New Zealand

QUOTA SPECIES

Identification

A technical guide to the identification of fish species subject to quota under sections 28B and 28C of the Fisheries Amendment Act 1986 and section 89 of the Fisheries Act 1983, and of species which may be confused with quota species.

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Foreword

The Quota Management System introduced to manage the bulk of commercial fisheries is very sophisticated and complex. As a result it is not easy to understand and therefore effective communications — two-way between the industry and MAFFish — are of fundamental importance.

MAFFish has taken some measures to improve the dialogue with the industry but recognises that even more needs to be done if it and the industry are to work together in a mutually beneficial partnership. This booklet represents another step on the path to achieving greater understanding.

This quota species identification guide provides visual identification of species currently under the quota management system. I hope it will be useful in helping clear distinctions to be made between similar-looking species.

(M.W. Craig)
Group Director, MAFFish
Introduction

This illustrated identification booklet has been produced to enable people involved in the fishing industry to identify beyond doubt fish species which are subject to quota under fisheries legislation and those similar-looking species which may be confused with quota species but which are not subject to quota.

Species are depicted by simple line drawings with numbered arrows and corresponding text pointing out the key features used for identification. Quota species are enclosed in a border; similar species, where applicable, appear below or adjacent to quota species. A glossary of terms used appears on page 36.

Key identification features are given for each species along with its scientific name. The common name for each quota species appears in bold capitals. In some cases several species are grouped together under one name in the quota management system. This name appears in brackets below the common name. The three letter code given with quota species is the code to be used for quota management purposes (See table on page 37). The codes appearing on pages 38 and 39 are to be used for the FSU commercial fishing returns.

Colour and length are also usually given. These are not intended as part of the key identification features but as a guide only. Colours are those most often observed of freshly caught specimens and these may change after death or further processing. Length ranges are of adults of that species.

This booklet does not include all fishes that may be caught in conjunction with quota species. However those not included are so different that they are unlikely to be confused with quota species.

More detailed information on any species may be found in one of the publications referred to on page 40.
**QUOTA SPECIES**

**SNAPPER**

**KEY FEATURES**

1. No spines on head
2. Many blue spots
3. 12 dorsal fin spines

**Colour:** Pink to orange
**Length:** 30-80 cm

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**QUOTA SPECIES**

**ALFONSINO (ALFONSINO)**

**KEY FEATURES**

1. Headspines weak
2. 4 dorsal fin spines
3. 14 dorsal fin rays
4. 27 anal fin rays

**Colour:** Scarlet to silvery red
**Length:** 30-50 cm
**KEY FEATURES**
1. Dorsal and anal fins often long
2. Headspines weak
3. 4 dorsal spines
4. 17 dorsal fin rays
5. 26 anal fin rays

**Colour:** Bright silvery red
**Length:** 20-40 cm

**SIMILAR SPECIES**

**Red snapper**

*Centroberyx affinis*
1. Headspines strong
2. 7 dorsal fin spines
3. Less than 20 anal fin rays

**Colour:** Golden orange-red
**Length:** 30-40 cm
**Orange Roughy**

**Key Features**
1. Lateral line scales bigger
2. Small belly scales
3. Anus near anal fin
4. Dorsal fin rays 15-18

- **Colour:** Bright orange
- **Length:** 25-40 cm

**Similar Species**

**Common Roughy**
*Paratrichichthys trailii*
- 1. Lateral line scales not bigger
- 2. Large scales on belly
- 3. Anus between pelvic fins
- **Colour:** Crimson-brown
- **Length:** 10-25 cm

**Silver Roughy**
*Hoplostethus mediterraneus*
- 1. Lateral line scales bigger
- 2. Large scales on belly
- 3. Anus near anal fin
- **Colour:** Pinky silver
- **Length:** 10-20 cm

**Giant Sawbelly**
*Heplostethus gigas*
- 1. Lateral line scales bigger
- 2. Large scales on belly
- 3. Anus near anal fin
- **Colour:** Pinky-orange
- **Length:** 40-80 cm
JDO

KEY FEATURES
1. Dark spot on side
2. 4 anal fin spines
3. Pelvic fin long
4. No scales

5. Spines at base of dorsal and anal fins
   Colour: Olive-brown
   Length: 30-40 cm

SIMILAR SPECIES

Mirror dory
Zenopsis nebulosus
1. No scales
2. 2-3 anal fin spines
3. Spines
   Colour: Uniform bright silver
   Length: 20-35 cm

Silver dory (Not pictured)
Cyttus novaezelandiae
1. Scales present
2. Pink fins
   Colour: Uniform silver
   Length: 20-30 cm

Lookdown dory
Cyttus traversi
1. Scales present
   Colour: Pale brown and silver
   Length: 20-40 cm
QUOTA SPECIES

SMOOTH OREO
(OREO DORIES)

KEY FEATURES
1. Dorsal fin spines weak
2. First spine longest
3. Skin smooth, spotted in juveniles
4. Gill cover without strong ridges and fully scaled
   Colour: Grey
   Length: 20-40 cm

QUOTA SPECIES

BLACK OREO
(OREO DORIES)

KEY FEATURES
1. Dorsal fin spines strong
2. First spine short
3. Skin rough, scales not easily shed
4. Gill cover with strong ridges and not fully scaled
5. Row of warts on belly
   Colour: Very dark brown
   Length: 30-40 cm
**Neocyturus rhomboidalis**

**OEO**

**SPIKY OREO** (OREO DORIES)

**KEY FEATURES**
1. Dorsal fin spines strong
2. First spine short
3. Skin rough, scales easily shed
4. Gill cover with strong ridges and not fully scaled

Colour: Uniform silver-grey
Length: 20-30 cm

**SIMILAR SPECIES**

**Warty oreo**

*Allocyturus verrucosus*
1. First dorsal fin spine short
2. Scales not easily shed
3. Double row of warts

Colour: Dark grey, fins black
Length: 20-35 cm
QUOTA SPECIES
Nemadactylus macropterus

TARAKIHI
TAR

KEY FEATURES
1. Dark saddle across back of head
2. Long lower rays in pectoral fins

Colour: Silver-grey, black saddle
Length: 30-60 cm

SIMILAR SPECIES
Porae
Nemadactylus douglasii
1. No dark saddle
2. Very long middle pectoral fin ray
Colour: Silver, pale greenish-yellow
Length: 40-60 cm
**Latridopsis ciliaris**

**MOK**

1. No teeth on roof of mouth
2. No dark margin on tail

**KEY FEATURES**

Colour: Blue-grey, darker above
Length: 50-90 cm

**SIMILAR SPECIES**

**Red moki**

*Cheilodactylus spectabilis*

1. Dark bands
2. Anal fin rays much longer

Colour: Red with red-brown stripes
Length: 40-60 cm

**Trumpeter**

*Latriss lineata*

1. Teeth on roof of mouth
2. Black margin on tail
3. Horizontal lines

Colour: Olive-green (yellowish)
Length: 60-100 cm

**Copper moki**

*Latridopsis forsteri*

1. Faint coppery lines
2. Black margin on tail

Colour: Silvery pink, appears coppery
Length: 30-60 cm
**QUOTA SPECIES**

**Hyperoglyphe antarctica**

**BLUENOSE**

**BNS**

**KEY FEATURES**

1. No dark blotch on shoulder
2. Dorsal fin rays up to 20
3. Anal finrays up to 16

**Colour:** Dark blue above, silver-blue below

**Length:** 60-80 cm

---

**QUOTA SPECIES**

**Seriolella brama**

**BLUE WAREHOU**

**WAR**

**KEY FEATURES**

1. Dark blotch on shoulder
2. Dorsal fin rays less than 34
3. No spots or pits on body

**Colour:** Dark blue-green above, silvery-white below

**Length:** 40-75 cm
**KEY FEATURES**
1. Dark blotch on shoulder
2. Dorsal fin rays more than 34
3. Body with spots and pits
4. Dark 'V' at rear of head

**Colour:** Pale blue-grey above, silver-white below

**Length:** 40-65 cm

---

**SIMILAR SPECIES**

**White warehou**

*Seriolella caerulea*

1. No dark blotch on shoulder
2. 33 dorsal fin rays
3. 21 anal fin rays

**Colour:** Uniform grey-white

**Length:** 45-75 cm

**Cubehead**

*Cubiceps caeruleus*

1. Sensory pits around eyes
2. Dorsal fins separate

**Colour:** Pale blue-grey, darker blue snout and tail fin

**Length:** 15-20 cm
QUOTA SPECIES

Caranx georgianus

TREVALLY

TRE

KEY FEATURES
1. Coarse scales at tail end of lateral line
2. 2 spines, separate from anal fin
3. Pectoral fin sickle-shaped
   Colour: Silver-grey, greenish blue above in big fish
   Length: 30-60 cm

QUOTA SPECIES

Polyprion oxygeneios

HAPUKU
(HAPUKU & BASS)

HPB

KEY FEATURES
1. Ridge on gill cover
2. Body slender

Colour: Dark blue-grey above,
   light grey below
Length: 80-200 cm
Polyprion moeone

HPB

1. Ridge on gill cover
2. Body deep

BASS
(HAPUKU & BASS)

Colour: Uniform grey
Length: 80-200 cm

KEY FEATURES

SIMILAR SPECIES

Spotted groper
*Epinephalus daemelii*
1. 3 spines on gill cover
Colour: Dark green or green-brown with pale spots
Length: 30-80 cm

Orange perch
*Lepidoperca sp.*
1. 3 spines on gill cover
Colour: Uniform orange, tinged with red
Length: 20-25 cm

Boarfish
*Pseudopentaceros richardsoni*
1. Armoured head
Colour: Dark grey above, pale below
Length: 30-50 cm
**KEY FEATURES**
1. Single lateral line
2. 10-12 rows of scales above lateral line
3. Brown spot under pectoral fin

**Colour:**
- Males: two-tone blue
- Females: brown and white

**Length:** 15-50 cm

**SIMILAR SPECIES**

**Yellow weever**  
*Parapercis gilliesi*
1. 6-7 rows of scales above lateral line

**Colour:** Varies from cream to yellow

**Length:** 15-30 cm

**Ice cods (Black cods)**  
*Paranotothenia spp.*
1. Double lateral line near tail

**Colour:** Usually black or dark grey

**Length:** 15-65 cm
**Pseudophycis bachus**

**KEY FEATURES**
1. No spines on fins
2. Barbel present
3. Black spot at base of pectoral fin
4. 7-9 rows of scales above lateral line

**Colour:** Pink-red

**Length:** 30-50 cm

**SIMILAR SPECIES**

**Bastard red cods**
*Pseudophycis spp.*
1. No black spot
2. 13-16 (or 6-8) rows of scales

**Colour:** Red-brown

**Length:** 15-40 cm

**Small headed cod**
*Lepidion microcephalus*
1. Very long dorsal fin ray

**Colour:** Grey-white or grey-brown

**Length:** 40-60 cm

**Dwarf cod**
*Austrophycis marginata*
1. Black tip on dorsal fin

**Colour:** Pale pink

**Length:** Up to 20 cm
**KEY FEATURES**
1. Pelvic fins on throat
2. Single dorsal fin
3. Gill slit extends above base of pectoral fin

Colour: Mottled pink
Length: 80-120 cm

**SIMILAR SPECIES**

**Blue cusk eel**  
*Brotilateia crassa*  
1. No pelvic fins  
Colour: Blue-grey  
Length: 50-80 cm

**White brotula**  
*Cataetys sp.*  
1. Pelvic fins on belly  
Colour: White  
Length: 40-70 cm

**Conger eels**  
*Conger wilsoni*  
*C. verreauxi*  
1. No pelvic fins  
2. Gill slit small  
Colour: Grey to dark-grey  
Length: 40-180 cm
**Macruronus novaezelandiae**

**QUOTA SPECIES**

**HOK**

**HOKI**

**KEY FEATURES**

1. Teeth short and sharp
2. Lower jaw protrudes
3. No spines in dorsal fin
4. Distance from pelvic fin to anal fin greater than head length

Colour: Silvery blue

Length: 60-100 cm

**SIMILAR SPECIES**

**Lyconus**

*Lyconus sp.*

1. Long teeth
2. Skin delicate — usually skinned in trawls

Colour: Silvery-blue

Length: 50-80 cm

**Javelin fish**

*Lepidorhynchus denticulatus*

1. Snout rounded
2. Spine in dorsal fin
3. Shorter than head length

Colour: Pale silver-green above

Length: 20-50 cm

**Rattails**

*Coelorinchus spp.*

1. Spine in dorsal fin
2. Barbel present
3. Shorter than head length

Colour: Various

Length: 10-50 cm
**QUOTA SPECIES**

**HAKE**

![Diagram of a hake]

**KEY FEATURES**

1. No barbel
2. 2 dorsal fins
3. Tail square-ended

Colour: Silver-grey above, silver-white below
Length: 60-90 cm

**QUOTA SPECIES**

**BARRACOUTA**

![Diagram of a barracouta]

**KEY FEATURES**

1. Single lateral line
2. Pelvic fins normal
3. 2 dorsal fins
4. No spot on front of first dorsal fin

Colour: Silver-blue
Length: 60-150 cm
**KEY FEATURES**
1. Double lateral line
2. Pelvic fin very small
3. Black spot on front of first dorsal fin
4. 2 dorsal fins
   - Colour: Pale silver-blue
   - Length: 60-180 cm

**SIMILAR SPECIES**

**Frost fish**
*Lepidopus caudatus*
1. Pelvic fin very small
2. Single dorsal fin
3. No finlets
   - Colour: Uniform bright silver
   - Length: 120-200 cm

**Oilfish**
*Ruvettus pretiosus*
1. Skin rough, brown
2. Thorny scales
   - Colour: Mid brown, darker above
   - Length: 80-160 cm
**Rexea solandri**

**KEY FEATURES**
1. Double lateral line
2. Pelvic fin very small
3. Black spot on front of first dorsal fin
4. 2 dorsal fins  
   Colour: Pale silver-blue  
   Length: 60-180 cm

**SIMILAR SPECIES**

**Frost fish**  
*Lepidopus caudatus*
1. Pelvic fin very small  
2. Single dorsal fin  
3. No finlets  
   Colour: Uniform bright silver  
   Length: 120-200 cm

**Oilfish**  
*Ruvettus pretiosus*
1. Skin rough, brown  
2. Thorny scales  
   Colour: Mid brown, darker above  
   Length: 80-160 cm
QUOTA SPECIES

Chelidonichthys kumu

GURNARD

KEY FEATURES
1. Smooth scales
2. No spots on body
3. No spines on snout
4. Pectoral fin bright green with yellow margin and dark spot

Colour: Red-pink or brownish
Length: 25-40 cm

SIMILAR SPECIES

Spotted gurnards
*Pterygotrigla* spp.
1. Yellow or black spots
2. Spines on snout
Colour: Pink-yellow above
Length: 20-30 cm

Scaly gurnard
*Lepidotrigla brachyoptera*
1. Coarse scales
2. Head profile steep
Colour: Red-pink above
Length: 10 cm
**Kathetostoma giganteum**

**QUOTA SPECIES**

**GIANT STARGAZER**

**KEY FEATURES**

1. No scales
2. No spines in front of dorsal fin
3. No barbel or flaps on chin

Colour: Mottled olive brown above, white below
Length: 30-60 cm

**SIMILAR SPECIES**

**Spotted stargazer**
*Genyagnus monopterygius*
1. Small scales
2. Very small barbel
Colour: Brown with pale spots
Length: 20-45 cm

**Brown stargazer**
*Gnathagnostus innotabilis*
1. Small scales
2. Flaps on chin
Colour: Uniform brown
Length: 30-40 cm

**Banded giant stargazer**
*Kathetostoma sp.*
1. No scales
2. Body broad, short
3. Dark band
Colour: Greenish with brown band
Length: 25-50 cm
**QUOTA SPECIES**

**Mugil cephalus**

**GREY MULLET**

KEY FEATURES

1. Membrane partly covers eye
2. 2 dorsal fins
3. Lateral line indistinct

Colour: Olive-grey above, silver-grey below
Length: 30-75 cm

**SIMILAR SPECIES**

**Yellow-eyed mullet**

*Alce richetta forsteri*

1. No membrane over eyes
2. Eyes yellow

Colour: Olive above, silver below
Length: 20-40 cm

**Kahawai**

*Arripis trutta*

1. Single dorsal fin
2. Lateral line distinct

Colour: Blue-green above, silvery below
Length: 40-60 cm

**Kingfish**

*Seriola lalandi*

1. No membrane over eyes
2. Dorsal fin short

Colour: Blue-green above, silvery below
Length: 100-200 cm
**KEY FEATURES**

1. 2 pelvic fins (beneath)
2. Dorsal fin begins above eyes

**Colour:** Grey or brown back, white beneath

**Length:** 25-50 cm

**KEY FEATURES**

1. 2 pelvic fins (beneath)
2. Mouth hidden

**Colour:** Grey-green back, white beneath

**Length:** 25-45 cm
TURBOT
(FLATFISH)

KEY FEATURES
1. 2 pelvic fins (beneath)
2. Long hook-like projecting snout

Colour: Blotted brown back, white beneath
Length: 25-80 cm

BRILL
(FLATFISH)

KEY FEATURES
1. 2 pelvic fins (beneath)
2. Short hook-like projecting snout

Colour: Brown-grey with fine black lines on back
Length: 25-70 cm
**Rhombosolea retiaria**

**FLA**

**BLACK FLOUNDER**  
**FLATFISH**

**KEY FEATURES**

1. 1 pelvic fin (beneath)

**Colour:** Dark grey-green with red-brown spots.  
**Olive-yellow beneath**  
**Length:** 20-45 cm

---

**Rhombosolea plebeia**

**FLA**

**SAND FLOUNDER**  
**FLATFISH**

**KEY FEATURES**

1. 1 pelvic fin (beneath)  
2. Body diamond-shaped

**Colour:** Grey, green or brown back, white beneath  
**Length:** 25-45 cm
**QUOTA SPECIES**

Rhombosolea tapirina

**GREENBACK FLOUNDER**

(FLATFISH)

**KEY FEATURES**

1. 1 pelvic fin (beneath)
2. Snout sharply pointed
3. Body oval

**Colour:** Dark-green back, white beneath
**Length:** 25-50 cm

---

**QUOTA SPECIES**

Rhombosolea leporina

**YELLOWBELLY FLOUNDER**

(FLATFISH)

**KEY FEATURES**

1. 1 pelvic fin (beneath)
2. Snout normal
3. Body oval

**Colour:** Dark-green back, yellowish beneath
**Length:** 25-50 cm
SIMILAR SPECIES

**Spotted flounder**

*Azygopus pinnifasciatus*

1. Anal fins not joined
2. Spots on body
   - Colour: Grey-brown with dark spots,
   - 2 spots on tail

Length: 10-20 cm

**Witch**

*Arnoglossus scapha*

1. Eyes to left of dorsal fin
2. Anal fins not joined
   - Colour: Grey or pale brown,
   - Whitish beneath

Length: 20-40 cm

**FLOUNDER PELVIC FINS**

Underside view showing:
1. Position of 2 pelvic fins

Underside view showing:
1. Position of single pelvic fin
   - Joined to anal fin
**Quota Species: Galeorhinus australis**

**School Shark**

**Key Features**

1. No spine in dorsal fin
2. No notch at base of tail
3. Tail flag-like
4. Second dorsal fin much smaller than first

Colour: Grey above, white below
Length: 120-180 cm

---

**Quota Species: Mustelus lenticulatus**

**Rig**

**Key Features**

1. No spine in dorsal fin
2. No notch at base of tail
3. No obvious ‘V’ in tail

Colour: Golden-brown with white spots above, white below
Length: 70-140 cm
SIMILAR SPECIES

Dogfishes
Squalus acanthias
S. blainvilléi
1. Spines in front of each dorsal fin
Colour: Greyish; white belly
Length: 70-100 cm

Requiem sharks
Prionace glauca
Cararcharinus brachyurus
1. Notch at base of tail
2. Generally large in size

CALLORHYNCHUS MILII

KEY FEATURES
1. Protruding trunk-like snout
2. Short second dorsal fin
3. No scales

COLOUR: Silvery grey-brown above,
silver-white below
Length: 60-120 cm

SIMILAR SPECIES

Ghostsharks
Hydrolagus spp.
1. Rounded snout
2. Long second dorsal fin
Colour: Mostly brownish
Length: 50-100 cm
QUOTA SPECIES

**JACK MACKEREL**

**KEY FEATURES**
1. Large scales along entire lateral line (less than 76)
2. Upper lateral line extends part way along second dorsal fin
3. Membrane partly covers eye. Colour: Green-blue above, white below
   Length: 35-50 cm

---

QUOTA SPECIES

**JACK MACKEREL**

**KEY FEATURES**
1. Large scales along entire lateral line (76-80)
2. Upper lateral line ends at begining of second dorsal fin
3. Membrane partly covers eye. Colour: Greenish above, white below
   Length: 30-40 cm

---

*Trachurus declivis*

*Trachurus novaezelandiae*
**Trachurus murphyi**

**JMA**

**JACK MACKEREL**

**KEY FEATURES**

1. Large scales along entire lateral line (96-112)
2. Upper lateral line ends at beginning of second dorsal fin
3. Membrane partly covers eye
   Colour: Greenish above, white below
   Length: 30-40 cm

**SIMILAR SPECIES**

**Koheru**

*Decapterus koheru*

1. Large scales only at end of lateral line
   Colour: Blue-green above, white below with yellow stripe
   Length: 25-40 cm

**Blue mackerel**

*Scomber australasicus*

1. No large scales
2. Keels present
3. 5 finlets
   Colour: Bluish above with dark zig-zag stripes; white below
   Length: 30-55 cm
QUOTA SPECIES

ARROW SQUID
(SQUID)

KEY FEATURES
1. Club occupying two thirds of tentacle length
2. Largest sucker rings on tentacles have 11-16 even spaced teeth with small plates between each
3. Skin smooth
Colour: Bronze
Length: 20-40 cm

GLOSSARY DIAGRAM

UNDERSIDE VIEW

Fin
Club
Tentacle
Largest sucker rings
SIMILAR SPECIES

Antarctic flying squid
*Todarodes filippovae*
1. Club occupying entire length of tentacle
2. Largest sucker rings on tentacles have 7-12 equal sized, even spaced teeth

Warty squid
*Moroteuthis ingens*
1. Skin rough or wrinkly
2. Sharp hooks on club
Colour: Reddish brown

Red squid
*Ommastrephes bartrami*
1. Largest sucker rings on tentacles have 4 large teeth, spaced with 7-10 smaller teeth
Colour: Bright red when caught

Broad squid
*Sepioleuthis bilineata*
1. Body broad
2. Fins extend along entire length of sides
QUOTA SPECIES

Haliotis iris

PAUA
(PAUA)

KEY FEATURES
1. Undulating shell surface with poorly defined ridges
2. Pale grey shell usually covered with small encrusting organisms; opal-like inside.
Colour: Animal black with dark grey foot
Length: 125-180 mm

PAUA

Haliotis australis

YELLOW-FOOTED PAUA
(PAUA)

KEY FEATURES
1. Pale yellowish-brown shell with prominent ridges
2. Pale silver inside shell
Colour: Animal black with orange or yellow foot
Length: 80-100 mm

SIMILAR SPECIES

Virgin paua
Haliotis virginia
1. Strongly defined ridges running around shell
Colour: Animal black with off-white foot
Length: 30-50 mm
**COMPETITIVE QUOTA SPECIES**

**SBT**

**SOUTHERN BLUEFIN TUNA**

**KEY FEATURES**
1. Pectoral fin not reaching end of first dorsal fin
2. Scales on sides below second dorsal fin
3. Lines on liver
4. 31-43 gill rakers

Colour: Dark metallic blue above, white belly
Length: 100-220 cm

**SIMILAR SPECIES**

**Yellowfin tuna**
*Thunnus albacares*
1. Pectoral fin reaches end of first dorsal fin
2. Liver without lines

Colour: Dark blue above, white belly
Length: 60-200 cm

**Bigeye tuna**
*Thunnus obesus*
1. Pectoral fin reaches end of first dorsal fin
2. 23-31 gill rakers

Colour: Dark blue above, white belly
Length: 100-200 cm

**Slender tuna**
*Alothetaunnus fallai*
1. No scales on sides below second dorsal fin

Colour: Dark blue above, white or grey belly
Length: 50-100 cm
GLOSSARY DIAGRAM

Terms used in this booklet

- Spine (hard & sharp)
- Dorsal fin
- Ray (soft)
- Lateral line
- Pectoral fin
- Anal fin
- Finlet
- Keel
- Barbel
- Gill rakers (see inset)
- Pelvic fin

Gill rakers
## FISHSTOCK CODES

(To be used for Quota Management Reports)

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<th>SPECIES UNDER QUOTA</th>
<th>Auckland (East) (1)</th>
<th>Auckland (West) (9)</th>
<th>Central (East) (2)</th>
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* ORH 2A — Central (Gisborne) ORH 2B — Central (Wairarapa)
OEO 3 A — Central/Challenger/South-East (Cook Strait/Kaikoura) and South-East (Strathallan)
PAU 3 — South-East (Kaikoura Coast) PAU 5 — South-East (Otago and Southland Coast)
PAU 6 — Challenger (Westland) PAU 7 — Challenger (Nelson/Marlborough)
### SPECIES CODES

Codes for some of the more commonly caught species — to be used for Fisheries Statistics Unit “Commercial Fisherman’s Returns”.

N.B. Codes used for QUOTA MANAGEMENT reporting are listed separately on page 37.

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Selected publications for further reference

Guide book to New Zealand commercial fish species
1981, New Zealand Fishing Industry Board, Wellington

Collins Guide to the Sea Fishes of New Zealand

New Zealand Fishes, an identification guide
1986, Paul, L.J. Reed Methuen, Auckland