

Who's Related to Whom?

Biologists use diagrams like the one below to show the relationship between species. This diagram is known as a **phylogenetic tree**. Ciscoes, whitefish and some salmon species are only found in Lake Erie. Species such as Rainbow Trout, Golden Rainbow Trout, Brown Trout and Brook Trout are found throughout Pennsylvania.

BROWN TROUT (*Salmo trutta*)

Translation of scientific name:

"Atlantic Salmon" "trout"

Status: native to Europe and introduced to Pennsylvania waters in 1880s

Habitat: cold/cool (50- to 70-degree F range) streams, rivers and deep lakes



Spawn: October through December

Eggs produced: 200 to 3,000 eggs

Average length: 10 to 12 inches long

Average lifespan: 4 to 8 years

RAINBOW TROUT

(*Oncorhynchus mykiss*)

Translation of the scientific name:

"hooked snout/hooked lower jaw"

Status: native to western North America, introduced to Pennsylvania waters in the late 1890s

PINK SALMON (*Oncorhynchus gorbuscha*)

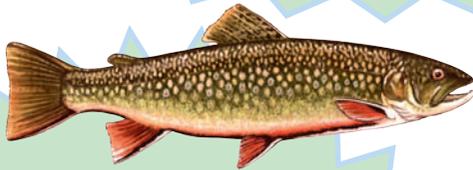
COHO SALMON (*Oncorhynchus kisutch*)

RAINBOW TROUT (*Oncorhynchus mykiss*)

GOLDEN RAINBOW TROUT (*Oncorhynchus mykiss*)

SOCKEYE SALMON (Kokanee) (*Oncorhynchus nerka*)

CHINOOK SALMON (*Oncorhynchus tshawytscha*)



BROOK TROUT (*Salvelinus fontinalis*)

Translation of scientific name:

"char" "of springs"

Status: native to Pennsylvania

Habitat: small, cold (50- to 60-degree F range) streams

Spawn: September through November

Eggs produced: less than 100 to 1,000 eggs

Average length: 5 to 7 inches long

Average lifespan: 2 to 5 years



LAKE TROUT (*Salvelinus namaycush*)

Translation of scientific name:

"char" "Lake Trout"

Status: native to Pennsylvania

Habitat: large, coldwater lakes

Spawn: September through November

Eggs produced: 400 to 6,000 eggs

Average length: 15 to 20 inches long

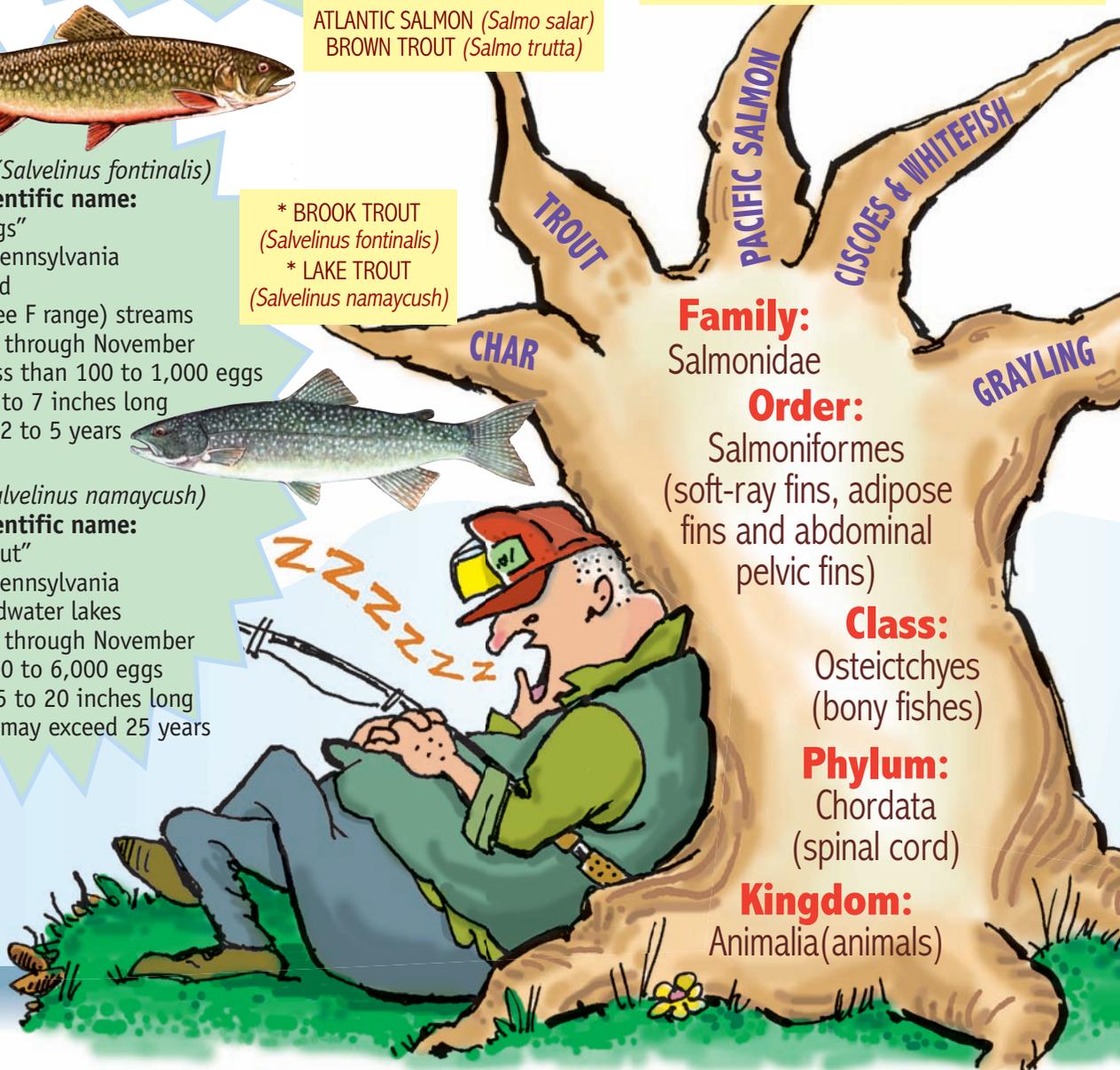
Average lifespan: may exceed 25 years

ATLANTIC SALMON (*Salmo salar*)

BROWN TROUT (*Salmo trutta*)

* BROOK TROUT (*Salvelinus fontinalis*)

* LAKE TROUT (*Salvelinus namaycush*)



Family:

Salmonidae

Order:

Salmoniformes
(soft-ray fins, adipose fins and abdominal pelvic fins)

Class:

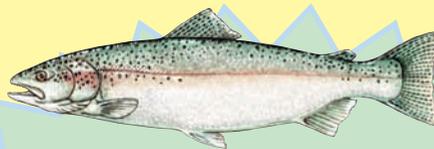
Osteictchyes
(bony fishes)

Phylum:

Chordata
(spinal cord)

Kingdom:

Animalia (animals)



STEELHEAD (*Oncorhynchus mykiss*) are migratory Rainbow Trout.

Translation of the scientific name: "hooked snout/hooked lower jaw"

Status: native to western North America, introduced to Pennsylvania waters in the late 1890s

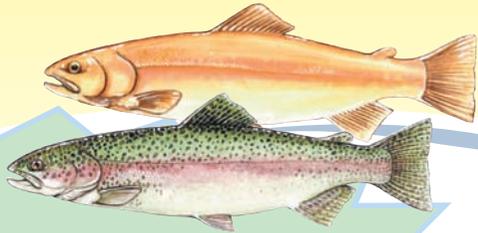
Habitat: cool waters (50- to 70-degree F range) of Lake Erie

Spawn: November through April (swim up Lake Erie tributary streams to spawn)

Eggs produced: 3,000 to 5,000 eggs

Average length: 22 to 24 inches long

Average lifespan: 6 to 8 years



Habitat: cool (50- to 70-degree F range) streams and rivers

Spawn: November through April

Eggs produced: 500 to 3,000 eggs

Average length: 10 to 12 inches long

Average lifespan: up to 8 years

* **LONGJAW CISCO** (*Coregonus alpenae*)

EXTIRPATED

* **CISCO** (*Coregonus artedi*)

ENDANGERED

* **LAKE WHITEFISH** (*Coregonus clupeaformis*)

NOT FOUND IN PENNSYLVANIA

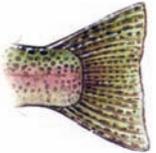
Trout and Salmon Characteristics

- Elongated and torpedo-shaped bodies
- Soft-rayed dorsal fin
- Adipose fin between the caudal (tail) and dorsal fin
- Favor streams, lakes and rivers where water temperatures are less than 70-degrees F with a preferred temperature range between 50- and 65-degrees F
- Likes waterways with a clean bottom, rocks and gravel

Brown Trout has dark spots, few or none on tail.



Rainbow Trout has dark spots, especially on tail, and a pink lateral stripe.



Lake Trout has light spots over entire body. Tail deeply forked.



CHAR?

State Fish Facts

Brook Trout are classified as char, not trout. Chars live more north than other Salmonids. They prefer cold, clean, high-oxygenated waters. Today, their home waters are small **headwater streams**. Nicknames for the Brook Trout include speckled trout, squaretail or brookies.

Before European settlement, Brook Trout lived in most Pennsylvania streams. The growing human population resulted in landscape changes. Timber was overharvested, coal was mined and flowing waters became sewers. Populations of Brook Trout were eliminated from many waters because of the resulting pollution, habitat loss and warmer waters.

