

# BROOK TROUT

Salvelinus fontinalis



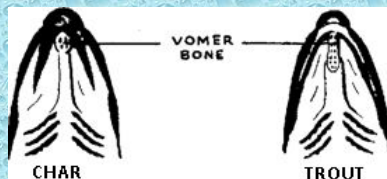
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## Taxonomy

- Class: Actinopterygii
- Order: Salmoniformes (Salmon and Trout)
- Family: Salmonidae (Salmon and Trout)
- Genus: Salvelinus (The Chars)
- Species: fontinalis (Brook Trout)

## Not a trout?

- Char
- What separates the two?
  - Both have vomer with toothed head
  - Char: lack teeth down the shaft
  - Trout: Two rows of teeth down the shaft



## Identification/Characteristics

- Coloration: Olive green to brown on back/lighter on sides.
- Mouth extends past eye
- Small scales
- Dorsal Fin
  - \* 8-14 rays
- Anal Fin
  - \* 8-14 rays
- Caudal Fin
  - \* Square/slightly forked
- Adipose fin



## Key Features

- Pectoral, pelvic, and anal fins have leading white edge followed by a dark stripe.



## Key Features

- Light spots on dark background
- Worm-like markings on back and dorsal fin



## Habitat

- Stream-dwelling
  - Clear, cool, well-oxygenated streams
  - Gravel bottom
- Lake-dwelling
  - Endemic to Lake Superior
  - Live along shores-"Coasters"
  - Depths of 50 ft/gravel bottom



## Diet

- Stream-dwelling
  - primarily macroinverts, worms, leeches, sometimes smaller fish
  - tend to be smaller
- Coasters
  - primarily other fish
  - tend to be large
  - World Record
  - 16 lbs/29"



## Breeding

- Spawn from late September to November
- Males:
  - Flanks/belly turn bright orange-red
  - Hook forms at front of lower jaw
  - Chase females upstream to suitable spawning grounds
- Females:
  - dig depression in gravel: "redd"
- Pair enters nest, deposit eggs and milt, female covers with gravel
- Coasters
  - spawn in tributary streams or along rocky shoreline

## Life Cycle

- Hatch February to April
- After yolk sac is absorbed, fry leave the redd to feed
- Mature in 2-3 years
- Life span  $\approx$  5 years
- Anadromous
  - Coastal river populations will inhabit saltwater: "salters"
  - limited to Canada's maritime provinces
  - east coast

## Distribution



## "Coaster" Distribution



## "Coaster" Distribution

- Declined due to habitat loss/alteration
  - development
  - damming
- Overharvest
- Sea lamprey
- Population stability achieved through:
  - harvest regulations
  - conservation efforts

## Importance to Humans

- Critical species for recreational fishing industry
- Local food source
- Indicator of high water quality



## Interesting factoids

- Michigan's state fish
- First written record of coasters
  - 1848
  - Louis Agassiz's trip along Lake Superior's north coast
- Michigan's only native stream-dwelling trout
- Splake=Lake Trout/Brook trout hybrid



## Work Cited

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