# TENTATIVE GBYP BLUEFIN TUNA DATA RECOVERY FROM THE OTTOMAN ARCHIVES, THE MARITIME MUSEUM ARCHIVES AND THE ARCHIVES OF THE ISTANBUL MUNICIPALITY

Ali Fuat Örenc<sup>1</sup>, Metin Ünver<sup>1</sup>, Levent Düzcü<sup>1</sup> and Antonio Di Natale<sup>2</sup>

#### SUMMARY

The bluefin tuna fishery was very important for many centuries in the eastern Mediterranean, in the Marmara Sea and in the Black Sea, but there are very few data on the fisheries in these areas. The ICCAT-GBYP, within its data recovery and data mining activities, has tried to explore the most important archives in Turkey for the purpose of recovering the available data. The first exploratory work, carried out in GBYP Phase 3, was able to find information but only a few data, which are reported in this paper. Further data were recovered from the very few and rare papers available for the fishery in the Ottoman Empire at the beginning of the XX century. The Ottoman fishery was mostly carried out by tuna traps and the bluefin tuna were mostly exported abroad after salting.

#### RÉSUMÉ

La pêcherie de thon rouge a revêtu une importance capitale pendant de nombreux siècles dans la Méditerranée orientale, dans la mer de Marmara et dans la mer Noire, mais très peu de données existent sur les pêcheries qui opéraient dans ces zones. Dans le cadre de ses activités de récupération des données et d'exploration des données, l'ICCAT-GBYP a tenté d'explorer les archives les plus importantes de la Turquie afin de récupérer les données disponibles. Les premiers travaux exploratoires, réalisés dans la phase 3 du GBYP, ont permis de trouver des informations, mais seulement quelques données, qui sont consignées dans le présent document. D'autres données ont été récupérées de quelques très rares documents disponibles pour la pêcherie dans l'empire ottoman au début du XXe siècle. La pêcherie ottomane a essentiellement été réalisée par des madragues thonières et les thons rouges étaient pour la plupart exportés à l'étranger après leur salage.

## RESUMEN

La pesquería de atún rojo ha sido muy importante desde hace siglos en el mar Mediterráneo oriental, en el mar de Mármara y el mar Negro, pero hay muy pocos datos sobre las pesquerías en estas zonas. El ICCAT-GBYP, en el marco de sus actividades de minería y recuperación de datos, ha tratado de explorar los archivos más importantes de Turquía con el objetivo de recuperar los datos disponibles. El primer trabajo exploratorio, realizado durante la fase 3 del GBYP, pudo encontrar información pero sólo unos pocos datos, que se comunican en este documento. Se recuperaron algunos datos adicionales de los escasos documentos disponibles sobre la pesquería en el imperio otomano a comienzos del siglo XX. La pesquería otomana se desarrolló sobre todo con almadrabas de túnidos, y el atún rojo se exportó en su mayor parte al extranjero tras someterlo a un proceso de salazón.

#### **KEYWORDS**

Bluefin tuna, Trap fishery, Ancient industry, Mediterranean Sea, Black Sea, Marmara Sea, Ancient archives, Ottoman Empire, Turkish fisheries

<sup>&</sup>lt;sup>1</sup> İstanbul Üniversitesi Edebiyat Fakultesi - Tarih Bölümü Yakınçağ Tarihi Anabilim Dalı.

<sup>&</sup>lt;sup>2</sup> ICCAT, GBYP, Corazón de Maria 8, 6a, 28002 Madrid, Spain.

## 1. Foreword

The ICCAT-GBYP data recovery and data mining activity has the objective of recovering data not already included in the ICCAT Bluefin tuna data base, with the purpose of improving the knowledge of all fisheries.

The bluefin tuna fishery in the eastern Mediterranean Sea, in the Marmara Sea and in the Black Sea was, for many centuries, one of the most important, as testified by several documents (Deveriyan, 1915, 1926; Karahís, 1915; Parona, 1919; Pavesi, 1887, 1889; Ninni, 1922, 1923; Athanassoupolus, 1923, 1926; Marti, 1941; Carp, 1951; Lebedev and Lapin, 1954; Akyuz and Artuz, 1957; Piccinetti Manfrin *et Al.*, 1995; Zaitsev and Mamaev, 1997; Karakulak, 1999, 2000; Zaitsev, 2003; Kideys, 2004; Oray *et Al.*, 2005; Di Natale, 2010, 2012; Örenc *et Al.*, 2013) and archaeological findings (Di Natale, in press). Coins from Cyzicus (now Aydincik) are one of the best proofs about the economic relevance of tuna fishing activities from the VI century b.C. (**Figure 1**)

Unfortunately, data on these ancient fisheries do almost not exist in any available data file, while it was supposed that documents and possibly data might be available in the very accurate Ottoman Archives and in other Turkish Archives.

## 2. Objectives

Following the recommendations by the GBYP Steering Committee, ICCAT issued the Call for tenders no. 05/2012 on 8 October 2012, with the purpose of recovering all available data sets concerning the fisheries in the Eastern Mediterranean and in the Black Sea, with a particular reference to the trap fishery, and explore the Ottoman Archives and other historical sources.

The contract was awarded on 8 November 2012 and the report was provided on schedule (8 January 2013) before the end of GBYP Phase 3.

Additional data have been collected by checking some rare papers.

## 3. Methods

Considering that during the Ottoman Empire it was typical to keep accurate tracks of all events and particularly those able to generate incomes and consequently taxes, it was supposed that fishery should generate important data for the State administration. It has to be considered that all these ancient archives, even if they were perfectly organised, are written in Ottoman, a language currently not easily readable for most of the Turkish fishery specialists.

The first exploratory work was carried out on the Ottoman Archives (BOA) and particularly on the Ayniyat Registers (Ayniyat-AYN.d), which included the Navy Registers (Ayniyat-Bahriye), the Revenue Registers (Ayniyat-Rüsumat), the Istanbul Municipality Registers (Istanbul Schremaneti), the Council of State Documents (Sura-yı Devlet Defteri), the Registers of the Chief Accauntan's Office (D.BSM. Defterleri), the Registers for the Permissions for Ships (Izn-i Sefine Defterleri), the Registries of the Sultan's Private Treasury (Hazine-i Hassa Defterleri (HH.d)), the Registries for the Fiscal Issues (Maliyeden Müdevver Defterler (MAD)), the Imperial Decrees Series (Hatt-1 Hümayun Belgeleri (HAT)), the Irade Series, the Grand Vizier's Council Document Series which included a. Foreign Countries Series (Düvel-i Ecnebiye Kısmı (A.DVN.DVE.)), b. Secretary of the Grand Vizier Correspondence (Sadaret Mektubî Kalemi Belgeleri (A.MKT.)), c. Secretary of the Grand Vizier Prominent Correspondence (Sadaret-Mühimme Kalemi Belgeleri (A.MKT.MHM.)), d. Secretary of the Grand Vizier Provincial Correspondence (Sadaret UmumVilayet (A.MKT.UM)) and e. Secretary of the Grand Vizier Correspondence of Ministries and Departments (Sadaret-Nezaret ve Devâir Yazısmaları (A.MKT.NZD.)), the Sublim Porte Document Series (Babiali Evrak Odasi (BEO)), the Presidency of Council of Judicial Ordinance Document Series (Meclis-i Vâlâ Riyâseti Belgeleri (MVL.)), the Council of Ministers Minutes (Meclis-i Vükelâ Mazbataları (MV)), Yildiz Palace Documents Series (Yildiz Tasnifi), the Ministry of Interiors Documents which included a. the Secretariat of Confidential Correspondence Documents Series (Dahiliye Kalem-i Mahsûs Müdüriyeti (DH.KMS.)), b. the Department of General Correspondence Documents Series (Dahiliye Muhaberât-1 Umumiye Dairesi (DH.MUİ.)), c. the Administrative Department Documents Series (Dahiliye İdarî Kısım Belgeleri (DH.İD)), d. the Department of General Administration Documents Series (Dahiliye İdâre-i Umumiye (DH.IUM)) and e. the Cipher Bureau Documents Series (Dahiliye Sifre Kalemi (DH.SFR)), the Ministry of Foreign Affairs Documents which includes a. the General Correspondence Documents Series (Hariciye Mektubî Kalemi (HR.MKT)), b. Office of the Legal Consultant Department of Consultation Document Series (Hariciye Hukuk Müşavirliği İstişare Odası (HR.HMŞ.IŞO.)), c. Translation Office (Hariciye Tercüme Odası (HR. TO)) and d. Political Correspondence (Hariciye Siyasi Evraki (HR.SYS)), and finally the Muallim Cevdet Documents Series (C.).

The survey included also the Archives of the Maritime Museum (DTA), which has seven Sections and 13 Catalogues: the General Correspondence (Mektubi Bölümü) (MKT), the Department of Accountancy (Muhasebe Bölümü) (MUH), the Council of Navy (Şura-yı Bahri (Ş.BH), the Ships, the General Staff, the Dockyards, the Departments (Gemiler, Erkan-1 Harbiye, Tersane ve Daireler Bölümü), the Office of Commodore, the Factories, the Martial Court, the Boxes and Miscellaneous (Komodorluk, Fabrikalar, Divan-1 Harp, Sandıklar ve Müteferrik Bölümler), the Abolished Naval Division (Mülga Bahriye Bölümü), the General Documents, the Office of the Legal Consultant (Umumi Evrak, Evrak Hukuk Müşavirliği). These Archives did not provide any useful information on Bluefin tuna fishery.

The survey included the Archives of the Istanbul Municipality, containing the documents of the Administration of Istanbul Fish Market which was active both during the Ottoman Empire and the Republican times, but documents before 1960 were not available for the Fish Market.

In total, several million documents have been closely and individually checked, including the period between the XIX and the XX century.

All details are available at:

http://www.iccat.int/GBYP/Documents/DATA%20RECOVERY/PHASE%203/ICCAT-%20REPORT%20ON%20BLUEFIN%20TUNA%20-I-%208%20JAN.%202013.pdf

and on

http://www.iccat.int/GBYP/Documents/DATA%20RECOVERY/PHASE%203/ICCAT-%20REPORT%200N%20BLUEFIN%20TUNA%20-II-%208%20JAN.%202013%20\_1\_.pdf.

Furthermore, the available literature concerning the fishery in the Ottoman Empire (Ninni, 1922, 1923) was examined, for finding data not already included in the ICCAT Bluefin tuna data base.

## 3. Results

All individual documents containing information on Bluefin tuna fishery have been individually listed on the report provided to GBYP; all references included in this section of the study are individually listed on the final report to GBYP (Örenc *et Al.*, 2013).

The major discovery was that bluefin tuna was also named as "salt fish" (*tuzlu balık*) in the Ottoman documents. In 1900, "tuna fish" was also used alongside with "salt fish" (cf. BOA, BEO, No. 333002) and this fact was able to create confusion in terms of results, because "salt fish" category included also other species than Bluefin tuna, without any possibility for discriminating the various components. Additionally, it was found out that tuna fish was not usually consumed domestically by the Ottoman population. Neither was the bluefin tuna consumed at the Ottoman Palace as clarified by the official lists showing the types of fish sold to the Palace (cf. BOA, HH.d, no. 3104, 11042).

Bluefin tuna were fished mostly by foreigners such as Italian, British, Austrian and Russians (cf. BOA, HR. MKT, nr. 105-31; C. HR, nr. 794) and exported to Europe (cf. BOA, DH. IUM, No. 2445). For instance, a British Merchant ship sailing from the Black Sea to the Mediterranean on 15 July, 1821 was reported to being loaded with 10.000 salt fish, namely bluefin tunas (cf. BOA, C. HR, nr. 2991).

During this preliminary work, it was observed that procedures concerning fishing and fish sale in the Ottoman domain were under the control of the Administration of Imperial Fish Market (*Balikhane Nezareti*). The records about about the domestic fishing and fish consumption are very accurate, but it was not possible to find any clear evidence about bluefin tuna.

Since the Administration of Imperial Fish Market was officially attached to Istanbul Municipality, the research was extended to the Archives of Istanbul Municipality, but again without finding any evidence about bluefin tuna fishery or landings. However, the archives of the Istanbul Municipality have no records before 1960.

Fishing taxes procedures in the Ottoman State included two systems, complementing each other, namely "mukataa" and "iltizam" (tax-farming). *Mukataa* is a fiscal term meant to lease a certain state income or land for a fixed price and time. *Iltizam* or tax farming was one of the methods by which these incomes were hired out to an individual, in which the leaser would pay the state the determined price for that certain income in advance (*bedel-i iltizam* or *mukataa*) and collecting the revenue for defined period of time, one, two or more years. Accordingly, people obtaining the right for fishing in the Ottoman Empire in accordance with the systems of *mukataa* and tax farming would pay a previously defined amount of money to the Government and this will allows for fishing in a given area. What seems important for the State in this situation was not the amount and types of fisheries carried out in those areas but the amount of money paid to the Treasury in return for *mukataa* and tax farming.

This fact was perfectly confirmed by Ottoman documents. Ottoman fiscal records, examined in details through BOA and MAD registers during our preliminary work, clearly reflect this. The records of *mukataa* and tax farming for fishing only give the amount of total money paid in advance by the leaser to the State (*bedel-i iltizam* or *mukataa*). These registers do not contain detailed statistics. For instance, in an account book belonging to Administration of Imperial Fish Market (BOA, MAD No. 11857) the total price for the *mukataa* coming from fishing activities for the fiscal years 1265 (1849), 1267 (1851) and 1268 (1852) was 162.845 piaster. Moreover, in another registry (BOA, MAD, No. 11068) the income of the aforementioned administration for the fiscal year 1271 (1855) was a total of 254.747 piaster. However, there is no mention about the types of fish for which this amount paid for.

The registers kept in MAD series at the Ottoman Archives were initially considered to be the most important component of the archives to be explored and where it was expected to find substantial and detailed information about bluefin tuna (also cf. BOA, MAD, no. 8669; no. 8720; no. 9079; no. 11065; no. 11066; no. 11067; no. 11068; no. 11069; no. 11072; no. 11073; no. 11075; no. 11076; no. 11077; no. 11078; no. 11079; no. 11254; no. 11787; no. 11806; no. 11848; no. 11857; no. 11914; no. 11940; no. 12013; no. 12018; no. 12073; no. 12126; no. 12175; no. 12504; no. 13077; no. 13300; no. 13768; no. 21249; no. 21298). Unexpectedly and unfortunately, no one of these registers specifically include data on bluefin tuna or its fishery.

The Ottoman Empire handed over the recovery of fishing taxes to the Public Debt Administration after 1880. After an accurate research both at the Ottoman and at the Maritime Museum Archives, it was concluded that detailed information and statistics regarding fishing must be in the archives of Public Debt Administration.

Indeed, the renowned Director of Istanbul Fish Market, Karekin Deveciyan seems to have intensively used the material from the Public Debt Administration in his famous book "*Türkiye'de Balık ve Balıkçılık* (Fish and Fishries in Turkey)", which was first published in 1915 (Deveciyan, 1915, 1927).

It is important to consider that the Ottoman administrative practices related to fishing and fishery in the  $19^{\text{th}}$  century where fundamentally under two different regimes. The first period starts from the beginning of  $19^{\text{th}}$  century or earlier when there was a full state control of permits, tax recovery, etc., concerning fishing until 1880. After the establishment of Ottoman Public Debt Administration (PDA) in 1880, the Government handed over revenues derived from six items including fishing to PDA. The PDA used to collect taxes from fishing (*Saydiye Rüsumu*) and kept records of regional tax recoveries and annual reports submitted to the Ottoman Government. These reports, however, have not been found yet. As an official who worked for the PDA, Deveciyan must have had access to the full Administrations records, hence the data and information included in his famous book. The data reported by Deveciyan (1915) are showed on **Table 1**.

Finally, the bluefin tuna fishing became a subject for consideration for the Ottoman bureaucracy during the World War I, when it was issued a bid to have fisheries to be carried out in the Marmara Sea. However, no permit was granted owing to the military reasons. (cf. BOA, DH. ID, no. 17-65).

The list of documents having information or data is provided in the second volume of the report (Örenc *et Al.*, 2013); among these documents, there is also a map of the location of some tuna traps in the Marmara Sea, the Gulf of Bandırma, Erdek, and Imralı Island (**Figure 2**). Other documents reporting "salt fish" (presumably mostly bluefin tuna) or bluefin tuna are showed on **Figures 3** to **6**.

Ninni (1923), in its famous and rare paper on the fishery in the Ottoman Empire, reported some data sets on bluefin tuna (**Tables 2** to **4**), the detailed description of the fishery, showing the various traps and their map, describing also the market. Furthermore, with the monthly data (**Table 4**) it is possible to understand the monthly evolution of the fishery and market prices. This important paper, which possibly used some data sources already used by Deveciyan (1915), show also the great commercial and scientific interests and connections between Italy and the Ottoman Empire and the relevance of the bluefin tuna trade at that time for both countries. This fact is also confirmed by several documents found in the Ottoman Archives (see the example shown on **Figure 4a**).

In Ninni's paper it is very clear that all bluefin tuna production was marketed in Istanbul (reported with the ancient name of Constantinople), where it was also salted and exported. Only limited quantities were consumed locally, possibly only by very poor people.

It is important to note that all data were reported according to the fiscal year (March to February) and this fact imposed a reassessment of the yearly catch before incorporating them according to the ICCAT format. All data recovered during this exploratory work have been included in the ICCAT.

#### 4. Conclusions

After a exploratory work carried out in 2012, although some documents containing information regarding bluefin tuna fishing in the Ottoman Empire in the 19th and early 20th centuries have been detected and carefully described, this information was limited to export and consumption of the tuna fish but without precise data.

As explained in this work, the reason can be the method adopted by the Ottoman Treasury for handling the fishery revenues up to 1880 the and then, after this year, that Ottoman Empire transferred the recovery and administration of revenues from fishery to the Public Debt Administration. The level of information about fisheries in the PDA was not enough for identifying any item related to bluefin tuna. On the other hand, with the advent of the PDA, more statistics about items for which the PDA were now responsible started to become available. Certainly one of them was fish tax (*Saydiye rüsumu*). Moreover, the foods habits in the Ottoman domain seem were not including Bluefin tuna among the daily diet.

The unespected lack of data about bluefin tuna fishery in all the various important archives that were explored is now posing an additional problem for future data recoveries in the Eastern Mediterranean and in the Black Sea. It will be certainly useful to better explore other historical sources, for trying to identify any possible data source for these important fisheries, which will be potentially able to provide essential data for better understanding the evolution of the bluefin tuna fisheries and the decline (possibly caused by environmental reasons) of the bluefin tuna population in the Black Sea (Zaitsev Y., Mamaev V., 1997; Zaitsev, 2003; Kideys, 2004; Di Natale 2010; MacKenzie and Mariani, 2013) and the recent minimal sign of slow coming back.

At the same time, this first important exploratory work provides a good motivation for documenting the fishery in historical Turkey, which is a part of the cultural heritage to be better promoted.

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**Table 1**. One of the very few statistics concerning Bluefin tuna fishery in the Ottoman Empire: Bluefin tuna landings (sales) on the Istanbul fish market between 1915 and 1923 (Devecyian, 1915).

		Bluefin tun	a statistics f	for the years	between 19	15 and 1923		
Year		915 31) <sup>3</sup>	-	)21 (37)	1922 (1338)		1923 (1339)	
Month	Quantity (kg)	Price (piaster)	Quantity (kg)	Price (piaster)	Quantity (kg)	Price (piaster)	Quantity (kg)	Price (piaster)
March	27.191	26.665	285	10.237	1.169	33.334	49.687	612.537
April	22.894	19.804	3.198	86.282	28.629	475.468	16.378	307.222
May	1.442	2.251	5.129	127.621	3.639	37.269	6.176	110.052
June	5.819	6.570	540	15.129	978	14.551	1.195	21.050
July	22.396	20.705	29.985	344.231	24.106	151.616	20.895	303.986
August	21.782	12.935	3.829	66.783	8.182	69.405	1.042	16.767
September	204	649	4.288	94.615	1.195	14.862	534	3.770
October	801	1.721	2.119	34.527	185	2.972	2.816	29.973
November	3.164	8.484	828	18.566	2	35	3.270	53.788
December	16.270	44.466	-	-	5687	94.531	2.023	39.072
January	10.128	22.663	137	4.179	671	9.952	394	5.906
February	2.486	6.414	-	-	9.339	144.911	93	2.430
Total	135.027	173.326	50.338	802.170	83.722	1.048.906	104.503	1.506.553
<b>Source:</b> <i>Karekin Deveciyan, Türkiye'de Balık ve Balıkçılık,</i> Trans.: Erol Üyepazarcı, Aras Yayınları, İstanbul, 2011, Table B-I.								

<sup>&</sup>lt;sup>3</sup> The old Ottoman date (*Rumi*).

**Table 2**. Fresh bluefin tuna sold on the market in Istanbul for salting purposes and salted bluefin tuna exported from Istanbul (reported with the old name of Constantinopolis) in the period 1909-1916, with quantities and values (Ninni, 1923).

Fiscal year	Fresh bluefin tuna sold for salting purposes in Constantinopolis			Salted bluefin tuna exported from Constantinopolis			
	Quantity kg	Mean Price Piaster	Value piaster	Quantity kg	Mean Price Piaster	Value piaster	
1909/1910 (1325)	868	0.925	801	868	1.50	1302	
1910/1911 (1326)	-	-	-	-	-	-	
1911/1912 (1327)	32254	1	32254	-	-	-	
1912/1913 (1328)	66316	1	66316	1800	2	3600	
1913/1914 (1329)	245611	1	245611	26320	2	52640	
1914/1915 (1330)	4155	0.336	1396	128875	2	257750	
1915/1916 (1331)	-	-	-	-	-	-	

**Table 3**. Fresh bluefin tuna sold on the market in Istanbul (reported with the old name of Constantinopolis) in the period 1909-1916, with quantities and values (Ninni, 1923).

Fiscal year	Fresh bluefin tuna sold in Constantinopolis				
	Quantity kg	Mean Price Piaster	Value piaster		
1909/1910 (1325)	82279	0.925	79186		
1910/1911 (1326)	86023	0.685	59327		
1911/1912 (1327)	129052	0.65	83660		
1912/1913 (1328)	255452	0.66	169877		
1913/1914 (1329)	537455	0.595	321062		
1914/1915 (1330)	204375	0.825	168867		
1915/1916 (1331)	135027	1.283	173326		

Fresh bluefin tuna sold on the fish market in Constantinopolis by month						
March 1915 (1331)	27191	0.98	26665			
April 1915 (1331)	22894	0.86	19804			
May 1915 (1331)	1442	1.56	2251			
June 1915 (1331)	5819	1.12	6570			
July 1915 (1331)	22396	0.92	20705			
August 1915 (1331)	21782	0.58	12934			
September 1915 (1331)	204	3.18	649			
October 1915 (1331)	801	2.14	1721			
November 1915 (1331)	3614	2.34	8484			
December 1915 (1331)	16270	2.45	44466			
January 1916 (1331)	10128	2.23	22663			
February 1916 (1331)	2486	2.56	6414			

**Table 4**. Fresh bluefin tuna sold on the market in Istanbul (reported with the old name of Constantinopolis) in the period 1915-1916, with quantities and values (Ninni, 1923).



Figure 1. Greek coins of various values and metals from the ancient town of Cyzicus (Marmara Sea), V-IV century b.C.



**Figure 2.** Map of the Marmara Sea, the Gulf of Bandırma, Erdek, and Imralı Island, which was attached to an application for granting a bluefin tuna fishery permit, showing the various locations for installing tuna traps (Document DH. ID, no. 17-65, December 8, 1913).

وولياد امى الم دعتوة وه طور فى بالق رات عالى تخديني مرا مدد بورلغنه مجودرك برمص بتداداد فعمادون فيتسع وتغتاو فأددر موردى بابذه امروقطاد دوتلو غنايلو مرهناو المرند بمرتد حوار تا الودامة وادادين : ماوتدا بمى فطعدواء سنير الما عطع الأرام بفاداد فشقيه والمخا

**Figure 3**a (**left**). Letter from the Gran Vizir requesting to have the duty of salt fish trade in Dimetoka provided to someone new (Document C.BLD no. 373, 17 June 1805). **Figure 3b** (**right**) A document informing that Captain Covani, a Russian merchant, sailed to the Mediterranean after having loaded his ship with 408 barrel of "salt fish" (Document C.ÍKTS no. 794) (April 2, 1825).

Del Brigantine Inglise Ber د فانونول . 2 ره جوفد ببه وفهدات ولوزعن لا نوط 彩 دار فعمور را فدموری آن رضو وارد ادون ، ومرزان ۲۰۰۰ تاریخ و ۲<u>۵۱۱</u> فوفلا والالولو رومك راب وی رو ذکر اوت عالمه ترت هم تقب زهک با تقوره اولا-، مودی مالا دولا والا تا مع وماد و ما مال برای مرا مع ورب و مذكور دانيا لمرك دوكانت ومامنا كورير وفيوسف طلاق تعبيب ليروهم ر دوبید چلس دمورودمقا وله با دخوخ بط صورتی نفا اعار و واموان سرود و راهند وبرک رای فران تاسیس بجون مالا کمپ برانیا رویا -عد د ۶۰۰۰ 32.2 و بطرق م بکان و بلی ای - ایر منی و یک با دودیان عفت می داند ک لالأده مذكور اشتبا دول سابتره حصلح h

**Figure 4a** (left). Cover of a shipping list (partly in Italian) informing that the British menchant ship "Benevolenza", with Capt. Nicoló Vucanovich took on board 10,000 sal fish, sailing to the Mediterranean Sea (Document C.HR no.2991, July 15, 1821). Figure 4b (right) Letter from Mr. Edib Efendi to Public Debt Administration requesting to carry out fishery activities in the Marmara Sea close to Yedikule. The correspondence includes a letter from the Ministry of Interior to the Ministry of Finance and navy about the same issue, stating that it is not possible allowing bluefin tuna fishery in open sea (Document DH.ÌD no.17-76, June 18, 1914)

Cop 0 TLAKAGA it is LVCT LLILL 17611 طرطت محص لا الم 14 64.0 14 .. هددن الما المونين veria. Evene 11 12000 ICCAR REWYS WEVE ICVER Griging 14057-2 مد الد المانين الملعد، الأليل ليس تقوران ، من الم المعرور المالي م 10026 A200 5144 107812 10 مولا روابط می لاتوا به کون قال من ۱۹۹۸ مندور به الدیر الطند مو وويه وطاه وينان لمان الماري المالات حكر ملط : وفي المالية مندن برالي المكند م V766 13 . 10, 10, 1) orato y 1x وی می در از می ارد به می می می می می می می وی می می می وی می وی برسی مفلف تورید روی می وی دارد این عد مصررید این روایقت و تسیینی حرف افلاری عدم 0644 رمدهای دلیم ساوند (خان طف عضر میدار) خور والطصع زمین مرحل طفارن عدمت رابع مردی درملار برخاندار نبیا هل مخاصر زمانه ارمه بر نبری ما وجه طوی ساون با ل LOALT Loca 1 in 1 SA ولاير افادة ال 1-1-1 15 malla 12 2'2 Lugh h

**Figure 5a** (left). A cipher from the Ministry of Post and Telegraph to the Ministry of Interior informing that also salt fish was sent to Romania (Document DH.ŞFR, no. 375-14, January 22, 1907) Figure 5b (right) Document informing that salt fish caught by fisheries in the District of Evline in Janina Province was granted to a tax farmer (Document HR.MKT no.76-6, May 2, 1854).

a) 12.10.2. おとうみ きましゃ 1350121 il Loui ولوب بالادى طالعات ادرام الدايسان تع بلادة تجاره المروي في طرفت المورد حلوب اورادة خلط مطابق تحلوان الورع فترفط اطرى في بقاد خابنة ترد الميك بوتر. فديمه باحدة، وجيرة وجديش وهورى بالد ومدائبًا من المخيرك دوى ركب ادلم المرادية وه فيود له مصم ؟ عددو في عكره الماج الملفك الخط ماعده الحص حر تقديده باتكره مددلك مرا محاجد، وورا له المعن وراج بر يوافق النج ورور في الد ويز روز من مع عام عام على ورك مال بر مد وطورا والعد الرارى مموعة موادويه السورة مناموك لدد اوكان دوست وتقور دوتر ممالة المواجى Ligit's فظرو تسريله فترط فلأكفر ويهودن مميودك قذائى سمانى اورام هلأ سطانيره. قرنا تمان ودويد مقبَّ اوليد المرم المانية مفداروات المطامند يرتسه ولفض محت اجه جدوزك حوريقوه وماسيت الرارى الت قرائل معرفيدة جلد فاجذافي ابيلي مقاده بزرادان كغرائطي الازاداني فاجلده كم الفرائيس الذه قذاني تعادلا معلى تمغ إره ٢٠ يوفق تقبح يتداور الليف جيد مرمع سالى برة بالمقرعف والملك فذاتي فحال إفداع الازم الطل المسارجلي والمعاني والمعار يل ودراعة تقاريك ما مان عاله تدع و ما وروا مردم ورف م احد کمدور وراد بعد جلیه هد کردیده درمه فاید انبود به مطابق وجدوز با درخه زمه از ما نسایی دفته حکد مدر تا از ورم دون مراویه روم او مرکعه ورما دوساند. نبوانی مجدان رکبتها، طرفته دفان بود و در بوانیا تشد داره موسطه داد فردانا هايده بالابه عايد بعد مع مطرية في طلا لا على المتام المراح ومدانا فك طري الدارية عليه عل المال اس فيراد بالله الداه المليد المايقي فراده وسايرها كمامته المايش فبراعامه الأله الحيزة المدار المدفولان فالمعال المؤلجر وتواريتها، جاكا من في دا يوزه بعدًا في عظر شعاطت الارغاني وتابي أوطه ايدب ثدا الراديني تستره ديدة الطاقير من قيله أيَّذ وراك فراح كما الديد المدر المراجع المالي المقديدان بدف بدن بدف والملك بالمراجعة المرحل المعا المقادي المدومين الد معاكم المد האשי שאן נותני מים ול יותנ דיותם ולניי ניום אשיירי את אורש יותר אין איונדיום ונצא וליין, כנו ובע ברוסו שייר אי בי היונד לונה (כם לשי אורטון צייום ובן יותנ יותר איני היותר ביותר פורוד הוארש ביר אנש וארש ביוני ונוש ולוגי באור -فرارو الله أن وقايل بارجاني ولمه الفرت، ميون معرف والما والمربع ومدالك والماني والمنافع بارجاني تؤله الداوة حالمه وجدها وا المد العالم المالية المالية المالية المعالمة المعالية المعالمة المعالمة المعالمة المعالمة المعالية المعالمة المع العامة بلا الأنفر جاند تعديون التابي والمصاحبة المصلح المتلق والمتراصف وزاقاتها الرامع تعامه والمعارين لا كم المان في الحد المراجع الماني المرافع المان في المان أليق المان المقال المان المانية المسالم الم ميكا مكار وتغر والفلال ولا مرار معاولها برور: يعتر والمتلاف الله زين المدكول المقالهم المقالهم المراجع ا ها مذلية والرجكمانة كانا والمدار إعلى الملاط كالطعال عود وجاب الماء تعالم الجادة لأكارة الماه بعكانة يعقرا إلما ويوافق اراح المية الطه وكمانيًا عن المصال المؤلف بالمنظر بالنافير حظمه متكود عقق بأوجه الرواراه البتة المطبر عس et et et et et et et et et et et et et 은 은 옷 옷 옷 옷 St 0 9660666 MV. 202/61 2 vrk (3 shx bog) b

**Figure 6a** (left). Communication allowing the export of salt fish to friendly and allied countries (Document MV, no. 202-61, June 14, 1916). Figure 6b (right) Document related to salt fish discovered inside a ship belonging to a Jewish merchant (Document MVL no.24-6, April 10, 1848).