

**Agenda Item 6.3:      Review of new information on bycatch**

**Fisheries Statistics submitted to the Secretariat**

**Submitted by:          Secretariat**



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

## **Secretariat's Note**

As of 11 April 2007 the Secretariat had received reports from France and Sweden only. These are attached.

## Fisheries statistics from France (2004)

Submitted to ASCOBANS in 2006

Compiled by Yvon Morizur, IFREMER/Brest

According to the Ifremer data base, France had around 2770 vessels with trawls and set nets fishing in North Atlantic areas in year 2004. That fleet was compounded of 1260 bottom trawlers (92 % having a length less than 24 meters) , 220 pelagic trawlers (89 % having a length less than 24 meter) and 41 beam trawlers b(83 % less than 18 meters). Around 1250 vessels were observed to fish with set nets ; those boats are generally less than 12 meters length (84 %).

### 1. Bottom set nets

Type of fishery : bottom set nets eg: gill nets, tangle nets or trammel nets

Target species : mainly sole, anglerfish, spider crab, gadoids

Reporting period : year 2004

Fishing season : all the year , some target species dependent on season.

Type of statistics : activity with boat and month-boats numbers per gear with target species and fishing areas

Fishing areas :

|                                | Other area | IV_c | other_VII | VII_d | VII_efh | other_VIII | VIII_ab | TOTAL |
|--------------------------------|------------|------|-----------|-------|---------|------------|---------|-------|
| Number of vessels per area     | 4          | 52   | 33        | 197   | 395     | 20         | 670     | 1247  |
| Number of month-boats per area | 32         | 401  | 245       | 1689  | 2611    | 68         | 4853    | 9620  |

Total length of gear : approximately 5 km for crab fishery; 20 km for anglerfish , turbot., rays ; 15 km for sole . 10 km for gadoids. These length of nets correspond to a hauling day time. The soak time varies according to the target species and is longer for crustacean target than fish target.

Catch :

Landings :

Bycatch : Observers at sea were deployed in area VIIe,h in years 1992-93 to cover one full year. More than 470 km of hauled nets were observed in the anglerfish fishery which is the main fishery in the area VIIeh. No mammal bycatch was recorded (Morizur Y., S. Pouvreau et A. Guéno  . 1996. Les rejets dans la p  che artisanale fran  aise de Manche occidentale. Ouvrage IFREMER, collection P  ches Maritimes, 127 p.)

Discards : Discards were studied with observers in area VIIe,h. The immersion time was the main reason of discards as some species are more sensible to the soak time. Generally the soak time was observed optimal to get the best ratio landings/discards.

### 2. Trawling

Type of fishery : bottom trawling for benthic and demersal species and cephalopods, pelagic trawling for anchovy, pilchard, bass, bream, horse mackerel, mackerel, tunas, and beam trawling for flat fish. Around 60 vessels works in pairs for pelagic trawl.

Target species : demersal and benthic species (anglerfish, bass, gadoids, skates, rays, sole, turbot, cephalopods...) , pelagic species (anchovy, pilchard, bass, bream, horsemackerel, mackerel, tunas)

Reporting period : year 2004

Fishing season :all the year for bottom or beam trawling; Pelagic trawling target more seasonal species and is active in several fisheries.

Type of statistics : activity with boats and month-boats numbers per metier.

Fishing areas :

| Number of boats per area |             |      |           |       |         |            |         |       |
|--------------------------|-------------|------|-----------|-------|---------|------------|---------|-------|
| Gear / Fishing area      | Other areas | IV_c | other_VII | VII_d | VII_efh | other_VIII | VIII_ab | Total |
| Bottom trawl             | 47          | 43   | 165       | 325   | 406     | 36         | 620     | 1263  |
| Pelagic trawl            | 7           | 4    | 57        | 79    | 66      | 58         | 137     | 221   |
| Beam trawl               | 2           | 5    | 0         | 36    | 9       | 0          | 1       | 41    |

  

| Number of boat-months per area |             |      |           |       |         |            |         |       |
|--------------------------------|-------------|------|-----------|-------|---------|------------|---------|-------|
| Gear / Fishing area            | Other areas | IV_c | other_VII | VII_d | VII_efh | other_VIII | VIII_ab | Total |
| Bottom trawl                   | 322         | 189  | 1193      | 2286  | 2922    | 119        | 5141    | 11303 |
| Pelagic trawl                  | 17          | 6    | 123       | 241   | 185     | 128        | 894     | 1391  |
| Beam trawl                     | 8           | 34   | 0         | 206   | 32      | 0          | 6       | 247   |

Total length of gear : The head rope is generally around 40 meters large for the bottom trawling and for pair pelagic trawling the horizontal aperture is 80 meters larger and the vertical opening is 40 meters.

Catch :

Landings :

Bycatch : Bycatch of marine mammal has not yet been reported in bottom trawling. Bycatch has been reported in the years 1995-96 in some fisheries of pelagic trawling : hake, bass, tuna (Morizur Y., S. D. Berrow, N.J.C. Tregenza, A. S. Couperus et S. Pouvreau ,1999. Incidental catches of marine -mammals in pelagic trawl fisheries of the Northeast Atlantic. *Fisheries Research*, 41 : 297-307.). A more extensive and recent project with observers on the pair pelagic trawling was carried out in areas VII and VIII through the European project PETRACET and bycatch of cetaceans (mainly common dolphin) was observed in tuna and seabass fisheries. Cetacean bycatch incidence was observed in less than 5 % of the observed tows. 79 common dolphins were caught in 295 observed hauls with the occurrence of some hotspots in bay of Biscay. A provisional extrapolation to the average fishing effort in for area VII and VIII gives a total of 625 common dolphins in the French bass fisheries.

Discards : Discards was studied with observers in bottom trawling in area VIIe,f in years 1992-93.( Morizur Y., S. Pouvreau et A. Guénoilé. 1996. Les rejets dans la pêche artisanale française de Manche occidentale. Ouvrage IFREMER, collection Pêches Maritimes, 127 p.). Pelagic trawling was studied with observers in years 1995-96 and a small proportion of the catch (generally less than 25 %) was discarded (Morizur Y., N. Tregenza, H. Heessen, S. Berrow and S. Pouvreau, 1996. By-catch and discarding in pelagic trawl fisheries. Rapport final, Contrat CE-DGXIV-c-1, Bioeco/93/048.,124 pp + annexes).

## Fisheries statistics from Sweden

S Königson

### 1. Bottom set gillnets

|                    |   |
|--------------------|---|
| Type of fishery    | Bottom set gillnet                        |
| Target species     | Varied species                            |
| Reporting period   | 2006                                      |
| Fishing season     | Year round depending on species           |
| Type of statistics | Catch per area and gear type from logbook |
| Fishing areas      | ICES III a,b,c,d                          |
| Number of vessels  | 602                                       |
| Total effort       | unit m of net*hours                       |

| DIVISION | Totalt        |
|----------|---------------|
| 3AN      | 35 498 870    |
| 3AS      | 115 550 740   |
| 3B       | 285 994 930   |
| 3C       | 92 000        |
| 3DN      | 31 453 260    |
| 3DS      | 1 535 190 900 |
| Totalt   | 2 003 780 700 |

## Catch

unit kg

| SPECIES                 | 3AN     | 3AS    | 3B      | 3C  | 3DN     | 3DS       | Total     |
|-------------------------|---------|--------|---------|-----|---------|-----------|-----------|
| Eel                     |         |        |         |     | 424     | 8 128     | 8 552     |
| Brill                   | 1 776   | 1 925  | 288     |     |         | 92        | 4 080     |
| Catfish                 | 0       | 0      | 0       |     |         |           | 0         |
| Rockfishes              | 17 533  | 2 802  | 17      |     |         |           | 20 352    |
| Bullheads sculp         |         |        | 0       |     |         | 64        | 64        |
| Cod                     | 29 244  | 14 568 | 646 343 | 276 | 9 807   | 2 266 806 | 2 967 044 |
| Edible crab             | 7 870   | 23 382 | 172     |     |         |           | 31 424    |
| Dab                     | 221     | 1 164  | 1 168   |     |         | 30        | 2 583     |
| Spurdog / spiny dogfish | 102 960 | 136    | 18      |     |         |           | 103 114   |
| Eel                     | 0       | 20     |         |     | 599     | 6 575     | 7 194     |
| Eelpout                 |         |        |         |     |         | 45        | 45        |
| Bream                   |         |        |         |     | 4 089   | 695       | 4 784     |
| Burbot                  |         |        |         |     | 413     | 92        | 505       |
| Flatfishes              | 4       |        |         |     |         |           | 4         |
| Grayling                |         |        |         |     | 1       |           | 1         |
| Ide, Orfe               |         |        |         |     | 95      | 22        | 117       |
| Flounder                | 400     | 6 764  | 29 766  |     | 205     | 85 132    | 122 267   |
| Perch                   | 295     | 330    | 191     |     | 60 698  | 16 998    | 78 513    |
| Pike                    |         |        | 5       |     | 16 912  | 15 826    | 32 743    |
| Zander (Pikeperch)      |         |        |         |     | 26 067  | 6 559     | 32 625    |
| Roach                   |         |        |         |     | 474     |           | 474       |
| Ruffe                   |         |        |         |     |         |           |           |
| Tench                   |         |        |         |     | 20      | 5         | 25        |
| Vendace (Cisco)         |         |        |         |     | 28 528  | 4         | 28 532    |
| Tope                    | 304     |        |         |     |         |           | 304       |
| Garfish                 | 10      | 590    | 50      |     |         | 0         | 650       |
| European Eel            | 71      |        |         |     | 10      | 1 358     | 1 439     |
| Grey Gurnard            | 3       | 207    |         |     |         |           | 210       |
| Haddock                 | 146     | 90     | 35      |     |         |           | 271       |
| Halibut                 | 22      |        |         |     |         | 14        | 36        |
| Herring                 | 34 491  | 6 331  | 173 444 |     | 778 865 | 19 720    | 1 012 851 |
| Hake                    | 102     |        | 0       |     |         |           | 102       |
| Horse Mackerel          |         |        | 20      |     |         |           | 20        |
| European lobster        | 2       | 0      | 0       |     |         |           | 2         |
| Lemon Sole              | 396     | 7 393  | 81      |     |         |           | 7 869     |
| Ling                    | 426     | 129    | 0       |     |         |           | 555       |
| Lumpfish                | 2 088   | 21 314 | 85 796  |     |         | 29        | 109 227   |
| Mackerel                | 37 212  | 2 484  | 116     |     |         | 1         | 39 813    |
| Monkfish                | 192     |        |         |     |         |           | 192       |
| Four spined sculpin     |         |        |         |     | 3       | 6         | 9         |
| Thick-lipped Mullet     |         |        | 88      |     |         |           | 88        |
| Grey mullets            |         | 0      |         |     |         |           | 0         |
| Bonefish                | 3       | 1      |         |     |         | 47        | 51        |
| Norway lobster          | 55      | 27     |         |     |         |           | 82        |
| Plaice                  | 19 028  | 43 062 | 36 597  |     |         | 4 430     | 103 116   |
| Poor cod                |         |        |         |     |         | 0         | 0         |
| Saithe                  | 11 238  | 124    | 16      |     |         |           | 11 378    |
| Pollack                 | 13 492  | 1 991  | 22      |     |         |           | 15 505    |
| Blue/Common skate       | 0       |        |         |     |         |           | 0         |
| Thornback Ray, Roker    | 38      |        |         |     |         |           | 38        |

|                           |         |         |           |               |           |           |
|---------------------------|---------|---------|-----------|---------------|-----------|-----------|
| Salmon                    |         |         | 241       | 10 917        | 111 257   | 122 415   |
| Skates, rays              | 22      | 15      |           |               |           | 37        |
| Smelt                     |         |         |           | 110           |           | 110       |
| Sole                      | 933     | 13 472  | 984       |               |           | 15 389    |
| Sprat                     | 8 866   |         |           |               | 0         | 8 866     |
| Rainbow Trout             |         |         |           | 285           |           | 285       |
| Trout                     | 4       | 30      | 103       | 4 788         | 4 807     | 9 732     |
| Turbot                    | 394     | 5 737   | 440       | 4             | 27 545    | 34 120    |
| Unknown Catches           | 873     | 122     | 6 457     | 9 271         | 22 166    | 38 889    |
| Tusk                      | 108     |         |           |               |           | 108       |
| Greater Weever            | 7       |         |           |               |           | 7         |
| Whitefish, Houting, Powan | 937     | 658     |           | 84 551        | 17 141    | 103 287   |
| Whiting                   | 569     | 151     | 81        |               | 11 608    | 12 409    |
| Witch                     | 783     | 63      |           |               |           | 846       |
| Total                     | 293 167 | 183 069 | 1 007 944 | 276 2 811 011 | 3 664 983 | 7 960 450 |

Discard 23,9 ton of fish. No harbour porpoise recorded in logbook.

## 2. Driftnet

|                    |  |
|--------------------|--|
| Type of fishery    | Driftnets                                  |
| Target species     | Salmon in the Baltic                       |
| Reporting period   | 2006                                       |
| Fishing season     | salmon year round                          |
| Type of statistics | catch per area and gear type from logbooks |
| Fishing area       | III d                                      |
| Number of vessels  | 28   |
| Total effort       | unit m of net*hour                         |

| DIVISION | Total       |
|----------|-------------|
| 3DN      | 8 931 000   |
| 3DS      | 101 209 750 |
| Total    | 110 140 750 |

| Catch           | Unit kg |         |     |          |
|-----------------|---------|---------|-----|----------|
|                 | 3DN     | 3DS     | 3AN | Total    |
| SPECIES         |         |         |     |          |
| Cod             |         |         | 3   | 3        |
| European Eel    |         |         | 71  | 71       |
| Mackerel        |         |         | 340 | 340      |
| Unknown Catches |         | 613     |     | 613,4    |
| Trout           | 0       | 3 205   |     | 3205,2   |
| Salmon          | 9 820   | 110 930 |     | 120749,7 |
| Total           | 9 820   | 477 984 | 420 | 488223,3 |

Discard 0 kg, 3 seals reported by-caught

### 3 Trawling

|                    |   |
|--------------------|---|
| Type of fishery    | bottom otter trawl and pelagic trawls         |
| Target species     | sprat, herring, sandeel, cod ...              |
| Reporting period   | 2006  |
| 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  | 342   |
| Total effort       | unit trawling hours                           |

| DIVISION | Totalt  |
|----------|---------|
| 2A       | 12      |
| 3AN      | 124 666 |
| 3AS      | 40 499  |
| 3B       | 349     |
| 3C       | 15      |
| 3DN      | 7 699   |
| 3DS      | 97 579  |
| 4A       | 4 626   |
| 4B       | 6 313   |
| Totalt   | 282 919 |

| Catch<br>SPECIES             | unit kg |         |         |       |     |       |       |         |        |        | Total     |
|------------------------------|---------|---------|---------|-------|-----|-------|-------|---------|--------|--------|-----------|
|                              | 2A      | 3AN     | 3AS     | 3B    | 3C  | 3DN   | 3DS   | 4A      | 4B     |        |           |
| Bass                         |         |         |         | 1     |     |       |       |         |        |        | 1         |
| Deal-fish                    |         | 4       |         |       |     |       |       |         |        |        | 4         |
| European lobster             |         | 0       | 10      |       |     |       |       |         |        |        | 10        |
| Thick-lipped Mullet          |         |         | 10      |       |     |       |       |         |        |        | 10        |
| Stone King Crab              |         | 15      |         |       |     |       |       |         |        |        | 15        |
| Eel                          |         | 24      | 3       |       |     |       |       |         |        |        | 27        |
| Argentines                   |         | 7       |         |       |     |       |       |         | 25     |        | 32        |
| Smelt                        |         |         |         |       |     | 77    |       |         |        |        | 77        |
| Sticklebacks                 |         |         |         |       |     |       |       | 100     |        |        | 100       |
| Octopuses                    |         | 123     | 15      |       |     |       |       |         |        |        | 138       |
| Blue Ling                    |         | 150     |         |       |     |       |       |         |        |        | 150       |
| Perch                        |         |         |         |       |     | 186   |       |         |        |        | 186       |
| Cuttlefish                   |         | 234     | 0       |       |     |       |       | 0       | 0      | 0      | 234       |
| Red-Fish                     |         | 306     |         |       |     |       |       |         | 14     |        | 320       |
| Conger Eel                   |         | 35      | 302     |       |     |       |       |         |        |        | 337       |
| Ruffe                        |         |         |         |       |     | 350   |       |         |        |        | 350       |
| Blue/Common skate            |         | 345     | 15      |       |     |       |       |         | 20     |        | 380       |
| Three-spined<br>Stickleback  |         |         |         |       |     | 100   |       | 900     |        |        | 1 000     |
| Flatfishes                   |         | 456     | 72      |       |     |       |       |         | 138    | 414    | 1 080     |
| Sailray                      |         | 1 125   |         |       |     |       |       |         |        |        | 1 125     |
| Four spined sculpin          |         |         |         |       |     |       |       | 1 400   |        |        | 1 400     |
| Round-nose Grenadier         |         | 1 540   |         |       |     |       |       |         |        |        | 1 540     |
| Edible crab                  |         | 398     | 1 232   | 0     |     |       |       | 0       |        |        | 1 630     |
| Whitefish, Houting,<br>Powan |         | 0       |         |       |     | 2 128 |       | 12      |        |        | 2 140     |
| Grey Gurnard                 |         | 43      | 2 091   | 3     |     |       |       |         | 0      | 20     | 2 157     |
| Kingshrimp                   |         | 2 233   |         |       |     |       |       |         |        |        | 2 233     |
| Tusk                         |         | 2 399   | 10      |       |     |       |       |         | 424    | 0      | 2 833     |
| Halibut                      |         | 2 174   | 4       |       |     |       |       | 29      | 395    | 277    | 2 879     |
| Salmon                       |         |         |         |       |     |       |       | 3 427   |        |        | 3 427     |
| Dab                          |         | 690     | 1 447   | 5     |     |       |       | 1 673   | 0      | 0      | 3 815     |
| Turbot                       |         | 794     | 1 826   | 88    |     |       |       | 3 623   | 0      | 15     | 6 346     |
| Squid                        |         | 7 009   | 1 911   |       |     |       |       |         |        | 10     | 8 930     |
| Brill                        |         | 4 567   | 5 974   | 60    |     |       |       | 43      | 0      | 0      | 10 643    |
| Skates, rays                 |         | 16 290  | 37      |       |     |       |       |         | 155    |        | 16 482    |
| Bonefish                     |         | 601     | 162     |       |     |       | 729   |         |        | 350    | 16 842    |
| Greater Weever               |         | 0       | 17 108  |       |     |       |       |         |        |        | 17 108    |
| Rockfishes                   |         | 5 762   | 4 251   | 79    | 31  |       |       |         | 414    | 7 278  | 17 814    |
| Sole                         |         | 4 737   | 17 470  | 321   |     |       |       | 0       |        | 0      | 22 527    |
| Lemon Sole                   |         | 17 692  | 5 714   | 98    | 113 |       |       | 0       | 424    | 1 648  | 25 688    |
| Pollack                      |         | 19 266  | 1 363   | 0     | 30  |       |       | 5       | 876    | 9 802  | 31 342    |
| Ling                         |         | 26 847  | 1 045   |       |     |       |       | 0       | 2 600  | 2 909  | 33 401    |
| Spurdog / spiny dogfish      |         | 34 173  | 10 662  |       |     |       |       | 3       | 10     | 0      | 44 848    |
| Anchovy                      |         | 36 000  | 9 500   |       |     |       |       |         |        |        | 45 500    |
| Flounder                     |         | 61      | 4 845   | 19    |     |       |       | 44 469  | 0      |        | 49 394    |
| Monkfish                     |         | 46 302  | 411     |       |     |       |       | 0       | 4 697  | 3 585  | 54 995    |
| Lumpfish                     |         | 58 809  | 298     |       |     |       |       |         | 0      | 0      | 59 107    |
| Hake                         |         | 38 889  | 6 864   | 8     | 21  |       |       | 0       | 9 243  | 4 864  | 59 889    |
| Unknown Catches              |         | 37 516  | 19 165  | 291   | 0   | 0     |       | 107     | 6 125  | 14 138 | 77 342    |
| Blue Whiting                 |         | 23 000  | 0       |       |     |       |       | 0       | 30 000 | 47 000 | 100 000   |
| Sardinella                   |         |         |         |       |     |       |       |         |        |        | 270 000   |
| Whiting                      |         | 27 174  | 57 458  | 365   | 0   |       |       | 194 275 | 1 375  | 50     | 280 697   |
| Plaice                       |         | 121 096 | 131 517 | 2 498 | 85  |       |       | 53 637  | 28     | 197    | 309 058   |
| Haddock                      |         | 210 888 | 23 766  | 121   | 545 |       |       | 216     | 7 998  | 81 895 | 325 428   |
| Witch                        |         | 346 646 | 2 674   | 0     | 40  |       |       | 0       | 817    | 880    | 351 058   |
| Horse Mackerel               |         | 366 746 | 11 000  |       |     |       |       |         | 89 500 |        | 467 246   |
| Norway lobster               |         | 581 688 | 348 462 | 232   |     |       |       | 0       | 1 367  | 101    | 931 850   |
| Vendace (Cisco)              |         |         |         |       |     |       | 1 132 |         |        |        | 1 132 010 |

|                      |     |         |         |     |         |           |         |         |           |
|----------------------|-----|---------|---------|-----|---------|-----------|---------|---------|-----------|
|                      |     |         |         |     | 010     |           |         |         |           |
| Mackerel             |     | 71 251  | 204     |     |         | 1 565     | 1 113   | 0       | 1 186 020 |
|                      |     |         |         |     |         |           | 000     |         |           |
| Saithe               | 0   | 715 607 | 10 247  | 900 |         | 0         | 191 592 | 759 223 | 1 677 569 |
| Northern pink shrimp |     | 2 121   | 99 795  |     |         | 0         | 171 588 |         | 2 392 488 |
|                      |     | 105     |         |     |         |           |         |         |           |
| Cod                  |     | 309 365 | 295 368 | 52  | 3 970   | 8 229 176 | 23 551  | 174 911 | 9 088 995 |
|                      |     |         |         | 653 |         |           |         |         |           |
| Sandeels             |     | 57 000  |         |     |         |           |         | 32 024  | 32 081    |
|                      |     |         |         |     |         |           |         | 000     | 000       |
| Pilchard, Sardine    |     |         |         |     |         |           |         |         | 41 623    |
|                      |     |         |         |     |         |           |         |         | 500       |
| Sprat                |     | 263 300 | 1 144   | 0   | 710 000 | 82 138    | 0       | 0       | 84 256    |
|                      |     |         | 200     |     |         | 554       |         |         | 054       |
| Herring              | 570 | 17 165  | 9 516   | 479 | 1 293   | 50 433    | 3 987   | 2 125   | 85 569    |
|                      | 000 | 088     | 732     | 000 | 121     | 088       | 000     | 000     | 029       |
| Total                | 570 | 22 747  | 11 755  | 535 | 1       | 3 142     | 141 106 | 5 643   | 35 258    |
|                      | 000 | 567     | 239     | 841 | 765     | 694       | 302     | 376     | 567       |
|                      |     |         |         |     |         |           |         |         | 850       |

Discard of fish 226 ton, no mammal bycatch recorded