B.D. 14

A REPORT OF THE WORKING GROUP ON AN INTENSIFIED ATLANTIC-WIDE SKIPJACK RESEARCH PROGRAM

1. The Working Group met on Wednesday, November 10 and on Saturday, November 13 and was chaired by Dr.B. J. Rothschild (U.S.A.). Mr. J. N. N. Adjetey (Ghana) and Mr. M. Pinet (Senegal) had presided over the Ad Hoc Sub-Group on Organization and Research Programs respectively.

2. The Working Group reviewed the Report of the Dakar Working Group on the Status of Skipjack Stocks in the Atlantic Ocean (SCRS/76/39) It also reviewed specific assignments to individual scientists (SCRS/76/8). It noted that some of these assignments had been completed but a few were yet to be undertaken.

3. The Working Group felt that to get the program underway, a full-time coordinator must be employed by ICCAT.

4. The Working Group again identified possible research projects, noted on-going national programs and agreed that these programs must be expanded both in scope and content in order to pave the way for an "International Skipjack Year" which will involve a multi-ship field investigation of skipjack distribution and dynamics.

5. The on-going programs include tagging, sampling, compilation and analysis of existing catch, effort and size composition data, larval and gonad index studies (Table 1).

5.a. The tagging program will provide information on the stock structure which is important in population dynamics studies. Information will also be obtained on migration, availability of fish, growth and level of exploitation. Not much data is expected on natural mortality. The most favorable areas and periods for these tagging programs are : Angola (September-March), Ghana (All year round), Cap Vert (September-October), and Canary Islands (July-September).

5.b. Routine sampling must be intensified by the national laboratories to provide a better coverage of all the landings. These studies will lead to a better estimation of size and age composition for population dynamics studies.

5.c. The analysis of all available data on length may provide new information on stock structure, growth, recruitment and migration. Data are to be obtained from FIS, USA, Tema-based baitboats, Cuban and Spanish fleets.

5.d. CPUE data is required for production model analysis. There are, however, some difficulties in estimating adequate effort for the skipjack fishery. The two main problems are: (i) the skipjack-yellowfin interaction (linked with seasonal availability of fish) and (ii) the standardization of effort (respective fishing efficiencies of different gears and interaction between gears). The necessary data are to be obtained from FIS, U.S.A., Tema-based boats, Cuban fleet and the Spanish fleet.

5.e. Larval data collected in Dakar have been summarized. The main observation is that, although fishing is seasonal, spawning is wide, both in time and space. Two explanations may be given: (a) either one multi-spawning stock, or (b) several stocks. This needs further study.

5.f. Data on gonad index are rather scanty, and the available data have not yet been analyzed. There is a need to intensify these studies. Data are to be collected by the Ivory Coast, Ghana, Senegal, Spain and Cuba for analysis.

5.g. Examination of otoliths for growth rings will commence when collection of otoliths starts. The Ivory Coast, Ghana, Senegal and Brazil are to collect these otolith samples. The analyses are to be undertaken either in France (COB, Brest) or in the U.S.A. (La Jolla).

6. The Working Group agreed that plans must be clearly and firmly developed for the proposed intensified research activity and identified

the following projects: tagging leading to information on natural mortality, biochemical genetics. Stock structure and migrations, acoustic and aerial surveys, super-sampling, spatial distribution, larval and gonad index studies, exploratory fishing.

6.a. A multi-ship field investigation is to be mounted on skipjack distribution and dynamics. This multi-ship investigation will provide a wide range of data covering the projects listed in paragraph 6.

7. The Working Group felt that the precise formulation of specific proposals and detailed planning, programming, costing and funding of the entire project should be undertaken by a Program Planner employed by ICCAT. The future of the program is very much dependent on the work of the Program Planner who will compile and analyze all available information and present the final program to the ICCAT Secretariat.

8. The Working Group also felt that a Technical Advisory Group should be appointed by the SCRS Chairman to assist and advise the Program Planner in his duties. The members of this Technical Group are to be selected from participating as well as interested countries.

9. The Program Planner will have the following duties:

(a) Develop detailed Program Plan along the priorities determined by SCRS.

(b) Estimate cost and funding of Program which should operate for no more than three years.

(c) Prepare task activities for countries, national laboratories and international organizations.

(d) Advise on the implementation of the Program and suggest names for selection of the Program Coordinator.

10. ICCAT Secretariat will:

(a) Solicit cooperation from national laboratories, administrators and international organizations.

(b) Recruit a Program Planner.

(c) Circulate the Project Plan prepared by the Program Planner to competent authorities for comment.

(d) Submit final Project Document to Commissioners for their reaction before the next Regular Meeting.

11. Commissioners will take a decision on the Program at the next Regular Meeting, i.e. November, 1977.

12. Recommendations

(i) Due to the magnitude of the Program and the need to ensure its success, a Program Planner who will examine the whole scheme in its entirety must be recruited by ICCAT.

(ii) A Technical Advisory Group must be established to provide the necessary assistance and advice, e.g. a feasibility and design of tasks, priorities, etc. to the Program Planner.

(iii) The Program Planner should complete the Project Document by May, 1978.

(iv) The ICCAT Secretariat should obtain comments on the Project Document and submit it to the Commissioners by August, 1977.

(v) Should Commissioners approve the Project Document, the ICCAT Secretariat should implement the recommendations.

TABLE 1 SUMMARY OF SKIPJACK PROPOSED PROJECTS

COUNTRY	ON-GOING PROJECTS								FUTURE PROJECTS		
	TAGGING	ROUTINE SAMPLING	EXISTING DATA: LENGTH	EXISTING DATA: CPUE	REPRODUCTION: Larvae	REPRODUCTION: Gl	PHYSIO	OTOLITH GROWTH	TAGGING	SUPER SAMPLING	ADDITIONAL SURVEY
Brazil	No	Yes, Zavala	No	No	No	No	No	Yes, sample Zavala	No	—	—
Cuba	No	Yes, Carrillo	Yes, (data) Carrillo	Yes, (data) Carrillo	No	Yes, Carrillo	No	No	No	—	—
France	/	/	/	/	/	/	/	Yes, inter-pretation, LeGall	No	/	/
Ghana	Yes, 1977 cooperation Ghana-I.C.	Yes, Ansa-Emmim	Yes, (data) Ansa-Emmim	Yes, (data)	No	Yes, Ansa-Emmim	No	Yes, samples Ansa-Emmim	Yes	—	—
IvoryCoast	And Congo Annex on area G=Ansa-Emmim IC=Caverivière	Yes, Marcille	Yes, (data) Marcille	Yes, (data) Marcille	Yes, 1977 Caverivière	Yes?	If possible, 1st analysis (Marcille)	Yes, samples Marcille	Yes	—	—
Japan	No	Yes, Kume	Yes, data, Kume	Yes, data, Kume	No	No	No	No	Yes	—	—
Korea	No	Yes, P.A. Kim	Yes, data P.A. Kim	Yes, data P.A. Kim	No	No	No	No	Yes, P.A. Kim	—	—
Senegal	Yes, 77, C.V. area- Pianet	Yes, Pianet	Yes, data and processing, 77	Yes, data and processing, 77	Yes, 77 Conaud	Yes, 77 Bour	No	Yes, samples Pianet	Yes	Yes, but with collaboration, 78-79	Yes, with collaboration, 1st survey, 77; Others
Spain	Yes, ? Canaries Santos 77	Yes, Fernandez	Yes, scarce data, Fernandez	Yes, scarce data, Fernandez	No	Yes, Canaries, Santos	No	No	Yes	—	—
U.S.A.	Yes, some tag in E.W. Atlantic	Yes, Sakagawa	Yes, data and processing, Sakagawa/Coan	Yes, data and processing, Sakagawa/Coan	No	No	Yes, 1st analysis, Sakagawa	Yes, inter-pretation, Sakagawa	1st directly	—	—

In coopération