

River Waveney Crayfish Survey

The white-clawed crayfish (*Austropotamobius pallipes*) is the only crayfish species native to Great Britain; it is a priority species in the UK BAP, is protected under Schedule 5 of the Wildlife and Countryside Act and is an Annex II species listed under the EU Habitats Directive. In addition to the native species, there are various non-indigenous species that are known to have significant populations within UK rivers; species include the Turkish narrow-clawed (*Astacus leptodactylus*) and the American signal (*Pascifasticus leniusculus*) crayfish, the latter of which carries a fungal disease, known as the crayfish plague, to which the native species is susceptible. This, combined with direct competition, habitat degradation and historical water quality problems has resulted in the widespread decline of white-clawed crayfish populations within British rivers; locally, a few remnant populations are known to exist in some Norfolk rivers.

Typically, crayfish reside amongst cobbles and boulders (refuges) within a well-oxygenated, reasonably flowing watercourse. In deeper rivers and canals with good water quality the animals are also known to burrow into the banks for shelter. Because BESL need to undertake essential erosion protection works to some areas of bank along the River Waveney during 2006, with the potential to affect any local populations of crayfish, a series of crayfish surveys were conducted in autumn 2005 in order to confirm the presence-absence of the native white-clawed crayfish in the area. The area surveyed stretched from the Beccles Sailing Club downstream to the Waveney River Centre and related to flood compartments 23 and 24 on the left hand bank and 26, 27 and 28 on the right hand bank of the river. A surveyor with the relevant species licence was present during all of the surveys, and consent for the use of crayfish traps was gained from the Fisheries section of the Environment Agency prior to surveys commencing.

The survey was implemented over a two week period, during which time a large number of crayfish traps were placed along the bank edge at predefined locations where proposed engineering works are planned. Two sizes of traps were used, with smaller traps generally more effective for capturing smaller individuals. Traps were baited, left overnight and checked the following day. Each trap was checked on three separate days before removal. Sweep samples using a hand net were also undertaken at various locations along the survey area.

Upon examination of the traps, all crayfish caught were identified as the non-indigenous Turkish crayfish; the size range of the animals found indicated the presence of a breeding population. The total number of animals caught over the two week period was 49. Traps placed adjacent to historical erosion protection including alder pole and sheet metal piling generally had the highest catches, suggesting the animals prefer the shelter afforded by such structures in comparison to exposed banks. No evidence was found of the native white-clawed crayfish in the stretch of the River Waveney surveyed, although a number of live individuals of the Asiatic clam (*Corbicula fluminea*) were found in the sweep samples. Upon collection of the traps the Turkish crayfish caught were removed from the river and humanely destroyed. Results of the surveys will be passed on to interested parties, including the Broads Authority, Environment Agency and English Nature.



A varied size range of captured Turkish crayfish awaiting humane extermination.



Two sizes of crayfish traps were used during the survey



Baiting the traps.



Submerging the traps within the reed bed on the edge of the river.