

# Redd spotter's guide

Between November and March wild brown trout (*Salmo trutta*) spawn on the River Kennet and its tributaries. The hen fish uses her tail to 'cut' the redd, this is a dip in the gravel of the river bed (clean gravel beds are characteristic of chalk streams). Around 1,000 eggs are laid into this redd, after which they are fertilised by the cock fish and then covered with gravel from upstream of the redd, creating a large, clean gravel mound which can be in excess of two feet (60cm) in length.

The redds are extremely delicate and it is advised not to approach them in the river as vibrations can disturb the eggs.

Depending on water temperature it can take weeks for the eggs to hatch (around 60 days at 8 degrees), after which the alevins (young fish) will feed off the yolk sac which they are attached to while they stay in the river bed. After this time they begin to disperse, and there is a high mortality rate at this stage due to predation from birds and larger fish. The fry are also territorial and will not tolerate each other in sight, which is why they will hide between rocks and logs on the river bed.

Years later the surviving fish will spawn themselves. Only the largest will usually survive to reproduce; the larger the fish the more eggs she will lay.

Other fish also spawn in similar ways, with grayling also creating redds. These however are much harder to observe, as they are not mounds and are cut in April, after trout have finished spawning.

## Redd Spotting Tips:

- New redds are bright due to lack of algae
- The newer redds are more distinct, they sink over time
- There will be a depression clear of gravel upstream of redds, where they have been covered from
- Look at the flow pattern of the river, if there is a mound which had been clearly created by deposition then it may not be a redd

ARK Redd Spotters are trained volunteers who walk specific stretches of riverbank fortnightly in the redd season and record the redds they observe on our Redd Spotter app.

We provide free training each year at a stretch of the Kennet or one of its tributaries. Redd spotting is easy, and the only equipment needed are polarised sunglasses to see through the water reflection and into the river.

To register your interest in becoming a redd spotter: Contact [anna@riverkennet.org](mailto:anna@riverkennet.org) or 07780381709





Redds are found in clean gravelly areas of the river, as silt and mud will suffocate the eggs. This also means that the flow needs to be quite fast and the river free of pollutants. Once the fry hatch they need cover and shallow water to escape from larger fish which will eat them. In turn, larger mature trout need deeper pools to seek cover from predators.

All fish need to eat invertebrates such as freshwater shrimp (*Gammarus pulex*), upwing flies (*ephemeroptera*), caddisflies (*trichoptera*) and stoneflies (*plecoptera*). These all thrive in healthy chalk rivers and streams, with areas of good flow and aquatic plants such as stream water crowfoot.

These factors mean that a good quality riparian habitat includes a variety of depths and macrophytes, as well as some areas with debris and stones. Watercourses should ideally be free of dams, large concrete weirs and other man-made barriers to allow free fish passage. Fish passage is important for large fish to be able to migrate to shallower spawning grounds in winter. Fish passes such as the one in Marlborough constructed by ARK in 2012 remove this problem and allow fish to not become isolated populations. Isolated populations are less genetically diverse and are more vulnerable to impacts of pollution.

