Dr Nick Giles & Associates
50 Lake Road
Verwood
Dorset
BH31 6BX

Wild trout habitat specialists

Design & Build restoration projects

Consultants: Fisheries, Conservation, Freshwater & Wetland Ecology.

Tel 01202 824245 Fax 01202 828056
Email gilesassociates@btopenworld.com
Web site www.nickgilesassociates.co.uk

Report on Advisory Visit to The Avon Water, Flexford Farm, Sway, New Forest. November 10th 2004

Report

1. Nick Giles walked the Flexford Farm water on November 10th, 2004 in the good company of Mr Ted Watts. The Avon Water is a small southern New Forest stream which enters the sea at Keyhaven.
2. The general physical habitat quality of the river was excellent, with natural sequences of riffles, pools and glides. The gravel bed is relatively clean but the invertebrate fauna was sparse. The roots of bank side alders, many of which need thinning (see below), provide important underwater cover for trout and are vital in securing the integrity of the banks. The presence of Himalyan balsam is a threat – see below.
3. Both side streams and the main river contain wild brown trout which are fished for by local anglers on an informal basis. Sea trout had been spawning on the gravel shallows (riffles) and the general condition of the water appears to be good, but with low productivity, because of a combination of the over-shading by alders and the naturally low nutrient status of the water.
4. Over much of the Flexford Farm water, mature alders have lacked routine maintenance for many years, leading to a tunneling (almost complete shading) of the river channel. The lack of light reaching the river and stream bed has a number of important knock-on effects:

- Bank side grasses are shaded-out, producing erosion of banks which are no longer bound by grass roots.
- Silt washed in from the banks is added to by large amounts of dead leaves falling from the trees each autumn – this can lead to silting of the channel.
- Aquatic plants including marginal rushes and reeds, in-stream weed beds and algae coating stone surfaces are all strongly suppressed.
- This lack of underwater plant growth leads directly to little food for aquatic invertebrates and diminished insect and other invertebrate populations.
- Few invertebrates mean that there is little food for wild brown trout or young sea trout.

Tree work

What is required to reverse this situation is a strategic tree-pruning plan, implemented as funds permit. First, the tree boughs keeping light out of key areas of river channel must be identified and marked clearly, then they should be cut back, ideally after the sap has dropped in autumn. By taking out the top third of some boughs each year, gradually, the stream will become better-lit and productivity will increase. An additional benefit is that top-heavy alders will be much less likely to be bowled over by winter gales, ripping-out sections of bank with their roots in the process.

All of the above works can be carried-out without any official permissions, provided that there are no Tree Preservation Orders (TPOs) currently in operation. Alders are very unlikely to be protected in this way, the Local Council can advise.

Himalayan Balsam

Himalayan balsam (Policeman's helmet) is an introduced exotic plant which is invading river corridors over much of England and Wales. The plant is an annual which grows rapidly from seed in the early spring, shading-out native plants and forming a dense stand of up to two metres height.

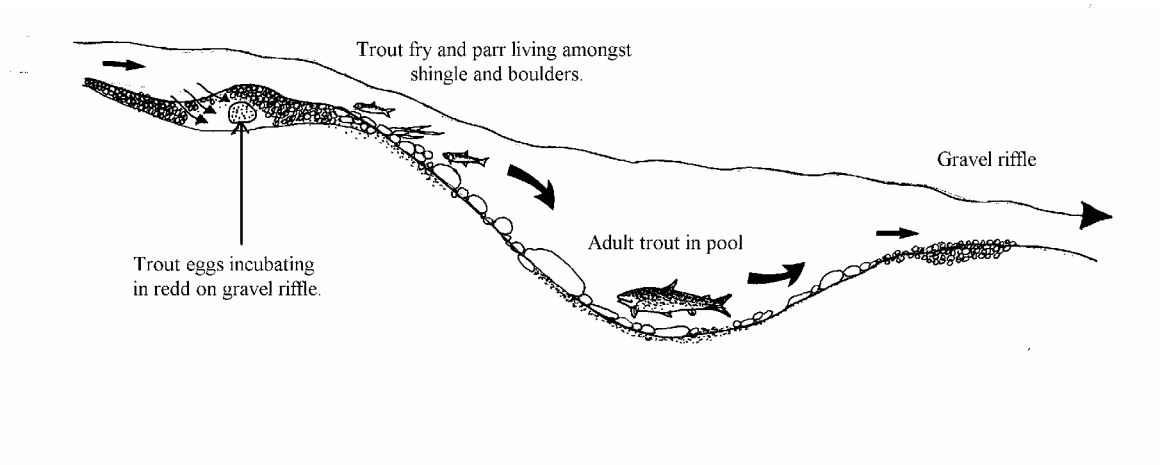
The 'explosive'seed heads distribute seeds far and wide, ensuring rapid colonization and spread. If left to its own devices, Himalayan Balsam completely dominates river banks in summer but then dies back to leave bare, erosion-prone soil banks over-winter.

The solution to this potentially serious problem is to hand pull plants each spring before they flower and set seed . Provided that this is done diligently and that the colonization hasn't proceeded too far, it should be possible to stay on top of the problem.

Background notes © Dr Nick Giles.

Wild trout habitat

Brown trout need good, clean water flows, relatively silt-free gravel for spawning, abundant cover from predators and a nice varied sequence of shallow riffles, weedy glides and deeper pools. As revealed by today's walk, the Avon Water has most of these attributes, in abundance. The diagrams below show how a short section of good habitat can provide everything a wild trout needs throughout its life cycle:



Trout stream riffle-glide-pool habitat sequence