



Rockall and the Scottish haddock fishery

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ABSTRACT

Rockall Bank, lying to the west of the Rockall Trough, has supported a fishery for more than 200 years. Whilst the Rockall grounds were opened up by cod fishermen, it has been the haddock fishery which has had the most economic significance with the stock being exploited historically by various nations but now fished mainly by the UK and Russia. Prosecution of this fishery has varied over time with resulting variable landings but the effort expended by the fishing fleets does not appear dependent on the size of the available haddock stock but more on other external considerations, e.g. politics, economics and the success, or otherwise, of ancillary fisheries such as squid. Due to the isolated position of the Bank the amount of scientific data gathered on Rockall haddock has been sparse and several erroneous assumptions concerning depth, and consequently spatial, distribution have been made. Recent investigations have improved the biological knowledge of the haddock stock but although this should lead to more robustness in stock assessment there are new uncertainties. Two main fleets now operate at Rockall—Russian vessels generally fishing with small mesh sizes (40–70 mm) and retaining all of the fish they catch and a European fleet using nets with cod-end meshes of 120 mm and above which entails some discarding. This dichotomy presents a challenge in providing accurate stock forecasts. In addition the regional regulatory authorities (EU and NEAFC) are introducing closed areas but it is unclear, given the sparse information available, whether the correct areas have been chosen and whether there can be effective surveillance of the closed areas.

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1. Introduction

The Scottish fishing industry developed from small coastal communities that initially exploited the seas in the immediate vicinity of these communities. As time progressed fishing vessels became larger and fishermen began to venture further a field. However, in the majority of cases the fishing grounds were still on the continental shelf surrounding the British Isles although the Rockall Bank, an isolated fishing ground 200 miles west of mainland Britain (Fig. 1) was also fished. The Bank has a least depth of between 62 and 220 m with a small outcrop (Rockall islet) and associated reef (Helen's reef) in the NE quarter. Shetland fishermen were recorded as fishing for cod (*Gadus morhua*) at Rockall in 1805 (Halcrow, 1950). This cod fishery was mainly prosecuted by handline vessels which were eventually supplanted by longliners. Haddock (*Melanogrammus aeglefinus*) were incidental to this cod fishery until the beginning of the 20th century when steam driven trawlers began operations and reported significant increases in catches of haddock—English data for 1906 reveal 95 landings of haddock from Rockall (Blacker, 1982).

At the same time the line catches of cod declined. The landings of haddock peaked in 1936 when 6502 tonnes were landed in England and Wales. After World War II trawler owners found it more profitable to fish at Faeroe and Iceland, and Rockall became an incidental fishing ground, sometimes fished on passage between the UK home port and the more profitable grounds to the north.

During the early 1960's Scottish fishermen began to pay more attention to the Rockall area. The reasons behind this commercial decision are unclear but the extremely large 1962 haddock year class in the North Sea meant that it became more cost effective to fish in the North Sea and on the west coast of Scotland and fishing trips to Rockall had diminished by 1965. In subsequent years the Scottish interest in Rockall became sporadic. However, towards the end of the 20th century pressure on existing stocks within EU territorial limits, and the extension of other nations' limits to 200 miles, meant that the prospects of commercial fishing at Rockall were re-examined. Fishery Research Services (FRS) is an agency of the Scottish Government and its remit includes monitoring commercial fish stocks on the Rockall plateau for the UK government. This paper summarises data held by FRS on the Rockall haddock fishery; most of the information is historical, principally from research vessel surveys, but with the benefit of extra Scottish Government funding in 2001 some new (unpublished) data have been acquired by FRS.

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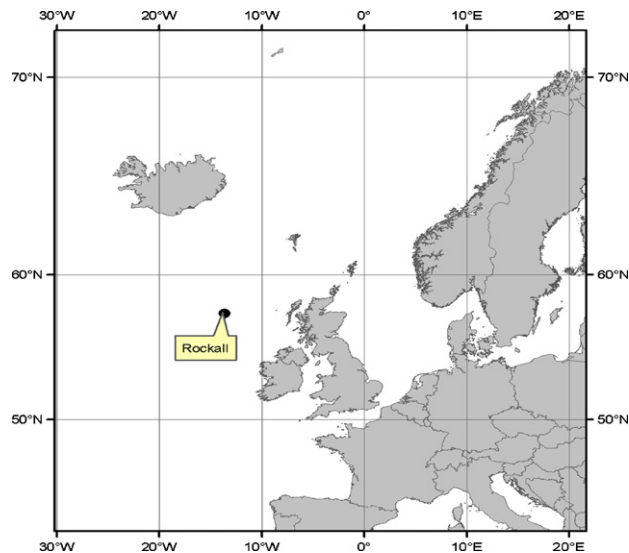


Fig. 1. Location of Rockall Bank.

2. Outline of historical fishery

Exactly when fishing began at Rockall is unknown. [Halcrow \(1950\)](#) quotes an earlier writer who claimed that Shetland fishermen were working the Bank as early as 1805 and certainly visits of Royal Navy vessels to Rockall at the beginning of the 19th century recorded the presence of small fishing boats on the grounds. These first vessels were handlining for cod and by 1865 there was a large fleet from Shetland and the English East Coast working at Rockall Bank. However, the last part of the 19th century saw the beginning of a significant change in the pattern of fishing as handlining for cod gradually gave way to steam driven longliners. By the start of World War I handlining for cod was almost non-existent at Rockall. However, cod was still an important species, at first caught by longliners and then from the beginning of the 20th century by trawlers as well. During this century the UK landings of Rockall cod declined from a peak of over 1000 tonnes in 1906 to an annual total that was rarely above 300 tonnes except for 1978 when UK landings exceeded 500 tonnes for the first time in 25 years.

Whilst the Rockall grounds were opened up by cod fishermen it has been the haddock fishery which has had the most economic significance for the majority of the 20th century. The haddock fishery is almost totally a trawl fishery; English records for 1906 showed 95 trawl landings from Rockall for a total of 1200 tonnes. Although a number of nations have fished at Rockall the only continuous set of historical data relates to landings by English and Welsh fishing vessels. These show that the peak year for haddock was 1936 when 530 landings generated 6502 tonnes of haddock. Landings after World War II were still high but were beginning to decline and by 1955 English fishing effort, and haddock landings, were almost negligible; this fleet exhibited a small increase in landings in the late 1970s but no haddock landings from Rockall have been reported in England and Wales for the period 2004–2006.

3. The recent fishery

To illustrate the long-term trend of the haddock fishery at Rockall [Fig. 2](#) shows the total international landings from this area since 1951. The early 1950's showed annual landings between 1000 and 3000 tonnes but by the late 1950's this had reduced to practically zero. During the 1960's and early 1970's landings recovered and by 1972 had reached a total of 9474 tonnes. The years 1974–1976 saw

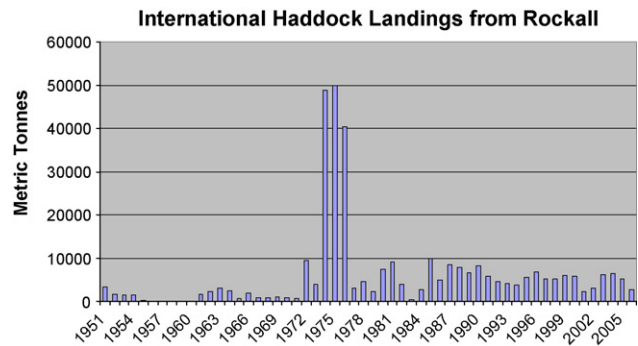


Fig. 2. International haddock landings (1951–2006).

a dramatic rise to almost 50,000 tonnes in each year. This rise was due almost entirely to the arrival of a large Soviet fishing fleet on Rockall Bank.

A Soviet presence on Rockall Bank was first detected in 1969 when scouting vessels fished in the region during searches for blue whiting ([Shestov and Blagodelskaya, 1971](#)). Initially catches of haddock were low, e.g. in 1971 9 tonnes of haddock were reported caught by the USSR at Rockall. However, the Soviet fleet persisted in their operations using side trawlers (average 400 GRT) and in 1972 7304 tonnes of haddock were reported from Rockall. This evidently kindled further interest and in 1974 large Soviet stern trawlers (1500–2000 GRT) were observed on the grounds. The years 1974–1976 saw catches of 48,911, 49,830 and 40,447 tonnes, respectively. The extension of the 200-mile limit in 1977 effectively stopped the Soviet fishery and catches immediately dropped ten-fold.

The next 8 years saw large fluctuations in the international catches (varying from 400 tonnes in 1983–9141 tonnes in 1981) but in 1985 a significant squid fishery at Rockall triggered a corresponding increase in haddock catches (9810 tonnes). The squid fishery is extremely sporadic and in 1985–1986 was concentrated in small canyons very close to Rockall itself. This fishery is associated with spawning aggregations of squid but this squid behavioural pattern has not been observed in subsequent years. The only other recorded squid fishery was in the period 1970–1974 ([Thomas, 1973](#)).

In the last 10 years the haddock fishery has had fluctuating catches of between 2000 and 7000 tonnes.

Since 1985 there has been a gradual change in the composition of the nations fishing at Rockall. Norway has maintained a minimum interest whilst France, Spain, Germany, England & Wales and the Faeroe Islands have disappeared from the area. In contrast Ireland began fishing the area in 1990 and in 1999 the Russian fleet again became active in the region ([Table 1](#)). However, the most consistent fleet in this region has been Scottish with a 64% share of the total catch over a 22 year time period.

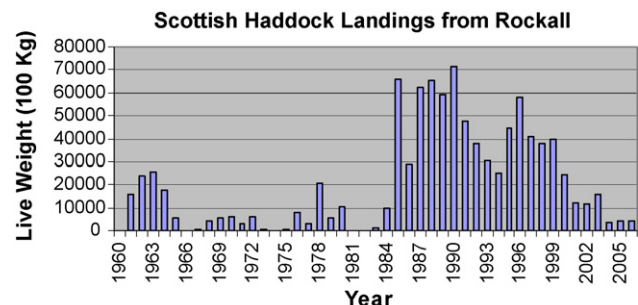


Fig. 3. Scottish landings from Rockall (1960–2006).

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