

Results of the TISVPA model

The data:

The input files transformed into the so called “Lowestoft” format were kindly presented by Niels Hintzen (IMARES). These files were used in ICA runs and they are much more suitable for TISVPA than initial format of the simulated data.

Additional assumptions:

Since it was not stated to the contrary in the simulated data sets, the value of natural mortality coefficient was assumed equal to 0.23 for all age groups and years – as it was usually done in jack mackerel stock assessments.

The results.

The results are presented in terms of total stock biomass and spawning stock biomass in the form of percentiles on figures 1 and 2 and tables 1 and 2.

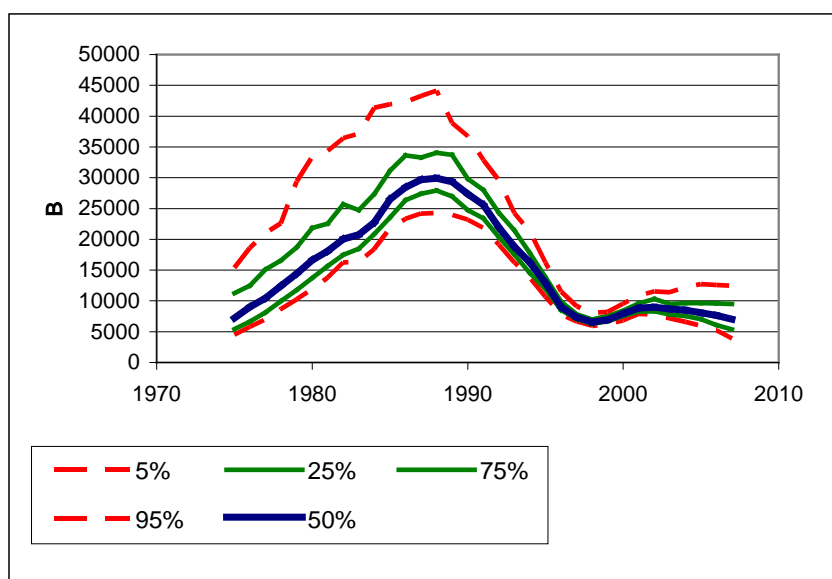


Figure 1.

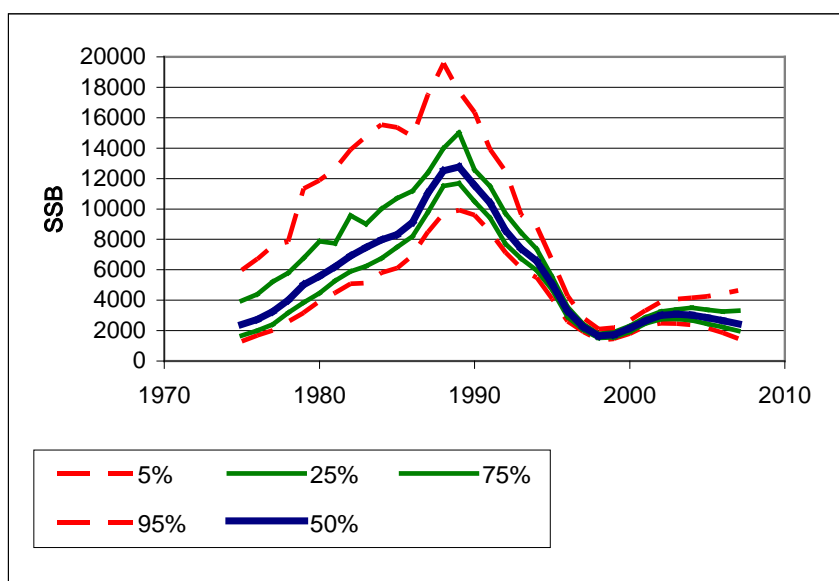


Figure 2.

Table 1

	Estimates of SSB				
	5%	25%	75%	95%	50%
1975	1289.9	1673.4	3956.9	5967.8	2402.6
1976	1666.7	1995.8	4397.7	6704.0	2730.1
1977	2011.1	2405.0	5225.7	7584.8	3249.5
1978	2590.6	3179.4	5787.5	7853.4	4006.5
1979	3179.1	3841.5	6766.3	11333.2	5019.5
1980	3922.9	4469.4	7877.0	11871.9	5573.1
1981	4489.3	5270.2	7742.9	12633.4	6203.4
1982	5088.4	5882.6	9572.4	13889.6	6917.3
1983	5121.7	6234.7	9009.2	14783.3	7475.2
1984	5786.7	6753.5	10015.8	15542.1	7975.4
1985	6106.7	7497.1	10693.3	15367.5	8319.6
1986	6931.5	8196.2	11190.4	14768.6	9115.5
1987	8479.9	9804.6	12404.5	17519.9	11058.6
1988	9700.0	11510.3	13986.5	19577.2	12505.5
1989	9907.6	11690.3	15013.7	17701.6	12767.8
1990	9577.0	10487.9	12570.9	16339.7	11554.4
1991	8511.0	9411.9	11488.7	13905.4	10388.5
1992	7115.0	7704.5	9704.8	12458.7	8577.9
1993	6094.5	6745.2	8442.7	9633.2	7386.0
1994	5483.1	5961.5	7366.7	8847.5	6576.5
1995	4074.6	4697.1	5552.6	6611.7	5065.8
1996	2602.2	2911.5	3560.3	4267.4	3294.0
1997	1929.7	2066.3	2453.2	2828.1	2245.4
1998	1382.0	1523.4	1791.2	2098.7	1646.9
1999	1464.2	1553.6	1913.1	2194.6	1741.4
2000	1786.3	1925.0	2315.3	2662.9	2161.0
2001	2273.1	2466.1	2876.4	3315.8	2632.9
2002	2481.8	2746.9	3252.1	3904.3	2996.1
2003	2468.8	2781.2	3384.6	4069.3	3073.7
2004	2387.3	2671.1	3495.3	4152.3	3030.2
2005	2154.7	2448.1	3377.0	4262.8	2845.6
2006	1857.4	2225.7	3259.9	4445.7	2658.6
2007	1464.8	1984.3	3320.5	4647.2	2449.6

Table 2.

	Estimates of the total stock biomass				
	5%	25%	75%	95%	50%
1975	4518.0	5406.9	11232.8	15376.7	7215.1
1976	5802.9	6641.6	12484.7	18632.9	9003.6
1977	7029.0	8112.3	15117.9	20985.4	10436.3
1978	8680.5	9957.5	16584.5	22591.5	12427.5
1979	10271.9	11756.9	18694.7	29404.4	14423.6
1980	11913.2	13746.4	21865.5	33372.1	16619.0
1981	13779.0	15681.6	22566.8	34356.6	18100.8
1982	16245.6	17482.2	25674.9	36401.1	20027.9
1983	16348.3	18461.9	24737.3	37110.1	20770.0
1984	18425.5	20846.0	27359.3	41357.8	22740.2
1985	21827.4	23556.8	31130.7	41944.4	26488.1
1986	23308.1	26342.4	33606.0	42260.4	28464.1
1987	24184.7	27380.6	33289.5	43267.4	29689.2
1988	24289.4	27925.5	34066.5	44100.3	29909.7
1989	23915.0	26979.7	33694.4	38885.7	29335.6
1990	23160.4	24723.4	29820.0	36743.4	27340.0
1991	21859.2	23401.2	27999.2	32857.7	25577.3
1992	19143.0	20381.5	24308.2	29598.1	21920.2
1993	16227.2	17506.3	21457.4	24249.1	18803.7
1994	13783.6	14515.7	17779.2	21203.4	16218.9
1995	10691.7	11956.4	13868.7	16260.2	12914.2
1996	7787.2	8502.3	9882.8	11483.1	9000.1
1997	6654.6	7075.8	7849.3	9095.6	7351.9
1998	5934.5	6277.1	6990.8	8020.4	6565.2
1999	6189.3	6671.9	7560.1	8218.4	6950.8
2000	6848.9	7538.0	8410.7	9553.0	7934.5
2001	7877.3	8270.1	9581.2	10816.8	8829.5
2002	7803.7	8309.0	10311.1	11548.3	8978.1
2003	7170.0	7791.1	9518.6	11409.7	8684.8
2004	6617.8	7527.9	9642.6	12191.9	8521.5
2005	5933.1	7031.1	9638.0	12743.7	8071.5
2006	5215.0	6082.6	9606.9	12603.8	7653.9
2007	3882.1	5365.8	9517.5	12462.1	7037.4