

BLUEFIN TUNA CAUGHT BY SPANISH BAITBOAT AND LANDED IN DAKAR IN 2010

Fambaye Ngom Sow¹ and Sidi Ndaw²

SUMMARY

This paper resumes the some available data and information about bluefin tuna caught and landed by Spanish baitboats in Dakar in 2010 providing data by gear, geographic area, fishing day, landing day, mean length, mean weight and size composition of fish landed. Some financial support was received from the ICCAT Atlantic-Wide Research Programme on Bluefin Tuna (GBYP).

RÉSUMÉ

Cette étude présente un résumé des données et des informations disponibles concernant les prises et les débarquements de thon rouge des canneurs espagnols à Dakar en 2010. Les données sont présentées par engin, zone géographique, jour de pêche, jour de débarquement, longueur moyenne, poids moyen et composition de taille des poissons débarqués. Le Programme de recherche de l'ICCAT sur le thon rouge englobant tout l'Atlantique (GBYP) a apporté une contribution financière.

RESUMEN

En este documento se resumen algunos de los datos e información disponibles sobre el atún rojo capturado y desembarcado por los barcos de cebo vivo españoles en Dakar en 2010. Los datos se presentan por arte, zona geográfica, día de pesca, día de desembarque, talla media, peso medio y composición por talla de los ejemplares desembarcados. Se contó con el apoyo financiero del Programa de investigación sobre el atún rojo para todo el Atlántico (GBYP).

KEYWORDS

Bluefin tuna, catches, baitboat, Dakar

Introduction

Atlantic bluefin tuna inhabit the pelagic ecosystem of the entire North Atlantic and its adjacent seas, including the Mediterranean Sea. Among the tuna, bluefin tuna is the only large pelagic fish living permanently in temperate Atlantic waters (Bard et al. 1998; Fromentin and Fonteneau 2001).

In East Atlantic, the southern theoretical ecologic limit of Bluefin tuna is the Cap Blanc (37°21 N). Bluefin tuna catches are always very uncommon in the south of the Canary Islands.

In Senegal, there was no bluefin tuna catch since the beginning of the years Fifties. The tuna baitboats fishing operating in Senegal coastal area between 12 to 21° N (West Africa) target primarily three species of tropical tunas yellowfin, Skipjack and Bigeye.

In 2010, a catch of certain number of bluefin Tuna by Spanish baitboats based in Dakar were announced. These catches were marketed at the same price as Bigeye / Yellowfin tuna towards Spain. It is in this context that this note is produced in order to confirm and give the relative information to these catches carried out by Spanish baitboats based in Dakar. The data are the landing day, the fishing period, the geographic area, the total landings, and the size composition.

¹ Chercheur au Centre de Recherches Océanographiques de Dakar/Thiaroye; Email: famngom@yahoo.com

² Responsable du Bureau des statistiques de la Direction des pêches Maritimes, Email: sidindaw@hotmail.com

Methodology adopted

Following the information collected, the Centre de Recherches Océanographiques de Dakar/Thiaroye (CRODT) and the Direction des Pêches Maritimes of Senegal conducted jointly the investigations in order to compile documents and information relative on bluefin catches in 2010. Meetings were held between the Administration, the Research and the Professionals of tuna fisheries to investigate the catches of bluefin tuna. Later on, Scientists and the fisheries Administration started to discuss the method to adopt in order to collect the maximum information and documents. Thus, many sources were collected.

This paper is based upon:

- Logbooks data collected on the baitboats,
- Statistical sheet and reports filled by the observers of the Direction de la Protection et de la Surveillance des pêches (DPSP) embarked on these spanish baitboats ;
- Trade declarations of fishing societies ;
- Information received from the companies trustees ;
- Documents from the customs office ;
- Sampling in port done by the technicians from the Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT).

All the fishery data corresponding were selected to be analyzed. For calculation we used the equation relationship between L- W;

$$W=2.95.10^{-5}*FL^{2.899} \text{ (Anon. 1984)}$$

Results and discussion

The exploitation of the various documents and information emphasized that Spanish baitboats based in Dakar captured and unloaded bluefin tuna during the first quarter of 2010. The unloading took place precisely in February. Those tunas were fresh fishes. The state of unloaded fishes (fresh) supposes that the fish was caught during the most recent sets fishing carried out by these baitboats. In February 2010, 19 specimens were unloaded in Dakar port. The total catches were 4350 kg **Table 1**. The mean size is around 229 cm and the mean weight 224 kg. These measurements indicate that the captured individuals were adults. It should be also emphasize the fact that these specimens had first dorsal length (LD1) except standards which the samplers could not measure with a caliper.

Table 2 shows that bluefin tuna catches were carried out in the latitudes 16°- 17° and longitude 17° and 18°. They are the fishing zones between Senegal and Mauritania. The **Figure 1** indicates the fishing areas of the baitboat fleet based in Dakar in February 2010 (12-21° N).

The **Figure 2** shows the size distribution of bluefin and bigeye caught by these boats at the same period fishing and area. We note that sizes of bluefin landed were bigger than bigeye sizes. But, it might possible that bluefin tuna smaller are sampled like bigeye.

Conclusion and recommendation

All documents analyzed confirm that fishes caught by Spanish baitboats and landed at Dakar in February 2010 are Bluefin tuna. The presence of bluefin in this southern area could be linked to trophic migration of bait and environmental changes. More attention should be devoted by the samplers.

References

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Table 1. Landings of Bluefin in Dakar.

<i>Vessel</i>	<i>Landing day</i>	<i>Total bluefin landings (kg)</i>	<i>Total Number</i>	<i>Mean length (cm)</i>	<i>Mean weight (Kg)</i>
Baitboat 1	23 /02/2010	474	2	213	237
Baitboat 2	25 /02/2010	3089	13	235	238
Baitboat 3	28 /02/ 2010	787	4	255	197
Total		4350	19	229	224

Table 2. Size composition of bluefin tuna caught by geographical area and boat.

<i>Vessel</i>	<i>Fishing day</i>	<i>Landing day</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Weight (kg)</i>	<i>Size (cm)</i>	<i>Numbers</i>	<i>Depth (m)</i>	<i>Sea surface Temperatures (Celsius)</i>
Baitboat 1	16 /02/2010	23 /02/2010	16° 55 N	17° 39 W	252	206	1	2600	22
					222	182	1		
Baitboat 2	19/02/ 2010	25 /02/2010	17° 19 N	17° 31 W	299	261	1	2500	21,4
					273	253	2		
					270	252	1		
					264	250	2		
					236	241	1		
					224	236	1		
					212	232	1		
					211	231	1		
					197	226	1		
					195	225	1		
					171	215	1		
Baitboat 3	27 /02/2010	28 /02/ 2010	17° 50 N	17° 40 W	212	232	1	2600	23
					192	224	2		
					162	211	1		

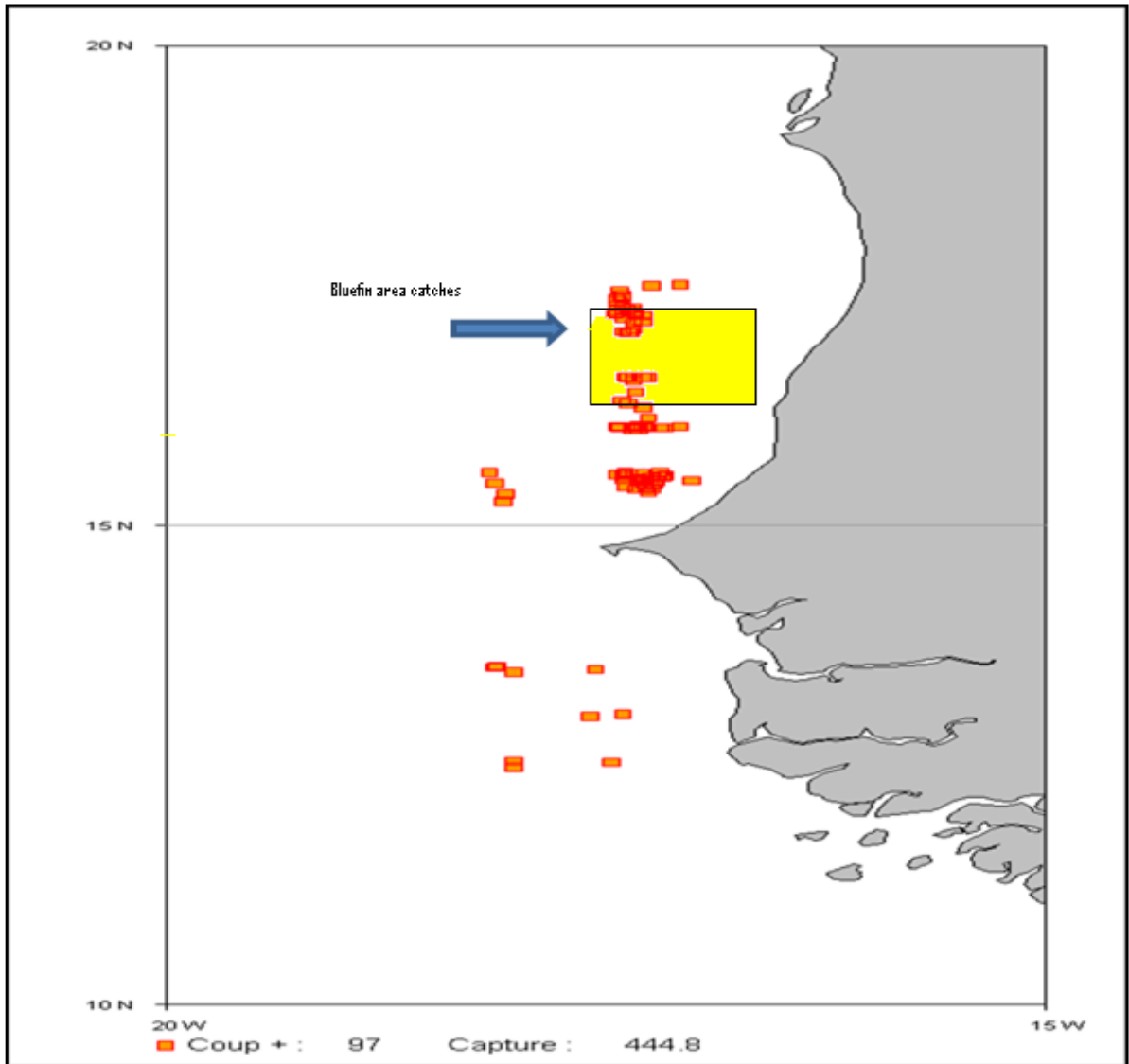
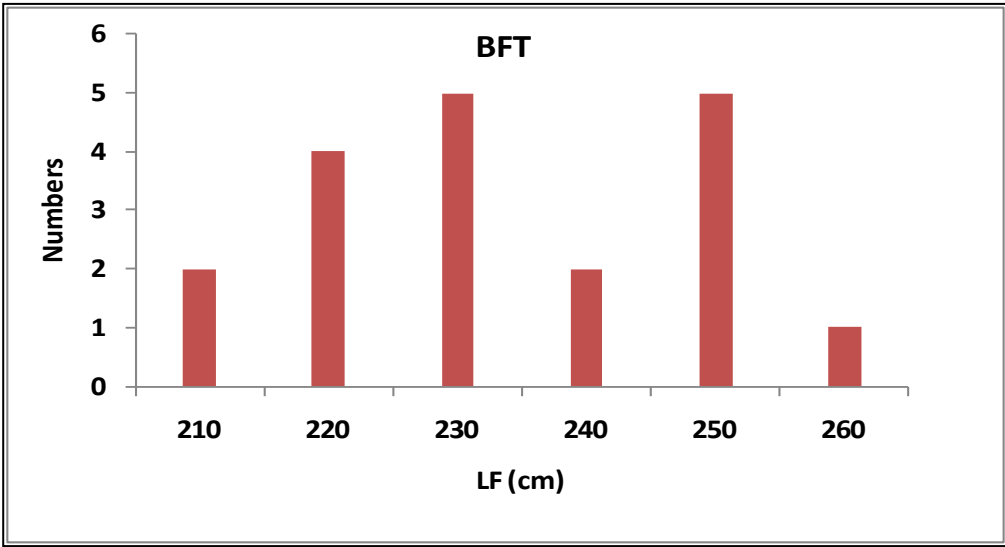
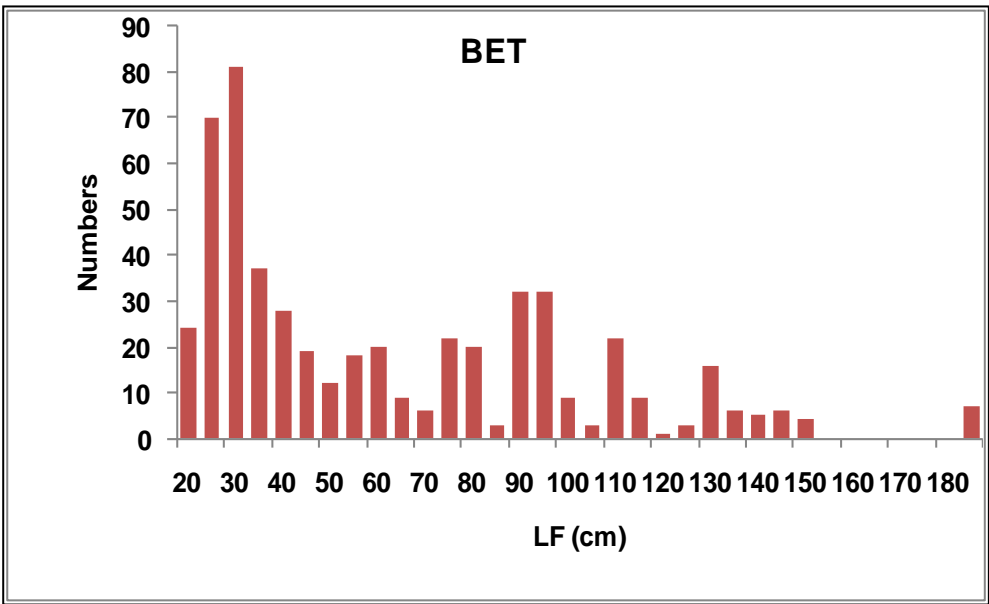


Figure 1. Fishing areas of the baitboat fleet based in Dakar in February 2010.



a



b

Figure 2. Size frequencies distribution: a: Bluefin tuna, b: Bigeye.