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#C #####
#C # Halibut data file for 2019
#C # Coastwide long time-series model
#C #####
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### Global settings ###
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```
1888 # Start year
2019 # End year
1 # Number of seasons
12 # Months per season
2 # Number of subseasons for calculations
1 # Spawning month
2 # Number of sexes
30 # Number of ages
1 # Number of areas
6 # Number of fleets
```

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#C ### Fleet definitions
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# fleettype	timing	area	catchunits	catchmult	fleetname
1	-1	1	1	0	Commercial
1	-1	1	1	0	Discards
1	-1	1	1	0	Non_directed_discards
1	-1	1	1	0	Recreational
1	-1	1	1	0	Subsistence
3	1	1	2	0	Survey

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#C ### Catch section ###
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#C # Halibut catch in thousands of lbs.
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# Mortality estimates updated 2019
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#	Year	season	fleet	catch	catchSE	#	name
1888	1	1	1	1466	0.01	#	Commercial
1889	1	1	1	1290	0.01	#	Commercial
1890	1	1	1	1373	0.01	#	Commercial
1891	1	1	1	2131	0.01	#	Commercial
1892	1	1	1	2768	0.01	#	Commercial
1893	1	1	1	3215	0.01	#	Commercial
1894	1	1	1	3756	0.01	#	Commercial
1895	1	1	1	4251	0.01	#	Commercial
1896	1	1	1	5423	0.01	#	Commercial
1897	1	1	1	6594	0.01	#	Commercial
1898	1	1	1	7765	0.01	#	Commercial
1899	1	1	1	8936	0.01	#	Commercial
1900	1	1	1	13405	0.01	#	Commercial
1901	1	1	1	17874	0.01	#	Commercial
1902	1	1	1	22343	0.01	#	Commercial
1903	1	1	1	25210	0.01	#	Commercial
1904	1	1	1	28077	0.01	#	Commercial
1905	1	1	1	22000	0.01	#	Commercial
1906	1	1	1	36000	0.01	#	Commercial
1907	1	1	1	50000	0.01	#	Commercial
1908	1	1	1	50617	0.01	#	Commercial
1909	1	1	1	51233	0.01	#	Commercial
1910	1	1	1	51850	0.01	#	Commercial

1911	1	1	56931	0.01	#	Commercial
1912	1	1	60434	0.01	#	Commercial
1913	1	1	66543	0.01	#	Commercial
1914	1	1	67425	0.01	#	Commercial
1915	1	1	68483	0.01	#	Commercial
1916	1	1	49756	0.01	#	Commercial
1917	1	1	48599	0.01	#	Commercial
1918	1	1	37685	0.01	#	Commercial
1919	1	1	40138	0.01	#	Commercial
1920	1	1	46615	0.01	#	Commercial
1921	1	1	52461	0.01	#	Commercial
1922	1	1	42495	0.01	#	Commercial
1923	1	1	51324	0.01	#	Commercial
1924	1	1	53135	0.01	#	Commercial
1925	1	1	50664	0.01	#	Commercial
1926	1	1	52468	0.01	#	Commercial
1927	1	1	54952	0.01	#	Commercial
1928	1	1	54260	0.01	#	Commercial
1929	1	1	56925	0.01	#	Commercial
1930	1	1	49506	0.01	#	Commercial
1931	1	1	44222	0.01	#	Commercial
1932	1	1	44488	0.01	#	Commercial
1933	1	1	46907	0.01	#	Commercial
1934	1	1	44718	0.01	#	Commercial
1935	1	1	47343	0.01	#	Commercial
1936	1	1	48923	0.01	#	Commercial
1937	1	1	49539	0.01	#	Commercial
1938	1	1	49553	0.01	#	Commercial
1939	1	1	50903	0.01	#	Commercial
1940	1	1	53381	0.01	#	Commercial
1941	1	1	52231	0.01	#	Commercial
1942	1	1	50388	0.01	#	Commercial
1943	1	1	53699	0.01	#	Commercial
1944	1	1	53435	0.01	#	Commercial
1945	1	1	53395	0.01	#	Commercial
1946	1	1	60266	0.01	#	Commercial
1947	1	1	55700	0.01	#	Commercial
1948	1	1	55564	0.01	#	Commercial
1949	1	1	55025	0.01	#	Commercial
1950	1	1	57234	0.01	#	Commercial
1951	1	1	56045	0.01	#	Commercial
1952	1	1	62262	0.01	#	Commercial
1953	1	1	59837	0.01	#	Commercial
1954	1	1	70583	0.01	#	Commercial
1955	1	1	57521	0.01	#	Commercial
1956	1	1	66588	0.01	#	Commercial
1957	1	1	60854	0.01	#	Commercial
1958	1	1	64508	0.01	#	Commercial
1959	1	1	71204	0.01	#	Commercial
1960	1	1	71605	0.01	#	Commercial
1961	1	1	69274	0.01	#	Commercial
1962	1	1	74862	0.01	#	Commercial
1963	1	1	71237	0.01	#	Commercial
1964	1	1	59784	0.01	#	Commercial

1965	1	1	63176	0.01	#	Commercial
1966	1	1	62016	0.01	#	Commercial
1967	1	1	55222	0.01	#	Commercial
1968	1	1	48594	0.01	#	Commercial
1969	1	1	58274	0.01	#	Commercial
1970	1	1	54838	0.01	#	Commercial
1971	1	1	46654	0.01	#	Commercial
1972	1	1	42884	0.01	#	Commercial
1973	1	1	31740	0.01	#	Commercial
1974	1	1	21310	0.01	#	Commercial
1975	1	1	27620	0.01	#	Commercial
1976	1	1	27540	0.01	#	Commercial
1977	1	1	21880	0.01	#	Commercial
1978	1	1	22000	0.01	#	Commercial
1979	1	1	22540	0.01	#	Commercial
1980	1	1	21870	0.01	#	Commercial
1981	1	1	25736	0.01	#	Commercial
1982	1	1	29007	0.01	#	Commercial
1983	1	1	38386	0.01	#	Commercial
1984	1	1	44971	0.01	#	Commercial
1985	1	1	57702	0.01	#	Commercial
1986	1	1	72832	0.01	#	Commercial
1987	1	1	72196	0.01	#	Commercial
1988	1	1	76340	0.01	#	Commercial
1989	1	1	68975	0.01	#	Commercial
1990	1	1	63621	0.01	#	Commercial
1991	1	1	59329	0.01	#	Commercial
1992	1	1	61438	0.01	#	Commercial
1993	1	1	60249	0.01	#	Commercial
1994	1	1	56310	0.01	#	Commercial
1995	1	1	44449	0.01	#	Commercial
1996	1	1	47913	0.01	#	Commercial
1997	1	1	65740	0.01	#	Commercial
1998	1	1	70351	0.01	#	Commercial
1999	1	1	74865	0.01	#	Commercial
2000	1	1	68754	0.01	#	Commercial
2001	1	1	71085	0.01	#	Commercial
2002	1	1	75123	0.01	#	Commercial
2003	1	1	73528	0.01	#	Commercial
2004	1	1	73437	0.01	#	Commercial
2005	1	1	72126	0.01	#	Commercial
2006	1	1	68210	0.01	#	Commercial
2007	1	1	63121	0.01	#	Commercial
2008	1	1	58774	0.01	#	Commercial
2009	1	1	52239	0.01	#	Commercial
2010	1	1	49885	0.01	#	Commercial
2011	1	1	39687	0.01	#	Commercial
2012	1	1	32130	0.01	#	Commercial
2013	1	1	29191	0.01	#	Commercial
2014	1	1	23811	0.01	#	Commercial
2015	1	1	24782	0.01	#	Commercial
2016	1	1	25164	0.01	#	Commercial
2017	1	1	26216	0.01	#	Commercial
2018	1	1	23621	0.01	#	Commercial

2019	1	1	24362	0.01	#	Commercial
1974	1	2	201	0.01	#	Discard
1975	1	2	309	0.01	#	Discard
1976	1	2	344	0.01	#	Discard
1977	1	2	292	0.01	#	Discard
1978	1	2	283	0.01	#	Discard
1979	1	2	297	0.01	#	Discard
1980	1	2	302	0.01	#	Discard
1981	1	2	351	0.01	#	Discard
1982	1	2	401	0.01	#	Discard
1983	1	2	526	0.01	#	Discard
1984	1	2	724	0.01	#	Discard
1985	1	2	1104	0.01	#	Discard
1986	1	2	1458	0.01	#	Discard
1987	1	2	1483	0.01	#	Discard
1988	1	2	1541	0.01	#	Discard
1989	1	2	1441	0.01	#	Discard
1990	1	2	1378	0.01	#	Discard
1991	1	2	1240	0.01	#	Discard
1992	1	2	1253	0.01	#	Discard
1993	1	2	1233	0.01	#	Discard
1994	1	2	1218	0.01	#	Discard
1995	1	2	677	0.01	#	Discard
1996	1	2	821	0.01	#	Discard
1997	1	2	1233	0.01	#	Discard
1998	1	2	1376	0.01	#	Discard
1999	1	2	1257	0.01	#	Discard
2000	1	2	1205	0.01	#	Discard
2001	1	2	1434	0.01	#	Discard
2002	1	2	1446	0.01	#	Discard
2003	1	2	1882	0.01	#	Discard
2004	1	2	2147	0.01	#	Discard
2005	1	2	1940	0.01	#	Discard
2006	1	2	2354	0.01	#	Discard
2007	1	2	2462	0.01	#	Discard
2008	1	2	2652	0.01	#	Discard
2009	1	2	2862	0.01	#	Discard
2010	1	2	3158	0.01	#	Discard
2011	1	2	2386	0.01	#	Discard
2012	1	2	1623	0.01	#	Discard
2013	1	2	1374	0.01	#	Discard
2014	1	2	1263	0.01	#	Discard
2015	1	2	1264	0.01	#	Discard
2016	1	2	1151	0.01	#	Discard
2017	1	2	969	0.01	#	Discard
2018	1	2	782	0.01	#	Discard
2019	1	2	898	0.01	#	Discard
1962	1	3	8609	0.01	#	Non-directed discards
1963	1	3	9423	0.01	#	Non-directed discards
1964	1	3	15914	0.01	#	Non-directed discards
1965	1	3	21361	0.01	#	Non-directed discards
1966	1	3	17774	0.01	#	Non-directed discards
1967	1	3	16337	0.01	#	Non-directed discards
1968	1	3	15216	0.01	#	Non-directed discards

1969	1	3	15230	0.01	#	Non-directed discards
1970	1	3	16290	0.01	#	Non-directed discards
1971	1	3	19720	0.01	#	Non-directed discards
1972	1	3	19280	0.01	#	Non-directed discards
1973	1	3	17533	0.01	#	Non-directed discards
1974	1	3	19025	0.01	#	Non-directed discards
1975	1	3	11906	0.01	#	Non-directed discards
1976	1	3	13750	0.01	#	Non-directed discards
1977	1	3	11776	0.01	#	Non-directed discards
1978	1	3	12243	0.01	#	Non-directed discards
1979	1	3	15284	0.01	#	Non-directed discards
1980	1	3	18702	0.01	#	Non-directed discards
1981	1	3	14861	0.01	#	Non-directed discards
1982	1	3	12372	0.01	#	Non-directed discards
1983	1	3	10884	0.01	#	Non-directed discards
1984	1	3	10190	0.01	#	Non-directed discards
1985	1	3	7701	0.01	#	Non-directed discards
1986	1	3	8762	0.01	#	Non-directed discards
1987	1	3	11280	0.01	#	Non-directed discards
1988	1	3	14662	0.01	#	Non-directed discards
1989	1	3	13645	0.01	#	Non-directed discards
1990	1	3	17682	0.01	#	Non-directed discards
1991	1	3	19670	0.01	#	Non-directed discards
1992	1	3	20293	0.01	#	Non-directed discards
1993	1	3	15964	0.01	#	Non-directed discards
1994	1	3	16952	0.01	#	Non-directed discards
1995	1	3	15932	0.01	#	Non-directed discards
1996	1	3	14464	0.01	#	Non-directed discards
1997	1	3	13513	0.01	#	Non-directed discards
1998	1	3	13158	0.01	#	Non-directed discards
1999	1	3	13544	0.01	#	Non-directed discards
2000	1	3	13022	0.01	#	Non-directed discards
2001	1	3	12875	0.01	#	Non-directed discards
2002	1	3	12086	0.01	#	Non-directed discards
2003	1	3	12069	0.01	#	Non-directed discards
2004	1	3	12050	0.01	#	Non-directed discards
2005	1	3	12736	0.01	#	Non-directed discards
2006	1	3	11508	0.01	#	Non-directed discards
2007	1	3	11358	0.01	#	Non-directed discards
2008	1	3	10911	0.01	#	Non-directed discards
2009	1	3	10588	0.01	#	Non-directed discards
2010	1	3	9747	0.01	#	Non-directed discards
2011	1	3	8501	0.01	#	Non-directed discards
2012	1	3	9293	0.01	#	Non-directed discards
2013	1	3	8926	0.01	#	Non-directed discards
2014	1	3	9080	0.01	#	Non-directed discards
2015	1	3	7607	0.01	#	Non-directed discards
2016	1	3	7159	0.01	#	Non-directed discards
2017	1	3	6213	0.01	#	Non-directed discards
2018	1	3	6109	0.01	#	Non-directed discards
2019	1	3	6436	0.01	#	Non-directed discards
1977	1	4	289	0.01	#	Recreational
1978	1	4	378	0.01	#	Recreational
1979	1	4	563	0.01	#	Recreational

1980	1	4	845	0.01	#	Recreational
1981	1	4	1112	0.01	#	Recreational
1982	1	4	1299	0.01	#	Recreational
1983	1	4	1616	0.01	#	Recreational
1984	1	4	1840	0.01	#	Recreational
1985	1	4	2355	0.01	#	Recreational
1986	1	4	3177	0.01	#	Recreational
1987	1	4	3509	0.01	#	Recreational
1988	1	4	4877	0.01	#	Recreational
1989	1	4	5233	0.01	#	Recreational
1990	1	4	5586	0.01	#	Recreational
1991	1	4	6509	0.01	#	Recreational
1992	1	4	6179	0.01	#	Recreational
1993	1	4	7725	0.01	#	Recreational
1994	1	4	7065	0.01	#	Recreational
1995	1	4	7462	0.01	#	Recreational
1996	1	4	8083	0.01	#	Recreational
1997	1	4	9025	0.01	#	Recreational
1998	1	4	8586	0.01	#	Recreational
1999	1	4	7379	0.01	#	Recreational
2000	1	4	9009	0.01	#	Recreational
2001	1	4	8104	0.01	#	Recreational
2002	1	4	8012	0.01	#	Recreational
2003	1	4	9347	0.01	#	Recreational
2004	1	4	10707	0.01	#	Recreational
2005	1	4	10863	0.01	#	Recreational
2006	1	4	10196	0.01	#	Recreational
2007	1	4	11465	0.01	#	Recreational
2008	1	4	10679	0.01	#	Recreational
2009	1	4	8791	0.01	#	Recreational
2010	1	4	7853	0.01	#	Recreational
2011	1	4	7104	0.01	#	Recreational
2012	1	4	6784	0.01	#	Recreational
2013	1	4	7633	0.01	#	Recreational
2014	1	4	7184	0.01	#	Recreational
2015	1	4	7456	0.01	#	Recreational
2016	1	4	7376	0.01	#	Recreational
2017	1	4	7596	0.01	#	Recreational
2018	1	4	6923	0.01	#	Recreational
2019	1	4	6921	0.01	#	Recreational
1991	1	5	2010	0.01	#	Subsistence
1992	1	5	1114	0.01	#	Subsistence
1993	1	5	932	0.01	#	Subsistence
1994	1	5	927	0.01	#	Subsistence
1995	1	5	650	0.01	#	Subsistence
1996	1	5	651	0.01	#	Subsistence
1997	1	5	713	0.01	#	Subsistence
1998	1	5	740	0.01	#	Subsistence
1999	1	5	744	0.01	#	Subsistence
2000	1	5	756	0.01	#	Subsistence
2001	1	5	772	0.01	#	Subsistence
2002	1	5	771	0.01	#	Subsistence
2003	1	5	1375	0.01	#	Subsistence
2004	1	5	1547	0.01	#	Subsistence

2005	1	5	1537	0.01	#	Subsistence
2006	1	5	1478	0.01	#	Subsistence
2007	1	5	1486	0.01	#	Subsistence
2008	1	5	1343	0.01	#	Subsistence
2009	1	5	1307	0.01	#	Subsistence
2010	1	5	1238	0.01	#	Subsistence
2011	1	5	1144	0.01	#	Subsistence
2012	1	5	1144	0.01	#	Subsistence
2013	1	5	1131	0.01	#	Subsistence
2014	1	5	1203	0.01	#	Subsistence
2015	1	5	1204	0.01	#	Subsistence
2016	1	5	1167	0.01	#	Subsistence
2017	1	5	1167	0.01	#	Subsistence
2018	1	5	1059	0.01	#	Subsistence
2019	1	5	1056	0.01	#	Subsistence
-9999	0	0	0	0	#	End catch data

### #C Survey and CPUE setup

# Units: 0 = numbers, 1 = biomass, 2 = F, >=30 special types

# Error distribution: -1 = normal, 0 = lognormal, >0 = T-with DF

# SD report: 0=don't report, 1=report variance on predictions

# Fleet Units Errordist SDrep # Name

1	1	0	1	#	Commercial
2	1	0	0	#	Discards
3	1	0	0	#	Non-directed discards
4	1	0	0	#	Recreational
5	1	0	0	#	Subsistence
6	0	0	1	#	Survey

### # Survey and CPUE observations

# Yr Month Fleet Obs log(SE) # Name

### Fishery WPUE updated 2019

1907	1007	1	280	0.1	# Commercial
1910	1007	1	271	0.1	# Commercial
1911	1007	1	237	0.1	# Commercial
1912	1007	1	176	0.1	# Commercial
1913	1007	1	129	0.1	# Commercial
1914	1007	1	124	0.1	# Commercial
1915	1007	1	118	0.1	# Commercial
1916	1007	1	137	0.1	# Commercial
1917	1007	1	98	0.1	# Commercial
1918	1007	1	96	0.1	# Commercial
1919	1007	1	93	0.1	# Commercial
1920	1007	1	96	0.1	# Commercial
1921	1007	1	88	0.1	# Commercial
1922	1007	1	73	0.1	# Commercial
1923	1007	1	78	0.1	# Commercial
1924	1007	1	74	0.1	# Commercial
1925	1007	1	68	0.1	# Commercial
1926	1007	1	67	0.1	# Commercial
1927	1007	1	65	0.1	# Commercial
1928	1007	1	58	0.1	# Commercial
1929	1007	1	51	0.1	# Commercial
1930	1007	1	46	0.1	# Commercial

1931 1007	1	50	0.1	# Commercial
1932 1007	1	60	0.1	# Commercial
1933 1007	1	63	0.1	# Commercial
1934 1007	1	62	0.1	# Commercial
1935 1007	1	76	0.1	# Commercial
1936 1007	1	71	0.1	# Commercial
1937 1007	1	80	0.1	# Commercial
1938 1007	1	88	0.1	# Commercial
1939 1007	1	80	0.1	# Commercial
1940 1007	1	81	0.1	# Commercial
1941 1007	1	85	0.1	# Commercial
1942 1007	1	90	0.1	# Commercial
1943 1007	1	95	0.1	# Commercial
1944 1007	1	110	0.1	# Commercial
1945 1007	1	102	0.1	# Commercial
1946 1007	1	101	0.1	# Commercial
1947 1007	1	99	0.1	# Commercial
1948 1007	1	99	0.1	# Commercial
1949 1007	1	95	0.1	# Commercial
1950 1007	1	95	0.1	# Commercial
1951 1007	1	96	0.1	# Commercial
1952 1007	1	110	0.1	# Commercial
1953 1007	1	131	0.1	# Commercial
1954 1007	1	133	0.1	# Commercial
1955 1007	1	119	0.1	# Commercial
1956 1007	1	129	0.1	# Commercial
1957 1007	1	110	0.1	# Commercial
1958 1007	1	121	0.1	# Commercial
1959 1007	1	129	0.1	# Commercial
1960 1007	1	132	0.1	# Commercial
1961 1007	1	127	0.1	# Commercial
1962 1007	1	115	0.1	# Commercial
1963 1007	1	105	0.1	# Commercial
1964 1007	1	100	0.1	# Commercial
1965 1007	1	99	0.1	# Commercial
1966 1007	1	100	0.1	# Commercial
1967 1007	1	101	0.1	# Commercial
1968 1007	1	103	0.1	# Commercial
1969 1007	1	95	0.1	# Commercial
1970 1007	1	91	0.1	# Commercial
1971 1007	1	89	0.1	# Commercial
1972 1007	1	78	0.1	# Commercial
1973 1007	1	63	0.1	# Commercial
1974 1007	1	61	0.1	# Commercial
1975 1007	1	61	0.1	# Commercial
1976 1007	1	55	0.1	# Commercial
1977 1007	1	63	0.1	# Commercial
1978 1007	1	71	0.1	# Commercial
1979 1007	1	75	0.1	# Commercial
1980 1007	1	94	0.1	# Commercial
1981 1007	1	111	0.1	# Commercial
1982 1007	1	127	0.1	# Commercial
1984 1007	1	316	0.035	# Commercial
1985 1007	1	352	0.034	# Commercial



1986 1007	1	315	0.041	# Commercial
1987 1007	1	316	0.038	# Commercial
1988 1007	1	363	0.036	# Commercial
1989 1007	1	353	0.025	# Commercial
1990 1007	1	315	0.029	# Commercial
1991 1007	1	314	0.038	# Commercial
1992 1007	1	315	0.035	# Commercial
1993 1007	1	369	0.1	# Commercial
1994 1007	1	302	0.069	# Commercial
1995 1007	1	326	0.037	# Commercial
1996 1007	1	387	0.039	# Commercial
1997 1007	1	400	0.025	# Commercial
1998 1007	1	402	0.025	# Commercial
1999 1007	1	390	0.023	# Commercial
2000 1007	1	398	0.023	# Commercial
2001 1007	1	358	0.042	# Commercial
2002 1007	1	356	0.02	# Commercial
2003 1007	1	325	0.018	# Commercial
2004 1007	1	315	0.019	# Commercial
2005 1007	1	293	0.017	# Commercial
2006 1007	1	268	0.019	# Commercial
2007 1007	1	249	0.02	# Commercial
2008 1007	1	229	0.017	# Commercial
2009 1007	1	220	0.018	# Commercial
2010 1007	1	202	0.02	# Commercial
2011 1007	1	196	0.015	# Commercial
2012 1007	1	193	0.021	# Commercial
2013 1007	1	178	0.017	# Commercial
2014 1007	1	183	0.022	# Commercial
2015 1007	1	202	0.025	# Commercial
2016 1007	1	196	0.02	# Commercial
2017 1007	1	202	0.02	# Commercial
2018 1007	1	178	0.028	# Commercial
2019 1007	1	185	0.054	# Commercial

### Survey NPUE updated 2019

1977 7	6	1.471	0.161	# Survey
1978 7	6	1.111	0.161	# Survey
1980 7	6	2.009	0.161	# Survey
1981 7	6	2.667	0.161	# Survey
1982 7	6	2.87	0.161	# Survey
1983 7	6	2.88	0.161	# Survey
1984 7	6	9.3	0.161	# Survey
1985 7	6	8.94	0.161	# Survey
1986 7	6	6.26	0.161	# Survey
1993 7	6	7.32	0.087	# Survey
1994 7	6	7.64	0.069	# Survey
1995 7	6	8.19	0.061	# Survey
1996 7	6	8.36	0.045	# Survey
1997 7	6	8.84	0.04	# Survey
1998 7	6	7.97	0.041	# Survey
1999 7	6	7.4	0.043	# Survey
2000 7	6	7.9	0.04	# Survey
2001 7	6	7.19	0.038	# Survey
2002 7	6	7.51	0.037	# Survey

```

2003 7      6  7.17    0.04    # Survey
2004 7      6  7.66    0.04    # Survey
2005 7      6  6.9  0.037    # Survey
2006 7      6  6.69    0.036    # Survey
2007 7      6  7.12    0.037    # Survey
2008 7      6  6.89    0.036    # Survey
2009 7      6  6.61    0.037    # Survey
2010 7      6  6.54    0.035    # Survey
2011 7      6  6.56    0.036    # Survey
2012 7      6  6.8  0.033    # Survey
2013 7      6  5.75    0.032    # Survey
2014 7      6  6.38    0.031    # Survey
2015 7      6  6.56    0.031    # Survey
2016 7      6  6.51    0.032    # Survey
2017 7      6  4.92    0.03     # Survey
2018 7      6  4.52    0.03     # Survey
2019 7      6  4.34    0.033    # Survey
-9999 1  1 1 1 # End of CPUE data marker

```

# Data setup

```

0 # Number of fleets with discard data
0 # Use mean body weight obs: 0=no, 1=yes
2 # Length bin method: 1=use databins, 2=generate from binwidth,min,max below, 3=read vector
10 # Bin width for population size comp
10 # Minimum size in the population (lower edge of first bin and size at age 0.00)
250 # Maximum size in the population (lower edge of last bin)
0 # Use length composition data: 0=no, 1=yes

```

# Age composition data setup

```

24 # Number of age data bins
# age data bins
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
2 # Number of ageing error definitions
# Ageing error definitions
# 1 - Break-and-bake
0.50 1.50 2.50 3.50 4.50 5.50 6.50 7.50 8.50 9.50 10.50 11.50 12.50 13.50 14.50 15.50 16.50
17.50 18.50 19.50 20.50 21.50 22.50 23.50 24.50 25.50 26.50 27.50 28.50
29.50 30.50
0.00 0.00 0.00 0.00 0.19 0.29 0.38 0.47 0.55 0.62 0.68 0.74 0.79 0.84 0.88 0.92 0.95 0.98 1.01 1.04 1.06 1.08 1.10 1.12
1.13 1.15 1.16 1.17 1.18 1.19 1.20
# 2 - Surface from re-ageing
0.50 1.50 2.50 3.50 4.40 5.30 6.26 7.30 8.32 9.32 10.28 11.23 12.15 13.04 13.91 14.77 15.59
16.40 17.19 17.96 18.70 19.43 20.14 20.83 21.51 22.16 22.80 23.43 24.03
24.63 25.20
0.03 0.03 0.03 0.03 0.03 0.33 0.35 0.37 0.39 0.42 0.56 0.70 0.83 0.95 1.09 1.23 1.38 1.54 1.72 1.90 2.10 2.30 2.50 2.71
2.92 3.13 3.33 3.54 3.74 3.94 4.13

```

# Bin compression and error structure for age data by fleet

```

# tailcomp constadded combineMF compressbins errordist Dirparnum minsampsize
0.001 0.0001 0 0 0 0 1 # Commercial
0.001 0.0001 0 0 0 0 1 # Discards
0.001 0.0001 0 0 0 0 1 # Non-directed discards
0.001 0.0001 0 0 0 0 1 # Recreational
0.001 0.0001 0 0 0 0 1 # Subsistence

```





















1982 7 6 3 0 2 -1 -1 302 0 0 0 0.0156 0.0304 0.0469 0.0636 0.1081 0.1005 0.0795 0.0709 0.051 0.028 0.0179 0.0117  
0.0083 0.0076 0.008 0.0127 0 0 0 0 0 0 0 0.0085 0.0186 0.0317 0.043 0.0712 0.0445 0.0315 0.0308 0.0209 0.0142  
0.01 0.0061 0.0028 0.002 0.0011 0.0023 0 0 0 0  
1983 7 6 3 0 2 -1 -1 293 0 0 0 0.0144 0.0418 0.0544 0.0602 0.0606 0.0728 0.0697 0.0585 0.0663 0.0405 0.0296 0.0157  
0.0103 0.0081 0.0052 0.0121 0 0 0 0 0 0 0 0.0111 0.0247 0.0401 0.0424 0.0497 0.0636 0.0503 0.0282 0.0247 0.0127  
0.01 0.0092 0.0045 0.0024 0.0025 0.0033 0 0 0 0  
1984 7 6 3 0 2 -1 -1 439 0 0 0 0.01 0.0199 0.0448 0.0569 0.0509 0.052 0.0721 0.0502 0.0317 0.0318 0.0229 0.014  
0.0122 0.009 0.0087 0.0196 0 0 0 0 0 0 0 0.0145 0.0259 0.0567 0.0555 0.0641 0.0661 0.0691 0.0453 0.0285 0.0238  
0.0162 0.0105 0.0063 0.0019 0.0022 0.0064 0 0 0 0  
1985 7 6 3 0 2 -1 -1 269 0 0 0 0.0095 0.0209 0.0282 0.0733 0.0627 0.0598 0.0462 0.0549 0.0457 0.0319 0.0257 0.0111  
0.0095 0.0051 0.0063 0.0217 0 0 0 0 0 0 0 0.0087 0.0153 0.0411 0.0809 0.0669 0.0603 0.0568 0.0635 0.0384 0.0191  
0.0115 0.009 0.0068 0.0031 0.0034 0.0025 0 0 0 0  
1986 7 6 3 0 2 -1 -1 275 0 0 0 0.0084 0.0179 0.0302 0.0372 0.0585 0.0552 0.0513 0.0466 0.0547 0.041 0.0336 0.0229  
0.014 0.0124 0.0086 0.0376 0 0 0 0 0 0 0 0.0041 0.0234 0.0278 0.039 0.0754 0.0501 0.0449 0.0538 0.0482 0.0333  
0.022 0.0155 0.0122 0.0073 0.0041 0.0087 0 0 0 0  
1988 7 6 3 0 2 -1 -1 72 0 0 0 0.0043 0.0086 0.0388 0.0733 0.1034 0.1897 0.0905 0.0431 0.0086 0.0086 0.0043 0  
0.0043 0 0 0 0 0 0 0 0 0.0043 0 0.0043 0.0129 0.0129 0.0517 0.0819 0.069 0.056 0.0517 0.0259 0.0216 0.0086  
0.0172 0.0043 0 0 0 0  
1989 7 6 3 0 2 -1 -1 33 0 0 0 0.0041 0.049 0.1959 0.1878 0.1265 0.1061 0.0122 0.0449 0.0286 0.0122 0.0041  
0.0041 0 0.0082 0 0 0 0 0 0 0 0.0041 0.0041 0.0245 0.0531 0.049 0.049 0.0122 0.0163 0 0 0 0.0041 0 0 0 0 0 0  
1993 7 6 3 0 2 -1 -1 136 0 0 0 0.0021 0.0099 0.0105 0.0369 0.0758 0.132 0.0781 0.0785 0.0648 0.0299 0.0249 0.0176  
0.0098 0.007 0.0028 0.0048 0 0 0 0 0 0 0 0.0028 0.0048 0.0118 0.0174 0.0269 0.0649 0.0449 0.0662 0.071 0.0431  
0.0245 0.018 0.011 0.0015 0.0025 0.0032 0 0 0 0  
1994 7 6 3 0 2 -1 -1 161 0 0 0 0.0022 0.0135 0.0347 0.0396 0.0669 0.1016 0.1058 0.0607 0.0476 0.0354 0.0193 0.013  
0.0069 0.0043 0.001 0.0033 0 0 0 0 0 0 0 5e-04 0.0083 0.014 0.0205 0.0447 0.0709 0.0611 0.0586 0.053 0.0451  
0.0308 0.0164 0.0114 0.0029 0.0039 0.002 0 0 0 0  
1995 7 6 3 0 2 -1 -1 223 0 0 0 0.0026 0.0115 0.0324 0.0622 0.0645 0.0829 0.0936 0.1004 0.0507 0.0329 0.0218 0.0144  
0.006 0.0042 0.0016 0.0019 0 0 0 0 0 0 0 9e-04 0.0113 0.0328 0.0549 0.0528 0.0523 0.0488 0.0421 0.0355 0.0331  
0.0176 0.0187 0.0072 0.0037 0.0015 0.0033 0 0 0 0  
1996 7 6 3 0 2 -1 -1 622 0 0 0 0.0034 0.008 0.0188 0.0528 0.0964 0.0537 0.0708 0.0843 0.0657 0.05 0.0341 0.0261  
0.0192 0.0091 0.0067 0.0079 0 0 0 0 0 0 0 0.0013 0.0037 0.0085 0.0254 0.05 0.0326 0.0403 0.0507 0.0439 0.0349  
0.0313 0.0253 0.0185 0.012 0.0081 0.0065 0 0 0 0  
1997 7 6 3 0 2 -1 -1 929 0 0 0 0.0013 0.0038 0.016 0.0243 0.0615 0.1339 0.0673 0.0646 0.0589 0.048 0.0237 0.0209  
0.0171 0.0095 0.008 0.0073 0 0 0 0 0 0 0 8e-04 0.0024 0.0064 0.0169 0.0391 0.0869 0.0384 0.0441 0.045 0.0437  
0.0293 0.0272 0.0204 0.0135 0.0072 0.0129 0 0 0 0  
1998 7 6 3 0 1 -1 -1 866 0 0 0 9e-04 0.0059 0.0118 0.0173 0.0261 0.0482 0.1153 0.0616 0.0448 0.0533 0.0371 0.0225  
0.0146 0.016 0.0136 0.0092 0.0053 0.0035 0.0015 0.0023 0.0037 0 0 0 4e-04 0.0024 0.0032 0.0067 0.0159 0.0348  
0.072 0.0434 0.0326 0.0395 0.0385 0.0313 0.0329 0.0326 0.0262 0.0255 0.0169 0.008 0.0058 0.006 0.0111  
1999 7 6 3 0 2 -1 -1 1029 0 0 0 0.0018 0.0047 0.0139 0.0224 0.0377 0.0468 0.0876 0.113 0.0577 0.049 0.0344 0.0232  
0.0129 0.0103 0.0064 0.0109 0 0 0 0 0 0 0 0.0014 0.0026 0.0067 0.0124 0.0234 0.0362 0.0718 0.1017 0.0465 0.0398  
0.0345 0.0309 0.0188 0.0144 0.0123 0.0137 0 0 0 0  
2000 7 6 3 0 2 -1 -1 1019 0 0 0 0.0025 0.0088 0.0104 0.0209 0.0362 0.0457 0.0599 0.0916 0.1131 0.0465 0.0315  
0.0256 0.0192 0.0118 0.0072 0.0183 0 0 0 0 0 0 0 0.0014 0.0036 0.006 0.0145 0.0187 0.0336 0.0456 0.0736 0.0834  
0.0376 0.0318 0.0326 0.0227 0.0169 0.01 0.0183 0 0 0 0  
2001 7 6 3 0 2 -1 -1 1079 0 0 0 0.0029 0.0068 0.0161 0.0173 0.0234 0.0325 0.0521 0.0554 0.0855 0.095 0.0588 0.0343  
0.0191 0.014 0.0091 0.0121 0 0 0 0 0 0 0 0.0021 0.0045 0.0093 0.0097 0.0158 0.0229 0.032 0.054 0.0756 0.0769  
0.0454 0.0394 0.0297 0.0212 0.0134 0.0134 0 0 0 0  
2002 7 6 3 0 1 -1 -1 1104 0 0 0 0.0018 0.0096 0.0295 0.041 0.0261 0.0315 0.0353 0.0441 0.0436 0.0676 0.0764 0.0441  
0.0258 0.0159 0.014 0.0104 0.0064 0.0063 0.004 0.0031 0.0056 0 0 0 0.0022 0.0046 0.0138 0.0246 0.0164 0.0218  
0.022 0.0287 0.0327 0.0467 0.0713 0.0368 0.0251 0.023 0.0239 0.0146 0.0114 0.0106 0.0095 0.0057 0.0124  
2003 7 6 3 0 1 -1 -1 1074 0 0 0 0.0035 0.0129 0.0277 0.0496 0.0638 0.038 0.0292 0.0395 0.0373 0.0451 0.0516 0.0548  
0.0322 0.0173 0.0124 0.0092 0.009 0.0036 0.0046 0.0032 0.0057 0 0 0 0.0018 0.0042 0.0142 0.0316 0.0296 0.0222  
0.02 0.0269 0.0253 0.0332 0.0457 0.049 0.035 0.0215 0.0167 0.019 0.0135 0.0111 0.0066 0.0068 0.0157  
2004 7 6 3 0 1 -1 -1 1065 0 0 0 0.0069 0.0138 0.0244 0.041 0.0642 0.0532 0.0319 0.0346 0.0277 0.0309 0.0363 0.0351



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2009	1	0
2010	1	0
2011	1	0
2012	1	0
2013	1	0
2014	1	1
2015	1	1
2016	1	1
2017	1	1
2018	1	1
2019	1	1
-9999	0	0 # End of environmental variable reads

0 # Number of size-frequency methods

0 # Use tag data: 0=no, 1=yes

0 # Use morph composition data: 0=no, 1=yes

0 # Use direct selectivity observations: 0=no, 1=yes

999 # End of data file