

Prussian carp (*Carassius gibelio*)



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Common names in English	Prussian carp. Giebel. Gibel carp. Silver crucian carp.
... and in other languages	Czech: Karas striebristy. Danish: Damkaruds. Giebel. Dutch: Giebel. Estonian: Harilik hõbekoger. Finnish: Hopearuutana. French: Gibelle. Gibèle. German: Giebel. Silberkarausche. Weißfisch. Hungarian: Ezüst kárász. Latvian: Serebreanyi karas. Polish: Karas srebrzysty. Romanian: Caracuda argintie. Caras-argintiu. Russian: Karas sriblyastyi. Slovene: Zlatni koreselj. Swedish: Silverruda.
Scientific name	<i>Carassius gibelio</i> . The Prussian carp used to be regarded either as a subspecies of the goldfish (<i>Carassius auratus auratus</i>) or as its wild form, but is now considered a species in its own right. As a result, it is often described either under the scientific name <i>Carassius auratus gibelio</i> , reflecting its previously assumed connection with the goldfish, or under the name <i>Carassius gibelio</i> , emphasizing its status as a separate species.
Organism group	Ray-finned fishes (Actinopterygii). Carps and loaches (Cypriniformes). Carp family (Cyprinidae).
Size and appearance	The Prussian carp is deep-bodied and plump, its shape most reminiscent of those of the crucian carp (<i>Carassius carassius</i>) and carp (<i>Cyprinus carpio</i>). Its sides and belly are pale yellow or silvery, rather than the golden yellow usually seen in crucian carp. These two species also differ in the shape of their fins: the caudal (tail) fin of crucian carp is straight, that of Prussian carp forked. The underside fins of a crucian carp are reddish, while those of a Prussian carp are lighter in colour. In crucian carp the membrane lining the body cavity (the peritoneum) is light coloured, while in Prussian carp it is almost black. A Prussian carp can grow to a length of 20–25 cm and a weight of some 250 g in five years. The species has a maximum length of 45 cm and, in favourable conditions, can reach a weight of 2–3 kg. (<i>Source: Baltic Sea Portal</i>)
May be confused with	Young Prussian carps resemble young goldfish (<i>Carassius auratus auratus</i>), as their sides are initially gold-coloured. As they get older, they change, assuming a silver colour. See also above concerning this species' similarity to crucian carp and carp.

Geographical origin	Asia/South-East Asia (China, Taiwan, Korea, Japan, Kolyma River, Amur River basin). The natural range of the species is said to extend from western Siberia across into Europe, including the Ponto-Caspian region (Black and Caspian Seas) and large parts of south-eastern Europe (Romania, Bulgaria, Greece and Turkey).
First observed in Swedish waters	Has not yet been observed in Swedish waters.
Occurrence in Swedish seas and coastal areas	Has not yet been observed in Swedish waters.
Occurrence in other sea areas	<p>The wild form of Prussian carp was introduced into Germany from Asia, according to some reports as early as the 16th or 17th century, according to others around 1780. The species now occurs across much of Europe. It is found from Spain to Britain, in southern and central Europe – including Turkey, Greece, Romania, the Czech Republic, Slovakia, Serbia, Montenegro, Croatia, Hungary, Austria and Poland (first observed in 1931) – and in Belarus and Ukraine.</p> <p>In the Baltic Sea region, <i>Carassius gibelio</i> is to be found in Russia, Estonia, Latvia and Lithuania (since the 17th century?), and in Denmark, Germany and Finland. It was first introduced into Estonia and Latvia in 1948 for cultivation in ponds as a food fish. The species was subsequently stocked in many small lakes, spreading from there to other parts of river systems. The first discovery of Prussian carp in the Baltic Sea itself was in 1985, when it was observed in the Gulf of Riga. It is now found along almost the entire coast of Estonia and has also spread – though it is unclear how – to Finnish waters (caught in 2005 in Helsinki's Old Town Bay (Vanhankaupunginlahti) and in Pernaja Bay).</p> <p>According to the Helsinki Commission (HELCOM), "the distribution area of the Prussian carp in the northeast Baltic Sea has expanded remarkably and it even dominates the fish catches in some regions. Prussian carp has [attained] the status of a commercial fish species in the Curonian lagoon and the Gulf of Riga . . . The recent rapid increase in the abundance of this fish has most likely occurred owing to two simultaneously positively influencing factors: the small number of predators and several consecutive years of warm summers . . ."</p>
Probable means of introduction	Aquaculture: farming (ponds) and stocking.
Habitat(s) in which species occurs	The Prussian carp is a warmwater fish, and thrives best in shallow lagoons and estuaries (with a depth of just a few metres), shallow pools and lakes, and slow-flowing rivers with muddy beds. The species is associated with dense vegetation and feeds mainly on benthic organisms. Like other members of the carp family, Prussian carp is a freshwater fish, but can cope with salinities of up to around 3 psu, and possibly as high as about 6 psu. It can also tolerate waters with relatively low oxygen levels.
Ecological effects	<p><i>Carassius gibelio</i> grows rapidly, reproduces efficiently, and competes with native fishes for food and space. In some parts of central Europe it has affected the range of other, indigenous and commercially more valuable fish species.</p> <p>The species is able to reproduce by gynogenesis, a process which only gives rise to new females. The milt of male fish is needed to initiate development of the eggs, but when the embryos form the chromosomes from the males are excluded. The offspring produced are thus copies of the female.</p>

<p>Other effects</p>	<p>Prussian carp has become so common in the Gulf of Riga that there is now a commercial fishery for the species in Estonian waters of the Gulf. The same is true of the Curonian Lagoon, the shallow sea area enclosed by a sand spit on the coast of Lithuania and the Russian province of Kaliningrad. Likewise, in the Gulf of Gdańsk on the Polish coast, the species has become so well established that there is a regular recreational fishery for it.</p>
<p style="text-align: center;"><i>FIND OUT MORE</i></p> <ul style="list-style-type: none"> • Fishbase: Prussian carp http://www.fishbase.org/Summary/SpeciesSummary.php?id=6376 • North European and Baltic Network on Invasive Alien Species: <i>Carassius auratus gibelio</i> http://www.nobanis.org/speciesInfo.asp?taxaID=914 • North European and Baltic Network on Invasive Alien Species: <i>Carassius auratus ssp. gibelio</i> http://www.nobanis.org/speciesInfo.asp?taxaID=6965 • North European and Baltic Network on Invasive Alien Species: <i>Carassius gibelio</i> http://www.nobanis.org/speciesInfo.asp?taxaID=1737 •  1,9 MB: Helsinki Commission (HELCOM): Assessment of coastal fish in the Baltic Sea http://sea.helcom.fi:15037/dps/docs/documents/Heads of Delegation (HODS)/HODS 18 2005/2-4Add1.pdf • Baltic Sea Alien Species Database: <i>Carassius gibelio</i> http://www.ku.lt/nemo/directory_details.php?sp_name=Carassius+gibelio • Alien species in Poland: <i>Carassius gibelio</i> http://www.iop.krakow.pl/ias/species.asp?205 • Eesti Meeresinstituti: <i>Carassius auratus gibelio</i> http://www.sea.ee/Sektorid/merebioloogia/MASE/Fish.htm •  3,9 MB: ICES: Report of the Working Group on Introductions and Transfers of Marine Organisms. ICES WGITMO Report 2005 http://www.ices.dk/reports/ACME/2005/WGITMO05.pdf • European Nature Information System Database (EUNIS): <i>Carassius gibelio</i> http://eunis.eea.europa.eu/species-factsheet.jsp?tab=2&idSpecies=15648&idSpeciesLink=14967 • European Nature Information System Database (EUNIS): <i>Carassius gibelio</i> http://eunis.eea.europa.eu/species-factsheet.jsp?idSpecies=14967&idSpeciesLink=14967 • Ittiofauna.org: La carpa di Prussia http://www.ittiofauna.org/webmuseum/peciossei/cypriniformes/cyprinidae/carassius/carassius_gibelio/carassius_gibelio.htm <p style="text-align: center;"><i>PHOTO CREDIT</i></p> <p>© Lauri Urho, Finnish Game and Fisheries Research Institute http://www.rktl.fi/tekstiversio/yhteystiedot/henkilosto/henkiloesittelyt/lauri_urho.html http://www.rktl.fi/</p>	
<ul style="list-style-type: none"> • This factsheet on <i>Carassius gibelio</i> was created on 30 November 2006 • First update: 16 December 2006 • Translated by Martin Naylor on 12 January 2007 	