INTERNATIONAL COMMISSION FOR



- i -

THE NORTHWEST ATLANTIC FISHERIES

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ANNUAL MEETING - JUNE 1966

Notes for the Completion of Form STANA 1W

(also FAO Fisheries Circular No. 63)

FAC Fisheries Circular No. 63 (Distribution restricted)

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FEs/C 63 Statistical standards

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NOTES FOR THE COMPLETION OF FORM'STANA 1W

Prepared by

The Secretary, Continuing Working Party on Fishery Statistics in the North Atlantic Area Fishery Economics and Products Division FAO Lepartment of Fisheries



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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS Rome, 1 January 1966

WI/29124/1/E

FAO Fisheries Circular (FAO Fish. Circ.)

These documents, given very restricted distribution, are mostly short notes, instructions for the completion of statistical forms and questionnaires, lists on various topics or provisional versions of documents which may eventually be issued in final form in other series.

Some circulars, presenting statistical tables with provisional data, are prepared as papers for conferences, committees, commissions, working parties; these tables may eventually be issued after revision in the "Yearbook" or "Bullstin of Fishery Statistics".

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERINE

NOTES FOR THE COMPLETION OF FORM STANA 1W

Deadline for submitting completed yellow top copy of form STANA 1W to ICNAF, and the blue middle copy to FAO with calendar year data for 196

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1. GENERAL NOTES

- 3 -

1.1 USE OF FORM STANA 1W

- 1.11 Form STANA 1W is used by national offices to report annually to ICNAF and FAO, for each of the Divisions 1/ comprising the ICNAF Statistical Area 1/ the following data according to <u>classes of fishing units</u> 2/:
 - (a) FISHING EFFORT MEASURES, on a monthly basis, concerning fishing operations in each of these ICNAF Divisions;
 - (b) NOMINAL CATCHES (quantities on a live weight basis) broken down by species on a monthly basis with a calendar year total in each of the Divisions of the ICNAF Statistical Area.
- 1.12 The nominal catch data should refer to the "calendar year of capture" and to the "month of capture", i.e., the year and month during which the quantities of fish reported were caught.
- 1.13 For each of the <u>Divisions</u> of the ICNAF Statistical Area as many separate forms STANA 1W must be completed as there are <u>classes of fishing units</u> operating there during the calendar years and according to main species sought.
- 1.14 Form STANA 1W consists of three sheets: yellow, blue and white interleaved with monocarbons; after completion these sheets are to be distributed as described in Section 1.2 below.
- 1.15 In addition to the STANA 1W forms, single pages (printed in red on heavy white paper) are also provided to the national offices for <u>drafting</u> purposes. These white drafting pages are to be retained in the national offices.
- 1.2 RETURN OF COMPLETED FORM STANA 1W

Form STANA 1W must be completed in three copies for distribution as follows:

the white copy is detached for retention in the national office;

the blue copy is sent by airmail to:

The Secretary, Continuing Working Party on Fishery Statistics in the North Atlantic Area Fishery Economics and Products Division Department of Fisheries FAO ROME, Italy

the <u>yellow</u> copy is sent uncoury by animali to:

The Statistician ICNAF c/o Bedford Institute of Oceanography P.O. Box 638 DARTMCUTH, Nova Scotia, Canada

/ See Sections 3.11 and 3.21 below.

2/ See Sections 2.11 and 2.13 below.

2. CLASSES OF FISHING UNITS

- 2.1 COMPLETION BY REPORTING NATIONAL OFFICE OF BOXES (a), (b), (c), AND (d) OF FORM STANA 1W
 - 2.11 In box (a) insert whichever of the following categories of fishing gear (method) is pertinent:
 - 1. Otter trawls
 - 2. Pair trawls
 - 3. Beam trawls
 - 4. Danish seines
 - 5. Purse seines, ring nets, etc.
 - 6. Beach seines

 - Prift gill nets
 Set gill nets (bottom nets)
 Fixed gear (weirs, traps, pots, etc.) 10. Long-lines
 - 11. Hand-lines

 - 12. Dory-type gear 13. Other lines
 - 14. Dredges
 - 15. Harpoons
 - 16. Other gear
 - 17. Gear that cannot be specified
 - 2.12 Leave blank box (b).
 - 2.13 In box (c) insert whichever of the following categories of size category (tonnage class) of the fishing craft is pertinent:

Size category no.

Description (Gross Register Tonnage)

1.	50 GRT and less
2.	51-150 GRT
3.	151-500 GRT
4.	501-900 GRT
5.	901-1800 GRT
6.	over 1800 GRT

2.14 In box (d) insert particulars of the main species sought. This is defined as the species towards which the fishing effort was mainly directed, as determined by the manner or method of fishing. In many cases this is one species, e.g. cod or redfish. The word "mixed" should be inserted when two or more species are sought. The word "unknown" should be inserted when the main species cannot be determined.

3. COUNTRY, FISHING AREA, ETC.

- 3.1 COMPLETION BY REPORTING NATIONAL OFFICE OF BOXES (e), (f), (g), (h) AND (i) OF FORM STANA 1W
 - 3.11 In box (e) insert the designation (number and alphabetic letter) of the respective Division of the ICNAF Statistical Area where the catches were made; note these designations as follows:

Subarea 1 - Divisions 1A, 1B, 1C, 1D, 1E, 1F

Subarea 2 - Divisions 2G, 2H, 2J Subarea 3 - Divisions 3K, 3L, 3M, 3N, 3O, 3Pn, 3Ps

Subarea 4 - Divisions 4R, 4S, 4T, 4Vn, 4Vs, 4W, 4X Subarea 5 - Divisions 5Y, 5Z

1NK, 2NK, 3NK, 4NK, 5NK - Subarea known, but <u>divisional</u> breakdown thereof not known.

- 3.12 In box (f) insert the name of the reporting country.
- 3.13 In box (g) insert the calendar year (twelve-months period, 1 January to 31 December).
- 3.14 In box (h) insert the numbering of the form as part of a series of forms completed in respect of each Division.
- 3.15 Leave blank box (1).

3.2 SUPPLEMENTARY NOTES ON STATISTICAL AREA

3.21 Definition of the "ICNAF Statistical Area"

The waters of the Northwest Atlantic bounded by a line beginning at a point on the coast of Rhode Island in 71°40' west longitude, thence due south to 39°00' north latitude, thence due east to 42°00' west longitude; thence due north to 59°00' north latitude; thence due west to 44°00' west longitude; thence due north to the coast of Greenland; thence along the west coast of Greenland to 78°10' north latitude; thence along a rhumb line to a point at 75°00' north latitude and 73°30' west longitude; thence due south to 61°00' north latitude; thence due west to 64°30' west longitude; thence due south to the coast of Labrador, thence in a southerly direction along the coast of labrador, and in an easterly and southerly direction along the coast of Quebec, and in an easterly and southerly direction along the coasts of Cape Breton Island to Cabot Strait; thence along the coasts, and Rhode Island to the point of beginning.

3.22 <u>See attached map of the North Atlantic for the ICNAF Statistical Area by "Subareas"</u> and "Divisions".

4. FISHING EFFORT MEASURES

- 6 -

- 4.1 COMPLETION BY REPORTING NATIONAL OFFICE OF LINES 1, 2, 3, 4 AND 7 OF FORM STANA 1W
 - 4.11 Effort data on a monthly basis are to be inserted, according to priorities specified in Section 4.12 below. Detailed definitions of the effort measures to be reported on lines 1 to 4 are given in Section 4.2 below.
 - 4.12 In giving data on <u>fishing effort</u> the following priorities are to be followed:

First priority: both lines 1 and 3
Second priority: both lines 1 and 3
Line 2 ("No. of hauls, drags or sets made") should be completed
only when information on "No. of hours or 1000 hooks fished"
(line 1) is not available;
line 4 ("No. of days on grounds") should be completed only when
information on "number of days fished" (line 3) is not available.

- 4.13 Line 7 should show the extent to which effort data inserted on line 1 (or line 2) and line 3 (or line 4) were not recorded but were obtained by sampling or estimated; insert "none" if the data were 100% recorded.
- 4.2 SUPPLEMENTARY NOTES: DEFINITIONS OF FISHING EFFORT MEASURES (LINES 1, 2, 3 AND 4)

Line 1 - No. of hours or 1000 hooks fished

No. of hours fished: for otter trawls this is defined as "the total number of hours during which the trawl was on the bottom and fishing"; if countries are unable to report so precisely they should give the nearest approximation, with the precise definition of the approximation used.

No. of hours fished: for dory vessels this is defined as "the number of hours the dory fleet is absent from the mother vessel <u>times</u> the number of dories".

Thousand of hooks fished: this is defined as "the number of hooks used in each set <u>times</u> the number of sets". This figure should be calculated to the nearest thousand hooks.

For other fishing gear: the number of hours the nets, seines, traps, pots, dredges, harpoons, etc., were used in the fishing operations. This is the product of the number of hours per unit <u>times</u> the number of units.

Line 2 - No. of hauls, drags or sets made

The number of times the fishing gear has been hauled or dragged or set, whichever description is appropriate to the fishing gear or technique used.

Line 3 - No. of days fished

The number of days (24-hours periods, reckoned from midnight to midnight) on which any fishing took place.

For those fisheries in which <u>searching</u> is a substantial part of the fishing operation, days "on grounds" in which <u>searching</u> but not fishing took place, should be included in the days fished data.

Taking into account the inclusion of "searching time" the definition of "number of days fished" could be further refined at the national level if possible as follows: "The number of days (24-hours periods, reckoned from midnight to midnight) on which the fishing craft was on the fishing grounds, intent on catching fish (not counting the time spent steaming to or from port and between grounds) minus the number of fishing days lost through delays from weather, breakdown or other factors".

4.2 (concluded)

Line 4 - No. of days on prounds

This is defined as the number of days (24-hours periods, reckoned from midnight to midnight) in which the craft was on the fishing ground, and includes in addition to the days fishing and searching also all the other days while the craft was on the ground.

5. NOMINAL CATCHES

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5.1 COLFLETION BY REPORTING NATIONAL OFFICE OF LINES 8 THROUGH 77 OF FORM STANA 1W

- 5.11 Complete the form by inserting annual and monthly nominal catch data (landings converted from landed weight to live weight) for each of the categories listed in Column (c) on lines 8 through 77 of form STANA 1W (see the Lists of Northwest Atlantic species under sections 6 and 7 below).
- 5.12 A list on the conversion factors used to convert 1965 landings (landed weight) to nominal catch (live weight) should be provided; for subsequent years only changes in these conversion factors should be reported. The term "live weight" is equivalent to the concepts "round, fresh weight", "whole, fresh weight" or "ex-water weight". Nominal catch data should be given in metric tons expressed to the nearest metric ton.

If units other than metric units are used, give definitions. If data are given in numbers or capacity units please indicate also the conversion factors to calculate the weight equivalents.

- 5.13 Quantities too small to be recorded should be shown by "Ø"; nil entries, when necessary for clarity, should be made by "---".
- 5.14 Countries should in the first instance complete lines 18, 19, 28, 29, 30, 33, 53, 74, 75, 76 and 77. The grand total shown on line 8 is the aggregate of the data on the above lines. These lines represent the quantities required by ICNAF.
- 5.15 Lines 12, 13, 15, 16, 31 through 36, 39 through 47, 49 through 51, 54 and 55, 57 through 59, 61 through 63, 65, 66 are left blank for use by the national office to insert the names of the species included in the sub-totals of lines 74, 75, 76 and 77. Lines 20 through 26 are to be used when breakdown for "Other flounders" is available.
- 5.:6 Aggregates of species to be included in the four special sub-totals given in lines 74, 75, 76 and 77 are as follows:

Other Groundfish (line 74) is to cover ALL groundfish species ("OG" species), EXCEPT <u>Halibut</u>, <u>Other flounders</u>, <u>Cod</u>, <u>Haddock</u>, <u>Silver hake</u>, <u>Redfish</u>.

Other Pelagic Fish (line 75) is to cover ALL pelagic fish ("FF" species) EXCEPT Herring.

Other Fish (line 76) is to cover ALL species not classified as pelagic or demersal, i.e. ALL "OF" species.

Shellfish, etc. (line 77) is to cover all species included under the groups appearing on lines 71, 72 and 73; that is "Crustaceans", "Molluscs" and "Sea-cucumbers, sea-urchins, ascidians, etc.".

1. SUPPLEMENTARY NOTES: STATISTICAL COVERAGE

5.21 <u>Inclusions</u>

The statistics should cover the quantities of the annual nominal catches of teleost and cartilaginous fish species, crustaceans, mollusos and other invertebrates, made by both commercial and subsistence fishermen operating in the ICNAF Statistical Area. Fish-farming and shellfish culture in this area should also be included.

The statistics should include teleost and cartilaginous fish species, crustaceans, molluscs and other invertebrates, belonging to the following:

ISSCAAP group no.	ISSCAAP groups
12	Sturgeons
13	River eels
14	Salmons, trouts, smelts, etc.
15	Shads
21	Flounders, halibuts, soles, etc.
22	Cods, hakes, haddocks, etc.
23	Redfishes, basses, congers, etc.
24	Jacks, mullets, etc.
25	Herrings, sardines, anchovies, etc.
26	Tunas, bonitos, skipjacks
27	Mackerels, billfishes, cutlassfishes, etc.
28	Sharks, rays, chimaeras
29	Unsorted and unidentified fishes
31	Crustaceans
32	Liolluses
33	Sea-cucumbers, sea-urchins, ascidians, etc.

5.22 Exclusions

The statistics should exclude:

- (a) Any diadromous and freshwater teleost fishes caught in freshwater fishing areas, i.e. rivers and lakes, ponds, etc. within the inland areas adjacent to the ICNAF Statistical Area.
- (b) The following marine aquatic organisms even when they are caught within the ICNAF Statistical Area:

Whales Seals and miscellaneous aquatic mammals Miscellaneous aquatic animals and residues Aquatic plants

- (c) Catches made by sport fishermen.
- (d) <u>Discarded catch</u>, i.e. whole fish returned to the sea at the time of capture.
- 5.23 Incomplete coverage

Indicate if any particular fish species is not covered by the statistics provided on the various forms.

5.24 Statistical treatment of direct foreign landings

The statistics on nominal catches (landings on a live weight basis) should include not only the catches landed by the craft from the reporting country in the harbours of that country, but also the nominal catches landed in foreign ports by the reporting country's craft. Nominal catches landed in the reporting country by foreign fishing craft should be excluded and treated as imports.

Please indicate the extent to which the statistical procedures in your country comply with this internationally recommended practice.

5.3 BASIC DEFINITIONS

5.31 Definitions of "nominal catches" and "landings"

Term	Definition	Synonyms	Weight basis for expressing data
CATCH	The term "catch", unless otherwise specified, refers to the "nominal catch", i.e., the live weight equivalent of the landings	Landings, round fresh Landings, whole fresh Landings, ex-water weight	Live weight
NOMINAL CATCH	The live weight equivalent of the landings	Landings, round fresh Landings, whole fresh Landings, ex-water weight	Live weight
LANDINGS	The weight of fish and fish products brought ashore, i.e., the actual weight of the quantities landed. This weight represents the net weight of the gutted, eviscerated, filleted, frozen, cured, canned fish and fish products, fish meals, cils, etc. at the time of landing	Landings, landed weight	Landed weight
Gress catch	The weight of the fish taken from sea	Real catch	Live weight
Discarded catch	That part of the gross catch which, as whole fish, is returned to the sea at the time of capture	0 * 8	Live weight
Retained catch	That part of the gross catch which, as whole fish, is not discarded	•••	Live weight

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- (a) Consumption by the crew
- (b) Use for bait
- (c) Dumping of whole fish because of spoilage or for other reasons
- (d) Dumping of guts, heads and other parts of the fish because of
- processing (e) Loss or gain of fluid content

Items (a), (b) and (c) above account for the difference between "retained catch" and "nominal catch"; items (d) and (e) account for the difference between "nominal catch" and "landings".

- 5.32.2 The term "landings" is not used synonymously with "number of arrivals" or "trips".
- 5.32.3 It is stressed that the live equivalents (nominal catches) of landings of ALL products, for example meals and cils, from whole so-called "industrial" fish are to be included in the data to be reported. Reporting offices should ensure that such meal, cil and other "industrial" products, when manufactured from viscera, livers, etc. of fish for human food, should not be included in these calculations — these raw materials would already be covered by the live equivalent (nominal catches) of the food fish landings.

	STANA 1W Line No.	ISSCAAP Group No.	GROUPS and names used in ICNAF Statistical Bulletin	<u>ICNAF</u> <u>No</u> .	ICNAF Group	<u>Scientific name</u>
			GROUNDFISH			· · ·
	28 29	22 22	Cod Haddook	39 41	G	Gadus morhua Melanogrammus aeglefinus Vanuadus di Vanuadus
	30 38	22 23	Silver hake Redfish	44 32	G G	Merluccius bilinearis Sebastes marinus
	18	21	Halibut	48	Ğ	Hippoglossus hippoglossus
			FLOUNDERS, OTHER THAN HALLB	-		
	20-26	21	American plaice	52	F	Hippoglossoides platessoides
	20-26	21	Greenland halibut	49	F	Reinhardtius hippoglossoides
	20-26	21	Summer flounder	54	F	Paralichthys dentatus
	20-26	21	Winter flounder	53	F	Pseudopleuronectes americanus
	20-26	21	Witch	50	F	Glyptocephalus cynoglossus
	20–26	21	Yellowtail flounder	51	F	Limanda ferruginea
			HERRING			,
	53	25	Herring	7	PF	Ĉlupea harengus
			5	-		
			OTHER GROUNDFISH			
	20 47	23	Ang on	E6	OG	Lophius americanus
	39-47 39-47	23	Angl er Cunner	56 29	OG	Tautogolabrus adspersus
	31-36	22	Cusk	47	ÖĞ	Brosme brosme
	39-47	23	King whiting	28	OG	Nenticirrhus saxatilis
	39-47	23	Lumpfish	33	OG	Cyclopterus lumpus
	39-47	23	Northern puffer	31	OG	Sphoeroides maculatus
	39-47	23	Ocean pout	38	0G	Nacrozoarces americanus
	31-36	22	Pollock (saithe)	42	OG	Pollachius virens
	31-36	22	Red hake	46	OG	Urophycis chuss
	39-47	23	Sand eels (launces)	55	OG	Annodytes spp.
	39-47	23	Scup	26	00	Stenotomus chrysops
	39-47 39-47	23 23	Sea robins	34 30	0G 0G	Prionotus app.
	39-47	23	Tautog Tilefish	35	OG OG	Tautoga onitis Lopholatilus chamaeleonticeps
	31-35	22	Tomcod	40	00	Microgadus tomcod
	31-35	22	White hake	45	0G	Urophycis tenuis
	39-47	23	Wolffishes	36	00	Anarhichas spp.
						· ·
			OTHER PELAGIC FISH			
	4951	24	Atlantic saury (billfish)	37	PF	Scomberesox saurus
	54,55	25	Bay anchovy	ŝ	PF	Anchoa mitchilli
	49-51	24	Bluefish	21	PF	Pomatomus saltatrix
	57-59	26	Bonito	18	PF	Sarda sarda
	49-51	24	Butterfish	22	PF	Poronotus triacanthus
	49-51	24	Crevelle	20	PF	Caranx hippos
	51-53	27	Mackerel	16	PF	Scomber acombrus
	54,55 61-63	25	Menhaden Swordfish	11	PF	Brevoortia tyrannus
	01-03	27	Swordfish Tunas	19	PF	Xiphias gladius
	57-59	26	Bluefin tuna	17(a)	PF	Thunnus thynnus
	57-59	26	Albacore	17(5)	PF	Thunnus alalunga
	57-59	26	Bigeye tuna	17(c)	PF	Thunnus obesus
	57-59	26	Yellowfin tuna	- 17(d)	PF	Thunnus albacares
•	57-59	26	Skipjack	17(e)	PF	Euthynnus pelamys
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6. LIST OF NORTHWEST ATLANTIC SPECIES ARRANGED ACCORDING TO THE ICNAF GROUPS

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STANA 11 Line No.	ISSCAAP Group No.	<u>GROUPS and names used in</u> ICNAF Statistical Bulletin	<u>ICNAF</u> <u>No</u> .	ICNAF Group	Scientific name
		OTHER FISH			
15,16	15	Alewife	9	OF	Alosa pseudoharengus
12,13	14	Argentines		OF	Argentina spp.
12,13	14 -	Capelin	15	OF	Mallotus villosus
39-47	23	Conger	6	OF	Conger oceanicus
05,66	28	Dogfishes	2	OF	Squalus and Mustelus spp.
10	13	Sel	5	OF	Anguilla rostrata
55,66	28	Porbeagle <u>1</u> /	1	OF	Lamna nasus
12,13	14	Salmon	12	OF	Salmo salar
39-47	23	Sea bass	25	OF	Centropristes striatus
15,16	15 28	Shad	10	OF OF	Alosa sapidissima
65,66		Skates S-olt	3	OF	Raja spp. Osmerus mordax
12,13	14 .23	Smelt Squeteague	14 27	OF	Cynoscion regalis
39-47 39-47	23	Striped bass	23	OF	Roccus saxatilis
3 9- 47 9	12	Sturgeons	4	OF	Acipenser spp.
12,13	14	Trouts (chars)	13	OF	Salvelinus spp.
39-47	23	White perch	24	OF	Roccus americanus
		SHELLFISH, ETC.			
72	32	Bay scallop	66	SF	Asquipecten irradians
72	32	Conche	67	SF	Strombus and Busycon spp.
7 1	31	Crabs	7Ò	SF	Callinectes and Cancer spp.
71	31	Lobster	69	SF	Homarus americanus
72	32	Mussels	63	SF	Mytilus and Volsella spp.
72	32	Ocean quahog	62	SF	Arctica islandica
72	32	Oyster	64	SF	Crassostrea virginica
72	32	Periwinkles	68	SF	Littorina spp.
71	31	Prawn (shrimp)	71	SF	Pandalus borealis
72	32	Quahog	58	SF	Mercenaria mercenaria
72	32	Razor clam	59	SF	Ensis directus
72	32	Sea acallop	65	SF	Placopecten magellanicus
73	33	Sea urchins	73		Strongylocentrotus spp.
72	32	Soft clam	60	SF	Mya arenaria
72	32	Squids	57	SF	Loligo and Illex spp.
72	32	Surf clam	61	SF	Spisula solidissima
73	33	Worms	72		Glycera and Neanthes (Nereis) spp.

6. LIST OF NORTHWEST ATLANTIC SPECIES ARRANGED ACCORDING TO THE ICNAF GROUPS (concluded)

1/ The inclusive term "Sharks" is used in the ICNAF Statistical Bulletin for all species of sharks, except Dogfishes.

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<u>STANA 1W</u> Line No.	ISSCAAP Group No.	ISSCAAP Group, ICNAF species-item	ICNAF No.	ICNAF Oroup	<u>Scientific name</u>
ò	12	Sturgeons, paddlefishes Sturgeons	4	OF	Acipenser app.
10	13	<u>River eels</u> Eel	5	OF	Anguilla rostrata
12,13 12,13 12,13 12,13 12,13 12,13	14 .	Salmons, trouts, smelts, etc. Argentines Capelin Salmon Smelt Trouts (chars)	15 12 14 13	OF OF OF OF	Argentina Bpp. Mallotus villosus Salmo salar Osmerus mordax Salvelinus epp.
15,16 15,16	15	<u>Shads, milkfishes, etc</u> . Alewife Shad	9 10	OF OF	Alosa pseudoharengus Alosa sapidissimı
20-26 20-26 13 20-26 20-26 20-26 20-26 20-26	21	Flounders, halibuts, soles,eto American plaice Greenland halibut Halibut Summer flounder Winter flounder Witch Yellowtail flounder	52 49 48 54 53 50 51	FF CF FF FF	Hippoglossoides platessoides Reinhardtius hippoglossoides Hippoglossus hippoglossus Paralichthys dentatus Pseudopleuronectes americanus Glyptocephalus cynoglossus Limanda ferruginea
23 31-36 29 31-36 31-36 30 31-36 31-36	22	Cods, hakes, haddocks, etc. Cod Cusk Haddock Pollock (saithe) Red hake Silver hake Tomcod White hake	39 47 41 42 46 44 40 45	G OG OG OG OG OG	Gadus morhua Brosme brosme Melanogrammus aeglefinus Pollachius virens Urophycis chuss Merluccius bilinearis Microgadus tomcod Urophycis tenuis
39-47 39-47	23	Redfishes, basses, congers, etc. Angler Conger Cunner King whiting Lumpfish Northern puffer Ocean pout Redfish Sand eels (launces) Scup Sea bass Sea robins Squeteague Striped bass Tautog Tilefish White perch Wolffishes	56 29 28 33 38 35 25 25 37 23 35 46 36	OG OF OG OG OG OG OF OF OF OG OF OG	Lophius americanus Conger oceanicus Tautogolabrus adspersus Menticirrhus saxatilis Cyclopterus lumpus Sphoeroides maculatus Macrozoarces americanus Sebastes marinus Ammodytes spp. Stenotomus chrysops Centropristes striatus Prionotus spp. Cynoscion regalis Roccus saxatilis Tautoga onitis Lopholatilus chamaeleonticeps Roccus americanus Anarhichas spp.

7. LIST OF NORTHAEST ATLANTIC SPECIES ARRANGED ACCORDING TO THE GROUPS OF THE INTERNATIONAL STANDARD STATISTICAL CLASSIFICATION OF AQUATIC ANIMALS AND PLANTS

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STANA 1W Line No.	ISSCAAP Group No.	ISSCAAP Group, ICNAF species-item	ICNAF No.	ICNAF Group	Scientific name
	24	Jacks, mullets, etc.			
49-51		Atlantic saury (billfish)	37	PF	Scomberesox saurus
49-51		Bluefish	21	\mathbf{PF}	Pomatomus saltatrix
49-51		Butterfish	22	PF	Poronotus triacanthus
49-51		Crevalle	20	PF	Caranx hippos
	25	Herrings, sardines, anchovies, etc.			
54,55		Bay anchovy	8	PF	Anchoa mitchilli
53		Herring	7	PF	Clupes harengus
54,55		Menhaden	11	\mathbf{PF}	Brevoortia tyrannus
	26	Tunas, bonitos, skipjacks			
57-59		Albacore	17(Ъ) PF	Thunnus alalunga
57 - 59		Bigeye tuna	17(0) PF	Thunnus obesus
57-59		Blu efi n tuna	17(a) PF	Thunnus thynnus
57-59		Bonito	18	PF	Sarda sarda
57-59		Skipjack	17(e		Euthynnus pelamys
57-59		Yellowfin tuna	17(d) PF	Thunnus albacares
	27	Mackerels, billfishes,			
61-63		outlassfishes, etc. Nackerel	16	PF	Scomber scombrus
61-63		Swordfish	19	PF	Xiphias gladius
	28	Sharks, rays, chimaeras			
65,65		Dogfishes	2	OF	Squalus and Mustelus spp.
65,05		Porbeagle <u>1</u> /	1	OF	Lamna nasus
65,66		Skates	3	OF	Raja spp.
	29	Unsorted and unidentified fish Groundfish species Pelagic species	<u>es</u>		
		Other species			
	31	Crustaceans			
71		Crabs	70	SF	Callinectes and Cancer spp.
71		Lobster	69	SF	Homarus americanus
71		Prawn (shrimp)	71	SF	Pandalus borealis
	32	Molluses			
72		Bay scallop	66	SF	Acquipecten irradians
72		Conchs	67	SF SF	Strombus and Busycon Spp.
72 72		Mussels Ocean quahog	63 62	SF	Mytilus and Volsella spp. Arctica islandica
72 72		Oyster	64	SF	Crassostrea virginica
72		Periwinkles	68	SF	Littorina spp.
72		Quahog	58	SF	Mercenaria mercenaria
72		Razor clam	59	SF	Ensis directus
72		Sea scallop	65	SF	Placopecten magellanicus
72	•	Soft clam	60	SF	Mya arenaria
72		Squids	57	SF	Loligo and Illex spp.
72		Surf clam	61 ·	SF	Spisula solidissima
73 73 1/ The i	33	Sea-cucumbers, sea-urohins			
		ascidians, etc.			64
73		Sea-urohins	73 72		Strongylocentrotus app.
73		Worms	14		Glycera and Neanthes (Nereis)

- 7+	LIST OF NORTHWEST	ATLANTIC SPECIE	S ARRANGED ACCOR	DING TO THE GRO	UPS OF THE	INTERNATIONAL
	STANDARD STAT	ISTICAL CLASSIFI	CATION OF AQUATI	C ANIMALS AND P	LANTS (cono	luded)