

# Signal Crayfish

## Species Description

**Scientific name:** *Pacifastacus leniusculus*

**AKA:** Cimwch dir Croyw (Welsh)

**Native to:** North America

**Habitat:** Most freshwater habitats

Their small lobster-like appearance makes crayfish easy to recognise. Distinguishing non-native species from the threatened native white-clawed crayfish is essential. Compared to the native species, the signal crayfish is much larger and its claws are red underneath with a small turquoise / white blotch on the surface. There are several other non-native crayfish species, but these are relatively rare.

Introduced for food in the late 1970s and 1980s but spread quickly across much of the UK. Distribution in Scotland is limited. Spreads up and downstream and may cross land to colonise adjacent water bodies. Human transfer, although illegal, still continues. Negative impacts include the almost complete loss of the native crayfish through the spread of disease and direct competition. Also undermines riverbanks through burrowing and can predate on native fish eggs and aquatic invertebrates.

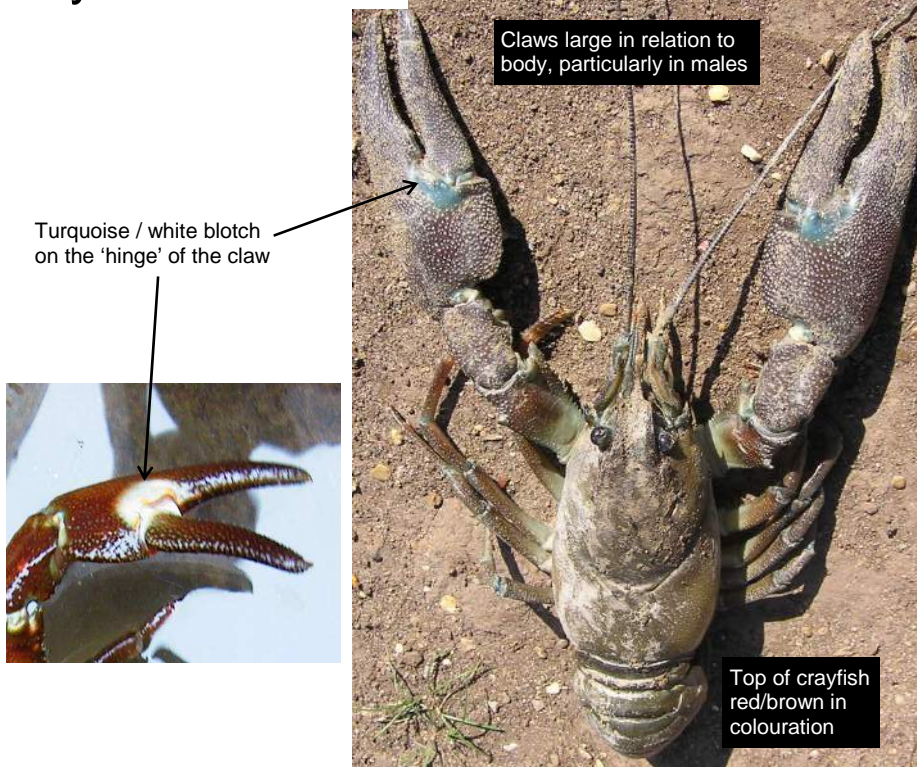
Signal crayfish is listed under Schedule 9 to the Wildlife and Countryside Act 1981 with respect to England, Wales and Scotland. As such it is an offence to release or to allow the escape of this species into the wild. In the UK it is an offence to keep any crayfish without a license, except in some parts of southern England. If trapping of signal crayfish is planned, an application should be made to the relevant environmental protection agency.

For details of legislation go to [www.nonnativespecies.org/legislation](http://www.nonnativespecies.org/legislation).



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## Key ID Features



# Identification throughout the year

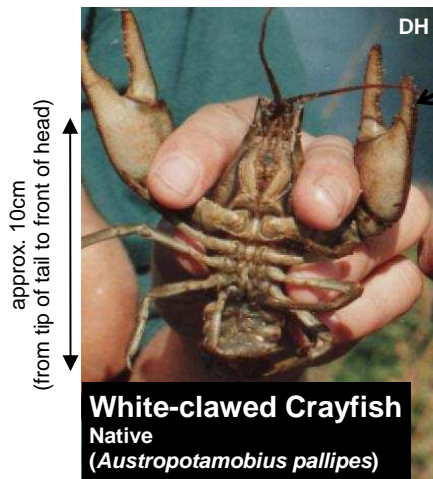
Least active during winter when much time is spent in a state of torpor often in burrows in riverbanks. Peak activity is during the summer. Mating takes place in autumn and early winter and females carry the developing eggs in a dense cluster attached to the underside of their tail over the winter. When the eggs hatch, young remain attached to the female. Release of the young usually begins in May-June. The life cycle then proceeds through a series of moults.

# Field signs

- Burrows in banks of water body
- Parts of dead animals including claws and body shell either on shoreline or stream edge, in bird or rodent nests, or discarded by predators
- Unlike natives, active during daylight hours

# Similar Species

The only native crayfish in the UK is the white-clawed crayfish, which is under serious threat from non-native species. It is therefore essential to be able to distinguish between this and non-native species.



Claws are dirty white to pink on the underside

White-clawed crayfish are considerably smaller than signal, generally have a brown to olive colour, unlike the red / brown of the signal and are usually more docile and less aggressive than the signal crayfish.

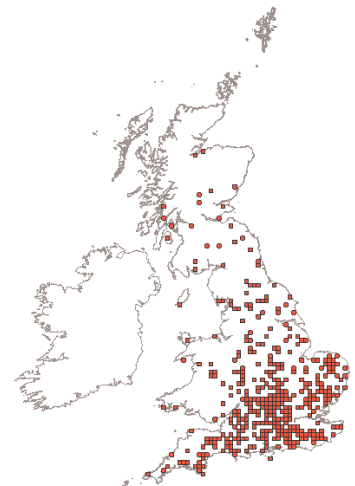
The cervical groove (line between head and body) of the white-clawed crayfish has spikes whereas the signal crayfish is smooth.



# Distribution

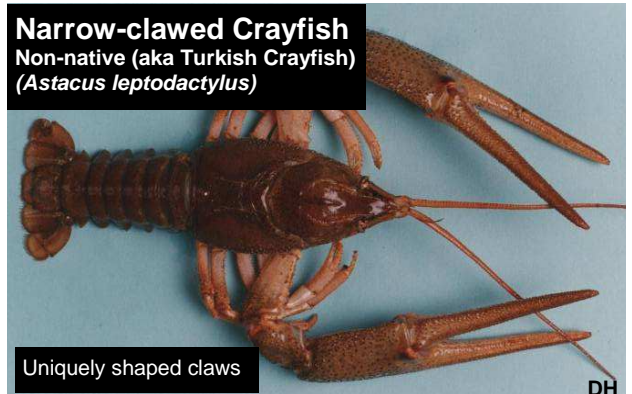
Wide spread throughout England and Wales. Limited to a few water bodies in Scotland.

Source: NBN Gateway. Check website for current distribution



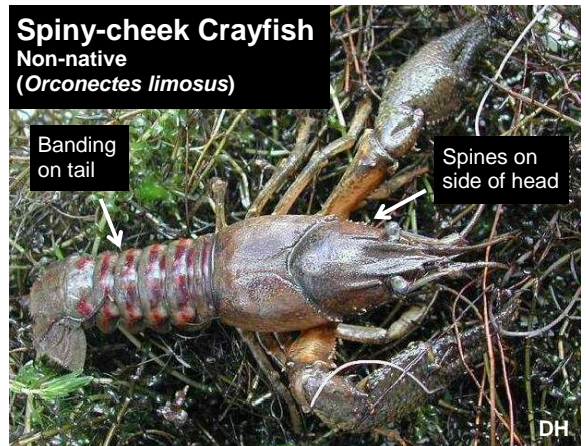
A number of other non-native crayfish have been introduced into the UK though they are less prevalent than the signal crayfish, these include:

**Narrow-clawed Crayfish**  
Non-native (aka Turkish Crayfish)  
(*Astacus leptodactylus*)



usually up to 15cm, but can be larger (from tip of tail to front of head)

**Spiny-cheek Crayfish**  
Non-native  
(*Orconectes limosus*)



up to 14cm (from tip of tail to front of head)

### References and further reading:

Pöckl, M, Holdich, D and Pennerstorfer, J (2006) "Identifying Native and Alien Crayfish Species in Europe". Craynet

Souty-Grosset, C, Holdich, D, Noël, O, Reynolds, J and Haffner, P, (eds) (2006). *Atlas of crayfish in Europe*. Museum national d'histoire naturelle, Paris