

UTILIZATION AND TRADE OF FAUX POISSON LANDED IN ABIDJAN

Justin Amandè Monin¹, Jacqueline N'Cho Amalatchy¹,
David Kouakou N'Goran², Major N'Cho Chris^{1,2}, Frédéric Koffi Kouadio^{1,2},
Charlotte Kouadio Ahou Nadège¹, Patrice Dewals³ and Victor Restrepo⁴

SUMMARY

The document presents the main results of research on the trade and utilization of the by-catch retained and landed in Abidjan by purse seiners in the eastern Atlantic. According to this research, the retained bycatch highly contributes to food security and has large social and economic importance for the local population. A part of the fish landed in Abidjan by purse seiners was directed to other cities in Ivory Coast and also to some other countries like Burkina Faso and Mali. The tuna remaining in Abidjan was mainly (95%) utilized by the garba-industries (garbadromes). These garbadromes generated between six and nine thousand jobs and are accessible to almost all the population, particularly for young people. However, the sustainability of this trade cannot be effective without an appropriate retention policy for tropical tunas in the Atlantic Ocean that should be adopted by ICCAT.

RÉSUMÉ

Le document présente les principaux résultats de la recherche sur le commerce et l'utilisation des prises accessoires retenues et débarquées à Abidjan par les senneurs dans l'Atlantique Est. D'après cette recherche, les prises accessoires retenues contribuent grandement à la sécurité alimentaire et elles revêtent une grande importance sociale et économique pour la population locale. Une partie des poissons débarqués à Abidjan par les senneurs a été acheminée vers d'autres villes de Côte d'Ivoire et également vers d'autres pays, comme le Burkina Faso et le Mali. Les thonidés demeurant à Abidjan ont été majoritairement (95%) utilisés par les industries du garba (garbadromes). Ces garbadromes ont créé entre six et neuf mille postes de travail et sont accessibles à pratiquement toute la population, notamment les jeunes. Toutefois, la durabilité de ce commerce ne peut pas être effective sans une politique de rétention appropriée que l'ICCAT devrait adopter en ce qui concerne les thonidés tropicaux de l'océan Atlantique.

RESUMEN

El documento presenta los principales resultados de la investigación sobre el comercio y la utilización de la captura fortuita retenida y desembarcada en Abiyán por los cerqueros en el Atlántico oriental. De acuerdo con esta investigación, la captura fortuita retenida contribuye enormemente a la seguridad alimentaria y tiene una gran importancia económica y social para la población local. Una parte del pescado desembarcado en Abiyán por los cerqueros se dirigía a otras ciudades en Côte d'Ivoire y también a otros países como Burkina Faso y Mali. El atún que permanece en Abiyán era utilizado principalmente (95%) por las industrias de garba (plato a base de pescado frito y sémola) en los garbadromes (restaurantes que venden dicho plato). Estos garbadromes generaron entre seis y nueve mil empleos y son accesibles para casi toda la población, especialmente para la gente joven. Sin embargo, la sostenibilidad de este comercio no puede ser efectiva sin una política adecuada de retención para los túnidos tropicales en el Atlántico que debería adoptar ICCAT.

KEYWORDS

Discard, full retention, local market fish, trade, socio-economy

¹ Centre de Recherches Océanologiques d'Abidjan, 29, rue des Pêcheurs - BP V 18 Abidjan - Côte d'Ivoire, monin.amande@cro-ci.org

² Institut National Polytechnique Félix Houphouët Boigny, B.P. 1313 Yamoussoukro (RCI)

³ Institut de Recherche pour le Développement (IRD), UMR 212 MARBEC, Sète, France

⁴ ISS-Foundation, 805 15th Street N.W. Suite 650, Washington DC 20005, United States

Introduction

The landings of purse seiners in the Eastern Atlantic Ocean, particularly in Abidjan (Côte d'Ivoire) is comprised of tunas directed to canneries or cargos for exportation and the non-intentional catches or byproduct that is destined to the local market. The fish landed for the local market was called "Faux-poisson" because of historical reasons (Amon-Kothias et al. 1996). This local market fish comprises small individuals of major tunas (in particular *K. pelamis*) and small tuna species (*E. alletteratus*, *A. thazard*, *A. rochei*, etc.) but also of billfish and other bony fish. Amandè et al. (2016) estimated the utilizable average annual amount of bycatch by the main tuna purse seiners operating in the eastern Atlantic (France, Spain and Ghana) at 21,582 tons while the fish landed and sold on the local market in Abidjan accounts for half of this utilizable total bycatch. However, despite the important increase of this local market fish since the 1980's, only one socio-economic study was conducted in relation to this issue (Romagny et al. 2000). This study describes the utilization and trade of faux-poisson landed in Abidjan and underlines the social and economic importance of bycatch retained and landed by tropical tuna purse-seiners in Abidjan.

Material and methods

To describe the trade and utilization of the landings by purse seiners in Abidjan we researched different levels of the local market sector. We first started to update the previous sector (market) diagram by using interviews. During two months, we followed the fish landed or arriving in Abidjan by purse seiners to try to find their final destinations. We used the results of this research to evaluate the proportion of fish in each chain link of the sector diagram. In-depth interviews and analysis of the main chain link of sector diagram was conducted to shed light on the social and economic importance of the local market fish. The study was extended to nutritional issues (e.g quality and potential contamination of the local market fish compared to the ones destined for canneries, nutritional quality of tuna landed on the local market) but these issues will not be addressed in the present document.

Results

Figure 1 describes the sector diagram of the "faux-poisson" landed in Abidjan for the local market. The majority of the local market fish was landed by purse seiners but recently some containers coming from Dakar (Senegal) also provide fish (skypjack particularly) to the local market in Abidjan. Almost 99% of the fish landed or provided to the local market was sold to wholesalers and less than 1% to crew members and dockers (**Figure 2**). Crew members and dockers used their fish to their own consumption or sold it to retailers while wholesalers sold their fishes to semi-wholesalers who stored it in their containers or sold it to retailers. A part of the fish kept in containers by wholesalers themselves was directed to others cities or village in Ivory Coast (out of Abidjan), and also to Burkina Faso and Mali. It was not possible to determine the quantity sent out of Ivory Coast during this research. The overall local market fish used in Abidjan was finally distributed to restaurants, smoking, and to garbadromes (restaurants which sell a national food called garba, made of cassava semolina and fried tuna). Our research showed that about 95% of the faux poisson marketed in Abidjan was utilized by the garbadromes. An inventory of enterprises in Abidjan showed that there were about 2,000 garbadromes in the area of Abidjan. **Figure 3** shows the spatial distribution of these garbadromes. Out of the Plateau which is the business center and sparsely populated, there is an important amount of garbadromes in all the neighborhoods. However the density of garbadromes is higher in the highly populated districts like Yopougon and Abobo (**Figure 4**). This difference in density was positively correlated to the size of the neighborhoods and their population. The garba sector in Abidjan generated between six to nine thousand jobs. The overall annual turnover of the local market fish in Abidjan can be estimated to be between five (beginning of the sector/diagram scheme i.e, without any added value) to fifteen million U.S. dollars (when considering added values created by the sector until the consumers).

Discussion and Conclusion

The faux-poisson in Abidjan has taking an increasing importance since the development of FAD fishing. This important supply meets a huge demand of fish by the population in Abidjan, particularly, resulting in an important local market that surely influences fishing practices.

The overall annual turnover was estimated to be between five and fifteen million U.S. dollars. The total number of direct and indirect jobs generated by the trade of the local market fish was difficult to estimate at this stage of the study but it seems large, considering that the garba-sector alone generates between six and nine thousands jobs. However, beyond the importance in terms of employment and economics, the social contribution of the faux-poisson in Abidjan is invaluable. The bycatch landed by purse-seiners in Abidjan highly contributes to food

security without any ecological bad news about the sustainability of the exploited stock as the majority of this bycatch is skypjack, which is not being overfished. However this socio-economic importance could lead in the long term to a poor biological and ecological management in the absence of active management to reduce discards and an appropriate retention policy for tropical tunas. We therefore recommend that ICCAT develops a retention policy for tropical tunas in the purse seine fishery.

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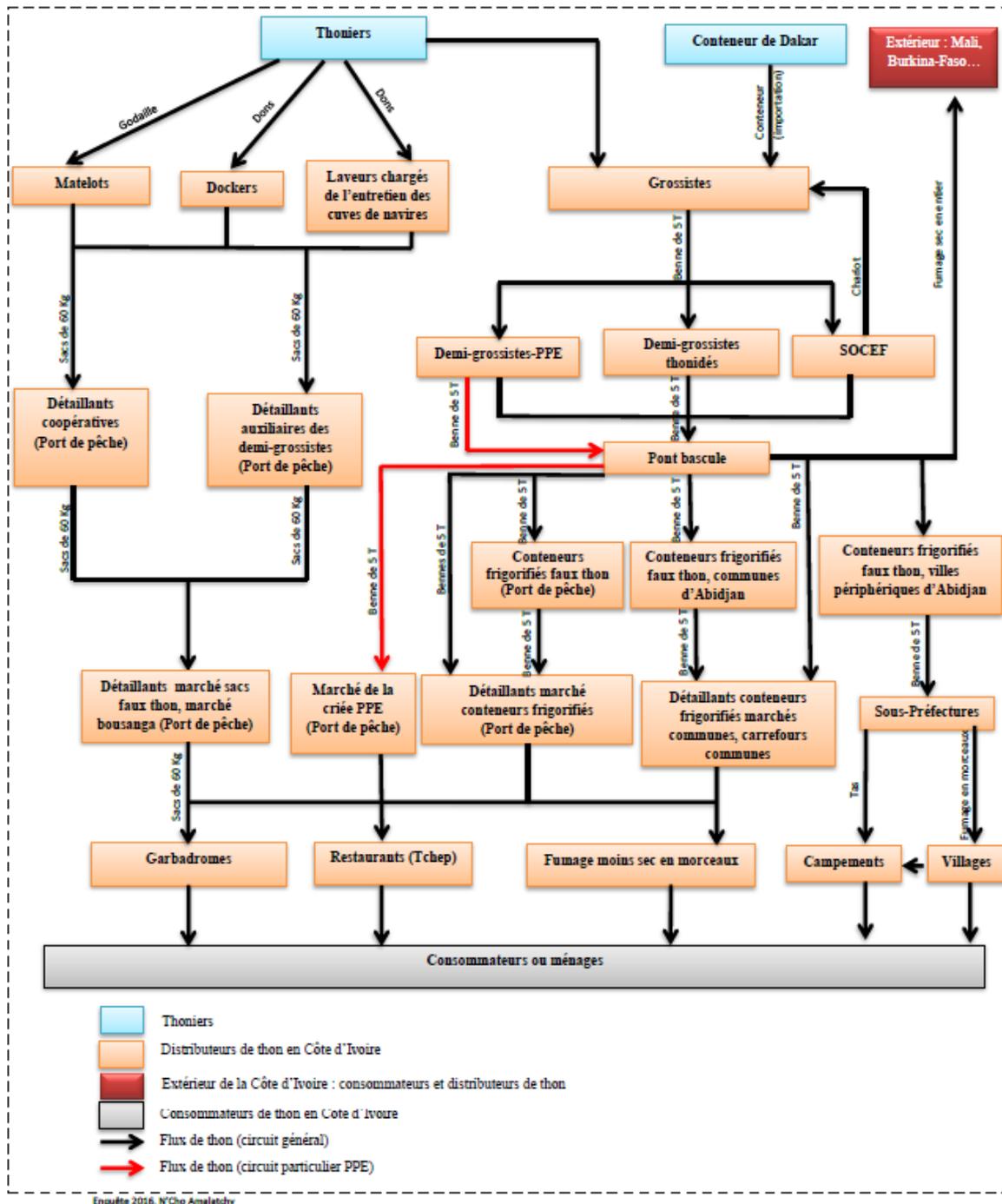


Figure 1. Diagram of the sector (Exported part of FP remains difficult to estimate).

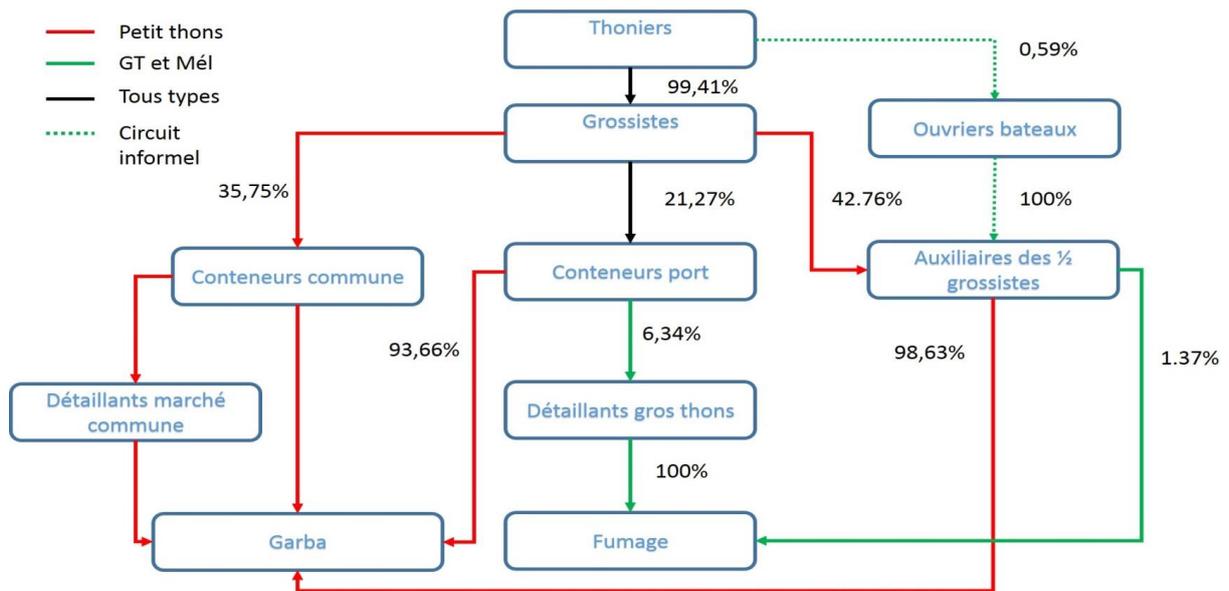


Figure 2. Estimated importance of each chain link in terms of percentage of total fish (in weight) in the diagram of the sector.

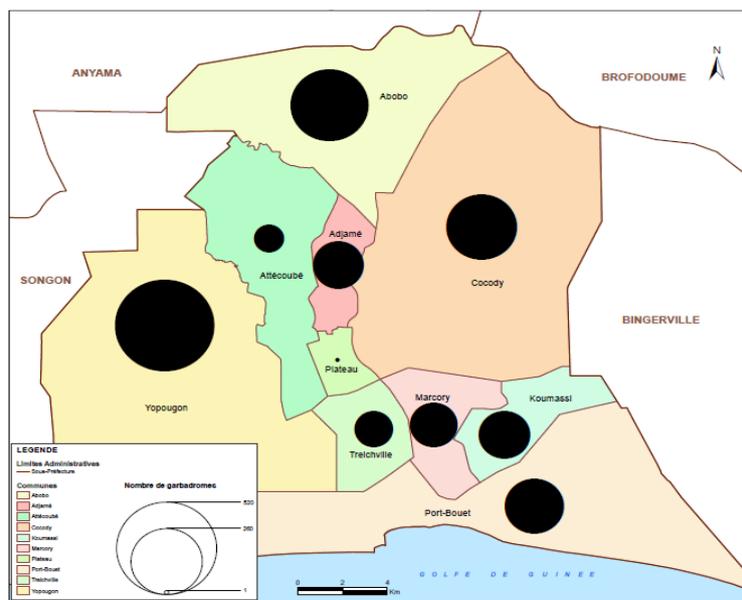


Figure 3. Number of garbadromes per neighborhood in the city of Abidjan (Côte d'Ivoire).

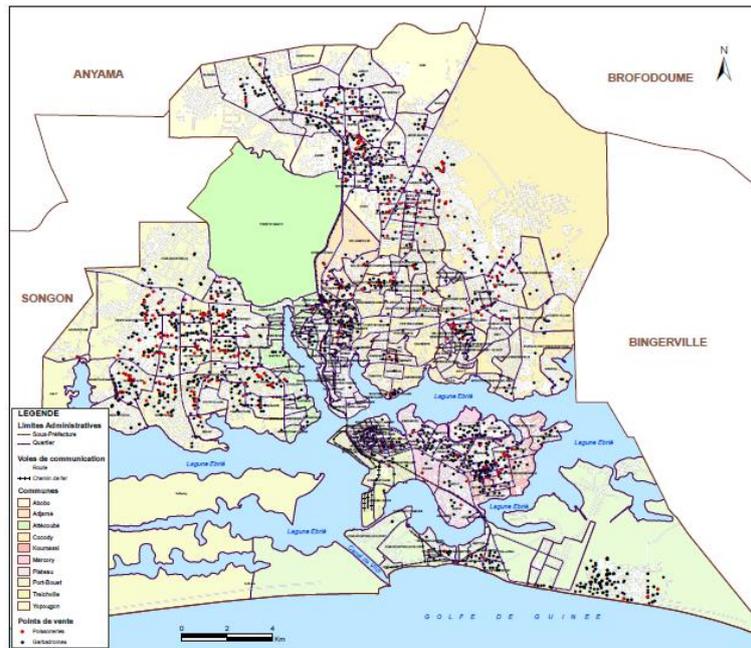


Figure 4. Number of garbadromes (dark dot) per neighborhood in the city of Abidjan (Côte d'Ivoire)