

# Carp

*Cyprinus carpio*



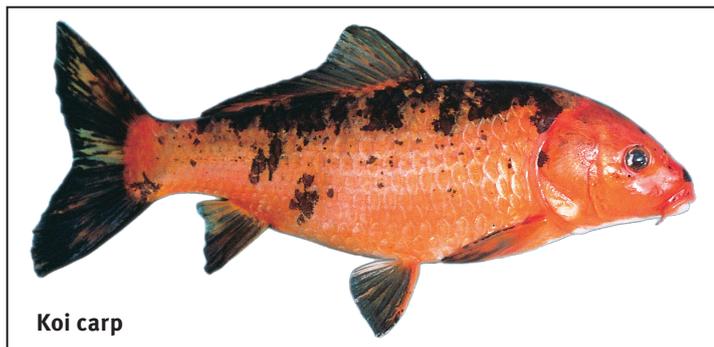
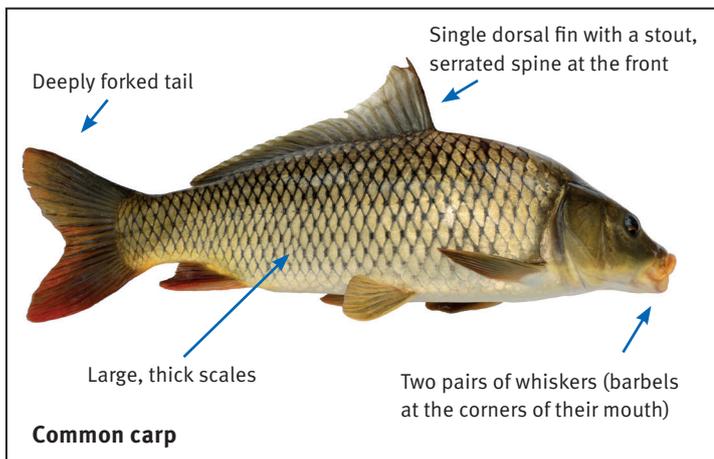
Carp are a medium-large introduced freshwater fish that were originally imported into Australia as game fish. They have since spread throughout many Queensland waterways, including the Murray-Darling Basin. Carp pose a major environmental threat, as they can rapidly outnumber native fish and greatly disturb aquatic environments through their destructive feeding habits.

The introduction of invasive fish species such as carp into Queensland's natural waterways affect native fish and habitats through:

- direct competition for food and space
- predation
- habitat alteration
- introduction of exotic diseases and parasites.



## Three varieties of carp in Queensland



Three varieties of carp are present in Australian waters— common carp, koi carp and mirror carp. These names reflect differences in colour or scale pattern (see photos above) but these are all the same species. It is illegal for any type of carp to be kept as ornamental fish in Queensland.

## Legal requirements

Carp are a category 3, 5, 6 and 7 restricted invasive fish under the *Biosecurity Act 2014* (the Act). They must not be kept, fed, given away, sold, or released into the environment. If caught, carp must be humanely destroyed immediately and disposed of as soon as practicable by burying a suitable distance from the waterway where it was caught or placing it in a rubbish bin.

Carp must not be returned to the water alive or dead. Using carp for any reason, such as for eating or use as fertiliser is not permitted in Queensland.

Worldwide experience in managing invasive fish species suggest that if these fish are permitted to be utilised, their spread would be accelerated as a result of human assisted translocation.

The Act requires everyone to take all reasonable and practical steps to minimise the risks associated with invasive fish under their control. This is called a general biosecurity obligation (GBO).

There have been isolated reports of people keeping koi carp in ornamental ponds around the State – this is an offence and the fish must be destroyed.

## Description

Carp are medium to large sized fish that can grow up to 120 cm long and have large, thick scales. They vary in colour but are usually olive-green, bronze or silvery-grey on the back, lightening to cream or silvery-yellow on the sides and the underside. Ornamental koi carp show a variety of colours and are often brightly coloured with dark blotches over the back.

Carp have two pairs of fleshy whiskers (barbels at the corners of their mouth). These are a useful way of distinguishing carp from goldfish which do not have any. Their tail is deeply forked and their single dorsal (top) fin originates halfway down the body with a stout, serrated spine at the front.



**Goldfish** (*Carassius auratus*) (photo courtesy of Gunther Schmida)

## Life cycle

Carp males are sexually mature between 1–3 years of age and females between 2–4 years of age. Carp spawn between September to December and can produce up to 1.5 million eggs.

## Habitat and distribution

Carp prefer warm, still rivers or lakes with silt bottoms and abundant aquatic vegetation. They are rarely found in clear, cool, swiftly flowing streams. They are tolerant of a wide range of environmental conditions and are able to survive in extremely low levels of dissolved oxygen.

Carp are established throughout the Murray-Darling River in the Condamine-Balonne catchment, Paroo River, Warrego River, Nebine Creek, Culgoa River, Barwon River and MacIntyre River. They are also abundant in the Logan and Albert rivers south of Brisbane.

## Control

### Managing carp

The GBO requires a person to take reasonable and practical steps to minimise the risks posed by carp. This fact sheet provides information and some options for controlling carp.

There is currently no single, effective broad-scale carp control method. Most (if not all) control methods only remove a part of the population with each attempt and carp have a very high reproductive rate, so they will quickly repopulate the area or new carp will soon move in to replace those removed.

Fishing using legal recreational fishing methods is the only option available to the public. Intensive fishing with sustained effort over time may have the potential to reduce carp numbers in small enclosed waterbodies, but it is very unlikely that fishing alone is an effective long-term control measure.

If you catch carp you must destroy the fish as quickly and humanely as possible.

Biosecurity Queensland advocates the ethical euthanasia protocols recommended by the 2001 ANZCCART publication: Euthanasia of animals used for scientific purposes which states:

- the most appropriate method may involve stunning the fish via a sharp blow to the back of the head just above the eyes. When applied correctly, this causes brain destruction—the fish's gill covers should stop moving and its eyes should remain still.

After destroying the fish, you need to dispose of it as soon as practicable by burying it a suitable distance from the waterway where it was caught or placing it in a rubbish bin.

Biological control methods such as disease or manipulating the genetic structure of carp to disrupt their breeding are currently being investigated.

### Banned as bait

You cannot use carp or any other invasive fish as bait. These fish must not be returned to the water dead or alive.

### How to stop the spread

#### Recreational fishers

- Don't return invasive fish to the water. If you catch a invasive fish, kill it humanely and dispose of it appropriately.
- Don't transfer invasive fish between waterways—don't use invasive fish as bait.
- Obtain a permit to stock fish. Buy fingerlings from a registered hatchery to minimise the chance of contamination with undesirable species.
- Prevent unwanted hitchhikers—check, clean and dry your boats and gear between waterways to prevent spread of weed with carp eggs or juveniles attached.

#### Ornamental fish enthusiasts and backyard pond owners

- Don't dump fish—give unwanted aquarium fish to friends or a pet shop instead of letting them go in the wild.

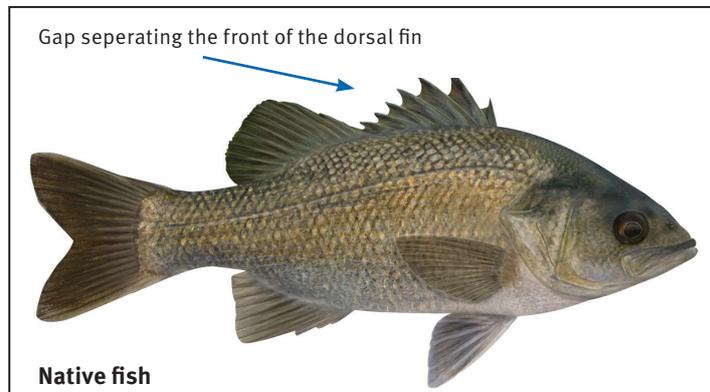
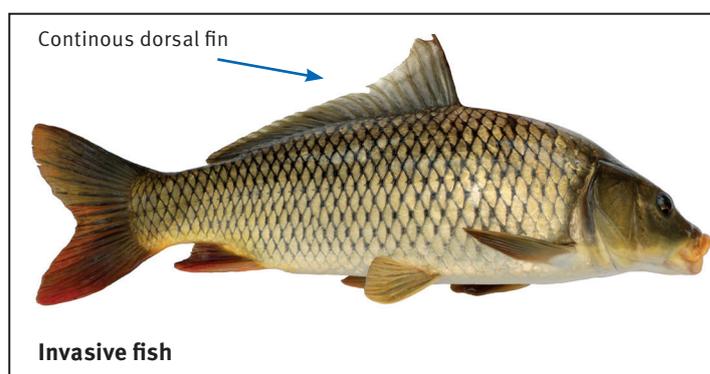
- Don't keep prohibited or restricted fish.
- Prevent accidental escapes—screen outdoor ponds to prevent overflow during heavy rains.
- If possible, keep native fish instead of exotics—contact your local aquarium.

#### Fish farmers

- Prevent accidental escapes—comply with aquaculture permit conditions designed to prevent the escape of fish (e.g. screened water outlets).
- Don't experiment with exotics—keep to the prescribed species list.

### Invasive fish verses native fish

An easy way to distinguish a invasive fish from a native freshwater fish is by looking at the dorsal fin. Invasive fish usually have a continuous dorsal fin, while native freshwater fish usually have a dent or gap separating the front of the dorsal fin from the rear.



### Further information

Further information is available from your local government office, or by contacting Biosecurity Queensland on 13 25 23 or visit [biosecurity.qld.gov.au](http://biosecurity.qld.gov.au).



This fact sheet is developed with funding support from the Land Protection Fund.

Fact sheets are available from Department of Agriculture and Fisheries (DAF) service centres and our Customer Service Centre (telephone 13 25 23). Check our website at [biosecurity.qld.gov.au](http://biosecurity.qld.gov.au) to ensure you have the latest version of this fact sheet. The control methods referred to in this fact sheet should be used in accordance with the restrictions (federal and state legislation, and local government laws) directly or indirectly related to each control method. These restrictions may prevent the use of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, DAF does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.