



*European Communities  
Commission  
Background Report*

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FISH CAN'T READ

The need for a Community fisheries conservation policy

Many species of fish caught by fishermen in the waters of Western Europe migrate over great distances during their life cycles. This fact makes it essential for any fisheries policy to extend far beyond the waters of any single European country, for mature fish which may be caught under the jurisdiction of one country may well have been spawned or have matured in the waters of another.

The attached maps illustrate the scale of migration. They show particularly the spawning and feeding grounds for five of the main species. The fact that the spawning and feeding areas are often well away from the fishing grounds of the mature fish underlines the need for the European Community to develop a fisheries policy based on a careful management of fish stocks at all stages of their life cycle. Such a policy would impose severe restrictions on some fishermen in their own waters in order to ensure mature stocks in other people's waters.

The migrations occur at brief and specific periods during the fish life cycle. The most common are those between spawning and nursery grounds. There are also less predictable movements over very wide areas, usually in search of the planktonic organisms which make up their diet.

Breeding grounds are often extremely localised, presumably occurring where conditions for growth and development are optimal. Each fish species has its own needs, as comparison between the maps will indicate.

It is in these spawning areas that the effects of overfishing or damaging fishing techniques are most apparent. The balance between recruitment of new stock and fish mortality is an extremely fine one; if tipped in the wrong direction it can take many years to reverse.

The fish most seriously hit by over-exploitation is the herring - hence the ban on the fishing of herring in the North Sea and the Celtic Sea for the whole of 1978.

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Cod is a fish which spawns in many different areas - off the West coast of Iceland, for example, near Spitzbergen and in various sites on both sides of the North Sea (the Ling Bank, Dogger Bank, Moray Firth, Forties etc). Some cod migrate over great distances to their spawning grounds. For example, those of the Barents Sea spawn off the North Norwegian coast, returning later in the year via the Finnmark coast and the continental shelf around Spitzbergen. During the juvenile stage there is a high concentration of fish on the Ling Bank and in inshore waters off the Dutch, German and Danish coastline.

#### Herring (maps i and ii)

There are three basic herring stocks, spawning in various zones off the coasts of Britain (see map i). The northernmost group seems to be composed of two independent sub-groups, one spawning on the west coast of Scotland around the Outer Hebrides and the other on the east coast around the Orkneys.

The other two stocks are the Central and Southern, which spawn in localised grounds off the eastern and southern coasts of Britain. As map (i) indicates, the position of these grounds has changed in recent years and in some of the traditional areas it has been some time since spawning last occurred.

There are seasonal differences in spawning times, with the Northern group in spring and autumn, the Central group in autumn and the Southern group in autumn and winter. In the larval stage many of these fish drift westwards towards the Danish, German, Dutch and Norwegian coasts. After maturing there (see map ii) they return to their respective spawning grounds in their third or fourth year. They are highly vulnerable to damage during this juvenile period.

#### Plaice (map iii)

The most important spawning ground for plaice is the Flemish Bight and the southern parts of the North Sea. After spawning there from December to February, the plaice disperse on feeding migrations, leaving the eggs to drift to coastal areas where they hatch and develop. The map shows distribution of the nursery grounds for this stock in the sandy inshore waters on both sides of the North Sea.

#### Sole (map iv)

This species has similar requirements to plaice, spawning in winter and early spring in sandy inshore areas off the coasts of Britain, Netherlands, Germany and Denmark.

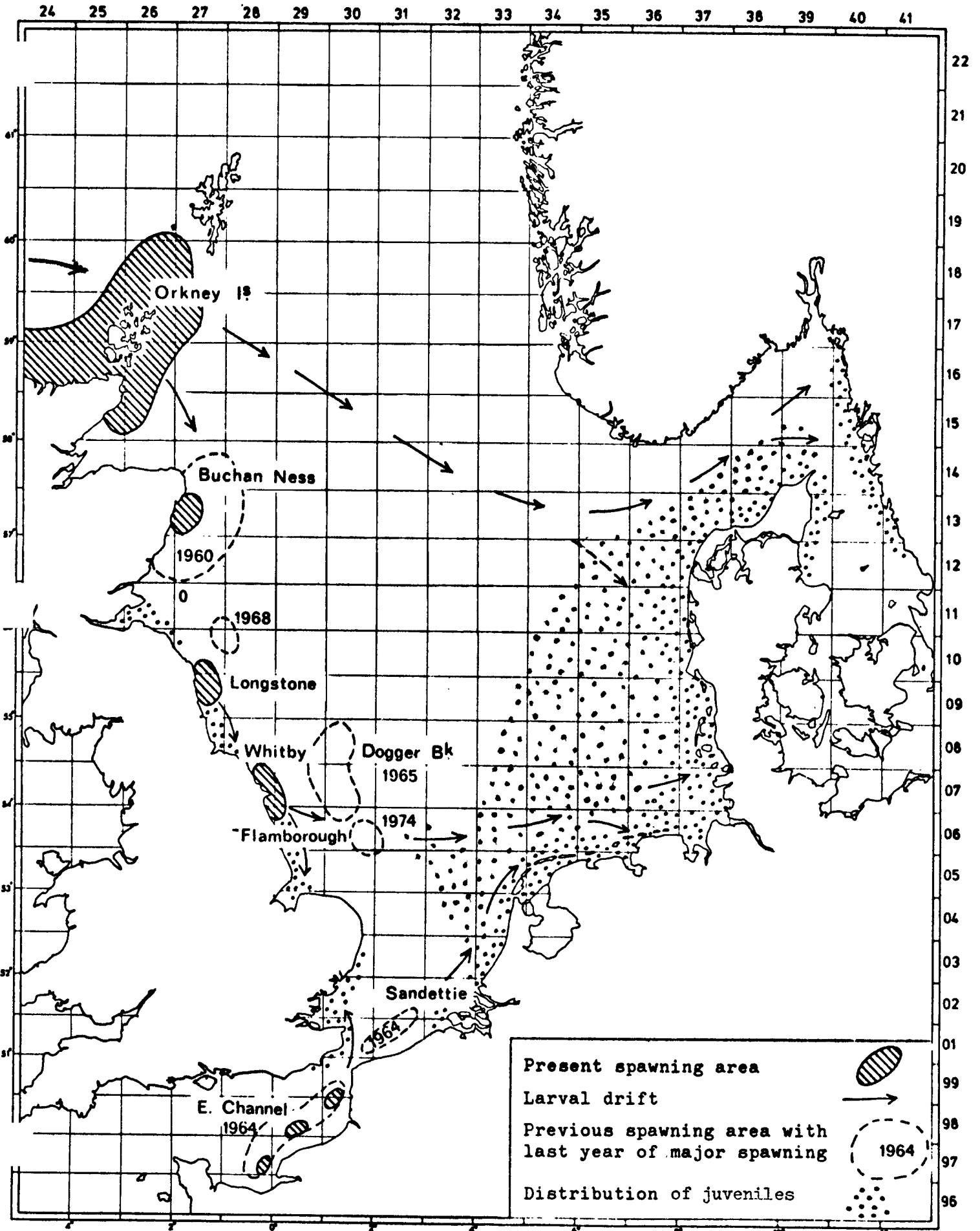
#### Haddock (map v)

This species spawns over an area stretching up to Spitzbergen and the Norwegian coast and down to the Shetlands. Later in life it disperses widely through the waters of the North Sea and North East Atlantic.

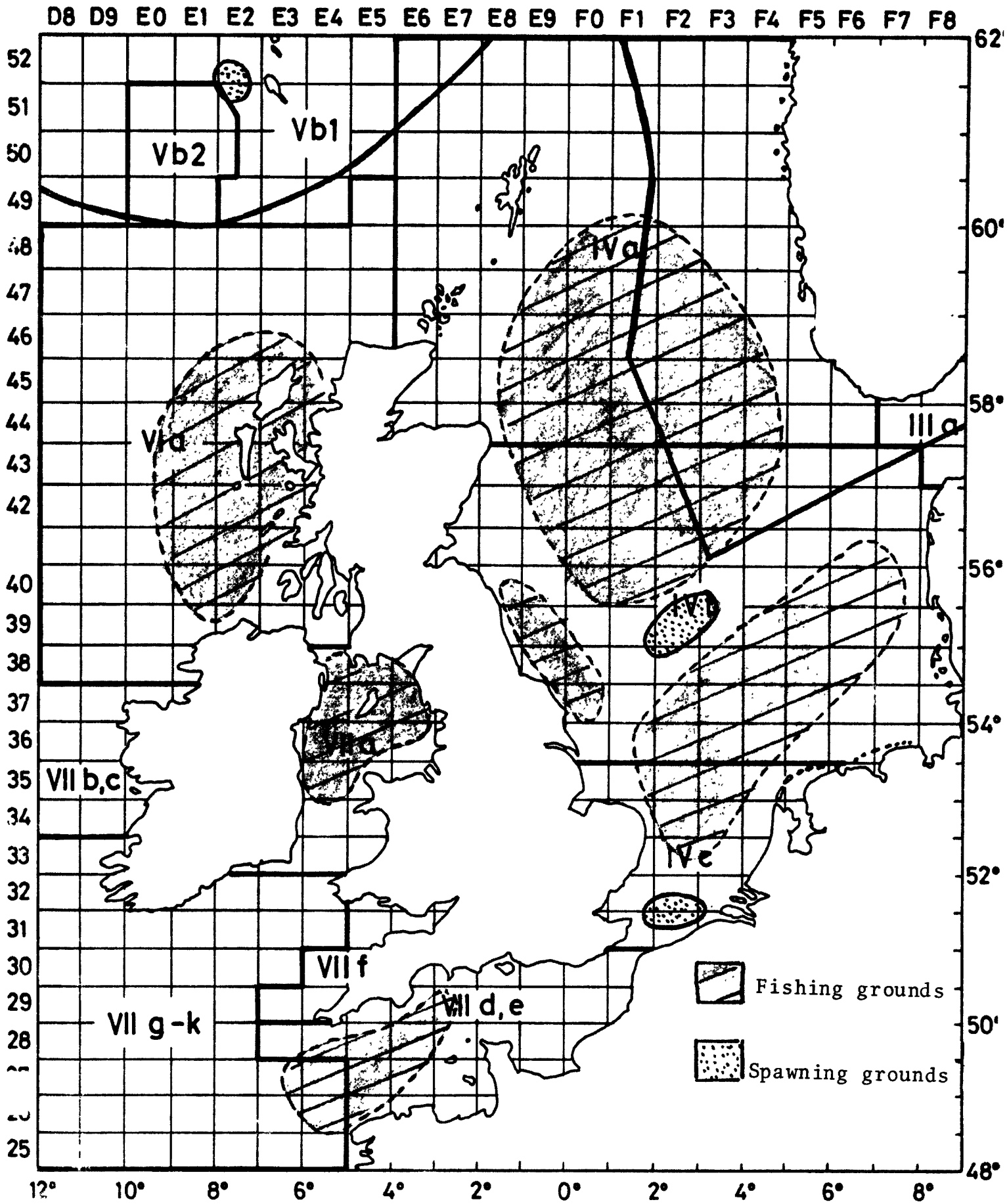
#### Whiting (map vi)

As the map indicates, this species is widely distributed, but it appears to spawn in certain highly localised waters on both sides of the North Sea.

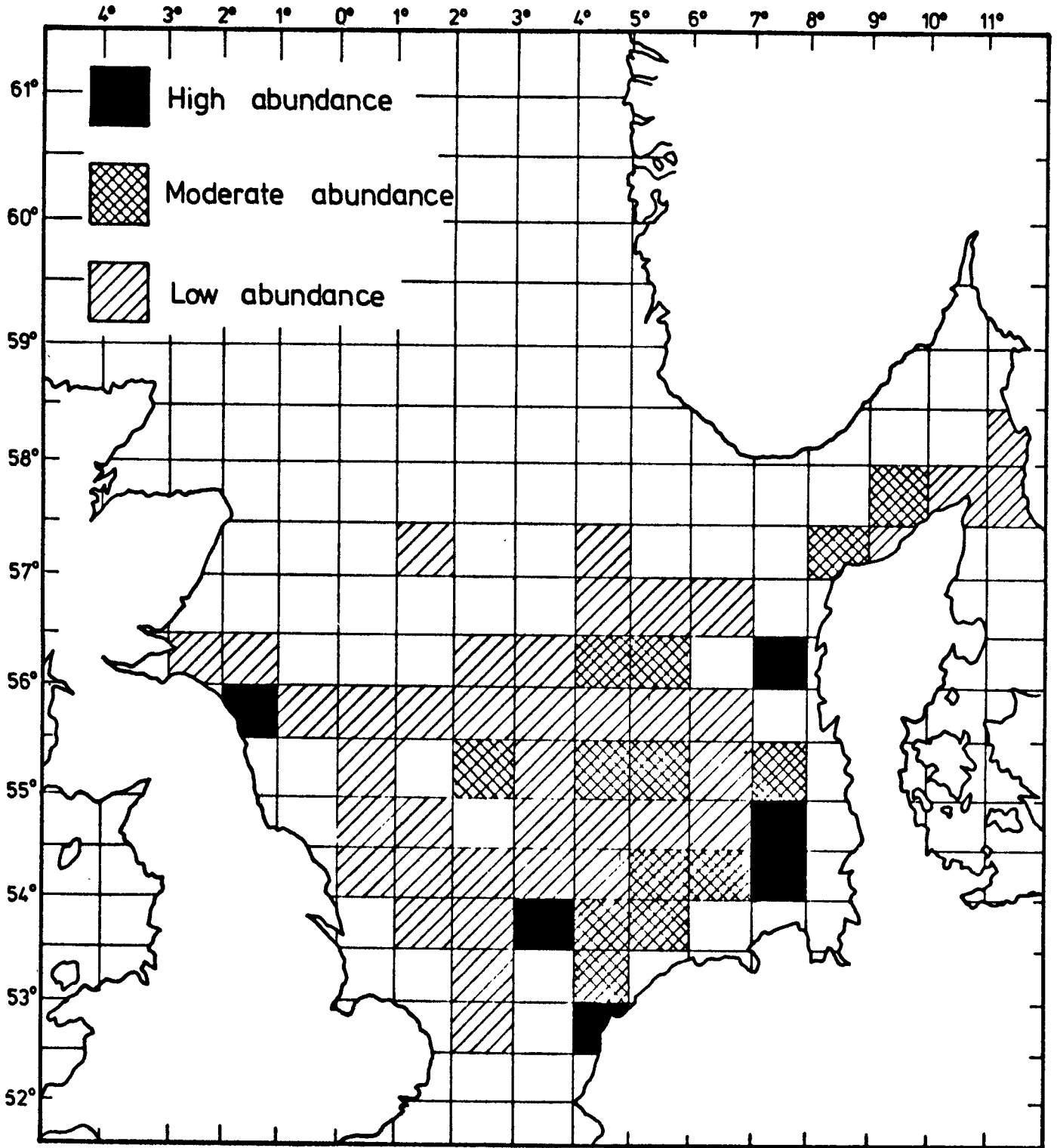
(i)



HERRING  
(including the West of Scotland spawning stock)

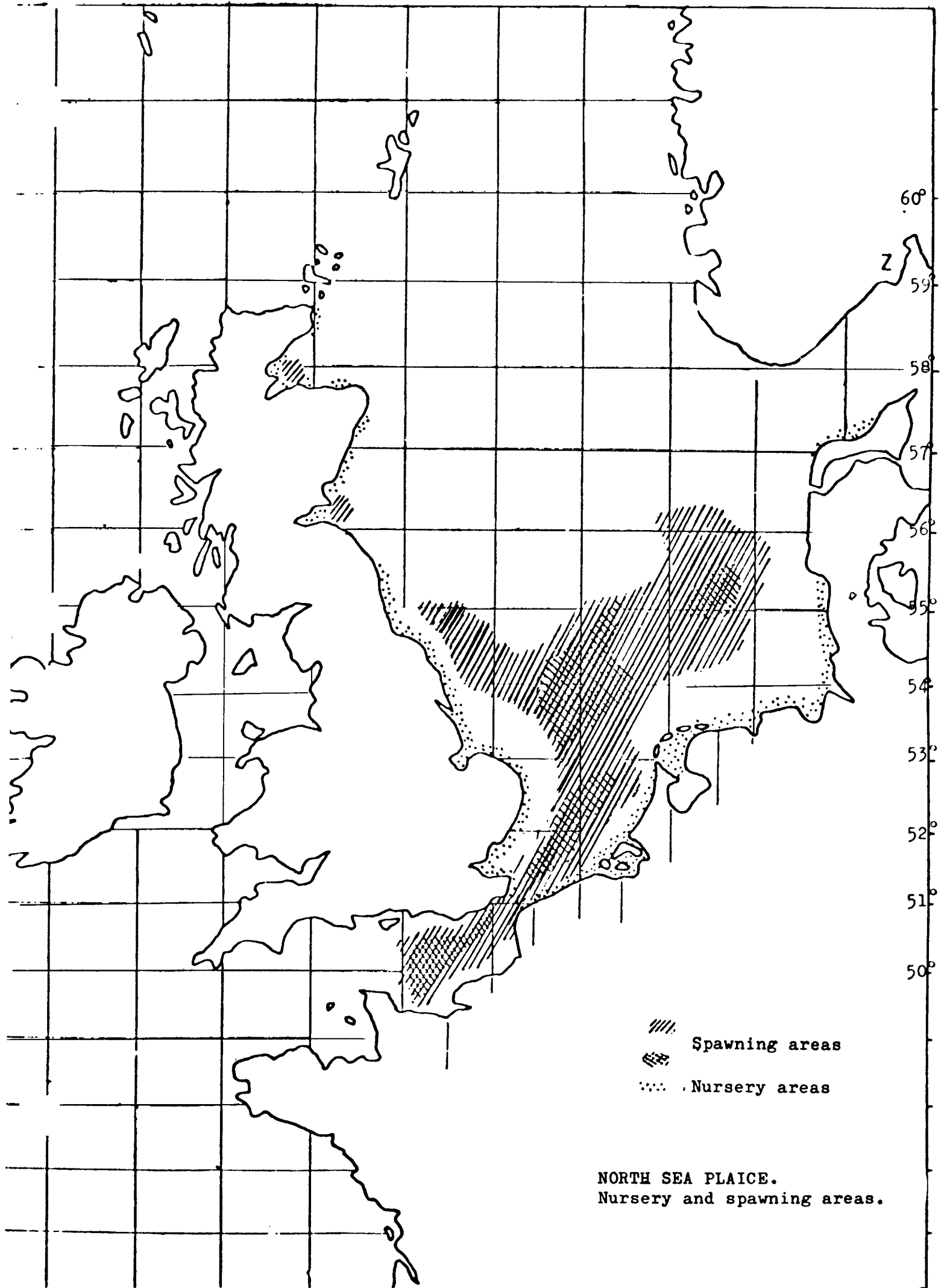


Whiting



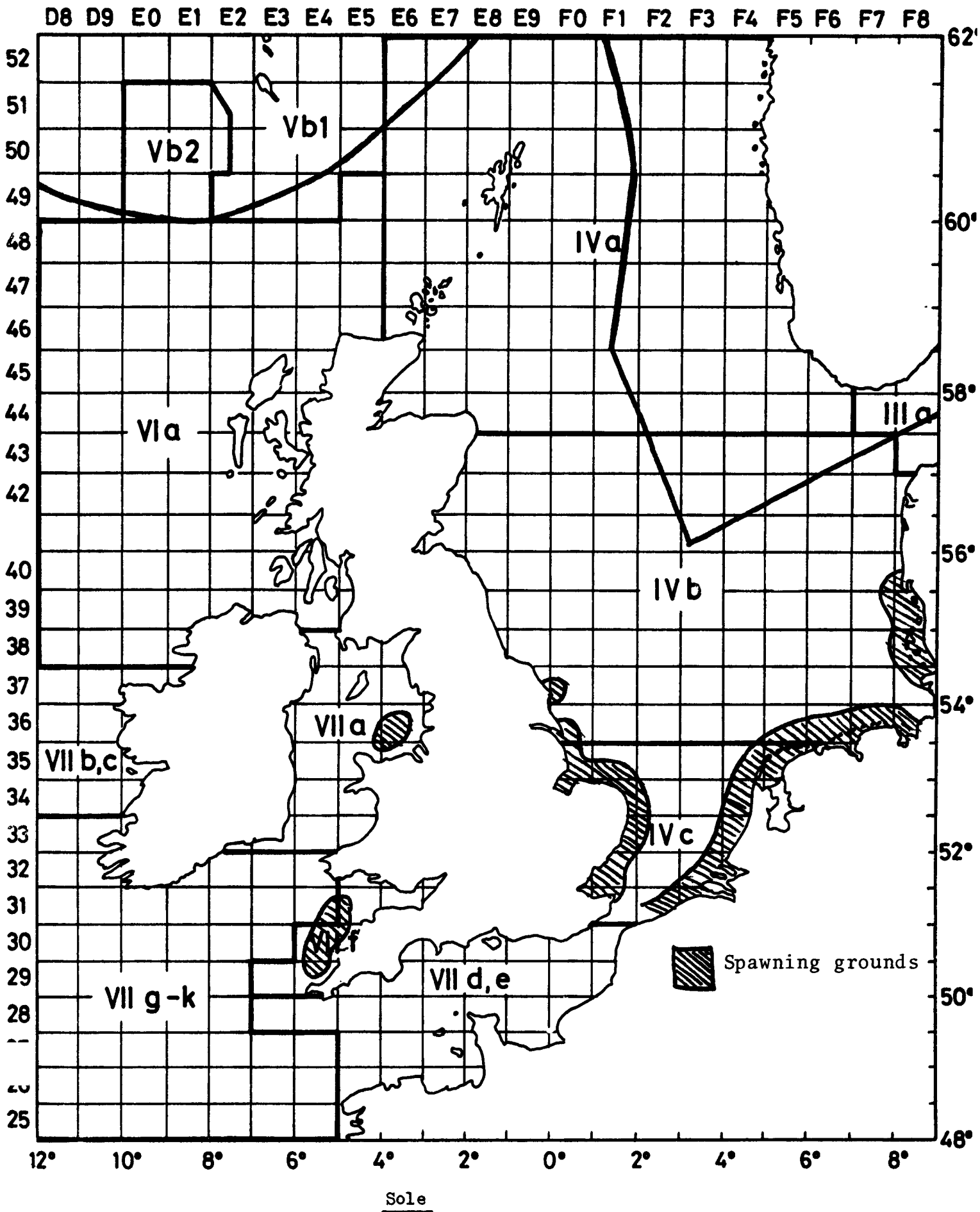
**NORTH SEA HERRING.**  
Distribution of juveniles

7° 5° 3° 1° 3° 5° 7° 9°

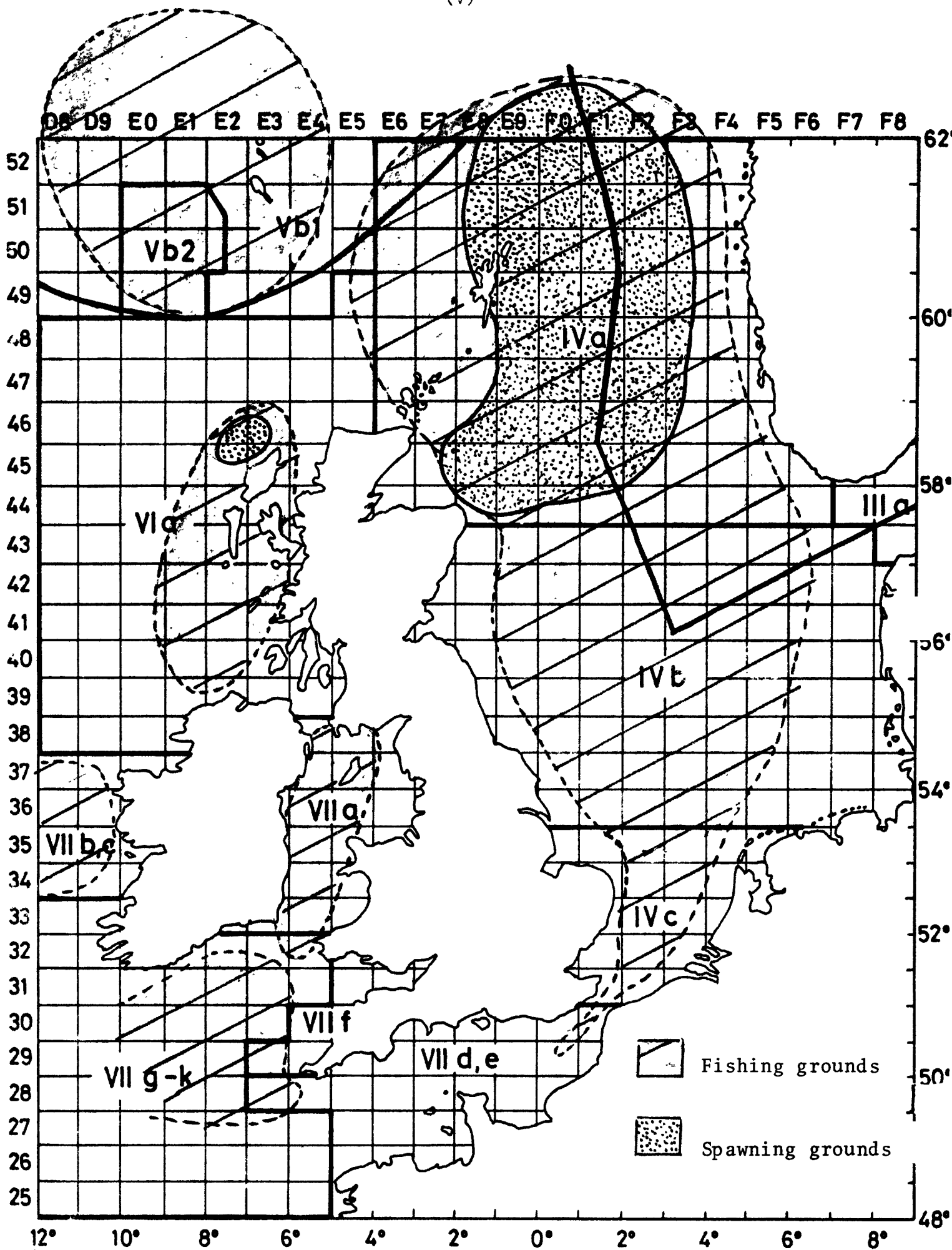


//// Spawning areas  
..... Nursery areas

NORTH SEA PLAICE.  
Nursery and spawning areas.



(v)



Haddock