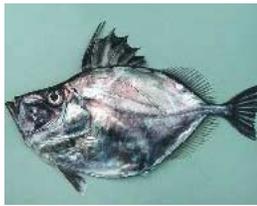


DORIES

(Pisces: Zeidae) in Irish & NW European Seas



John Dory (*Zeus faber*)



Sailfin Dory (*Zenopsis conchifer*)



Red Dory (*Cyttopsis roseus*)

By Declan T.G. Quigley

THE Zeidae is a small family of marine fishes comprising 7 genera and 13 species worldwide. However, in NW European seas, the family is represented by only 3 genera including 3 species: John Dory (*Zeus faber*), Sailfin Dory (*Zenopsis conchifer*) and Red Dory (*Cyttopsis roseus*). While the John Dory is relatively well known in Irish waters, the other two species, which have only been recorded for the first time in recent decades, appear to be rare.

John Dory (*Zeus faber*)

The John Dory, also known as St Peter's Fish, is unmistakable with its deep, flattened head and body, massive protrusible jaws, a series of long dorsal spines (9–11) extending into long filaments of soft trailing tissue, and a double series of sharp spines (bucklers) running along the belly and back. It is generally yellowish brown in colour with a conspicuous black spot (or thumb mark), surrounded by a narrow yellow border on each side of the body. An inshore species, usually occurring at depths of 5–150m and occasionally down to 400m, on sandy ground and areas of weed-covered rocks, but sometimes found sheltering under floating objects.

Although a feeble swimmer, the John Dory is a highly efficient predator. Its strongly laterally compressed body makes it almost inconspicuous head-on and allows it to slowly stalk its unsuspecting prey prior to engulfing it from what might appear to be a safe distance with a split-second extension of its siphoning jaws. While it primarily feeds fish, particularly shoaling and demersal species, including herring, scad, sand eels, young gadoids, anchovies, and pilchard, it occasionally eats crustacea and cephalopods. Although it sometimes forms small schools, its stelful predatory behaviour probably explains why it normally lives a solitary existence.

The John Dory is a wide ranging species in the eastern Atlantic; known from as far north as Norway and southwards to Maderia, including the Mediterranean and Black Sea, and

southwards via the Azores to southern Africa (where it overlaps with a closely related species – *Z. capensis*). It has also been recorded from the Indian Ocean, Australia, New Zealand, Japan and Korea. However it is not found in the Western Atlantic.

While the John Dory is known to spawn in the western part of the English Channel, (southern ?) Irish Sea and Bay of Biscay during the summer months (June to August), it is not known to spawn further northwards, although newly hatched pelagic larvae have been recorded, albeit rarely, off the west coast of Ireland. Sexual maturity is usually attained in the 4th year at a length of 40cm. Males rarely grow longer than 45cm but females may survive up to 12 years, attaining a length of 90cm and a weight of 8kg. Most of the John Dory found in northern European seas are thought to be first or second year wanderers and large dories appear to be rare outside their northern-most spawning areas. Indeed, during the year 2000, the overall size frequency range of commercially caught John Dory in Irish waters was 21–51cm but most landings were in the range 23–39cm. However, apart from the fact that reported landings have significantly increased over the last couple of decades (from c50 tonne in 1990 to 306 tonnes in 2004), little is known about the biology or the state of this relatively valuable stock in Irish waters (€13k first sale value in 2004). The John Dory has been highly regarded as an excellent food

fish of epicurean notoriety since Roman times; it is well flavoured with a good flaky texture. However, its solitary habits are such that landings in Northern European waters are small, but what is captured almost always commands a premium price.

Although anglers occasionally capture John Dory, it is not regarded as a prime angling fish. The Irish Specimen Fish Committee has recorded only 48 specimens, weighing upwards of 1.8kg, since 1960. The largest specimen, weighing 3.4kg, was captured in Killala Bay, Co Mayo in August 1984. However, the vast majority (96%) of specimens weighed <3.0kg. Incidentally, the UK rod and line record, weighing 5.4kg, was captured off Newhaven, E Sussex, in 1977.

Figure 1 shows the maritime county distribution of both rod and line caught specimen (1960–2004) and commercially caught John Dory (live weight landings 1998–2004). More than 75% of commercial landings occurred along the south and southwest coasts (Cos Waterford, Cork & Kerry). However, in contrast, only 23% of rod and line caught specimens were taken in this area. Indeed, nearly 65% of the specimens were taken off the northwest coast (Co Mayo and Donegal).

Figure 2 shows the monthly frequency distribution of rod and line caught specimens. All of the specimens were taken between May and October, but the vast majority (96%) were taken between June and Sep-

tember. It seems unlikely that many anglers specifically target John Dory; most specimens are probably captured during the course of general angling trips.

Sailfin Dory (*Zenopsis conchifer*)

At first glance, the Sailfin Dory would appear to be very similar to the John Dory. Indeed, it is possible that the species may not be recognised by anglers or commercial fishermen in Irish waters. Apart from its distinctive silvery-grey colouration and the absence of a large spot or thumb mark on the sides, the concave profile of the head over the eye is the main distinguishing morphological feature (the profile of the head over the eye is either straight or convex in the John Dory). The Sailfin Dory does not appear to grow as big as the John Dory; the maximum reported length and weight is 80cm and 3.2kg respectively. The species also appears to inhabit deeper water (50–600m) than the John Dory.

Prior to 1966, when two juvenile specimens were recorded off the Portuguese coast, the species was unknown from NW European seas. However, since then, the species would appear to have been gradually extending its range northward via Portugal (1966), NW Spain (1970), N Spain (1974), Gulf of Gascony (1975), Bay of Biscay (1975), NW France (1976) and into Irish (1980) and SW UK (1995) waters. Indeed, a single specimen of Sailfin Dory was recently (2002) recorded from Icelandic waters. The latter specimen represents the most northerly record from the NE Atlantic to date. Elsewhere, the main distribution of the Sailfin Dory in the eastern Atlantic is from Morocco southwards to Southern Africa, and in the western Atlantic (where *Z. faber* is absent) from the Nova Scotia southwards to Virginia, and from Uruguay southwards to northern Argentina. In the western Indian Ocean, it is found from South Africa northwards to Somalia, and off the SW coast of India. It has also been recorded from Indonesia but not from the Pacific.

Since it was captured for the first time in 1980, a total of 11 specimens have been recorded. There would appear to have been a particularly strong influx of Sailfin Dory into Irish waters between 1993 and 1995

when more than 70% of the total number of specimens were recorded. Specimens have been recorded during most months of the year, apart from December – February, May and October. All of the specimens, apart from one (from the NW coast), were recorded off the SW coast, at depths ranging from 100–290m. The specimens exhibited wide variation in size: 18–58cm (Mean T.L. 39.4cm) and 75–2300g (Mean Wt 785.5g).

Red Dory (*Cyttopsis roseus*)

The Red Dory is a relatively small species (maximum 31cm T.L.) and is easily distinguished from the John Dory and Sailfin Dory by its red colouration and spinous dorsal fin lacking long filaments. The Red Dory normally inhabits deeper water (150–730m) than the latter two species. The main distribution of the Red Dory in the eastern Atlantic is from Morocco southwards to Southern Africa, and in the western Atlantic from the Nova Scotia (rarely) southwards to about northern South America. In the western Indian Ocean, it is found from South Africa northwards to Somalia and off the SW coast of India. It has also been recorded from the western Pacific: Japan, eastern Australia and New Zealand.

Prior to 1963, when the Red Dory was recorded for the first time off SW Portugal, the species was unknown from NW European seas. However, since then, the species appears to have been gradually extending its range northward via NW Spain (1968–76), into NW French, SW Irish and SW UK waters (1987–95). Although only 3 specimens have been recorded to date, it is interesting to note that two of these specimens were captured during 1993, which coincided with the large influx of Sailfin Dory mentioned above. Two of the specimens were recorded in July and one in April. All of the specimens were recorded from the SW coast, at depths ranging from <200–440m. The specimens were relatively small in size: 11.1–19.0cm (Mean T.L. 14.7cm) and 50–150g (Mean Wt 100g).

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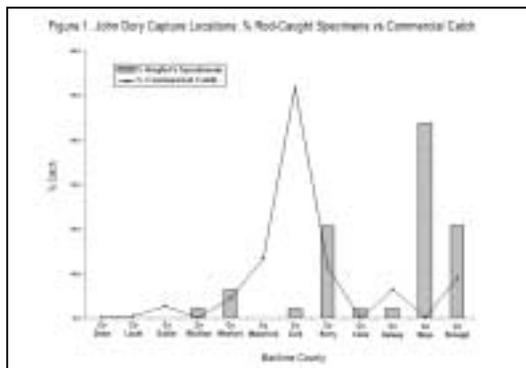


Figure 1. John Dory Capture Locations: % Rod-Caught Specimens vs Commercial Catch

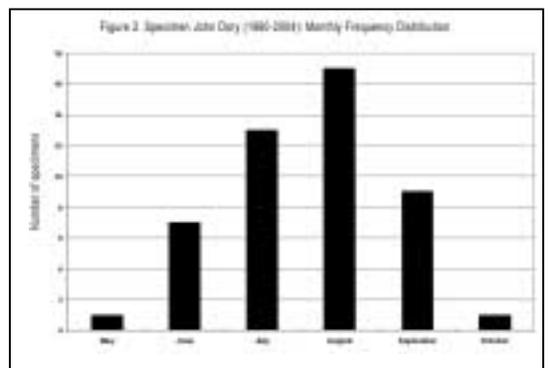


Figure 2. Specimen John Dory (1960-2004): Monthly Frequency Distribution