

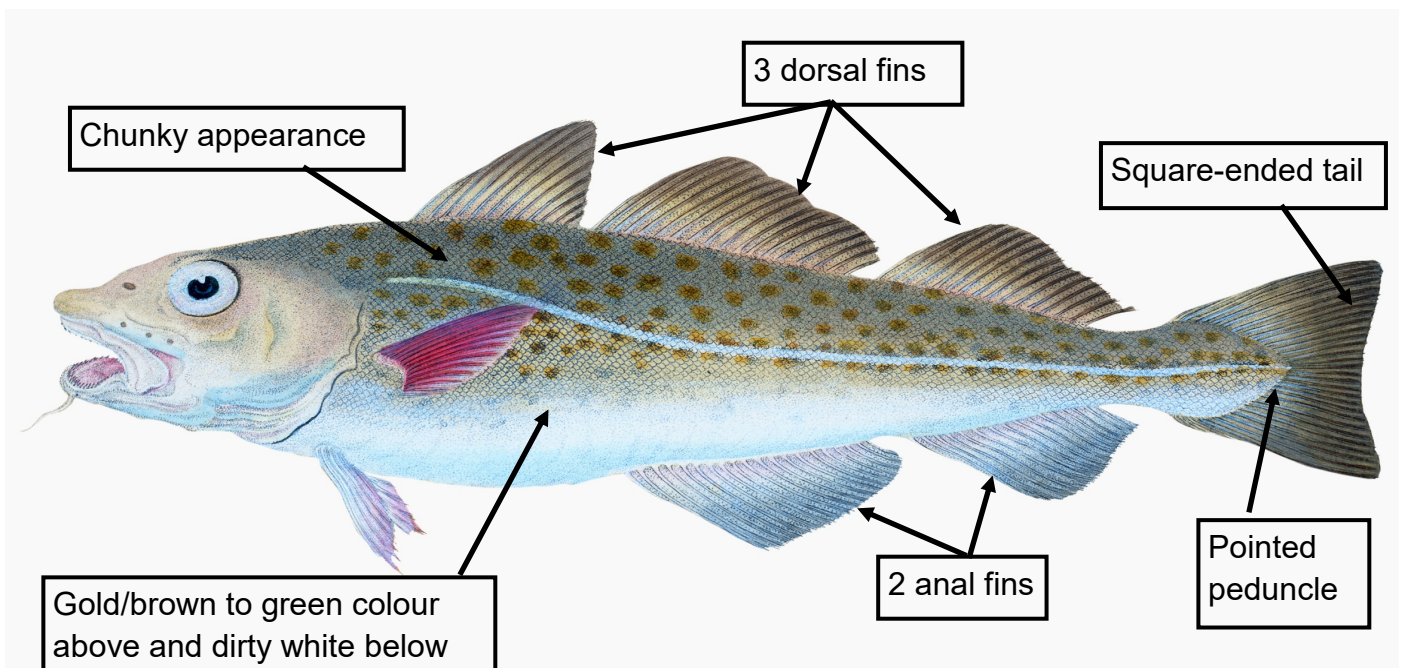


Gadidae

Introduction

The Gadidae are a family of marine fish, included in the order Gadiformes, known as cods, cod-fishes or true cods. It contains several commercially important fishes including cod, haddock, hake and pollack. They are mostly cold water fish with many cod species are found in shallow waters, particularly juveniles.

With respect to nutritional value for seabirds, gadoids tend to be less nutritious than sandeels and clupeids.



Diagnostic features:

- ◆ Gadoids are distinguished by having no spines and the presence of **three dorsal fins** on the back and **two anal fins** on the underside.
- ◆ They have a **pointed peduncle** and **square-ended tail**.
- ◆ Most species have barbels on their chins, which they use while browsing on the sea floor.
- ◆ They are generally medium-sized fish, with a **chunky appearance**, and some species can reach up to 2m in length. Typically, gadoids grow rapidly and reach a length of 15cm by the end of their 1st year. As a result, gadoids caught by terns are predominantly juveniles.
- ◆ They have a **gold/brown to green colour back with a silver cream/dirty white belly**

References: Henderson, P. A., Somes, J.R. . 2015. *Identification Guide to the Inshore Fish of the British Isles*. Pisces Conservation . RSPB, 2017. Project Puffin Diet Photo ID Guide

Photo Credits: Atlantic Cod by Edward Donovan

Tern Prey ID guide compiled by Chantal Macleod-Nolan, RSPB on behalf of the Roseate Tern LIFE Recovery Project

Comparison of Gadidae

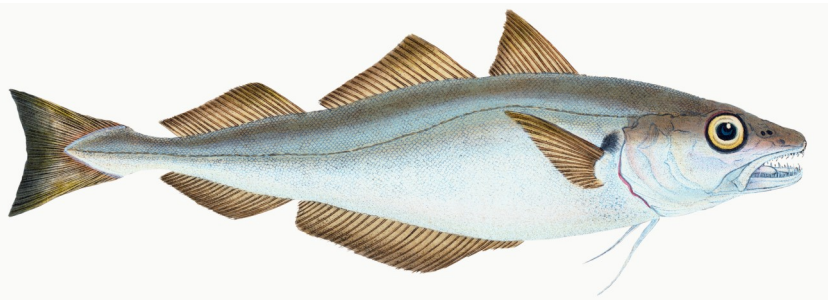
Cod (*Gadus morhua*) - Young fish might be confused with other gadoids. Cod have a distinct white lateral line, a large barbel on the chin and the upper jaw extends beyond the lower jaw. They are pale olive brown background which shades to a silver cream on the lower surface of the belly. The upper surface has a characteristic mottle brown-yellow camouflage.



Haddock (*Melanogrammus aeglefinus*) - First dorsal fin is triangular with notably long fin rays. Short but clear visible chin barbel. Lower jaw clearly shorter than the upper jaw. The lateral line clearly visible and black. They have a dark green-brown dorsal and cream belly with a dark blotch on each side above the pectoral fins.



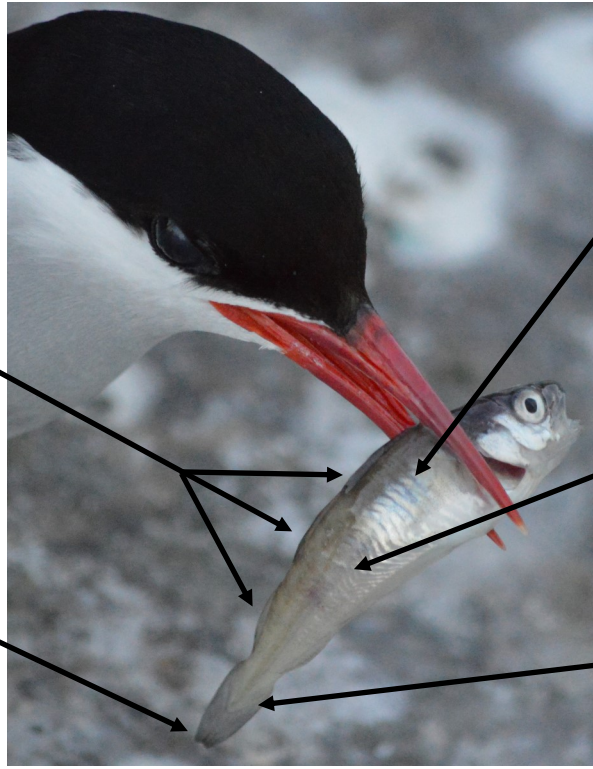
Whiting (*Merlangius merlangus*) - The young can be confused with other gadoids such as Norway pout, blue whiting and poor cod. Note the dark spot at the base of the pectoral fin. The head is slender with the upper jaw extending beyond the lower jaw. They do not possess a chin barbel or if they do it is minute. The three dorsal fins have little or no gaps between their bases and they have a pale olive brown back and cream belly.



Important Note

Due to the limited timeframe in observing the prey during provisioning studies and difficulty in identifying between juvenile fish species from this family, it is highly recommended that the observer ONLY identifies the fish as a gadoid.

Gadidae



Gold/brown to green colour & dirty white below

Chunky appearance

Pointed peduncle

Three dorsal fins

Square-ended tail

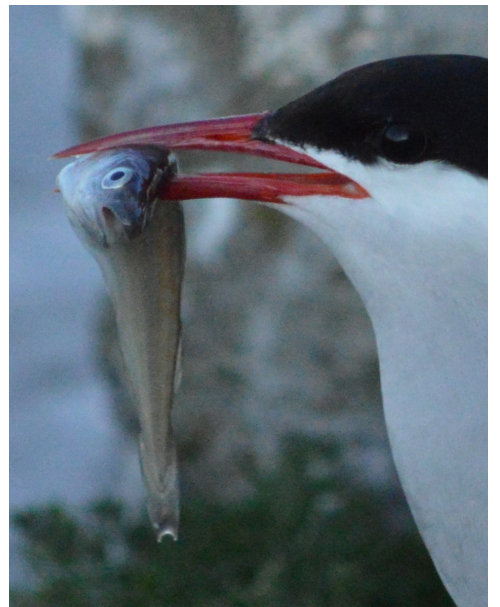


Photo credits: Arctic Terns (top and middle row) by Chantal Macleod-Nolan, (bottom) Arctic tern by Rhiannon Baker, Roseate tern by Dave Daly, Common tern by Brian Burke

Gadidae

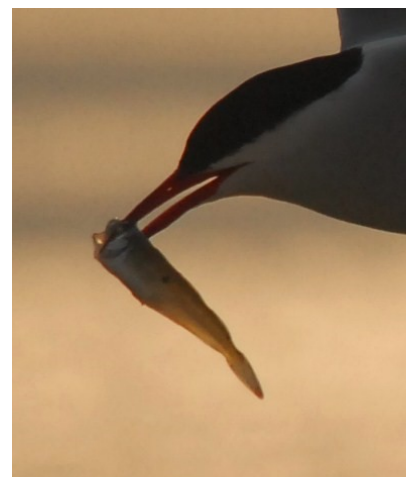
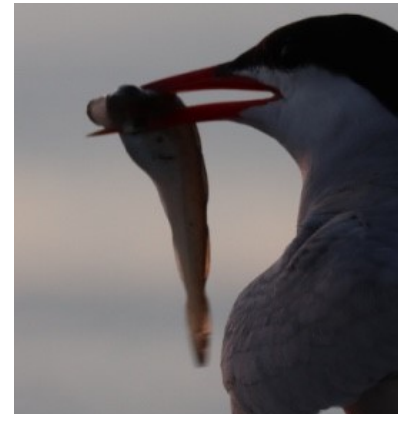
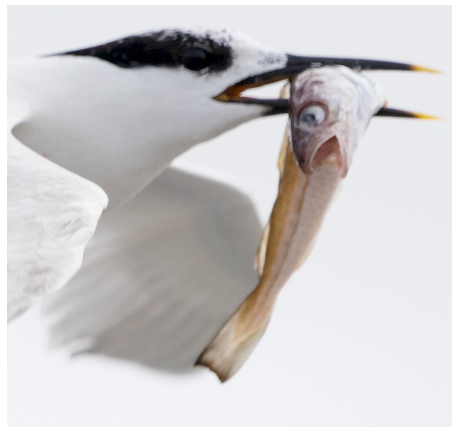
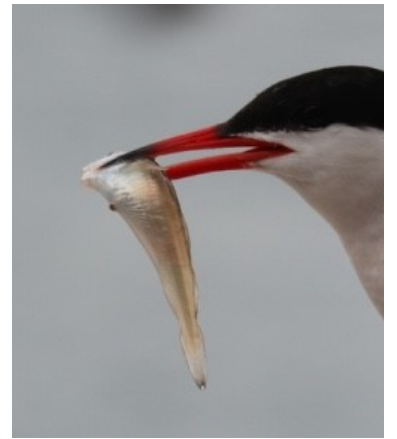
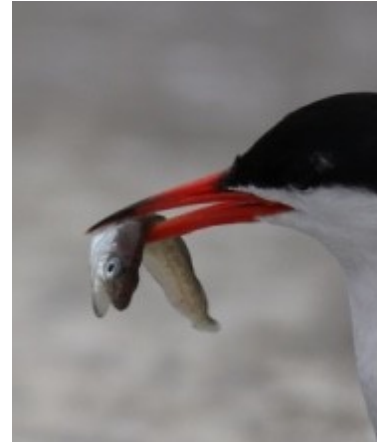


Photo credits: Arctic tern by Chantal Macleod-Nolan, Arctic tern by Genevieve Thompkins, Common tern by Heidi Acampora, Common tern fledglings by Brian Burke, Common tern by Heidi Acampora, Arctic tern by Chantal Macleod-Nolan, Sandwich tern by Daphne Wong, Arctic tern by Heidi Acampora, Sandwich tern by Tarik Bodasil & Tim Morley, Roseate terns by Tony Murray, Arctic tern by Genevieve Thompkins



Lotidae - Rockling

Introduction

Lotidae are a family of marine fish, included in the order Gadiformes, known as elongated cod-like fish. It contains several species such as ling, shore rockling and 3, 4, 5-bearding rocklings. They are mostly cold water fish with adults having a benthic life. Rocklings are commonly found in pools on rocky shores and on sublittoral rocky ground. Some species are also located on the bottom on mud sand and gravel.

A key characteristic is that the **first dorsal is reduced to one long ray or minute**. They have **one to three dorsal fins** and **one anal fin**. **A chin barbel always present** and the **caudal fin is rounded**.



Diagnostic features:

Shore Rockling (*Gaidropsarus mediterraneus*)

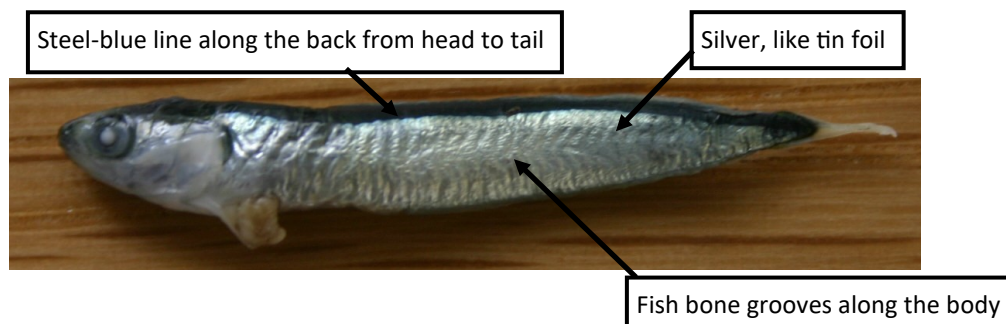
- ◆ An elongate fish with long-based second dorsal and anal fins.
- ◆ The first dorsal fin possesses 1 one ray followed by a low fringe.
- ◆ It has three barbels, one on the chin and one close to each anterior nostril
- ◆ Typically they can grow to 25cm but can occasionally reach 40cm
- ◆ Brown dorsal surface grading to pale brown-white on the belly.
- ◆ Series of pale spots along the sides

Similar species: Three-bearded rockling (*Gaidropsarus vulgaris*) also has 3 barbels but has a pink ground colouration with brown blotched on the back and sides.

Juvenile Rockling

Juvenile rocklings have very different appearance from their adult counterparts and prior to their benthic life, they can be very abundant at the surface of the sea.

- ◆ **Steel-blue line along the back from head to tail**
- ◆ **Silver tin-like foil**
- ◆ **Fish bone grooves along the body**



Lotidae - Rockling



Photo Credits: juvenile rockling (top row) by Brian Burke, juvenile rockling (middle) by Tony Murray, (bottom) adult rocklings (right is a shore rockling) by Genevieve Thompkins