

In the Atlantic fishery cod is first in landed value followed by haddock, and on the Pacific Coast halibut is by far the most important of the groundfish. Halibut and other flatfish species, although true groundfish, are not always classed as such in commercial usage. For instance, a United States tariff classification of groundfish fillets includes only cod, haddock, hake, pollock, cusk and rosefish (the latter is usually called redfish and marketed as ocean perch). In addition to these, Atlantic groundfish species include wolffish (ocean catfish), turbot (Greenland halibut), skate and dogfish. The sub-group of small flatfishes includes American plaice, witch or grey sole, winter flounder and yellow-tail flounder in Atlantic waters, and Pacific species such as lemon sole, rock sole, butter sole, brill and Dover sole. Other Pacific groundfish are grey cod, lingcod, blackcod or sablefish, various rockfishes (including those designated red snapper and ocean perch) and dogfish.

STOCKS AND THEIR UTILIZATION

The annual catch by Canada and other nations is estimated to take about 15 p.c. of the combined total stocks of groundfish on the Atlantic Continental Shelf and 6 or 7 p.c. of Pacific groundfish stocks off Canadian shores. Some individual species such as haddock, the Pacific rockfishes, blackcod and grey cod are being exploited quite heavily but the annual catch of others, such as dogfish, represents a negligible proportion of the existing stock. The degree of exploitation or utilization is, of course, closely related to the demand for the species as expressed by the price the fisherman is able to obtain for his catch to the cost of landing that catch. The cost of production at any given level of exploitation is governed by many factors—the prospective and realized returns to capital investment necessary to secure and maintain in the fishery the requisite boats, gear and working capital; the returns to labour necessary to retain the requisite number of fishermen in the industry; and the location, size and density of the fish stocks that are being exploited.

An unexploited stock tends to become so dense that growth is slow and natural mortality is high. Thus, more intensive fishing may have the somewhat paradoxical effect of reducing the size of the stock yet raising the level of sustained yield, as removal of the larger and older fish increases the rate of growth or the rate of reproduction of the stock, or both. Furthermore, if a stock is being overfished, less intensive fishing may raise both the size of the stock and the level of sustained yield. On these grounds, an increased annual catch is considered possible, with appropriate fisheries management and conservation policies, for Pacific halibut, lingcod and small flatfish, and for most of the Atlantic groundfish species except haddock.

The Atlantic species are dominant in the groundfish group, constituting 85 to 90 p.c. of the combined groundfish stocks and supplying an even greater proportion of the volume of Canada's annual groundfish catch. However, because of the large amount of relatively high-priced halibut in the Pacific catch, the Atlantic species constitute a smaller proportion of the value of groundfish landings—about 80 p.c. At present rates of utilization, the Atlantic groundfish stocks as a group show a higher potential for increased yield.

The richest fishing grounds lie within the 250-fathom depth contour on the Continental Shelf. Shallow-water "banks" are found many miles from shore on the Atlantic side but, because of the mountainous, steeply sloping character of the British Columbia coastline, the shallow-water area there is much narrower, although exceptionally well sheltered. The concentration of various species of fish in these coastal waters near to shore is the basis for a fishing industry in which costs are low enough to serve mass food markets with many groundfish products, such as frozen fillets for the North American trade and dried salted cod for the Caribbean and southern European countries.

Atlantic groundfish are caught inshore all along the coast and offshore in the Gulf of St. Lawrence, on the Grand Bank of Newfoundland and on various banks east of Labrador and Newfoundland and east and southeast of Nova Scotia and the State of Maine. They are caught by small and large craft, using principally line gear with baited hooks (hand-lines and long-lines) and drag-nets (otter-trawl and Danish seine) according to the suitability of the method: line gear is unsuitable for species with small mouths and