

## BIGEYE TUNA: UPDATE ON TASK II SIZE SAMPLING BASED ON JAPANESE TUNA FLEET OPERATING IN URUGUAYAN EEZ (2009-2011)

R. Forselledo<sup>1</sup>, A. Domingo<sup>1,2</sup> and F. Mas<sup>1,3</sup>

### SUMMARY

*Between 2009 and 2011 Japanese-flagged tuna fishing vessels operated in Uruguay with a research fishing licence targeting Thunnus obesus. The fleet operated in Uruguayan jurisdictional waters (EEZ) and adjacent international waters of the Southwestern Atlantic Ocean. The present paper synthesizes the information referred to bigeye tuna (T. obesus) gathered by the Uruguayan Observer Program on board this fleet. The effort observed was 2,459,825 hooks in 1,060 sets with an observers' coverage of the fleet of 100%. A total of 3,834 bigeye tuna were measured with a mean fork length (FL) of 147 cm (range 54-207) in the period 2009-2011. Size class distributions by sex and year are presented.*

### RÉSUMÉ

*Entre 2009 et 2011, des navires de pêche de thonidés battant le pavillon du Japon ont opéré en Uruguay avec un permis de pêche de recherche ciblant le Thunnus obesus. La flottille opérait dans les eaux territoriales uruguayennes (ZEE) et les eaux internationales adjacentes du Sud-Ouest de l'océan Atlantique. Le présent document synthétise les informations sur le thon obèse (T. obesus) recueillies par le programme d'observateurs uruguayens embarqués à bord de cette flottille. L'effort observé a été de 2.459.825 hameçons au cours de 1.060 opérations avec une couverture d'observateurs de la flottille de 100%. Au total, 3.834 thons obèses ont été mesurés avec une longueur moyenne à la fourche (FL) de 147 cm, s'inscrivant dans une gamme de 54-207 cm au cours de la période 2009-2011. Les distributions de classe de tailles par sexe et année sont présentées.*

### RESUMEN

*Entre 2009 y 2011, atuneros con pabellón de Japón operaron en Uruguay con una licencia de pesca de investigación y se dirigían al Thunnus obesus. La flota operaba en aguas jurisdiccionales de Uruguay (ZEE) y en aguas internacionales adyacentes del Atlántico sudoccidental. El documento sintetiza la información sobre patudo (T. obesus) recopilada por el Programa uruguayo de observadores a bordo de esta flota. El esfuerzo observado fue de 2.459.825 anzuelos en 1.060 lances con una cobertura de observadores del 100% en la flota. Se midieron en total 3.834 patudos, con una longitud a la horquilla media (FL) de 147 cm, rango 54-207 cm, en el periodo 2009-2011. Se presentan las distribuciones de clases de talla por sexo y año.*

### KEYWORDS

*Bigeye tuna, Task II, Size sampling, Japan, Uruguay*

<sup>1</sup> Laboratorio de Recursos Pelágicos, Dirección Nacional de Recursos Acuáticos (DINARA). Constituyente 1497, CP 11200, Montevideo, Uruguay.

<sup>2</sup> E-Mail: adomingo@dinara.gub.uy

<sup>3</sup> Centro de Investigación y Conservación Marina (CICMAR), Uruguay.

## 1. Introduction

Japanese-flagged tuna fishing vessels operated between 2009 and 2011 in Uruguay with a research fishing licence targeting *Thunnus obesus*. In agreement with Japan consulted in previous meetings, we synthesize in this paper the information obtained by the Uruguayan Observer Program regarding ICCAT Statistics Task II Size Sampling for bigeye tuna (*Thunnus obesus*).

## 2. Material and methods

The data presented in this study were obtained by scientific observers from the National Observer Program on board the Japanese fleet between 2009 and 2011. Japanese-flagged vessels operated almost exclusively within the UEEZ with an experimental fishing license during austral autumn and winter of 2009-2011. This fleet targeted bigeye and albacore tuna at depths ranging from 95 to 210 m Domingo *et al.* (2011). The fleet operated in Uruguayan jurisdictional waters (EEZ) and adjacent international waters of the Southwestern Atlantic Ocean (Domingo *et al.* 2011). The effort observed was 2,459,825 hooks in 1,060 sets with an observers' coverage of the fleet of 100%.

The information here presented was sent in the format requested to ICCAT to be included in the statistics data base.

## 3. Results and discussion

A total of 3,834 bigeye tuna were measured with a mean fork length (FL) of 147 cm (range 54-207) in the period 2009-2011. In **Table 1** we present the number of specimens measured per year and sex, together with the mean FL and range by sex.

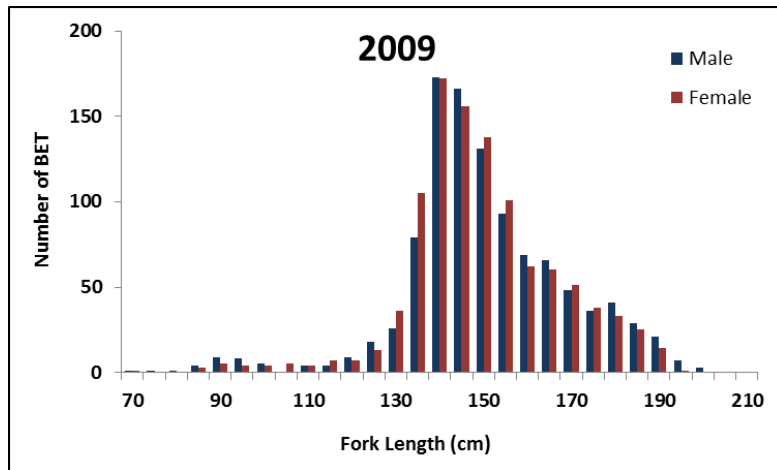
**Figures 1 to 3** presents the size class distribution per year and sex.

## References

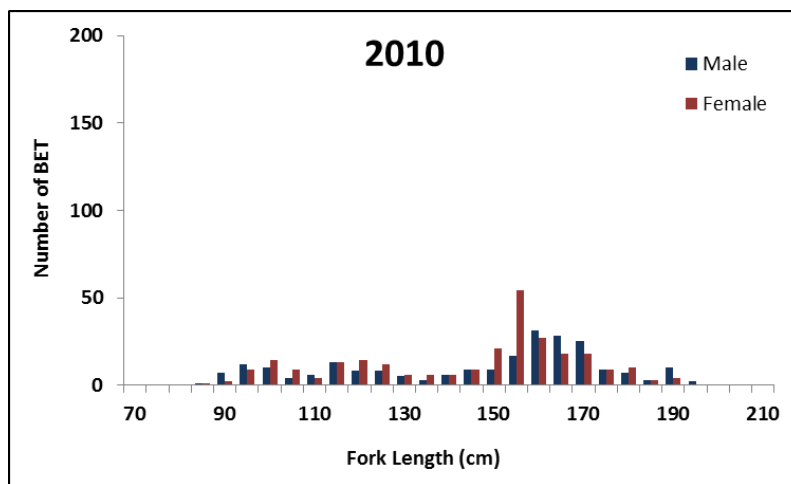
Domingo, A., Forselledo, R., Pons, M. and Ortega, L. 2011. Análisis de la información del atún ojo grande (*Thunnus obesus*) obtenida por el programa nacional de observadores de Uruguay entre 1998 y 2009. Collect. Vol. Sci. Pap. ICCAT, 66(1): 332-350.

**Table 1.** Data on bigeye tuna sampling conducted on board the Japanese fleet operating in Uruguay 2009-2011. Measurements are fork length (FL) in centimetres.

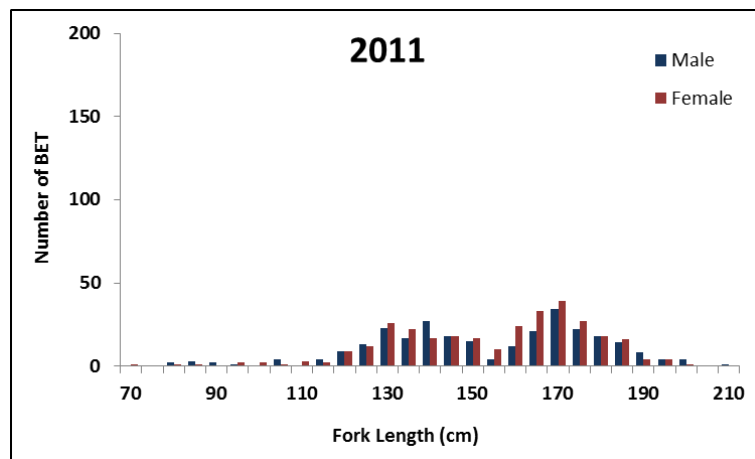
Year	Males		Females		Sex unknown		Total	
	Mean FL (range)	N° BSH	Mean FL (range)	N° BSH	Mean FL (range)	N° BSH	Mean FL (range)	N° BSH
2009	162 (69-260)	1226	152 (63-239)	1549	147 (69-261)	153	156 (63-261)	2928
2010	147 (70-234)	1762	156 (75-235)	1922	144 (88-203)	147	151 (70-235)	3831
2011	155 (71-230)	1783	143 (70-207)	1602	161 (85-205)	200	150 (70-230)	3147



**Figure 1.** Fork length distribution of bigeye tuna by sex in 5 cm intervals for the year 2009.



**Figure 2.** Fork length distribution of bigeye tuna by sex in 5 cm intervals for the year 2010.



**Figure 3.** Fork length distribution of bigeye tuna by sex in 5 cm intervals for the year 2011.