

Fathead Minnow

Species Description

Scientific name: *Pimephales promelas*

AKA: Black-head Minnow, Rosey Reds

Native to: Northern America including Canada, USA and Mexico

Habitat: Many freshwater habitats including rivers, lakes, ponds and is also tolerant to muddy waters.

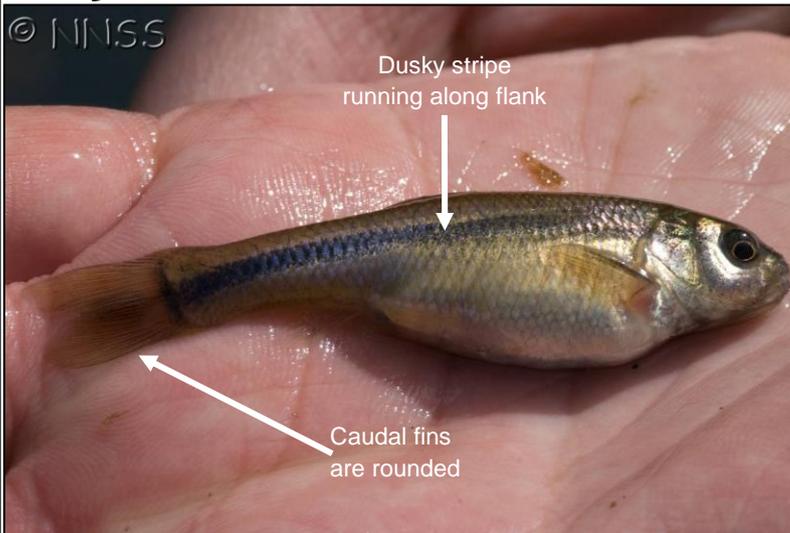
Fathead Minnows are small (10cm in length) freshwater fish and are popular additions to many home aquariums and garden ponds. Typically, these fish are an olive/brown colour, although an ornamental form with a golden/rosy red colouration are also occasionally seen.

First recorded in a garden pond in Epping Forest (Middlesex) in 2003, further reports are limited across England and are generally thought to be the result of intentional releases of unwanted animals. Nonetheless, as this species is assumed to be a strong swimmer, the dispersal potential of this fish is high.

The most renowned impact of Fathead Minnows is that they are known vectors of the pathogen *Yersinia ruckeri* which causes enteric redmouth disease. This bacterium can then be spread to other fish species where it causes haemorrhaging of the mouth, fins and eyes before ultimately leading to the death of the animal. The infection can be treated with antibiotics and does not readily infect humans, although it remains a substantial threat to both wild and captive fish stocks. Other impacts of Fathead Minnows include the predation of native invertebrates and zooplankton and the subsequent cumulative effects on the wider ecosystem.

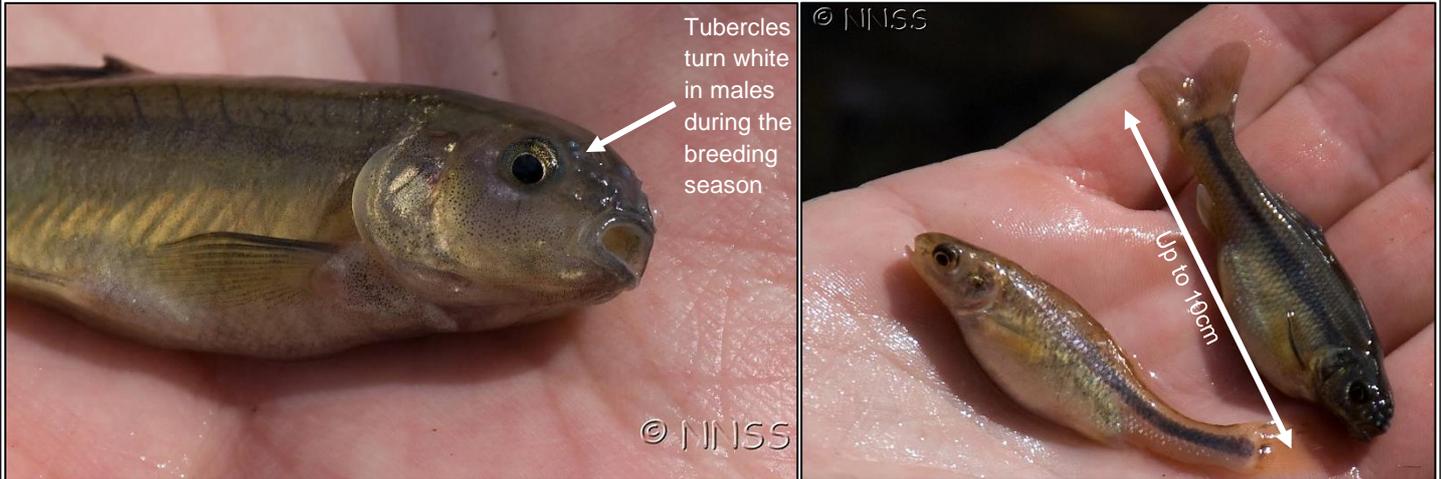


Key ID Features



Identification throughout the Year

Fathead Minnows are readily identifiable year-round and do not significantly change in appearance between seasons. Males will however develop white tubercles on their snout during the spawning period from late spring through to summer. Females will spawn multiple times within a given year, although it is the males that take on the duty of guarding eggs.



Similar Species

Common Minnow (*Phoxinus phoxinus*)
[Native]

The Common Minnow is one of UK's many native fish species and is very similar in appearance to the Fathead Minnow. Nonetheless, identification of the Common Minnow can be made by its more streamlined body shape and the absence of the distinctly rounded head for which the Fathead Minnow is named.

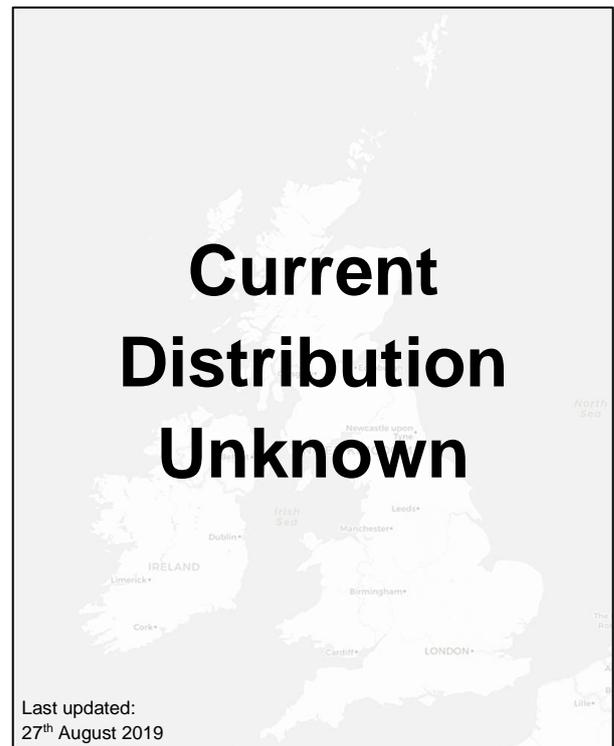
Furthermore, a key difference between these two species is their preferred habitat. Whereas the native Common Minnows are prevalent in well oxygenated waters, Fathead Minnows are often found within oxygen depleted habitats. This however is only a preference and should not be used as a basis for positive identification alone.

Common Minnows can be found throughout the UK in a wide assortment of habitats ranging from small, fast-flowing streams to large expanses of water such as lakes. The distribution of Fathead Minnows is currently uncertain; this is due to a lack of records and it is therefore essential that any sightings are recorded and reported.



Distribution

There are currently confirmed records of the Fathead Minnow in the NBN Atlas, although given its prosaic appearance, most sightings are likely unreported.



References and Further Reading:

Booy, O., Wade, M. and Roy, H., E. (2015) *Invasive plants and animals of Britain*. London: Bloomsbury Natural History.

Freyhof, J. and Kottelat, M. (2008) *Phoxinus phoxinus* Available at: <http://www.iucnredlist.org/details/17067/0> (Accessed: 18th June 2018).

Hubble, D. (2011) *Fathead Minnow, Pimephales promelas*. Available at: <http://www.nonnativespecies.org/factsheet/factsheet.cfm?speciesId=2715> (Accessed: 18th June 2018).

Michel, C., Faivre, B. and de Kinkelin, P. (1986) A Clinical Case of Enteric Redmouth in Minnows (*Pimephales promelas*) Imported in Europe as Bait-Fish, *Bulletin of the European Association of Fish Pathologists*, 64, pp. 97-99.

Wakefield, N. (2018) *Pimephales promelas (Fathead Minnow)*. Available at: <https://www.cabi.org/isc/datasheet/69889> (Accessed: 15th June 2018).

Photos from: ARKive and GBNNSS (unless otherwise stated)