

Dikerogammarus villosus frequently asked questions

What is Dikerogammarus villosus?

Dikerogammarus villosus is an invasive non-native shrimp that has spread from the Ponto-Caspian Region of Eastern Europe – it is native to the Black Sea and the Caspian Sea. It is believed to have invaded Western Europe via the Danube. It has spread across most of Western Europe over the last 10 years. It can grow to 30mm long in ideal conditions, much larger than our native freshwater shrimp. Specimens being recovered from and observed in Grafham Water at present are between 10 and 15mm in size. It often has striped or spotted markings. Due to its voracious appetite, it is commonly known as 'killer shrimp'.

Why is it a problem?

The killer shrimp is a voracious predator. It kills a range of native species, such as freshwater invertebrates, particularly native shrimps and even young fish. This alters the ecology of the habitats it invades. It often kills its prey and leaves it uneaten. It tends to dominate the habitats it invades, sometimes causing the extinction of native species.

Can it hurt people?

It can bite you if you hold it, but this is no different to an insect bite, and it does not pose a risk to human health. There are no known health risks from drinking water from a reservoir that contains this shrimp. Water from Grafham is treated before it is supplied to homes in the region.

Is it found in the UK?

It has been found at Grafham Water, Cambridgeshire on 3rd September. This is a water supply reservoir popular for angling and watersports. Anglian Water and Environment Agency scientists are monitoring lakes and streams nearby to assess whether it has spread to other sites.

How did it get into the lake?

We don't know. The shrimp is now widespread on the continent, and any boat, trailer or kayak that had not been sufficiently cleaned after use on mainland Europe may have introduced it. It is possible that it may have been transferred by a migrating bird.

How long will it take to become established?

It is already widespread and abundant within Grafham Water. The speed at which it will spread from Grafham will be determined by how far it has already spread, and how effective the biosecurity measures are at containing it. We are urgently monitoring the Diddington Brook, into which Grafham Water Flows and the Great Ouse, as well as surrounding lakes.

Is it safe to continue to use Grafham Water for watersports and angling?

Yes, but all reservoir users must be very careful to avoid spreading the shrimp to other areas. Anglian Water and the Environment Agency are asking water users to ensure boats and trailers are thoroughly cleaned, particularly bilge areas, trailer wheels or box-sections of trailers. Anglers need to inspect and clean their equipment, particularly nets, removing and destroying any shrimps that are found.

Is it safe to eat fish from Grafham Water?

There are no known health risks associated with eating fish that may have been feeding on this species of shrimp.

What is being done?

Anglian Water is working closely with the Environment Agency and Defra to contain this problem. We are following a rapid response process developed under the GB Framework Strategy on Invasive Non-native Species. Our immediate priority is to establish how widespread this species of shrimp is, and avoid any further spread.

What's the Environment Agency doing about it?

We are helping to coordinate the effort to contain the shrimp. Our staff are monitoring lakes and streams nearby to establish whether it had spread. We are also alerting our staff across the country to look out for it during their sampling. We are working closely with Anglian Water to identify and assist with the implementation of appropriate biosecurity measures to limit any further spread of this species, providing technical assistance as required. Anglian Water is cooperating fully with this.

Will the killer shrimp be removed from Grafham Water?

It is too early to state what action can be taken until the full extent of the spread has been determined. There are no known control methods currently available.

Why is the lake still open to the public?

Because there is no risk to public health, and recreational users of the lake, assuming they take the appropriate biosecurity measures, should not cause further spread of the shrimp. There is absolutely no risk from land-based access to the reservoir. Anglian Water consider that it is safe to continue using Grafham Water for leisure activities if the appropriate biosecurity measures are followed.

What should sailors, kayakers and anglers do?

All equipment must be inspected and thoroughly cleaned after use. Boat users must be particularly careful to ensure that trailers are completely cleaned after use. Boats and kayaks must be thoroughly cleaned and inspected. Anglers should ensure that nets and other equipment are disinfected.

What should the public do?

This shrimp is one of many invasive non-native animals and plants that we spread by our activities. Please ensure that you clean boats and watersports equipment after use. Don't move plants and animals around the countryside.

What should a member of the public do if they come across what they believe to be a non-native shrimp?

Members of the public should carefully check the identification of the shrimp with details provided on www.nonnativespecies.org.uk. Images of suspected non-native shrimps can be sent to alert_nonnative@ceh.ac.uk for confirmation.