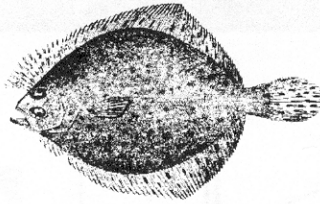# Windowpane
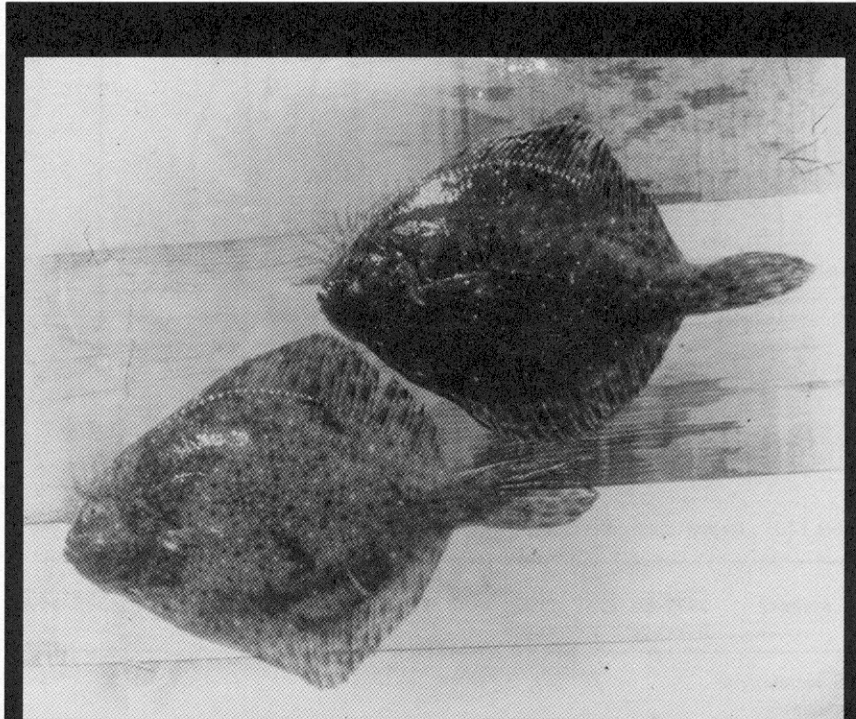
by L. Hendrickson

Windowpane

NOAA Fisheries
NEFSC Photo Archive

Windowpane or sand flounder, *Scophthalmus aquosus*, is a thin-bodied, left-handed flatfish distributed on the northwest Atlantic continental shelf from the Gulf of St. Lawrence to Florida. This species inhabits large estuaries and is also commercially abundant in waters less than 56 m (30 fathoms) on Georges Bank and in Southern New England. Sexual maturity occurs between ages 3 and 4. Spawning occurs from April through December in Mid-Atlantic Bight waters, with peaks in May and October; and during summer on Georges Bank, where peak activity occurs in July and August.

No stock structure information is available. Therefore, a provisional arrangement has been adopted which recognizes two stock areas based on apparent differences in growth, sexual maturity, and abundance trends between fish from Georges Bank and Southern New England. The proportions of total landings contributed by the Gulf of Maine and Mid-Atlantic areas are low (less than 7%), so data from these areas are combined with those from Georges Bank and Southern New England, respectively.

The principal commercial fishing gear for windowpane flounder is the otter trawl. Recreational and foreign catches are insignificant. This species is managed under the New England Fishery Management Council's Multispecies Fishery Management Plan. Management measures include a moratorium on permits, days-at-sea restrictions, time/area closures, and gear restrictions.

Commercial exploitation of windowpane flounder began during 1943-1945, and until 1975, windowpane
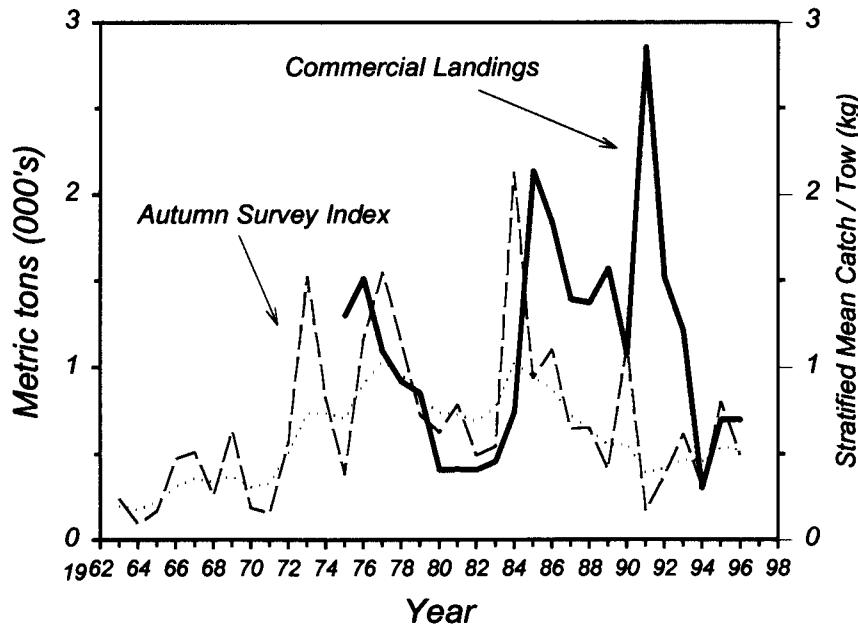
Gulf of Maine - Georges Bank
Windowpane

Table 12.1   Recreational catches and commercial landings (thousand metric tons)

Category	1977-86 Average	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
U.S. recreational	-	-	-	-	-	-	-	-	-	-	-
Commercial											
United States	0.9	1.4	1.4	1.6	1.1	2.9	1.5	1.2	0.3	0.7	0.7
Other	-	-	-	-	-	-	-	-	-	-	-
Total nominal catch	0.9	1.4	1.4	1.6	1.1	2.9	1.5	1.2	0.3	0.7	0.7

Summary Status

Long-term potential catch	=	Unknown
SSB for long-term potential catch	=	Unknown
Importance of recreational fishery	=	Insignificant
Management	=	Multispecies FMP
Status of exploitation	=	Fully exploited
Age at 50% maturity	=	3.0 Years
Size at 50% maturity	=	22.2 cm (8.7 in.), males
		22.5 cm (8.9 in.), females
Assessment level	=	Index
Overfishing definition	=	3-year moving average of NEFSC autumn bottom trawl survey index falls within the lowest quartile of the time series
Fishing mortality rate corresponding to overfishing definition	=	N/A

M = Unknown $F_{0.1}$ = Unknown F_{max} = Unknown F_{1996} = Unknown

"...until 1975, windowpane was harvested as part of an industrial fishery."

was harvested as part of an industrial fishery. Landings records for this species date back to 1975, at which time landings totalled 2,000 mt. Landings reached a peak of 4,200 mt in 1985 and then fluctuated between 2,000 mt and 3,700 mt during 1987-1991. Subsequently, landings declined sharply and have averaged less than 1,000 mt annually since 1994.

Gulf of Maine-Georges Bank

Since 1991, approximately 75% of the total windowpane landings have been harvested from the Gulf of Maine-Georges Bank area. Following a 1991 record high of 2,900 mt, landings declined to a record low in 1994 (300 mt) and then increased to 700 mt in 1996. High landings during

"NEFSC autumn bottom trawl survey indices, although highly variable, have declined since 1984.

the early 1990s probably reflect an expansion of the fishery to offshore areas, as well as the targeting of windowpane flounder as an alternative to depleted groundfish stocks. NEFSC autumn bottom trawlsurvey indices, although highly variable, have declined since 1984. The stock is considered to be fully exploited and at a medium biomass level.

"During 1991-1993, landings from this area were only 25% of those from the Gulf of Maine-Georges Bank region."

Southern New England-Middle Atlantic

Commercial landings from this region exceeded those from the Gulf of Maine-Georges Bank region during 1980-1984 and reached a record-high of 2,100 mt in 1985. Landings have since declined from 1,200 mt in 1988 to a record low of 100 mt in 1995. During 1991-1993, landings from this area were only 25% of those from the Gulf of Maine-Georges Bank region. NEFSC autumn bottom trawl survey indices have declined since the early 1980s to record low levels. The stock is considered to be overexploited and at a low biomass level.

For further information

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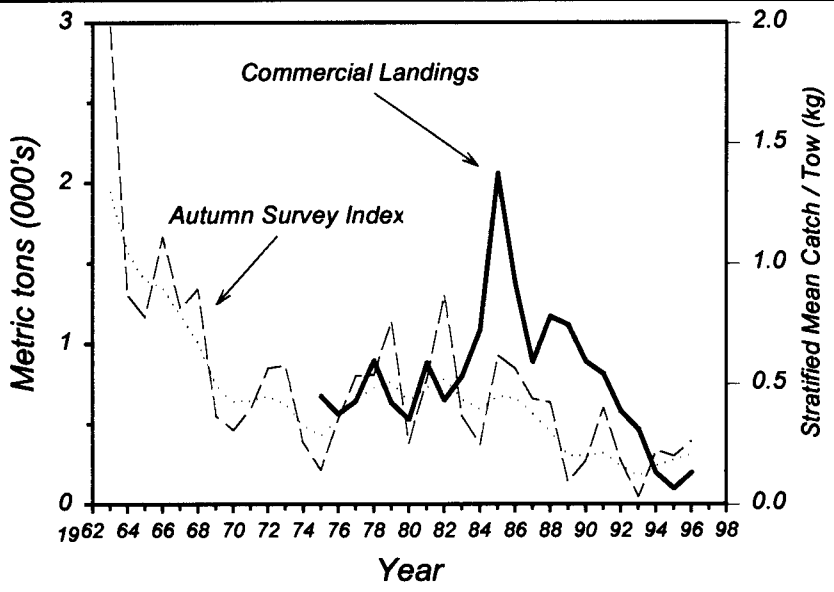
Southern New England - Middle Atlantic

Windowpane

Table 12.2   Recreational catches and commercial landings (thousand metric tons)

Category	1977-86 Average	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
U.S. recreational	-	-	-	-	-	-	-	-	-	-	-
Commercial											
United States	0.9	0.9	1.2	1.1	0.9	0.8	0.6	0.5	0.2	0.1	0.2
Other	-	-	-	-	-	-	-	-	-	-	-
Total nominal catch	0.9	0.9	1.2	1.1	0.9	0.8	0.6	0.5	0.2	0.1	0.2

Summary Status

Long-term potential catch	=	Unknown
SSB for long-term potential catch	=	Unknown
Importance of recreational fishery	=	Insignificant
Management	=	Multispecies FMP
Status of exploitation	=	Overexploited
Age at 50% maturity	=	3.0 years
Size at 50% maturity	=	21.5 cm (8.5 in.), males
		21.2 cm (8.4 in.), females
Assessment level	=	Index
Overfishing definition	=	3-year moving average of NEFSC autumn bottom trawl survey index falls within the lowest quartile of the time series
Fishing mortality rate corresponding to overfishing definition	=	N/A

M = Unknown $F_{0.1}$ = Unknown F_{max} = Unknown F_{1996} = Unknown