

Britain's only scorpion species could be making plans to increase its range across the UK!

The invasive European yellow-tailed scorpion is, to date, the only established species of scorpion in the UK. It is thought to have arrived here by sneaking onto shipments of Italian masonry in the 1800s. A population estimated of being as much as 15,000 strong is currently thriving in Sheerness Dockyard on the Isle of Sheppy, Kent. These arachnids can grow up to 45mm long and are predominantly black, with yellow-brown legs and tail (hence the name!). They are seldom seen as they hide themselves away for most of their lives becoming active only to feed and breed, which is usually only on warm, dry evenings, although they have been sighted as early in the year as February. They feed on any creature small enough and unfortunate enough to come in range of their strong pincers and if food is scarce they can even feed on each other! The preferred food of the yellow-tailed scorpion is woodlice, a prey item of which there is an abundance in Sheerness Docks.



If you want to see one for yourself, these scorpions can easily be seen at night (albeit, with some specialist equipment!) as all scorpion species glow a fluorescent turquoise under a UV lamp, meaning they can be spotted in even the deepest of crevices. It is not understood exactly how scorpions benefit from glowing under UV light, but it is known that the fluorescence is caused by the accumulation of a chemical called beta-carboline in the exoskeleton, which glows under UV light. One theory is that this fluorescence could aid in helping shield scorpions from damaging UV rays which are emitted by the sun by converting UV light into harmless visible light. Another possible theory is that this emitted glow from UV light could attract moths and other insects that scorpions prey upon. Whatever the reason, seeing a scorpion glowing under UV light is a truly beautiful spectacle.

Man-made bridges currently connect the Isle of Sheppy to the mainland, and this species of scorpion clearly has no problems with hitching a ride, as sightings have been recorded in Harwick docks, Pinner, Tilbury docks, Portsmouth docks, Southampton docks as well as Ongar underground station; however, none of these areas have populations as long established, or as successful, as Sheerness Docks. It is thought that the reason this scorpion has been confined to Sheerness is the relatively high temperatures and low annual rainfall. This, combined with the sheltered environment in Sheerness and the lack of biological competition in England, make a perfect scorpion-friendly habitat.

It is also the northernmost population of scorpions in the world, making it the hardiest species of all scorpions. These miniature assassins can survive on as little as four meals a year and can even supercool, which means they can survive subzero temperatures, so they have no trouble hunkering down throughout the cold British winter. An increased temperature has been shown to significantly increase the activity of both male and female yellow-tailed scorpions. The mean annual temperature of the UK has risen by 0.25% over the last 30 years and is continuing to rise, therefore higher temperatures can be expected to increase the availability of suitable habitat for England's yellow-tailed scorpions.

Considering their adaptability, is it possible the range of these scorpions will start expanding, so the number of sightings is expected to increase in the coming years, especially in areas where rainfall is relatively low.

Not to worry, though! These little scorpions may look scary, but they very rarely use their stinger and when they do, it is said to be likened to that of a bee sting. In truth, native populations of scorpions play a very important role in their ecosystems as they are generalist predators and they help in controlling the populations of their prey. To date, there are no studies which document any negative impacts of scorpion species on an ecosystem, but this is something to look out for in the future.

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