Annual report on the implementation of Council Regulation (EC) 812 / 2004[1] - 2016

Member State: **POLAND**

Reference period: **2016**

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Author:

- Katarzyna Kamińska - Department of Fisheries, Ministry of Maritime Economy and Inland Navigation (email: K.kaminska@mgm.gov.pl)

[1] **Council Regulation (EC) No 812/2004 of 26 April 2004 laying down measures specifying the measures for the incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88 / 98.**

Abstract

In 2008, the Ministry of Agriculture and Rural Development purchased 500 AQUATEC AQUAmark pingers and handed them over to owners of fishing vessels. At the same time, in 2015, a detailed inspection of their functioning took place (253 pingers required replacement). Since the end of 2015, after checking the functioning of the pingers purchased by the Ministry of Agriculture and Rural Development in 2008 (AQUATEC AQUAmark 100), the number of pingers on the fishing vessels has never been audited and pinger exchanges between vessels have not been monitored. However, the shipowners have been instructed to buy new equipment in replacement of the defective one. The purchase of new whale deterrents, the so-called pingers, is planned after the entry into force of the Regulation on technical measures[2] from the assets of the European Maritime and Fisheries Fund for the period 2013-2020.

During the inspections carried out in 2016-2017 at the ports located in the jurisdiction of the District Fisheries Inspectorate in Szczecin (OIRM), which controls the Polish part of the ICES area 24, no cases of absence of pingers were reported. Neither have the owners of fishing vessels in ports under the jurisdiction of OIRM Szczecin ever been punished by foreign inspection services for non-use of pingers.

In 2016, the programme for monitoring incidental catches of cetaceans, which is part of the National Fisheries Data Collection Program, continued. In total, observations were conducted on 10 vessels of over 15 m in length, operating from 6 ports. As part of the Program, observers were at sea for 102 days, including 47 days on pelagic trawl fishing vessels, 32 days on voyages when fishing with gillnets took place, 10 days on a vessel using bottom trawls, 11 days on a drifting longline vessel (LLD) and 2 days on a pelagic pair trawler (PTM). During each of these voyages, the observation objective included possible catches or entanglements of cetaceans or other marine mammals, as well as seabirds and protected species such as twaite shad (Alosa fallax) and sturgeon (Acipenser oxyrhynchus).

During the observations conducted in 2016, no whale by-catch was observed, while one juvenile grey seal (Halichoerus grypus) and two black-throated loons (Gavia arctica) were caught in the gill net (GNS). No by-catch of protected fish species was observed.

On November 16, 2015, the Department of Fisheries was transferred to the newly created Ministry of Maritime Economy and Inland Navigation along with responsibilities resulting from the implementation of Regulation 812/2004 in Poland.

[2] Regulation of the European Parliament and of the Council on the conservation of fishery resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1098/2007, (EC) No 1224/2009 and Regulations (EU) No 1343/2011 and (EU) No 1380/2013 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005.

Acoustic Deterring Devices

1. Background

Pursuant to Council Regulation (EC) 812/2004, Poland is obligated to use cetacean deterring equipment on vessels of length equal to or greater than 12 m when using gillnets or entangling nets within the ICES subdivision 24.

In 2008, fishing vessels flying the Polish flag received 500 AQUATEC AQUAMARK 100 pingers to be used particularly to deter harbour porpoises (Phocoena phocoena), the only cetacean species permanently inhabiting the Baltic Sea. In addition, in June 2010, the District Fisheries Inspectorate in Szczecin ordered and received in September 2010 special equipment from Denmark, namely the pinger signal detectors.

In 2015, 16 vessels were able to use the equipment purchased by the Ministry of Agriculture and Rural Development. A detailed inspection of the equipment condition made in 2015 showed that 253 pingers needed replacing. The ministry asked the shipowners in possession of the cetacean deterring devices, i.e. pingers, to have the defective equipment replaced.

Since the end of 2015, after checking the functioning of the pingers purchased by the Ministry of Agriculture and Rural Development in 2008 (AQUATEC AQUAmark 100), the number of pingers on the fishing vessels has never been audited and pinger exchanges between vessels have not been monitored. However, the shipowners have been instructed to buy new equipment in replacement of the defective ones. The purchase of new pingers from the European Maritime and Fisheries Fund for the period 2013-2020, is planned after the entry into force of the Regulation on technical measures.

Within the Polish 'PO RYBY' Operational Program 2014-2020, it is planned to subsidize the purchase of the cetacean deterring equipment, for individual fishermen at 50% of the price. If the equipment is purchased collectively, e.g. by fishing organizations, or if the purchased equipment is deemed innovative, a subsidy from the Programme of up to 100% of the equipment price will be offered.

1.1. Description of the vessels equipped with pingers

Table 1.

Metier	Fishing Area	Total fishing effort						
		No. of vessels	% of vessels using pingers	No. of trips	Days at sea	Months of operations	Total length of nets* (km)	Total soaktime (h)
Demersal fish	27.III.d.24	6	50	100	181	January-December	1037	3559.7

2. Acoustic Deterring Devices, Articles 2 and 3 of the Council Regulation (EC) 812/2004.

2.1 Protective measures

Tab. 2

Fleet segment	Fishing Area	% of vessels using pingers	Pinger characteristics	Other mitigation measures
GNS	27.III.d.24	50	Aquatec AQUAmark 100	No other measures

3. Monitoring and evaluation.

3.1. Monitoring and evaluating the effects of use of pingers.

Due to the very low number of cetaceans in the areas used for fishing by vessels flying the Polish flag in the Baltic Sea, such an assessment was not feasible.

3.2. Report on the specification of control activities at the time of use of the pingers by fishermen (Article 2.4).

The use of pingers by vessels over 12 m in length using gillnets is inspected by the District Fisheries Inspectorate in Szczecin and by foreign inspection services when fishing in ICES Subarea 24 where, in accordance with Annex I of Regulation 812/2004, the use of pingers on gillnets and entangling nets is compulsory. The pingers held by the Polish fishing vessels operating in ICES Subarea 24 are not used by these units in the ICES Subareas 25 and 26.

Monitoring of use of cetacean deterring devices is carried out during the inspections conducted by fisheries inspectors in the ICES 24 subarea. The inspections are conducted visually by checking the presence of the pingers on the nets, when hauling in the nets, and by inspecting the nets stowed already on board of the ship. Also, during the port inspections of the fishing vessels that are required to use pingers on sea trips, the inspectors check if the deterrent devices are present along the side of the vessel (usually they would have already been disconnected from the fishing nets).

In addition, in 2016, the German inspection services inspected the fishing vessel MRZ-2 in the fishing area. The number and method of installation of the pingers were inspected as well as the quality of the signal emitted was checked with a ping detector. The inspection showed no irregularities.

As far as we know, fishermen have so far used only the Aquatec AQUAmark 100 pingers that meet the technical requirements of Annex II of Regulation 812/2004.

Polish vessels sporadically fish in the Polish part of the ICES 24 area due to lack of productive fisheries grounds there. Fishing with set nets is usually conducted in the area in the German or Danish ICES 24 subdivision in the vicinity of the Adlergrund.

3.3. Derogation

It does not apply to Poland.

3.4 Overall evaluation.

For the southern Baltic, where a relatively low number of porpoises was found based on the results of the SAMBAH project[3], it is extremely difficult to assess the effectiveness of the pingers.

Shipowners do not purchase the deterrent equipment by themselves, although they have started showing interest in such a possibility, while the Department of Fisheries of the Ministry of Maritime Affairs and Inland Navigation has declared assistance in organising the purchase.

Arguably, a possibility to apply for financing the purchase of pingers from EU funds from the European Maritime and Fisheries Fund 2014-2020 should prove a significant help for the shipowners who want to buy that sort of equipment. In Poland, co-financing between 50% and 100% of the purchase price of whale deterring equipment from the "PO RYBY" 2014-2020 Operational Programme is planned at the time of entry into force of the Regulation on Technical Measures.

[3] Static Acoustic Monitoring of the Baltic Sea Harbour Porpoise

The Observer Programme

4. General background on the implementation of Articles 4 and 5 of Council Regulation (EC) 812/2004.

In 2016, as in previous years, the Incidental Cetacean Catch Monitoring Programme was carried out by the National Marine Fisheries Research Institute in Gdynia. Since 2015, the Programme has been implemented under the National Fisheries Data Collection Programme.

In 2016, in total, observations were conducted on 10 vessels of over 15 m in length, operating from 6 ports (Tab. 1). As part of the Program, observers were in the sea for 102 days, including 47 days on pelagic trawl fishing vessels and 32 days on voyages when fishing with gillnets took place, 10 days on a vessel using a bottom trawl, 11 days on a drifting longline vessel (LLD) and 2 days on a pelagic pair trawler (PTM). It should be noted that, for larger vessels, the number of days at sea was significantly different from the number of days when fishing was done. This was due to the transition of the vessels to different areas during the trip.

During the trips on vessels of more than 15 meters in length, observations focused on the presence and bycatch of cetaceans and other marine mammals. In addition, the monitoring programme for incidental catches of cetaceans included observations of incidental catches of seabirds and endangered species such as the twaite shad (Alosa fallax) or fish from re-introduction programmes, such as the sturgeon (Acipenser oxyrhynchus).

On none of the 47 monitored pelagic trawling days, 32 monitored gillnet fishing days, 10 days of bottom trawling, 11 days of longline fishing, or 2 days of pelagic pair trawling, cetaceans was observed in the nets. However, **on 19 May 2016, a young grey seal** (Halichoerus grypus), a female of 125 cm in length and weighing 35.2 kg, was incidentally caught in a gillnet (GNS).

During the monitored fishing activities in 2016, by-catch of birds was reported though, namely of two black-throated loons (Gavia arctica), which were observed caught in a gillnet (GNS) on 25 October 2016. No presence of protected species such as the twaite shad (Alosa fallax) and the sturgeon (Acipenser oxyrhynchus) was observed.

The full Report of the 2016 Incidental Cetacean Catch Monitoring Programme is attached.

5. Monitoring.

5.1. Description of fishing effort and presence of observers on fishing vessels using towed gear

Tab. 3 Description of fishing effort and observer in towed gear

Fleet segment (refer to code in Table 1	ICES subarea	Total fishing effort					Total observer effort achieved					Coverage % days at sea
		No of vessels	No of trips	Days at sea	No of hauls	Average towing time (hours/day)	No of vessels	No of trips	Days at sea	No of hauls	Average towing time (hours/day)	
OTM	24	25	377	898			1	2	4			0.45%
OTM	25	73	1633	3688			5	7	22			0.60%
OTM	26	59	2850	3472			4	8	21			0.60%
OTM	27	3	6	29			0	0	0			0.00%
OTM	28	4	45	101			0	0	0			0.00%
OTM	29	2	3	19			0	0	0			0.00%
OTM	31	0	0	0			0	0	0			0.00%

5.2 Description of fishing effort and presence of observers on fishing vessels using static gear

Tab. 4 Description of fishing effort and observers in static gear

Fleet segment (refer to code in Table 1)	ICES subarea	Total fishing effort					Total observer effort achieved					Coverage % days at sea
		No of vessels	No of trips	Days at sea	Total length of nets (km)	Average soak time (hours/day)	No of vessels	No of trips	Days at sea	Total length of nets (km)	Average soak time (hours/day)	
GNS	24	2	3	10			0	0	0			0.00%
GNS	25	19	363	1009			2	7	32			3.17%
GNS	26	6	37	64			0	0	0			0.00%

6. Estimating of by-catch.

6.1. Share of by-catch by fleet segment and target species.

Tab. 5 Bycatch by species and fleet segment

Fleet segment (refer to code in Table 1)	ICES Subarea	Main target species	Pinger in use? (yes/no)	Cetacean species bycaught	Number of incidents	Number of specimens
GNS	25	Cod	no	no	0	0
GNS	26	Cod	no	no	0	0
OTM	24	Herring, sprat	no	no	0	0
OTM	25	Herring, sprat	no	no	0	0
OTM	26	Herring, sprat	no	no	0	0

Observed cetacean by-catch according to the fishing gear used.

Tab. 6 Bycatch rate by fleet segment and target species

Fleet segment or other stratum	Cetacean species (scientific name)	Bycatch expressed per unit of fishing effort *	Total bycatch estimate	CV percent
GNS (ICES 25-26)	no	0	0	
OTM (ICES 24-26)	no	0	0	

By-catch recording

Since the beginning of the Incidental Cetacean Catch Monitoring Programme, i.e. since 2006, no accidental catches of cetaceans have been recorded during the execution of the observer programme. On the other hand, by-catch of protected species of fish (Alosa sp.), birds and seals has been reported.

7. and 8. Discussion and conclusions

In the situation of Poland, where no cetaceans have been found during the pilot program in 2006-2009 and during the follow-up of the monitoring program in the years 2010-2016, is was impossible to obtain a coefficient of variation not exceeding 0.3 as provided for in Annex III of Regulation EC 812/2004 as it would require monitoring about 80% of the fishing effort.

However, taking into account the reform of the Data Collection Framework and its adaptation to the requirements of the Common Fisheries Policy, and taking into account the provisions of the new Fisheries Act of 19 December 2014 (OJ 2015.222), the Incidental Cetacean Catch Monitoring Programme was incorporated in 2015 into the National Fisheries Data Collection Programme.

In addition, according to the aforementioned Fisheries Act, incidental catches of marine mammals must also be recorded in fishing logbooks, while the 2016 Ordinance on Size and Protection Periods (JoL 2016.1494) also lays down the obligation to report by-catch of seabirds.

At the same time, on 12 July 2016, the European Commission issued Commission Implementing Decision (EU) 2016/1251 of 12 July 2016 on the adoption of a multiannual EU programme for the collection, management and use of fisheries and aquaculture data in the fisheries and aquaculture sector for the years 2017-2019. The above decision obligates the Member States for collection of "*data for assessing the impact of EU fisheries on the marine ecosystem in the Union waters and beyond Union waters*". This should involve developing a new methodology and scope for monitoring of incidental catching of both cetaceans and other protected species of marine organisms and seabirds in the EU countries,

specific to individual marine regions, also for the Marine Strategy Framework Directive[4].

9. Attachment

[4] Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)

MORSKI INSTYTUT RYBACKI PAŃSTWOWY INSTYTUT BADAWCZY

Implementation Report of the 2016 Incidental Cetacean Catch Monitoring Programme.

(subject: NP-16/MOR)

Kordian Trella

Contents

1.Introduction

The obligation of monitoring incidental catches of cetaceans results from the implementation of the provisions of Council Regulation (EC) No 812/2004 of 26 April 2004 (hereinafter referred to as Regulation 812/2004) establishing measures for incidental catches of cetacean in fisheries and amending Regulation (EC) No 88/98 (OJ L 150 of 30.04.2004, p. 12, as amended), according to which Poland was obliged to implement the Observer Programme as of 1 January 2006.

The work under the programme is planned and cleared on the annual basis in accordance with Article 6 of Regulation 812/2004 and forwarded to the Commission by 1 June of the following year.

In 2016, observation of cetacean catches was carried out under the sub-scheme of the National Fisheries Data Collection Plan for the period from 16 March to 9 November 2016.

The objective of the Programme was to monitor fishing activities on vessels of 15 meters in length or over, using gill nets with a mesh size of more than 80 mm, pelagic trawls longlines and pelagic pair trawlers in 2016 and to monitor incidental catches of cetaceans in the Polish Maritime Areas.

2. Materials and methodologies

Observations conducted on board of fishing vessels were conducted by the MIR-PIB staff who were trained and familiarized with the monitoring methodology of incidental catches of cetaceans (Annex 1). Most of the observers listed in the attachment participated in the previous years in the trips under the Incidental Cetacean Catch Monitoring Programme.

In total in 2016, observations were conducted on 10 vessels of over 15 m in length, operating from 6 ports (Tab. 1). As part of the Program, observers were in the sea for 102 days, including 47 days on pelagic trawl fishing vessels (OTM); 32 days on vessels using gill nets (GNS), 10 days on a vessel using a bottom trawl (OTB), 11 days on a drifting longline vessel (LLD), and 2 days on a pelagic pair trawlers (PTM).

As in the years 2012-2015, the number of days at sea differed considerably from the number of days in which fishing operations were conducted. It was related to the movements of fishing vessels between different fishing grounds. Hence, the actual time of fishing activities, relative to the number of days at sea, was 62.5% for set nets, 70.2% for pelagic trawls, 60.0% for bottom trawls, 100.0% for pelagic pair trawls and 63.6% for longline (table 2). Since the "days at sea" formula is used in Attachment II, it was also adopted for the observers' duration of stay at sea. During each of these trips, observations were conducted of any catches or entanglements in the nets of cetaceans or other marine mammals.

On the basis of the trip reports submitted by the observers, a study of the observed fishing effort involving nets and pelagic trawls was made in relation to the fishing performance of the vessels meeting the criteria of Regulation 812/2004. Data on the activity of the fishing fleet are based on the information received from the Polish Fisheries Monitoring Centre on 8 February 2017.

Table 1. Number of monitored fishing days by fishing vessel and type of fishing gear (and vessels length)

Fishing vessel		Type of fishing gear					Port	ICES sub-area under observation
No.	**Name**	**Set gillnet (GNS)**	**Midwater otter trawl (OTM)**	**Mid-water pair trawl (PTM)**	**Bottom otter trawl [OTB]**	**Drifting longlines [LLD]**		
Fishing vessels of more than 15 m in length								
1	DAR-10				10		Darłowo	25-26
2	DAR-119	20					Darłowo	25
3	HEL-150		19				Hel	25-26
4	KOŁ-180		2				Kołobrzeg	25
5	KOŁ-5		11				Kołobrzeg	25
6	UST-16	12				11	Ustka	25-26
7	UST-31		7				Ustka	25
8	WŁA-11		3				Władysławowo	26
9	WŁA-51		4				Władysławowo	26
10	ZAG-17		1	2			Górki Zachodnie	26
		32	47	2	10	11		

Table 2. Percentage of fishing days in the number of days at sea

Type of fishing gear	Number of days at sea	Number of fishing days	Percentage of fishing days in the total number of trip days
Set gillnet (GNS)	32	20	62.50 %
Midwater otter trawl (OTM)	47	33	70.21 %
Mid-water pair trawl (PTM)	2	2	100.00 %
Bottom otter trawl [OTB]	10	6	60.00 %
Drifting longline (LLD)	11	7	63.64 %
Total	102	68	66.67%

3. Results

3.1. Monitoring of pelagic trawl

Pursuant to Annex III of Regulation 812/2004, the monitoring of pelagic trawl fisheries should take place in the Baltic area south of 59°N for the whole year and north of 59°N in the period from 1 June to 30 September only. In the ICES subareas 24-31, in 2016, Polish fishing vessels of 15 meters in length and above conducted pelagic trawling for 8207 days (data from 8 February 2017). Fishing took place mainly in the subareas 25 and 26 and it lasted for 7,160 days (87.2%).

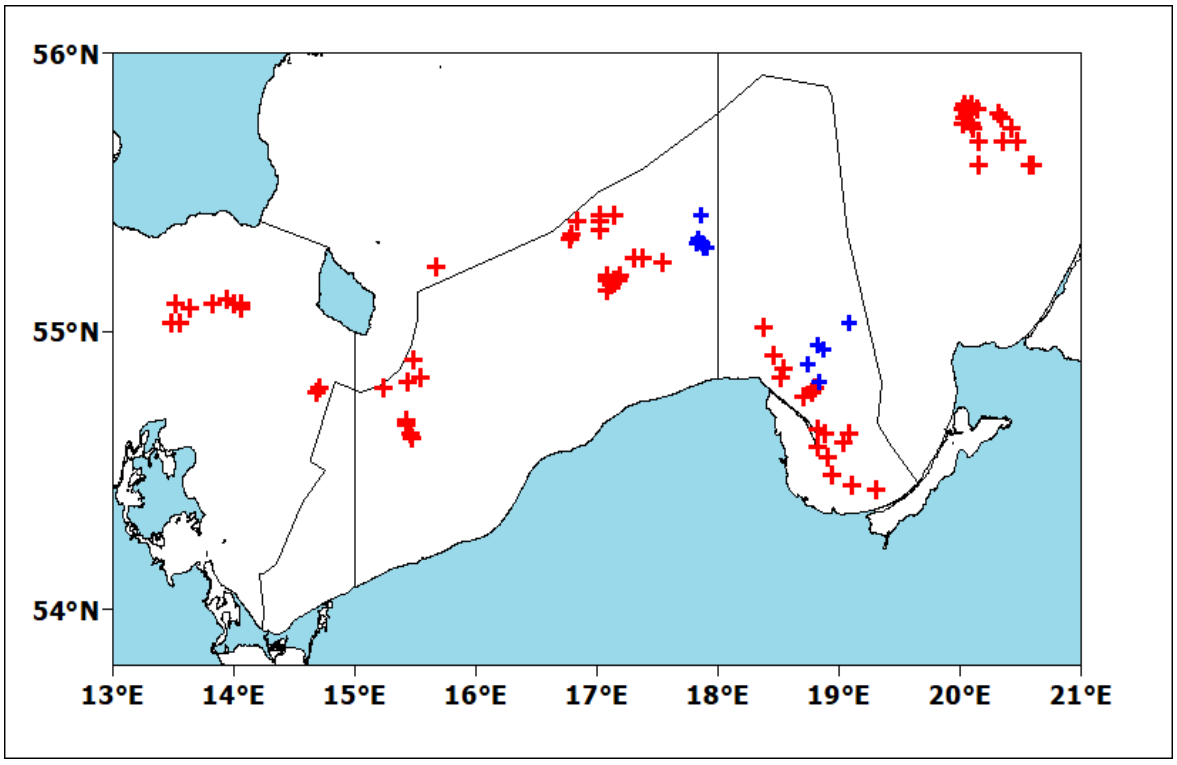

Figure 1. Observation of pelagic trawling (red markers) and bottom trawling (blue markers) in the ICES subareas 24-26 in 2016

Observations were conducted in the ICES subareas 24-26. Total number of days of observations at sea was 47 days which accounted for 0.58% of the total number of days at sea in the subareas (Attachment II).

Fishing locations (pay out position) in which observations were made are shown in Figure 1 and the list of fishing operations can be found in Attachment III.

On none of the 47 days of monitoring of fishing with pelagic trawls were cetaceans or any other marine mammals found entangled in the nets.

3.2. Monitoring of gillnets

In 2016, Polish fishing vessels of 15 meters in length and above conducted fishing with set nets (in the areas listed in Appendix III of Regulation 812/2004) for 1,083 days (ICES Subdivisions 24-28). The largest fishing effort was found in sub-area 25, where net fishing has been conducted for 1009 days (about 93.2%). In 2016, observations were conducted only in the sub-area 25 (Figure 2). The duration of observers' stay at sea was 32 days which accounted for 3.17% of the total number of days at sea in the sub-area 25.

Table 3 summarizes the amount of equipment, the time of its exposure the in subarea 25, and the total length of the monitored nets.

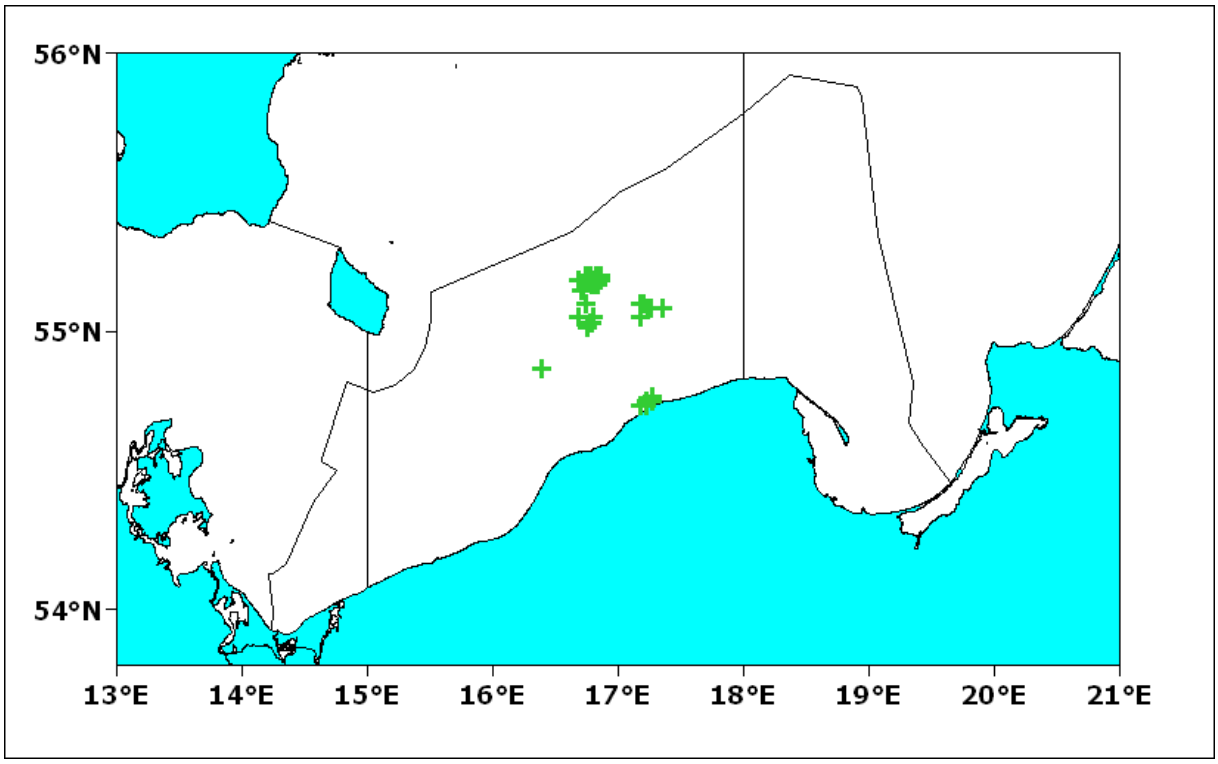

Figure 2. Net fishing observation sites in the ICES subarea 25 in 2016

Table 3. Number of nets, soak time, and total length during observed fishing operations in 2016

ICES sub-area	Number of nets used in observed fishing operations	Total soak time of nets (hours)	Total length of nets used in the fishing operations under observation (km)
25	4350	1115.0	238.35
Total	4350	1115.0	238.35

On none of the 32 days of monitoring of fishing with gillnets were cetaceans found entangled in the nets, but by-catch of one seal (Halichoerus grypus) and of two black-throated loons (Gavia arctica) was observed.

3.3. Monitoring of pelagic pair trawling (PTM), bottom trawling (OTB) and using longlines (hooks).

Fishing operations with pelagic pair trawls, bottom trawls and longlines are not subject to the requirements of Council Regulation (EC) No 812/2004 but they are included in the National Fisheries Data Collection Programme. The observers' stay during the pelagic pair trawling was 2 days, for the bottom trawl it was 10 days, and 11 days when longlines (with hooks) were used.

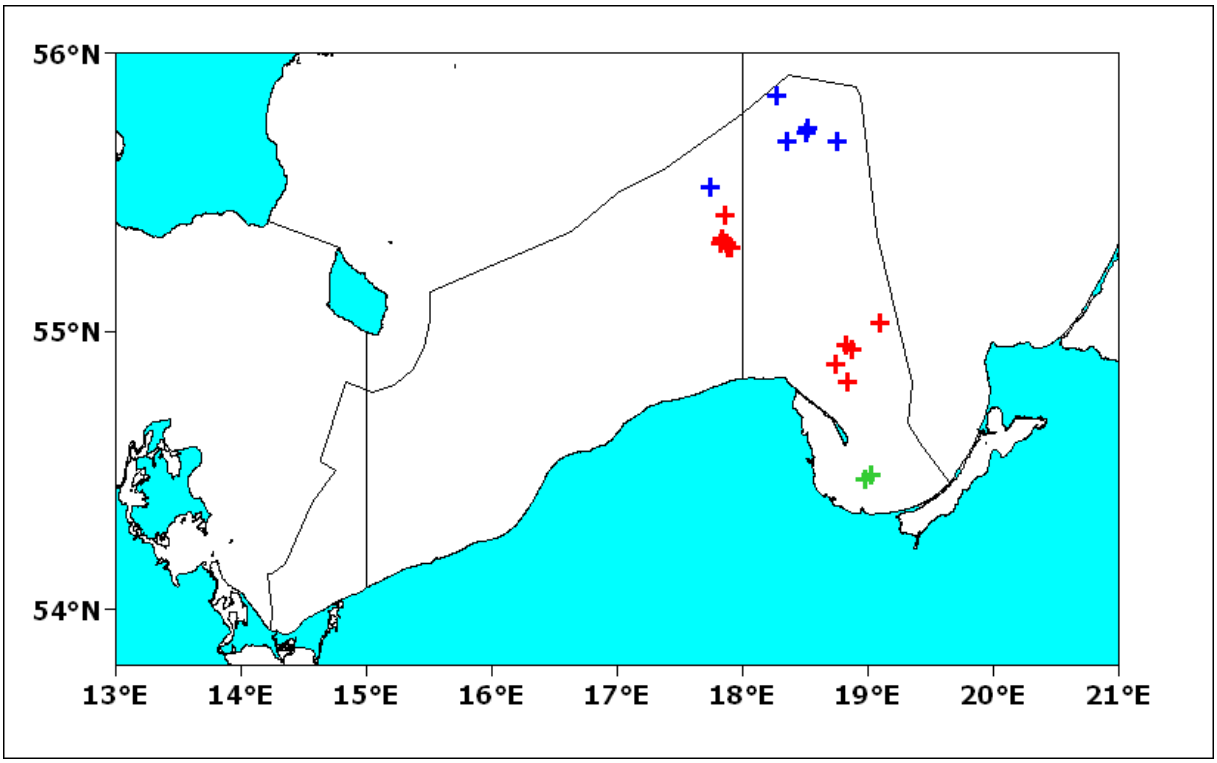

Figure 3. Observation locations of fishing with pelagic pair trawls (green markers), bottom trawls (red markers) and longlines (blue markers) in 2016.

On none of the 2 days of monitoring of fishing with pelagic pair trawl, of 10 days of monitoring of bottom-line fishing or of 11 days of longline tracking, were cetaceans found entangled in the nets or hooked.

4. Conclusions

- Monitoring in 2016 (March-November) by MIR-PIB of pelagic trawling and set net fishing in the Baltic Sea did not show any accidental catch or entanglement of cetaceans in the nets;
- During the monitoring of set net fishing, 1 grey seal (a dead female of 125 cm long and 35.2 kgs) and 2 birds (black-throated loons) were recorded in the net- see Attachment III;
- During the observer Programme in 2016, the observers did not find any presence of protected fish species, i.e. the twaite shad, in the catch. No tagged fish was found, either;
- Since 2006, i.e. since the beginning of the implementation of the MIR-PIB Incidental Cetacean Catch Monitoring Programme, no by-catch incident involving a cetacean has been reported, regardless of the time, place and type of fishing gear.

Attachment I

Implementation Report of the 2016 Incidental Cetacean Catch Monitoring Programme.

Observer	Position
Zaporowski Radosław	Senior expert
Celmer Zuzanna	Expert
Dziemian Łukasz	Expert
Gaweł Władysław	Expert
Kisielewski Kamil	Expert
Szymański Michał	Expert
Zimak Michał	Expert
Deluga Wojciech	Specification
Modrzejewski Grzegorz	Specification
Nowakowski Marcin	Specification
Trella Stanisław	Specification
Wybierała Ireneusz	Specification

Attachment II

Content in line with item 4 of the ICES International Council for the Study of the Sea (ICES) recommendation "ACOM supplied format for National Reports for 812/2004".

4. At sea observer scheme

Observer effort

Table 3a. Description of fishing effort and observer in static gear

Fleet segment (refer to code in Table 1)	ICES subarea	Total fishing effort					Total observer effort achieved					Coverage % days at sea
		No of vessels	No of trips	Days at sea	Total length of nets (km)	Average soak time (hours/day)	No of vessels	No of trips	Days at sea	Total length of nets (km)	Average soak time (hours/day)	
GNS	24	2	3	10			0	0	0			0.00%
GNS	25	19	363	1009			2	7	32			3.17%
GNS	26	6	37	64			0	0	0			0.00%

Table 3b. Description of fishing effort and observer in towed gear

Fleet segment (refer to code in Table 1)	ICES subarea	Total fishing effort					Total observer effort achieved					Coverage % days at sea
		No of vessels	No of trips	Days at sea	No of hauls	Average towing time (hours/day)	No of vessels	No of trips	Days at sea	No of hauls	Average towing time (hours/day)	
OTM	24	25	377	898			1	2	4			0.45%
OTM	25	73	1633	3688			5	7	22			0.60%
OTM	26	59	2850	3472			4	8	21			0.60%
OTM	27	3	6	29			0	0	0			0.00%
OTM	28	4	45	101			0	0	0			0.00%
OTM	29	2	3	19			0	0	0			0.00%
OTM	31	0	0	0			0	0	0			0.00%

Recording by-catch

There were no incidents of entanglement of cetaceans in fishing nets during observations

Results of the observer schemes

Table 4. By-catch by species and fleet segment

Fleet segment (refer to code in Table 1)	ICES Subarea	Main target species	Pinger in use? (yes/no)	Cetacean species by-caught	Number of incidents	Number of specimens
GNS	25	Cod	no	no	0	0
GNS	26	Cod	no	no	0	0
OTM	24	Herring, sprat	no	no	0	0
OTM	25	Herring, sprat	no	no	0	0
OTM	26	Herring, sprat	no	no	0	0

Table 5. By-catch rate by fleet segment and target species

Fleet segment or other stratum	Cetacean species (scientific name)	Bycatch expressed per unit of fishing effort *	Total bycatch estimate	CV percent
GNS (ICES 25-26)	no	0	0	
OTM (ICES 24-26)	no	0	0	

Attachment III

By-catch of birds and mammals in observed net catches in 2016.

A grey seal (Halichoerus grypus), of 125 cm in length and weighing 35.2 kg reported in the catch on 19 May 2016.

A black-throated loon (Gavia arctica) of 30 cm in length reported in the catch on 25 October 2016.

A black-throated loon (Gavia arctica) of 28 cm in length reported in the catch on 25 October 2016.

Attachment IV

List of fishing operations subjected to observations during the implementation of the Incidental Cetacean Catch Monitoring Programme (equipment release item). OTM – pelagic trawl; GNS – gill nets; OTB - bottom trawl; LLD - longline tackle; PTM - pelagic pair trawl

No	Ship	Net code	Date	Latitude	Longitude	Haul duration	Main catch	Bycatch of cetaceans
1	HEL-150	OTM	2016-03-16	54°38	19°05	240	herring; sprat	0
2	HEL-150	OTM	2016-03-16	54°38	18°53	300	herring; sprat	0
3	HEL-150	OTM	2016-03-16	54°48	18°48	420	herring; sprat	0
4	HEL-150	OTM	2016-03-17	54°47	18°46	300	herring; sprat	0
5	HEL-150	OTM	2016-03-17	54°36	19°02	150	herring; sprat	0
6	KOŁ-5	OTM	2016-03-18	54°37	15°28	330	herring; sprat	0
7	KOŁ-5	OTM	2016-03-18	54°40	15°25	360	herring; sprat	0
8	KOŁ-5	OTM	2016-03-18	54°41	15°25	360	herring; sprat	0
9	KOŁ-5	OTM	2016-03-19	55°14	15°40	300	herring; sprat	0
10	KOŁ-5	OTM	2016-03-20	54°38	15°27	330	herring; sprat	0
11	KOŁ-5	OTM	2016-03-20	54°48	15°14	360	herring; sprat	0
12	KOŁ-5	OTM	2016-03-20	54°50	15°32	360	herring; sprat	0
29	KOŁ-180	OTM	2016-04-13	54°49	15°26	460	herring; sprat	0
30	KOŁ-180	OTM	2016-04-13	54°54	15°29	240	herring; sprat	0
31	HEL-150	OTM	2016-04-20	55°15	17°32	270	herring; sprat	0
32	HEL-150	OTM	2016-04-20	55°16	17°18	270	herring; sprat	0
33	HEL-150	OTM	2016-04-21	55°16	17°22	370	herring; sprat	0
34	HEL-150	OTM	2016-04-21	55°16	17°22	260	herring; sprat	0
47	KOŁ-5	OTM	2016-05-08	55°05	14°03	300	herring; sprat	0
48	KOŁ-5	OTM	2016-05-08	55°02	13°33	300	herring; sprat	0
49	KOŁ-5	OTM	2016-05-08	55°06	14°03	270	herring; sprat	0
50	KOŁ-5	OTM	2016-05-09	54°48	14°42	300	herring; sprat	0
51	KOŁ-5	OTM	2016-05-09	54°47	14°41	270	herring; sprat	0
59	ZAG-17	PTM	2016-05-11	54°29	19°01	420	herring; sprat	0
65	UST-31	OTM	2016-06-20	55°24	17°01	360	herring; sprat	0
66	UST-31	OTM	2016-06-20	55°25	17°01	300	herring; sprat	0
67	UST-16	OTM	2016-06-19	55°09	17°05	960	herring; sprat	0
68	UST-16	OTM	2016-06-19	55°10	17°07	1200	herring; sprat	0
69	UST-16	OTM	2016-06-19	55°11	17°08	1380	herring; sprat	0
70	UST-16	OTM	2016-06-19	55°12	17°11	1650	herring; sprat	0
71	UST-16	OTM	2016-06-20	55°11	17°05	1620	herring; sprat	0
72	UST-16	OTM	2016-06-20	55°12	17°05	1530	herring; sprat	0
73	UST-16	OTM	2016-06-20	55°11	17°08	1500	herring; sprat	0
74	UST-16	OTM	2016-06-20	55°11	17°10	1500	herring; sprat	0
75	HEL-150	OTM	2016-06-21	55°36	20°09	300	herring; sprat	0
76	HEL-150	OTM	2016-06-21	55°36	20°34	300	herring; sprat	0
77	HEL-150	OTM	2016-06-21	55°44	20°25	280	herring; sprat	0
78	HEL-150	OTM	2016-06-21	55°41	20°28	270	herring; sprat	0

No	Ship	Net code	Date	Latitude	Longitude	Haul duration	Main catch	Bycatch of cetaceans
79	HEL-150	OTM	2016-06-22	55°47	20°19	270	herring; sprat	0
80	HEL-150	OTM	2016-06-22	55°36	20°36	270	herring; sprat	0
81	HEL-150	OTM	2016-06-22	55°46	20°20	200	herring; sprat	0
82	WŁA-51	OTM	2016-06-29	55°01	18°22	330	herring; sprat	0
83	WŁA-51	OTM	2016-06-29	54°55	18°27	150	herring; sprat	0
84	HEL-150	OTM	2016-06-30	54°39	18°49	20	herring; sprat	0
85	HEL-150	OTM	2016-07-01	54°29	18°56	270	herring; sprat	0
86	HEL-150	OTM	2016-07-01	54°26	19°18	270	herring; sprat	0
87	WŁA-11	OTM	2016-07-05	54°52	18°32	180	herring; sprat	0
88	ZAG-17	PTM	2016-05-19	54°28	18°58	490	herring; sprat	0
89	KOŁ-5	OTM	2016-05-19	55°06	14.00	300	herring; sprat	0
90	KOŁ-5	OTM	2016-05-19	55°07	13°56	330	herring; sprat	0
91	KOŁ-5	OTM	2016-05-19	55°05	13°38	240	herring; sprat	0
92	KOŁ-5	OTM	2016-05-19	55°06	13°31	300	herring; sprat	0
93	KOŁ-5	OTM	2016-05-20	55°06	13°49	230	herring; sprat	0
94	KOŁ-5	OTM	2016-05-20	55°02	13°29	360	herring; sprat	0
104	UST-31	OTM	2016-06-03	55°24	16°50	420	herring; sprat	0
105	UST-31	OTM	2016-06-03	55°25	17°08	420	herring; sprat	0
106	UST-31	OTM	2016-06-04	55°21	16°47	420	herring; sprat	0
107	UST-31	OTM	2016-06-04	55°20	16°46	360	herring; sprat	0
108	UST-31	OTM	2016-06-05	55°22	17°01	480	herring; sprat	0
109	WŁA-11	OTM	2016-06-30	54°50	18°31	120	herring; sprat	0
110	WŁA-11	OTM	2016-07-12	54°46	18°42	330	herring; sprat	0
111	HEL-150	OTM	2016-09-10	55°41	20°09	270	herring; sprat	0
112	HEL-150	OTM	2016-09-10	55°41	20°21	270	herring; sprat	0
113	HEL-150	OTM	2016-09-10	55°46	20°02	260	herring; sprat	0
114	HEL-150	OTM	2016-09-10	55°49	20°02	465	herring; sprat	0
115	HEL-150	OTM	2016-09-11	55°44	20°06	270	herring; sprat	0
116	HEL-150	OTM	2016-09-11	55°47	20°03	270	herring; sprat	0
117	HEL-150	OTM	2016-09-13	55°45	20°05	330	herring; sprat	0
118	HEL-150	OTM	2016-09-13	55°45	20°01	210	herring; sprat	0
119	HEL-150	OTM	2016-09-13	55°48	20°08	270	herring; sprat	0
120	HEL-150	OTM	2016-09-13	55°49	20°05	530	herring; sprat	0
121	HEL-150	OTM	2016-09-14	55°48	20°04	240	herring; sprat	0
122	HEL-150	OTM	2016-09-14	55°48	20°01	260	herring; sprat	0
123	WŁA-51	OTM	2016-09-21	54°35	18°49	180	herring; sprat	0
124	WŁA-51	OTM	2016-09-23	54°33	18°54	300	herring; sprat	0
144	ZAG-17	OTM	2016-11-09	54°27	19°06	240	herring; sprat	0
1	HEL-150	OTM	2016-03-16	54°38	19°05	240	herring; sprat	0
2	HEL-150	OTM	2016-03-16	54°38	18°53	300	herring; sprat	0
3	HEL-150	OTM	2016-03-16	54°48	18°48	420	herring; sprat	0
4	HEL-150	OTM	2016-03-17	54°47	18°46	300	herring; sprat	0
5	HEL-150	OTM	2016-03-17	54°36	19°02	150	herring; sprat	0

No	Ship	Net code	Date	Latitude	Longitude	Haul duration	Main catch	Bycatch of cetaceans
6	KOŁ-5	OTM	2016-03-18	54°37	15°28	330	herring; sprat	0
7	KOŁ-5	OTM	2016-03-18	54°40	15°25	360	herring; sprat	0
8	KOŁ-5	OTM	2016-03-18	54°41	15°25	360	herring; sprat	0
9	KOŁ-5	OTM	2016-03-19	55°14	15°40	300	herring; sprat	0
10	KOŁ-5	OTM	2016-03-20	54°38	15°27	330	herring; sprat	0
11	KOŁ-5	OTM	2016-03-20	54°48	15°14	360	herring; sprat	0
12	KOŁ-5	OTM	2016-03-20	54°50	15°32	360	herring; sprat	0
29	KOŁ-180	OTM	2016-04-13	54°49	15°26	460	herring; sprat	0
30	KOŁ-180	OTM	2016-04-13	54°54	15°29	240	herring; sprat	0
31	HEL-150	OTM	2016-04-20	55°15	17°32	270	herring; sprat	0
32	HEL-150	OTM	2016-04-20	55°16	17°18	270	herring; sprat	0
33	HEL-150	OTM	2016-04-21	55°16	17°22	370	herring; sprat	0
34	HEL-150	OTM	2016-04-21	55°16	17°22	260	herring; sprat	0
47	KOŁ-5	OTM	2016-05-08	55°05	14°03	300	herring; sprat	0
48	KOŁ-5	OTM	2016-05-08	55°02	13°33	300	herring; sprat	0
49	KOŁ-5	OTM	2016-05-08	55°06	14°03	270	herring; sprat	0
50	KOŁ-5	OTM	2016-05-09	54°48	14°42	300	herring; sprat	0
51	KOŁ-5	OTM	2016-05-09	54°47	14°41	270	herring; sprat	0
59	ZAG-17	PTM	2016-05-11	54°29	19°01	420	herring; sprat	0
65	UST-31	OTM	2016-06-20	55°24	17°01	360	herring; sprat	0
66	UST-31	OTM	2016-06-20	55°25	17°01	300	herring; sprat	0
67	UST-16	OTM	2016-06-19	55°09	17°05	960	herring; sprat	0
68	UST-16	OTM	2016-06-19	55°10	17°07	1200	herring; sprat	0
69	UST-16	OTM	2016-06-19	55°11	17°08	1380	herring; sprat	0
70	UST-16	OTM	2016-06-19	55°12	17°11	1650	herring; sprat	0
71	UST-16	OTM	2016-06-20	55°11	17°05	1620	herring; sprat	0
72	UST-16	OTM	2016-06-20	55°12	17°05	1530	herring; sprat	0
73	UST-16	OTM	2016-06-20	55°11	17°08	1500	herring; sprat	0
74	UST-16	OTM	2016-06-20	55°11	17°10	1500	herring; sprat	0
75	HEL-150	OTM	2016-06-21	55°36	20°09	300	herring; sprat	0
76	HEL-150	OTM	2016-06-21	55°36	20°34	300	herring; sprat	0
77	HEL-150	OTM	2016-06-21	55°44	20°25	280	herring; sprat	0
78	HEL-150	OTM	2016-06-21	55°41	20°28	270	herring; sprat	0
79	HEL-150	OTM	2016-06-22	55°47	20°19	270	herring; sprat	0
80	HEL-150	OTM	2016-06-22	55°36	20°36	270	herring; sprat	0
81	HEL-150	OTM	2016-06-22	55°46	20°20	200	herring; sprat	0
82	WŁA-51	OTM	2016-06-29	55°01	18°22	330	herring; sprat	0
83	WŁA-51	OTM	2016-06-29	54°55	18°27	150	herring; sprat	0
84	HEL-150	OTM	2016-06-30	54°39	18°49	20	herring; sprat	0
85	HEL-150	OTM	2016-07-01	54°29	18°56	270	herring; sprat	0
86	HEL-150	OTM	2016-07-01	54°26	19°18	270	herring; sprat	0
87	WŁA-11	OTM	2016-07-05	54°52	18°32	180	herring; sprat	0
88	ZAG-17	PTM	2016-05-19	54°28	18°58	490	herring; sprat	0

No	Ship	Net code	Date	Latitude	Longitude	Haul duration	Main catch	Bycatch of cetaceans
89	KOŁ-5	OTM	2016-05-19	55°06	14.00	300	herring; sprat	0
90	KOŁ-5	OTM	2016-05-19	55°07	13°56	330	herring; sprat	0
91	KOŁ-5	OTM	2016-05-19	55°05	13°38	240	herring; sprat	0
92	KOŁ-5	OTM	2016-05-19	55°06	13°31	300	herring; sprat	0
93	KOŁ-5	OTM	2016-05-20	55°06	13°49	230	herring; sprat	0
94	KOŁ-5	OTM	2016-05-20	55°02	13°29	360	herring; sprat	0
104	UST-31	OTM	2016-06-03	55°24	16°50	420	herring; sprat	0
105	UST-31	OTM	2016-06-03	55°25	17°08	420	herring; sprat	0
106	UST-31	OTM	2016-06-04	55°21	16°47	420	herring; sprat	0
107	UST-31	OTM	2016-06-04	55°20	16°46	360	herring; sprat	0
108	UST-31	OTM	2016-06-05	55°22	17°01	480	herring; sprat	0
109	WŁA-11	OTM	2016-06-30	54°50	18°31	120	herring; sprat	0
110	WŁA-11	OTM	2016-07-12	54°46	18°42	330	herring; sprat	0
111	HEL-150	OTM	2016-09-10	55°41	20°09	270	herring; sprat	0
112	HEL-150	OTM	2016-09-10	55°41	20°21	270	herring; sprat	0
113	HEL-150	OTM	2016-09-10	55°46	20°02	260	herring; sprat	0
114	HEL-150	OTM	2016-09-10	55°49	20°02	465	herring; sprat	0
115	HEL-150	OTM	2016-09-11	55°44	20°06	270	herring; sprat	0
116	HEL-150	OTM	2016-09-11	55°47	20°03	270	herring; sprat	0
117	HEL-150	OTM	2016-09-13	55°45	20°05	330	herring; sprat	0
118	HEL-150	OTM	2016-09-13	55°45	20°01	210	herring; sprat	0
119	HEL-150	OTM	2016-09-13	55°48	20°08	270	herring; sprat	0
120	HEL-150	OTM	2016-09-13	55°49	20°05	530	herring; sprat	0
121	HEL-150	OTM	2016-09-14	55°48	20°04	240	herring; sprat	0
122	HEL-150	OTM	2016-09-14	55°48	20°01	260	herring; sprat	0
123	WŁA-51	OTM	2016-09-21	54°35	18°49	180	herring; sprat	0
124	WŁA-51	OTM	2016-09-23	54°33	18°54	300	herring; sprat	0
144	ZAG-17	OTM	2016-11-09	54°27	19°06	240	herring; sprat	0