

**Amanda Nguyen**

Bluegill\_LMF07

**Taxonomic Information:**

Kingdom: Animalia

Phylum: Chordata

Class: Actinopterygii

Order: Perciformes

Family: Centrarchidae

Genus: Lepomis

Species name: *Lepomis macrochirus*

The Shannon index value ( $H'$ ) for Little Mulberry Park where Bluegill\_LM07 was collected was 1.74. The value specifies the biodiversity of the park.



Morphological characteristics of the Bluegill fish, as pictured above, include a very deep and highly compressed body. They are “tall” and “flat” with a notably small mouth on a short head. Bluegills are a type of sunfish, and the bluegill has a continuous dorsal fin. The front of the dorsal fin is spiny and the back part of the dorsal fin is soft and round, with a dark coloration at the base. Mature bluegills are typically about 6 inches long, and body coloration may vary from blackish-blue, greenish-brown, yellowish-green, or deep green. There is often vertical banding on their bodies, and their cheeks may have dark purple or blue coloration.

Bluegills often establish themselves in rugged creeks, lagoons, marshes, lakes, reservoirs, and ponds, with a likeness towards relatively still waters. Bluegills consume many little creatures they can easily slide into their small mouths, such as caterpillars, worms, spiders, snails, larvae, crayfish, water insects, and crustaceans. Bluegills may sometimes feed on plants

## Amanda Nguyen

like algae and occasionally fellow fish and their eggs. Bluegill reproduction takes place during the end of spring and start of summer. Nests are established and protected by males, and nests are often in close proximity to other fellow bluegills. Males lure females into nests by guttural sounds, and once a female is within the nest, eggs and sperm are given off after massaging stomachs against one another.

### DNA Sequence:

#### LMF7\_CO1

```
ATCCGGGTGCTGATAGAGGATTGGGTCCCCGCCCCCGCTGGGTCAAAGAAAGTGGTGT  
TAGATTACGGTCTGTAAGTAGTATTGTGATGCCTGCAGCAAGGACTGGAAGGGAAAGCAG  
GAGTAAGACGGCAGTAATTAGGACTGATCAGACAAATAAAGGGGTCTGGTACTGGGAAAT  
AGCAGGGGGCTTCATGTTAATAATTGTGGTAATAAAATTAATAGCTCCCAGGATTGAAGA  
GACCCCTGCGAGATGCAGGGAGAAGATAGTAAGGTCGACTGATGCTCCTGCATGGGCTAG  
GTTACCAGCGAGAGGGGGGTAAACGGTTCATCCTGTGCCAGCCCCGGCTCAACCCCGGA  
GGAGGCGAGAAGAAGAAGGAAAGAGGGGGGAGAAGTCAAAGCTTATGTTATTTATTTCG  
GGGGAATGCTATATCGGGGGCTCCAATCATTAAATGGGACAAGTCAGTTGCCAAAGCCACC  
AATCATAATTGGTATTACTATAAAGAAAATTATTACGAATGCATGTGCTGTCACAATTAC  
GTTATAAATTTGGTCGTCGCCAGGAGAGCGCCTGGTTGGCTGAGCTCTGCTCGAATGAG  
TAGGCTTAGGGCCGTACCCACTATACCGGCTCATGCACCGAATACTAAATAAAGGGTGCC  
AATGTCTTTGTGGGGGGTTGACTGGCCGGGGGGTTTTACAATANN
```