



**Adult:** In the adult stage, female and male Tasmanian Rainbow Trout spawn in autumn. Trout turn vibrant in color during spawning and then lay eggs in fish nests, or redds, in the gravel. The life cycle of the Rainbow Trout continues into the egg stage again. 6



**Juvenile:** In the natural habitat, a trout avoids predators, including wading birds and larger fish, by hiding in underwater roots and brush. As a juvenile, a trout resembles an adult but is not yet old or large enough to spawn.



**Egg:** Trout eggs have black eyes and a central line that show healthy development. Egg hatching depends on the water temperature in an aquarium or in a natural habitat.



**Alevin:** Once hatched, the trout have a large yolk sac used as a food source. Each alevin slowly begins to develop adult trout characteristics. An alevin lives close to the gravel until it "buttons up."



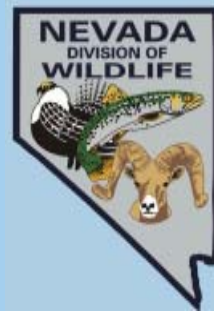
**Fry:** Buttoning-up occurs when alevin absorb the yolk sac and begin to feed on zooplankton. Fry swim close to the water surface, allowing the swim bladder to fill with air and help the fry float through water.



**Fingerling and Parr:** When a fry grows to 2-5 inches, it becomes a fingerling. When it develops large dark markings, it then becomes a parr. Many schools that participate in the Trout in the Classroom program in Nevada will release the Rainbow Trout into its natural habitat at the fingerling stage.



## The Life Cycle of Rainbow Trout



For more information, please contact the Nevada Department of Wildlife at [www.ndow.org](http://www.ndow.org)



## Aquarium Care of Tasmanian Rainbow Trout

**Egg:** Trout eggs endure many stresses, including temperature changes, excessive sediment, and predators. In an aquarium, these environmental stressors are limited by constant temperature and clean water. Rinsing hands before touching the water can reduce the risk of human pollution, including soaps, chlorine, and hand lotions.

**Alevin:** When the eggs hatch, the enzymes within the eggs decompose the shell to create bubbly foam on the top of the water. The alevins swim along the bottom and take shelter among the rocks and gravel. The aquarium should be cleaned of shells, dead eggs, and ammonia-based wastes a minimum of once a week.

**Fry:** After buttoning-up, the fry are ready to feed. They will swim to the surface of the water to fill their swim bladder with air. The fry are more tolerant of fluctuating temperatures, and continue to need clean, healthy water to survive. The aquarium should be cleaned often.

**Fingerling and Parr:** The fingerlings at this point are learning more about predators, eating a variety of food, and swimming throughout the water depths. They develop dark circular marks along their sides to help them blend into the surroundings. Most Trout in the Classroom programs will release the trout into the natural habitat during the fingerling stage.

**Adult:** It may take a year or more for a parr to grow into an adult. When the adult is ready to spawn, it returns to its birth place or the site of its release from the aquarium into the water.

### Trout Habitat

Lakes, Streams, Rivers,  
and Creeks  
Fresh Clean and Clear Water  
45°- 55° F  
Sand and Gravel Bottom  
High Oxygen Content  
Over Hanging Banks  
Aquatic Insects

## Mason Valley Fish Hatchery

A fish hatchery is a place where adult fish eggs are collected and grown until the parr or adult stage. Each tank meets the habitat needs of a habitat by providing food, water, shelter, and space. When the fish reach the desired stage, they are released into the natural habitats around Nevada.

*Long, cement containers where young fish feed, swim, and grow are dubbed "raceways."*



*Indoor Raceway:  
Thousands of fish are watched closely as they develop and grow before released into the natural habitat.*

## What is Trout in the Classroom?



Trout in the Classroom (TIC) is a statewide Nevada Department of Wildlife educational program. TIC is tied to the state standards for fourth and fifth grades of Nevada to teach students about the values of fish and aquatic life. Students learn through hands-on science by raising Tasmanian Rainbow Trout eggs in an aquarium in their classroom. Students then release the fish into the Nevada waterways during the fry or fingerling stage.

## Recreation around Trout

### Sports!

Anglers and Fly-fishers: Trout fishing continues to be a popular sport in Nevada.

Boating and Tubing: While floating along your favorite aquatic habitat, take a peak into the water and discover a new world full of wildlife. Trout, sculpins, and many more fish are looking back at you.

### Wildlife Appreciation!

Bird watching: Many waterfowl and raptors are predators to trout. Songbirds and migratory birds also live along the banks. Observe each bird clean their feathers, hunt for food, or call out to a mate.

Wildlife Interpretation: Within the waterways around Nevada is a variety of aquatic insects, mammals and rodents. Many top fishing sites have a vibrant cultural history as well.



## History of Tasmanian Rainbow Trout

Native Rainbow trout from Nevada were introduced to Tasmania by the U.S. Fish and Wildlife Service in 1898 to culture a strain for Tasmanian fish farms and hatcheries. These Rainbow trout adapted to the new climate, seasons, and conditions. As a result, the cultivated strain of Tasmanian Rainbow trout now spawn at a different time of year, allowing Rainbow trout eggs to be grown in an aquarium in late winter. Today, native Nevadan Rainbow trout live in Tasmanian waterways, and Tasmanian Rainbow trout live in Nevadan waterways.

## Activities to Learn

### Hooked on Trout Survival

Each student tosses a coin or ball into consecutively farther buckets. In order to advance to the next bucket level, the student must make the basket and correctly answer a question about trout. The levels are egg (easy), alevin (moderate), fry or fingerling (difficult), and adult (expert).

*For more information, contact the Nevada Department of Wildlife, [www.ndow.org](http://www.ndow.org)*