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LIMITE

PECHE

WORKING PAPER

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WORKING DOCUMENT

From:	General Secretariat of the Council
To:	Delegations
Subject:	Proposal for a Council Regulation fixing for 2019 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non Union waters - Calculation Tables for 2019 Discard Plan Exemptions and Deductions

Delegations will find attached a working document on the above-mentioned subject, as received from the European Commission services.

Proposal for Atlantic and North Sea Fishing Opportunities 2019 :

Calculation Tables for 2019 Discard Plan Exemptions and Deductions

07 November 2018

Generalised Exemption Wording and Structure

n% of Σ annual catches in area *x* of species *y* of size *z* of Vessels (Generic type *a*) of segment *b* of mesh size *c* with device *d*

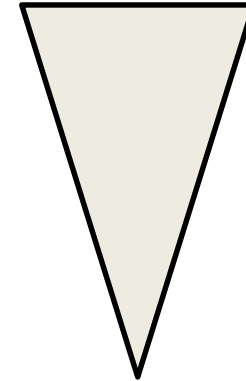
Variable Legend

n	% de minimis amount
Σ	only relevant in combined deminimis (sum annual catches of several species)
x	Area or ICES division
y	Species (or group of species)
z	< or > MCRS? Or all sizes
a	"Trawlers" or "Beam Trawlers" or "Gill netters" etc...
b	TR1 or BT2 etc...
c	80-100mm or >110mm etc...
d	using Grid or other special sorting device

Data Source (if available) for deduction

JR / Delegated act
ICES or STECF
ICES advice
ICES advice
ICES advice
ICES advice
FDI/STECF (if useable)
FDI/STECF (if useable)
? SEPCON Used?

Size of deduction



TAC	ICES MSY Total Catch	COM Proposal pre-deduction	Deduction %	New Proposed TAC
Plaice PLE/07A.	3503	3503	-12.23%	3075
Plaice PLE/7DE.	12508	12508	-19.12%	10116
Plaice PLE/7FG.	2160	2160	-25.57%	1608
COD/03AS	494	494	-3.61%	476
Sole SOL/24-C.	12801	12801	-4.33%	12247
Sole 7D	2571	2571	-2.46%	2508
Sole 7E	1272	1272	-2.32%	1242
Sole 7FG	864	864	-2.70%	841
Sole Bay of Biscay 8AB	3967	3967	-3.64%	3823
Haddock HAD/7X7A34	6317	6317	-6.02%	5937
Northern Hake HKE/8ABDE	53198	53198	-2.03%	52118
Southern Hake HKE/8C3411	8281	8281	-3.84%	7963
Mergrims LEZ/8ABDE	1793	1793	-4.99%	1704
Mergrims LEZ/8C3411	1970	1970	-4.95%	1872
Anglerfish ANF/8ABDE	8787	8787	-4.73%	8371
Anglerfish ANF/8C3411	4215	4215	-4.55%	4023
Ling LIN/04-C.	3843	3843	-2.72%	3738
Horse Mackerel JAX/4BC7D	17517	17517	-13.35%	15178
Horse Mackerel JAX08c	19850	19850	-5.00%	18858
Horse Mackerel JAX2A-14	125387	125387	-5.00%	119118

ICES data	Plaice PLE/07A.	
ICES Total catch TAC*	3503	
ICES Wanted TAC	2131	Not like nephrops, not higher
ICES Unwanted	1372	SD+DD Together 40:60

*2018 TAC of 1793t

Step 1	Deduct dead discards from ICES total catch figure			Comments
		ICES Total catch advice 2019	3503	
		<i>discard rate</i>	39%	Discard rate ICES Beam trawl ICES max dead discards 60% in ICES assumptions in forecast
		<i>Contribution</i>	52.0%	
		<i>dead discards</i>	60%	
		Contr. to total dead discards	12.23%	
		dead discard deduction	428.4	
		Total deduction	428	
		New catch TAC	3075	
		TAC deduction % relative to ICES catch TAC	-12.23%	

From ICES Discard values available from 2004. Estimates of modelled discards for 1981–2003 (WKIRISH3; ICES, 2017). Only the dead fraction of discards (estimated to be 0.6) is accounted for in the model. In the forecast discard values are raised to include the live portion.

	landings	discards	
	41%	59%	
2017	586	852	
	57%	43%	
	816	608	1424
	69%	31%	
dead discards	816	364.8	

ICES data	Plaice PLE/7DE.
ICES Total catch TAC*	12508
ICES Wanted TAC	7987
ICES Unwanted	4521

36.1%

*2018 TAC of 10360t

Step 1	Deduct dead discards from ICES total catch figure	ICES Total catch advice 2019	12508	Comments
		<i>discard rate</i>	36%	Discard rate ICES*
		<i>Contribution</i>	55.3%	Beam trawl contrib to discards 7D+7E
		<i>dead discards</i>	96%	max dead discards 96% STECF**
		Contr. to total dead discards	19.12%	
		dead discard deduction	2390.9	
		Total deduction	2391	
		New catch TAC	10117	
		TAC deduction % relative to ICES catch TAC	-19.12%	

*STECF was 49%

ICES

	total	wanted	unwanted	
7d	9225.00	5722.00	3503.00	77%
7e	3283.00	2265.00	1018.00	23%
	12508.00	7987.00	4521.00	
7d assumptions ave 2015-2017	7114.00	4521.00	2593.00	36% discards
beam = 56% of landings				% of discards unknown - assume same as landings
7e				beam = 71% of landings and 53% of discards
56*0.77	43.12			
53*0.23	12.19			
	55.31			
36*0.77	27.72			
53*0.23	12.19			
	39.91			

** ILVO report shows 20% survival for tows of 81-121 mins
 Improves to 40% for tows <81 mins
 unable to break down contribution of KW threshold
 in exemption therefor precautionary STECF 18-06
 of 96% mortality as tows of >221 KW not limited in
 time

ICES data	Plaice PLE/7FG.
ICES Total catch TAC*	2160
ICES Wanted TAC	613
ICES Unwanted	1547

*2018 TAC of 511t

71.6%

Step 1	Deduct dead discards from ICES total catch figure			Comments
	ICES Total catch advice 2019	2160		
	<i>discard rate</i>	72%		Discard rate ICES advice
	<i>Contribution</i>	37.2%		Beam trawl ICES
	<i>dead discards</i>	96%		max dead discards 96% STECF*
	<i>Contr. to dead discards</i>	25.57%		**
	<i>Contribution</i>	<1%		Trammel nets***
	<i>dead discards</i>	Not significant		
	Contr. to total dead discards	25.57%		
	dead discard deduction	552.3		
	Total deduction	552		
	New catch TAC	1608		
	TAC deduction % relative to ICES catch TAC	-25.57%		

** ILVO report shows 20% survival for tows of 81-121 mins
 Improves to 40% for tows <81 mins
 unable to break down contribution of KW threshold
 in exemption therefor precautionary STECF 18-06 of
 96% mortality as tows of >221 KW not limited in
 time

	wanted	unwanted		landings	discards
	30%	70%		2013	414 1274
2017 catches	389	895			411 1158
2017 advice	511	1289			381 1159
	28%	72%		2016	431 1002
			average	2017	409.25 1148.25
2017 advice	613.2	1546.8	2160		26% 74%

* Catchpole 2015 CEFAS paper was
 Beam trawl 7e (inside 12nm)

***not in ICES advice so used FDI 2017 but GT1 <1%

ICES data	COD/03AS
ICES Total catch TAC	494
ICES Wanted TAC	
ICES Unwanted	

Step 1	Deduct <i>de minimis</i> from ICES total catch figure			Comments
		ICES Total catch advice 2019	494	
		<i>de minimis</i> A	4%	Nephrops trawls* (OTB TBN)
		<i>Contribution</i>	84%	16.6 t
		<i>de minimis</i> B	5%	Northern Prawn trawls** (OTB)
		<i>Contribution</i>	5%	1.2 t
		Contr. to total catches	3.6%	
		<i>de minimis</i> deduction	17.8	
		Total deduction	17.8	
		New catch TAC	476	
		TAC deduction % relative to ICES catch TAC	-3.61%	

* ≥70mm with grid max 35mm not available in ICES advice or 2017 FDI. JR contains data for only one MS

** ≥35 mm mesh wth grid bar spacing max 19mm not available in ICES advice or 2017 FDI. JR contains data for only one MS

STECF 18-03 accepted data and tonnages

Union Waters of 2a and 4

ICES data	Sole SOL/24-C.
ICES Total catch TAC	12801
ICES Wanted TAC	
ICES Unwanted	

Step 1	Deduct <i>de minimis</i> from ICES total catch figure	ICES Total catch advice 2019	12801	Comments
		<i>de minimis A Contribution</i>	6% 68.7%	de minimis amount
		<i>de minimis B Contribution</i>	3% 7.1%	de minimis amount
		Contr. to total catches	4.33%	
		de minimis deduction	554.4	
		Total deduction	554	
		New catch TAC	12247	
		TAC deduction % relative to ICES catch TAC	-4.33%	

* < MCRS and Flemish panel for all relevant MS not available in 2017 FDI or ICES or JR

2017 Fdi? Yes as ICES does not provide discards by gear, which are significant
 No Area 2 or 2a data in FDI
 IIA 3B2 = Division 4 codes: BT2
 BT 2 Beam Trawls, 68.66% of 2013-16 average catches

Gill nets and Trammels 7.05% of 2013-16 average catches codes GN1, GT1

ICES data	Sole 7D
ICES Total catch TAC	2571
ICES Wanted TAC	2266
ICES Unwanted	305

Step 1	Deduct <i>de minimis</i> from ICES total catch figure	ICES Total catch advice 2019	2571	Comments
		<i>de minimis A Contribution</i>	3%	de minimis amount
			43%	trammel and gillnet contribution ICES 43%
		<i>de minimis B Contribution</i>	3%	de minimis amount
			39%	Beam Trawls contribution ICES 39%
		Contr. to total catches	2.46%	
		<i>de minimis</i> deduction	63.2	
		Total deduction	63	
		New catch TAC	2508	
		TAC deduction % relative to ICES catch TAC	-2.46%	

2017 FDI?

not available at 7d level of aggregation

ICES data	Sole 7E
ICES Total catch TAC	1272
ICES Wanted TAC	1237
ICES Unwanted	35

Step 1	Deduct <i>de minimis</i> from ICES total catch figure			Comments
		ICES Total catch advice 2019	1272	
		<i>de minimis A Contribution</i>	3%	de minimis amount
			11%	gillnet contribution ICES 11.2%
		<i>de minimis B Contribution</i>	3%	de minimis amount
			66%	Beam Trawls contribution ICES 66%
		Contr. to total catches <i>de minimis</i> deduction	2.32% 29.5	
		Total deduction	29	
		New catch TAC	1243	
		TAC deduction % relative to ICES catch TAC	-2.32%	

2017 FDI?

not available at 7e level of aggregation

ICES data	Sole 7FG
ICES Total catch TAC	864
ICES Wanted TAC	820
ICES Unwanted	44

Step 1	Deduct <i>de minimis</i> from ICES total catch figure			Comments
		ICES Total catch advice 2019	864	
		<i>de minimis</i> A Contribution	3% 5%	de minimis amount trammel and gillnet contribution ICES "others" 5%
		<i>de minimis</i> B Contribution	3% 85%	de minimis amount Beam Trawls contribution ICES 85%
		Contr. to total catches <i>de minimis</i> deduction	2.70% 23.3	
		Total deduction	23	
		New catch TAC	841	
		TAC deduction % relative to ICES catch TAC	-2.70%	

ICES data	Sole Bay of Biscay 8AB
ICES Total catch TAC	3967
ICES Wanted TAC	3872
ICES Unwanted	95

Step 1	Deduct <i>de minimis</i> from ICES total catch figure			Comments
		ICES Total catch advice 2019	3967	
		<i>de minimis</i> A Contribution	3% 68%	de minimis amount trammel and gillnet contribution ICES 68%
		<i>de minimis</i> B Contribution	5% 32%	de minimis amount Beam Trawls and Bottom Trawls contribution ICES 32%
		Contr. to total catches <i>de minimis</i> deduction	3.64% 144.4	
		Total deduction	144	
		New catch TAC	3823	
		TAC deduction % relative to ICES catch TAC	-3.64%	

ICES data	Haddock HAD/7X7A34
ICES Total catch TAC	6317
ICES Wanted TAC	3761
ICES Unwanted	2556

Step 1	Deduct <i>de minimis</i> from ICES total catch figure			Comments
		ICES Total catch advice 2019	6317	
		<i>de minimis</i> A Contribution	7% 80%	<i>de minimis</i> amount Bottom Trawls (ICES 80% catches)
		<i>de minimis</i> B Contribution	7% 6%	<i>de minimis</i> amount Beam Trawls (ICES 6% catches)
		Contr. to total catches <i>de minimis</i> deduction	6.02% 380.3	
		Total deduction	380	
		New catch TAC	5937	
		TAC deduction % relative to ICES catch TAC	-6.02%	

ICES 2017 catches = 16072 t				
	landings	Discards	total	as % of catches
Otter	6477.6	6459.75	12937.35	80%
Beam	404.85	638	1042.85	6%

2017 Fdi?
 CEL 1 all areas
 similar % contrib to catches as ICES

NB. 80mm problem for aggregation = all TR2 +TR1
 checked TR 3 = not significant

ICES data	Northern Hake HKE/8ABDE
ICES Total catch TAC	53198
ICES Wanted TAC	
ICES Unwanted	

Step 1	Deduct <i>de minimis</i> from ICES total catch figure			Comments
		ICES Total catch advice 2019	53198	
		<i>de minimis</i> A	6%	<i>de minimis</i> amount
		Contribution	34%	Trawls and Seines
		Contr. to total catches <i>de minimis</i> deduction	2.03% 1080.1	
		Total deduction	1080	
		New catch TAC	52118	
		TAC deduction % relative to ICES catch TAC	-2.03%	

2017 Fdi? Yes as ICES does not provide gear by area 8 (Just N Stock as whole)

DS = area 8 EU

Trawls, beams seines 33.84 % of 2013-16 average catches

codes: BEAM, BOTTOM TRAWLS
(no Seines recorded)

ICES data	Southern Hake HKE/8C3411
ICES Total catch TAC	8281
ICES Wanted TAC	7220
ICES Unwanted	1061

Step 1	Deduct <i>de minimis</i> from ICES total catch figure	ICES Total catch advice 2019	8281	Comments
		<i>de minimis</i> A Contribution	6%	<i>de minimis</i> amount
			64%	Trawls and seines FDI Average = 64% catches
		Contr. to total catches <i>de minimis</i> deduction	3.84%	
			318.0	
		Total deduction	318	
		New catch TAC	7963	
		TAC deduction % relative to ICES catch TAC	-3.84%	

2017 Fdi? Yes as ICES does not provide Seines

IIB = 8c-9a

Trawls, beams seines 64% of 2013-16 average catches

Codes: 3A, BEAM, DEM_SEINE, OTTER

ICES data	Mergrims LEZ/8ABDE
ICES Total catch TAC	1793
ICES Wanted TAC	
ICES Unwanted	

Step 1	Deduct <i>de minimis</i> from ICES total catch figure	ICES Total catch advice 2019	1793	Comments
		<i>de minimis A Contribution</i>	5% 99%	de minimis amount beam trawl, bottom trawls and seines
		<i>de minimis B Contribution</i>	4% 1%	de minimis amount gillnets and trammels
		Contr. to total catches <i>de minimis</i> deduction	4.99% 89.5	
		Total deduction	89	
		New catch TAC	1704	
		TAC deduction % relative to ICES catch TAC	-4.99%	

2017 Fdi? Yes as ICES 7 and 8 combined

DS = area 8 EU

Trawls, beams seines 99 % of 2013-16 average catches

codes: BEAM, BOTTOM TRAWLS
(no Seines recorded)

8c 9 10 and cecaf 34.1.1

ICES data	Mergrims LEZ/8C3411
ICES Total catch TAC	1970
ICES Wanted TAC	
ICES Unwanted	

Step 1	Deduct <i>de minimis</i> from ICES total catch figure	ICES Total catch advice 2019	1970	Comments
		<i>de minimis A Contribution</i>	5% 97.0%	<i>de minimis</i> amount beam trawl, bottom trawls and seines FDI = 97%
		<i>de minimis B Contribution</i>	4% 2.5%	<i>de minimis</i> amount gillnets and trammels FDI = 2.5%
		Contr. to total catches <i>de minimis</i> deduction	4.95% 97.5	
		Total deduction	98	
		New catch TAC	1872	
		TAC deduction % relative to ICES catch TAC	-4.95%	

2017 Fdi? Yes as ICES does not provide gear by area

IIB = 8c-9A

Trawls, beams seines 96.4 % of 2013-16 average catches

Ave total catch (all gears)= 1090 t

DS = area 9 EU

Trawls, beams seines 99 % of 2013-16 average catches

Ave total catch (all gears) = 413 t

Relative ratios of IIB vs DS catches

96.4*0.73

70.372

99*0.27

26.73

sum

97.102

Codes: 3A, BEAM, DEM_SEINE, OTTER

codes: BEAM, BOTTOM TRAWLS
(no Seines recorded)

IIB = 8c-9A

Gillnets and trammels 3.48 % of 2013-16 average catches

Relative ratios of IIB vs DS catches

3.48*0.73

2.5404

area 9 EU <1%

n/a

Codes GILL, 3B, 3T

ICES data	Anglerfish ANF/8ABDE
ICES Total catch TAC	8787
ICES Wanted TAC	
ICES Unwanted	

Step 1	Deduct <i>de minimis</i> from ICES total catch figure	ICES Total catch advice 2019	8787	Comments
		<i>de minimis A Contribution</i>	5% 74%	de minimis amount beam trawl, bottom trawls and seines FDI
		<i>de minimis B Contribution</i>	4% 25%	de minimis amount gillnets and trammels Fdi
		Contr. to total catches	4.73%	
		<i>de minimis deduction</i>	415.7	
		Total deduction	416	
		New catch TAC	8371	
		TAC deduction % relative to ICES catch TAC	-4.73%	

2017 Fdi? Yes as ICES 7 and 8 combined

DS = area 8 EU

Trawls, beams seines 74.37% of 2013-16 average catches

codes: BEAM, BOTTOM TRAWLS
(no Seines recorded)

Gillnets and Trammels 25.32% of 2013-16 average catches

Codes GILL, TRAMMEL

8c 9 10 and cecaf 34.1.1

ICES data	Anglerfish ANF/8C3411
ICES Total catch TAC	4215
ICES Wanted TAC	
ICES Unwanted	

Step 1	Deduct <i>de minimis</i> from ICES total catch figure	ICES Total catch advice 2019	4215	Comments
		<i>de minimis A Contribution</i>	5% 48.7%	<i>de minimis</i> amount beam trawl, bottom trawls and seines
		<i>de minimis B Contribution</i>	4% 53.0%	<i>de minimis</i> amount gillnets and trammels FDI
		Contr. to total catches <i>de minimis</i> deduction	4.55% 191.9	
		Total deduction	192	
		New catch TAC	4023	
		TAC deduction % relative to ICES catch TAC	-4.55%	

2017 Fdi? Yes as ICES does not provide gear by area

IIB = 8c-9A

Trawls, beams seines 46.54% of 2013-16 average catches

Ave total catch (all gears) = 2066t

DS = area 9 EU

Trawls, beams seines 54.89 % of 2013-16 average catches

Ave total catch (all gears) =720 t

Relative ratios of IIB vs DS catches

46.54*0.74

34.4396

54.89*0.26

14.2714

sum

48.711

Codes: 3A, BEAM, OTTER
(no seines)

codes: BEAM, BOTTOM TRAWLS
(no Seines recorded)

IIB = 8c-9A

Gillnets and trammels 52.27% of 2013-16 average catches

Codes GILL, 3B, 3T

DS = area 9 EU

Gillnets and trammels 43.47% of 2013-16 average catches

Codes GILL, TRAMMEL

Relative ratios of IIB vs DS catches

52.27*0.74

38.6798

54.89*0.26

14.2714

sum

52.9512

Union Waters of 4

ICES data	Ling LIN/04-C.
ICES Total catch TAC	3843
ICES Wanted TAC	
ICES Unwanted	

Step 1	Deduct <i>de minimis</i> from ICES total catch figure	ICES Total catch advice 2019	3843	Comments
		<i>de minimis A Contribution</i>	3% 90.8%	de minimis amount trawls OTB OTT PTB = FDI
		Contr. to total catches <i>de minimis</i> deduction	2.72% 104.6	
		Total deduction	105	
		New catch TAC	3738	
		TAC deduction % relative to ICES catch TAC	-2.72%	

2017 Fdi? Yes as ICES does not provide gear by area

IIA 3B2 = Division 4

Trawls, 90.75% of 2013-16 average catches

codes:TR 1

Union Waters 4b, 4c and 7d

ICES data	Horse Mackerel JAX/4BC7D
ICES Total catch	17517
ICES Wanted TAC	15179
ICES Unwanted	2338

13.35%

Step 1	Deduct de minimis from ICES total catch figure	ICES Total catch advice 2019	17517	Comments
	NWW (7d)	de minimis A Contribution	7% 37%	de minimis amount bottom trawls and seines and beam trawls FDI*
	NS (4)	de minimis B Contribution	1% 0%	de minimis amount TR 2 bottom trawls (OTB, OTT, PTB, TBB) FDI**
	Pelagic (7d+4bc)	de minimis C Contribution	err! err!	de minimis amount <25m Pelagic Trawlers (OTM/PTM) FDI***
		Contr. to total catches	13.35%	
		de minimis deduction	2338	
		Total deduction	2338	
		New catch TAC	15179	
		TAC deduction % relative to ICES catch TAC	-13.35%	

2.58
451.2

2017 Fdi? Yes as ICES does not provide gear mesh

* IIA 3B3 = Division 7d

Trawls, beams seines 41.34% of 2013-16 average catches

Codes: BT2, DEM_SEINE, OTTER, TR1, TR2, TR3

ICES % of 4b-c vs 7d average 2013-16 11:89

41.34*0.89 = 36.7926

** IIA 3B2 = Division 4

Codes: TR2

TR2 bottom Trawls % of 2013-16 average catches

<1% not sig. not include in calcs

	4b-c	7d	4a
2013	1453	17175	17
2014	2604	10772	2
2015	782	8568	644
2016	1071	11110	1629
average	1477.5	11906.25	573

*** 7d 1% of mackerel. Horsemackerel, herring and whiting in pelagic vessels of <25m, using OTM and PTM

4b and c 1% of mackerel, horse mackerel herring and whiting OTM/PTM <25m LOA

This level of aggregation not available in FDI

Generates >5000 t deduction! Therefore deduction capped at ICES discard rate

ICES data	Horse Mackerel JAX08c
ICES Total catch TAC 8c only	19850
ICES Wanted TAC	18857
ICES Unwanted	992

5% discards for 2017 in advice

Step 1	Deduct de minimis from ICES total catch figure			Comments
		ICES Total catch advice 2019	19850	
		<i>de minimis A</i>	7%	<i>de minimis</i> amount
		<i>Contribution</i>	49%	beam trawl, bottom trawls and seines FDI 2013-16 Average
		<i>de minimis B</i>	3%	<i>de minimis</i> amount
		<i>Contribution</i>	3%	Gill nets FDI 2013-16 Average
		<i>de minimis C</i>	Err!	<i>de minimis</i> amount
		<i>Contribution</i>	Err!	Pelagic discard plans
		Contr. to total catches	5.00%	
		<i>de minimis deduction</i>	992.0	
		Total deduction	992	
		New catch TAC	18858	
		TAC deduction % relative to ICES catch TAC	-5.00%	

-3.51%

2017 Fdi? Yes as ICES not separating trawl and gillnet

IIB = 8c-9a

Gill nets 2.65% of 2013-16 average catches

Trawls, beams seines 49 % of 2013-16 average catches

Codes GILL, 3B, 3T

Codes: 3A, BEAM, DEM_SEINE, OTTER

4% anchovy, mackerel, horse mackerel catches in area 8 using OTM

IIB=8c-9a

Data is incomplete

5%
79033 3928

4% of horse mackerel, jack mackerel and mackerel in 8, 9 and 10 CECAF 34.1.1, 34.1.2, 34.2.0 Purse Seines (PS)

IIB=8c-9a

2013-2016 average for PEL_SEINE = 1016 t

however this is incomplete on discards

Union waters of 2a, 4a; 6, 7a-c, 7e-k, 8a, 8b, 8d and 8e; Union and international waters of 5b; international waters of 12 and 14

ICES data	Horse Mackerel JAX2A-14
ICES Total catch	125387
ICES Wanted TAC	119118
ICES Unwanted	6269 5% in ICES advice

Step 1 SWW	Deduct de minimis from ICES total catch figure	ICES Total catch advice 2019	125387	Comments
		<i>de minimis A Contribution</i>	7% 3%	<i>de minimis amount</i> beam trawl, bottom trawls and seines FDI 2013-16 8a8b = 33.6*0.0817= 2.75
		<i>de minimis B Contribution</i>	3% 0%	<i>de minimis amount</i> Gill nets FDI 2013-16 Average 8a8b = 3.16*0.0817
		Contr. to total catches <i>de minimis deduction</i>	0.20% 250.8	
Step 2 NWW	Deduct de minimis from ICES total catch figure	ICES Total catch advice 2019	0	Comments
		<i>de minimis A Contribution</i>	7% 8%	<i>de minimis amount</i> beam trawl, bottom trawls and seines FDI 2013-16
		Contr. to total catches <i>de minimis deduction</i>	0.53% 0.0	
Step 3 NS	Deduct de minimis from ICES total catch figure	ICES Total catch advice 2019	0	Comments
		<i>de minimis A Contribution</i>	7% 0%	<i>de minimis amount</i> TR2 Trawls only
		Contr. to total catches <i>de minimis deduction</i>	0.00% 0.0	
		Total deduction	6269	
		New catch TAC	119118	
		TAC deduction % relative to ICES catch TAC	-5.00%	

FDI catches: 2016
8068 2017 Fdi? Yes as ICES not separating trawl and gillnet

ICES 2016 all west stock 98811 BOB 8A and 8B only available
Gill nets 3.16% of 201: CODE GILL, TRAMMEL

8a8b = 8.17% Trawls, beams seines : Code BEAM, DEM_SEINE, OTTER

Area 7a-c and 7e-k excl 7d
FDI CEL 1 22.74% of catches

corrected for share of TAC 7.5042

4a only <1% not significant , not included

ICES 4a vs 4b-c
0.28

	2013	83684	165258
Before Pelagic 251 t		56081	136360
		41063	98419
	2016	35692	98811
		54130	124712

4% anchovy, mackerel, horse mackerel catches in area 8 using OTM

BOB = 8A and 8B PEL_Trawl

4% of Ave 2013-16 catches = 615 t

For DS 8EU

4% of ave catches 13-16 for Pelagic Trawls =6773 t Cant differentiate out OTM vessels

4% of horse mackerel, jack mackerel and mackerel in 8, 9 and 10 CECAF 34.1.1, 34.1.2, 34.2.0 Purse Seines (PS)

BOB= 8A and 8B

PEL_SEINE

4% of Ave 2013-16 catches = 186 t

For DS 8EU Seine unavailable