**Burbot (Lota lota)**

**Habitat:**

- **feeding** - deep cold lakes and large cool rivers
  - mud, sand, rubble, boulder, silt, and gravel substrates

- **spawning** - in 1 to 4 feet of water in shallow bays or on shoals 5-10 feet deep usually in lakes, sometimes rivers
  - over sand or gravel substrate
  - under ice
Western banded killifish (*Fundulus diaphanus*)

**Habitat:**

- **feeding** - quiet backwaters at the mouths of streams and lakes
- - substrate of sand, gravel, and a few boulders
- - also found over detritus substrate where patches of submerged aquatic vegetation are present

- **spawning** - quiet areas of weedy pools
Brook stickleback (*Cluaea inconstans*)

**Habitat:**

- feeding - clear, cold, densely vegetated streams, and swampy margins of lakes
  - low gradient
  - muck, peat, or marl substrate
  - not tolerant of turbidity

- spawning - shallow cool (<66°F) water
  - aquatic reeds or grasses necessary
Mottled sculpin (*Cottus bairdi*)

**Habitat:**

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  - feeding - cool to cold streams
  - riffle and rock substrates preferred
  - clear to slightly turbid shallow water

- spawning - nests under logs or rock
**Slimy sculpin** (*Cottus cognatus*)

**Habitat:**
- feeding - cool lakes, impoundments, rivers, and streams
  - gravel or rock substrate
- spawning - nest in shallow areas of lakes
  - gravel substrate or rock ledge
  - male parental care
Rock bass (*Ambloplites rupestris*)

**Habitat:**
- **feeding** - clear, cool streams, rivers, and lakes
  - rocky to sand substrate
  - woody or vegetative cover
- **spawning** - sand or gravel nests
  - shallow water
- **winter refuge** - deep water
Green sunfish (*Lepomis cyanellus*)

**Habitat:**
- **feeding** - impoundments and lakes, and low-current streams and rivers
- **no substrate preference**
- **spawning** - nests in shallow areas sheltered by rocks, logs, or aquatic vegetation
Pumpkinseed sunfish (*Lepomis gibbosus*)

**Habitat:**

- feeding - non-flowing clear water in streams and rivers; also lakes and impoundments
- muck or sand partly covered with organic debris substrate
- dense beds of submerged aquatic vegetation

- spawning - nest in sand, gravel, or rock substrate
- in shallow water near submerged vegetation
Bluegill (*Lepomis macrochirus*)

**Habitat:**
- feeding - non-flowing clear streams and rivers; also lakes and impoundments
  - sand, gravel, or muck containing organic debris substrate
  - scattered beds of aquatic vegetation
  - cannot tolerate low oxygen or continuous high turbidity and siltation
- spawning - nests in firm substrate of gravel, sand, or mud
- winter refuge - deep water
Northern longear sunfish (*Lepomis peltastes*)

**Habitat:**
- **feeding** - clear moderate-sized shallow streams with moderate vegetation
  - rocky substrates
  - little to no current

- **spawning** - nests in gravel, sand, or hard rock substrate
Smallmouth bass *(Micropterus dolomieu)*

**Habitat:**

- **feeding** - clear, cool, deep lakes and rivers
  - streams where 40% consists of riffles over clean gravel, boulder, or bedrock substrate
  - in pools with a current and >4 feet of depth
  - gradients between 4 and 25 feet per mile

- **spawning** - nest in sandy, gravel, or rocky substrate
  - gradients 7 to 25 feet per mile
  - streams 20 to 100 feet wide

- **winter refuge** - larger deeper waters with gradients between 3 to 7 feet per mile
Largemouth bass (*Micropterus salmoides*)

**Habitat:**

feeding - non-flowing clear waters - lakes, impoundments, and pools of streams  
- abundant aquatic vegetation  
- soft muck, organic debris, gravel, sand, and hard non-flocculent clay substrates

spawning - nest in gravelly sand to marl and soft mud substrates  
- emergent vegetation  
- quiet shallow bays; no current