

RECENT INFORMATION ON THE AMOUNT AND SIZE OF BLUEFIN TUNA IMPORTED TO  
JAPAN

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SUMMARY

Recent data on the amount and size of Atlantic bluefin tuna were shown. The total Japanese imports have been increasing and were at about 3400 MT in 1991. Several new Mediterranean countries started exporting in recent years.

RESUME

Les données récentes sur le nombre et la taille de thon rouge de l'Atlantique sont indiquées. Le total des importations japonaises ont augmenté et s'élèvent en 1991 à 3.400 TM. Ces dernières années, plusieurs nouveaux pays méditerranéens ont commencé à exporter.

RESUMEN

Se presentaron los datos recientes sobre la cantidad y talla del atún rojo atlántico. Las importaciones totales japonesas ha seguido aumentando, y aproximadamente a 3.400 t en 1991. Numerosos países mediterráneos han comenzado a exportar en los años recientes.

INTRODUCTION

One of the difficulties in assessing highly migratory species is a lack of basic statistics such as catch and size samples from the catch. In the case of Atlantic bluefin tuna it is partly true since this species was caught by various gear and countries and those countries do not always have a data collecting system. Japan has been the dominant importing country of this species in recent years. The amount of bluefin import by country can be used to estimate the magnitude of catch for those countries missing catch statistics. Weight data of the individual fish provided from the trading company may be usable as size data or at least useful to determine the better size substitutions among fisheries.

DATA SOURCE

Japan Marine Products importer's association has published monthly statistics of the amount of marine products both in weight and value. They are tabulated by species, country and category (fresh or frozen). Although southern bluefin tuna is not separated from northern bluefin tuna, the former can be separated by area of country, category (fresh or frozen) and known information on fishery. For example, the catch of coastal fishing countries was assigned to the species which distributes around there. In case of distant water fishing nations (Korea and Taiwan), it is assumed that the amount in fresh is Pacific bluefin tuna and that in frozen is Atlantic bluefin tuna and southern bluefin tuna for Korea and Taiwan, respectively.

The Japanese tuna traders kindly provided the weight data for individual fish and brief information on fisheries from which they are importing bluefin. The imported fishes are mostly dressed (headed, gilled, eviscerated and tailed) but include small amount in fillet (belly portion that gives higher price). Countries and gears are mixed in some cases.

## RESULT AND DISCUSSION

Annual bluefin (including southern bluefin) import statistics were shown in Fig. 1. Total import jumped to around 4000 metric ton (MT) in 1983, and increased gradually until 1990 when it reached the highest of 7000 MT. Import of Pacific bluefin has been very minor compared to other two species. During the first half of 1980s, the southern bluefin import was much greater than the Atlantic bluefin but they are about the same level at slightly more than 3000 MT since 1988.

Table 1 shows the annual import by origin of country and category for Atlantic bluefin. Canada, Spain and U.S. are the main exporters through the time. It should be noted that several Mediterranean countries (Greece, Libya, Malta, Morocco, Tunisia and Turkey) started exporting of large amount in recent years. Some Latin American countries, such as Honduras, Panama and Venezuela, also exported considerable amount. Since it is known there are no fishery targeting bluefin and all the export were frozen fish, it seems bluefin catch were made by the longline vessels flagged in convenience in those countries.

The monthly amount of Atlantic bluefin import by country and category and monthly size data are shown in Table 2 and Fig. 2, respectively. These data and information on Mediterranean countries provided by the Japanese tuna traders were very similar to Miyabe and Warashina (1990) except two new faces, i.e. Libya and Malta. The fishing in two countries takes place the same season between May and July by mostly purse seining.

## LITERATURE

Miyabe N. and Y. Warashina. General description of Japanese longline fishery in the Mediterranean and some information on the size of bluefin imported from Mediterranean countries to Japan. GFCM/ICCAT. Collective Volume of Scientific Papers. (33):179-184.

Table 1. Annual import of Atlantic bluefin to Japan by origin of country and category.

NATION	CATEGORY	Y E A R										
		82	83	84	85	86	87	88	89	90	91	92
AZORES	FRESH									1.9	1.4	
BRAZIL	FRESH						0.2					
CANADA	FRESH	180.6	288.9	163.8	77.9	25.1	43.3	302.5	453.7	310.2	381.1	6.3
CANADA	FROZEN									1.4	25.1	
CANADA	TOTAL	180.6	288.9	163.8	77.9	25.1	43.3	302.5	453.7	311.6	406.2	6.3
CANARY	FRESH										7.1	
CANARY	FROZEN										55.0	
CANARY	TOTAL										62.2	
DENMARK	FRESH								1.9			
FR GERM	FRESH				2.3	1.0						
FRANCE	FRESH		3.3			0.8	6.2		4.2	31.4	6.6	4.5
FRANCE	FROZEN			16.7	167.3						4.3	
FRANCE	TOTAL		3.3	16.7	167.3	0.8	6.2		4.2	31.4	10.9	4.5
GHANA	FROZEN							53.0				
GREECE	FRESH				5.8	70.9	54.2	55.9	71.6	84.9	67.1	18.3
GREECE	FROZEN					0.9						
GREECE	TOTAL				5.8	71.8	54.2	55.9	71.6	84.9	67.1	18.3
HONDURS	FROZEN					9.8	98.4	322.5	282.4	18.0	85.4	
IRELAND	FRESH					2.5			1.2			
ITALY	FRESH	1.5						14.1	7.8	18.9	22.1	13.7
ITALY	FROZEN	40.6	252.7	0.9	25.6	24.6	13.5	5.6	1.0	2.5	1.6	
ITALY	TOTAL	42.1	252.7	0.9	25.6	24.6	13.5	19.7	8.8	21.4	23.7	13.7
LIBYA	FRESH									1.1	36.4	1.6
MALTA	FRESH								3.0	3.5	36.6	45.9
MEXICO	FRESH								1.4	18.9	7.5	
MEXICO	FROZEN								11.2			
MEXICO	TOTAL								12.6	18.9	7.5	
MOROCCO	FRESH						21.3	59.1	170.2	209.0	21.6	
MOROCCO	FROZEN						6.3	6.1	0.6	7.1	28.8	
MOROCCO	TOTAL						27.6	65.2	170.9	216.1	50.5	
N ANTIL	FROZEN		1.0									
NORWAY	FRESH								0.9			
PANAMA	FROZEN	0.6					65.8	57.4		12.2	287.4	47.8
PORTUGL	FRESH					0.3	0.3	0.1	4.5		14.6	18.4
PORTUGL	FROZEN									74.5	239.7	
PORTUGL	TOTAL					0.3	0.3	0.1	4.5	74.5	254.3	18.4
PRTRICO	FRESH									0.3		
R KOREA	FROZEN	0.8		16.3	62.7	134.4	1.2	10.6	38.6	17.1	197.1	86.8
SPAIN	FRESH	6.2		53.8	145.1	104.2	171.4	388.5	249.7	355.4	322.8	92.1
SPAIN	FROZEN	36.9	228.7	97.2	53.9	49.8	95.3	773.3	378.4	338.0	156.3	
SPAIN	TOTAL	43.1	228.7	151.0	198.9	153.9	266.8	1161.8	628.1	693.4	479.1	92.1

Table 1. Continued.

NATION	CATEGORY	Y E A R										
		82	83	84	85	86	87	88	89	90	91	92
ST VINI	FROZEN										83.7	
TRINIDO	FROZEN										10.7	13.0
TUNISIA	FRESH						95.2	224.7	356.7	406.0	391.6	
TUNISIA	FROZEN								25.2			
TUNISIA	TOTAL						95.2	224.7	381.9	406.0	391.6	
TURKEY	FRESH			0.7	98.7	668.9	243.4	103.8	156.2	140.0	120.4	174.3
TURKEY	FROZEN		142.2	126.4		6.0			116.3			
TURKEY	TOTAL		142.2	127.2	98.7	668.9	249.4	103.8	272.6	140.0	120.4	174.3
U KING	FRESH			4.7					0.5	4.0	1.7	
USA	FRESH	141.1	502.7	530.9	549.0	588.9	939.2	855.7	889.4	813.3	719.2	68.4
USA	FROZEN		83.0	263.3		229.5	26.9	14.8	5.5			4.3
USA	TOTAL	141.1	585.7	794.2	549.0	818.4	966.1	870.5	894.9	813.3	719.2	68.4
VENEZLA	FRESH									0.1		
VENEZLA	FROZEN						47.0	120.9	19.3	29.5	61.0	
VENEZLA	TOTAL						47.0	120.9	19.3	29.6	61.0	
GRAND TOTAL		408.3	1502.6	1274.7	1188.3	1911.7	1843.3	3239.5	3094.4	2875.2	3408.3	982.8

Table 2-1. Monthly import of Atlantic bluefin to Japan by origin of country and category, 1990.

NATION	CATEGORY	1	2	3	4	5	6	7	8	9	10	11	12
AZORES	FRESH			1.5	0.5								
CANADA	FRESH	3.2	2.0	3.4				0.5	46.2	183.4	60.5	7.1	3.9
CANADA	FROZEN										1.4		
FRANCE	FRESH			5.6	14.5	9.8	1.5						
GREECE	FRESH	5.4	2.7	17.1	1.2	1.0		0.1		2.3	16.8	33.9	4.4
HONDURS	FROZEN										18.0		
ITALY	FRESH				9.3	5.2	2.1			0.4	2.0		
ITALY	FROZEN							2.5					
LIBYA	FRESH					1.1							
MALTA	FRESH				0.3	1.6	1.5						
MEXICO	FRESH	0.3	2.1	3.4	9.6	2.6		0.9					
MOROCCO	FRESH	29.5									52.4	39.1	68.0
MOROCCO	FROZEN							2.9	4.2				
PANAMA	FROZEN											12.2	
PORTUGL	FROZEN												74.5
PRTRICO	FRESH								0.3				
R KOREA	FROZEN			10.0	1.7								5.4
SPAIN	FRESH	43.3	33.0	2.4	34.9	41.4	34.2	0.1		27.2	54.1	84.9	
SPAIN	FROZEN							182.1		119.1	36.8		
TUNISIA	FRESH	16.8	64.2	90.9	28.4	112.0	39.3					2.1	3.0
TUNISIA	FROZEN											25.2	
TURKEY	FRESH	33.3	10.2	8.5	43.0				8.0	6.2	13.5	3.1	14.0
U KING	FRESH					2.5	0.6	0.3				0.6	
USA	FRESH	24.9	46.7	5.1	10.6	2.6	1.1	128.4	162.0	234.4	141.2	33.9	0.4
VENEZLA	FRESH											0.1	
VENEZLA	FROZEN											29.5	
TOTAL		156.7	162.9	136.4	153.7	181.2	86.5	134.2	404.0	451.2	481.6	268.2	238.5

Table 2-2. Monthly import of Atlantic bluefin to Japan by origin of country and category, 1991.

NATION	CATEGORY	1	2	3	4	5	6	7	8	9	10	11	12
AZORES	FRESH					1.4							
CANADA	FRESH	0.5								87.3	148.9	140.4	1.3
CANADA	FROZEN					7.0		18.1					2.7
CANARY	FRESH				2.9	2.0			2.2				
CANARY	FROZEN			53.4				1.6					
FRANCE	FRESH				5.8	0.3	0.5						
FRANCE	FROZEN											4.3	
GREECE	FRESH	5.6	1.5	4.2	1.1		0.2	0.3	0.4	0.7	18.1	18.5	16.6
HONDURS	FROZEN	29.9								8.1			47.4
ITALY	FRESH					3.1	9.9		2.7	6.1	0.2		
ITALY	FROZEN								1.6				
LIBYA	FRESH					3.4	33.0						
MALTA	FRESH					1.7	32.9	2.0					
MEXICO	FRESH			5.7	1.8								
MOROCCO	FRESH										12.0	9.7	
MOROCCO	FROZEN	10.8							7.0	11.0			
PANAMA	FROZEN										287.4		
PORTUGL	FRESH			0.2	4.9	9.5							
PORTUGL	FROZEN										150.4	89.3	
R KOREA	FROZEN							0.2			138.1		58.8
SPAIN	FRESH	49.0	8.9	0.9	13.3	89.3	71.0				3.3	35.4	51.7
SPAIN	FROZEN	8.4							4.4	4.4	61.7	77.4	
ST VINI	FROZEN											10.3	73.4
TRINIDO	FROZEN											1.0	9.7
TUNISIA	FRESH	39.5	31.3	49.1	38.4	155.5	57.2	0.8			0.3	0.9	33.1
TURKEY	FRESH	24.1	4.7	16.8	10.7				1.8	1.2	50.0	9.5	1.6
U KING	FRESH		0.7									0.6	0.5
USA	FRESH	4.3	12.0	53.2	35.3		21.1	45.1	168.4	265.8	80.5	33.0	0.4
VENEZLA	FROZEN									16.9		44.1	
GRAND TOTAL		172.1	59.1	183.5	114.2	273.2	226.0	72.3	275.8	520.4	958.1	305.3	248.5

Table 2-3. Monthly import of Atlantic bluefin to Japan by origin of country and category, 1992.

NATION	CATEGORY	1	2	3	4	5	6
CANADA	FRESH	2.9	3.4	1.4			
FRANCE	FRESH				1.9	2.6	
GREECE	FRESH	13.1	2.9	1.5	0.5	0.2	
ITALY	FRESH			7.0		11.5	2.2
LIBYA	FRESH						1.6
MALTA	FRESH	0.1		2.0		20.7	25.0
PANAMA	FROZEN		47.8		53.4		
PORTUGL	FRESH		2.7	3.1	6.1	1.7	4.9
R KOREA	FROZEN			0.3		86.8	0.5
SPAIN	FRESH	8.0	0.7		1.0	29.1	53.4
TRINIDO	FROZEN	13.0					
TUNISIA	FRESH	55.3	82.3	38.0	91.6	82.2	42.3
TURKEY	FRESH	9.3	14.4	18.7	131.8		0.2
USA	FRESH	4.3	14.2	32.3	15.5	0.3	1.9
GRAND TOTAL		106.0	168.4	104.3	301.8	235.1	132.0

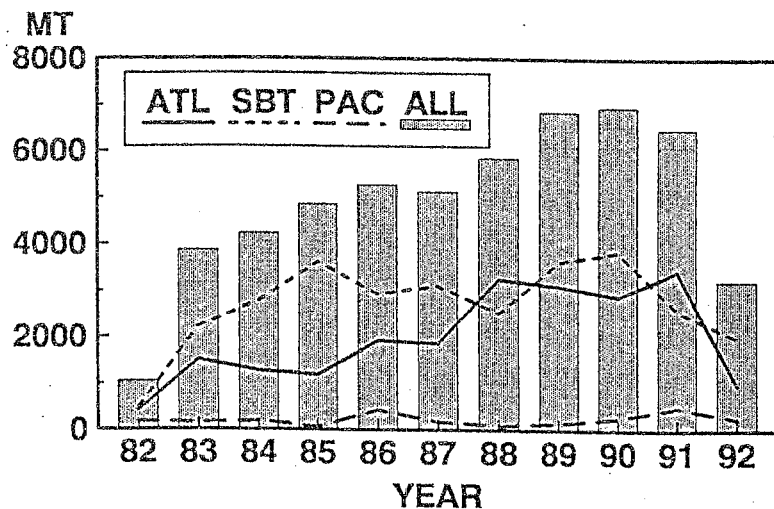


Fig. 1. Annual import of bluefin tuna (including southern bluefin tuna) to Japan for 1982-1992 (up to June).

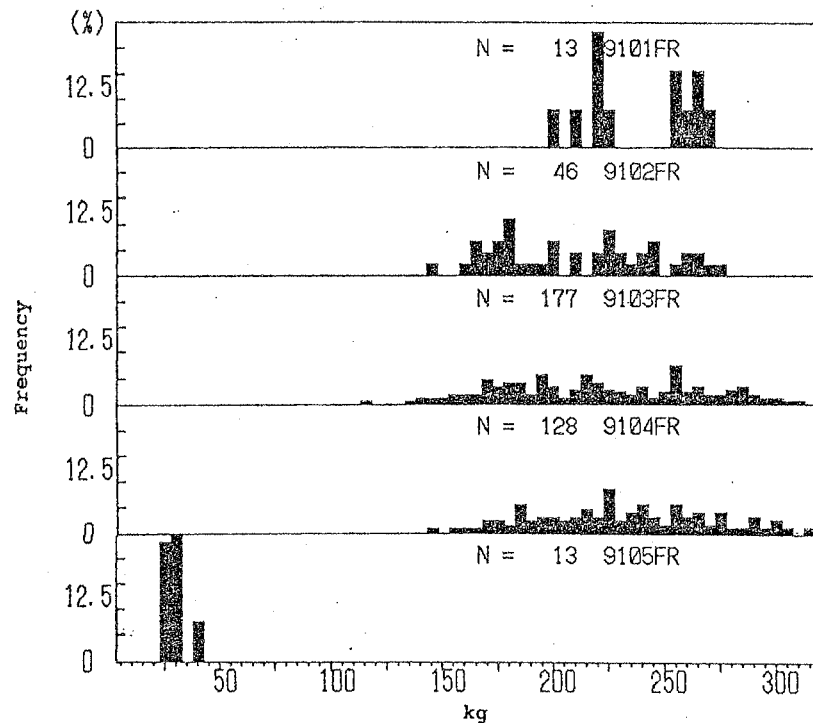


Fig. 2-1. Dressed weight (kg) frequency of Atlantic bluefin tuna exported to Japan by France. "N" denotes the number of sample. Letters at upper right corner show year (first two digit), month (second two digits), country (third two digits) and gear (last two digits). Abbreviations for gear are : CU=cultivated, LL=longline, PS=purse seine, TR=trap, blank=unknown.

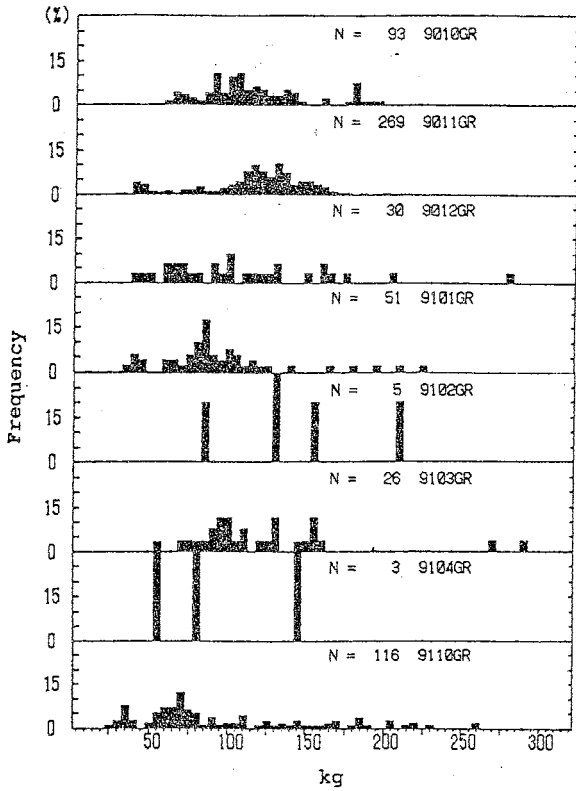


Fig. 2-2. Dressed weight (kg) frequency of Atlantic bluefin tuna exported to Japan by Greece. Explanation for abbreviations is given in Fig. 2-1.

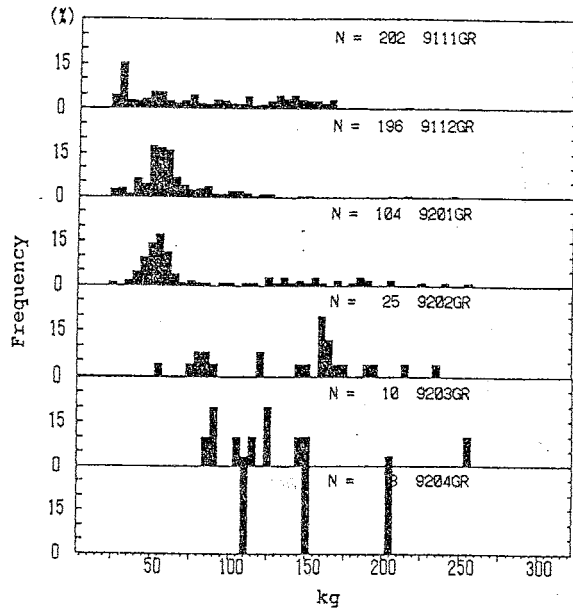


Fig. 2-2. Continued.

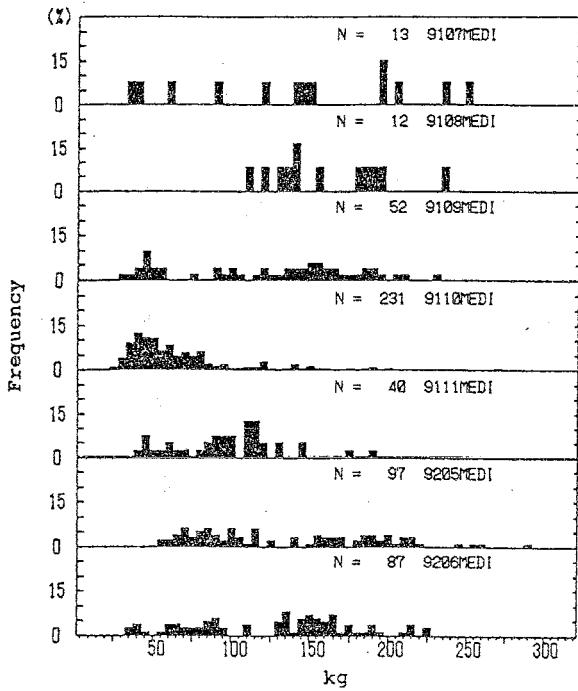


Fig. 2-3. Dressed weight (kg) frequency of Atlantic bluefin tuna exported to Japan by unknown country(s) in the Mediterranean area. Explanation for abbreviations is given in Fig. 2-1.

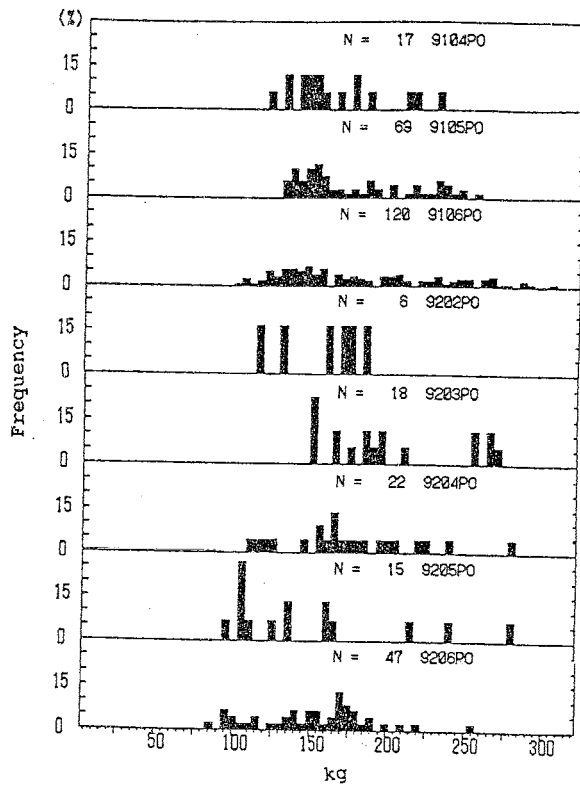


Fig. 2-4. Dressed weight (kg) frequency of Atlantic bluefin tuna exported to Japan by Portugal. Explanation for abbreviations is given in Fig. 2-1.

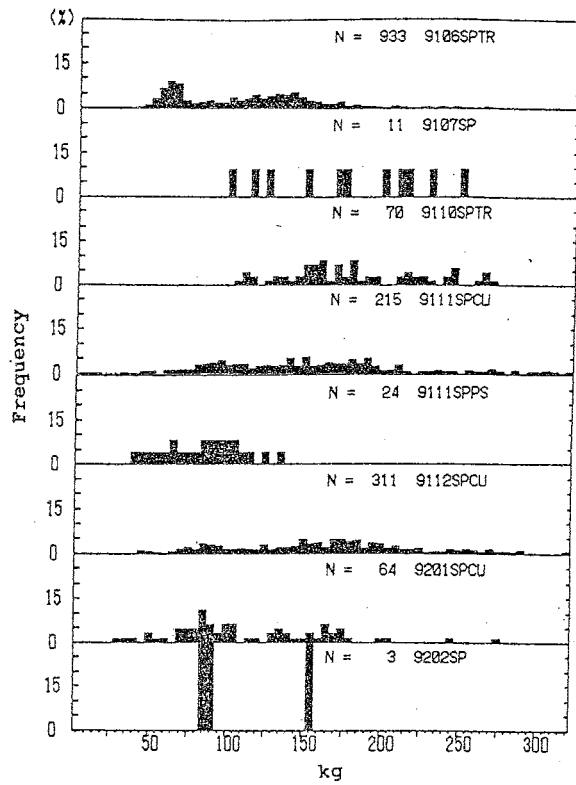
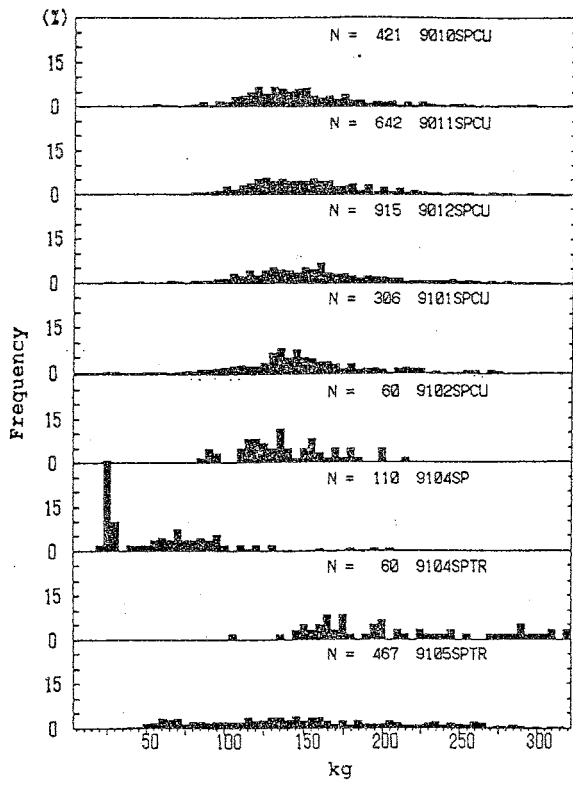


Fig. 2-5. Dressed weight (kg) frequency of Atlantic bluefin tuna exported to Japan by Spain. Explanation for abbreviations is given in Fig. 2-1.

Fig. 2-5. Continued.

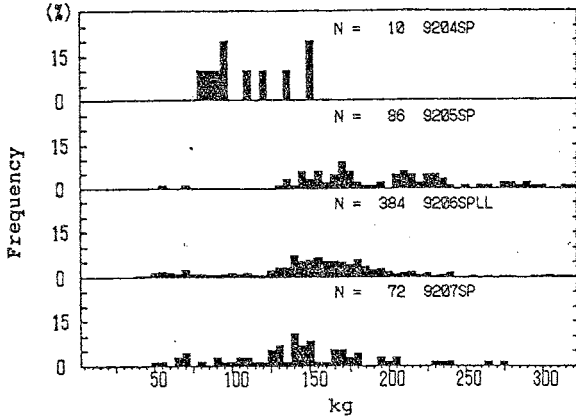


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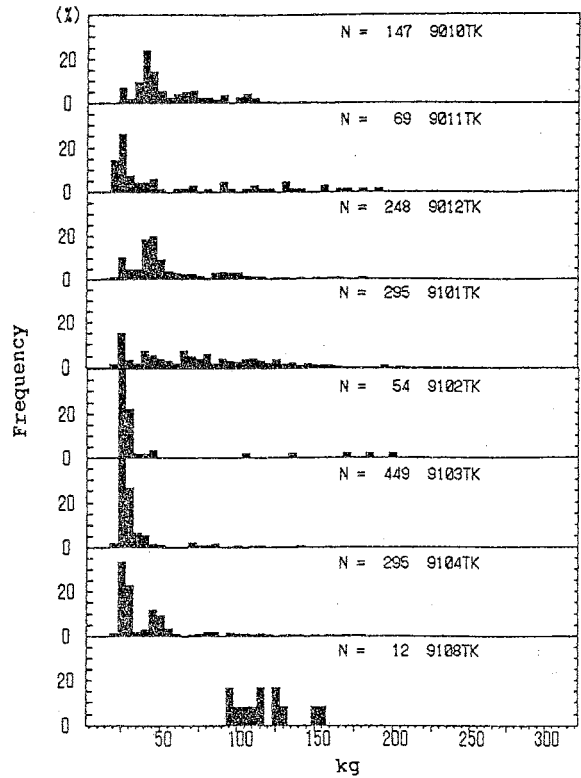


Fig. 2-6. Dressed weight (kg) frequency of Atlantic bluefin tuna exported to Japan by Turkey. Explanation for abbreviations is given in Fig. 2-1.

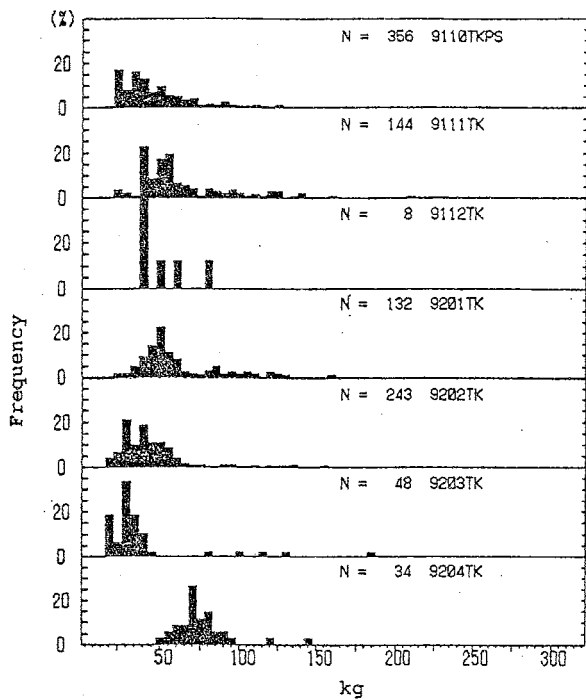


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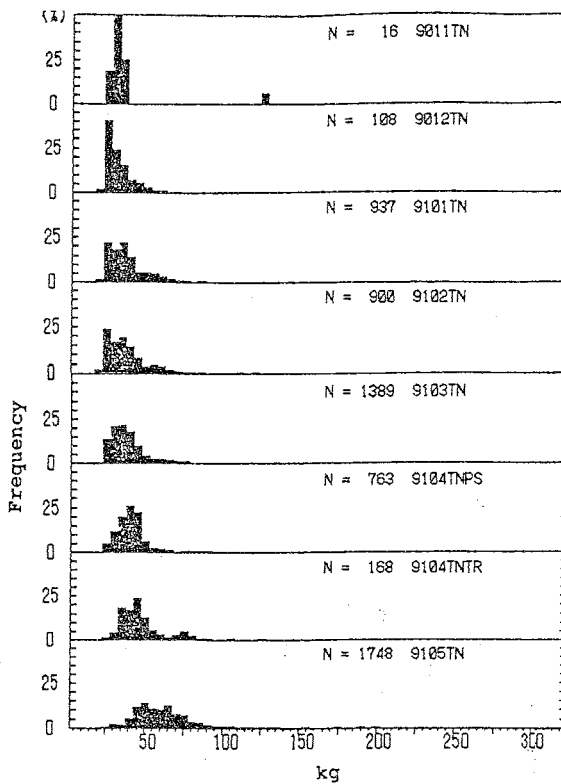


Fig. 2-7. Dressed weight (kg) frequency of Atlantic bluefin tuna exported to Japan by Tunisia. Explanation for abbreviations is given in Fig. 2-1.

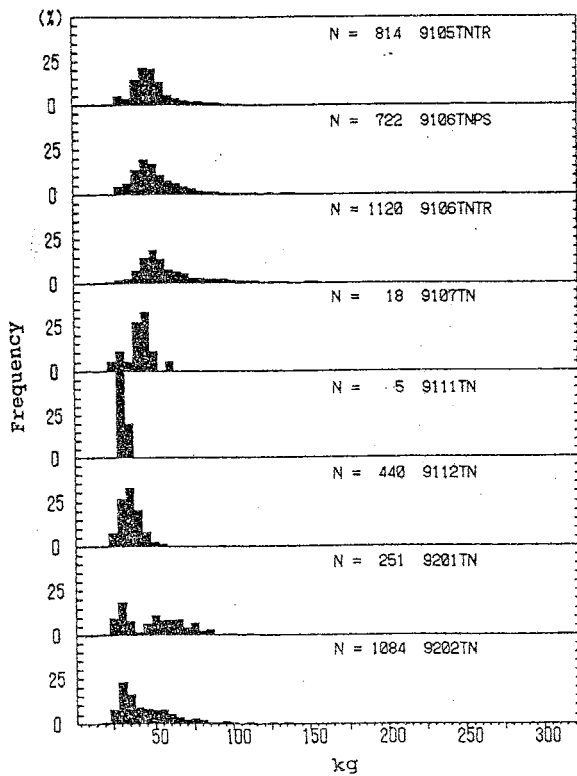


Fig. 2-7. Continued.

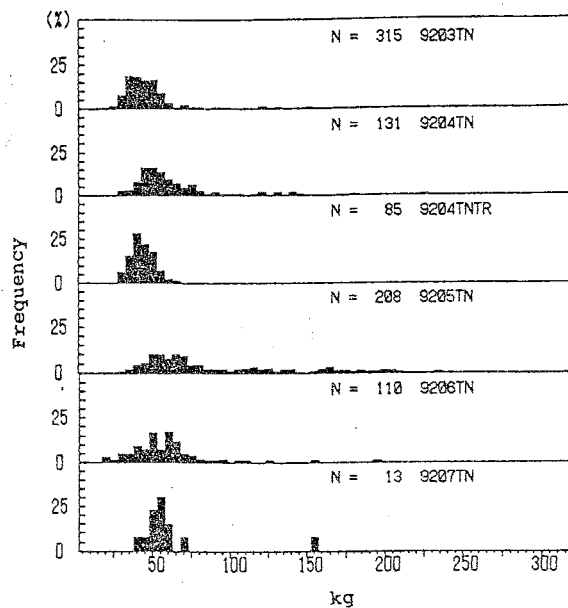


Fig. 2-7. Continued.