

BLUE FISH, *POMATOMUS SALTATOR*, LINNAEUS

The blue fish, like the bonito, enters the Black Sea in spring for feeding and spawning and moves back to the Sea of Marmara in winter. The spawning peak occurs in July and the first half of August. It feeds primarily on fish (anchovy, horse mackerel and young mackerel) and partially on crustaceans (shrimps). **Table 86** presents the blue fish catches during the period 1950-1992.

TABLE 86. Blue fish catches by countries in the Black Sea during the period 1950-1992 (in tonnes)

Year	Bulgaria	Roumania	former USSR	Turkey	Total
1950	10.4	-	-	-	
1951	67.2	-	-	-	
1952	107.2	-	-	-	
1953	25.6	-	-	-	
1954	70.2	-	-	-	
1955	74.1	-	-	-	
1956	103.0	-	-	-	
1957	86.9	-	-	-	
1958	38.6	-	-	-	
1959	57.3	-	-	-	
1960	59.6	-	-	-	
1961	36.8	-	-	-	
1962	35.6	-	-	-	
1963	6.1	-	-	-	
1964	8.1	0.0	-	600	608.1
1965	23.1	0.0	-	480.0	503.1
1966	160.2	0.0	-	1900.0	2060.2
1967	464.0	0.0	-	2742.8	3206.8
1968	695.5	0.0	-	1905.4	2600.9
1969	361.5	0.0	400.0	2032.0	2793.5
1970	504.6	0.0	400.0	4665.1	5569.7
1971	67.4	0.0	0.0	1759.0	1826.4
1972	0.2	0.0	0.0	1653.2	1653.4
1973	0.0	0.0	0.0	208.4	208.4
1974	6.0	0.0	0.0	211.1	217.1
1975	15.3	1.0	7.0	2149.1	2172.4
1976	62.3	6.0	11.0	7819.0	7898.3
1977	22.6	6.0	41.0	8560.8	8630.4
1978	85.5	1.0	19.0	3309.8	3415.3
1979	21.3	2.0	0.0	13693.3	13716.6
1980	24.4	0.0	11.0	6951.0	6986.4
1981	40.9	6.0	0.0	12017.0	12063.9
1982	8.1	7.0	8.0	23285.0	23308.1
1983	3.7	2.0	3.0	22887.0	22895.7
1984	12.5	0.0	0.0	5135.0	5147.5
1985	0.4	0.0	0.0	7373.0	7373.4
1986	4.6	0.0	0.0	9260.0	9264.6
1987	4.4	0.0	1.0	8195.0	8200.4
1988	0.9	0.0	0.0	9465.0	9465.9
1989	0.1	0.0	2.0	6528.0	6530.1
1990	6.4	0.0	0.0	5733.0	5739.4
1991	0.2	0.0	0.0	9013.0	9013.2
1992	0.0	0.0	0.0	4700.0	4700.0
Average	92.7	1.1	32.5	6496.6	6622.9
%	1.40	0.02	0.49	98.09	100.00

It is seen that Turkish catches of blue fish represent on average 98.09% of the total blue fish catches in the Black Sea. For this reason we examine in more detail the distribution of Turkish catches by regions and seas (**Table 87**).

TABLE 87. Turkish catches of blue fish by regions and seas during the period 1967-1992 (in tonnes)

Year	Eastern part of Bl. Sea	Western part of Bl. Sea	Black Sea Total	Sea of Marmara	Aegean Sea	Medi-terra-nean	Grand Total
1967	-	-	2742.8	3327.7	56.5	41.8	6168.8
1968	-	-	1905.4	2456.9	88.8	94.4	4545.5
1969	-	-	2032.0	2291.0	51.2	64.8	4439.0
1970	4014.2	650.9	4665.1	1981.8	76.2	52.5	6775.6
1971	1198.6	560.4	1759.0	2430.9	58.2	154.1	4402.2
1972	1102.6	550.6	1653.2	2103.8	53.2	139.8	3950.0
1973	127.6	80.8	208.4	141.7	10.2	20.0	380.3
1974	121.5	89.6	211.1	583.0	27.3	53.1	874.5
1975	293.4	1855.7	2149.1	550.4	81.4	59.8	2840.7
1976	5687.1	2131.9	7819.0	642.6	292.5	57.1	8811.2
1977	3674.3	4886.5	8560.8	1111.2	203.7	112.2	9987.9
1978	777.7	2532.1	3309.8	694.5	44.1	195.9	4244.3
1979	6553.5	7139.8	13693.3	1209.4	22.3	203.9	15128.9
1980	994.0	5957.0	6951.0	3202.0	34.0	119.0	10306.0
1981	3594.0	8423.0	12017.0	5938.0	267.0	208.0	18430.0
1982	8576.0	14709.0	23285.0	8369.0	366.0	164.0	32184.0
1983	5293.0	17594.0	22887.0	6778.0	573.0	615.0	30854.0
1984	4663.0	472.0	5135.0	5431.0	733.0	438.0	11737.0
1985	4900.0	2473.0	7373.0	570.0	267.0	173.0	8383.0
1986	1109.0	8151.0	9260.0	2639.0	185.0	167.0	12251.0
1987	981.0	7214.0	8195.0	2335.0	159.0	153.0	10842.0
1988	2135.0	7330.0	9465.0	1405.0	503.0	449.0	11822.0
1989	1538.0	4990.0	6528.0	3347.0	994.0	207.0	11076.0
1990	199.0	5534.0	5733.0	2933.0	520.0	274.0	9460.0
1991	1294.0	7719.0	9013.0	2509.0	497.0	315.0	12334.0
1992	172.0	4528.0	4700.0	3704.0	977.0	316.0	9697.0
Average			6972.0	2641.7	274.6	186.4	10074.7
%			69.20	26.22	2.73	1.85	100.00

The average catch in the Black Sea (6 972.0 tonnes) represents 69.72% of total blue fish catches (10 074.7 tonnes). Next are the catches in the Sea of Marmara: 26.22% (2 641.7 tonnes). The landings from Aegean and Mediterranean Seas are insignificant - their average combined catch is 461.0 tonnes (4.58% of the mean total blue fish catch).

It appears from the same Table that blue fish catches are taken primarily in the western half of the Black Sea, i.e. west of Sinop. The average catch during the period 1970-1992 is 5024.9 tonnes; that is 66.20% of the average total catch in the Black Sea. They are taken most probably in the Bosphorus or in its vicinity during the spring migrations towards the Black Sea. The blue fish caught east of Sinop confirms the negative impact of pollution of the basin, especially in its western part, since in the last 10-15 years the blue fish has been absent along the coasts of Bulgaria, Romania and Ukraine.

The blue fish, like the bonito, is a significant component in the trophic interrelations between pelagic fishes. All this stresses the necessity of yearly assessments of its biomass size. As was the case with bonito, regular biological investigations have not been carried out, which makes it impossible to apply biostatistic methods for assessing blue fish stocks.