Operation Rescue! Amphibian In Drain

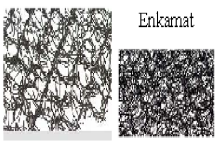
Over the last few months there has been a great deal of interest in the problem of amphibians drowning in drains. Amphibians on migration often come across roads on which they are endangered by vehicles. This is well-known, but less appreciated is the danger of drowning. On reaching a kerb the amphibians cannot easily climb up so they move along the kerb lookinf for a way up. Unfortunately if they encounter a drain there is a good chance that they will fall in. The drain, or gullypot, then becomes a trap, from which there is no escape and a lingering death is the likely outcome.

The extent of the problem was first highlighted by work in the Netherlands, which was reported at the ARC Herpetofauna Workers Meeting in February 2014, the abstract for which is below:

R Creemers & Annemarie van Diepenbeek (RAVON, Reptile, Amphibian & Fish Conservation Netherlands)

Gully pots are essential for ridding the roads of rainwater but can be a death trap for amphibians. Each year, large numbers of amphibians, both adults and juveniles, fall into gully pots and die through starvation or by being washed away into the sewer system by surges of rainwater. This happens year around, bu especially during spring migration. The vastness of the problem is illustrated by the numbers of retrieved amphibians from gully pots in the Netherlands in 2012. In 36 locations, in three random counts we collected a total of 782 vertebrates from 526 gully pots of which 683 were amphibians. A rough calculation of the numbers that fall victim to the drainage system came up to a estimate of between several hundred thousand to more than half a million adult amphibians, and many times this number of immature ones, each year alone in the Netherlands (the Netherlands has 7 million gully pots).

A test with live amphibians showed that amphibians will find and use climb out constructions, up to 80% were able to climb out every night. Some individuals escaped within the first ten minutes of the experiment. Our research suggests implementing these constructions at European level to prevent this additional amphibian mortality.



The extent of the mortality found and their success in reducing mortality by these researchers was sufficient to encourage people in the UK. Barry Kemp, SxARG, persuaded SxARG committee to spend £900 on a huge roll (6.5km long) of 'Enkamat', a plastic netting developed for stabilising earthworks in the construction industry. This is a durable netting which is easy for amphibians to climb.

In Scotland parallel studies on drain mortality were carried out In the Perth area by Countryside Rangers and Trevor Rose. They found 3000 dead amphibians in 1500 gullypots, a significant loss. As a result a new type of kerb was installed at some sites which allowed 'kerb crawling' amphibians a better chance of avoiding a drain.

These bypasses, or simply lowered kerbs are effective, but are very expensive if used as a retro-fit.

It was obvious that a solution was required that could be easily retro-fitted. Trevor Rose and Clare Mckinroy (Dundee, Scotland) considered ways of installing a 'ladder', which give animals unfortunate enough to fall in some chance of climbing out again. The ladder they tried consisted of a stainless steel sheet about 1 metre long, to which they attached jute. These have the advantage of being relatively easy to fit and remove for drain cleaning. However the jute rots away after a short time. These ladders were trialed in Scotland. The trial showed that 72% of amphibians successfully escaped their tomb, showing that the ladders are an effective way of reducing amphibian mortality.

The first attempts with Enkamat used a strip of matting simply suspended from the drain cover. A straighforward approach, but not as robust as the stainless steel backed ladder. The next stage was to combine Trevor's ladder with Enkamat supplied by Barry to replace jute. These ladders are now being marketed by the British Herpetological Society

Nearer to home, Trevor supplied Barry with toad ladders in exchange for Enkamat that SxARG provided. Barry then managed the tricky job of getting highway authorities in East Sussex to consider the idea of fixing ladders inside gullypots. Having obtained permission twenty ladders have been installed in drains on a housing estate in Uckfield where there is a considerable toad migration and a toad crossing patrol run by locals Jenny Bacon (former SxARG Chair) and Caroline Dobbin

(https://www.facebook.com/groups/1615051742056684).

First indications are that the ladders are proving successful as can be seen in the videos:

Dundee, Scotland
Posted by Clare Mckinroy

Uckfield Toad Crossing
Posted by Jenny Bacon

Finally Gatwick Airport has recently registered interest in intalling ladders in their airside gullypots. If this goes ahead it will give a much bigger trial of the effectiveness of the ladders and perhaps help to persuade more conservative highway authorities that the ladders are worth adopting - even if only to prevent blocked drains!

Chris Drewery