

SAMPLING OF HARD PARTS OF BLUEFIN TUNA IN THE EASTERN ATLANTIC

P. M. Miyake

ICCAT

1. Introduction

At the 1981 SCRS meeting, the following recommendation was made: "The amount and periodicity of interchange of bluefin between eastern and western waters is of prime concern. SCRS received a brief report on bluefin stock studies employing trace element chemistry. Chemical differences were found between fish of ages 2 and 3 caught in the Atlantic off Spain and the U.S.A. SCRS recommends that these studies be pursued by scientists from the various countries collaborating to provide samples from the eastern and western Atlantic and the Mediterranean. These samples of caudal peduncles should be statistically meaningful and cover all size classes from the east and west Atlantic and Mediterranean Sea."

Following this recommendation, the Secretariat contacted the scientist in charge of this study (Dr. J. R. Calaprice of IATTC). He is working on this study under contract with the U.S. Government. Due to the geographical advantage and to the familiarity of the Secretariat with local conditions in the eastern Atlantic, the Secretariat agreed to take an active role in sampling bluefin in the eastern Atlantic.

One of the difficulties encountered was that the Secretariat has no amount specially budgeted for this program. Some costs, for example, travel within Spain by Secretariat staff members to make necessary arrangements, were assumed under budget chapter 8, (Coordination of Research). However, major costs such as shipment of samples, etc., were reimbursed by IATTC.

2. 1982 Sampling Objectives

The ICCAT Secretariat and Dr. Calaprice, together with U.S. Government scientists, after some discussion, established the following priorities for sampling in 1982.

1. Giant bluefin from the eastern Atlantic and Mediterranean; a minimum of 125. At least 1/3 of the samples should be taken from the spawning stock in the Mediterranean.

2. School fish from the Mediterranean; a sample of no less than 50 tails from 3-, 4- or 5-year-old fish within the Mediterranean.

3. School fish from the Bay of Biscay, a sample similar to No. 2 above.

The Secretariat, in close contact with U.S. scientists and IATTC, coordinated sampling in the eastern Atlantic and Mediterranean according to the above criteria. Collaboration with French, Italian and Spanish scientists was requested and obtained.

3. Results

3.1. Barbate, Spain

There are three traps in operation, March to July, to catch mainly giant bluefin tuna coming into and going out of the Mediterranean. The Secretariat directly contacted the local owners of the traps (Mr. J. M. Crespo and Mr. Aniceto Ramirez) who kindly offered samples free of charge. Very good cooperation was obtained from fishermen, trap owners, cold storage owners, and processors. Also, Dr. J. Rodriguez-Roda assisted us considerably in the sampling.

About 80 samples were taken. The major problem encountered was that when many fish are caught in one day, as is generally the case, the operators and processors were too busy to sample. If someone stays there for about a week, effective sampling is easy.

All the samples were first gathered in Madrid and then the Secretariat shipped them to the U.S.

3.2. Italy

Dr. P. Arena in Messina, Sicily, helped us obtain samples. Forty samples were collected at Palermo, Sicily, by Mr. Macaluso from trap catches. Twenty more were collected from purse seine catches in the Ionian Sea, near Messina. The latter samples were collected by Dr. Arena and the Pelagos Company (Soc. Cooperativa). These samples were all giant spawning bluefin tuna collected at the spawning grounds.

The Pelagos Company kindly handled the shipping of the samples to the U.S.

3.3. Sete, France

The request for sampling from small fish was made earlier in the year. Unfortunately, Mr. E. Lióziou of the Sete laboratory, who is in charge of French Mediterranean bluefin study, was also assigned cooperative research with Algeria. As he was on a field trip for that mission for an extended period, the program in Sete started late. He collected some samples from small bluefin tuna at a local fish store. Since the sampling is still being done, we are hoping the first goal can eventually be achieved.

3.4. Canary Islands, Spain

Dr. Calaprice directly contracted Mr. A. Santos, IEO, Tenerife. The Secretariat tried to follow up on this matter. In early 1982, we were notified that no sampling was done due to very poor fishing in the earlier part of the year. We have not been in contact with Mr. Santos since June as he has been out of the laboratory.

3.5. Gulf of Biscay

The Secretariat tried but was unable to reach Mr. J. L. Cort. Therefore, no report of Bay of Biscay sampling can be made at this time.

4. Recommendations for the future

This year, at least the first two objectives in the list of priorities have been successfully carried out. The Secretariat made considerable efforts to coordinate the sampling. It is very time consuming and also contains many hidden costs. It should also be noted that the cooperation of various local scientists make possible the success of this program. On the other hand, the lack of interest of some scientists in the eastern Atlantic made the sampling very difficult.

If the preliminary analyses of the samples collected this year proves the usefulness of the study, it should be recognized by the SCRS, and a strong recommendation should be made on how to carry out 1983 sampling. If the Secretariat will have an important role in the eastern Atlantic sampling, it would be essential that some funds be allocated for this purpose.

If the sampling is on a small scale as in 1982, approximately \$2,000 to \$3,000 would be needed for 100 specimens of giant bluefin, while \$500 per 100 specimens of small bluefin. However, if large-scale sampling is planned, someone should be stationed in the field for about a total of one month, and shipping costs should be taken into account.