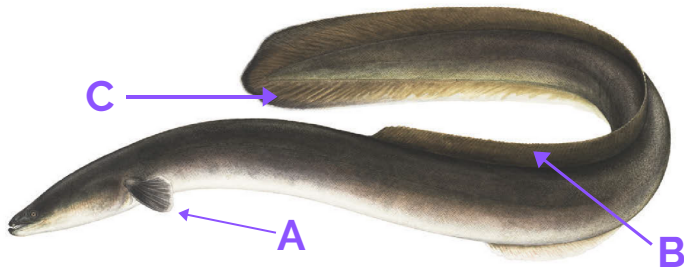




AMERICAN EEL (*Anguilla rostrata*)



FAMILY: Anguillidae (Freshwater Eels)

SIZE: Common Length: 50 cm (19.7 in); Max Length recorded: 152 cm (59.8 in); Max published weight: 7.3 kg (16.6 lbs).

LIFESPAN: Eels generally live 15-20 years. The oldest recorded Eel was 43 years old.

FIELD CHARACTERISTICS: Eels have a **long, slimy snake-like body**. Unlike the similarly shaped lampreys, **eels have jaws and a pair of pectoral fins (A)**. Distinguishing eels from other fishes in the northeast, aside from lampreys, can be done by observing the absence of dorsal, pelvic, and anal fins. Eels also have a caudal fin (tail) that starts dorsally (top) **(B)** and wraps around the base of the body to the ventral (bottom) end **(C)** making a fan like appearance.

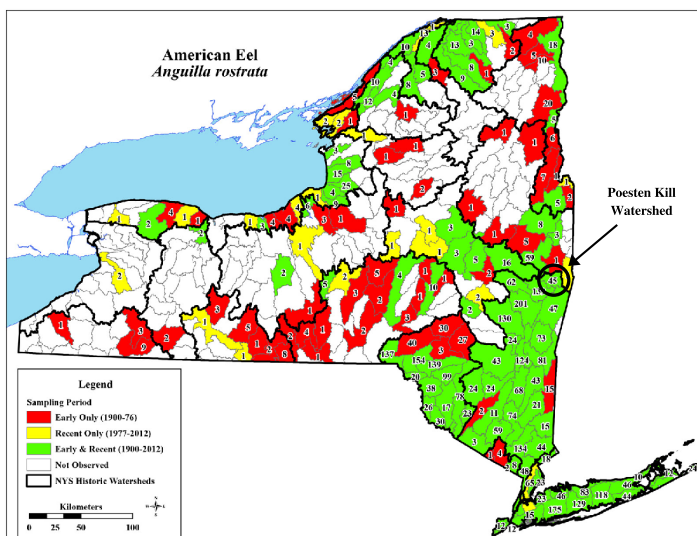
HABITAT: Eels are born in a marine environment but are carried on ocean currents into estuaries. The young eels will eventually move up into freshwater streams to live and grow as adults.

LIFESTAGES: As they mature, the young start to develop a brownish-yellow color and are now considered "Elvers". As the elvers grow into adults, they are called "Yellow Eels" because they tend to have a distinct brownish-yellow coloration to their body.

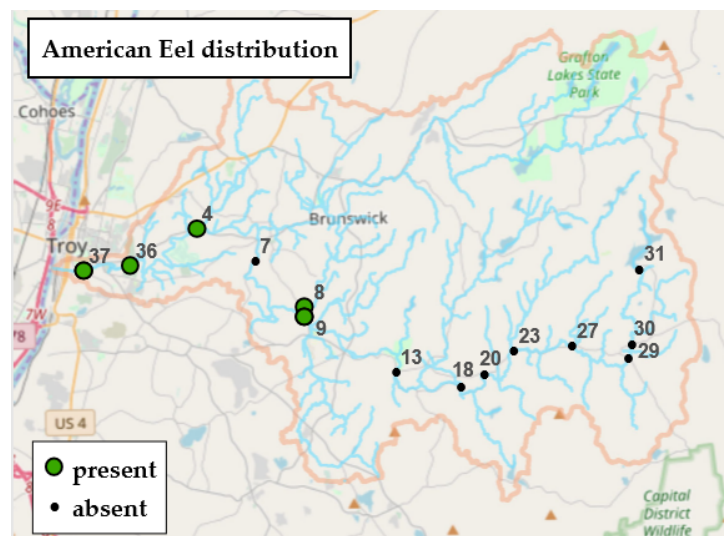
SPAWNING: When eels are mature enough to spawn, they will begin to migrate from freshwater streams to the ocean. The process of living in freshwater and spawning in ocean water is termed catadromy. Most other diadromous fish in our region, those that inhabit two different water types during their lifetime, are termed anadromous because they live in marine water as adults and migrate into freshwater to spawn. Biologists studying eels have observed that spawning eels congregate in the Sargasso Sea to reproduce. After spawning has finished, the adult eels die.

DIET: Eels are carnivorous fish with a diet mainly consisting of worms, crustaceans, small fish, clams and other mollusks.

NEW YORK STATE SPECIES DISTRIBUTION



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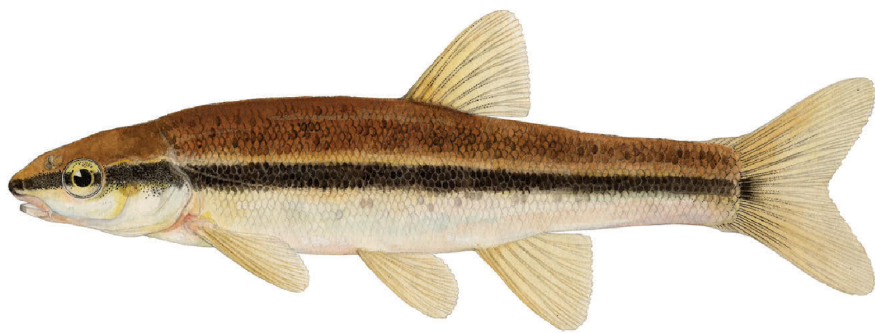
(1) USFWS U.S. Fish and Wildlife Service. 2019. Freshwater Fish of America: American Eel. [Internet] [Cited 11 October 2019]. Available from: https://www.fws.gov/fisheries/freshwater-fish-of-america/american_eel.html

(2) Werner, Robert. 2004. Freshwater Fishes of the Northeastern United States. Syracuse University Press. Pgs. 64-65.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. Atlas of Inland Fishes of New York. The New York State Education Department. Pg. 28



BLACKNOSE DACE (*Rhinichthys atratulus*)



FAMILY: Cyprinidae (Minnows, Shiners, Dace, Chubs, Carp, Goldfish)

SIZE: Adult length: 5.08-7.62 cm (2-3 in).

LIFESPAN: Blacknose Dace generally live between 2-3 years.

FIELD CHARACTERISTICS: Along with the longnose dace, these daces can be distinguished from other minnows by their pointed snout and one barbel on each side of the base of the mouth. Black nose dace are so called because of the **prominent black band that extends from the tail to the very tip of the nose**. The band on the longnose dace is not as prominent and does not extend to the tip of the nose. Longnose dace also have a snout that protrudes far out from the mouth (see below).

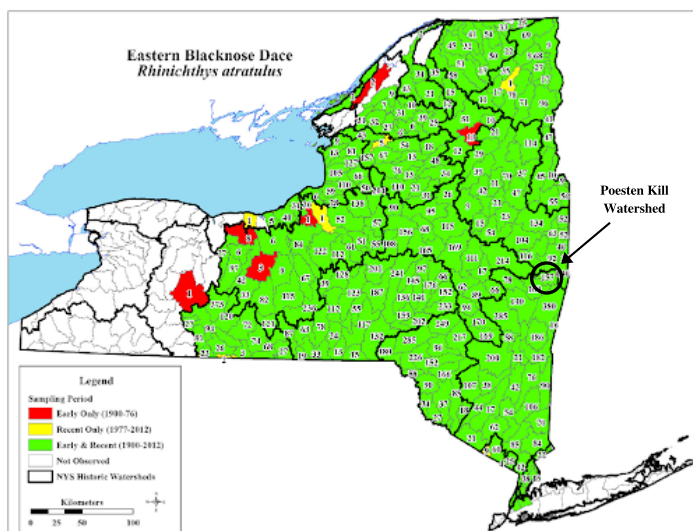
HABITAT: These fish are generally found in smaller, cool, clear streams with gravel bottoms.

LIFESTAGES: Aside from size, these fish do not have a distinct change from hatching to adulthood.

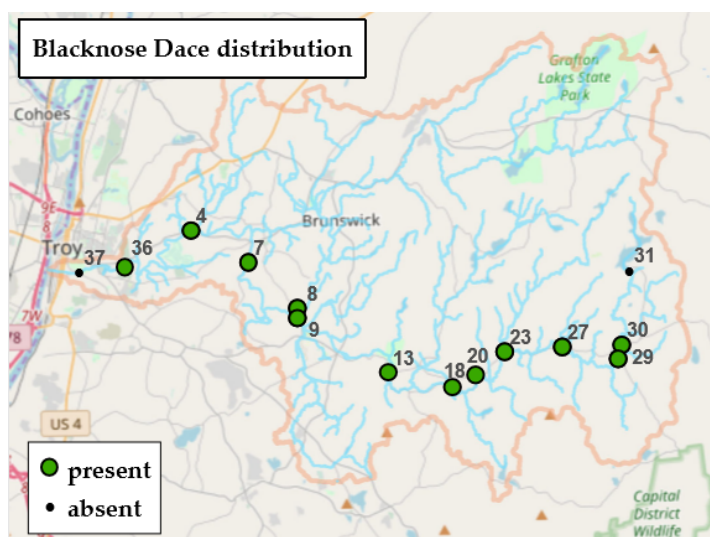
SPAWNING: These fish spawn in late May to June. Females will generally carry around 750 eggs. Females deposit eggs on gravel stream beds after being fertilized by the males.

DIET: Dace are omnivorous, eating insect larvae, small crustaceans, worms, and plant material.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION

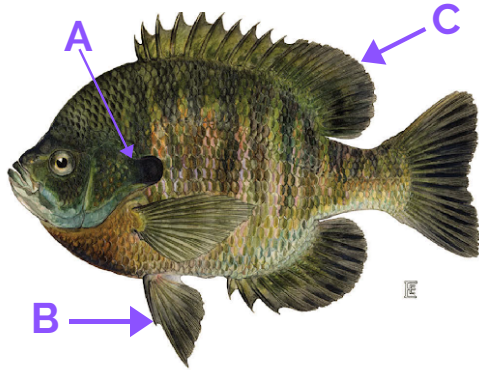


(1) [UNB] University of New Brunswick. 2019. Inland Fish Species of New Brunswick: Blacknose Dace. [Internet] [Cited 11 October 2019]. Available from: <https://www.unb.ca/research/institutes/cri/links/inlandfishesnb/Species/blacknosedace.html>

(2) Werner, Robert. 2004. Freshwater Fishes of the Northeastern United States. Syracuse University Press. Pgs. 128-129



BLUEGILL (*Lepomis macrochirus*)



FAMILY: Centrarchidae (Sunfish)

SIZE: Common Length: 19.1 cm (7.5 in), Max reported length: 41 cm (16 in), Heaviest published weight: 2.2 kg (4.8 lb)

LIFESPAN: Bluegill may live to 10 years old.

FIELD CHARACTERISTICS: These fish have a dark blue opercular (gill) flap (A). Redbreast sunfish also have this trait, but bluegill can be distinguished by the presence of long, pointed pectoral fins (B) and a dusky "thumb-print" mark on their soft (second) dorsal fin (C). Also, these fish have vertical bars lining their body.

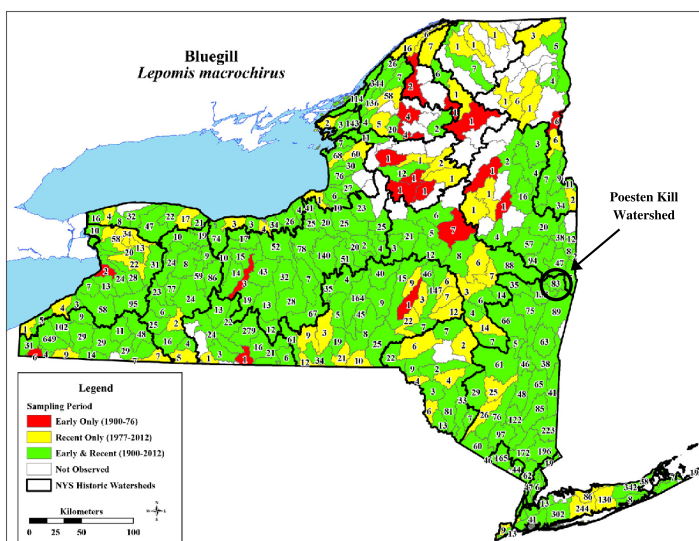
HABITAT: Bluegill can live in streams, ponds, and lakes. They prefer to live and spawn in weedy aquatic vegetation.

LIFESTAGES: Aside from size, these fish do not have a distinct change from hatching to adulthood.

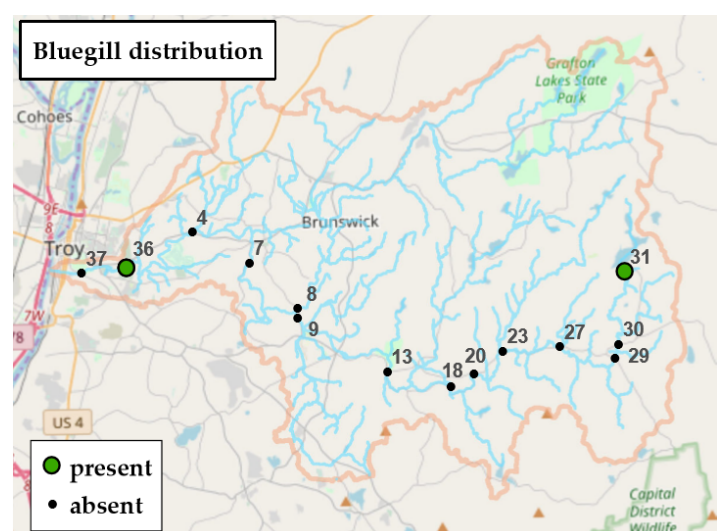
SPAWNING: Bluegill begin to spawn in early summer. Males will move into shallower water where they will create small depressions in the substrate. If a female is attracted to a male's nest, she will move into the space with him and release her eggs while he releases his sperm. After spawning, the male will guard the nest until the young are capable of leaving.

DIET: Smaller, younger individuals will feed on zooplankton while larger, older individuals will feed on invertebrates and smaller fish.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



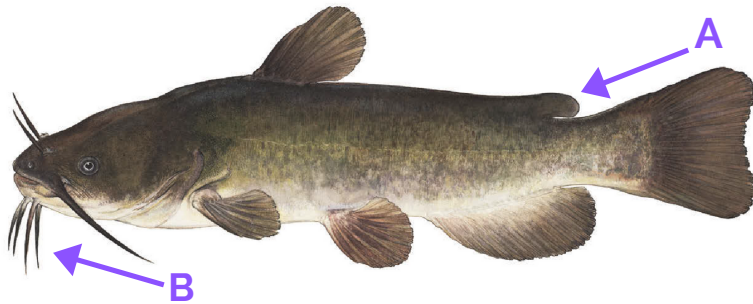
(1) U.S. Fish and Wildlife Service. 2019. Freshwater Fish of America: Bluegill. [Internet] [Cited 11 October 2019]. Available from: <https://www.fws.gov/fisheries/freshwater-fish-of-america/bluegill.html>

(2) Werner, Robert. 2004. Freshwater Fishes of the Northeastern United States. Syracuse University Press. Pgs. 238-239.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. Atlas of Inland Fishes of New York. The New York State Education Department. Pg. 279



BROWN BULLHEAD (*Ameiurus nebulosus*)



FAMILY: Ictaluridae (Bullhead Catfish)

SIZE: Brown Bullhead average around 35.56-40.64 cm (14-16 in) in length and may reach a mass of 0.454-0.907 kg (1-2 lb).

LIFESPAN: These fish may live up to 6 years old.

FIELD CHARACTERISTICS: Brown Bullhead have a square to rounded caudal fin (tail), a free adipose fin (A) -smaller fin behind the dorsal fin, and dark chin barbels (Sensory appendages on the chin). Distinguishing a brown from a yellow bullhead can be done by looking at their chin barbels (B) (Browns with dark barbels and Yellows with white barbels), and distinguishing them from black bullheads can be done by looking at the barbs on their pectoral spines (Brown's have much larger barbs than Black's).

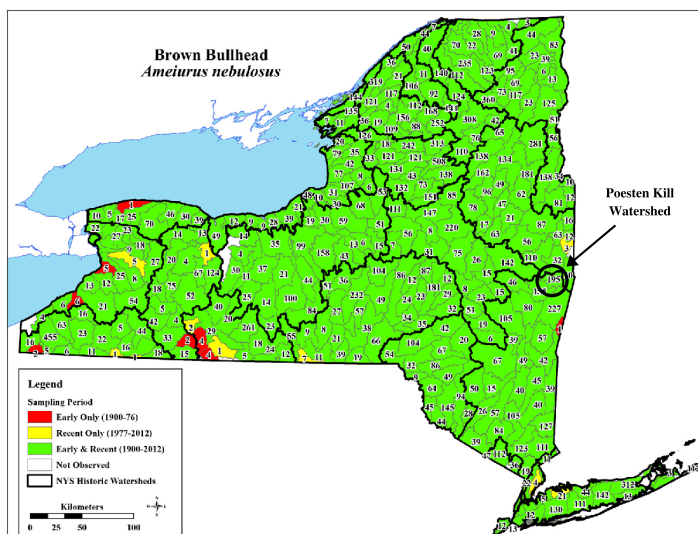
HABITAT: If Brown Bullhead are observed in creeks or rivers, they generally prefer pools or slower-moving runs. If they are observed in ponds or lakes, they generally prefer vegetated areas.

LIFESTAGES: The hatchlings may develop a much darker skin pigment than the adults. Other than size and coloration, there is no distinct change from hatching to adulthood.

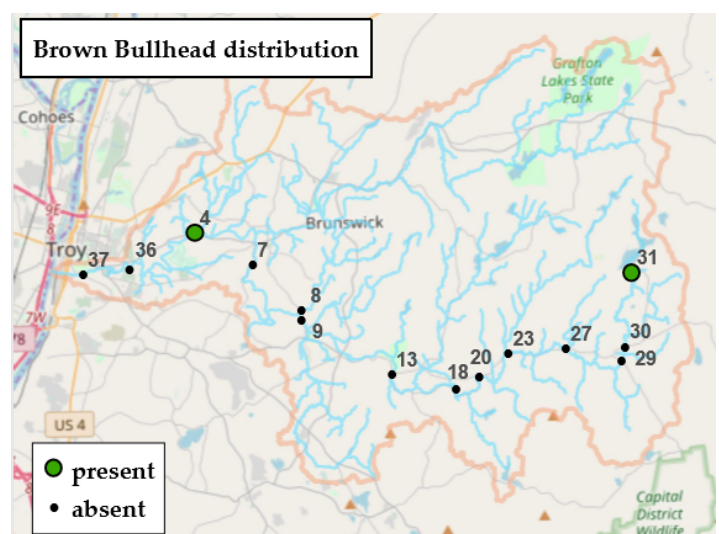
SPAWNING: Brown Bullhead begin to spawn from late spring into early summer. Males create nests under sheltered areas. Females generally carry anywhere from 2,000-14,000 eggs. Both parents release their reproductive materials into the bottom of the nest for fertilization. Once fertilized, both the male and female (usually the male) guard the nest. The female incubates the eggs by vigorously vibrating her body in the bottom of the nest. This period will usually last between 5-20 days. Once hatched, the young remain in the nest until they are mature enough to leave. Once out of the nest, the parents corral the young into a tight pod and protect them until they are mature enough to live on their own.

DIET: Brown Bullhead are omnivorous. They will eat invertebrates, smaller fish, fish eggs, and plants.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



(1) Guth, Rachael. 2011. *Ameiurus nebulosus*. Animal Diversity Web. Webpage. [Internet] 2011 [cited 11 October 2019]. Available from: https://animaldiversity.org/accounts/Ameiurus_nebulosus/

(2) Werner, Robert. 2004. *Freshwater Fishes of the Northeastern United States*. Syracuse University Press. Pgs. 157-158.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. *Atlas of Inland Fishes of New York*. The New York State Education Department. Pg. 170.



BROWN TROUT (*Salmo trutta*)



FAMILY: Salmonidae (Trout, Salmon, Whitefish)

SIZE: Most individuals will be around 0.454 kg (1 lb) in weight. However, these fish can reach weights of 9.072-18.144 kg (20-40 lb).

LIFESPAN: These fish may reach up to 9-10 years old.

FIELD CHARACTERISTICS: These fish have **large dark spots on a lighter body** background. These **spots may either be black, brown, or orange and are usually encircled in a silver halo**. As the name suggests, these fish usually have a distinct brown coloration.

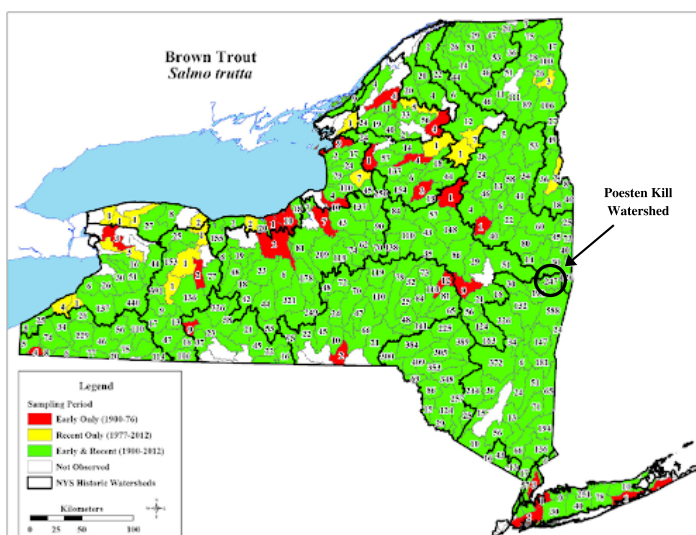
HABITAT: Brown Trout are capable of living in both streams and lakes. However, spawning habitat is mainly in streams, even for lake living individuals. Like other salmonids, they prefer cold water, but Brown Trout may endure higher temperatures than species like Brook Trout (*Salvelinus fontinalis*).

LIFESTAGES: Like many other salmonids, Brown Trout exhibit a fascinating life history cycle. When young hatch from their eggs, they are called alevins or "sac-fry" because of the yolk sac that is still attached to their bodies. Alevins continue to get nutrients from their yolk sac until it is empty. After the sac-fry is finished the alevins are now considered "fry". After living as fry, the individual will eventually mature into a "parr", Vertical body markings develop during this stage and are called "parr" marks. OEI staff were lucky enough to sample some Brown Trout in the "parr" stage of their life (See fact sheet for site g). Once the parr mature further, they lose their parr marks and become adults.

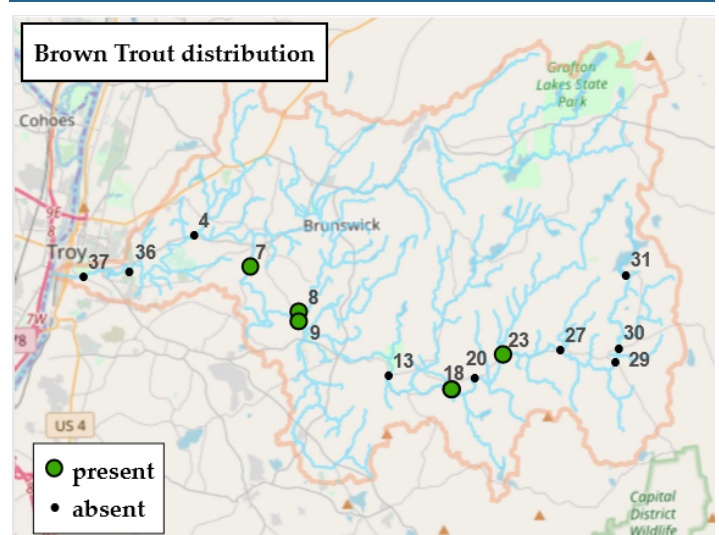
SPAWNING: Brown Trout spawn in the fall, usually between October and November. Females generally carry between 200-2,000 eggs. Like other species of Trout, Brown Trout females create a nest called a "Redd". Once the redd is completed, the male and female will release reproductive materials into the nest for fertilization. Once this is done, the female will then sweep gravel and sand over the eggs. The eggs will hatch in around 65-100 days.

DIET: Brown Trout are carnivorous. Hatchlings will start on smaller insects, making their way up to larger food items as they grow until their adult diet mainly consists of insects, amphipods, mollusks, and fishes.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION





CHAIN PICKEREL (*Esox niger*)



FAMILY: Esocidae (Pike, Pickerel, Muskellunge)

SIZE: Adults generally grow to lengths of 38.1-45.72 cm (15-18 in) and masses of 0.68 kg (1.5 lb).

LIFESPAN: Most individuals do not live long after sexual maturity around 3-4 years old, but some may live up to 8-9 years old.

FIELD CHARACTERISTICS: Chain Pickerels, like the other esocidae species, have an **elongate body** with their dorsal (back) fin positioned very close to the tail. The pickerels have a distinct **black "tear-drop" marking under their eyes**. Distinguishing the chain pickerel from the other pickerel species can be done by observing the **"chain" like patterning** on the body.

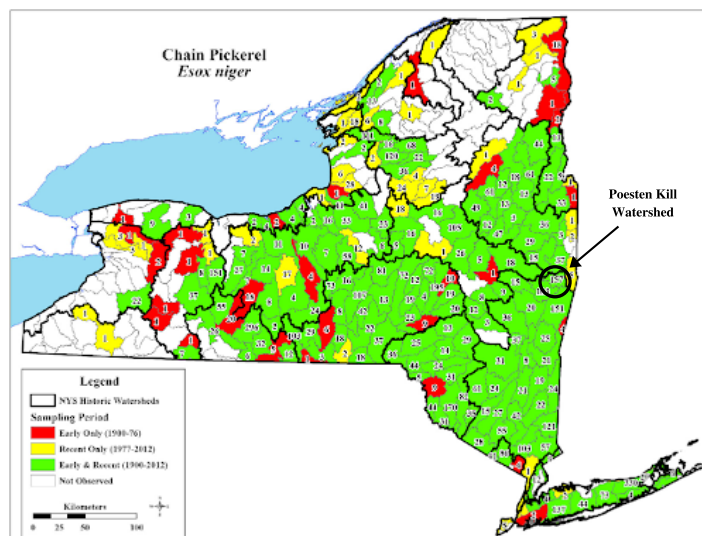
HABITAT: Chain Pickerel can be found in lakes, streams, swamps, and ponds. These fish prefer submerged cover like logs and aquatic vegetation. Dense cover is a requirement when chain pickerel hunt because they are ambush predators.

LIFESTAGES: Aside from size, these fish do not have a distinct change from hatching to adulthood.

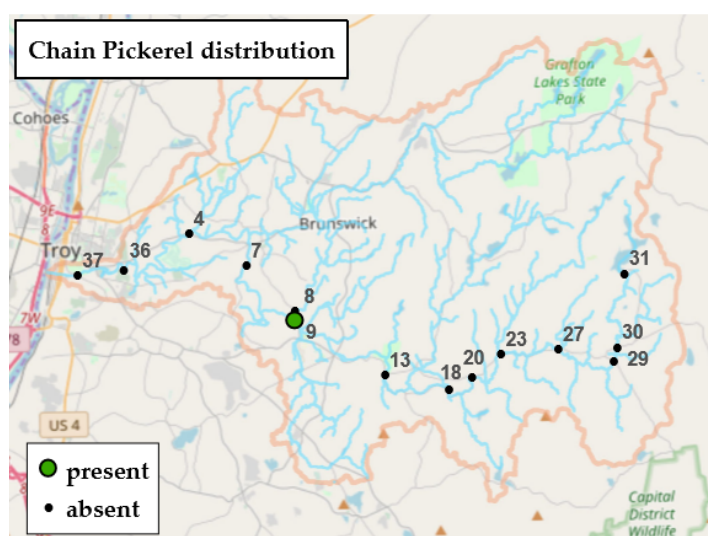
SPAWNING: Chain Pickerel spawn in early spring shortly after ice out, in marshy areas and shallow bays. The spawning window is short, only between 7-10 days. Females generally carry between 6,000-7,000 eggs, but as many as 50,000 have been reported. Males and females release reproductive materials into vegetation and then mix them up using vigorous tail undulations. The eggs will hatch in 6-12 days.

DIET: Larval pickerel will feed on plankton before switching to insects in their first summer. Around the age of one is when they switch to a fish diet.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



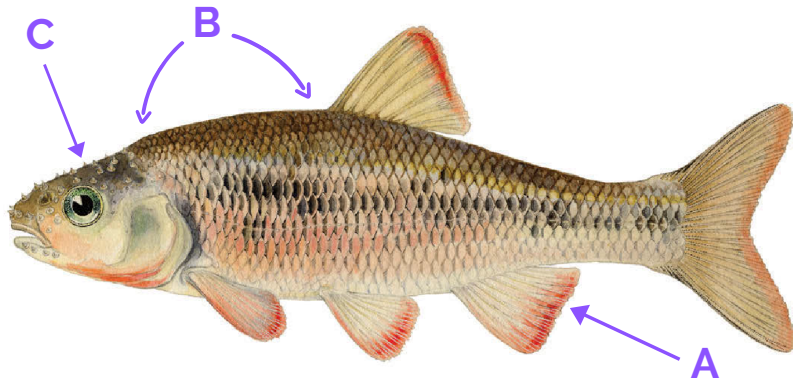
(1) Werner, Robert. 2004. Freshwater Fishes of the Northeastern United States. Syracuse University Press. Pgs. 166.

(2) Shelburne, Jacob. 2017. *Esox niger*, Animal Diversity Web. Webpage. [Internet] 2017 [cited 11 October 2019]. Available from: https://animaldiversity.org/accounts/Esox_niger/

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. Atlas of Inland Fishes of New York. The New York State Education Department. Pg. 228.



COMMON SHINER (*Luxilus cornutus*)



FAMILY: Cyprinidae (Minnows, Shiners, Dace, Chubs, Carp, Goldfish)

SIZE: Common Shiners may grow to 17.78-20.32 cm (7-8 in) in length.

LIFESPAN: These fish may live up to 5 years.

FIELD CHARACTERISTICS: These fish have 9 anal rays (the bones in the anal fin **(A)**). The scales in front of the dorsal (back) fin, look crowded and small and are not outlined in dark pigment **(B)**. Distinguishing these fish from the Striped Shiner (*Luxilus chrysocephalus*) can be done by noting the absence of V-shaped markings on the sides of their body. During the breeding season, these fish may develop red tinges to their fins, and the males may develop nuptial tubercles **(C)** (hard bumps in the facial area).

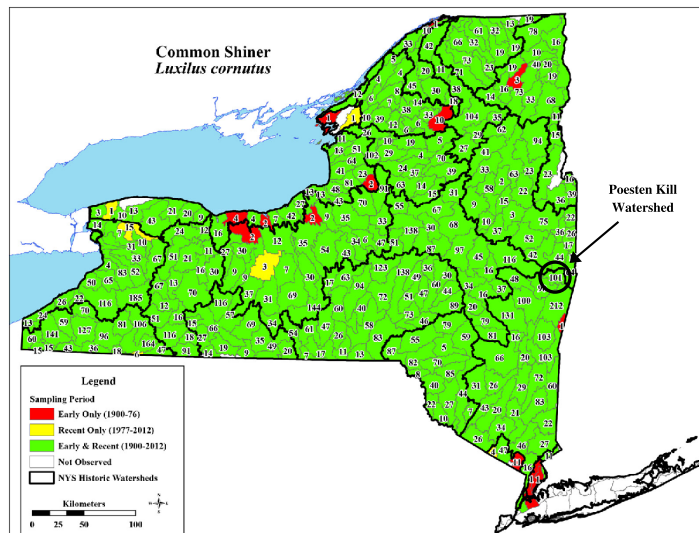
HABITAT: Common Shiners are mainly found in small to moderate sized streams with gravel bottoms.

LIFESTAGES: Aside from size, these fish do not have a distinct change from hatching to adulthood.

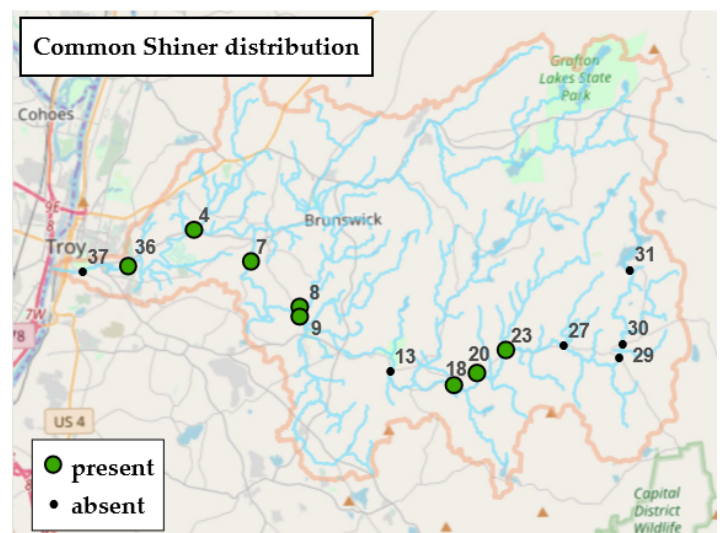
SPAWNING: Spawning generally occurs in May and June when water temperatures reach 15.56-18.33 C (60-65 F). Females generally carry around 1,000 eggs. Males create depressions in the gravel that may or may not attract a female. In the event the female is attracted, she will enter the nest and deposit around 50 eggs which the male will then fertilize. The fertilized eggs are adhesive and will attach to the substrate in the bottom of the nest. Because females carry a lot more eggs than they release in a given males nest, it is assumed that she will repeat the spawning process many more times. Diet: Common Shiners prefer to eat insects, algae, and aquatic plants.

DIET: Common Shiners prefer to eat insects, algae, and aquatic plants.

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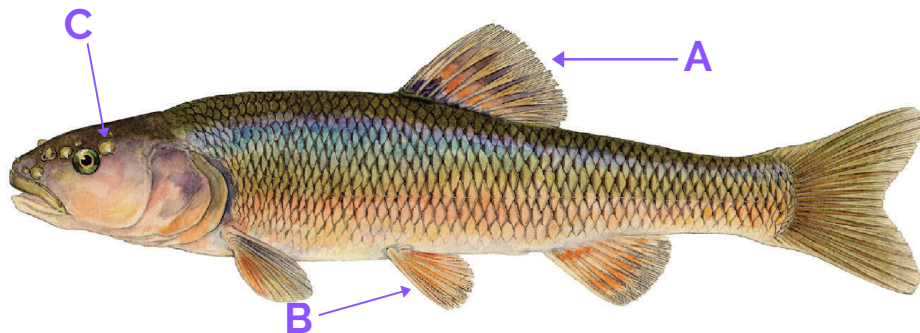


POESTEN KILL SPECIES DISTRIBUTION





CREEK CHUB (*Semotilus atromaculatus*)



FAMILY: Cyprinidae (Minnows, Shiners, Dace, Chubs, Carp, Goldfish)

SIZE: The average adult length is 10.16-15.24 cm (4-6 in), but some may reach 25.4 cm (10 in).

LIFESPAN: Individuals may live between 3-8 years with an average of 5 years. Sexual maturity is reached around 1-4 years of age.

FIELD CHARACTERISTICS: These fish have a large mouth as well as a large dorsal (A)(back) fin that originates (positioning of the first ray of the fin) before the pelvic fin (B). It is not uncommon to observe a dark band that extends from the tail to the tip of the snout. Further differentiating this fish from the Fallfish (*Semotilus corporalis*) can be done by observing the black spot at the front of the Creek Chubs dorsal fin. During the breeding season, the males may develop large nuptial tubercles-hard bumps (C).

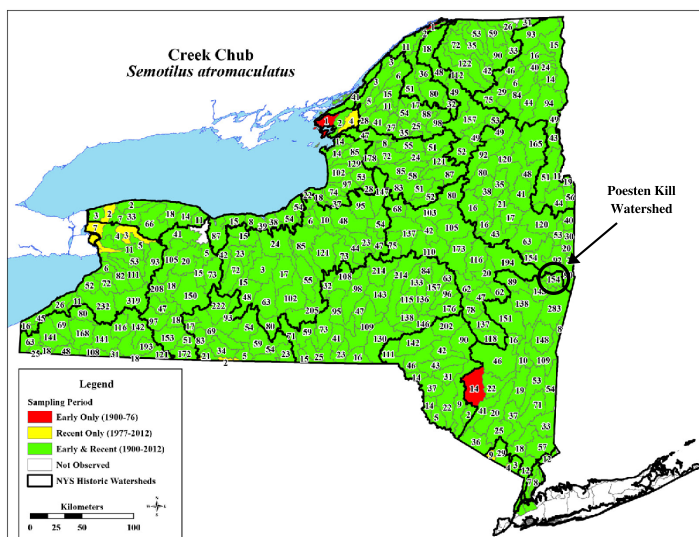
HABITAT: This species is common in headwater creeks, and small streams with gravel bottoms.

LIFESTAGES: Aside from size, these fish do not have a distinct change from hatching to adulthood.

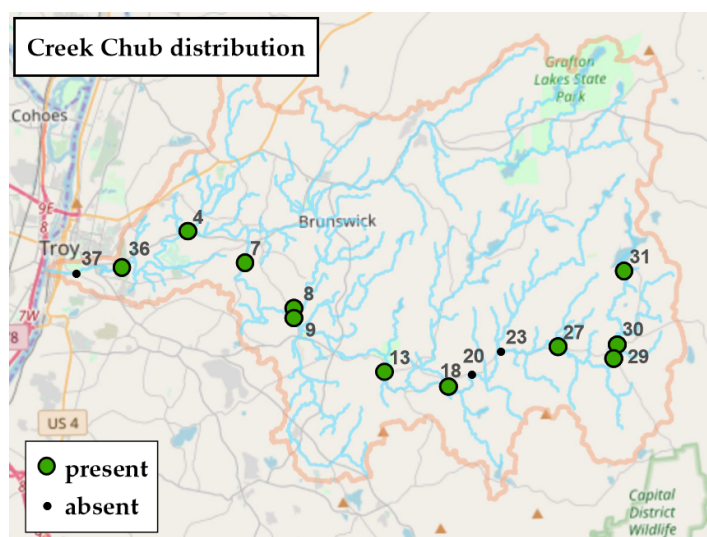
SPAWNING: Creek Chub spawn in the spring. Males undertake a fascinating excavating project by transporting gravel upstream. During this process, the male creates a pit extending downstream and a large gravel mound upstream. If a female is attracted to the male's gravel mound display, she will join him in the pit. Swimming side by side, the male will flip the female vertically with his pectoral fin, wrap himself around her, and release sperm while she releases her eggs. After this 2-3 second event, the female will drift downstream appearing dead, and the male will cover the fertilized eggs with gravel from his mound. Once she has recovered, she will continue to visit this male or other nests and repeat the process. An average female will deposit around 3,000-4,000 eggs during a spawning season.

DIET: Creek Chub are termed "opportunistic omnivores" and will eat insects, small fish, and a lot of plant material.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



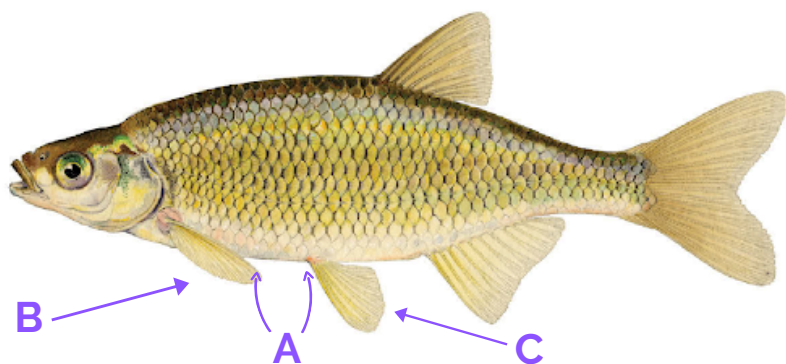
(1) Anderson, Zane. 2014. *Semotilus atromaculatus*. Animal Diversity Web. Webpage. [Internet] 2014 [cited 14 October 2019]. Available from: https://animaldiversity.org/accounts/Semotilus_atromaculatus/.

(2) Werner, Robert. 2004. *Freshwater Fishes of the Northeastern United States*. Syracuse University Press. Pgs. 131-132.

Photo/Map Credit: Carlson, Douglas, Daniels, Robert, Wright, Jeremy. 2016. *Atlas of Inland Fishes of New York*. The New York State Education Department. Pg. 128.



GOLDEN SHINER (*Notemigonus crysoleucas*)



FAMILY: Cyprinidae (Minnows, Shiners, Dace, Chubs, Carp, Goldfish)

SIZE: Golden Shiners may reach up to 25.4 cm (10 in) in length.

LIFESPAN: These fish may live to 8-9 years old. On average, males and females will reach sexual maturity around 1 year of age.

FIELD CHARACTERISTICS: These are a **deep-bodied fish**, meaning that the distance from the highest point of the back to the lowest point of the belly is comparatively long. These fish have a **fleshy keel (A)**, defined as a section where the body turns inward that is located along the underside of the fish between the pectoral (B) and pelvic fins (C). They also have 10-15 anal (bones in the anal fin) rays. The adults generally have a distinct golden coloration while juveniles are green in color.

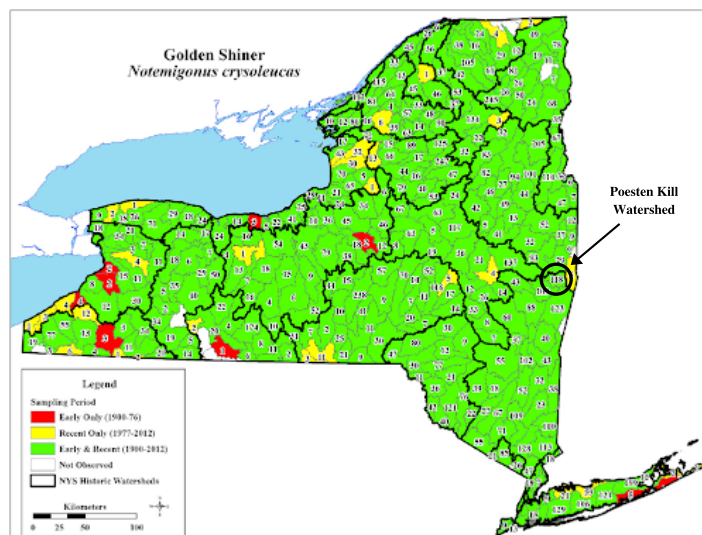
HABITAT: Golden Shiners may be found in lakes, ponds, swamps, creeks, and rivers. They generally prefer weedy, vegetated areas with stagnant water. Due to this fact, creek or stream dwelling individuals will mainly be found in pool sections of a reach.

LIFESTAGES: Aside from coloration and size, these fish do not have a distinct change from hatching to adulthood.

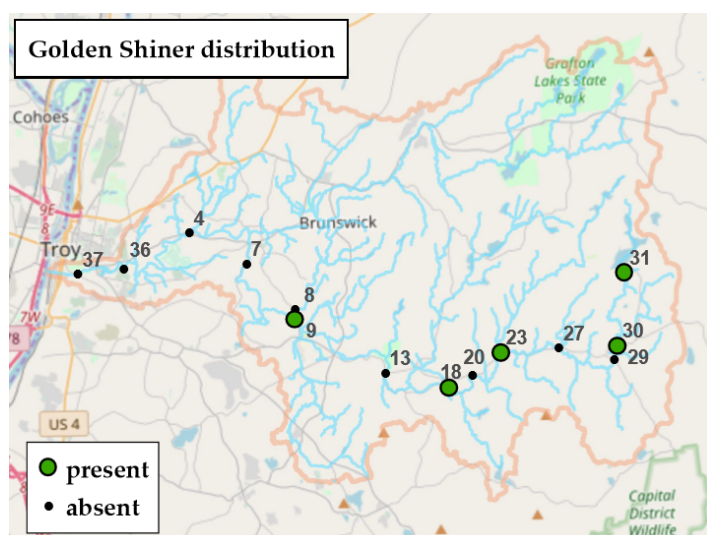
SPAWNING: Golden Shiners breed from May to August in ponds or lakes. These fish are "broadcast spawners", meaning that they release reproductive materials over a given area without building a nest. In the case of this species, eggs and sperm are broadcasted over plots of vegetation. The eggs have an adhesive quality allowing them to stick to the vegetation. The eggs will hatch in 4-7 days.

DIET: Golden Shiners diet primarily consists of zooplankton, phytoplankton, and small insects.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



(1) Sims, Joshua. 2006. *Notemigonus crysoleucas*, Animal Diversity Web. Webpage. [Internet] 2006 [cited 14 October 2019]. Available from: http://www.biokids.umich.edu/critters/Notemigonus_crysoleucas/.

(2) Werner, Robert. 2004. *Freshwater Fishes of the Northeastern United States*. Syracuse University Press. Pgs. 109-110.



LARGEMOUTH BASS (*Micropterus salmoides*)



FAMILY: Centrarchidae (Sunfish)

SIZE: Adults may reach 30-97 cm (11.81-38.19 in) in length with an average of 45 cm (17.72 in). They may weigh 0.45-10.1 kg (0.99-22.25 lb) with an average of 1.36 kg (3 lb).

LIFESPAN: Individuals may live up to 15 years old.

FIELD CHARACTERISTICS: As the name suggests, these fish have **large mouths**, with the maxilla (jawbone) reaching behind the orbit of the eye. These fish have a **dark horizontal band** running along their body and a **deep notch between their dorsal (back) fins**.

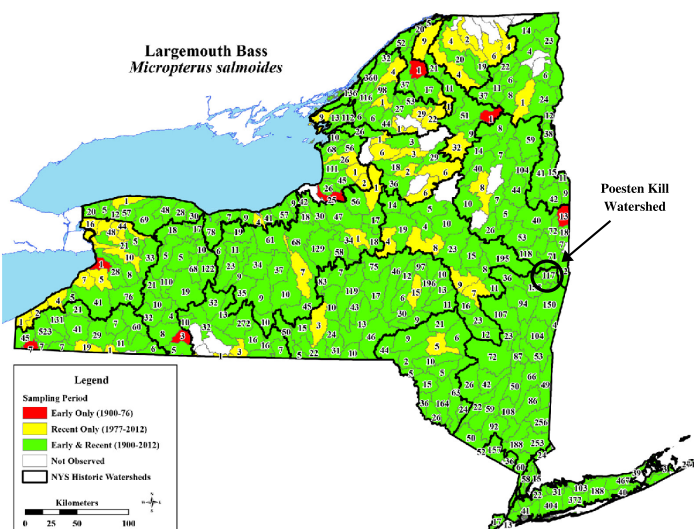
HABITAT: These fish are mainly found in lakes and rivers among weedy, vegetated areas with soft, shallow substrate.

LIFESTAGES: Aside from size, these fish do not have a distinct change from hatching to adulthood.

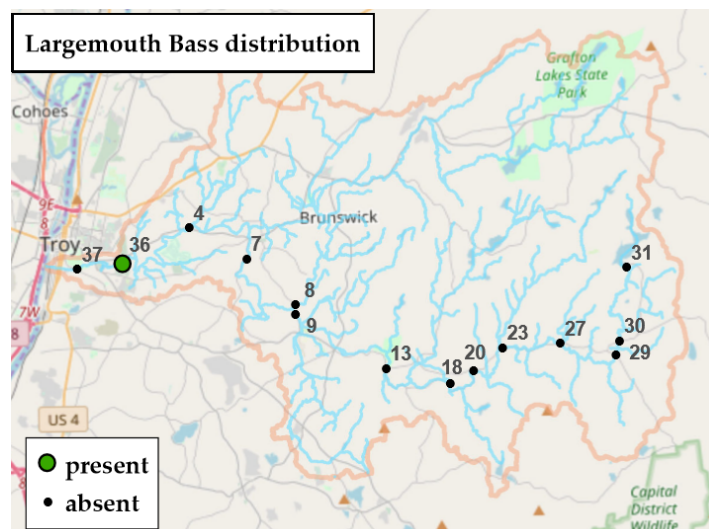
SPAWNING: Largemouth Bass spawn from late spring to early summer in shallow, weedy habitat. Males construct nests in hopes of attracting a female. If a female is attracted, she will release eggs into the nest while the male releases sperm. She may carry up 60,000 eggs. The eggs will hatch in 3-5 days, and the young will be strong enough to swim well in about one week. During this time, the male will constantly be on guard. He will continue to protect the babies for another month when they leave nest.

DIET: Hatchlings begin feeding on microscopic crustaceans and then make their way to small insects. As the individual grows, they will switch to frogs, fish, worms, and crayfish.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



(1) Steed, Emily. 2018. *Micropterus salmoides*. Animal Diversity Web. Webpage. [Internet] 2018 [cited 14 October 2019]. Available from: https://animaldiversity.org/accounts/Micropterus_salmoides/.

(2) Werner, Robert. 2004. *Freshwater Fishes of the Northeastern United States*. Syracuse University Press. Pgs. 242-243.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. *Atlas of Inland Fishes of New York*. The New York State Education Department. Pg. 285.



LONGNOSE DACE (*Rhinichthys cataractae*)



FAMILY: Cyprinidae (Minnows, Shiners, Dace, Chubs, Carp, Goldfish)

SIZE: Adults may reach 60-225 mm (2.36-8.86 in)

LIFESPAN: Longnose Dace may live to 3-5 years old with an average of 3 years. Sexual maturity is reached at 1-2 years old.

FIELD CHARACTERISTICS: Longnose Dace are said to **look like miniature sharks**. They are very similar looking to Blacknose Dace, but they have a much longer snout and do not have a distinct black, horizontal line on their bodies.

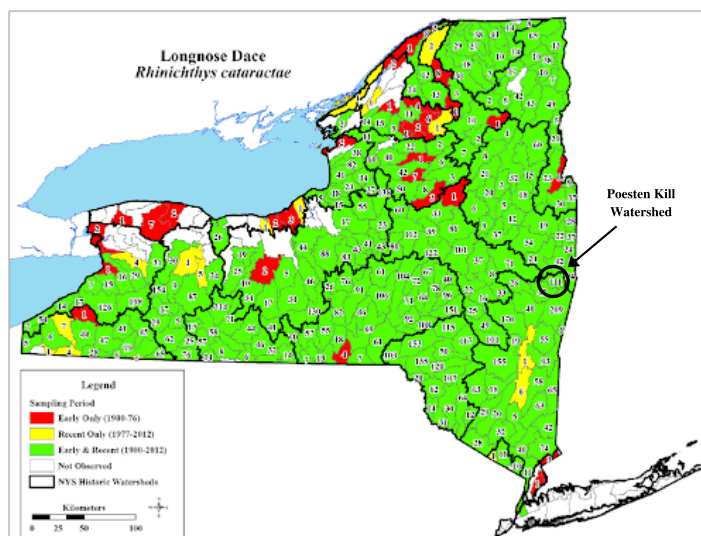
HABITAT: These fish will mainly be found in the fast-flowing, cold waters of the riffle habitats of streams. They generally prefer areas with rocky or gravel substrate.

LIFESTAGES: Besides size, these fish do not have a distinct change from hatching to adulthood.

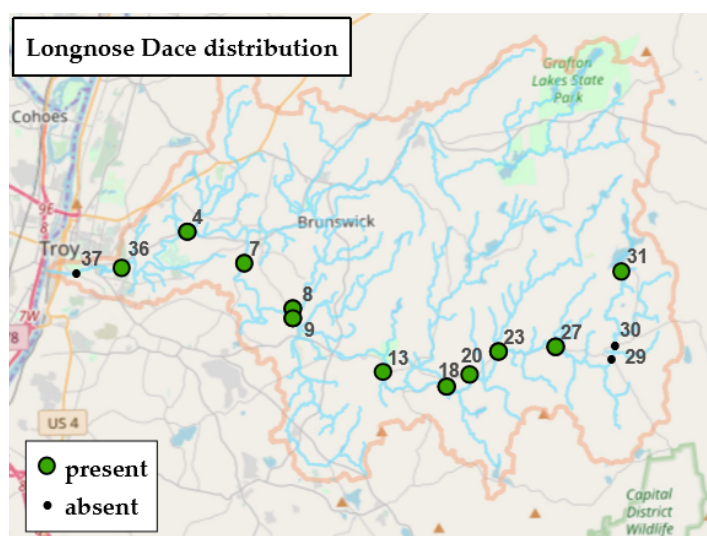
SPAWNING: Longnose Dace spawn between May and July. Males construct small nests in the gravelly substrate. Females will carry around 1,155-2,534 eggs. After both parents release their reproductive materials, little parental care is given to the eggs and young. The eggs will hatch 3-4 days after spawning.

DIET: Longnose Dace feed on a variety of food including fish, fish eggs, insects, zooplankton, algae, and phytoplankton.

NEW YORK STATE SPECIES DISTRIBUTION

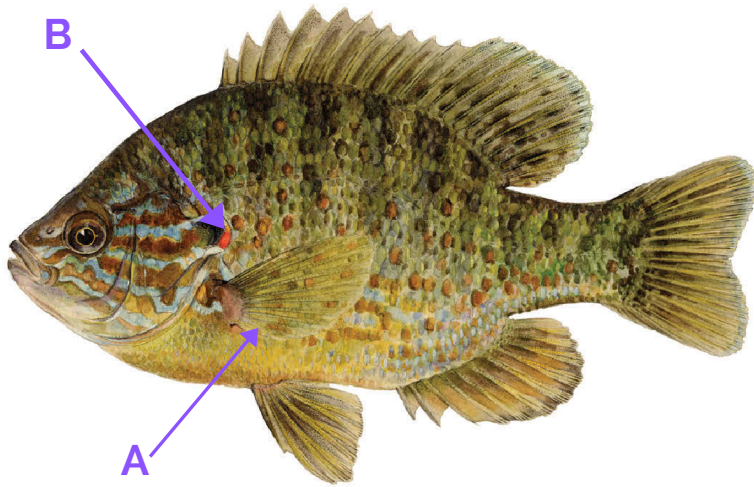


POESTEN KILL SPECIES DISTRIBUTION





PUMPKINSEED (*Lepomis gibbosus*)



FAMILY: Centrarchidae (Sunfish)

SIZE: Adults may max out around 25.4 cm (10 in) in length and 0.227 kg (0.5 lbs) in mass.

LIFESPAN: These fish may live up to 8-9 years.

FIELD CHARACTERISTICS: Common characteristics of this species are long, pointed pectoral fins (A), a red spot (B) on the opercular (gill) flap, and "lightning-streak" turquoise bands on their face. These fish generally have a sandy, yellow coloration to their body.

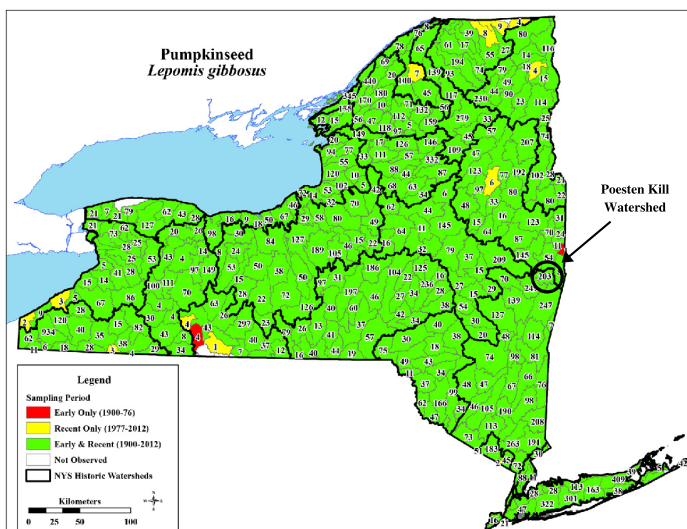
HABITAT: These fish are generally found in lakes and ponds but can be found in streams and rivers. In either scenario, lotic (stream/river) or lentic (Lake), these fish prefer vegetative or brushy cover.

LIFESTAGES: Aside from size, these fish do not have a distinct change from hatching to adulthood.

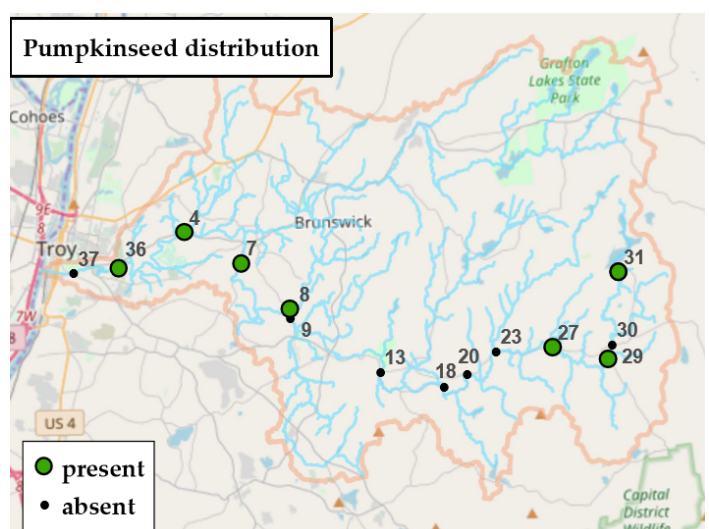
SPAWNING: Adults begin spawning in early summer. Males create small nests. Females will generally carry between 1,500-3,000 eggs. If a female is attracted to a male's nest, she will join him and begin a circular swimming courtship which results in both parents releasing reproductive materials into the bottom of the nest. The adhesive eggs become attached to the substrate of the nest. The males are the primary protectors of the eggs and hatchlings, guarding the young until they are ready to leave the nest. In particular, Pumpkinseed males are considered to be very aggressive defenders of their young.

DIET: These fish will feed on insects, small invertebrates, mollusks, and small fish.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION

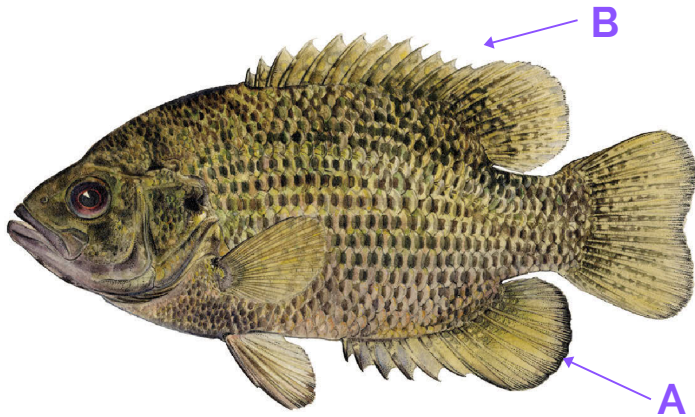


(1) Werner, Robert. 2004. Freshwater Fishes of the Northeastern United States. Syracuse University Press. Pgs. 236-237.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. Atlas of Inland Fishes of New York. The New York State Education Department. Pg. 276.



ROCK BASS (*Ambloplites rupestris*)



FAMILY: Centrarchidae (Sunfish)

SIZE: The average Rock Bass will measure 20-25 cm (7.87-9.84 in) in length. These fish may weigh a maximum of 3 kg (6.61 lbs), but the average is around 0.454 kg (1 lb).

LIFESPAN: An average Rock Bass will live between 5-8 years. The maximum recorded age was around 18 years. Both males and females will become reproductively mature around 2-3 years old.

FIELD CHARACTERISTICS: These fish have around 5-7 anal spines (the bones making up the anal fin (A)). To distinguish these fish from crappies, another species of sunfish with this trait, one can observe that the Rock Bass has an anal fin base length smaller than their dorsal (back) fin (B) base length where as the crappies are almost equivalent. Another distinguishing feature is the series of 8-10 lines of black spots below the lateral line. Above the lateral line (Sensory line running the length of the body), the body has a mottling of dark and irregular blotches.

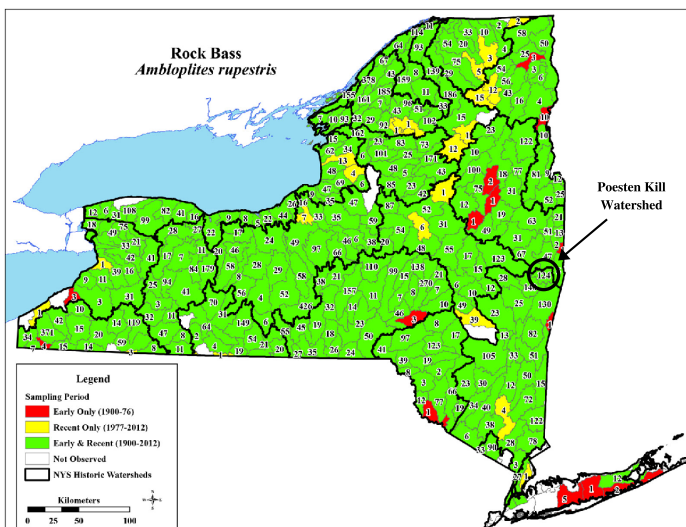
HABITAT: These fish may be found in lakes, ponds, streams, and rivers. They generally prefer vegetated areas with rocky or sandy substrate.

LIFESTAGES: Aside from size, these fish do not have a distinct change from hatching to adulthood.

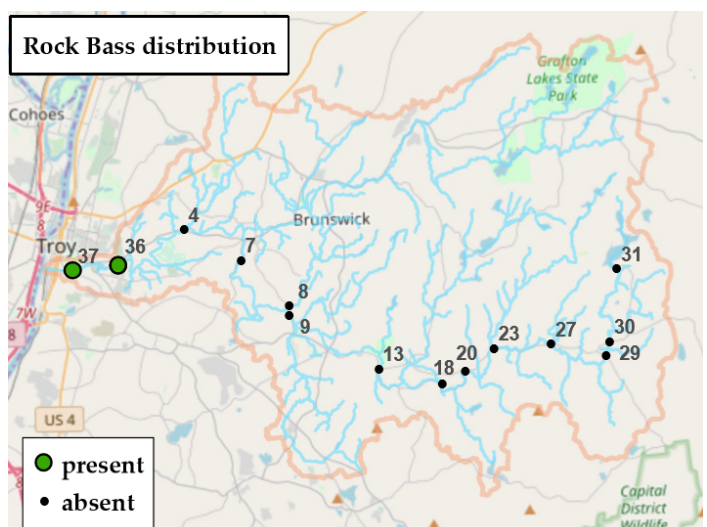
SPAWNING: These fish are early summer spawners. Males create nests. Females will generally carry around 5,000 eggs. Females may visit and reproduce with more than one male, and males may be visited and reproduce with more than one female. Males are aggressive defenders of their eggs, which hatch between 3-4 days after spawning. He continues to guard his young until they are ready to leave the nest.

DIET: Rock Bass feed on insects, crayfish, mollusks, and small fish.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



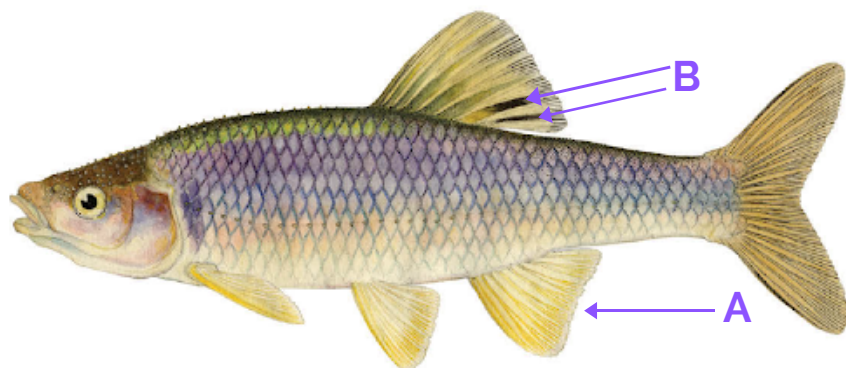
(1) Schnell, Brendan. 2014. *Ambloplites rupestris*, Animal Diversity Web. Webpage. [Internet] 2014 [cited 15 October 2019]. Available from: https://animaldiversity.org/accounts/Ambloplites_rupestris/.

(2) Werner, Robert. 2004. *Freshwater Fishes of the Northeastern United States*. Syracuse University Press. Pgs. 231-232.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. *Atlas of Inland Fishes of New York*. The New York State Education Department. Pg. 267.



SPOTFIN SHINER (*Cyprinella spiloptera*)



FAMILY: Cyprinidae (Minnows, Shiners, Dace, Chubs, Carp, Goldfish)

SIZE: Adults may reach 7.62-10.16 cm (3-4 in) in length.

LIFESPAN: These fish may live up to 4 years.

FIELD CHARACTERISTICS: These fish are described to be the only shiner species to have 8 anal rays (bones making up the anal fin **(A)**). Also, these fish have a **deep-body** (the distance from the highest point of the back to the lowest point of the belly is long compared to other species) and **dark pigmentation (B) on the fin membranes** (soft tissue of the fin) **between the last three dorsal (back) fin rays** (bones making up the dorsal fin).

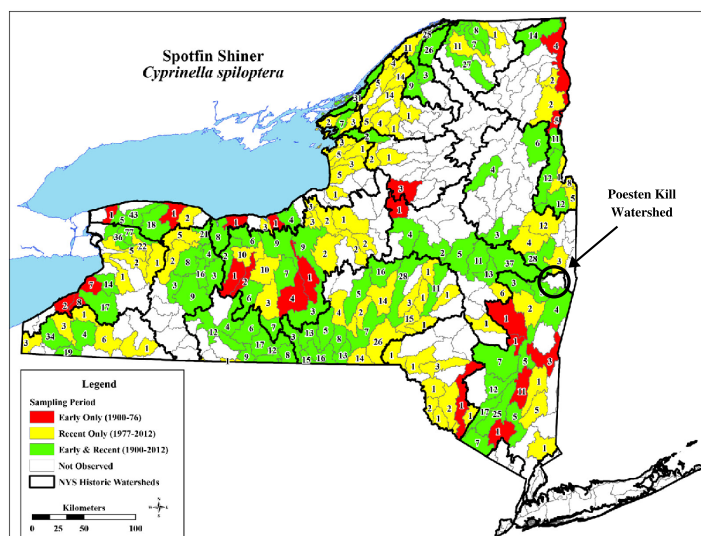
HABITAT: These fish generally inhabit creeks and lakes. It has been documented that this species can tolerate silty and turbid water conditions.

LIFESTAGES: Besides size, these fish do not have a distinct change from hatching to adulthood.

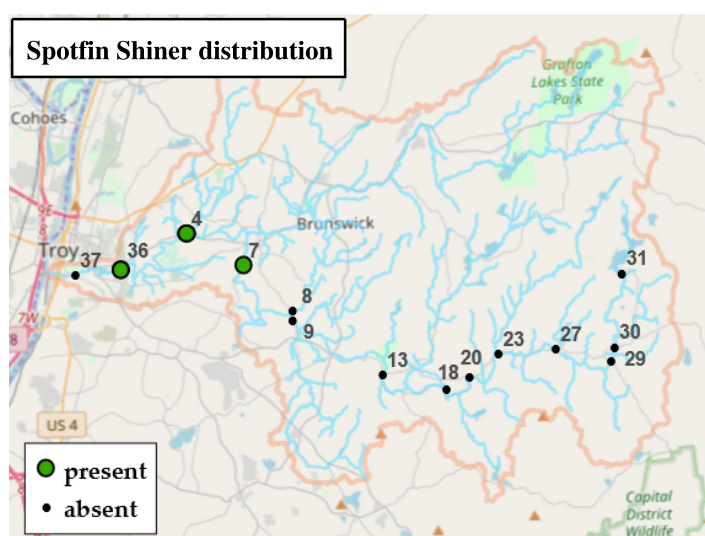
SPAWNING: Spotfin Shiners are fractional spawners, meaning that they will reproduce in day long intervals over a given spawning season. For this species, spawning is carried out over the summer months. Adults will use the crevices of rocks and logs to lay their eggs and spread their sperm. In general, adults will do this in 5-day intervals over the summer.

DIET: This species generally eats insects.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



(1) Werner, Robert. 2004. Freshwater Fishes of the Northeastern United States. Syracuse University Press. Pg. 95.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. Atlas of Inland Fishes of New York. The New York State Education Department. Pg. 57.



TESSELATED DARTER (*Estheostoma olmstedii*)



FAMILY: Percidae (Perch, Darters)

SIZE: Adults may reach up to 6.35 cm (2.5 in) in length.

LIFESPAN: These fish may live 3-4 years.

FIELD CHARACTERISTICS: These fish have 9-11 X, W, M, or V shaped markings along their bodies. They also have around 12-14 rays (bones in the fin) in their soft (second) dorsal fin (A). Distinguishing these fish from the Johnny Darter can be done by counting the rays in the soft dorsal fin. Johnny's only have 10-12. Tessellated Darters will commonly have a black "tear-drop" marking under both eyes.

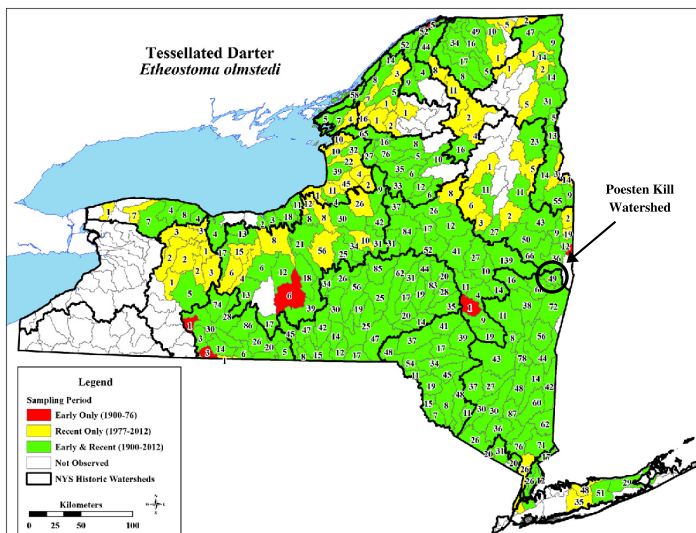
HABITAT: These fish are mainly found in the fast-flowing riffle habitats of streams. If they are found in lentic (lake) environments it will mainly be near the mouth and along the shores having silty or gravelly substrate.

LIFESTAGES: Besides size, these fish do not have a distinct change from hatching to adulthood.

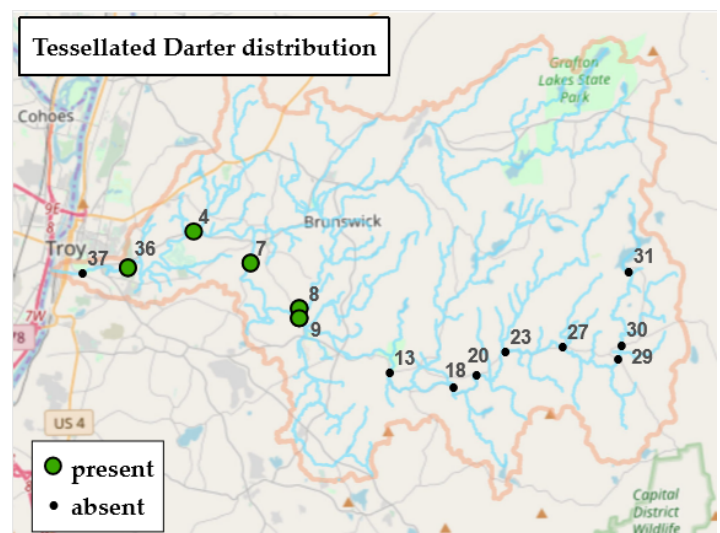
SPAWNING: Adults will reproduce any time from late April to May. Males will establish territories with rocky substrate that they defend vigorously. If a female is attracted, she will enter his territory and lay her eggs (usually 30-200) on the underside of a rock. The male will fertilize them right after. He will continue to guard the eggs and even fan them to keep water circulating over them. The eggs will hatch in 5-8 days.

DIET: These fish will generally feed on microscopic crustaceans, small insects, and organic benthic (bottom) debris.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION

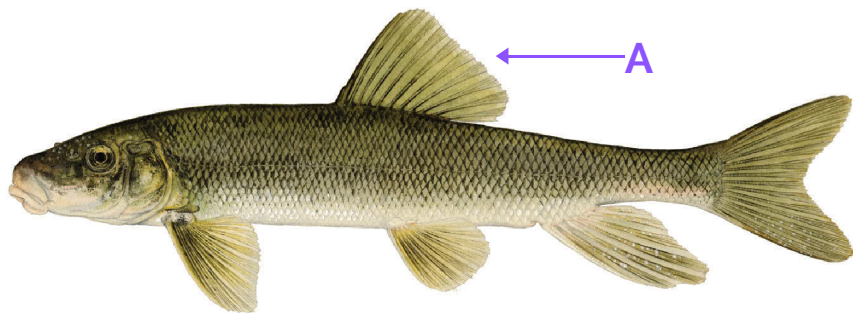


(1) Werner, Robert. 2004. Freshwater Fishes of the Northeastern United States. Syracuse University Press. Pg. 260-261.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. Atlas of Inland Fishes of New York. The New York State Education Department. Pg. 306.



WHITE SUCKER (*Catostomus commersoni*)



FAMILY: Catostomidae (Suckers, Redhorses)

SIZE: Adults may reach 45.72-50.8 cm (18-20 in) in length, but the average is around 24.1 cm (9.49 in). They may also reach 1.36-1.81 kg (3-4 lbs) in mass with an average of 0.4 kg (0.88 lb) and a maximum of 2.5 kg (5.51 lb).

LIFESPAN: These fish may live up to 10 years, but certain dwarf varieties can reach up to 18 years. Both males and females will become sexually mature around 3-8 years old.

FIELD CHARACTERISTICS: These fish have a short, blunt snout and 10-13 rays (bones of the fin) in their dorsal fin (A).

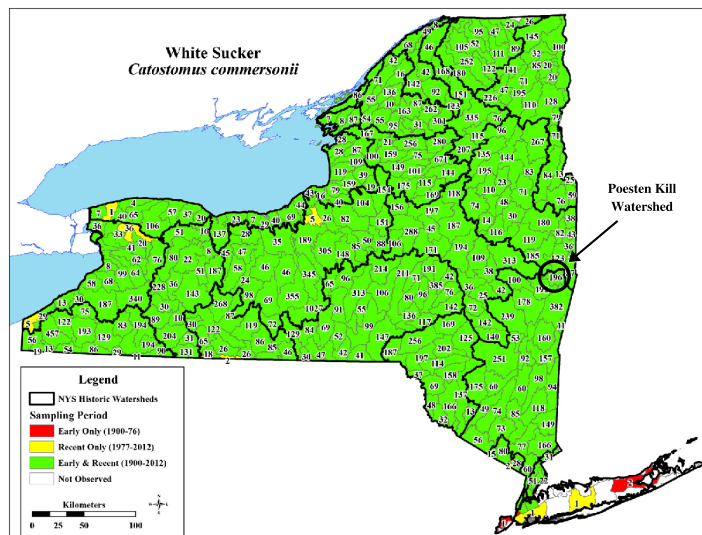
HABITAT: White Suckers may be found in creeks, streams, or lakes. Generally, these fish prefer cold, clear rivers that are small to medium in size. However, these fish are tolerant of polluted waters that may be murky and anoxic (Having very low dissolved oxygen concentrations).

LIFESTAGES: Besides size, these fish do not have a distinct change from hatching to adulthood.

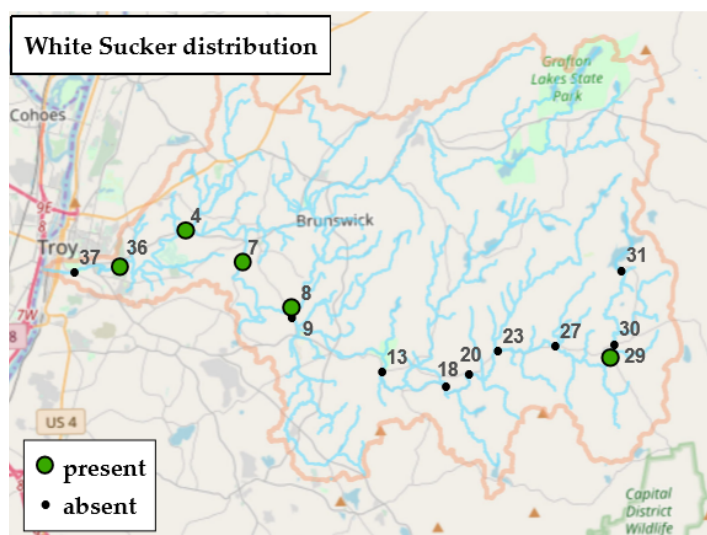
SPAWNING: White Suckers spawn between April and May. The preferred locations are upstream sections with gravel and good current, but some have been reported to spawn in pools and lakes. Males will generally develop nuptial tubercles (small bumps) on their anal and tail fins, and females have been reported to develop them at times as well. Females will generally carry between 20,000-50,000 eggs with a maximum being 140,000. The males and females will broadcast their reproductive materials over the substrate. The eggs are adhesive and will attach to the substrate after fertilization. The eggs will hatch in 5-10 days, and the hatchlings will receive no parental care.

DIET: Hatchlings, or "sac-fry" will obtain nutrients from their yolk sac until it is depleted. Once finished with their yolk sac, the fry will move downstream and feed on microcrustaceans, rotifers and algae. Adults will generally eat insects, crustaceans, snails, and clams.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



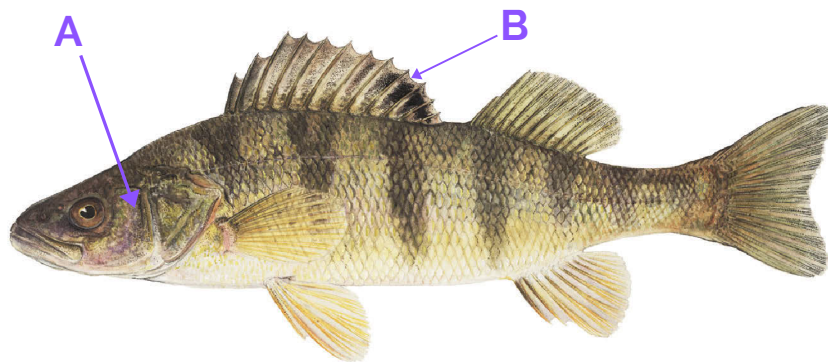
(1) Hernandez, Aldo. 2014. *Catostomus commersonii*. Animal Diversity Web. Webpage. [Internet] 2014 [cited 15 October 2019]. Available from: https://animaldiversity.org/accounts/Catostomus_commersonii/.

(2) Werner, Robert. 2004. *Freshwater Fishes of the Northeastern United States*. Syracuse University Press. Pg. 142

Photo/Map Credit: Carlson, Douglas, Daniels, Robert, Wright, Jeremy. 2016. *Atlas of Inland Fishes of New York*. The New York State Education Department. Pg. 138



YELLOW PERCH (*Perca flavescens*)



FAMILY: Percidae (Perch, Darters)

SIZE: Adults may reach 25.4-27.94 cm (10-11 in) in length and average 1.06 kg (2.34 lbs) in mass.

LIFESPAN: Yellow Perch may live up to 8-9 years. Sexual maturity is reached around 3-4 years.

FIELD CHARACTERISTICS: These fish are easily identified by the presence of **wide, vertical, olive bands on a yellow body background**. They also have a serrated preoperculum (A) (edge at the front of the gill flap) and a dusky black print (B) at the back of their spiny (first) dorsal fin.

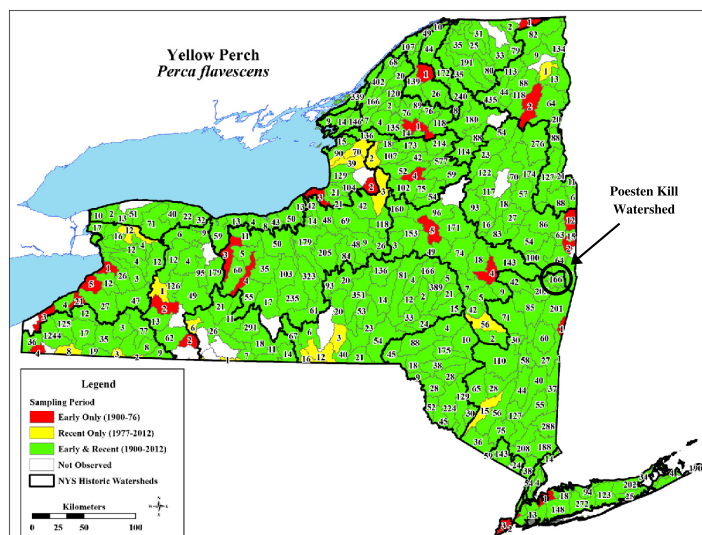
HABITAT: Yellow Perch are a primarily lentic (lake) dwelling species. They prefer water low in turbidity (cloudiness) and silt but can handle anoxic conditions.

LIFESTAGES: Besides size, these fish do not have a distinct change from hatching to adulthood.

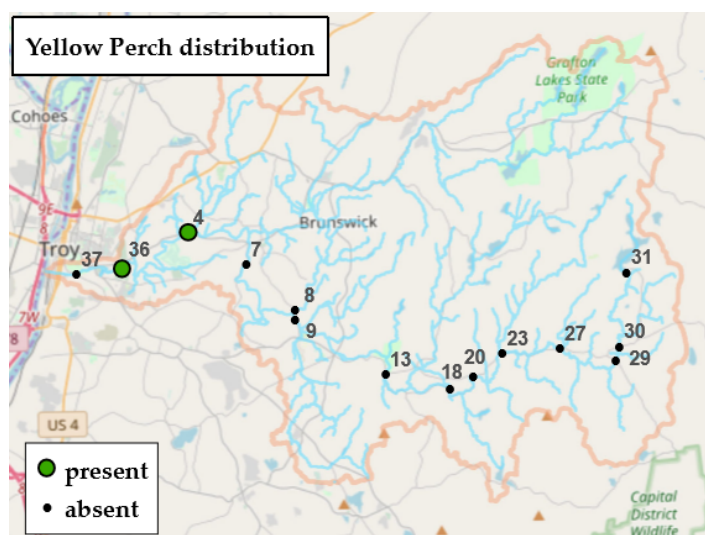
SPAWNING: Adults begin to spawn in early spring with water temperatures between 44-54 F. Spawning occurs in shallower water, sometimes in tributary streams. Females can carry anywhere from 3,000-100,000 eggs with an average of 20,000-30,000. The females will lead a train of males until she is ready to release a long gelatinous mass of eggs. The pursuing males will then release sperm to fertilize the eggs. The egg mass is semi buoyant in nature, allowing it to be suspended in the water column. The current moving through the mass allows for a constant flow of fresh water that keeps the eggs healthy and aerated. The eggs will hatch in 7-10 days and the young will not receive parental care.

DIET: Newborns feed on their yolk-sac until it is depleted. Once they have finished their yolk-sac, the fry will then begin feeding on zooplankton until they are large enough to start feeding on insects and crustaceans. They will continue this diet until the end of their first year. As adults, Perch will continue eating insects but also start on crayfish and small fishes.

NEW YORK STATE SPECIES DISTRIBUTION



POESTEN KILL SPECIES DISTRIBUTION



(1) Creque, Sara. 2000. *Perca flavescens*. Animal Diversity Web. Webpage. [Internet] 2000 [cited 15 October 2019]. Available from: https://animaldiversity.org/accounts/Perca_flavescens/.
(2) Werner, Robert. 2004. Freshwater Fishes of the Northeastern United States. Syracuse University Press. Pg. 1263-264.

Photo/Map Credit: Carlson, Douglas. Daniels, Robert. Wright, Jeremy. 2016. Atlas of Inland Fishes of New York. The New York State Education Department. Pg. 310



FISH FACT SHEET GLOSSARY

FAMILY: A taxonomic family is a grouping of organisms that share similar characteristics. These characteristics are ones that can easily distinguish species of a family from those of another family.

SIZE: Fish size classifications generally refer to their body lengths, from the tips of their snouts to the tips of their tails, and body mass, or how much they weigh. For the sake of simplicity, these are the measurements OEI reported in the following fact sheets. More advanced studies of fish anatomy by ichthyologists and anatomists may study specific "morphometric" traits which are measurements relating to various parts of the fish's body that grow in length, width, depth, or mass.

LIFESPAN: This is the amount of time that a given individual of a particular species will live. This time is generally represented as an average for a given species, but there are constant cases of unique individuals living well beyond the average.

FIELD CHARACTERISTICS: These are the traits that a species has that helps biologists in differentiating the many species they will observe while sampling. These are generally traits that are not difficult to observe in the field and will yield a high degree of accuracy in identifying a species. These traits vary from things like color, anatomical features (e.g., number of fin rays, ratio of eye to head size, etc.), and size. In general, anatomical features tend to be more reliable than color and size due to their lack of variability. For example, a given species may vary widely in the color template that an individual can have, but certain structures that are coded for by their DNA will take many thousands of years to vary widely enough to confuse individual-to-individual in a species.

HABITAT: These are the particular areas where a species can be found. For a given species, these areas will generally consist of similar components that the species prefers for their survival and reproduction. There may even be fish species that occupy drastically different habitats at different points in their life history. These are generally the species that migrate vast distances to reproduce. Simple observations of a fish species habitat can be things like the depth of water they are found in, how much vegetation is present, and what type of substrate they use for building nests.

LIFESTAGES: These are the distinct points of development for a species. Unlike most mammal species (humans for example), fish can vary greatly in how a baby will look in comparison to when they are adults. Different life stages are where a biologist can observe the greatest variation in things like where a species will live, what they will look like, what they eat, and how they behave.

SPAWNING: Spawning is term used for fish reproduction. A general trend in fish spawning consists of a mating pair building a nest by creating depressions in the substrate, which can be soft sediment or coarse stone. Females will deposit eggs into the nest over which males release dense mixtures of sperm to fertilize the eggs. The fertilized eggs undergo an incubation period until hatching. The hatchlings are generally termed as "fry". The fry will grow into "young-of-the-year" in their first year of life. The timing of fish reproduction generally occurs in the spring or fall.

DIET: This is what the animal eats.

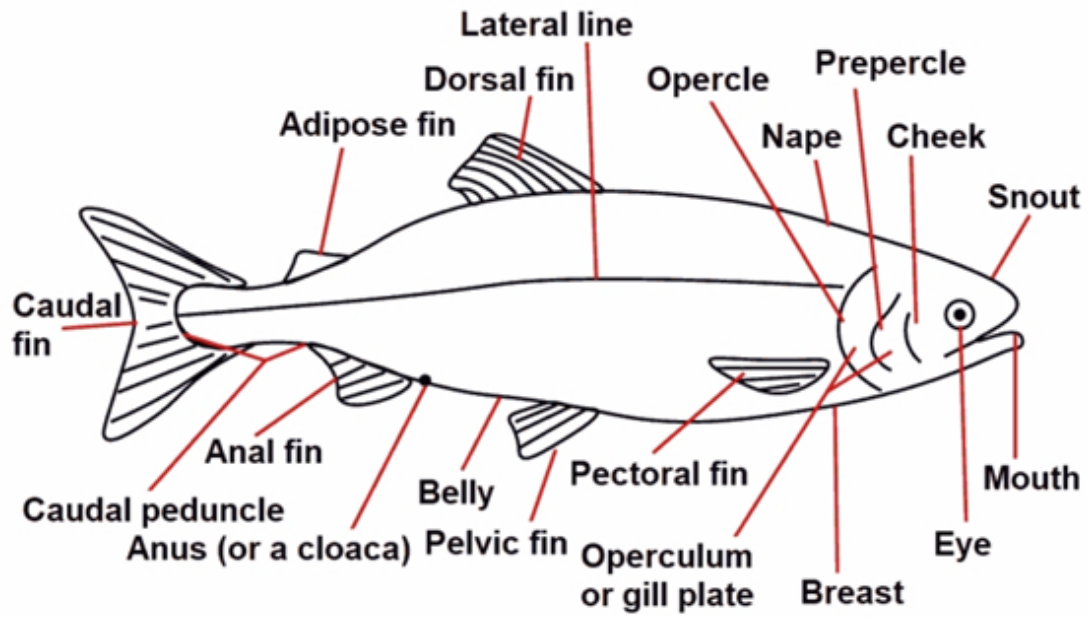


Figure 1. Generalized anatomy of bony fishes. (Image obtained from: https://www.pngtube.com/viewm/ijjmmwx_pull-fish-out-of-water/)