

Dikerogammarus villosus



Taxon	Family / Order / Class / Phylum
<i>Dikerogammarus villosus</i> (Sowinsky, 1894)	Gammaridae / Amphipoda / Crustacea / Arthropoda

COMMON NAMES (English only)

Killer shrimp

SYNONYMS

SHORT DESCRIPTION

The killer shrimp is an omnivorous predator. It can feed on a variety of macroinvertebrates, including other gammarid species, and exhibits an important biotic potential and ecological plasticity.

BIOLOGY/ECOLOGY

Dispersal mechanisms

Unknown, probably through shipping activity

Reproduction

The females are sexually mature at 6 mm in length, when they reach 4 to 8 weeks old. They can reproduce when water temperature is above 13°C, with a mean fecundity of 27.3 eggs per female. Hatching length is about 1.8 mm.

Known predators/herbivores

Several fish species feed on this shrimp, but no invertebrate species is known to predate it.

Resistant stages (seeds, spores etc.)

None.

HABITAT

Native (EUNIS codes)

A1: Littoral rock and other hard substrata, A2: Littoral sediments, A3: Sublittoral rock and other hard substrata, A4: Sublittoral sediments, B1: Coastal dune and sand habitats, B3: Rock cliffs, ledges and shores, including the supralittoral, C1: Surface standing waters, C2: Surface running waters, C3: Littoral zone of inland surface waterbodies. Hard substratum, macrophytes.

Habitat occupied in invaded range (EUNIS codes)

A1: Littoral rock and other hard substrata, A2: Littoral sediments, A3: Sublittoral rock and other hard substrata, A4: Sublittoral sediments, B1: Coastal dune and sand habitats, B3: Rock cliffs, ledges and shores, including the supralittoral, C1: Surface standing waters, C2: Surface running waters, C3: Littoral zone of inland surface waterbodies. Hard substratum, macrophytes.

Habitat requirements

The species exhibits a wide range of environmental tolerance. It can live in a broad spectrum of temperatures (0 to 30 °C) and salinity (up to 12‰), and can occupy every substratum except sand. The species is only present in areas with low current velocity.

DISTRIBUTION

Native Range

Ponto-caspian basin

Known Introduced Range

Almost all Western Europe large rivers (Rhône, Loire, Seine, Moselle, Meuse, Rhine, Main, Danube) and Baltic Sea basin



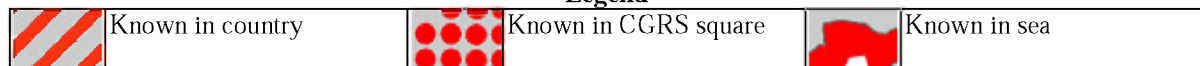
Trend

Spreading.

MAP (European distribution)



Legend



INTRODUCTION PATHWAY

The most likely introduction vector is shipping (ballast water and hull fouling of vessels). The colonisation of western European hydrosystems probably occurred through the southern corridor, via the Danube and Rhine Rivers

IMPACT

Ecosystem Impact

It locally eliminates other gammarid species through competition and predation. There have been some observations of the species eating fish eggs or attacking small fishes.

Health and Social Impact

Unknown.

Economic Impact

Unknown.

MANAGEMENT

Prevention

Ballast water treatment for transcontinental dispersion. No effective solution has been proposed for intracontinental dispersion.

Mechanical

Unknown.

Chemical

Unknown.

Biological

Unknown. Biotic control (by parasites and/or predator species) remain poorly documented.

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