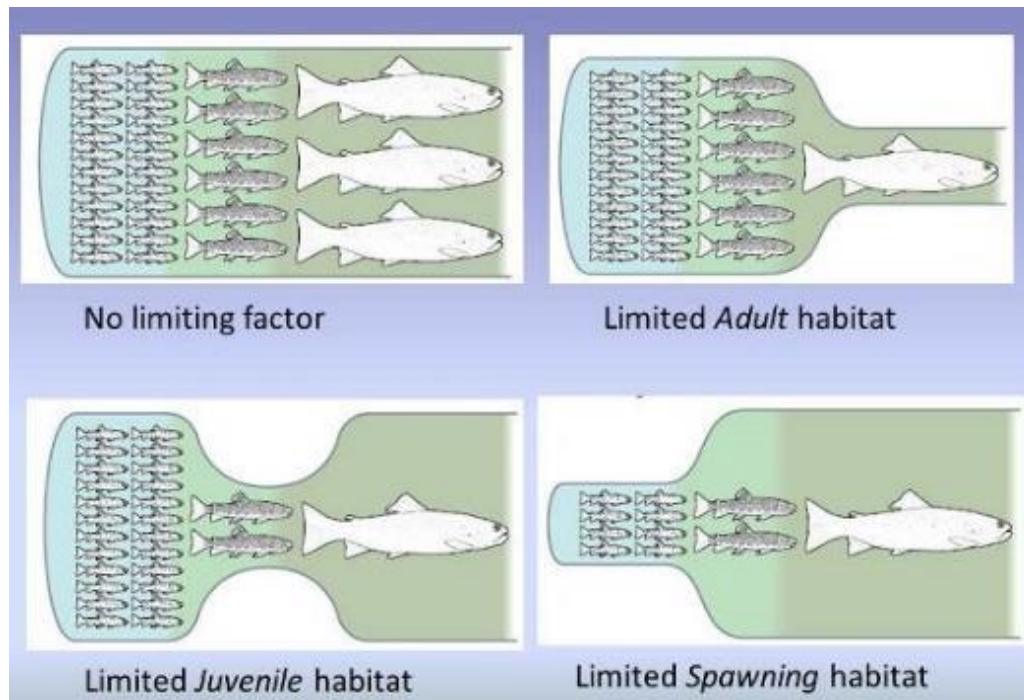




## Key trout lifecycle stages and habitat requirements

There are three main types of habitat required for wild trout to complete each one of three key lifecycle stages (spawning, juvenile and adult). The consequences from a lack of each specific habitat-type are illustrated below.



- For spawning, and incubation of ova and alevins, trout require loose, silt-free gravel that allows percolation of oxygenated water between the grains. This habitat should ideally be co-located with low/trailing cover or deep water as a bolt-hole for adult fish during the vulnerable act of spawning.
- Juvenile trout need shallow water with plenty of submerged rocks or dense, trailing structure for protection against predators and wash-out during spates. This complex cover needs to persist through the winter, a crucial period for juvenile trout survival.
- Adult trout need deeper pools (usually > 30cm depth) with nearby structural cover such as undercut banks and boulders, sunken trees/tree limbs and/or low overhanging cover (ideally trailing on, or at least within 30cm of, the water's surface).

Excellent quality in one or two out of the three crucial habitats cannot make up for a "weak link" in the remaining critical habitat. The different habitats may be close to each other or may occur in different parts of the river system; trout must be free to move between habitats to complete their lifecycle and this can be prevented or disrupted by barriers such as weirs.

To meet this wide range of requirements and cater for the different trout life stages, habitat must be physically diverse. That same structural variety is vital for supporting a wide variety of other aquatic species and contributing to a healthy ecosystem.

