



The following species list encompasses all records from the Jamaica Bay region, most of which is contained in Gateway National Recreation Area. Some 72 species have been observed.

As plant pollinators and food chain components, butterflies play an important role in the Jamaica Bay ecosystem. Not only do they provide aesthetic enjoyment by adding color and movement to an area, the presence of a variety of butterfly species is one indicator of a healthy environment.

Many species of butterflies are restricted to one or more habitat types. The Jamaica Bay region contains a variety of habitats including open field, shrub thickets, developing woodlands, shaded trails, wet meadows, and salt marsh. The following lists of those species seen at the Jamaica Bay Wildlife Refuge and along perimeter areas of Jamaica Bay including Spring Creek, Floyd Bennett Field, Neponsit Field, Fort Tilden, Breezy Point and Gerritsen Beach.

Please remember that these areas are protected; netting or otherwise capturing live butterflies is not allowed.

Lastly, note that while adult butterflies may feed on nectar from a wide variety of wildflowers, the food of the larval stage (caterpillar) is restricted to very specific plants for each species – we term these the host plants.

Note that this data was collected by Mary Hake, Don Riepe, John Zuzworsky, & members of NYC Butterfly Club; Skip Blanchard, Rick Cech, Jeff Glassberg, Steve Walter and Harry Zerlin, and dates from the late 80s to mid-90s. Revised in 2005; reviewed by D. Riepe for this 2014 publication.

Swallowtails (*Papilionidae*)

Pipevine Swallowtail (*Battus philenor*). The main population in our area is along the New Jersey Palisades where its introduced larval host plant (*Aristolochia*) occurs; however, most Jamaica Bay sightings may pertain to southern immigrants. First noted here in 1986, with a flight year in 1987 (maximum 29 on 7/19), but normally scarce to absent.

Black Swallowtail (*Papilio polyxenes*). The common dark swallowtail of open fields at Jamaica Bay, although perhaps declining in recent years. Often seen nectaring at milkweeds and composites. Bivoltine (two broods annually) flying nearly throughout the season. Maxima: 93 on 7/19/87. Larval host plant: parsley family including Queen Anne's lace.

Eastern Tiger Swallowtail (*Papilio glaucus*). Our only "yellow" swallowtail. The "black" form is rare here. Fairly common along woodland edges and gardens, nectaring at a variety of wildflowers. Trivoltine (three broods annually), the last only partial. Adults may live for up to two weeks. Host plants include cherry, birch and aspen.

Spicebush Swallowtail (*Papilio troilus*). Although common in inland city parks, it is uncommon at Jamaica Bay. Like *glaucus*, most frequently seen along wooded trails; it has similar broods and flight dates. At times it may visit fields, especially to thistles and other tall flowers in late summer. Host plants: sassafras, spicebush.

Whites and Sulphurs (*Pieridae*)

Checkered White (*Pontia protodice*). Irregular immigrant to the sandy coastal plain from the south or west, usually arriving in late summer. In flight years, it appears by July, but its occurrence is very unpredictable. Breeding status uncertain. Maxima: 21 on 9/7/86. Host plant: crucifers (mustards), especially peppergrass.

Cabbage White (*Pieris rapae*). Introduced from Europe (c. 1860), it is now one of the abundant species. Very tolerant of urban disturbance, this is the white butterfly seen flying everywhere throughout the season, from April to November. Host plants: crucifers (mustards).

Clouded Sulphur (*Colias philodice*). One of the two widespread sulphurs of large clover fields, overgrown lawns and waste lots. Sometimes crosses with next species, producing confusing hybrids; females of both *Colias* occur in a "white" form, esp. in fall. Long flight season, April to November. Preferred host plant is white clover.

Orange Sulphur (*Colias eurytheme*). Has colonized from the Midwest during this century to become one of our commonest species, now well outnumbering *philodice* locally and particularly tolerant of disturbed sites. Produces up to five broods annually, flies late in year and may even emerge during warm winter spells. Host plants: Legume family; specially Alfalfa.

Cloudless Sulphur (*Pheobis sennae*). This large, fast-flying, bright yellow Sulphur is a sporadic visitor to the Northeast from its southern strongholds. Usually a few seen each year in late summer or fall, but occasionally major flights years (such as 1981, 1987, and 1993) produce numerous sightings. Maxima: 16 on 9/16/87.

Dainty Sulphur (*Nathalis iole*). One record at Ft. Tilden.

Little Yellow (*Eurema lisa*). This southern species invades the Northeast nearly every year, often establishing temporary populations by late summer. Most regularly found at Marine Park, Brooklyn (Gerritsen Beach); occasionally found along the Rockaway Peninsula at Neponsit Field and Fort Tilden. Host plant: wild sensitive-plant (*Cassia*). Maxima: 48 at Marine Park on 9/12/93.

Goassamer Wings (*Lycaenidae*)

Harvester (*Feniseca tarquinius*). This caterpillar is carnivorous, preying upon woolly aphids associated with alder (*alnus*) trees. The nearest known colony is along the Bronx River. One stray record for Jamaica Bay on 9/6/87 in the North Garden of the wildlife refuge.

American Copper (*Lycaena phlaeas*). This little gem is common in open habitats of the refuge such as South Field and Terrapin Trail. Common also at Floyd Bennett Field. Often noted nectaring on Orange Milkweed (butterfly weed) and various low composites. Trivoltine (three broods annually) with a partial fourth brood in early October. Host plant: Sheep sorrel and other *rumex*.

Coral Hairstreak (*Satyrium titus*). Very local here, found primarily in small numbers at one area of Floyd Bennett Field. Univoltine (one brood annually) from mid-June to mid-July. Extremely partial to nectaring on orange milkweed. Host plant: Wild cherry and other *prunus*.

Banded Hairstreak (*Satyrium calanus*). Very common in heavily wooded inland parks, rare on coast. Single brooded. One record at refuge on 7/7/92. Host plants: Oaks and hickories.

Striped Hairstreak (*Satyrium liparops*). Fairly scarce along the immediate coast, but less confined to oak forest than *calanus*. Host plants: Willow, roses, hardwoods. One record for Jamaica Bay at Fort Tilden on 7/6/93.

Red-banded Hairstreak (*Calycopis cecrops*). A southern species, at limit of range here. Bivoltine, with biggest brood in August. Maxima: (20) on 8/9/89 at Floyd Bennett Field. Usually found in association with winged sumac (*Rhus copallina*).

White M Hairstreak (*Parrhasius m-album*). Another rare southern hairstreak, this beauty is rarely found at Jamaica Bay. Three records at refuge on 7/29/84, 8/31/86 and 8/21/87. Two records at Floyd Bennet Field, also in August. Breeding status uncertain.

Gray Hairstreak (*Strymon melinus*). The only regular, fairly common hair-streak at the refuge; most often found in weedy fields, sandy lots and along brushy edges. Bivoltine here, flying from mid-May through early October, most commonly in late summer. Host plants: Legume and mallow families, etc. Maxima: 28 on 9/7/86.

Eastern Tailed Blue (*Everes comyntas*). One of our smallest common butterflies normally seen flying low to ground in open, weedy situations where legumes (the larval host) are present. Multibrooded, flying during most of season. More abundant than Gray Hairstreak. Maxima: 72 on 9/7/86

Spring Azure (*Celastrina ladon*). The common blue of more wooded sections of Jamaica Bay, typically flying higher than Eastern Tailed. Several distinct forms; the paler, more abundant summer brood (*neglecta*) often regarded as a separate species. Three to four broods, flying from early April into October. Late record: 10/9/93 at Floyd Bennett Field.

Marine Blue (*Leptotes marina*). Mainly resident in South Texas, but irruptive to the northern plains and Great Lakes states with an unparalleled northward invasion in 1993. Two unprecedented records for N.Y. State, both in 1993. One near Buffalo, N.Y.; the other seen and photographed at Fort Tilden on 8/29/93.

Snouts (*Libytheinae*)

American Snout (*Libytheana carinenta*). Irregular migrant from the south and uncommon local breeder, usually found in close association with its hackberry (*Celtis*) food plant. Somewhat stable colonies at the refuge, Floyd Bennett Field and Sandy Hook N.J. Normally two broods (Bivoltine), flying from mid-June into early September. Maxima: 10 on 7/19/87 (late record – 10/18/87 at refuge).

Brushfoots (*Nymphalidae*)

Variogated Fritillary (*Euptoieta claudia*). Yet another rare summer immigrant from the South. Usually one or two records annually, but absent some years; 1988 and 1991 were flight years. Prefers fields and open habitats, especially along coastal strip. Late record: 11/3/90.

National Park Service
U.S. Department of the Interior

Gateway National Recreation Area
Jamaica Bay Wildlife Refuge



Butterflies of Jamaica Bay



Compiled by:

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Great Spangled Fritillary (*Speyeria cybele*). This large, showy species is very common in the Hudson Valley, but much rarer along the coast. Only a few records for Jamaica Bay, usually in August. Host plant: Violets.

Aphrodite Fritillary (*Speyeria aphrodite*). Recently declining and scarce even in Hudson Valley; nearly unknown on the coastal plain. Nevertheless, a stray appeared and was photographed at Floyd Bennett Field in July of 1986.

Gulf Fritillary (*Agraulis vanillae*). One record on buddleia (c. 1995).

Pearl Crescent (*Phyciodes tharos*). Fairly common at the refuge; usually found in open, wet areas where larval food plants (asters) are present. Nectars at a variety of flowers; habitually “fanning” the spread wings while feeding. Multibrooded, flying throughout the season.

Question Mark (*Polygonia interrogationis*). One of the “angel wings” whose folded wings mimic a dead leaf. Fairly common some years, preferring wooded gardens where it often feeds on tree sap. Two broods (second sometimes overwinters in protected spots). Summer brood is darker; fall brood migrates south along the coast, often in large numbers. Maxima: 80 on 10/14/90. Various host plants include hackberry, elm and nettles.

Eastern Comma (*Polygonia comma*). Far less common in Jamaica Bay than preceding species, usually one or two sightings yearly. Like the Question Mark, it overwinters (as adult) in protected spots such as dead trees and old buildings, but seldom migrates. *Polygonia* angelwings are named for the silvery markings on the undersurface of their hind wings, which resemble punctuation marks.

Mourning Cloak (*Polygonia interrogationis*). A fairly common anglewing with life history and behavior similar to Question Mark (some individuals may live up to 10 months). Very hardy – one of the first species to appear in early spring (March) and, on occasion, overwintering adults emerging on warm winter days. Feeds on tree sap, rotting fruit, etc. (rarely flowers). Larval hosts at the refuge are willows (*Salix*) and perhaps cottonwood.

Compton Tortoiseshell (*Nymphalis vaualbum*). An uncommon, inland angelwing of deciduous woodland; rare on coast. Populations noted for the cyclic nature – 1988 was an “explosion” year, during which one was found at the refuge on September 8th; noted again the following two years (9/3/89 and 7/3/90).

Small Tortoiseshell (*Nymphalis urticae*). A European species with no known North American population. Yet, two appeared at the refuge (photographed) in late August of 1988 and 1991. Only one other local record at Riverside Park, Manhattan on 10/15/90. The exact source of these records is uncertain.

American Lady (*Vanessa virginiensis*). A common, conspicuous species at Jamaica Bay, often found nectaring in open, flowery fields. Two or three broods yearly, flying throughout season (April-November). Principal host plant is sweet everlasting, on which the larvae and web nests are often seen. Maxima: 100 on 5/3/86.

Painted Lady (*Vanessa cardui*). Irregular visitor to our areas; absent some years while in others, it erupts out of the Southwest to become common here during summer and fall. Occurs with and resembles American Lady. 1991 and 1992 were major flight years, with maxima of 27 on 7/28/92.

Red Admiral (*Vanessa atalanta*). Another common *nymphalid*, most often seen in gardens, glades, and along shaded trails, as with other territorials. Butterflies, males are aggressive and may even land on “intruding” humans. Adults feed both at tree sap and meadow flowers. Flies throughout season and is a common coastal migrant in fall. Host plant: Nettles.

White Admiral (*Limenitis arthemis*). One record near Visitor Center (c. 1990)

Common Buckeye (*Junonia coenia*). Rather irregular immigrant from the South, becoming quite common some years. Highest number reported in late summer (maxima: 66 on 8/26/90) when larvae can be seen feeding on host plant Purple Gerardia. Typically found flying low in sparsely vegetated, sandy locales – even on beaches. Late record: 11/16/90.

Red-spotted Purple (*Limenitis arthemis astyanax*). Uncommon at Jamaica Bay. Occasionally spotted flying high along trails; prefers same habitat as rather similar Spicebush Swallowtail. Bivoltine (most records in July). Host plants include black cherry and poplars.

Viceroy (*Limenitis archippus*). This well-known mimic of the unpalatable (*emetic*) Monarch is very rare now in the Jamaica Bay. Formerly more regular at the refuge vicinity of its host plant (willows); there have been a few recent records.

Hackberry Emperor (*Asterocampa celtis*). Confined to bottomland hackberry groves, mostly along the coast and Hudson River Valley. Although common in southern Staten Island, it is rare at Jamaica Bay despite presence of hackberry (host plant). We have only three records: 9/2/89, 7/10/91 and 7/21/92.

Tawny Emperor (*Asterocampa clyton*). Generally, less common in N.Y area than Hackberry Emperor, but (oddly) more regular at the refuge – having become established in small numbers since 1986. Usually one or two sightings yearly in late summer (early August – early September_). Emperors resemble and behave like *Polygonia* angelwings, often perching head downward on tree trunks. Host plant: Hackberry (*Celtis*).

Satyrs or Browns (*Satyridae*)

Little Wood Satyr (*Megisto cymela*). Although common just inland, this species was first recorded at Jamaica Bay on 6/24/86 in the East Garden of the refuge. A few subsequent sightings may reflect a possible small population here. Host plants: Grasses (*Poaceae*) and possibly sedges (*Cyperaceae*).

Common Wood Nymph (*Cercyonis pegala*). A common species of Hudson Valley and Long island, but rare at Jamaica Bay. Only two records (possibly strays): 7/23/89 at Floyd Bennett Field and 7/26-8/1, 1990 in South Field of refuge.

Milkweed Butterflies (*Danaide*)

Monarch (*Danaus plexippus*). The common large orange butterfly familiar to all. Most abundant during its fall migration to Mexico, when it may be seen everywhere nectaring at goldenrods and other composites. Maxima: 1,950 on 9/8/91 at Fort Tilden. Multibrooded, it may arrive northward by late spring at which time it begins laying eggs on its milkweed host plant. The caterpillar incorporates milkweed alkaloids making even the adult distasteful to vertebrate predators like birds; however, *arthropods* such as the praying mantis are apparently immune.

Skippers (*Hesperiidae*); subfamily (*Pyrginae*)

Silver-spotted Skipper (*Epargyreus clarus*). This large, distinctive and fast-flying skipper is locally common at the refuge. Prefers semi-open brushy edges where it may leaf- perch or visit flowers. Bivoltine, flying from late May to early September. Major host plant is black locust.

Long-tailed Skipper (*Urbanus proteus*). An accidental stray from the South. Three recent records: October 14-17, 1989 (Riverside Park, Manhattan); September 2-4, 1990 (Staten Island); September 5-9, 1993 seen nectaring at buddleia in Broad Channel, Queens and at the refuge.

Northern Cloudywing (*Thorybes pylades*). Occurs in peripheral city parks, but very rare at Jamaica Bay. Five were noted at Floyd Bennett Field on 5/29/88.

Juvenal’s Duskywing (*Erynnis juvenalis*). Fairly common in inland city parks during May (univoltine); here, territorial males are seen patrolling low over clearings and trails. Formerly a regular at the refuge, but few recent records. Like all duskywings, basks with wings held flat. Host plant: Oaks.

Horace’s Duskywing (*Erynnis horatius*). Any *Erynnis* seen after June should be this or the next species. Horace’s is far less common than the nearly identical *juvenalis*. Only two reports at refuge. Host plant: Oaks.

Wild Indigo Duskywing (*Erynnis baptisiae*). In recent years, the most frequently seen duskywing at Jamaica Bay – this species now expanding into disturbed areas where its alternate host plant, crown vetch, occurs. Up to three broods locally, but most refuge records are in August and September.

Common Checkered Skipper (*Pyrgus communis*). Irregular southern immigrant, always uncommon and absent some years. Usually seen singly or in small numbers along the coast in late summer, in recent years most likely at Floyd Bennett Field and Marine Park. Prefers open, short grass fields. Host plant: Mallows (*Malva*).

Common Sootywing (*Pholisora Catullus*). One of the commoner and smallest of urban “spread wing” skippers. Locally common in weedy fields, vacant lots and landfill such as Spring Creek and Floyd Bennett Field. A good colony was found on Canarsie Pol in 1992. Trivoltine (three broods) from May through September. Major host plant: Pigweed (lamb’s quarters).

Subfamily (*Hesperiinae*)

Swarthy Skipper (*Nastra Iherminier*). A characteristic coastal plain skipper, common at Jamaica Bay although near northern limit of range. Bivoltine: June and then a more abundant brood in August September (Maxima: 140 on 9/6/92). This little dull species prefers open weedy areas such as the South Field at the refuge, Neponsit Field and Floyd Bennett Field. Host plant: *Andropogon* grasses.

Clouded Skipper (*Lerema accius*). Accidental stray from the South (perhaps now established in Cape May, N.J.). A few penetrated into N.Y.C. area in the fall of 1992, including 9/26 at the refuge and 9/29 at Fort Tilden; another seen here on 9/9/93.

Least Skipper (*Ancyloxypha numitor*). This tiny, orange skipper is locally common at refuge in areas such as Spring Creek. A low, weak flyer noted weaving through tall grass near water. Bivoltine (partial third) flying from late may through September, occasionally later. Host plant: Grasses.

European Skipper (*Thymelicus lineola*). Introduced early this century; now abundant, especially inland. Remains uncommon on the coastal strip, with most of our records at Spring Creek. Univoltine (one brood): June to early July.

Fiery Skipper (*Hylephila phyleus*). Of the various southern immigrant skippers, this is the species most likely to be found at Jamaica Bay, especially in recent years. 1991 was a flight year with ten refuge records from July through September.

Cobweb Skipper (*Hesperia metea*). Associated with *Andropogon* fields, particularly in quite barren areas, such as following a recent burn. Apparently a small population established at (or vagrant into Floyd Bennett Field. Univoltine: April-June (especially May). Host plant: Little bluestem grass (*Andropogon scoparius*).

Peck’s Skipper (*Polites peckius*). A small, distinctive skipper noted commonly around the refuge in a variety of open habitats. Multibrooded, flying from May through September. Host plant: Grasses (*Leersia, etc.*)

Tawny-edged Skipper (*Polites themistocles*). Common inland, but scarcer along the coast than following species; the two are very similar in appearance. Only three records: one at refuge on 6/2/88 (attracted to “moth light” at night!), and two at Floyd Bennett Field on 7/6/88 and 6/30/90.

Crossline Skipper (*Polites origenes*). Local but uncommon in Jamaica Bay. Has been found at the refuge, Floyd Bennett Field and Neponsit Field (Rockaways). Favors grasslands and sandy barrens. Mostly Univoltine here (late June-July), but a rudimentary second brood in some years (September). Host plant: Grasses (*Tridens, Andropogon, etc.*)

Northern Broken Dash (*Wallengrenia egeremet*). Most regular of the three dark “witches” at Jamaica Bay. Fairly common at refuge occurring along brushy edges or in fields where it favors White Sweet Clover, Dogbane, etc. Univoltine: late June through July. Host plant: grasses (*Panicum, etc.*).

Little Glassywing (*Pompeius verna*). This common inland “witch” is scarce and irregular at the refuge, with a few records. Appearance, behavior and flight period similar to Northern Broken Dash.

Sachem (*Atalopedes campestris*). Common in the southern New Jersey, particularly in late summer, but irregular stray to New York region. Has appeared annually at Jamaica Bay (usually at the refuge) since 1992; first record was on 9/8/91/ as with Fiery Skipper, to be looked for in late summer at various nectar sources.

Delaware Skipper (*Atrytone logan*). This bright orange skipper is common in the Hudson Valley, but nearly unknown on Long Island. Nevertheless, in recent years has appeared in low numbers in Jamaica Bay. First record: 7/19/87 at refuge. Irregular and uncommon, (absent in 1990). Maxima: 12 on 7/5/93.

Zabulon Skipper (*Poanes zabulon*). Common here, usually in woody glades or at brushy edges. Often noted in North and South Gardens of the refuge. Strongly sexually dimorphic; territorial males repeatedly return to exposed leaf perches while more secretive females stay near cover. Bivoltine: May-June; August-September. Maxima: 12 on 9/6/92. Host plant: Grasses (*Tridens, etc.*). Note: The related Hobomok Skipper should be looked for, as it is common in city parks inland.

Broad-winged Skipper (*Poanes viator*). This large, slow-flying skipper is abundant at the refuge; many can be seen nectaring at buddleia around Visitor Center in mid-summer. A single, extended brood from late June well into September. Maxima: 724 on 8/25/92. Now greatly increased due to its adoption of *Phragmites* (marsh reed) as a larval host plant.

Dun Skipper (*Euphyes vestris*). Another of the dark “witches,” very common in the Hudson Valley but scarce locally. Only a few records for Jamaica Bay mainly in July – its principal flight period. *Euphyes* skipper larvae feed on sedges (*Carex*).

Dusted Skipper (*Atrytonopsis hianna*). Local and usually uncommon in sandy barrens and pine-oak scrub; frequently the same habitat as Cobweb Skipper. Like that species, flies principally in May (but a bit later), and utilizes same *Andropogon* host plant. Two records for Floyd Bennett Field: five on 5/29/88 and one on 6/3/89.

Salt Marsh Skipper (*Panoquina panoquin*). A distinctive, small, grayish, skipper restricted as a breeder to extensive stands or cordgrass (*Spartina*) although spikegrass (*Distichlis*) is probable larval host plant. Small numbers regularly leave the saltmarsh to nectar at refuge flowers (camphorweed, etc.) but usually not easily found. Bivoltine (two broods): June and August-September.

Ocola Skipper (*Panoquina ocola*). This dark, long-winged skipper is an accidental stray from the south. Only one record for Jamaica Bay during the flight year of 1992 at Floyd Bennett Field on 9/25/93.

Appendix

Several other Gateway units are of interest of the butterfly enthusiast. The Great Kills section of the Staten Island Unit is noted for large numbers of migrating monarchs which pass through each fall. During peak flight years, hundreds may be seen nectaring seaside goldenrod.

To see several nice species not present at Jamaica Bay, visit the Sandy Hook Unit in New Jersey during May. A large population of Henry’s Elfín occurs in American holly thickets adjacent to the parking Lot E . Red cedar trees nearby should produce Olive Hairstreaks at the same time. Further on, around parking lot K, are dense stands of hackberry trees (*Celtis*); recently, bother American Snout and Tawny Emperors were found here in fair numbers during mid-summer. Various southern strays, such as Little Yellow, are found here in fall.

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