



## New recreational fishing rules for the Marlborough Sounds Area from 1 April 2011

### Why do we need the new rules?

Since the closure, adult blue cod numbers have increased but there hasn't been an increase in juvenile numbers everywhere in the Sounds. Also, blue cod are smaller on average than they were 10 years ago and there are more males than females.

The new rules aim not only to manage the level of recreational catch, but also to make sure that the blue cod can successfully reproduce to sustainable levels. This is necessary to ensure the Marlborough blue cod fishery remains healthy for future generations.

Not all these rules will be in place forever. But it is important for the fishery to be re-opened in a cautious manner while the number of fish, and also the structure of the population in terms of size and male-female ratios, rebuilds.

#### A daily bag limit of two blue cod per person per day

Objective: To limit recreational catch to sustainable levels

Rationale: Three years after introduction of a three blue cod bag limit in 2003, the blue cod populations in the Sounds had reduced on average by 25%. Thus, the bag limit must be reduced from three to ensure fishing effort is sustainable.

#### A personal accumulation limit of one daily bag limit

Objective: To limit recreational catch to sustainable levels

Rationale: This measure supports the bag limit to achieve a reduction in amateur catch of blue cod compared with before the closure, in order for the numbers of blue cod to be able to continue increasing. "Fish for a feed not the freezer".

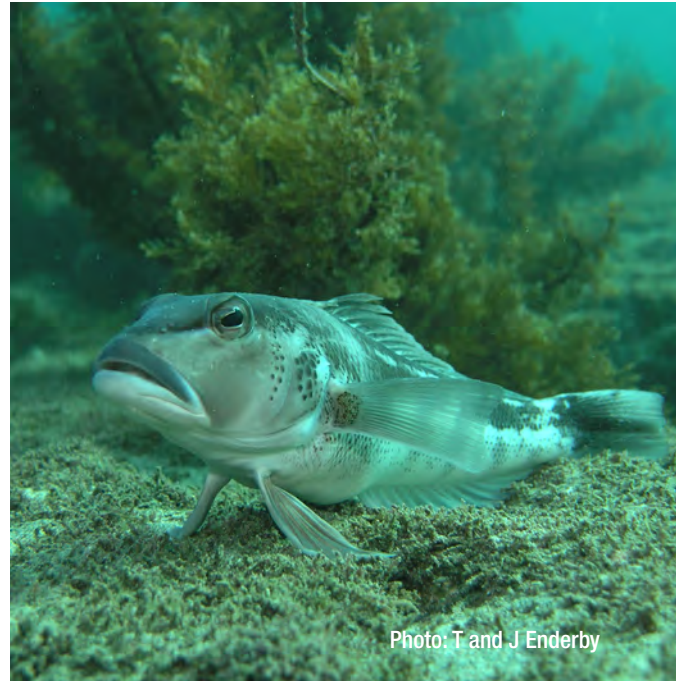


Photo: T and J Enderby

#### A seasonal opening from 20 December to 31 August

Objective: To minimise disruption to spawning activity to support reproduction

Rationale: Spawning behaviour is often complex for sex changing species. Closing the fishery over the core spawning season will minimise any disruption to the blue cod spawning activity caused by recreational fishing. This should help to maximise successful reproduction and support a population rebuild.

#### A hook limit of two hooks per line when fishing for any species

Objective: To limit amateur catch to sustainable levels and minimise the rate of incidental mortality

Rationale: The two-hook limit both supports the bag limit and reduces risks associated with incidental mortality by reducing the incidence of several blue cod taking the hook at the same time.

## “Slot fishery” allowing only blue cod between 30cm and 35cm in length to be taken

### Objective 1 : To protect the juvenile blue cod and support reproduction.

Rationale: Preventing fishers from being able to harvest fish smaller than 30cm increases the chance that fish will successfully reproduce and the numbers of blue cod can increase.

### Objective 2 : To protect large males – to build a healthier sex ratio and support reproduction.

Rationale: There are too many males in the population at the moment. Blue cod females can change into males when they reach a certain size. If there is a shortage of large dominant males around, more females will change into males at a smaller size.

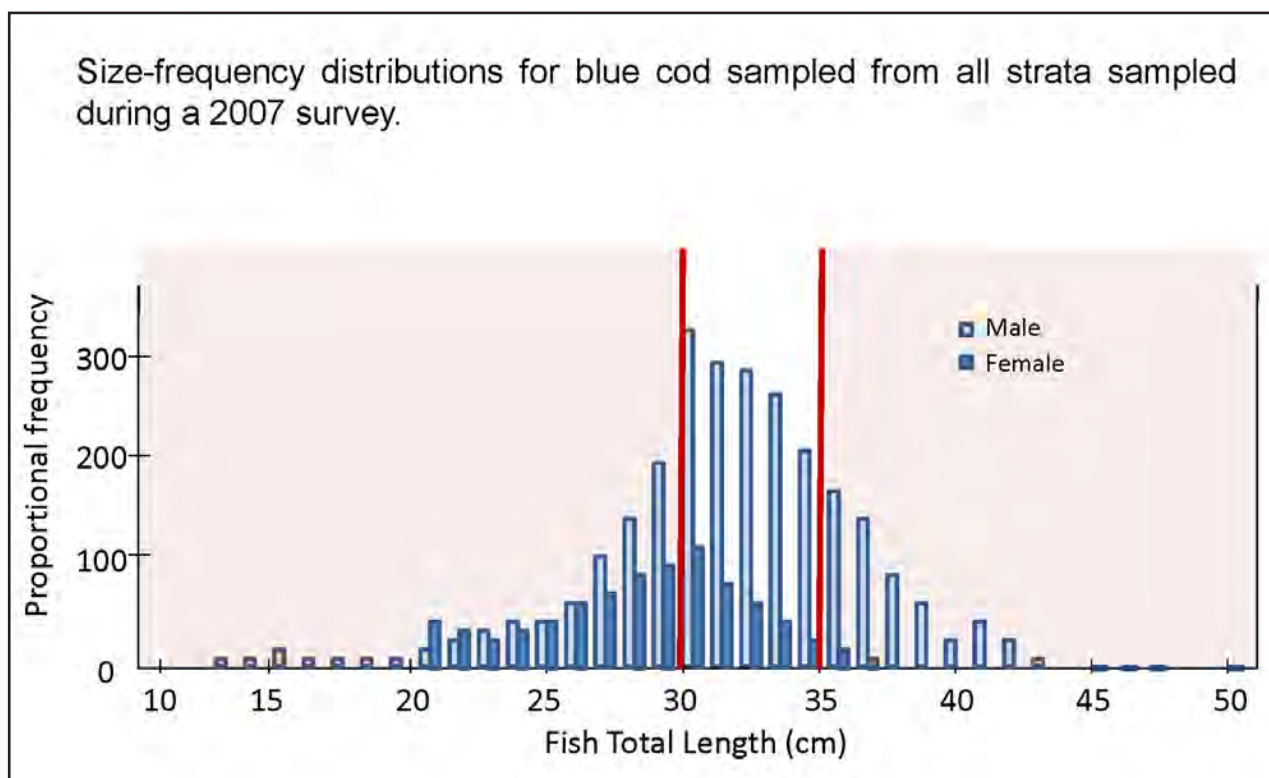
Protecting the large males will help to create a more balanced sex ratio, which is important for the population to be able to reproduce and rebuild.

### Objective 3 : To protect large females – as they produce the most eggs which are larger and more viable.

Rationale: Reproductive output (in other words, the number of eggs and sperm produced) is considered to increase exponentially with fish size. By protecting the largest fish, you are protecting the largest amount of spawning biomass. This is important for the population to be able to reproduce and rebuild.

The graph below shows the spread of the population across different sizes of blue cod found within the Marlborough Sounds. The red lines indicate the minimum and maximum legal size limits.

The bulk of the population lies within the range of sizes that can be caught (white area inside the red lines). The pink shaded areas show those fish that are protected from harvest (in other words, the smallest and the largest fish).



**Blue cod must be landed in a whole or gutted state only. Blue cod must not be filleted unless for immediate personal consumption.**

**Objective:** To enable the minimum and maximum legal size limits to be effectively monitored by Fisheries Officers.

**Rationale:** The use of fillets or fish frames to regulate size limits can be very unreliable and is likely to lead to problems for Ministry officers monitoring compliance. Size limits can be effectively monitored if the fish is kept whole.

## A no-take zone around Maud Island

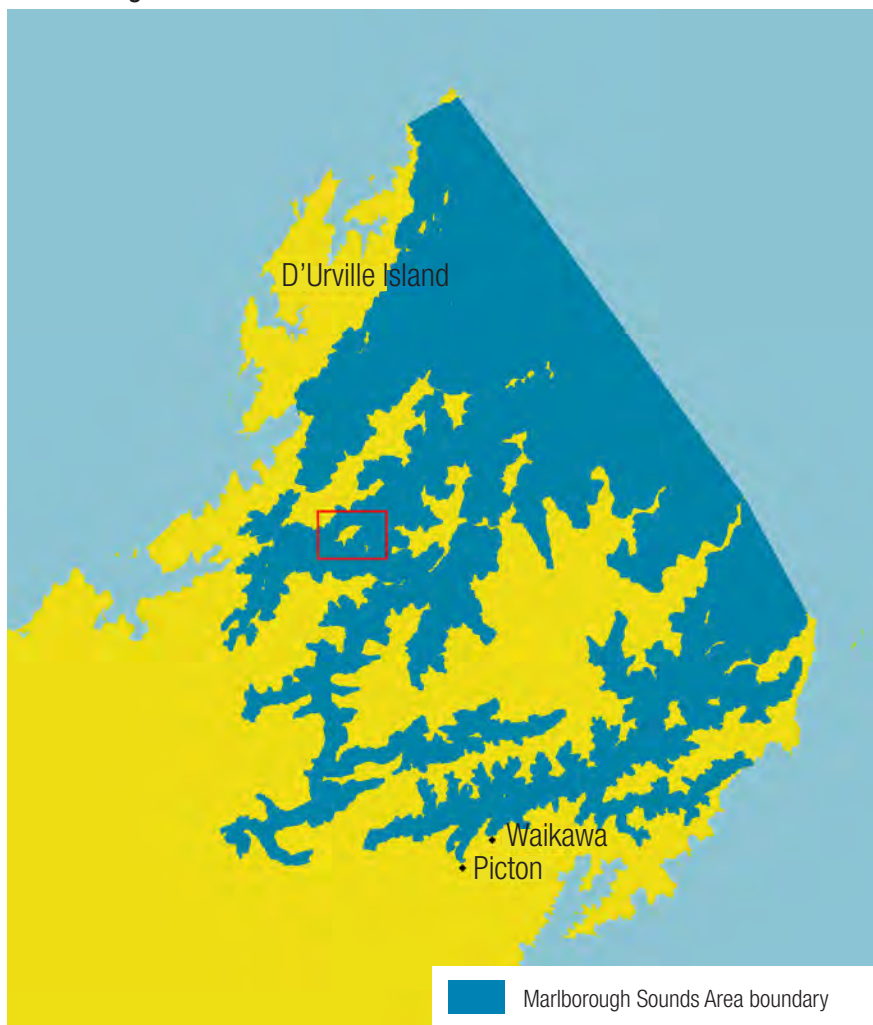
**Objective:** Provide an opportunity to monitor changes in the abundance and population structure of blue cod with removal of amateur fishing effort. May also benefit abundance the local populations within the rest of the Sounds via the transfer of adults, eggs and larvae.

**Rationale:** Blue cod habitat is found around Maud Island and the adjacent coastline and the no-take zone will provide protection to blue cod within the defined area. Maud Island has relatively high spawning biomass across all years, suggesting that it is a good candidate for a no-take zone.

**No-take Zone for Maud Island showing:**

- its position in the Marlborough Sounds, and
- the boundaries of the proposed zone.

### Marlborough Sounds Area



### Maud Island No-take Zone

