

# INVASIVE SPECIES ALERT!

## GOBIES (Family Gobiidae) PROHIBITED IN BC

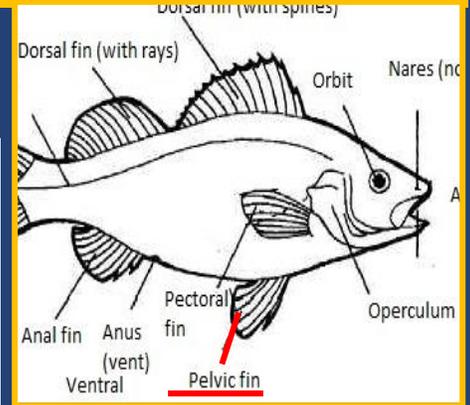
### NATIVE RANGE

Gobies are native to Europe and Asia.

### DESCRIPTION

Gobies...

- Can be distinguished by a fused pelvic fin that forms a cone



### Species of Goby

### Distinguishing Features

#### Round Gobies

##### *Neogobius melanostomus*

Photo: © Peter van der Sluijs, Wikimedia Commons, CC-BY-SA-3.0,2.5,2.0,1.0



- Are black with brown blotches,
- and have white- yellow fins
- Have a black eye-spot on the first dorsal (back) fin
- Can grow to be 30 cm long

#### Monkey Gobies

##### *Neogobius fluviatilis*

Photo Credit viridiflavus, wikimedia commons, CC BY-SA 3.0



- Have a narrower head and bigger fins than other Goby species
- Are commonly found along sand substrates
- Lack a black spot on the first dorsal (back) fin, which is present in Round Gobies
- Can grow to be 12-13 cm long

#### Tubnose Gobies

##### *Proterorhinus marmoratus*

Photo Credit ©Piet Spaans, Wikimedia Commons, CC-BY-SA-2.5



- Are grey-brown in colour over a light background
- Have long nostril tubes that extend over the upper lip
- Lack a black spot on first dorsal fin, which is present in Round Gobies
- Have at least three dark vertical markings extending down sides of body
- Can grow to be 8.5 cm long

#### Amur Gobies

##### *Rhinogobius similis*

Photo Credit Craig Haskell, USGS, Bugwood.org



- Have distinctive red or dark lines running from the front edge of the eye to tip of snout
- Have a tall first dorsal (back) fin that terminates at a point, with a white/ yellow tip
- Have body scales that alternate orange-red/blue-green
- Can grow up to 10 cm long

**PRIMARY IMPACT:**  
Gobies compete with and prey on native fish species, which could have consequential ecological effects in B.C. freshwater systems.

### LOOK-ALIKES

British Columbia has three native species of Goby, the Black-eye Goby (*Rhinogobiops nicholsii*), Bay Goby (*Lepidogobius lepidus*), and Arrow Goby (*Clevelandia ios*). The main distinguishing feature between native and non-native Gobies is where they can be found. The native Gobies appear in marine and estuarine environments, while the non-native species are mostly found in freshwater.

There are eight native species of sculpins (*Cottus sp.*) found in BC's freshwater that could be mistaken for non-native Gobies. Unlike Gobies which have a fused pelvic fin, sculpins have two separate pelvic fins or no pelvic fin.

# GOBIES (Family Gobiidae)

**PROHIBITED IN BC**

## WHY SHOULD WE CARE?

Round Gobies...

- Where introduced into the Great Lakes from freighter ballast tanks and have since been linked to declines in native species of the Great Lakes
- Feed on eggs and fry of species such as trout, sculpins and darters
- Have shown to reduce populations of sport fish by eating their eggs and young, and competing with them for food sources
- Are known carriers of viral haemorrhagic septicaemia, which has been shown to cause death in several finfish species
  - \*There have been reported large die-offs of native fish species in the Great Lakes from this disease

Monkey Gobies...

- Have shown to predate on and compete with native fish species, in other regions where they have been introduced
- Have a wide ranging diet of fish, fish eggs, larval fish, plankton, gastropods and crustaceans

Tubenose Gobies...

- Have shown to predate on and compete with native fish species, in other regions where they have been introduced

\*The effects of Amur Gobies are unknown, but it is considered likely that if this species is introduced into B.C. it would have similar impacts as other related Goby species.

## BIOLOGY & SPREAD

Gobies have been introduced into North America from the ballast water of ocean-going ships and the aquarium trade. Their aggressive eating behavior, tolerance to extreme environmental conditions, and ability to spawn several times each season aids them in multiplying and spreading quickly to new regions.

## HABITAT

Gobies prefer different habitats depending on species type. Tubenose Gobies prefer waters near the shores of lakes and rivers, where they can hide amongst aquatic plants. Round Gobies prefer waters with rocky and sandy bottoms. Monkey Gobies can be found in a wide range of temperature and salinity levels, including both freshwater and brackish water environments. Little is known about the preferred habitat of Amur Gobies.

## HOW CAN WE STOP THEM?

- Do not possess, breed, release, sell or transport live Gobies in B.C. (**It is illegal!**)
- Be aware of the species that you buy for aquariums, as it could be PROHIBITED in B.C.
- Raise awareness to avoid the spread of this species into B.C. waters



## ARE THEY HERE YET?

**No.** None of these Goby species have been reported in B.C.

## DID YOU KNOW?

Round Gobies have been known to predate on the invasive zebra mussel.

## WHAT SHOULD I DO IF I FIND ONE?

Report Gobies, or any other invasive species via the **Report Invasives phone app**, or via the **webform** available on the B.C. Inter-Ministry Invasive Species Working Group website:

[www.gov.bc.ca/invasive-species](http://www.gov.bc.ca/invasive-species)

