

Agenda Item 4.4: Bycatch issues

Fisheries Statistics. Data submitted by Parties

Submitted by: Secretariat



NOTE:
**IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING
THEIR OWN COPIES OF THESE DOCUMENTS TO THE MEETING**

Fisheries statistics from Belgium (2004-2005)

Belgium has the smallest fishing fleet of all North Sea states. In 2004 and 2005 the Belgian fishing fleet decreased further to respectively 123 and 121 vessels with (in 2005) an average engine power of 542kW, and an average Gross Tonnage of 187GT (DIENST ZEEVISSERIJ, 2006). The Belgian fishing fleet consists mainly of bottom trawlers (in 2004: 97% of total engine power). Only three vessels deploy bottom set gill nets, and also purse-seining and twin trawling is marginal.

Worth mentioning is the increase in fuel prices in 2005, with possible future consequences for the structure of the fishing fleet (probably not only in Belgium): the average fuel prices in 2005 were 37% higher than in 2004 (0.31euro/l in 2004 against 0.43euro/l in 2005). Prices peaked in September 2005 at 0.51euro/l.

1. Bottom set gill nets

Type of fishery: Bottom set gill nets

Target species: Sole, plaice, turbot, cod,...

Reporting period: 2004, 2005

Fishing season: Year round, target species dependent on season

Type of statistic: Landing

Fishing area: IVc, VIId, IVb

Number of vessels: 3 vessels, two of these are almost exclusively active in the Belgian territorial waters and EEZ (ICES IVc), while the third, larger vessel, is active in the Belgian EEZ and in IVc and VIId, and to a lesser extent in IVb.

Total length of gear: Approximately 22 kms

Catch: See landings for 2004 - 2005

Landings: Included in the statistics of the total fleet; less than 1% of all catches

By-catch: Relatively small bycatch of non-target species (both commercial and non commercial) and undersized target species. Very limited bycatch of benthic invertebrates. A limited bycatch of marine mammals is reported (oral communication: possibly up to six harbour porpoises in 2005 by one of the fishermen). Evidence from stranded animals indicate a higher bycatch, most probably due to the fact that also bycaught animals from foreign fishermen wash ashore in Belgium (in 2005 also 2 Dutch gill net vessels were active in Belgian territorial waters, and outside territorial waters gillnet fishermen from other nations are active), and that also recreational beach fisheries incidentally catch some each year.

Discards: See bycatch.

2. Trawling (data from TESSENS & VELGHE, 2005; DIENST ZEEVISSERIJ, 2006)

Type of fishery: Beam- and otter trawl for demersal fish, shrimp and Norway lobster

Target species: Demersal fish species (sole, plaice, cod, rays,...), shrimp (*Crangon crangon*), Norway lobster (*Nephrops norvegicus*),...

Reporting period: 2004 - 2005

Fishing season: Year round, fishing area and target species depend on the season.

Type of statistic: Landing, effort

Fishing area: Effort data (2004): including all fisheries; total fishing days: 24.852
IVb: 15% of effort
IVc: 33%
VIIa: 6%
VIIb: 19%
VIIc: 2%
VIId: 12%
VIIe: 10%
VIIf: 3%

Total fishing days in 2005: 23.135; effort not evenly distributed in most areas over the year.

Number of vessels: 123 - 121 (2004 - 2005)

Total length of gear: -

Catch: See landings.

Landings: Landings from vessels in Belgian ports:

Beamtrawling: 94% of all landings
Otter trawling: 3%
Shrimp trawling: 2%
Norway lobster trawling: 1%
Bottom set gill nets: 0.4%

Absolute weight of landings, including bottom set gill net fishery, and landings in foreign ports: total: 23.607 tons (2004), approx. 21.197 (2005).

For 2004: plaice: 5.812 tons (25%), cod: 1.639 tons (7%), sole: 4.484 tons (19%), brill + turbot + dab + lemon sole: 2629 tons, ray: 1.921 tons, brown shrimp: 600 tons (2.5%),...

By-catch: in comparison to bottom set gill net fishery, a very high bycatch of non target species: benthic invertebrates, undersized target and non target fish, non-commercial fish species,...). No bycatch of marine mammals was reported in 2004; one harbour porpoise was bycaught in 2005.

Discards: See by-catch.

3. Recreational fisheries

Recreational fishery: use of rod and line (from the beach and from small vessels) and set nets of different types (from the beach)

No change since previous report. At least 2 harbour porpoises died in recreational beach gillnet fisheries (most probably an underestimate), while a third bycaught animal was returned to sea alive. Another 11-15+ animals washed ashore after being incidentally caught in unknown fishing gear (data MUMM, unpublished, <http://www.mumm.ac.be>).

References:

DIENST ZEEVISSERIJ, 2006. Aanvoer en besomming 2005. Ministerie van de Vlaamse Gemeenschap, Dienst Zeevisserij, <http://www2.vlaanderen.be>.

TESSENS, E. & VELGHE, M. (Eds.), 2005. De Belgische zeevisserij: aanvoer en besomming 2004. Ministerie van de Vlaamse Gemeenschap, Dienst Zeevisserij, 105p.

Fisheries statistics from Finland

Finnish Game and Fisheries Research Institute

Professional marine fishery

In the beginning of 2005 the Finnish fishing fleet numbered almost 3 400 registered vessels with capacity of 18 000 BT and power of 180 000 kW. There has been some reduction in fleet size from the previous year. The fleet is divided into four segments: pelagic trawlers, demersal trawlers, offshore salmon vessels and vessels under 12 metres with passive gear. Most of the vessels (3 239) are less than 12 metres in length and used in inshore fishing. In the pelagic segment there are 142 registered vessels with a capacity of 8 200 GT and 40 000 kW. In the demersal trawler segment there are only two vessels left. In the salmon fishery there are 51 vessels (capacity of 1 580 BT and power of 10 300 kW) using drift nets and longlines. There were some 2 400 professional fishermen but most of them were part-time.

The following figures concerning professional marine fishery in 2005 are preliminary. The final statistics is published in may 2006.

In 2005 the total fleet landings reached about 90 000 tonnes and the total catch value was about EUR 17 million.

a. Offshore fishery

Type of fishery:	Pelagic and bottom trawls, drift nets, long lines, bottom gillnets. Note: In this connection midwater trawl without a heavy ground rope, is classified as a bottom trawl, when fishing near bottom.
Target species:	Baltic herring, sprat, cod, salmon
Reporting period:	2005
Fishing season:	Year round, target species dependent on season
Type of statistic:	Nominal catch
Fishing area:	III d
Number of vessels:	Total fleet in open sea fishery 150 vessels
Catch:	Pelagic trawl: 55500 tons (herring 38000 t., sprat 17000 t., cod 23 t., vendace 11 t) Bottom trawl: 24200 tons (herring 23000 t., sprat 900 t., cod 160 t., smelt 80 t. roach 40 t., vendace 20 t), Drift net: 215 tons (salmon 210 t.) Long line: 40 tons (salmon 30 t.) Bottom gillnet: 190 tons (cod 100 t., herring 60 t., European whitefish 30 t.)
Landings:	See catch
By-catch:	Smelt (80 t.) and roach (40 t.) in bottom trawling, otherwise relatively small bycatch of non-target species and undersized target species
Discard:	Circa 90 tons (herring 34 t., salmon 30 t., sprat 25 t); Salmon mostly eaten by seals.

b. Inshore fishery:

Type of fishery:	Trap nets, gillnets
Target species:	Baltic herring, perch, European whitefish, pikeperch, pike, salmon etc.
Reporting period:	2005
Fishing season:	Year round, target species dependent on season
Type of statistic:	Nominal catch
Fishing area:	III d
Number of fishermen:	Circa 1670 fishing units (fishermen with their households etc.) in coastal fishery in total, Every fishing unit owns at least one boat
Catch:	Trap net: 5300 tons (herring 4300 t., perch 260 t., salmon 200 t., European whitefish 120 t., smelt 100 t., vendace 80 t., bream 80 t., roach 70 t.). Gillnet: 2300 tons (European whitefish 600 t., perch 590 t., pikeperch 430 t., herring 190 t., pike 160 t., roach 60 t., bream 60 t.)
Landings:	See catch
By-catch:	Smelt (120 t.) especially in trap net fishery and roach (190 t.) in trap net and gillnet fishery, otherwise relatively small bycatch of non-target species and undersized target species (see discard)
Discard	Circa 165 tons (Herring 40 t, European whitefish 30 t., salmon 25 t., bream 25 t., roach 10 t.,). European whitefish and salmon mostly eaten by seals, bream and roach are mostly unwanted bycatch.

Recreational fisheries

In 2004, there were 1,9 million recreational fishermen in almost 1 million households in Finland. Forty-five per cent of men and 27 per cent of women went fishing. About 230 000 of those who had been fishing had participated only by rowing or steering the boat. Most of the fishermen fished only in the inland waters.

The most commonly used tackle was the hook and line, which was used by two in three of fishermen. Next most common was the spinning rod, which was used by two in five fishermen. Other commonly used gears were jig, gill net, trolling gear, fish traps and trap nets.

The total catch amounted to 38 million kg, of which 80 per cent was taken in inland waters. Perch or pike made up over half of the catch. Fifty-three per cent of the total fish catch was taken with gill nets, fish traps and trap nets, and 44 per cent with rod and line.

References

Statistical databases of the Finnish Game and Fisheries Research Institute.

Commercial Marine Fishery 2004. Finnish Game and Fisheries Research Institute. SVT - Official Statistics of Finland. Agriculture, Forestry and Fishery 2005:57.

Recreational Fishing 2004. Finnish Game and Fisheries Research Institute. SVT - Official Statistics of Finland: Agriculture, Forestry and Fishery 2005:62.

Fisheries statistics from Sweden

2005
S Königson

1. Bottom set gillnets

Type of fishery	Bottom set gillnet
Target species	Varied species
Reporting period	2005
Fishing season	Year round depending on species
Type of statistics	Catch per area and gear type from loggbook
Fishing areas	ICES III a,b,c,d
Number of vessels	635
Total effort	unit m of net*hours

DIVISION	Totalt
3AN	24 832 980
3AS	97 150 200
3B	314 076 670
3C	470 000
3DN	40 018 140
3DS	1 675 797 070
Totalt	2 152 345 060

Catch	unit kg							
SPECIES	3AN	3AS	3B	3C	3DN	3DS	Sum	
Cod	43856	18616	652504		898	11301	2564215	3291390
Herring	28214	6048	205897			981221	29696	1251076
Salmon		4	229			10012	170201	180446
Flounder	805	9952	38529		10	255	93758	143308
Whitefish, Houting, Powan	550					111238	17118	128906
Spurdog / spiny dogfish	121940	205	10					122155
Plaice	27634	36080	33572				5875	103160
Perch		40	18			53717	15581	69356
Mackerel	39687	4698	54				16	44455
Lumpfish	1945	9308	24599				418	36270
Zander (Pikeperch)						25291	9525	34816
Turbot	935	3253	555			43	29194	33980
Edible crab	9435	21957	14					31405
Pike			103			15786	15272	31161
Vendace (Cisco)						27595		27595
Pollack	21702	4531	0		0			26233
Rockfishes	19695	3539						23234
Sprat	18400							18400
Lemon Sole	350	10019	462		0			10831
Sole	253	8570	1243				25	10092
Trout		25	375			4330	4329	9060
Unknown Catches	1526	154	1276			1200	4425	8581
Saithe	7417	334	0		618			8369
Bream						4067	227	4294
Brill	2050	1771	146				128	4094
Whiting	298	137	343				2511	3289
Eel	0	9	10			682	5065	5746
Dab	7	1215	1280				164	2665
Witch	1582	473	108					2163
TOTAL	349598	146188	964876		1526	1393268	3004916	5860372

Bycatch, 4 birds. Discard 17.5 ton of fish. No harbour porpoise recorded in logbook.

2. Driftnet

Type of fishery Driftnets
Target species Salmon in the Baltic
Reporting period 2005
Fishing season salmon year round
Type of statistics catch per area and gear type from logbooks
Fishing area III d
Number of vessels 37
Total effort unit m of net*hour

DIVISION	Totalt
3DN	2 244 800
3DS	119 319 850
Totalt	121 564 650

Catch Unit kg

SPECIES	3DN	3DS	Sum
Salmon	8 277	168 923	177200.1
Trout		2 152	2151.7
Unknown Catches		790	790
Cod		16	16
Totalt	8 383	172 228	180610.8

Bycatch 220 kg fish discard, no mammal bycatch recorded

3 Trawling

Type of fishery	bottom otter trawl and pelagic trawls
Target species	sprat, herring, sandeel, cod ...
Reporting period	2005
Fishing season	Year round
Type of statistics	catch per area and type of gear from loggbook
Fishing area	III a,b,c,d and IV a,b
Number of vessels	340
Total effort	unit trawling hours

DIVISION	Totalt
2A	156
3AN	132 555
3AS	35 201
3B	307
3DN	8 125
3DS	98 155
4A	5 635
4B	6 792
3C	2
Totalt	287 844

Catch unit kg

SPECIES	2A	3AN	3AS	3B	3DN	3DS	4A	4B	Sum	
Sprat		1 006 000	1 854 000		561 000	90 048 177		0	36 094	93 505 271
Herring	0	23 408 091	9 548 464	178 000	1 925 918	45 615 009	5 335 800	1 220 500	87 231 782	
Sandeels		456 500						0	8 048 500	8 505 000
Cod		410 388	313 746	37 869	290	5 597 912	69 689	211 140	6 641 034	
Blue Whiting	780 000	1 223 158	0			0	891 790	5 000	2 899 948	
Mackerel		203 104	310			1 677	974 500	0	2 161 591	
Northern pink shrimp		1 985 667	10 040				147 900		2 143 607	
Saithe		613 014	7 943				0	378 892	1 103 151	2 103 000
Vendace (Cisco)					1 582 538				1 582 538	
Horse Mackerel		68 567	105	17 000		0	148 000	4 800	948 472	
Norway lobster		535 528	303 395	295		0	2 109	550	841 877	
Witch		506 615	3 136	4		0	1 032	1 148	511 935	
Haddock		122 949	43 540	34		310	29 403	98 772	295 008	
Sardinella									295 000	
Plaice		107 757	63 893	911		38 647	143	263	211 614	
Whiting		23 033	48 412	7 177		94 425	444	215	173 706	
Pollack		14 611	111 988	30		0	14 919	31 037	172 585	
Flounder		894	3 509			144 483			148 886	
Unknown Catches		30 938	13 055	128	0	502	11 044	17 676	73 343	
Monkfish		62 352	61			0	4 265	3 316	69 994	
Hake		41 934	4 224			0	15 107	8 517	69 782	
Spurdog / spiny dogfish		38 951	8 384			0	64	30	47 429	
Rockfishes		15 398	6 037	109			5 993	12 609	40 146	
Ling		29 307	1 016	9		0	4 192	3 739	38 263	
Lemon Sole		20 300	6 517	53		0	955	1 498	29 323	
Eel		2 375	100		835		1 528	2 270	27 108	
Sea breams									25 000	
Sole		6 367	14 645	191		0			21 203	
Salmon						9 947			9 947	
Brill		4 907	4 099	60		47	0	0	9 113	
Grey Gurnard		34	734			0	0	7 965	8 733	
Skates, rays		8 242					155		8 397	
Greater Weever		9	7 253					180	7 442	
Turbot		911	1 175	86		5 239	0	0	7 411	
Lumpfish		5 267	0					0	5 267	
Tusk		4 710	4				466	0	5 180	
Halibut		2 602	11			125	358	227	3 323	
Dab		648	779			1 014	0	150	2 591	
Total	780 000	30 970 657	12 381 657	241 959	4 072 252	141 557 744	8 039 015	10 820 279	245 976 962	

Bycatch Discard of fish 213 ton, no mammal bycatch recorded