHIPOD
Illustration: Emma Garrison
Text: Emma Garrison
Layout: Jordan Heiden

CAPPRELID AMPHIPOD
Illustration: Emma Garrison
Text: Emma Garrison
Layout: Jordan Heiden

ISOPOD
Illustration: Emma Garrison
Text: Emma Garrison
Layout: Jordan Heiden

ATLANTIC BLUE CRAB
Illustration: Emma Garrison
Photograph: The Center for the Urban River
Text: Emma Garrison
Layout: Jordan Heiden

PACIFIC SHORE CRAB
Illustration: Emma Garrison
Photograph: Gowanus Canal Conservancy
Text: Emma Garrison
Layout: Jordan Heiden

PORTLY SPIDER CRAB
Illustration: Emma Garrison
Text: Emma Garrison
Layout: Jordan Heiden

GHOST ANEMONE
Illustration: Emma Garrison
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PINK MOUTHED HYDROID
Illustration: Emma Garrison
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EASTERN OYSTER
Illustration: Emma Garrison
Text: Emma Garrison
Layout: Jordan Heiden

BLUE MUSSEL
Illustration: Emma Garrison
Photograph: The River Project
Text: Emma Garrison
Layout: Jordan Heiden

ATLANTIC OYSTER DRILL
Illustration: Emma Garrison
Photograph: The River Project
Text: Emma Garrison
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PERIWINKLE
Illustration: Emma Garrison
Text: Emma Garrison
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SLIPPER SHELL
Illustration: Emma Garrison
Text: Emma Garrison
Layout: Jordan Heiden

CLAM WORM
Illustration: Emma Garrison
Photograph: The River Project
Text: Emma Garrison
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BLOOD WORM
Illustration: Emma Garrison
Text: Emma Garrison
Layout: Jordan Heiden

FAN WORM
Illustration: Emma Garrison
Text: Emma Garrison
Layout: Jordan Heiden

NORTHERN SEA SQUIRT
Illustration: Emma Garrison
Photograph: The River Project
Text: Emma Garrison
Layout: Jordan Heiden

GOLDEN STAR TUNICATE
Photograph: The River Project
Text: Emma Garrison
Layout: Jordan Heiden

ORANGE SHEATH TUNICATE
Photograph: The River Project
Text: Emma Garrison
Layout: Jordan Heiden

ATLANTIC SILVERSIDE
Illustration: Emma Garrison
Photograph: Billion Oyster Project
Text: Emma Garrison
Layout: Jordan Heiden

MUMMICHOG
Illustration: Emma Garrison
Photograph: Billion Oyster Project
Text: Emma Garrison
Layout: Jordan Heiden

BLACKFISH
Illustration: Emma Garrison
Photograph: Billion Oyster Project
Text: Emma Garrison
Layout: Jordan Heiden

BLUEFISH
Illustration: Emma Garrison
Photograph: Smithsonian Environmental Research Center
Text: Emma Garrison
Layout: Jordan Heiden

CITATIONS & CREDITS
OTHER GOWANUS SPECIES

to be included in future editions

Amphibalanus improvisus, Bay Barnacle
Amphibola crenata, Mud-Flat Snail
Anguilla rostrata, American Eel
Armadillidium nasatum, Armadillidium Nasatum
Armadillidium vulgare, Pill-Bug
Bradybaena similaris, Asian Trampsnail
Cepaea nemoralis, Grove Snail
Chthamalus fragilis, Little Grey Barnacle
Clathria prolifera, Red Beard Sponge
Diadumene lineata, Orange-Striped Green Sea Anemone
Geukensia demissa, Ribbed Mussel
Helicina sp., Gastropod
Limax maximus, Leopard Slug
Monadenia fidelis, Pacific Sideband
Morone saxatilis, Striped Bass
Mya arenaria, Soft-Shell Clam
Opsanus tau, Oyster Toadfish
Palaemonetes paludosus, Glass Shrimp
Palaemonetes vulgaris, American Prawn
Pollicipes polymerus, Gooseneck Barnacle
Rhithropanopeus harrisii, Dwarf Crab
Semibalanus balanoides, Acorn Barnacle
Succinea putris, Amber Snail
Syngnathus fuscus, Northern Pipefish
Tautogolabrus adspersus, Cunner
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ANAS PLATYRHYNCHOS
• Mallard

Family: Anatidae
Native to: North America, Eurasia
Habitat: Lakes, ponds

Size: large duck, 18-27" in length
Diet and nesting: Eats underwater plants, seeds, and food given by humans. During mating they eat worms, insect larvae, snails, and during migration they eat seeds and grains. Deposits greenish eggs in a nest made of grass and down hidden close to shore.
Behavior: Eats from the surface of the water; rarely dives. Tends to like ponds where they group with other mallards and similar duck species and become accustomed to humans feeding them in cities. Several males may court the same female.
Other: They are the most numerous duck species in the world and are very agile flyers. Some flocks have reached remote islands where they have evolved into new species like the mottled duck.
Gowanus: Can be spotted around April and September, paddling in the canal.

ARDEA HERODIUS
• Great Blue Heron

Family: Ardeidae
Native to: North America
Habitat: Shorelines, marshes, swamps, ponds

Size: Tall, long legs, 33-54" in length
Diet and nesting: Mainly fish, frogs, turtles, snakes, insects, birds, and rodents. Breeds in colonies, usually in trees above ground or water. Nest is composed of large sticks built by females but gathered by males.
Behavior: When preying on fish, they remain stealthy and still, in order to insure a successful catch. When going for the catch, they are lightning fast.
Other: They can hunt both day and night.
Gowanus: Can be spotted around September near canal.
BRANTA CANADENSIS
• Canada Goose

Family: Anatidae
Native to: North America
Habitat: Close to lakes, rivers, ponds, any public or private bodies of water

Size: Waterbird, small, 22-26” tall; large, 35-45” in length
Diet and nesting: Feed by dabbling in water; grazing on lawns and fields, or picking grains on the ground. Deposit whitish eggs, nesting on the ground close to water bodies using moss, grass and down.
Behavior: Move in flocks and fly across the sky usually forming a V-shape both at night and during the day. Females incubate the nest and keep the same mate year-round.
Other: Experts have identified at least one subspecies of Canada goose, now its own species, Cackling Goose. They look very much alike and can be challenging to distinguish, but Cackling is smaller and has a differently shaped head and bill.
Gowanus: Can be spotted along the canal around April during mating season. Little goslings can also be spotted following parents.

BUTEO JAMAICENSIS
• Red-Tailed Hawk

Family: Accipitridae
Native to: North and Central America
Habitat: Open country

Size: Large bulky hawk, 18-25” in length; 4’ wingspan.
Diet and nesting: Eats mostly small mammals like mice, rats, or rabbit, birds like starlings, and snakes and carrion. Deposits white eggs with brown spots in a nest built by both sexes, usually on a tree, and made of sticks, bark shreds, and vegetation.
Behavior: Soars around open areas looking for prey. Once a prey is sighted, they dive in slowly, extending their legs. Can get aggressive while protecting their territory from intruders. Mating pairs will usually stay together until one of them dies.
Other: Pale Male is a famous red-tailed hawk nesting on a 5th Avenue building near Central Park since 1990 and has established a long lineage of city dwelling red-tailed hawks.
Gowanus: Can be spotted around November.
**CARDINALIS CARDINALIS**
- Northern Cardinal

**Family:** Cardinalidae  
**Native to:** Eastern to Central to South North America  
**Habitat:** Backyards, parks, woodlots, forest edges

**Size:** Songbird, 8-9” in length  
**Diet and nesting:** Eats mainly seeds, some insects during breeding season, and from bird feeders in winter. Deposits pale green eggs with red-brown spots in a nest made of twigs, leaves and plant fibers.  
**Behavior:** Heard singing year-round, unlike most other songbirds who sing mainly during spring. Cardinals are very aggressive when defending their territory.  
**Other:** Their name comes from the Roman Catholic cardinals who wore red robes.

**CHAETURA PELAGICA**
- Chimney Swift

**Family:** Apodidae  
**Native to:** North Eastern to Central America to North Western South America  
**Habitat:** Chimneys, partly enclosed vertical surfaces, caves

**Size:** Small, sparrow-sized, 4-5” in length. Long and narrow curved wings, identified by distinct silhouette and flight style.  
**Diet and nesting:** Feeds while in flight on airborne insects and insects on tips of branches. Whitish eggs, they nest in chimneys and caves using small twigs attached to walls with their saliva.  
**Behavior:** Airborne birds, they only come down when roosting or in the nest. Perform courtships in the air, pairing with one mate for the season. Those not finding a mate will form large flocks and some of them may help another pair rear their young.  
**Other:** Chimney swifts can’t perch on branches or the ground. They can only fly or hang by their claws.  
**Gowanus:** Can be spotted flying over Gowanus area during Spring, Summer, and early Fall.
COLUMBA LIVIA
• Rock Pigeon

Family: Columbidae
Native to: Europe
Habitat: Towns, cities, farmlands, rocky cliffs

Size: Larger than mourning dove, 13” in length
Diet and nesting: Eats mainly seeds and fruits, and will eat leftover food from humans, such as bread or trash. Deposits white eggs in a nest built by the female on a building, bridge, or cliff, made with sticks and debris brought by the male.
Behavior: Social birds, they gather in flocks, walking around and pecking on the ground for food. They will fly up if disturbed but will come back down shortly after.
Other: Very good navigators, pigeons can always find their way home by using the earth's magnetic field as well as their senses and the sun's position. Pigeons were used as early as the Romans to carry messages during times of war.
Gowanus: Can be spotted throughout the seasons, especially in April and between August and October.

CORVUS BRACHYRHYNCHOS
• American Crow

Family: Corvidae
Native to: North America
Habitat: Fields, open woodlands, forests

Size: Large, stocky, long legged, 17-18” in length
Diet and nesting: Omnivorous, mostly eating seeds, grains, fruits, berries and small animals like mice and earthworms. Deposits green eggs in a nest made of twigs and sticks, feathers, grass and roots, usually in a tree.
Behavior: Intelligent and great problem-solvers, they can form in roosts of thousands and often feed on discarded food. They can be aggressive and chase after larger birds.
Other: If taken in while young, they can learn to mimic the human voice.
Gowanus: Can be spotted around September.
**CORVUS OSSIFRAGUS**
- Fish Crow

**Family:** Corvidae  
**Native to:** Northeastern to Southeast United States  
**Habitat:** Coastal freshwater, by lakes, parks, landfills, and cities close to water body

**Size:** Smaller than American crow, 15 1/2” in length  
**Diet and nesting:** Omnivorous, eats grains, insects, lizards, fruits, carrion, trash, and eggs from other waterbird’s nests, turtle eggs, marine invertebrates and dead fish. Deposits light bluish-green eggs in a nest built by the female and made of sticks, soil, bark, hair and pine needles.  
**Behavior:** Social, intelligent birds, assembling in flocks of hundreds during migration and winter, and by pairs during mating season. Young like to play with materials. If American and fish crow start to dispute, the fish crow gives in due to its slightly smaller size.  
**Other:** Two mates will often preen each other on the backs of their heads.  
**Gowanus:** Can be spotted during warmer months near the canal.

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**CYANOCITTA CRISTATA**
- Blue Jay

**Family:** Corvidae  
**Native to:** Eastern North America  
**Habitat:** Forest edges, woods, cities, parks, near oak trees

**Size:** Large crested songbird, larger than robins, smaller than crows, 12” in length  
**Diet and nesting:** Omnivorous, eating insects, nuts, seeds and grains. Eggs brown-spotted greenish, nesting made of sticks, grass and hardwood or conifer branches.  
**Behavior:** Social birds, they mate throughout their life, keeping the same partner for a year. Females incubate while males provide food. They communicate vocally and with their crest which they raise when alarmed or excited.  
**Other:** They can bury seeds and acorn and don’t always retrieve them, making these birds great tree planters.
**EMPIDONAX MINIMUS**

- **Least Flycatcher**

*Family:* Tyrannidae  
*Native to:* North America  
*Habitat:* Orchards, open woods, shade trees, mixed forests

**Size:** Small, compact, round head, 4.5-6” in length  
**Diet and nesting:** Mainly insects, ants, beetles, caterpillars, and spiders. Sometimes a few berries. Nest location usually in small or deciduous sapling trees. Nests are built by female with grass, twigs, and plant fibers.  
**Behavior:** During breeding season, they like to group together in clusters. During summer, they sing constantly.  
**Fun fact:** No time is wasted with least flycatchers. They can find mates, build nests, lay eggs, and raise their young to be independent in the matter of 58 days.  
**Gowanus:** Can be spotted around September near canal.

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**LARUS ARGENTATUS**

- **Herring Gull**

*Family:* Laridae  
*Native to:* North America  
*Habitat:* Coasts, large reservoirs, lakes, major rivers

**Size:** 23-26” in length  
**Diet and nesting:** Omnivorous, preying on fish, marine invertebrates, insects, trash, and smaller birds, young and eggs of other gulls. Nests in colonies, depositing spotted olive-brown eggs in a nest made of seaweed, dead grass on the ground or on cliffs.  
**Behavior:** Congregational scavengers, they live near food sources and fly around open shoreline, landfills and fishing boats to pick up scraps or steal the meal from another bird.  
**Other:** They like freshwater but will drink salt water if needed and are equipped with a gland that filters the salt out to avoid dehydration, and expels it through their nostrils.  
**Gowanus:** Can be spotted around September.
LARUS DELAWARENSIS  
• Ring-Billed Gull

Family: Laridae  
Native to: North America  
Habitat: Coastal waters, urban, suburban, agricultural areas, reservoirs, ponds, landfills

Size: Medium-sized gull, smaller than a herring gull, 18-20” in length  
Diet and nesting: Omnivorous, eating fish, rodents, insects, grains and leftovers from humans. Has learned to eat out of fast food restaurant bins. Deposits spotted buff or olive-colored eggs in a hole in the ground that can be lined with grasses or debris.  
Behavior: Social and opportunistic feeders, they can group in flocks of hundreds flying in circles or walking on the ground or shallow water looking for food. They can fly as fast as 40 miles per hour.  
Other: A small percentage of a colony is female-only-couples whose eggs are fertilized by a male and lay “superclutches” of 5-7 eggs. Traditional, male-female couples only have 2-4 eggs.  
Gowanus: Can be spotted around September.

LARUS MARINUS  
• Great Black-Backed Gull

Family: Laridae  
Native to: Northeastern America  
Habitat: Atlantic coast and inland on Great Lakes

Size: World’s largest gull, 30” in length  
Diet and nesting: Omnivorous, they prey on almost everything smaller than themselves, including small ducks, petrels, shellfish, fish and eggs and young of other gulls. Olive colored eggs with brown speckles, deposited in a ground nest made of grass.  
Behavior: Opportunists, they go around fishing boats and landfills to pick up leftovers and chase away other birds to steal their catches. They breed away from busy sites, preferring abandoned piers and small islands.  
Other: During winter, younger gulls tend to go fishing around humpback whales who bring fish with them as they ascend to the surface.  
Gowanus: Can be spotted flying over the canal on their way to larger bodies of water.
LEUCOPHAEUS ATRICILLA
• Laughing Gull

**Family:** Laridae  
**Native to:** Atlantic coast, Central America, Northern South America  
**Habitat:** Coast, shorelines

**Size:** Medium-sized gull, long-winged and legged, 15-17” in length
**Diet and nesting:** Omnivorous, eating mainly land and marine invertebrates, berries, trash, and stolen or caught food from fishing boats or other species. Deposits olive-brown eggs with dark speckles in nest made of grass, weeds and stems, on top of sand or salt marshes.  
**Behavior:** Congregates around parking lots, sandy beaches, and muddy areas. Their distinct loud, high-pitched voice sounds like demented laughter.  
**Other:** The species number has been in decline due to destruction of coastal marshes and an increasing herring gull population targeting their eggs and young.  
**Gowanus:** Can be spotted around September.

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MIMUS POLYGLOTTOS
• Northern Mockingbird

**Family:** Mimidae  
**Native to:** USA, Mexico  
**Habitat:** Forest edges, parks, towns, suburbs, open land

**Size:** Medium-sized songbird, about the size of a robin, 9-11” in length
**Diet and nesting:** Omnivores, they eat insects in summer and mainly berries and fruit in fall and winter. Deposits blue-green eggs with brown spots in a nest made of sticks and weed stems, usually in bushes or small trees.  
**Behavior:** Showy birds, they like to perch on higher vegetation, fences or wires. They usually are alone or in pairs and are territorial birds that will sometimes attack their own reflection in windows or mirrors and can injure or kill themselves doing so.  
**Other:** They like to imitate other birds’ songs, and birders have recorded 36 different species songs from one Mockingbird in Massachusetts. They often sing very loudly all night long.  
**Gowanus:** Can be spotted around September.
NYCTICORAX NYCTICORAX
• Black-Crowned Night Heron

Size: Stocky, thick necks, short legs, 22-26" in length
Diet and nesting: Mainly fish, crustaceans, snakes, clams, and rodents. Breeds in colonies and females build nests usually with sticks. Nest locations vary from very low on the ground to very high in the trees.
Behavior: During the day, they seem sluggish, slow, and usually huddled in groups. Once dusk arrives, they become more active looking for food.
Other: At one month old, they will leave the nest but cannot fly until they are six weeks old. During that time, they navigate through fields and vegetation on foot and look for food in the night.
Gowanus: Can be spotted around September.

NYCTANASSA VIOLACEA
• Yellow-Crowned Night Heron

Size: Slim, long-necked, long legs, 22-27 in" in length
Diet and nesting: Eats crustaceans, crabs, crayfish, fish, and insects. Nest location is normally in trees and composed of sticks, leaves, and small twigs.
Behavior: When stalking prey, they walk slowly and are alone. Usually in shallow water.
Other: For those along the Atlantic Coast, their breeding season is dependent on when crabs emerge in the Spring.
Gowanus: Can be spotted around September near canal.
PASSER DOMESTICUS
• House Sparrow

Family: Passeridae  
Native to: Eurasia, North Africa and Middle East  
Habitat: All across North, central and south America, cities, parks, yards, countryside  

Size: Small, 5-61/2" in length  
Diet and nesting: Eats grains and seeds, as well as leftover food from humans and insects in summer, which are also fed to their young. Deposits white eggs in a nest made of grass, feathers, paper, string and striped debris in a manmade or natural hollow.  
Behavior: Social birds, hopping around in flocks, they like to dustbathe on the ground or bath in puddles. In flocks, males appear to dominate females in fall and winter, but females take over during spring and summer.  
Other: After a few of them were introduced in Central Park in 1850, they spread across North America, competing against native species for food and nest sites.  
Gowanus: Can be spotted throughout the seasons, especially in April and September.

PHALACROCORAX AURITUS
• Double-Crested Cormorant

Family: Phalacrocoracidae  
Native to: North America  
Habitat: Freshwater coastal area, lakes  

Size: Large waterbird, 30-35" in length  
Diet and nesting: Feeds on small fish. Chalky pale blue-green eggs. Nests in colonies. The male will gather materials for the nest, combining sticks or seaweed and other debris found around the site, while the female builds it.  
Behavior: Their heavy bodies float low on the water, and they dive under water to feed. After feeding, they stand on rocks, floating surfaces, tree limbs, and docks to dry their open wings because they lack the oils that protect most waterbirds. Usually fly in flocks, forming a “V” shape.  
Other: If a pebble is found in a nest, it will be taken care of as if an egg.  
Gowanus: Can be spotted around September.
PICOIDES PUBESCENS  
• Downy Woodpecker

**Family:** Picidae  
**Native to:** North America  
**Habitat:** Woodlands, parks, gardens, vacant lots

**Size:** Sparrow-sized, 6” in length  
**Diet and nesting:** Primarily insectivores, eating mainly beetle larvae from inside tree bark, as well as berries, acorns and grains. White eggs are deposited in a hole in a tree which is lined with wood chips.  
**Behavior:** Going up and down trees, supported by their strong tail feathers. Rising and falling flying style. During spring and summer, males make a lot of noise by calling and drumming on the loudest tree in their territory.  
**Other:** Smallest and most abundant woodpecker in the Eastern region of North America.  
**Gowanus:** Can be spotted feeding on phragmites and other wetland plants around the canal. They prefer mature trees to create nesting holes because of its softer wood.

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STURNUS VULGARIS  
• European Starling

**Family:** Sturnidae  
**Native to:** Europe  
**Habitat:** Cities, towns, suburbs, countryside close to humans

**Size:** Smaller than a robin, 7-8 1/2” in length  
**Diet and nesting:** Eats primarily insects and invertebrates when available, but also grains, fruits, berries, seeds and garbage. Pale blue eggs. Nest in holes in a tree or a building cavity is made of twigs, grass, debris, plant materials and feathers built by the male prior to mating. Both male and female incubate the eggs. Gang up to drive off native woodpeckers, chickadees and other hole nesters.  
**Behavior:** Highly competitive against native species, aggressive and loud, they can assemble in flocks of tens of thousands of birds.  
**Other:** One-hundred birds were imported from Europe and freed in Central Park by Shakespeare enthusiasts in 1890 and have spread across North America ever since.  
**Gowanus:** Can be spotted around April, May, and October.
**TURDUS MIGRATORIUS**  
• **American Robin**

*Family:* Turdidae  
*Native to:* Northern to central America  
*Habitat:* Garden, yards, parks, lawns, fields, pastures, tundras, woodlands

*Size:* Larger songbird, long legged, 9-11” in length  
*Diet and nesting:* Mostly eat earthworms in the morning and berries later in the day. Deposit blue-green eggs in a nest made of mud, covered with grass and reinforced with more grass and twigs.  
*Behavior:* Stand in open fields or around them. During fall and winter season, they gather in roosts or on trees to eat berries.  
*Other:* Roosts can get as big as a quarter million birds.  
*Gowanus:* Can be spotted around February and May near the Salt Lot.

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**ZENAIDA MACROURA**  
• **Mourning Dove**

*Family:* Columbidae  
*Native to:* North and Central America  
*Habitat:* Open country, woodland edges, dispersed trees

*Size:* Small headed, 12” in length with long pointed tail.  
*Diet and nesting:* Eats mainly seeds, grains, nuts, and sometimes grasses, and berries. Can eat up to 20% of their body weight. Deposits white eggs in a nest made of sticks and twigs, usually on bushes or tall trees. In cities, they can nest on window ledges or even air conditioners.  
*Behavior:* Mainly ground foragers. Pairing mates preen each other’s neck or peck each other’s beaks as a sign of their union.  
*Other:* In certain states, the birds are hunted for game, while in other states they are protected as songbirds. Their cooing is often described as sounding ghost-like.  
*Gowanus:* Can be spotted around April.
CITATIONS & CREDITS

AMERICAN CROW
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

AMERICAN ROBIN
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

BLACK-CROWNED NIGHT HERON
Photograph: Tom Stephenson
Text: Joanne Zhao
Layout: Joanne Zhao

BLUE JAY
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

CANADA GOOSE
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

CHIMNEY SWIFT
Photograph: Tom Stephenson
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Layout: Lauren Salas-Schumann

DOUBLE-CRESTED CORMORANT
Photograph: Ken Chaya
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DOWNY WOODPECKER
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EUROPEAN STARLING
Photograph: Tom Stephenson
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FISH CROW
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GREAT BLACK-BACKED GULL
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GREAT BLUE HERON
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HERRING GULL
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HOUSE SPARROW
Photograph: Tom Stephenson
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Layout: Lauren Salas-Schumann

LAUGHING GULL
Photograph: Tom Stephenson
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Layout: Lauren Salas-Schumann

NORTHERN MOCKINGBIRD
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

LEAST FLYCATCHER
Photograph: Tom Stephenson
Text: Joanne Zhao
Layout: Joanne Zhao

MALLARD
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

MOURNING DOVE
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

NORTHERN CARDINAL
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

RED-TAILED HAWK
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

RING-BILLED GULL
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

ROCK PIGEON
Photograph: Tom Stephenson
Text: Lauren Salas-Schumann
Layout: Lauren Salas-Schumann

YELLOW-CROWNED NIGHT HERON
Photographs: Tom Stephenson (Adult), Ken Chaya (Juvenile)
Text: Joanne Zhao
Layout: Joanne Zhao

SOURCES
Cornell Lab of Ornithology. “All About Birds”. allaboutbirds.org
OTHER GOWANUS SPECIES

to be included in future editions

Anas rubripes, American Black Duck
Ardea alba, Great Egret
Dumetella carolinensis, Gray Catbird
Falco peregrinus, Peregrine Falcon
Falco sparverius, American Kestrel
Haemorhous mexicanus, House Finch
Hirundo rustica, Barn Swallow
Megaceryle alcyon, Belted Kingfisher