THE TUNA FISHERY ALONG THE ANGOLAN COAST

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SUMMARY

The abundance and distribution of tuna, as other marine resources along the Angolan coast, are highly influenced by the presence of the warm water current of Angola in the north area and the cold water current of Benguela in the south area, creating the Angola-Benguela Front with the seasonal shift between 14º-16ºS. The wide specific biodiversity found in the southern area is associated to the favorable distribution influenced by the cold waters, very rich in nutrients. The most common species found along this coast are Sarda sarda *(Atlantic bonito),* Euthynnus alletteratus *(little tunny),* Auxis thazard *(frigate tuna),* Scomberomorus tritor *(West African Spanish mackerel,* Katsuwonus pelamis *(skipjack tuna),* Thunnnus albacares *(yellowfin tuna),* Thunnus obesus *(bigeye tuna) and* Thunnus alalunga *(albacore). The high concentrations are related to a define period of the year, mainly more abundant between June and December, that is the period that the catches are very important and licenses are given.*

RÉSUMÉ

*L'abondance et la répartition des thonidés, tout comme les autres ressources marines rencontrées sur la côte angolaise, sont fortement influencées par la présence du courant d'eau tempérée dans la zone septentrionale de l'Angola et du courant d'eau froide du Benguela dans la zone méridionale, ce qui crée le Front Angola-Benguela avec le déplacement saisonnier entre 14º-16ºS. La vaste biodiversité spécifique rencontrée dans la zone méridionale est associée à la distribution favorable influencée par les eaux froides, très riches en nutriments. Les espèces les plus communément trouvées le long de cette côte sont la bonite à dos rayé de l'Atlantique (*Sarda sarda*), la thonine commune (*Euthynnus alletteratus*), l'auxide (*Auxis thazard*), le thazard blanc (*Scomberomorus tritor), *le listao (*Katsuwonus pelamis*), l'albacore (*Thunnus albacares*), le thon obèse (*Thunnus obesus*) et le germon (*Thunnus alalunga*). Les fortes concentrations sont associées à une période de l'année bien définie et sont essentiellement plus abondantes entre juin et décembre ; il s'agit de la période où les captures sont très importantes et les licences sont octroyées.*

RESUMEN

La abundancia y distribución de túnidos, al igual que las de otros recursos marinos a lo largo de la costa de Angola, están bajo la fuerte influencia de la corriente de aguas cálidas de Angola en la zona septentrional y de la corriente de aguas frías de Benguela en la zona meridional, que crean el frente Angola-Benguela con un desplazamiento estacional entre 14º-16º S. La biodiversidad específica amplia de la zona meridional está asociada con la distribución favorable bajo la influencia de las aguas frías, muy ricas en nutrientes. Las especies más comunes de estas costas son Sarda sarda *(bonito del Atlántico),* Euthynnus alletteratus *(bacoreta),* Auxis thazard *(melva),* Scomberomorus tritor *(carita oeste africano),* Katsuwonus pelamis *(listado),* Thunnus albacares *(rabil),* Thunnus obesus *(patudo) y* Thunnus alalunga *(atún blanco). Las elevadas concentraciones están relacionadas con un periodo definido del año, más abundantes entre junio y diciembre, que es el periodo en el que las capturas son muy importantes y para el que se conceden licencias.*

KEYWORDS

Tuna abundance, distribution, tuna concentration

1. Fishery

Big tuna are industrially fished by the joint-venture companies with the flag of the vessel owner country. During the last few years, licenses are given to the Japanese, Spanish and French vessels; the catches are landed abroad and directly reported to ICCAT. The main species registered in the country, caught as by-catch in the industrial, semi-industrial and artisanal fisheries are *Sarda sarda*, *Euthynnus alletteratus*, *Auxis thazard* and *Scomberomorus tritor*. Other species are simply reported as tuna. Actually, these species are caught as target in the south of Baía-Farta, located in the south of Benguela, using the trap as gear.

2. Catches

Figure 1 shows the catches of tuna caught as by-catch by the industrial, semi-industrial and artisanal fisheries from 2005 to 2010. The catches have increased in 2010 due to the improvement registered in the data collection system by the National Direction of Fisheries of the Ministry of Agriculture, Rural Development and Fisheries. All the registered species have reached 1500 tons during this year.

Figure 2 shows the catches of tuna caught in Benguela by the artisanal and semi-industrial fisheries, monitored by the Fisheries Research Centre of Benguela. Tuna are targeted with traps and caught in a very small proportion by the purse-seiners (**Figure 3**). 78% of tuna is caught by traps, 20% by the purse-seiners and 2% by gillnet. In general, the catches show a decreasing trend from 2007 to 2011.

3. Biological sampling

Figures 4 and 5 show the length frequencies distribution by year and mean length by year and month of *E. alletteratus* and *A. thazard* sampled in Benguela. The size of *E. alletteratus* ranged between 23-74 cm and the mode between 38-53 cm. The lower mean length was registered in 2009 and 2011 (47) and fluctuates throughout the months. The size of *A. thazard* ranged between 20-46 cm and the mode showed a wide range of variability between the years. The lower mean length was registered in 2008, 2009 and 2011 (34 cm), principally in March, April and May.

4. Assessment

The National Institute of Fisheries of Angola is improving the quality of data collected in order to be forward to ICCAT and assessed according to ICCAT methodology.

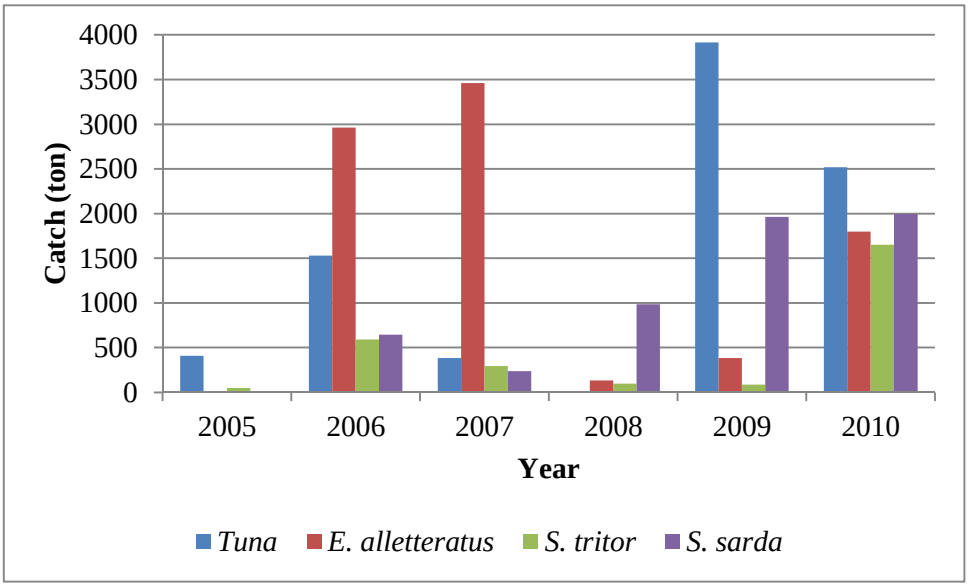

Figure 1. Catches of tuna caught as by-catch by the industrial, semi-industrial and artisanal fisheries.

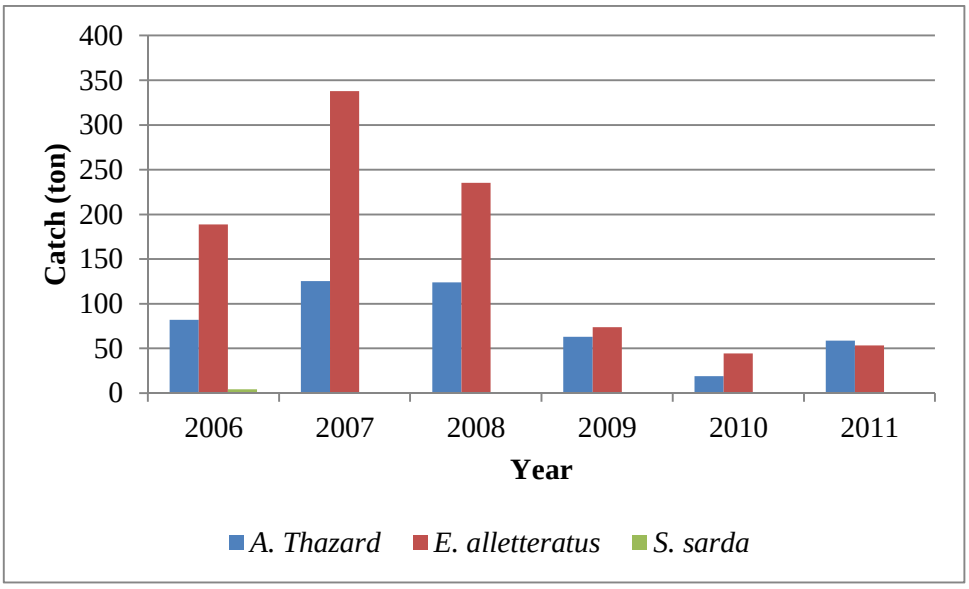

Figure 2. Catches of tuna caught in Benguela by the artisanal and semi-industrial fisheries.

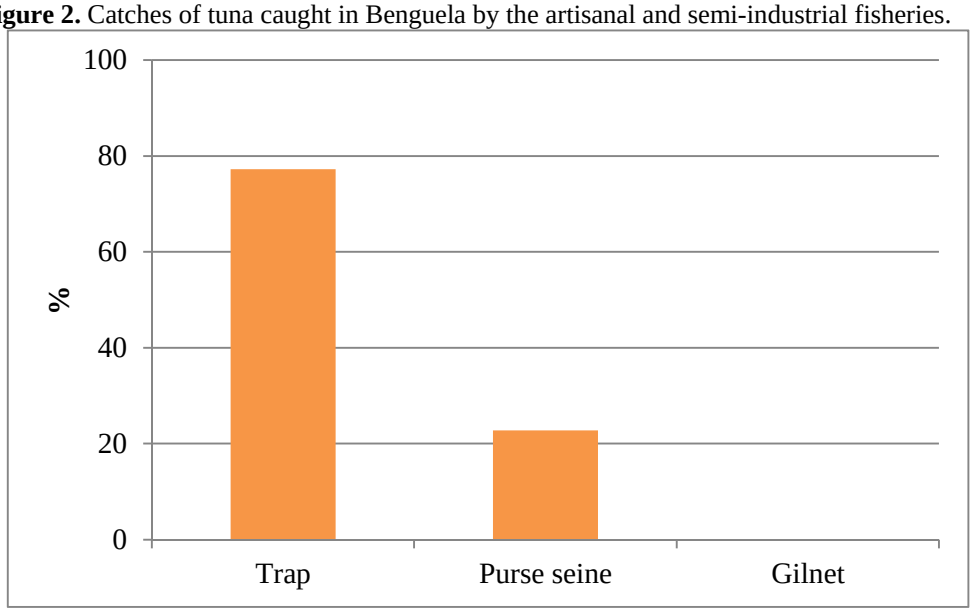

Figure 3. Proportion of tuna by gear in Benguela.

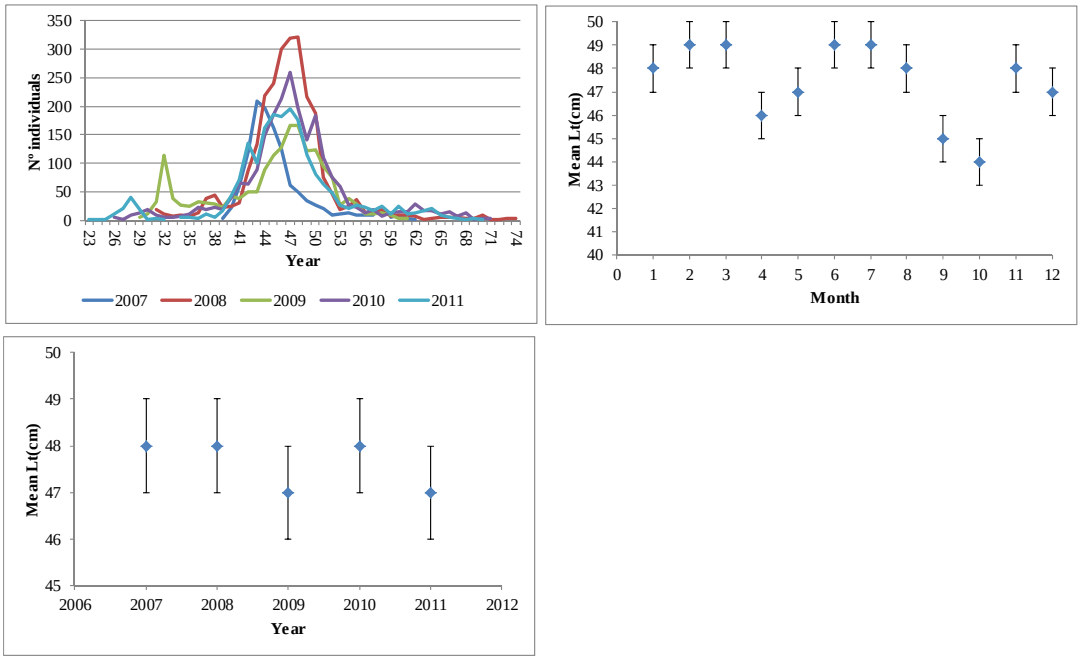

Figure 4. Length frequencies distribution by year and mean length by year and month of *E. alletteratus.*

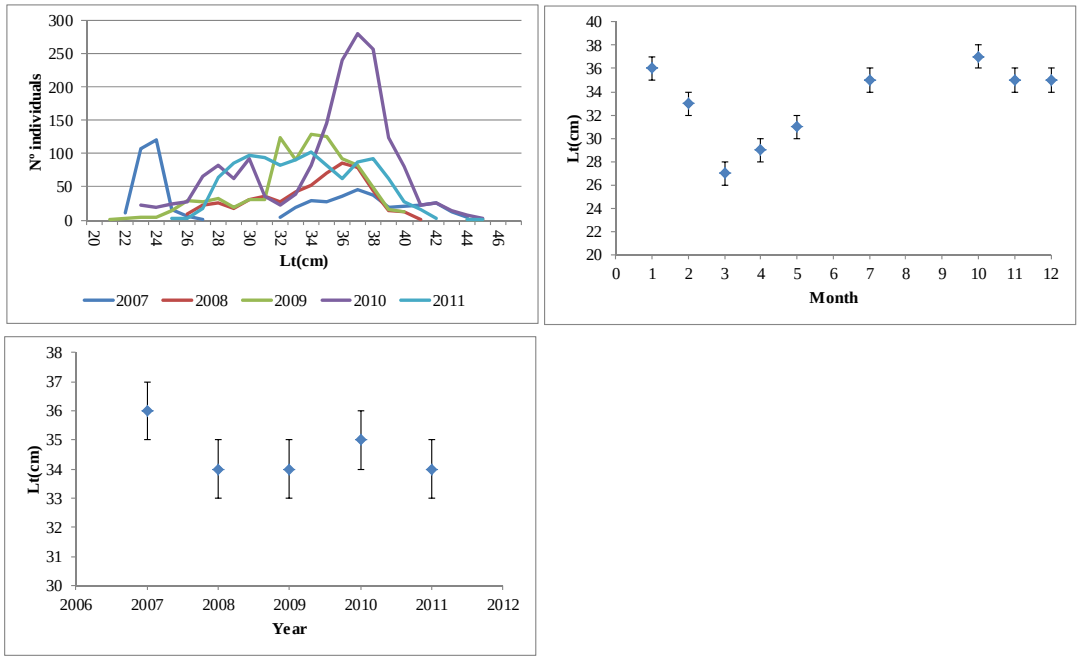

Figure 5. Length frequencies distribution by year and mean length by year and month of *A. thazard.*