

SCIENTIFIC COUNCIL MEETING - JUNE 2026

Spanish Research Report for 2025

by

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Spanish catch and effort information used in this Report is based on the preliminary logbook data contributed by the Spanish Administration. The logbooks information for 2025 was available haul by haul. Total effort of the Spanish fleet in 2025 was 1,403 fishing days. Table 1 presents the preliminary Spanish catches by species and Division in 2025 in NAFO Regulatory Area. These catch figures are preliminary, the final catches to carry out the NAFO assessments will be agreed by the NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG).

In 2025, IEO scientific observers were on board 311 fishing days that it means 22 % of the Spanish total effort. All length, age and biological information presented in this paper is based on sampling carried out by IEO scientific observers. In 2025, 371 samples were taken with 44,594 individuals of different species examined (Table 2).

SUBAREA 3

A. Status of the fisheries

A total of 9 Spanish trawlers operated in Div. 3LMNO NAFO Regulatory Area (NRA) during 2025, amounting to 1,403 days (21,833 hours) of fishing effort. Table 3 presents the Spanish effort (fishing hours) since 2003 in NRA Subarea 3. Total catches (Table 1) for all species combined in Div. 3LMNO were 20,705 tons.

Table 4 shows the effort (hours) by quarter and Division. Table 5 presents the effort by Division, quarter and mesh size.

The Spanish fleet usually carries out different targeted fisheries in NRA Subarea 3 characterized by different mesh size, target species, depth and fishing area: 1) In Divisions 3LMNO at more than 600 meters depth with demersal 130 mm mesh size trawl gear with Greenland halibut as target species. 2) A redfish fishery in Divisions 3LMNO, mainly in Div. 3O and 3M with demersal 130 mm mesh size trawl gear in the 200-600 strata. 3) A skate fishery in Divisions 3NO with 280 mm mesh size trawl gear at less than 200 meters depth. 4) Cod fishery in Division 3M at depth between 150-550 meters with 130 mm mesh size trawl gear with sorting grids. In recent years a directed fishery for silver hake has developed mainly in the NRA Division 3O in depths between 100-300 metres with a 130 mm mesh size trawl gear. In addition to these main fisheries, and depending on the annual availability of resources, other targeted fisheries are carried out by the Spanish commercial fleet: the shrimp fishery in Division 3M with 40 mm cod-end mesh size trawl gear and a fishery with a 60 mm mesh size trawl gear targeted squid in Div. 3O, mainly during the third quarter in 100-400 meters depth.

Effort and fisheries by Division. The fishing effort of the Spanish fleet in the NRA has increased slightly (3%) in 2025 compared to the values observed in 2024 (Table 3). Based on the information on the distribution of the effort by depth of previous years and on the information presented in tables 4 and 5 with 2025 data, it was possible to conclude the following: In Div. 3L, most of the effort was performed at more than 600 meters depth using cod-end mesh size of 130 mm, indicating that the fleet targeted Greenland halibut. Regarding Div. 3M, all effort was performed using 130 mm cod-end mesh size, part was carried out at less than 600 m depth targeting redfish and cod, in the fishery targeting cod the gear has sorting grids, and the other part at depths more than 600 m targeting Greenland halibut. In Div. 3N, the effort carried out using 280 mm was the 69% and with 135 mm cod-end mesh size was 30%, which indicates that the fleet targeted mainly skate in depth less than 200 m. with trawl gear with 280 mm, redfish in 200-600 meters depth and Greenland halibut in depth more than 600 m with trawl gear with 130 mm. Fishing effort in Div. 3O was around the 22% of the 3LMNO total effort targeting skates using mainly 280 mm mesh size in depth less than 200 meters and redfish in depth between 200-600 meters using 130 mm mesh size. A directed fishery for silver hake has been in place since 2020 in Div. 3O with a 130 mm mesh size trawl gear in depth between 100-300 meters.

Nine IEO scientific observer was onboard Spanish vessels during 2025, comprising a total of 311 observed fishing days, around 22% coverage of the total Spanish effort. Figure 1 shows the position of the different hauls observed by the IEO Scientific Observers depending on the target species. Besides recording catches, discards and effort, these observers carried out biological sampling of the main species taken in the catch. For Greenland halibut, roughhead grenadier, American plaice and cod this includes recording weight at length, sex-ratio, maturity stages, performing stomach contents analyses and collecting material for reproductive studies. Otoliths of these four species were also taken for age determination. In 2025, 371 length samples were taken, with 44,594 individuals of different species examined to obtain the length distributions (Table 2). Length distributions presented in this paper are based on sampling carried out by these observers. Length-weight relationships parameters used to calculate the Sum of Products (SOP) of the length distribution are shown by species and stocks in Table 6. These relationships were estimated based on the data collected by the IEO scientific observers and the European Union surveys information carried out in the NAFO Regulatory Area (NRA).

The Spanish fishing activity information in the NRA Subarea 3 in 2025, stock by stock, was the following:

Cod (*Gadus morhua*)

Div. 3L: In 2025, the targeted fishery for this stock was reopened after having been closed for more than 25 years. Spanish cod 3L catches amounted to 103 tonnes, most of them were taken in a targeted fishery using trawls with a 130 mm mesh size and sorting grids. In 2024, there were no sample length distributions of this stock. Cod Div. 3L 2025 catches length distributions are presented in Table 7. Most of the catch length distributions are in the 40-64 cm range. The Spanish catches cod 3L length distribution in 2025 shows two main peaks, one at 47 cm and the other at 56 cm. Cod minimum landing size (MLZ) 41 cm is implemented in this Division.

Div. 3NO: Catches of this species were taken as by-catch in the skate fishery with 280 mm mesh size (61 tons) and in fisheries with 130 mm mesh size (85 tons). It should be noted that in 2025 there were only available three length samples with 221 fish measured of the catches carried out with 130 with mm. These samples could be not representative of the total catch length distributions of this stock (Table 8).

Div. 3M: Catches in Div. 3M were 2361 tons and most of them were taken in the direct fishery with a trawl gear with 130 mm mesh size using a sorting grid (2259 tons). Some of these catches were made using twin trawls. The rest of the catches (102 tons) were taken mainly as by catch of the redfish fishery. Cod minimum landing size (MLZ) 41 cm is implemented in this Division. Cod Div. 3M 2025 catches length distributions are presented in Table 9. Most of the catch length distributions are in the 44-68 cm range. The mode in 2025 was 54 cm.

Redfish (*Sebastes mentella* and *Sebastes fasciatus*)

3M: In Div. 3M the redfish catches in 2025 have been 2044 tons and most of them were catch in a direct fishery and a small part of them was taken as by-catch in the cod fishery. Table 10 shows the Spanish catches length distribution for redfish Division 3M and it can be observed that the bulk of the catches are in the 25-36 cm range. The mode in 2025 was 29 cm.

Div. 3LN: Spanish catches were 903 tons. Most of the catches were taken in a direct fishery for this stock, although a considerable proportion (29%) was caught in the cod fishery in Division 3L. Table 11 shows the Spanish catches length distribution for redfish Division 3LN and it can be observed that the bulk of the catches are in the 26-32 cm range. The length distribution mode in 2025 was 29 cm.

Div. 3O: A directed fishery for this species took place in Div. 3O. Catches have reached 2132 tons in this Division in 2025, most of them with 130 mm mesh size. Catches length distribution for Div. 3O are presented in Table 12 and it can be observed that bulk of the catches are in the 21-32 cm range. The length distribution mode in 2025 was 28-29 cm.

American plaice (*Hippoglossoides platessoides*)

Div. 3LNO: Spanish catches in 2025 in Div. 3LNO were 170 tons. Catches taken with 280 mm mesh size as by-catch of the skate fishery were 88 tons and with 130 mm mesh size were 82 tons. Table 13 presents the total length distribution for Div. 3LNO. The bulk of catches were in the range of 28-52 cm with two different picks, one around 31 cm and other around 40cm. It can be observed a clear different length distributions between sexes, females reach larger sizes than males.

Div. 3M: Catches in Div. 3M amounted 70 tons in 2025 and most of them were taken as by-catch of the cod and redfish fisheries. Table 14 presents the total length distribution for Div. 3M. The bulk of catches were in the range of 43-59 cm.

Witch flounder (*Glyptocephalus cynoglossus*)

Div. 2J and 3KL: Spanish catches for this stock in 2025 were 14 tons and were taken in the small part of NAFO Regulatory Area (NRA) of Div. 3L as by catch of the Greenland halibut and redfish fishery. In 2025, there were no available sample length distributions of this species in this Division.

Div. 3M: There is not management stock for this species in this Division. Catches in 2025 were 25 tons. This species in this Division was taken as by-catch in the Cod and redfish fishery. It should be noted that in 2025 there were only available one length samples of the catches (Table 15). This sample could be not representative of the total catch length distributions of this stock.

Div. 3NO: Spanish catches for this stock in 2025 were 18 tons. Almost all of the catches were taken with 130 mm cod end gear as by-catch of the redfish and Greenland halibut fisheries (15 tons) and in less degree in the skate fishery (3 tons) with 280 mm cod end gear. Table 16 shows the total Spanish length distribution for this species. The bulk of catches were in the range of 32-47 cm with a mode in 39 cm. Females reach larger sizes than males.

Yellowtail flounder (*Limanda ferruginea*)

Div. 3LNO: In 2025 the yellowtail flounder Spanish catches were 93 tons. Almost all of the catches were taken in Div. 3NO as by-catch of the skate fishery (63 tons). Length distributions for yellowtail flounder in Div. 3LNO are presented in Table 17. Most of the catches are in the 35-43 cm length range with a mode of 39 cm. Females reach larger sizes than males.

Greenland halibut (*Reinhardtius hippoglossoides*)

Subareas 2 and Div. 3KLMNO: Greenland halibut continues to be one of the main target species for the Spanish fleet in NAFO area. In 2024 Spanish catches were 4.866 tons; most of them have been taken in the Flemish Pass area (Div. 3LM) at depths more than 700 m. The mesh size used for this fishery was equal or greater than 130 mm. Tables 18 shows the length distributions of Spanish catches in Divisions 3KLMNO. Most of the catches were in the 37-63 cm length range and the mode of the length distribution was in 48 cm. Total age composition based in the commercial Spanish Age Length Key (Table 25), mean weight and mean length at age for Div. 3KLMNO are presented in Table 19. Most of the Greenland halibut catches corresponds to ages 5 to 8 with a peak at ages 6-7.

Figure 2 presents the Spanish fleet standardised CPUE (Gonzalez-Costas and Gonzalez-Troncoso, 2009) updated with the 2025 data. The 2020 results are quite uncertain due to the low number of observations available due to COVID 19 issues. It can be observed different periods with different CPUE levels: The first period between 1992-2003 with relative CPUE values around 1; a second period (2007-2015) with values in

the region of 2; a third period (2016-2017) with values about 2.5; a fourth period (2018-2024) with values similar to those observed between 2007-2015 with values around 2 and in 2025, a significant decline in the standardised CPUE with a value below 1.5.

Thorny skate (*Amblyraja radiata*)

Commercial catches of skates comprise a mix of skate species (*Amblyraja radiata*, *Bathyrāja spinicauda*, *Raja hyperborean*, *Raja senta*, etc). Thus, the catch of skate in Table 1 refers to *Raja* spp. However, thorny skate dominates, comprising about 90% of the skate taken in the Spanish catches base on 2014-2016 data from the EU Spanish 3NO Survey.

Div. 3LNO: Spanish 3LNO skate catches in 2025 were 2,616 tons. Most of the catches were taken in Div. 3N at depths less than 200 meters (2300 tons), where a fishery directed to thorny skate took place using 280 mm mesh size. Skate catches in Div. 3L (28 tons) were much smaller than those in Div. 3NO and they were by-catch of the Greenland halibut and redfish fisheries (130 mm cod-end). Table 20 shows the total catches length distributions by sex of Div. 3LNO. In 2025, there are only available length distributions samples of the catches made with the 280 mm. mesh size cod-end. Most of the catches were in the 49-76 cm length range. It can be observed a clear different length between sexes, males reach larger sizes than females.

Div. 3M: Skate catches in Div. 3M (12 tons) were much smaller than those in Div. 3NO and they were by-catch of the Greenland halibut, redfish and cod fisheries. There are not available catches length distributions for this species in Division 3M.

Roughhead grenadier (*Macrourus berglax*)

Subarea 2 and 3: Roughhead grenadier is the main species taken as by-catch in the Greenland halibut fishery. Most of the 2025 catches were taken in Div. 3LMN. Spanish were 52 tons. Individuals were measured from tip of snout to base of first anal-fin ray (AFL) to the half centimetre below. Table 21 shows the AFL length distributions, grouping in 1 cm intervals, of Spanish catches for Div. 3LMNO. Most of the catches were in the 12-21 AFL length range, with a mode in 17 cm and a clear length difference between sexes, males reach smaller sizes than females.

Age distributions based on the Spanish commercial Age Length Key (Table 26), mean weight and mean length (AFL) at age of the total catch for Div. 3LMNO are presented in Table 22. Most of the Roughhead grenadier catches in 2025 were based on ages 4 to 11 with two different peaks; one in 5 and the second in 8 years old.

White hake (*Urophycis tenuis*)

Div. 3NO: Catches of this species in 2025 in Div 3NO (369 tons) were a by-catch of different fisheries. In Division 3NO a small part of the catches (6 tons) were taken with the 280 mesh size. Catches in Div. 3NO take with 130 mm mesh size (363 tons) are by-catch of the silver hake fishery and redfish fishery. Table 23 shows the total catches length distributions by sex of Div. 3NO. Most of the catches were in the 33-49 cm length range.

Capelin (*Mallotus villosus*)

Div. 3NO: Catches of this species are occasional. In 2025 there is no record of capelin catches by the Spanish fleet.

Squid (*Illex illecebrosus*)

Div. 3NO: Catches of this species they have been occasional in the past as by-catch of different fisheries, but in the 2018-2020 period there was a directed fishery to this species. In 2025, squid catches by the Spanish fleet were 9 tons caught mainly in Div. 3O. There are not available catches length distributions for this species.

Shrimp (*Pandalus borealis*)

Div. 3M: The shrimp stock fishery in Div. 3M was closed between 2011-2019. In 2020, activity was resumed in this trawl fishery in which a 40 mm mesh is used. In 2023-2025 the shrimp fishery in Div. 3M was closed.

Silver hake (*Merluccius bilinearis*)

Div. 3NO: Catches of this species in Div. 3NO were quite sporadic until 2018. Since 2019, the presence of this resource has been confirmed in the NRA Div. 3O and a directed fishery has been carried out with trawl gear with a 130 mm mesh size. Spanish total catches have been 4168 tons in 2025. Most of which (4079 tons) have been caught in Div. 3O. Table 24 shows the total catches length distributions by sex of Div. 3NO. Most of the catches were in the 28-35 cm length range with a pick in 30-31 cm. It can be observed a clear different length between sexes, females reach larger sizes than males.

(B) Research studies

The EU bottom trawl survey in Flemish Cap (Div. 3M) was carried out on board R/V Vizconde de Eza using the usual survey gear (Lofoten) from July 7th to August 8th 2025. The area surveyed was Flemish Cap Bank to depths up to 800 fathoms (1460 m) following the same procedure as in previous years. The number of hauls was 189 and seven of them were null. Survey results including abundance indices of the main commercial species and age distributions for cod, redfish, American plaice, roughhead grenadier and Greenland halibut are presented as a Scientific Council Research document. Flemish Cap survey results for Northern shrimp (*Pandalus borealis*) were presented in SCR 25/044 and SCWP 25/023. Samples for histological assessment of sexual maturity of cod, redfish, Greenland halibut and roughhead grenadier were taken. Oceanography studies continued to take place and 76 CTD stations were carry out during the survey.

The Spanish bottom trawl survey in NAFO Regulatory Area Div. 3NO was conducted from 7th of June to the 7th of July 2025 on board the R/V Vizconde de Eza. The gear was a Campelen otter trawl with 20 mm mesh size in the cod-end. Following the method used last year, a total of 113 valid hauls were taken within a depth range of 45-1450 m according to a stratified random design and 113 hydrographic profiles. Furthermore, a stratified sampling by length class and sex was used to sample otoliths of Atlantic cod, American plaice, Greenland halibut and silver hake for growth studies. Also, gonads of American plaice and silver hake were sampled from histological maturity and fecundity studies. The results of this survey, including biomass indices with their errors and length distributions, as well as the calculated biomass based on conversion of length frequencies for Greenland halibut, American plaice, Atlantic cod, yellowtail flounder, redfish, witch flounder, roughhead grenadier, thorny skate and white hake are presented as Scientific Council Research Documents. In addition, age distributions are presented for Greenland halibut and Atlantic cod.

Since 1995, Spain carries out annually a Spring-Summer survey in the NAFO Regulatory Area of Div. 3NO. In 2003 it was decided to extend the Spanish 3NO survey toward Div. 3L (Flemish Pass). In 2025, the bottom trawl survey in Flemish Pass (Div. 3L) was carry out on board R/V Vizconde de Eza using the usual survey gear (Campelen 1800) from August 11 to 29. The area surveyed was Flemish Pass to depths up 800 fathoms (1463 m) following the same procedure as in previous years. The number of hauls was 90 and 8 of them were null. Survey results, including abundance indices and length distributions of the main commercial species, are presented as Scientific Council Research documents. Samples for histological (American plaice and roughhead grenadier) and aging (Greenland halibut, American plaice, roughhead grenadier and cod) studies were taken. Eighty-two hydrographic profile samplings were made in a depth range of 120-1429 m.

VME data from the 2025 EU; EU-Spain and Portugal bottom trawl groundfish surveys in NAFO Regulatory Area (Divs. 3LMNO):

During 2025, R/V Vizconde de Eza carried out three surveys: 1) In Division 3L (Flemish Pass) sampling between 125 - 1467 meters depth, with a total of 90 tows (82 valid); 2) In Division 3M (Flemish Cap) sampling between 135 - 1464 m depth, with a total of 189 tows (182 valid); and 3) In Divisions 3NO (Grand Banks of Newfoundland) sampling between 46- 1444 m depth with a total of 116 tows (113 valid). In total there were 377 bottom trawl tows, 18 of them considered invalid due to technical problems during the fishing operation. In addition, 8 hauls were conducted inside VME closures. 109 hauls out of 377 valid tows have shown zero catches (i.e. no presence) of VME indicator species groups. This represents the 28.91% of the total valid hauls. A brief description of the survey methodology can be found in Durán Muñoz et al. (2020).

Sponges were recorded in 203 of the 377 valid tows (53.85% of valid tows analyzed), at mean depths between 135 and 1467 m. There was one significant catch of sponges (≥ 100 kg/tow) in these tows, which fell outside the VME polygons for sponges, but inside VME closures.

Large gorgonians were recorded in 4 of the 377 valid tows (1.06% of valid tows analyzed), at mean depths between 572 and 681 m. There was one significant catch of large gorgonians (≥ 0.6 kg/tow) in these tows, which fell outside VME closed areas and outside the VME polygons for large gorgonians.

Small gorgonians were recorded in 57 of the 377 valid tows (15.12% of valid tows analyzed), at mean depths between 231 and 1464 m. There were no significant catches of small gorgonians (≥ 0.2 kg/tow) in these tows.

Sea pens were recorded in 160 of the 377 valid tows (42.44% of valid tows analyzed), at mean depths between 66 and 1448 m. There was one significant catch of sea pens (≥ 1.3 kg/tow) in these tows, which fell within the VME polygons for sea pens, but outside VME closures.

Black corals were recorded in 31 of the 377 valid tows (8.22% of valid tows analyzed), at mean depths between 231 and 1265 m. There were two significant catches of black corals (≥ 0.4 kg/tow) in these tows, both of which fell outside the VME polygons for black corals and outside VME closures.

Sea squirts (*Boltenia ovifera*) were recorded in 7 of the 377 valid tows (1.86% of valid tows analyzed), at mean depths between 57 and 681 m. There was one significant catch of sea squirts (≥ 0.35 kg/tow) in these tows, which fell within the VME polygons for sea squirts and outside VME closures.

Bryozoans were recorded in 30 of the 377 valid tows (7.96% of valid tows analyzed), at mean depths between 46 and 1199 m. There were no significant catches of bryozoans (≥ 0.2 kg/tow) in these tows.

BATISCAFO:

In 2025, as part of the BATISCAFO project (Buscando fortAlecer la inTegración de los datoS eCosistémicos en el Asesoramiento a la NAFO y otras Organizaciones), funded by the CSIC through a special intramural project (PIE), various studies were carried out on activities other than fishing in the NRA:

i) New data on seabed macrolitter (EU Spain/Portugal Groundfish Surveys 2024).

New records and densities of seabed macrolitter in Divs. 3LMNO were obtained from opportunistic sampling during the 2024 EU–Spain/Portugal groundfish surveys, following the revised protocol developed in the NEREIDA project (Abalo Morla et al., 2024). A total of 388 valid bottom trawl hauls were analysed, yielding ~238 items in 32.2% of hauls. Mean densities were 16.6 ± 47.1 items/km² and 52 ± 758 kg/km².

Fisheries related litter was most abundant (52.2%), followed by plastic (29%), metal (8%), other anthropogenic litter (4%), rubber (3%), organic litter (3%), and glass/ceramics (1%). Using OSPAR source specific indicators, fisheries were identified as the main source (58%), followed by galley waste (4%) and operational waste (1%), with 37% uncertain. These results update seabed litter distribution in 3LMNO and contribute to improving the macrolitter protocol. A full update is expected at WG ESA 2026. Details appear in SCR Doc. 25/051.

ii) Monitoring of PAH metabolites in fish species (Flemish Cap pilot study).

The pilot study on PAH metabolites in Flemish Cap aims to detect these compounds in the bile of Greenland halibut, roughhead grenadier and witch flounder as early indicators of exposure to contamination. It will also help to establish baseline levels for these pollutants in the area. During the 2025 EU Spain/Portugal survey, gallbladder samples were collected from specimens of the aforementioned species, from both the from control areas (north/east Flemish Cap) and study areas (west Flemish Cap, near oil and gas activities). Part of the samples will be analysed at the Spanish Institute of Oceanography using HPLC with fluorescence detection. An update is expected at WG ESA 2026.

SUBAREA 6

A. Status of the fisheries

During 2025 there was no fishing activity of the Spanish fleet in this Division.

Acknowledgements

The collection of the data presented in this document has been funded by the European Union through the European Maritime Fisheries and Aquaculture Fund (EMFAF) 2021-2027 within the National Program of collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy.

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Table1. Spanish Catches (tons) in NAFO Area in 2025 by species and Division, based on the provisional Logbook data.

Code	English_name	Scientific_name	Provisional STATLANT 21A 2025				
			3L	3M	3N	3O	Total
RED	Atlantic redfishes nei	<i>Sebastes spp</i>	411	2044	491	2132	5079
GHL	Greenland halibut	<i>Reinhardtius hippoglossoides</i>	3341	1238	273	14	4866
HKS	Silver hake	<i>Merluccius bilinearis</i>	0	0	89	4079	4169
SKA	Raja rays nei	<i>Raja spp</i>	28	12	2325	263	2627
COD	Atlantic cod	<i>Gadus morhua</i>	103	2362	76	70	2610
HKW	White hake	<i>Urophycis tenuis</i>	0	0	4	364	368
HAL	Atlantic halibut	<i>Hippoglossus hippoglossus</i>	15	55	69	114	253
PLA	American plaice	<i>Hippoglossoides platessoides</i>	6	70	99	65	240
HAD	Haddock	<i>Melanogrammus aeglefinus</i>	0	0	2	150	153
YEL	Yellowtail flounder	<i>Limanda ferruginea</i>	1	1	64	28	94
ANG	American angler	<i>Lophius americanus</i>	0	0	11	72	83
WIT	Witch flounder	<i>Glyptocephalus cynoglossus</i>	14	25	14	3	57
RHG	Roughhead grenadier	<i>Macrourus berglax</i>	23	22	7	0	52
CAS	Spotted wolffish	<i>Anarhichas minor</i>	1	33	0	0	33
SQI	Northern shortfin squid	<i>Illex illecebrosus</i>	0	0	1	9	9
RNG	Roundnose grenadier	<i>Coryphaenoides rupestris</i>	1	4	0	0	6
CAA	Atlantic wolffish	<i>Anarhichas lupus</i>	0	0	4	0	4
		Total tons	3944	5868	3529	7364	20705

Table 2. Samples and individuals sampled by the IEO Scientific Observers by species, mesh size and NAFO Division in 2025. In red, samples conducted in the cod Div. 3M directed fishery. T=Twin trawl 130 mm with sorting grids

Code	English_name	Catch/Disc.	Division	Mesh size	Samples	Indiv
COD	Atlantic cod	C	3L	130 mm	3	447
COD	Atlantic cod	C	3L	130 mm	3	477
COD	Atlantic cod	C	3M	130 mm	16	1989
COD	Atlantic cod	C	3M	130 mm	4	417
COD	Atlantic cod	C	3O	130 mm	3	221
COD	Atlantic cod	C	3M	T	26	3785
WIT	Witch flounder	C	3M	T	1	106
WIT	Witch flounder	C	3O	130 mm	7	464
PLA	American plaice	C	3O	130 mm	5	328
PLA	American plaice	C	3N	280 mm	3	381
PLA	American plaice	C	3O	280 mm	1	57
PLA	American plaice	C	3M	T	3	292
RNG	Roundnose grenadier	C	3L	130 mm	2	197
YEL	Yellowtail flounder	C	3N	280 mm	4	488
RHG	Roughhead grenadier	C	3L	130 mm	28	2708
RHG	Roughhead grenadier	C	3M	130 mm	25	2382
RHG	Roughhead grenadier	C	3N	130 mm	2	319
RHG	Roughhead grenadier	D	3L	130 mm	2	206
RHG	Roughhead grenadier	D	3M	130 mm	4	410
HKS	Silver hake	C	3N	130 mm	3	448
HKS	Silver hake	C	3O	130 mm	22	3498
NZB	Marlin-spike grenadier	C	3N	130 mm	1	81
SKA	Smooth skate	C	3M	T	1	12
RJR	Starry ray	C	3N	280 mm	5	440
RJR	Starry ray	C	3O	280 mm	1	96
RJR	Starry ray	C	3M	T	3	130
GHL	Greenland halibut	C	3L	130 mm	54	6501
GHL	Greenland halibut	C	3M	130 mm	53	7137
GHL	Greenland halibut	C	3N	130 mm	6	643
RED	Redfish	C	3L	130 mm	6	785
RED	Redfish	C	3L	130 mm	5	679
RED	Redfish	C	3M	130 mm	16	1884

RED	Redfish	C	3N	130 mm	1	137
RED	Redfish	C	3O	130 mm	28	3597
RED	Redfish	C	3M	T	10	1599
HKW	White hake	D	3O	130 mm	6	533
HKW	White hake	C	3N	130 mm	1	103
HKW	White hake	C	3O	130 mm	7	617
Total					371	44594

Table 3. Fishing effort (hours) of the Spanish fleet in Divisions 3LMNO by year based on the Logbook data.

3LMNO	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Effort (Hours)	106821	76028	60128	44044	25163	21408	21250	22703	25276	25410	18602	18271
3LMNO	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Effort (Hours)	18031	15577	15101	16608	18686	19051	18296	16592	19651	21137	21833	

Table 4. Fishing effort (hours) of the Spanish fleet in 2025 by quarter and Division, as well as percentage of effort by Division based on the Logbook data.

Division	1st Q	2nd Q	3rd Q	4th Q	Total	% Div.
3L	1276	1629	1433	2447	6785	31%
3M	953	1662	2596	1164	6375	29%
3N	669	1035	1175	1001	3879	18%
3O	1061	1891	1213	629	4794	22%
Total Hours	3959	6217	6417	5240	21833	100%
%	18%	28%	29%	24%	100%	

Table 5. Spanish 2025 effort (hours) in SA 3 by mesh size, quarter and Division based on the Logbook data.

Div.	Mesh Size	1st Q	2nd Q	3rd Q	4th Q	Total
3L	<90 mm					
	100-200 mm	1276	1629	1433	2447	6785
	>200 mm					
3M	<90 mm					
	100-200 mm	953	1662	2596	1164	6375
	>200 mm					
3N	<90 mm					
	100-200 mm	202	350	322	314	1189
	>200 mm	466	685	853	686	2691
3O	<90 mm					
	100-200 mm	1024	1835	1087	524	4471
	>200 mm	37	56	126	105	323

Table 6. Parameters of the length-weight relationship ($W(g) = a \cdot L(cm)^b$) by species (2025).

Species	Source	a	b
Greenland halibut	Commercial	0.00570	3.082
Redfish 3O	Survey 3NO	0.00985	3.076
Redfish 3LN	Survey 3NO	0.00985	3.076
Redfish 3M	Commercial	0.00660	3.187
Roughhead grenadier	Survey 3NO	0.14610	2.800
Witch flounder 3M	Survey FC	0.00077	3.582
Witch flounder 3NO	Survey 3NO	0.00165	3.370
American plaice 3LNO	Commercial	0.00120	3.532
American plaice 3M	Survey FC	0.00447	3.211
Cod 3NO	Survey 3NO	0.00695	3.030
Cod 3M	Commercial	0.02820	2.699
Yellowtail Flounder	Survey 3NO	0.00452	3.162
Skate	Survey 3NO	0.01033	2.985
Silver Hake	Commercial	0.01700	2.709
White Hake	Commercial	0.00230	3.287

Table 7. Cod 3L stock Spanish catches length distribution (2025).

Cod Length (cm)	Males	3L Females	Ind.	Total
35	0	0	0	0
36	0	63	0	63
37	357	199	0	556
38	109	71	0	180
39	744	0	0	744
40	577	715	0	1292
41	705	174	0	879
42	432	1343	0	1776
43	1451	1111	0	2562
44	792	1047	0	1838
45	2799	456	0	3255
46	1623	2011	0	3634
47	2250	1550	0	3800
48	1331	1626	0	2957
49	859	2568	0	3427
50	1461	1469	0	2930
51	1394	1627	0	3021
52	1268	1174	0	2442
53	1559	1405	0	2965
54	1113	2066	0	3179
55	1645	1081	0	2726
56	977	2552	0	3528
57	1530	1505	0	3035
58	796	1662	0	2459
59	491	876	0	1367
60	914	1391	0	2305
61	1046	1260	0	2306
62	665	1164	0	1828
63	704	1297	0	2001
64	270	831	0	1101
65	172	554	0	725
66	410	306	0	716
67	185	750	0	935
68	136	322	0	458
69	233	423	0	656
70	24	494	0	518
71	109	173	0	282
72	134	244	0	378
73	215	134	0	349
74	16	174	0	190
75	0	0	0	0
76	0	296	0	296
77	126	0	0	126
78	63	5	0	68
79	0	0	0	0
80	16	37	0	53
81	8	0	0	8
82	150	63	0	213

83	126	24	0	150
84	63	126	0	189
85	63	126	0	189
86	126	252	0	377
87	126	126	0	252
88	0	63	0	63
89	0	0	0	0
90	63	0	0	63
91	0	0	0	0
92	0	0	0	0
93	0	0	0	0
94	0	0	0	0
95	0	0	0	0
96	0	0	0	0
97	0	0	0	0
98	0	0	0	0
99	0	0	0	0
100	0	0	0	0
Total	32424	38984	0	71408

Samples	6
Ind. Sampled	924
Catch (tons)	103
SOP	1.06

Table 8. Cod 3NO stock Spanish catches length distribution (2025).

Cod Length (cm)	Males	3NO Females	Ind.	Total
30	0	0	0	0
31	374	0	0	374
32	432	0	0	432
33	0	0	0	0
34	374	0	0	374
35	0	0	0	0
36	432	374	0	807
37	432	374	0	807
38	374	1613	0	1987
39	432	374	0	807
40	374	1239	0	1613
41	1672	374	0	2046
42	865	3875	0	4740
43	5330	2046	0	7376
44	1181	2104	0	3285
45	1871	5488	0	7359
46	1555	2362	0	3917
47	1672	3875	0	5547
48	0	1555	0	1555
49	3168	748	0	3917
50	1987	3185	0	5173
51	1239	5705	0	6944
52	1929	8025	0	9954
53	748	432	0	1181
54	4424	8083	0	12507
55	3127	432	0	3559
56	3875	3501	0	7376
57	1239	1239	0	2478
58	1987	2911	0	4898
59	748	2104	0	2852
60	1987	807	0	2794
61	1613	2320	0	3933
62	865	865	0	1730
63	0	432	0	432
64	432	374	0	807
65	0	2320	0	2320
66	0	0	0	0
67	0	374	0	374
68	432	432	0	865
69	1888	0	0	1888
70	1888	0	0	1888
71	0	0	0	0
72	0	0	0	0
73	0	432	0	432
74	0	0	0	0
75	0	0	0	0
76	0	0	0	0
77	0	0	0	0

78	0	432	0	432
79	0	0	0	0
80	0	0	0	0
Total	50951	70810	0	121762

Samples	3
Ind. Sampled	221
Catch (tons)	146
SOP	1.01

Table 9. Cod 3M stock Spanish catches length distribution (2025).

Cod Length (cm)	Males	3M Females	Ind.	Total
25	0	0	0	0
26	0	0	0	0
27	141	0	0	141
28	0	0	0	0
29	0	0	0	0
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	0	0	0	0
34	0	0	0	0
35	0	0	0	0
36	1147	0	0	1147
37	227	652	0	879
38	0	0	0	0
39	0	0	0	0
40	864	1838	0	2702
41	2700	1794	0	4494
42	7598	3220	0	10818
43	5238	3557	0	8795
44	9862	10169	0	20031
45	8633	9160	0	17794
46	22866	15472	0	38338
47	24024	21181	0	45205
48	24850	25821	0	50671
49	32670	22774	0	55444
50	40630	41417	0	82047
51	40306	30872	0	71178
52	44481	44944	0	89424
53	40845	40188	0	81033
54	46593	46431	0	93025
55	39255	39569	0	78824
56	36321	46152	0	82473
57	32508	43673	0	76182
58	33507	56002	0	89510
59	29081	35382	0	64463
60	37934	39798	0	77732
61	19675	21174	0	40849
62	14920	34063	0	48983
63	16540	18489	0	35029
64	13706	16829	0	30535
65	9131	16458	0	25589
66	10734	10733	0	21468
67	7318	10954	0	18272
68	6396	12340	0	18736
69	3960	9679	0	13640
70	5775	11210	0	16985
71	2186	4791	0	6977
72	4626	7313	0	11940

73	2517	4754	0	7271
74	2777	5123	0	7900
75	1526	5440	0	6966
76	2119	7325	0	9444
77	1566	4051	0	5617
78	712	2013	0	2725
79	678	1903	0	2582
80	1608	543	0	2151
81	898	1880	0	2778
82	385	1426	0	1810
83	251	487	0	738
84	867	746	0	1614
85	169	357	0	526
86	0	0	0	0
87	0	0	0	0
88	234	0	0	234
89	0	0	0	0
90	0	251	0	251
91	0	1241	0	1241
92	0	251	0	251
93	0	0	0	0
94	0	0	0	0
95	0	0	0	0
96	0	244	0	244
97	0	0	0	0
98	0	0	0	0
99	0	0	0	0
100	0	487	0	487
Total	693558	792622	0	1486180

Samples	46
Ind. Sampled	6191
Catch (tons)	2361
SOP	0.85

Table 10. Redfish 3M stock Spanish catches length distribution 2025.

Redfish Length (cm)	Division 3M			Total
	Males	Females	Ind.	
15	0	0	0	0
16	0	0	7295	7295
17	9669	0	7295	16964
18	16634	26595	0	43229
19	17571	20466	0	38037
20	69590	27962	0	97552
21	27019	15317	0	42336
22	14224	15194	0	29418
23	28139	49869	0	78008
24	59210	36564	0	95774
25	137272	30736	0	168009
26	104696	108906	0	213602
27	263022	266562	0	529584
28	433699	338426	0	772125
29	574453	511171	0	1085625
30	475435	489101	0	964536
31	194738	227326	0	422064
32	133782	156853	0	290635
33	99992	31761	0	131753
34	109969	45537	0	155505
35	78267	50197	0	128464
36	70414	64233	0	134648
37	27933	57158	0	85091
38	24643	43303	0	67946
39	16669	26363	0	43032
40	15760	27968	0	43728
41	16265	36969	0	53234
42	15422	24788	0	40211
43	15561	25488	0	41049
44	7823	13804	0	21627
45	10078	18164	0	28243
46	4350	13292	0	17642
47	2689	7386	0	10074
48	1295	10615	0	11910
49	1722	7537	0	9259
50	2443	11815	0	14257
51	1852	5995	0	7847
52	1188	8388	0	9576
53	610	1987	0	2597
54	171	2759	0	2929
55	171	1671	0	1842
56	0	749	0	749
57	341	658	0	999
58	248	339	0	587
59	0	0	0	0
60	0	0	0	0
61	0	0	0	0
62	0	78	0	78

63	0	0	0	0
64	0	0	0	0
65	0	0	0	0
Total	3085030	2860047	14590	5959667

Samples	26
Ind. Sampled	3483
Catch (tons)	2044
SOP	0.88

Table 11. Redfish 3LN stock Spanish catches length distribution 2025.

Redfish Length (cm)	Division 3LN			Total
	Males	Females	Ind.	
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	22119	0	0	22119
24	45401	1275	0	46676
25	16929	6693	0	23622
26	45206	36408	0	81614
27	84234	155854	0	240088
28	65367	301566	0	366933
29	80846	450991	0	531837
30	27393	218131	0	245525
31	13895	185698	0	199594
32	28512	51238	0	79750
33	10878	31361	0	42239
34	11407	14808	0	26215
35	6841	25045	0	31886
36	5492	20090	0	25583
37	4607	30244	0	34851
38	7165	21439	0	28604
39	2915	27764	0	30679
40	3620	24932	0	28552
41	5386	17650	0	23037
42	4928	16672	0	21600
43	5356	8900	0	14257
44	4067	9468	0	13535
45	2225	5040	0	7265
46	3868	5210	0	9078
47	3137	2269	0	5406
48	4281	2215	0	6496
49	2033	3273	0	5305
50	649	3376	0	4025
51	2363	3870	0	6233
52	199	2251	0	2450
53	0	2225	0	2225
54	952	3774	0	4726
55	0	2427	0	2427
56	0	2535	0	2535
57	0	1283	0	1283
58	0	1789	0	1789
59	0	1649	0	1649

60	476	469	0	945
61	0	432	0	432
62	0	173	0	173
63	0	0	0	0
64	0	0	0	0
65	0	0	0	0
Total	522749	1700488	0	2223237

Samples	12
Ind. Sampled	1601
Catch (tons)	903
SOP	0.96

Table 12. Redfish 30 stock Spanish catches length distribution 2025.

Redfish Length (cm)	Males	30 Females	Ind.	Total
10				0
11	0	930	0	930
12	0	0	0	0
13	692	0	0	692
14	0	0	0	0
15	0	0	0	0
16	1339	0	0	1339
17	7002	0	0	7002
18	7427	8928	4100	20455
19	31294	21554	8648	61496
20	55343	29971	4324	89638
21	115129	60509	0	175638
22	114931	79909	0	194840
23	235333	116799	0	352132
24	259677	184193	0	443870
25	394104	245092	0	639196
26	361405	345484	0	706889
27	311512	572239	0	883751
28	131671	919802	0	1051473
29	47380	1039161	0	1086541
30	4854	776598	0	781451
31	3309	406638	0	409947
32	6	263932	0	263938
33	0	92716	0	92716
34	0	39017	0	39017
35	692	23113	0	23806
36	930	3074	0	4004
37	0	0	0	0
38	0	611	0	611
39	0	1072	0	1072
40	0	0	0	0
41	0	0	0	0
42	0	611	0	611
43				0
44				0
45				0
Total	2084029	5231952	17073	7333053
Samples				28
Ind. Sampled				3597
Catch (tons)				2132
SOP				1.04

Table 13. American plaice 3LNO stock Spanish catches length distribution (2025).

American Plaice Length (cm)	Division 3LNO			Total
	Males	Females	Ind.	
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	76	0	0	76
26	444	65	0	508
27	0	367	0	367
28	3855	3078	0	6933
29	4726	2802	0	7528
30	4050	9143	0	13194
31	10801	13529	0	24331
32	4745	3518	0	8263
33	5640	9151	0	14791
34	374	6159	0	6533
35	1294	4208	0	5503
36	4324	10072	0	14396
37	1722	2216	0	3937
38	3210	5792	0	9002
39	1350	17688	0	19038
40	7222	19151	0	26373
41	4070	14240	0	18310
42	1599	13392	0	14990
43	675	14346	0	15021
44	619	9883	0	10502
45	0	10731	0	10731
46	310	5154	0	5464
47	0	5524	0	5524
48	0	4647	0	4647
49	0	3247	0	3247
50	0	5665	0	5665
51	0	3393	0	3393
52	0	6866	0	6866
53	0	1516	0	1516
54	0	2207	0	2207
55	0	771	0	771
56	0	1770	0	1770
57	0	2933	0	2933
58	0	263	0	263
59	0	755	0	755

60	0	782	0	782
61	0	0	0	0
62	0	0	0	0
63	0	132	0	132
64	0	368	0	368
65	0	0	0	0
66	0	132	0	132
67	0	379	0	379
68	0	0	0	0
69	0	0	0	0
70	0	0	0	0
71	0	0	0	0
72	0	0	0	0
73	0	0	0	0
74	0	0	0	0
75	0	0	0	0
Total	61106	216036	0	277142

Samples	9
Ind. Sampled	766
Catch (tons)	170
SOP	0.98

Table 14. American plaice 3M stock Spanish catches length distribution (2025).

American Plaice Length (cm)	Division 3M			Total
	Males	Females	Ind.	
30				0
31				0
32				0
33				0
34				0
35				0
36	0	171	0	171
37	343	900	0	1243
38	622	193	0	815
39	943	386	0	1328
40	171	0	0	171
41	343	171	0	514
42	750	171	0	921
43	1886	1328	0	3215
44	1802	1030	0	2832
45	1693	1693	0	3385
46	2617	2337	0	4954
47	1652	1460	0	3112
48	1780	1609	0	3389
49	1525	1201	0	2725
50	750	1114	0	1864
51	986	771	0	1758
52	1954	237	0	2191
53	2791	1718	0	4509
54	1805	1568	0	3373
55	1998	710	0	2708
56	2730	2042	0	4771
57	1656	1419	0	3075
58	2064	1656	0	3720
59	1656	1183	0	2839
60	237	237	0	473
61	473	473	0	946
62				0
63				0
64				0
65				0
Total	35226	25777	0	61004
Samples				3
Ind. Sampled				292
Catch (tons)				70
SOP				0.82

Table 15. Witch flounder Spanish catches length distribution for Div. 3M (2025).

Witch flounder Length (cm)	Division 3M			Total
	Males	Females	Ind.	
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	0	0	0	0
34	0	0	0	0
35	208	0	0	208
36	416	0	0	416
37	416	416	0	832
38	0	208	0	208
39	0	0	0	0
40	416	208	0	624
41	0	0	0	0
42	1040	1664	0	2703
43	0	832	0	832
44	832	1040	0	1872
45	1040	416	0	1456
46	624	624	0	1248
47	832	832	0	1664
48	1456	832	0	2287
49	832	416	0	1248
50	624	1040	0	1664
51	416	624	0	1040
52	832	0	0	832
53	624	208	0	832
54	624	0	0	624
55	416	208	0	624
56	0	416	0	416
57	0	0	0	0
58	416	0	0	416
59	0	0	0	0
60	0	0	0	0
61	0	0	0	0
62	0	0	0	0
63	0	0	0	0
64	0	0	0	0
65	0	0	0	0
Total	12061	9981	0	22042
Samples				1
Ind. Sampled				106
Catch (tons)				25
SOP				1.42

Table 16. Witch flounder Spanish catches length distribution for Div. 3NO (2025).

Witch flounder Length (cm)	3NO			Total
	Males	Females	Ind.	
14	0	0	0	0
15	0	0	0	0
16	0	0	135	135
17	0	0	0	0
18	0	0	0	0
19	0	0	135	135
20	0	0	0	0
21	0	0	0	0
22	0	28	0	28
23	0	0	0	0
24	0	28	0	28
25	0	0	0	0
26	0	0	0	0
27	135	0	0	135
28	135	135	0	271
29	72	164	0	236
30	204	22	135	361
31	622	164	0	786
32	627	440	0	1066
33	496	878	0	1374
34	1332	864	0	2196
35	1333	591	0	1924
36	687	1225	0	1911
37	2538	724	0	3263
38	1439	1726	0	3165
39	1790	1900	0	3690
40	784	1332	0	2116
41	1335	1425	0	2759
42	1026	1606	0	2632
43	851	684	0	1535
44	361	1401	0	1762
45	29	791	0	820
46	91	318	0	409
47	399	729	0	1128
48	0	397	0	397
49	0	185	0	185
50	0	29	0	29
51	0	138	0	138
Total	16286	17923	406	34615
Samples				7
Ind. Sampled				464
Catch (tons)				18
SOP				1.30

Table 17. Yellowtail flounder Spanish catches length distribution for Div. 3LNO (2025).

Yellowtail flounder	3LNO			
Length (cm)	Males	Females	Ind.	Total
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0
27	96	0	0	96
28	244	0	0	244
29	148	0	0	148
30	322	1421	0	1744
31	654	0	0	654
32	1366	474	0	1840
33	3806	1139	0	4945
34	2901	1135	0	4035
35	4626	2369	0	6995
36	3482	6634	0	10116
37	9575	10976	0	20551
38	12382	7764	0	20146
39	5759	18268	0	24027
40	7636	12888	0	20524
41	1604	20580	0	22184
42	3390	12471	0	15860
43	1039	5691	0	6730
44	0	3061	0	3061
45	0	5056	0	5056
46	0	1483	0	1483
47	0	957	0	957
48	0	1374	0	1374
49	0	174	0	174
50	0	0	0	0
Total	59029	113915	0	172943
Samples				4
Ind. Sampled				488
Catch (tons)				93
SOP				1.04

Table 18. Greenland halibut Spanish catches length distribution for Div. 3L and 3M (2025).

Length (cm)	Division 3L					Division 3M			
	Males	Females	Ind.	Total		Males	Females	Ind.	Total
25				0					0
26				0					0
27				0					0
28				0					0
29				0					0
30	448	0	0	448		288	0	0	288
31	448	0	0	448		999	0	0	999
32	448	504	0	952		1562	601	0	2163
33	1114	2052	0	3166		3428	817	0	4245
34	892	4119	0	5011		5001	1447	0	6448
35	6966	4520	0	11486		11689	2628	0	14316
36	4787	4402	0	9189		14207	5437	0	19644
37	14316	16646	0	30962		16213	9878	0	26091
38	20079	14178	0	34257		20170	11306	0	31476
39	22623	24055	0	46678		20259	13104	0	33363
40	25880	31282	0	57162		25815	20470	0	46285
41	32764	40286	0	73050		20495	23013	0	43508
42	48907	63083	0	111990		24302	31275	0	55578
43	55974	51930	0	107904		22703	39421	0	62123
44	47047	71181	0	118228		21942	55915	0	77857
45	65132	72734	0	137866		23722	58828	0	82551
46	68467	100963	0	169430		23902	65983	0	89884
47	66495	84273	0	150768		23663	55183	0	78846
48	55520	110337	0	165857		28923	70593	0	99516
49	55732	113345	0	169078		23678	64974	0	88651
50	46147	111150	0	157297		20564	54945	0	75509
51	49886	113580	0	163467		16353	48933	0	65285
52	32894	85841	0	118736		15483	39049	0	54532
53	28301	85455	0	113756		10217	40877	0	51094
54	35757	107058	0	142815		7946	33245	0	41192
55	26970	74468	0	101438		3902	30812	0	34714
56	21262	58680	0	79941		6915	24491	0	31406
57	23614	63612	0	87226		3011	21290	0	24302
58	34220	72651	0	106871		2383	20160	0	22543
59	17582	35639	0	53221		1085	15081	0	16166
60	24499	50326	0	74825		734	14255	0	14988
61	14237	33969	0	48206		576	11428	0	12004
62	16805	34998	0	51803		119	11180	0	11299
63	14066	35326	0	49392		150	8907	0	9057
64	14204	22767	0	36971		0	6896	0	6896
65	8135	22180	0	30315		0	6316	0	6316
66	13249	17924	0	31173		0	5429	0	5429
67	11320	14526	0	25846		0	5042	0	5042
68	9897	14766	0	24663		0	4837	0	4837
69	3555	7551	0	11106		0	4003	0	4003
70	5903	9979	0	15882		0	2414	0	2414

71	1748	6347	0	8095		0	2784	0	2784
72	2033	4516	0	6549		0	2362	0	2362
73	956	3231	0	4188		0	2387	0	2387
74	1666	1842	0	3508		0	1261	0	1261
75	1091	2810	0	3902		0	742	0	742
76	1001	3327	0	4327		0	2374	0	2374
77	1514	2288	0	3802		0	340	0	340
78	386	643	0	1029		0	260	0	260
79	0	897	0	897		0	976	0	976
80	350	269	0	619		0	1445	0	1445
81	350	1127	0	1477		0	275	0	275
82	888	0	0	888		0	670	0	670
83	0	458	0	458		0	532	0	532
84	0	0	0	0		0	247	0	247
85	0	0	0	0		0	74	0	74
86	394	0	0	394		0	0	0	0
87	0	0	0	0		0	0	0	0
88	969	0	0	969		0	0	0	0
89				0		0	0	0	0
90				0		0	0	0	0
91				0		0	0	0	0
92				0		0	74	0	74
93				0					0
94				0					0
95				0					0
96				0					0
Total	1059889	1910093	0	2969982		422396	957266	0	1379662
Samples				54					53
Ind. Sampled				6501					7137
Catch (tons)				3341					1238

Table 18 (cont.). Greenland halibut Spanish catches length distribution for Div. 3NO (2025).

Length (cm)	Division 3NO			Total
	Males	Females	Ind.	
25	0	0	0	0
26	0	0	0	0
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	1057	0	0	1057
34	3822	1057	0	4879
35	1667	1458	0	3125
36	2533	3572	0	6106
37	4220	4302	0	8522
38	3500	1786	0	5286
39	2042	2443	0	4484
40	7416	11957	0	19373
41	5103	8328	0	13431
42	5385	9365	0	14751
43	6009	12022	0	18031
44	8729	13896	0	22625
45	7418	17869	0	25287
46	12778	11847	0	24625
47	4281	15004	0	19286
48	8203	14656	0	22859
49	6989	15952	0	22941
50	3399	20074	0	23473
51	6401	18733	0	25133
52	1231	9789	0	11019
53	4018	10282	0	14300
54	2236	9229	0	11465
55	1256	3641	0	4897
56	4551	1692	0	6243
57	251	5363	0	5614
58	1538	7498	0	9036
59	502	6478	0	6980
60	0	2793	0	2793
61	251	0	0	251
62	0	1011	0	1011
63	0	1011	0	1011
64	0	1507	0	1507
65	0	3822	0	3822
66	0	729	0	729
67	0	282	0	282
68	729	2267	0	2996
69	0	0	0	0
70	0	0	0	0

71	0	0	0	0	
72	0	0	0	0	
73	0	0	0	0	
74	0	0	0	0	
75	0	0	0	0	
76	0	0	0	0	
77	0	0	0	0	
78	0	0	0	0	
79	0	0	0	0	
80	0	251	0	251	
81	0	0	0	0	
82	0	0	0	0	
83	0	0	0	0	
84	0	0	0	0	
85	0	0	0	0	
86	0	0	0	0	
87	0	0	0	0	
88	0	0	0	0	
89	0	0	0	0	
90	0	0	0	0	
91	0	0	0	0	
92	0	0	0	0	
93	0	0	0	0	
94	0	0	0	0	
95	0	0	0	0	
96	0	0	0	0	
Total	117513	251968	0	369481	
Samples				6	
Ind Sampled				643	
Catch (tons)				287	

Table 18 (cont.). Greenland halibut Spanish catches length distribution for Div. 3LMNO (2025).

Length (cm)	Division 3LMNO			Total
	Males	Females	Indter.	
25	0	0	0	0
26	0	0	0	0
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0
30	736	0	0	736
31	1447	0	0	1447
32	2011	1104	0	3115
33	5599	2869	0	8468
34	9715	6623	0	16338
35	20322	8606	0	28928
36	21527	13412	0	34939
37	34749	30825	0	65574
38	43749	27270	0	71019
39	44924	39602	0	84525
40	59111	63710	0	122820
41	58362	71628	0	129990
42	78595	103723	0	182318
43	84685	103372	0	188058
44	77718	140993	0	218711
45	96273	149431	0	245705
46	105147	178793	0	283940
47	94439	154460	0	248899
48	92646	195586	0	288232
49	86399	194271	0	280670
50	70109	186169	0	256278
51	72640	181246	0	253885
52	49609	134679	0	184287
53	42535	136615	0	179150
54	45939	149533	0	195472
55	32127	108921	0	141048
56	32728	84863	0	117590
57	26876	90266	0	117142
58	38140	100309	0	138450
59	19168	57199	0	76367
60	25233	67374	0	92606
61	15064	45397	0	60461
62	16925	47189	0	64114
63	14215	45245	0	59460
64	14204	31169	0	45373
65	8135	32318	0	40453
66	13249	24082	0	37331
67	11320	19850	0	31171
68	10626	21870	0	32496
69	3555	11554	0	15109
70	5903	12392	0	18295

71	1748	9131	0	10879
72	2033	6878	0	8911
73	956	5618	0	6575
74	1666	3103	0	4769
75	1091	3552	0	4644
76	1001	5701	0	6702
77	1514	2628	0	4142
78	386	904	0	1289
79	0	1873	0	1873
80	350	1965	0	2315
81	350	1402	0	1752
82	888	670	0	1558
83	0	990	0	990
84	0	247	0	247
85	0	74	0	74
86	394	0	0	394
87	0	0	0	0
88	969	0	0	969
89	0	0	0	0
90	0	0	0	0
91	0	0	0	0
92	0	74	0	74
93	0	0	0	0
94	0	0	0	0
95	0	0	0	0
96	0	0	0	0
Total	1599798	3119328	0	4719125

Samples	113
Ind Sampled	14281
Catch (tons)	4866
SOP	0.95

Table 19. Greenland halibut Div. 3LMNO Spanish catches age distribution, mean weight (g) and mean length (AFL cm) at age.

Abundance					Mean Weight (g)				
Age	Males	Females	Ind.	Total	Age	Males	Females	Ind.	Total
1	0	0		0	1				
2	0	0		0	2				
3	0	0		0	3				
4	2854	1104		3958	4	236	260		243
5	257787	195486		453273	5	472	483		477
6	695784	1079974		1775758	6	750	760		756
7	342396	931457		1273853	7	1083	1086		1085
8	95786	346570		442357	8	1378	1349		1355
9	56567	139861		196428	9	1578	1632		1616
10	48818	207332		256150	10	1816	1853		1846
11	36483	107280		143763	11	2212	2241		2234
12	31917	48352		80269	12	2288	2241		2260
13	14847	23302		38149	13	2627	2844		2760
14	8201	21365		29566	14	3007	3097		3072
15	4589	8577		13167	15	3352	3727		3596
16	1214	5402		6616	16	3411	3751		3688
17	747	1701		2448	17	4401	4300		4331
18	838	913		1750	18	4931	4718		4820
19	969	651		1620	19	5701	4988		5415
20	0	0		0	20				
Mean Length (cm)									
Age	Males	Females	Ind.	Total					
1									
2									
3									
4	31.5	32.5		31.8					
5	39.2	39.5		39.3					
6	45.6	45.8		45.8					
7	51.4	51.5		51.5					
8	55.7	55.3		55.4					
9	58.3	58.9		58.7					
10	61.0	61.3		61.2					
11	65.0	65.2		65.2					
12	65.8	65.2		65.5					
13	68.8	70.5		69.8					
14	71.7	72.5		72.3					
15	74.4	77.0		76.1					
16	74.8	77.2		76.8					
17	81.3	80.7		80.9					
18	84.4	83.2		83.8					
19	88.5	84.6		87.0					
20									

Table 20. Skates Spanish 2025 catches length distribution by sex for Div. 3LNO.

Skates Length (cm)	3LNO			Total
	Males	Females	Ind.	
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	0	0	0	0
34	0	3825	0	3825
35	0	0	0	0
36	0	0	0	0
37	0	0	0	0
38	3825	0	0	3825
39	0	0	0	0
40	5455	2446	0	7901
41	7100	2962	0	10063
42	0	0	0	0
43	4075	9750	0	13825
44	4891	5408	0	10299
45	4891	2446	0	7337
46	8717	0	0	8717
47	0	3825	0	3825
48	0	5686	0	5686
49	2446	21014	0	23460
50	31334	37307	0	68640
51	16224	15367	0	31591
52	7854	12127	0	19981
53	33759	9165	0	42923
54	18947	7854	0	26800
55	21930	17821	0	39751
56	34371	15367	0	49738
57	17337	7854	0	25190
58	15858	7854	0	23711
59	21034	14641	0	35676
60	14593	35676	0	50269
61	44861	17594	0	62455
62	22745	27007	0	49752
63	61521	12127	0	73648
64	16747	8606	0	25353
65	14076	15922	0	29998
66	15252	16439	0	31691
67	14939	5366	0	20305
68	3260	23620	0	26881
69	11631	8606	0	20237
70	44814	6181	0	50995
71	18172	23462	0	41634
72	16375	12032	0	28406
73	6312	11328	0	17640
74	10048	7038	0	17086
75	5746	3281	0	9027

76	14682	10221	0	24904
77	10863	7253	0	18116
78	10470	3972	0	14442
79	12929	3992	0	16921
80	1609	794	0	2404
81	8025	4179	0	12204
82	13963	0	0	13963
83	12163	0	0	12163
84	1692	0	0	1692
85	1692	0	0	1692
86	3777	0	0	3777
87	6270	0	0	6270
88	0	0	0	0
89	3825	0	0	3825
90	1692	0	0	1692
91	0	0	0	0
92	0	0	0	0
93	0	0	0	0
94	0	0	0	0
95	0	0	0	0
96	0	0	0	0
97	0	0	0	0
98	0	0	0	0
99	0	0	0	0
100	0	0	0	0
Total	684790	467414	0	1152204

Samples	6
Ind. Sampled	536
Catch (ton)	2616
SOP	0,89

Table 21. Roughhead grenadier Spanish catches length distribution measured as preanal fin lengths (AFL) for Divisions 3LMNO (2025).

Roughhead G. Length (cm)	3LMNO			Total
	Males	Females	Ind.	
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	139	0	0	139
7	24	364	0	389
8	261	709	0	969
9	652	916	0	1568
10	992	1144	20	2157
11	1268	1159	41	2467
12	2190	1582	41	3813
13	2620	1731	204	4555
14	4027	2471	102	6600
15	5159	3148	183	8490
16	6809	3516	41	10365
17	7329	2901	102	10331
18	6186	3111	20	9318
19	4992	3922	41	8955
20	2360	3861	20	6241
21	917	3079	20	4016
22	397	2641	41	3078
23	131	2244	0	2375
24	18	1923	0	1941
25	19	1956	0	1975
26	43	1005	0	1048
27	58	915	0	973
28	66	627	0	692
29	18	244	0	262
30	9	276	0	285
31	14	138	0	151
32	0	137	0	137
33	18	132	0	151
34	0	55	0	55
35	0	6	0	6
36	0	0	0	0
37	0	38	0	38
38	0	0	0	0
39	0	0	0	0
40	0	0	0	0
41	0	0	0	0
42	0	0	0	0
Total	46717	45948	876	93540
Samples				55
Ind. Sampled				5409
Catch (tons)				52
SOP				1.06

Table 22. Roughhead grenadier Div. 3LMNO Spanish catches distribution, mean weight (g) and mean length (AFL cm) by age (2025).

Abundance					Mean Weight (g)				
Age	Males	Females	Ind.	Total	Age	Males	Females	Ind.	Total
1	0	0	0	0	1				
2	124	182	0	306	2	28	41		36
3	718	1257	3	1978	3	85	62	106	71
4	2403	1860	40	4304	4	125	112	137	120
5	6747	5535	296	12578	5	214	199	214	208
6	5446	3611	179	9236	6	293	303	286	297
7	5641	3837	103	9582	7	353	381	341	364
8	11389	5524	102	17015	8	454	467	440	458
9	8879	5145	66	14090	9	537	597	535	559
10	3270	4719	32	8021	10	633	680	681	661
11	1425	4288	38	5751	11	701	883	847	838
12	381	2750	13	3144	12	885	1039	872	1020
13	82	3007	4	3092	13	1203	1168	881	1169
14	77	2425	0	2502	14	1511	1385		1389
15	63	686	0	749	15	1674	1639		1642
16	31	457	0	488	16	1880	1966		1960
17	23	474	0	497	17	2110	2155		2153
18	13	141	0	154	18	2643	2935		2910
19	0	1	0	1	19		3205		3205
20	4	29	0	32	20	2725	2762		2757
21	0	19	0	19	21		3737		3737
22	0	0	0	0	22				
23	0	0	0	0	23				
24	0	0	0	0	24				
Mean Length (cm)									
Age	Males	Females	Ind.	Total					
1									
2	6.5	7.5		7.1					
3	9.6	8.6	10.5	9.0					
4	11.0	10.6	11.5	10.9					
5	13.4	13.1	13.4	13.3					
6	15.1	15.3	14.9	15.1					
7	16.1	16.5	15.9	16.3					
8	17.6	17.8	17.4	17.7					
9	18.7	19.4	18.7	19.0					
10	19.9	20.4	20.4	20.2					
11	20.5	22.4	22.0	21.9					
12	22.4	23.7	22.3	23.5					
13	24.9	24.7	22.4	24.7					
14	27.1	26.2		26.3					
15	28.1	27.8		27.9					
16	29.3	29.8		29.7					
17	30.5	30.7		30.7					
18	33.1	34.4		34.2					
19		35.5		35.5					
20	33.5	33.7		33.6					
21		37.5		37.5					
22									
23									
24									

Table 23. White hake 2025 Spanish catches length distribution by sex for Div. 3NO.

White hake Length (cm)	Males	3NO Females	Ind.	Total
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	151	0	0	151
27	452	0	0	452
28	1590	0	0	1590
29	3029	0	0	3029
30	5866	86	0	5952
31	5907	423	0	6331
32	4799	642	0	5441
33	10974	2147	0	13122
34	5409	2866	0	8275
35	4998	1445	0	6444
36	3815	4705	0	8520
37	3860	8892	0	12752
38	5188	11351	0	16538
39	5614	21093	0	26707
40	2375	16885	0	19260
41	844	19441	0	20284
42	4293	23983	0	28276
43	6862	22336	0	29198
44	1027	17518	0	18544
45	1630	13110	0	14740
46	1823	23329	0	25152
47	9887	21730	0	31617
48	15100	13294	0	28393
49	2601	3280	0	5880
50	4100	7299	0	11399
51	5669	1326	0	6995
52	4331	4972	0	9303
53	11144	4100	0	15245
54	1531	1648	0	3179
55	12352	1413	0	13765
56	2318	1448	0	3766
57	3901	7373	0	11274
58	3944	38	0	3982
59	2112	2329	0	4442
60	4678	38	0	4715
61	2063	5955	0	8018
62	2101	1326	0	3427
63	2101	847	0	2948
64	1413	3953	0	5366
65	113	1289	0	1401

66	38	1289	0	1326
67	38	1289	0	1326
68	38	136	0	174
69	725	0	0	725
70	0	2652	0	2652
71	0	38	0	38
72	0	0	0	0
73	0	0	0	0
74	0	0	0	0
75	0	0	0	0
76	0	0	0	0
77	0	0	0	0
78	0	1289	0	1289
79	688	0	0	688
80	0	0	0	0
81	0	0	0	0
82	0	0	0	0
83	0	0	0	0
84	0	0	0	0
85	0	0	0	0
86	0	0	0	0
87	0	0	0	0
88	0	0	0	0
89	0	0	0	0
90	0	0	0	0
Total	173492	280600	0	454092
Samples				8
Ind. Sampled				720
Catch (ton)				369
SOP				1.08

Table 24. Silver hake 2025 Spanish catches length distribution by sex for Div. 3NO.

Silver hake Length (cm)	3NO			Total
	Males	Females	Ind.	
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	12757	0	0	12757
25	29592	17969	0	47561
26	116285	31791	0	148076
27	406551	71420	0	477971
28	1101388	207493	0	1308881
29	1407705	846131	0	2253836
30	992448	2176210	0	3168658
31	818358	2292594	0	3110953
32	513401	1828341	0	2341742
33	220164	1937921	0	2158085
34	92563	1278163	0	1370725
35	117826	1270974	0	1388800
36	28634	673669	0	702303
37	16468	502126	0	518594
38	3336	227217	0	230553
39	684	159824	0	160508
40	0	91220	0	91220
41	0	29421	0	29421
42	984	44737	0	45720
43	0	22510	0	22510
44	0	22288	0	22288
45	0	3720	0	3720
46	0	1368	0	1368
47	0	10780	0	10780
48	0	9797	0	9797
49	0	0	0	0
50	0	6767	0	6767
51	0	0	0	0
52	0	16906	0	16906
53	0	15504	0	15504
54	0	10780	0	10780
55	0	0	0	0
56	0	0	0	0
57	0	684	0	684
58	0	9797	0	9797
59	0	984	0	984
60	0	0	0	0
61	0	1668	0	1668
62	0	1668	0	1668
63	0	0	0	0
64	0	0	0	0
65	0	684	0	684

66	0	0	0	0
67	0	0	0	0
68	0	0	0	0
Total	5879144	13823125	0	19702269

Samples	25
Ind. Sampled	3946
Catch (ton)	4168
SOP	1.01

Table 25. Greenland halibut Spanish 2025 Commercial Males Age Length key (ALK).

CLAVE	Ages																				TOTAL
LENGTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+	
30				1																	1
31				1																	1
32				1	2																3
33					4																4
34					1																1
35					4																4
36					8	1															9
37					8																8
38					7	1															8
39					8	2															10
40					4	7															11
41					7	11															18
42					3	12															15
43					5	12	2														19
44					2	20	1														23
45						23															23
46					1	24	3														28
47						17	9														26
48						21	4														25
49						18	11														29
50						7	14	1													22
51						6	15	1													22
52							23	2													25
53							14	10													24
54							12	5	1												18
55							11	8	1												20
56							3	1	4												8
57							1	6	1	1											9
58							3	3	4	1											11
59								2	1	1											4
60									2	3											5
61									2	2	3										7
62										1											1
63											1										1
64												1									1
65												1									1
66										1	4	2	3	1							11
67											4	3	1								8
68											3	1	4								8
69											2	1	4								7
70												1	1	5	1						8
71												1	1	3							5
72													1		2	1					4
73														1	2	1					4
74											1		1		3						5
75													4	2	2						8
76														3		1					4
77														3	2						5
78															1	1	1				3
79														2		1					3
80															1		1				2
81														1	2	1					4
82																	2	2			4
83																		1	1		2
84																					0
85																1					1
86																		1			1
87																					0
88																			1		1
TOTAL	0	0	0	3	64	182	126	39	16	10	18	11	20	21	16	7	4	4	2	0	543

Table 25 (Cont.). Greenland halibut Spanish 2025 Commercial Females Age Length key (ALK).

CLAVE	Ages																				TOTAL
LENGTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+	
30																					0
31																					0
32				3																	3
33					1																1
34					5																5
35					2																2
36					2																2
37					3																3
38					9	1															10
39					8	4															12
40					6	7															13
41					4	11															15
42					2	21															23
43					2	13															15
44					1	23	1														25
45						20	2														22
46					1	29	4														34
47						29	12														41
48						21	19														40
49						17	18														35
50						10	25	3													38
51						2	31	5													38
52							26	5		1											32
53						2	25	12	1												40
54							16	10													26
55						1	11	16	3	3											34
56							11	8	2	3											24
57							4	14	5	2											25
58							2	13	10	2											27
59								3	7	6		1									17
60									5	9	2										16
61									4	7	3										14
62									2	12	3	3									20
63									1	11	5	3									20
64										8	7	3		1							19
65										3	7	4									14
66										3	7	2									12
67											8	1	3								12
68										3	1	3	1								8
69											2		1								3
70											1	1	1	1							4
71											1		1	2							4
72													1	1							2
73														1	1						2
74													1	1	1						3
75														1							1
76													1			2					3
77														1	1	1					3
78															1	1	1				3
79															1						1
80															1		1				2
81														1	2	1					4
82																	2	2			4
83																		1	1		2
84																	1	1	1		3
85																1					1
86																		1			1
87																					0
88																					0
89																	1				1
90																			1		1
91																					0
92																			1		1
93																					0
94																					0
95																					0
TOTAL	0	0	0	3	46	211	207	89	40	73	47	21	10	10	8	6	6	5	4	0	786

Table 26. Roughhead grenadier Spanish 2025 Commercial males Age Length key (ALK).

[illegible]

Table 26 (Cont.) Roughhead grenadier Spanish 2025 Commercial females Age Length key (ALK).

Females	Ages																								
Length cm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
3																									
4																									
5																									0
6																									0
7		4	4																						8
8			8																						8
9			2	3																					5
10				4	1																				5
11					1																				1
12				1	3																				4
13					6	1																			7
14					6	5	1																		12
15					1	7	4	1																	13
16						2	4	5																	11
17							6	6	2																14
18							1	11	7	3															22
19								4	14	7															25
20								1	6	8															15
21										9	16	3	1												29
22										2	17	7	3												29
23											10	5	8	1											24
24											1	9	4	4											18
25												3	11	5	1										20
26												1	1	9	3										14
27													1	2											3
28														1	3	2	2								8
29														1		2									3
30															2	1	1								4
31																	2								2
32																1	1								2
33																	1	3		1					5
34																	1	3							4
35																	1	1	1	2					5
36																		1		1					2
37																		1			1				2
38																				1					1
39																									0
40																									0
Total		4	14	8	18	15	16	28	29	29	44	28	29	23	9	6	9	9	1	5	1	0	0	0	325

Table 26 (Cont.) Roughhead grenadier Spanish 2025 Commercial undetermined Age Length key (ALK).

[illegible]

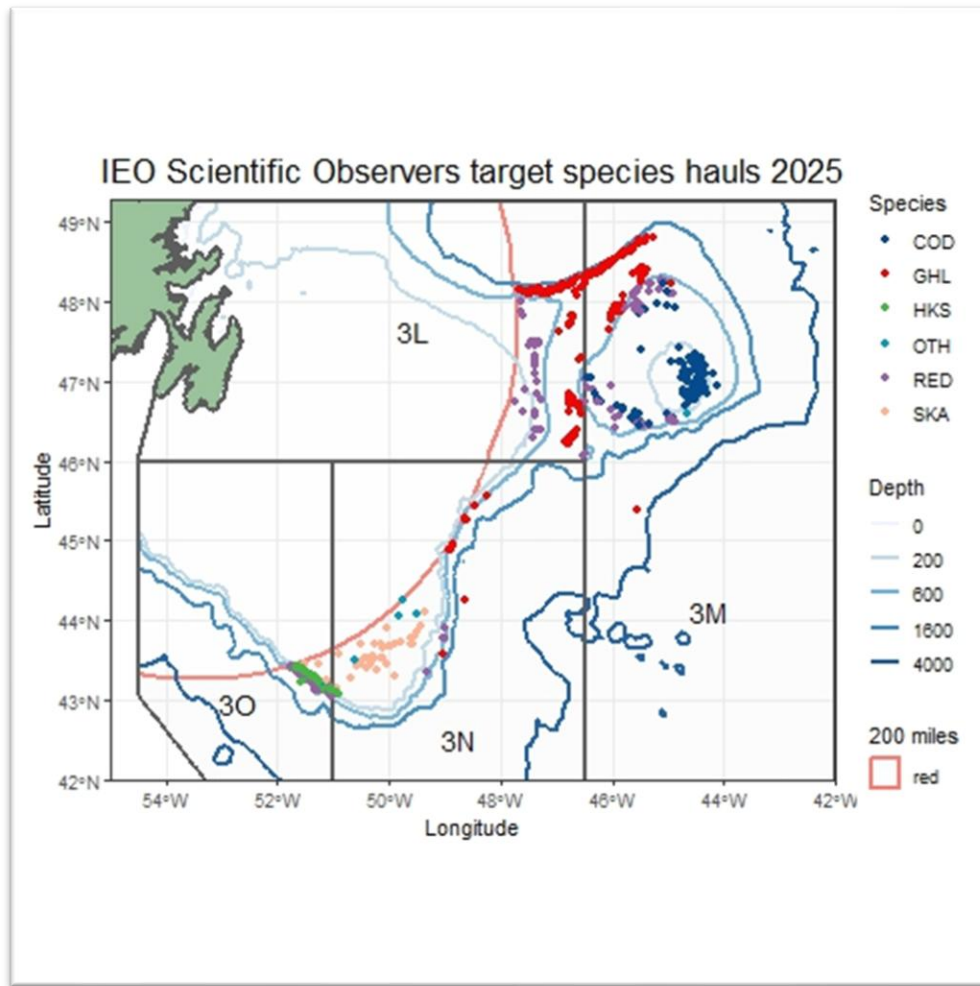


Figure 1. IEO Scientific Observers sampled commercial hauls position depending on the target species.

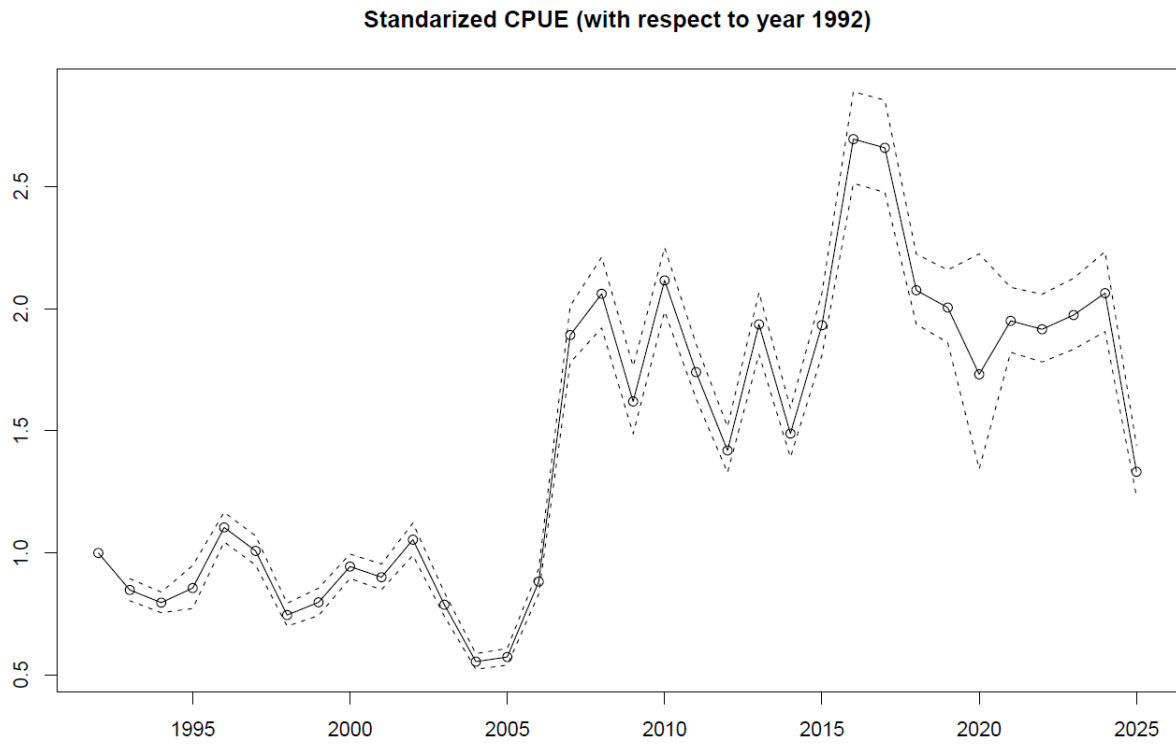


Figure 2. Spanish fleet standardized CPUE with model presented by Gonzalez-Costas and Gonzalez-Troncoso (2009) update with the 2025 data.