

COMPENDIUM OF STATISTICAL AND SAMPLING SCHEMES
OF VARIOUS INTERNATIONAL ORGANIZATIONS

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TABLE 1. International fisheries organizations to which questionnaires were sent.

At the 1974 SCRS meeting, the Secretariat presented a summary of the sampling scheme adopted by the International Commission for the North-west Atlantic Fisheries (ICNAF) (Document SCRS/74/58). However, the Secretariat was repeatedly requested to make a further study of the ICNAF scheme. Therefore, we compiled a questionnaire and requested the cooperation of the various international fisheries organizations (listed in Table 1) to complete it with the required information. The questionnaire dealt with such aspects as statistics collection, sampling, recommendation of management measures, budget, problems in the collection of statistics, biological sampling schemes, storage and dissemination of data, etc. In the questionnaire emphasis was placed on the data collection and sampling schemes.

We have received responses from seven* organizations. The information we received is very complete, but very voluminous and difficult to present in its entirety. This paper presents only an abstract of the information, which is compiled in the form of a comparative table. (Table 2)

The Secretariat can provide more detailed information to any interested scientist.

*SPFC replied that their activity in the fisheries is very minor.

ABBREVIATION	FULL NAME	REPLY RECEIVED
CECAF	FAO Fishery Committee for the Eastern Central Atlantic	No
GFCM	General Fisheries Council for the Mediterranean	No
CINECA	Cooperative Investigations of the Northern Part of the Eastern Central Atlantic	No
IATTC	Inter-American Tropical Tuna Commission	Yes
ICES	International Council for the Exploration of the Sea	Yes
ICNAF	International Commission for the Northwest Atlantic Fisheries	Yes
ICSEAF	International Commission for the Southeast Atlantic Fisheries	Yes
INPFC	International North Pacific Fisheries Commission	No
IOFC	Indian Ocean Fisheries Commission	No
IPFC	Indo-Pacific Fisheries Council	No
IPHC	International Pacific Halibut Commission	Yes
IPSF	International Pacific Salmon Fisheries Commission	Yes
IWC	International Whaling Commission	No
NEAFC	North-East Atlantic Fisheries Commission	No
SPFC	South Pacific Fisheries Commission	Yes
WECAFC	Western Central Atlantic Fisheries Commission	No

TABLE 2. Comparative table of the statistical and sampling schemes of various international fisheries organizations

	IOCAF	IATTC	ICNAF	ICSEAF	IPHC	IPSPC	ICES	
I. Number of member countries	15	8	18	13	2	2	18	
II. Official language(s)	E/F/S	E/S	E	E/F/S	E	E	E/F	
III. Budget (U.S. \$)	293,000	789,947	370,000	173,500	770,000	---	534,500 (Approx.)	
IV. Total number of staff	9	35	14	6	21	55	18	
V. No. of scientists working in statistics & sampling	1 + 1*	3	2	1	5	2	1	
VI. No. of technicians working in statistics & sampling	2 + 5*	7	5	3	3 + 15*	3 + 1	2	
VII. Convention area	Entire Atl. + Med.	Eastern Pacific	N.W. Atl.	S.E. Atl.	N. Pacific & Bering Sea	Fraser R. & adjacent Pacific	N. Atl.	
VIII. Convention species	All tuna & tuna-like species	Trop. tuna & baitfish	All living resources	All living resources (Tuna and whales are excluded in practice)	Pacific halibut	2 salmon species	All living resources	
IX. In practice, who collects basic statistics								
a) Catch	Nat. Off + Com. staff **	Com. staff	Nat. Off.	Nat. Off.	Com. staff	Nat. Off.	Nat. Off.	
b) Biological	Nat. Off + Com. staff	"	"	"	"	Com. staff	"	
X. In practice, who makes data analyses	Nat. scientists (at SCRS)	Com. staff	Nat. scientists	Nat. scientists (Scient. Adv. Council)	Com. staff	Com. staff	Nat. scientists	
XI. Who originates recommendations for population management	Nat. scientists	Com. staff	Nat. scientists	Nat. scientists	Com. staff	Com. staff	Nat. scientists	
XII. Nominal catch								
1. Data collection								
a) Unit	Live round MT	Round Lbs.	Live MT	Live round	Lbs.-Head off gutted	Round or dressed Lbs.	MT	
b) Area unit	6 areas in Atl.	---	8 subareas in N.W. Atl. (or smaller ICNAF areas)	Subareas	---	15 areas for Fraser R. & adjacent seas	24 subareas for N.E. Atl.	
c) Time unit	Annual	Annual & weekly	Monthly (selected sp.) Yearly	Yearly	By trip, month	Yearly	---	
d) Adequacy	95-100%	ca 100% (annual) 80% (weekly)	100%	95%	nearly 100%	100%	---	
e) Time lag	4-7 months	Instant	4-6 mos.	5-14 mos.	1-5 mos.	1 week to 2 months	8 months	
2. Archive at the HQ	Computerized	Computerized	Computerized	Computerized	Computerized	---	Computerized	
3. Publications								
a) Unit	Live round MT	Round Lbs.	MT	MT	} Data are not published unless analyzed by staff	---	MT	
b) Area unit	6 areas	---	8 areas or ICNAF sub-divisions	Division		---	---	Stat. Rect-angle (22-52)
c) Time unit	Annual	1) Annual 2) bimonthly	Annual, monthly	Month		---	---	Quarter
d) Adequacy	100%	80-100%	100%	95%		---	---	---
e) Time lag	9 mos.	1) 7 mos. 2) 1 mo.	12 mos.	14 mos.		6 mos.	---	12 months
f) Title	Stat. Bull.	1) Annual Report 2) Bimonthly Report	Stat. Bull.	Stat. Bull.	Annual Report	---	Stat. News-letter Bull. Stat.	
g) Type of printing	Offset of printout	Printing	Offset of printout	Photocopy	---	---	---	
h) Comments	Revised as data changes							

* Temporary and/or local

** Supplementary

	ICCAT	IATTC	ICNAF	ICSEAF	IPHC	IPSFC	ICES
XIII. Catch and effort statistics							
1. Collection of statistics							
a) Unit	MT/Days fished No/1000 hooks, etc.	ST/days fished (standardized)	MT Hours fished, days fished, days ground.	MT, hours fished, days fished, days ground.	Lbs, head off gutted, No. effort unit/day	Lbs. round or dressed No. of boats	MT/No. days fished, etc. 58 selected species
b) Area unit	12 x 12 or 52 x 52	12 x 12	ICNAF divisions	Subdivisions	60 miles square	15 stat. areas for Fraser R. & adj. seas	25 subareas for N.E. Atl. (approx. 22 x 52 squares)
c) Time unit	Monthly or quarterly	Daily	Monthly	Yearly	Trip, Monthly	Yearly	Monthly
d) Adequacy	40-70%	80%	100% for catch; 90% for effort	20-25%	50-100%	100%	---
e) Time lag	2-9 mos.	Instant	6 mos. Including data on discard	5-14 mos.	1-5 mos.	---	12 mos.
2. Archive system							
	Partly by computer; most part filed as documents	Computerized	Computerized	Computerized	Computerized	---	Partly started computerizing
3. Publications							
a) Unit	MT/days of fishing No/1000 hooks;	There is no publication as raw data. Analyses are published with summary data	See above	See above	Data not published; Summary data are published with analyses.	Only rough summary published	---
b) Area unit	12 x 12 or 52 x 52		ICNAF subdivisions	ICSEAF divisions			Stat. Rect-angle (22-52)
c) Time unit	Month, Qtr.		Month	Month			Quarter
d) Adequacy	40-70%		90%				1 copy of raw data are now sent to each nat. sect.
e) Time lag	7-12 mos.		12 mos.	14 mos.			12 mos.
f) Title	Data Record or Nat. publications	Bulletins	Stat. Bull.	Stat. Bull.	Scientific Report	Annual Report	Stat. News-letter (up to 1974) Bull. Statistique (summary only)
g) Type of printing	Offset	Printing	Offset of printout	Photocopy			
XIV. Biological							
1. Data collection							
a) Unit	FL or LD1 to cm weighting to catch requested	FL to mm. (grouped later)	1) FL, FL O/00 freq. 2) Age freq & Act. no. 3) Age/length keys to cm.	1) Size freq. 2) Length/age dist. (weighted)	1) FL 2) Age otolith	FL(mm), Wt. (ounce), scales, spawning	Cm. Act. size freq.
b) Area unit	12 x 12 to 102 x 202 or gen. areas	14 areas in E. Pacific	1), 2), 3) - division (8 for NW Atl)	1) Division 2) "	---	25 areas for Conv. waters & spawning grounds	25 sub areas for N.E. Atl. (approx. 22 x 52)
c) Time unit	Monthly or quarterly	Monthly	1) Monthly 2) Monthly 3) Quarterly	1) Monthly 2) Yrly or Qtrly	Monthly	Daily - weekly	Quarterly
d) Adequacy	40-60%	All major fisheries	1) 70% for regulated species 2) 50% 3) 50%	Not adequate	---	Major fish. & spawn. stocks	---
e) Minimum standard	Under study 30-50 fish/sample 10 samples/each time/area stratum	50 fish/sample	200 fish one sample/1000 MT/division/qtr/gear	Varies according to nations	Every 3rd landing over 5000 lbs Every 10th landing bet. 1000-5000 lbs. 200 fish/landing at major ports	115 samples/day (for FS) 120 samples/day for gill-nets	200 fish/1000 MT landed (Since 1973)
f) Time lag	2-12 mos.	Instant	6 mos.	8-15 mos.	1-5 mos.	---	---
2. Archive at HQ							
	Part by computer; most by document files	Computer cards, Mag. tape, etc.	Computerized, (mag. tape)	Computerized	Computerized	?	Partly computerized
3. Publications							
a) Unit	FL or LD1	No raw data published, summaries are published with analyses.	No data published; listing of data available.	See above	Data are not published. Only summary data may be reported with analyses	Data are not published	Summary of sampling program by each country is presented at the meeting
b) Area unit	12 x 12, 52 x 52, 102 x 202			Division			
c) Time unit	Monthly or Quarterly			Various			
d) Adequacy	40-60%						
e) Time lag	6-16 mos.		10 mos.	15 mos.			
f) Title	Data Record or nat. publications	Bulletins	Sampling Year Book	Sampling Bulletin	Scientific Report		
g) Type of printing	Offset	Printing	Offset	Photocopy	---	---	