

Lepomis cyanellus – Green Sunfish (**Invasive**)

What is it?

Green Sunfish are members of the sunfish or Centrarchidae family, just like their naturalized and native relatives, the largemouth bass, smallmouth bass, bluegill sunfish, redbreast sunfish, pumpkinseed sunfish, and others. They are often not a targeted species for anglers in New Jersey.



Green Sunfish have a larger mouth than the Upper Raritan's native pumpkinseed and redbreast sunfish. This makes them a more voracious predator and able to consume a wider variety of prey items. This can lead to them outcompeting native species and causing a decline, and potential eventual extirpation of a species. They can also compete with naturalized but non-native species like bluegill sunfish.

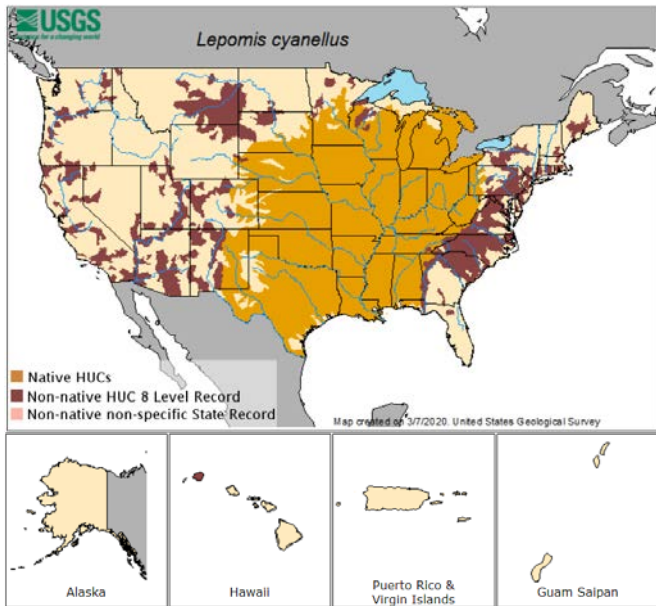


Where is it from?

The native range of this species is comprised of much of the central US east of the Rocky Mountains, including the great lakes and the Mississippi River basin.

Where is it now?

Green sunfish are exceptionally tolerant of a wide variety of ecological conditions, meaning that it has potential to invade much of the continental US. This means that this species can be found in water with a variety of temperature, pH, velocity, and depth regimes. Green sunfish can also tolerate poor quality water. This species can now be found as far west as California and is abundant in much of the Northeast. See the USGS map below.



When does it spawn?



Green sunfish spawn in the summer when water temperatures reach about 68°-82°F. Spawning time is dependent more on water temperature than on time of the year. The males construct round gravel nests in shallow water and guard the nest until all young have dispersed.

Why is it invasive?

The main advantage that the green sunfish has over other fishes is its large mouth and ability to consume a wide variety of prey. Green sunfish will prey on the young of other fish species and quickly grow in numbers, while limiting the populations or stunting the growth of other fish species. They are also thought to be responsible for declines in frog and salamander populations.

Who is it harming?



Native Pumpkinseed Sunfish (*Lepomis gibbosus*)

Green sunfish can outcompete a variety of native fishes due to their large mouth and predatory behavior. Native fishes, particularly either prey species or those filling the same niche, have the potential to be harmed by this species. Impacts to native sunfish species are likely the biggest concern.



Native Redbreast Sunfish (*Lepomis auritus*)

Who is its look-alike?

Pumpkinseed Sunfish



Green Sunfish



Especially as juveniles, many sunfish species can look very similar. These species are also able to hybridize with other sunfish species. The biggest indicator that you have a green sunfish is that the maxilla (jaw) extends to nearly the middle of the eye.

How to control it

Unfortunately, in aquatic systems, particularly open or connected systems like rivers or streams, controlling invasive fish can be difficult if not impossible. Many times, these fish are able to begin thriving before they are even reported to state officials. As an angler, when you catch a potentially dangerous invasive fish like a green sunfish, you have a responsibility and obligation to remove the fish from the waterbody and destroy it. You should report and, when possible, submit the specimen to the Bureau of Freshwater Fisheries for analysis.

Be a responsible angler and never move fishes from one waterbody to another! Do not release bait fish or other live bait into any waterbody.



For the information on New Jersey aquatic invasive species please visit:

https://www.state.nj.us/dep/fgw/aquatic_invasives.htm

How to report it

If you catch a green sunfish or other potentially dangerous invasive fish in New Jersey, please report the fish to the New Jersey Division of Fish and Wildlife Bureau of Freshwater Fisheries

Report invasive fish to NJDFW:

(908) 236-2118

For photo identification confirmation of a species email:

njfwfish@dep.nj.gov