ACTA BIOLOGICA TURCICA

© 1950-1978 Biologi, Türk Biologi Dergisi, Türk Biyoloji Dergisi, Acta Biologica E-ISSN: 2458-7893, http://www.actabiologicaturcica.com

Review article

Historical roots of anchovy fishing

Mustafa ZENGİN®

Central Fisheries Research Institute, Department of Fisheries Management, Trabzon Turkey e-mail: muze5961@gmail.com

Abstract: It is not known whether there are any other fish species in the world's seas, where anchovy has a place in the life and culture of Black Sea residents. But in our country, it is very difficult for other fish to conquer the anchovy's reign. This fact has never changed throughout our fishing history. The pearl of the Black Sea, anchovy, has become so part of life in trade, social life, art and literature that it has become a part of culture. Anchovy has never been integrated and intertwined with the life of the local people, and even an indispensable element of daily life, has not become a lifestyle, as in the Black Sea region. In this study, the historical, cultural, sociological and economic adventure of anchovy, which forms the basis of fishing in the Black Sea, has been discussed with a long past perspective and tried to be revealed with a monolith text. Anchovy is neither a commercial commodity hunted by fishermen in the sea, nor a type of food consumed by every economic class in the society, nor is it a sea creature that has completed its history. Anchovy is a way of life for Black Sea people. In this text, the journey of anchovy from past to present and still continuing is tried to be conveyed to the reader by coloring it with traditional and authentic cultural elements.

Keywords: Anchovy, historical process, socio-cultural life, economy.

Citing: Zengin, M. (2022). Historical roots of anchovy fishing. Acta Biologica Turcica, 35(2), A4:1-24.

Hamsi balıkçılığının tarihi kökleri

Özet: Karadenizlinin hayatında ve kültüründe hamsinin olduğu yere sahip olan dünya denizlerinde başka bir balık türü var mıdır, bilinmez. Ama ülkemizde diğer balıkların hamsinin saltanatını ele geçirmesi çok zordur. Bu gerçek balıkçılık tarihimiz boyunca hiç değişmemiştir. Karadeniz'in incisi hamsi, ticarette, sosyal hayatta, sanatta ve edebiyatta o kadar hayatın içine girmiştir ki adeta kültürün bir parçası olmuştur. Hamsi hiçbir yerde Karadeniz'de olduğu gibi yerel halkın yaşamıyla bütünleşmiş ve iç içe geçmiş ve hatta günlük yaşamın vazgeçilmez bir ögesi, bir yaşam tarzı haline gelmemiştir. Bu çalışmada Karadeniz'deki balıkçılığın temelini oluşturan hamsinin tarihsel, kültürel, sosyolojik ve ekonomik serüveni uzun bir geçmiş perspektifi ile ele alınmış ve bütüncül bir metin ile ortaya konulmaya çalışılmıştır. Hamsi ne salt denizde balıkçıların avladığı ticari bir meta, ne toplumdaki her ekonomik sınıfın tükettiği bir besin türü, ne de tarihini tamamlamış bir deniz canlısıdır. Hamsi Karadeniz insanı için bir yaşam biçimidir. Bu metinde hamsinin geçmişten günümüze kadar ve halen devam eden yolculuğu geleneksel ve otantik kültürel ögelerle renklendirilerek okuyucuya aktarılmaya çalışılmıştır.

Anahtar Kelimeler: Hamsi, tarihsel süreç, sosya-kültürel hayat, ekonomi.

Historical background

Fishing in the Black Sea has an important place both in terms of nutrition and trade. Black Sea fishermen have gained a lot of knowledge about fishing with the experiences passed down from generation to generation. It

is known that the city of Trabzon, which had an important position in the Black Sea in the XV and XVI centuries, was very developed in terms of fishing. As a matter of fact, taxation of every fish type caught in the '*Trabzon Legislation*' should be a sign that fisheries have developed

(Konan, 2006). Again, it is recorded in the law code that fish oil is produced from surplus fish and that this oil is sold in Christian neighbourhoods and the acquisition official is taken from this fish oil. Âşık Mehmed in his book 'Menâzırü'l-avâlim (1598)' (Hegan, 1998) stated that delicious fish were caught in the sea of Trabzon, Evliya Çelebi recorded in 'Seyahatname' (1640)' (Dağlı and

Kahraman, 2005) that one of the seven business lines that Trabzon people deal with is fishing, and It shows that the number of people engaged in fishing has reached a significant number. Again, Âşık Mehmed and Evliya Çelebi noted that there were plenty of anchovies, whiting, turbot, sea bass and mullet, red mullet, mackerel, horse mackerel fish in the Trabzon Sea (Picture 1).



Picture 1. A castle in the Kemerkaya district of Trabzon from the Roman period; Frenk Hisar (Venice) Castle. The castle was used by Venetian merchants between 1150 and 1660 AD.

There are other old sources on the history of anchovy fishing in the Black Sea. Şâkir Şevket notes that 'The inhabitants of the seaside are fishermen and they hunt large amounts of dolphins'. Darüşşafaka Director Major Hüseyin Bey stated in his textbook that he wrote in 1885 that turbot was fished in the Black Sea and anchovy was hunted mostly on the shores of Trabzon and Samsun provinces; Tüccarzâde İbrahim Hilmi states that there are petroleum gas vessels and sources on the beaches called Old Trabzon and Kemer, flowing from the open to the sea, and therefore the fishes smelled their meat (Yüksel, 2007).

According to the 'Salname' dated 1888 (Emiroğlu, 1999), which contains valuable information about Trabzon province, anchovy, turbot, coral, haddock, bonito, mullet, pike, garfish are the leading fishes that are caught and sold in the sea. Anchovies were sold very cheaply when the season came. Because it was cheap, the

poor were taken by the peasant in sufficient quantities and salted, thus providing food for the children. Anchovy, which is less than a little smaller than ordinary sardines, is delicious and oily, but is too salty, after being eaten by those who are not used to it, it was a great boon for the people of the coast. Each 'batman' (an old unit of weight) of anchovy, which was produced in abundance in 1893, was sold from two kuruş to twenty-thirty money.

Trabzon Governor Kadri Bey, in a telegram dated 13 November 1892, which he sent to the Mabeyn-i Hümayun Chief Inscription, stated that many families working in trades such as boating and fishing in Trabzon suffered damage due to quarantine and cordoning, and they were in need. Stating that they fell, asked these people for help. On this supply of Kadri Bey, there is a record that a hundred lira was sent to the fishermen who became victims in Trabzon province 27 February 1893 (Emiroğlu, 1999).

There were fishermen from the Ottoman country, especially from the Black Sea coast, as well as fishermen from Russia, who went to Russia every August to fish. These fishermen who went to Russia to earn a living would also have fought with the Russian fishermen. Such a fight was fought between Russian fishermen who went from Lâzistan (Rize) and Sürmene County in the city of Kerch in Crimea during the 1909 fish season. Upon this development, the Ministry of Foreign Affairs asked the Ministry of Internal Affairs in 1910 to warn the fishermen who will go to Kerch for fishing in season, to follow the advice of the 'şehbender' (consul) by the local administrators (Emiroğlu, 1999).

It is known that Black Sea fishing, which entered a period of stagnation during the war years, continued in the traditional manner after the war and in the first years of the Republic, before the coastal road was built (1964-1966) and in the years when trawling technique was not yet available. Küçüklü, Eriklimanı, Burunucu villages of Bulancak in Giresun-Ordu province in the 1940s; Zefre (Gülburnu) village of Espiye; Keşab's Kulak location; Kaleyka, Mersin and Çınar villages of Vona (Perşembe); Yeniköy district of Tirebolu; Ordu's Bozukkale were mainly fishing villages. Espiye, Zefre-Kulak, Keşap in front and Giresun Island, Batlama and Güre stream mouths, Ayvasıl-Burunucu in front, the mouth of Pazarsuyu stream and around Yason Cape were the main fishing areas (Yüksel, 2007).

It is part of cultural life; anchovy

While the anchovy and Black Sea life began to be included in the Ottoman 'public knowledge' relatively, it is witnessed that an interest in anchovies started to revive in the educated class in Trabzon. As seen in Hamamizade İhsan's book 'Hamsiname' under the title of 'Anchovies in Literature and Humour', (Hamamizade, 1928) poems describing anchovies have now become fashionable and an anchovy literature has developed with the ministers written by poets. Hamamizade 'it can be said that the anchovies for Trabzon and its surroundings, have taken its place, whatever some invariable mythological stories of oriental literature and our classical literature were chanted by separate poets'. There are literally thousands of myths about anchovies in folk literature, especially in the form of 'mani' (a local lyric poem). With the economic and social modernization of Trabzon that started in the 1830s and triggered especially by commercial relations

with Europe, it is seen that the educated class of the city was also revived and local subjects and especially the local icon anchovy were included by producing poetry (Emiroğlu et al, 2008). Bayburtlu Zihni states the following in an ode about anchovy:

'Its geda is anchovy, its raw agniya is for pleasure.

This is the city's vitality, anchovy representation-i evail.' (Emiroğlu et al, 2008).

It is unthinkable for a fish that has entered such economic and social life not to enter songs, folk songs and anecdotes. There are also poems written on anchovies as mentioned in folk songs such as 'I put anchovy on the pan, started to play...'. One of the most important of these is the 'Hamsi Kasidesi', also belonging to Hamamizade İhsan Bey. Another important poem is 'Hamsi Gazeli' written by Ziver Efendi. Another anchovy poem is 'Anchovy Epic' written in 1844 by Hafiz Zühtü Efendi, one of the Trabzon poets (Yüksel, 1989; Çolak, 2007). There are many poems written on anchovies and lively, anchovy folk songs as in the general of Black Sea music (Üstündağ, E., 2010).

In the development of anchovy literature; a parallel development confirming that the recognition of anchovy outside the Eastern Black Sea region and the fact that the Black Sea people establish a relationship with the outside through anchovy is the reinforcement of the legend that forty kinds of dishes are made, including baklava. The fact that the anchovy defines the Black Sea people living abroad has created an environment in which they adopt anchovy as their identity / belonging. They read from Trabzon, who despised the poor people by saying 'hapsi' at the time, and now they have adopted being called 'hamsi' as a distinctive feature (Emiroğlu et al, 2008).

The first old information about anchovy fishing

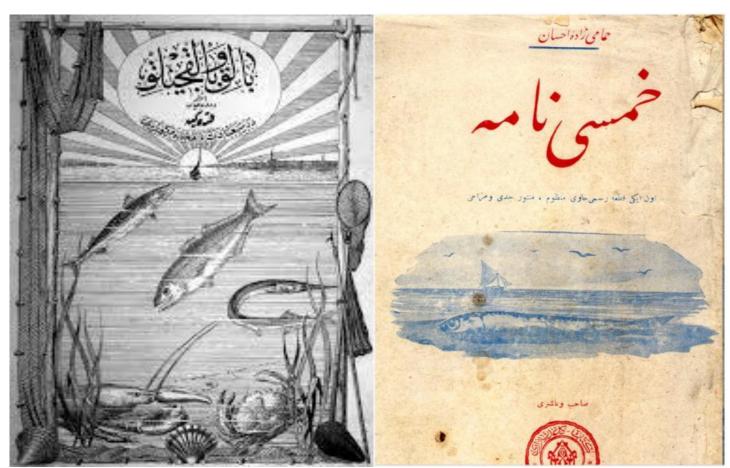
The first information about anchovy is given in Mehmet El-Âşık's work named 'Manazirü'l-Avalim' written in 1589. In this work, in which various in formations is given about the anchovy, the abundance of anchovy and its importance for the region are emphasized as follows: "When fishermen fished anchovies with small boats, they blow a pipe to make it known to the public that its sound reaches a distance of two or three' fersah' (1 fersah 5685 meters) and this sound. The dead of the hearers get on the alive and run to the beach because the "habsi" fish has come out " (Ak, 1997; Hegen, 1998). Evliya Çelebi came to Trabzon in 1634 and mentioned anchovy in his

"Seyahatname". Just like Mehmet El-Âşık, Çelebi says that when the anchovies come to the pier, the horn is blown by the clerks' shouting (Ak, 1997). Referring to the jokes made among the public on this issue, he writes in a humorous language that everyone who hears the sound of the trumpet quits their work, and that those who are prayed and who are in the baths come out and rush to the pier (Dağlı and Kahraman, 2005).

Karekin Deveciyan also gave various in formations about anchovy and anchovy fishing in his work titled "Fish and Fisheries", which was written in 1915, which includes biological, ecological and hunting information of fish in our country and which is a first in its matter. Undoubtedly, the main work in which anchovy is the crowning crown is Hamamizade İhsan Bey's work named 'Hamsiname'. This is a book that deals with anchovy from beginning to end, which does not have any other fish and

makes them jealous. Hamamizade has gathered everything about anchovy, from its name to its fishing, from its biology to its trade, from its food to its folk songs, in 'Hamsiname'. According to the sources, there used to be so many anchovies in the Black Sea that it almost came ashore without fishing. The following expressions in folk language are not exaggerated: 'Anchovy struck the land; 'okkası' (an old weight unit) was five coins'.

Hamamizade (1928) states that the size of anchovy varies between 3 and 12 cm and makes the following criticism to Evliya Çelebi about the size of anchovy: 'It is an exaggeration for Evliya Çelebi to say that it is more than an inch in his travel book' (Dağlı and Kahraman, 2005). Either the anchovies of that time were large, or Evliya Çelebi's mix was small. Deveciyan (2006) gives a figure of about 10-12 cm, the size of an anchovy (Picture 2).



Picture 2. The first editions of Karekin Deveciyan and Hamamizade İhsan Bey's books deemed important for Turkey's fishing history

Although it has partially changed due to the developing fishing methods and changing climatic conditions, anchovy used to be seen in Trabzon in November and sometimes later. However, most of its fishing was done between January and April. Deveciyan (2006) states that

anchovy is very abundant in Sürmene, Trabzon and Sinop coasts in the Black Sea and that it fished in this region with spinning nets, anchovy pellets and manyat from 8 November to April. Hamamizade (1928), on the other hand, tells at length how this fishing is done in his work.

In the years when it appeared in abundance, anchovies were used instead of fertilizers in fields and gardens, mostly in tobacco fields. According to the information given in 'Hamsiname', 100 kg of chemical fertilizer, which was imported at that time and bought for 11-12 lira, can fertilize a half acre of field. When the same land is fertilized with anchovies, it costs 5-10 lira depending on the price of the fish. Moreover, tobacco fertilized with anchovies is very good. At the end of the 19th century and at the beginning of the 20th century, there were such abundant anchovy herds along the Black Sea coast; According to Hamamizade (1928), even one percent of the anchovies arriving on the shores of Trabzon could not be caught.

Although the use of anchovy as a fertilizer is an interesting subject in the literature; As an establishment of 'Duyun-i Umumiye', the 'Regie Administration' started its activities, and with the increase in tobacco cultivation in the Eastern Black Sea, anchovy started to be poured especially on the fields. In 1913/14, Abdülvahab Hayri, evaluating the economy of Trabzon with his book 'İktisadi Trabzon, İktisadi Nokta-i Nazardan Trabzon'un Vaziyet-i Hazurası ve İstklali', states that fertilization of tobacco fields with anchovies increases the yield and is reflected even in the prices of anchovies (Gürsoy, 1984; Yerasimos, 1997. Tiryaki and Özlü, 2019).

The mystery of taste, the richness of the tables

Anchovy; with its production and consumption, it continues to be the primary meat product both in the fishing sector and in our kitchen, as it was in the past. Anchovy, the symbolic seafood of the Black Sea, is perceived as a different species from fish in its own geography. The delicious fish species of the Black Sea are haddock, horse mackerel, turbot, red mullet, garfish, bonito fishes are 'fish'. However, anchovy is an anchovy. Anchovy means far beyond being a seasonal food product for Black Sea people. It provides a year-round nutritional security with various conservation techniques such as salting-drying in the past, salting and deep-freezing preservation. A fisherman from Hopa seems to summarize what anchovy means to the Black Sea person when he says 'Our bones are strengthening with corn bread and anchovies' (Köknar, 1996). It is necessary to add the 'black cabbage' to these.

The most important food source symbolizing the abundance and fertility of the Black Sea table is anchovy.

In the past, the vital importance of anchovy for the Black Sea people is emphasized with the words (Köknar, 1996). 'As soon as the anchovies appear in the sea, the news is spread. They would go down to the beach that took the tin, the basket, the barrel on his back... Wherever you go home, everybody had a tin, a ceramic cube of salted anchovies... Especially the anchovies are poured on the dried chestnut leaf and fried on fire... We make bread with anchovy in 'pileki' (a kind of ceramic cookware).

Anchovy, which the Black Sea people, who struggle with difficult climate and environmental conditions, have more, meaning than fish, is also the most important protein source of the local cuisine. No matter where one looks at the Black Sea cuisine, all roads lead to anchovy. Undoubtedly, this concept has begun to change since the 21st century with the rapid urbanization that started along the Black Sea coast and the cultural change and nutrition options it brought about. Anchovy sometimes turns into a bread if it is made plain, as in the example of 'hamsikoli' (with corn flour, leek, chard, etc.), and a bun when it is with vegetables. There are many seasonal dishes such as pan-fried, grilled, steamed, pilaf, wraps, meatballs and even 'anchovy bird', 'corn pita'. When a meal with olive oil is desired, it offers different options such as anchovy with vegetables (with leek, carrot and potato) and 'anchovy pileki' (Duman, 2003; Al, 2004).

It is possible to establish a one-to-one relationship between anchovy and the lifestyle of the Black Sea people. The climate, which makes it necessary to use the time well, has made it necessary for the meals to be prepared quickly. Cultivating, hoeing, and fertilizing the fields opened between steep slopes, doing all these works under a nearly continuous rain require quicker and more practical in all areas of life. This situation is reflected in the speech, games and all daily practices of the Black Sea people. Anchovy is an ideal food in this respect. The anchovies, which are cleaned quickly, can be placed on a grill or in a pan and served immediately with some greens, especially onions. Salted anchovy is a food source that will keep this practicality alive in the summer. A fisherman made sense of this situation in a very meaningful way: 'The henchmen of the Black Sea play horon very fast... As we play horon quickly, our works are fast. Because of the anchovies are running. You will quickly go after the anchovy so that you will be fed. The running and fast travel of that anchovy is the same as ours. So is our horon... We play quickly...' (Emiroğlu et al, 2008).

In addition to the abundance and cheapness of anchovy, its adaptability too many dishes with different mixtures is an important factor that increases its prevalence in consumption. The season of the anchovy, more precisely the fat level and size of the anchovy, determine that any kind of food will be made. It is grilled abundantly in November-December-January. Especially in these months, the large anchovies are cleaned and salted, then grilled and cooked. Pan and steaming is preferred when it is lean. Undoubtedly, anchovy is also an indispensable blessing for the poor. Because of it is the cheapest sustenance among all fish and it is a product accessible to people of all socio-economic classes. As Hamamizade İhsan Bey stated; 'Eaten without tools and difficulties such as anchovies, forks and knives; but there are procedures to be followed in its defeat'. He expressed this with an ode (Hamamizade, 1926).

'Observe your table manners; keep this pendent in your chest

Take your knees and become a besmelkesh, good luck, hope

Take a sip of water and then take a bite of lazut Hold your tail firmly in one hand and swallow it like that

There is a way to add anchovies.'

In the traditional settlement of the Black Sea, the kitchen, which is called 'aşana', 'domestic', is a functional place in the centre of life, where the fire is burning, and the daily work is carried out. A peculiar pot-leak has also developed within the cultural pattern of the anchovy. Such as pileki, anchovy pan, anchovy strainer, corrugated tile. The anchovy pan, which is made of copper and takes names such as 'turning pan', has a single handle, made of copper, and has a lid with a handle to turn the anchovy with knees during frying anchovies. The special cover of the anchovy pan functions as a unique means of use in the preparation of pan or slippery type dishes. Before some women cook anything inside the pan they just bought, they rub it thoroughly with corn flour over a hot fire to prevent it from 'sticking' (Picture 3).



Picture 3. Specific to the Black Sea; strainer and traditional copper grill pan for cleaning anchovies

Irresistible taste of pickled anchovy

Anchovies in brine; it is a storage method prepared as consumption in the summer months when anchovy is not available. In fact, salted anchovy is an important food security for poor households. As a very old and traditional preservation method; pickled anchovies still maintain their importance. In Trabzon Faroz, it is seen that salting anchovy based on a deep-rooted tradition has turned into a social sharing, almost a ritual. Brine was made by the women in the household and the daughters of the family. This traditional phenomenon, which has completely disappeared today, was expressed as follows by an inhabitant from Faroz. 'During the anchovy hunting season, anchovies used to come to the neighbourhood with a crate. For example, who are the rich people of the neighbourhood...? They used to fish. They say that I send fifty crates of anchovies to the neighbourhood grant... Everyone takes their safe in turn. Neighbours gather in an open field. Anchovies are cleaned by helping each other.

Then the cut anchovies are taken home and washed with plenty of water. The anchovies are washed many times and repeatedly with clean and plenty of water. It is kept in a copper strainer for a day in light salt. Blood water is expected to come out thoroughly. The next day, it is mixed with thick salt. Salt is laid at the bottom of the ceramic cube or tin can. My mother would also put a bay leaf at the bottom. Also, no water is put into the container. Its own juice released by the anchovy in the bowl was enough. The top of the container was covered with a row of bay leaves so that it would not rust. When we took the anchovy from the container in the summer, we boiled it with fig leaves ... (Sezer, 2007). The best season for salting anchovies is the middle of the catching season. The perception that 'anchovies are salted after hitting snow water' is common among the public during this period. It is possible to say that this is related to the fattening of anchovy. It is known that salty anchovy, which reaches the desired consistency and taste a few months after salting, was stored for up to 3-4 years in the past, and even pickled anchovy prepared in large barrels with bay leaves in between is exported (Sezer, 2007).

Before the 1980s, when corn was a product of subsistence and reinforced the kitchen of the people living at the coast, anchovy was an indispensable benediction for the households at the Black Sea. While anchovies were being consumed fresh during the fishing season, it was salted and conserved out of the fishing season. In these years, people used to use anchovies which had been fished too much as fertilizer for their tobacco fields and hazelnut gardens. Hamamizade Ihsan Bey, one of the gentry in Trabzon, wrote in his book entitled 'Hamsiname' (1928): "In Trabzon and its environment, anchovy is also used as a fertilizer on the tobacco fields in the years when the fishermen had fished too many anchovies." (Sayılır and Babuçoğlu, 2007). There is a close relation between the use of anchovies as a fertilizer on tobacco fields and 'Duyun-i Umumiye', which was one of the most important institutions in the last years of the Ottoman Empire. After 'Reji İdaresi' of Duyun-i Umumiye was founded to pay the foreign debts of the Ottomans, it can be understood that together with the increase of tobacco sales especially in Trabzon, anchovy was used as a fertilizer on tobacco fields (Emiroglu et al., 2008). This relation, this conventional bond between the agricultural production and anchovies, was interpreted by the then Regional Trade Director of Trabzon, Said Bilal Cakiroglu, in 1964 as follows: "As the sea is very close to the mountains, the land is formed like a narrow strip. Although main products in Turkey such as hazelnut and tobacco are being planted on these narrow strips, they cannot provide a stable salary for the people of Trabzon. Those who know about the life at these coasts know that the people here carry on their back the soil they have lost to the sea in the winter months from other places in summer in order to make up their fields again. For that reason, the producers and citizens were forced to turn their faces to the sea and made fishing a custom and an art. Fishing can be found in all the places of the eastern part of the Black Sea. In times when husbandry was possible, villagers who owned a small ship went to the sea in order to provide their subsistence. In this respect, each Trabzon man is interested in fishing. The number of those who contributed to fishing becoming an art and spent their lifetime on this matter is not inconsiderable..." (Çakıroğlu, 1964).

"Moloz, Faroz, Yoroz... Everywhere beyond is abroad..."

There was a time when Faroz was the centre of fishery at the Black Sea. The northwest autumn winds were the sign for the coming of the anchovies to the South and to the shores. Months before, the captains went to the waterfront rocks of Faroz in order to prepare their ships for the new fishing season. In those years, these rocks along the shore were the most important shelters for the ships. Those rocks broke the speed of giant waves, calmed the pomposity of the sea, and protected the houses and fishing dams along the seaside. Each rock had its own name. The most important ones were Tombullu, Uzunlu, Boncuklu, Mapapli, Baskaya, Odunlu, Ayikayasi, Kursunli, and Sarganli. When the anchovy season approached, the captains started to prepare themselves in the shelters of those rocks days before and gathered all kinds of needs, all their stuff and their nets on the dams here. The small ships along the shore were replaced by hook ships, square sterned ships and sailing vessels. By stormy weather, the fishermen living away from home took shelter and spent their nights here. The anchovy captains used Faroz as a shelter. After taking the anchovies which they had fished during the season to the landing site in Moloz, they turned back for completion. To be a fisher meant to be at sea, to live away from home and to feel longing. It meant to be away from home and family, not to have a warm soup and to lack tenderness. It meant to collect the fishing net in the middle of the sea, between giant waves, it meant elbow grease, and sometimes pain and tears. Captains who went out fishing did not turn back home for six months. They suffered from being away from home and to be at sea. They put out to sea until the West of İnebolu, Eregli at the Black Sea, Sile and the Bosporus mouth. At these times, being further than Yoroz meant to the fishers of Moloz and Faroz to be away from home...

In these times, the sea provided the livelihood for impoverished people living at the coast. The poor fishers coming from Hopa, Arhavi, Rize, Fatsa, Ayvasil (Giresun), and Tirebolu, worked as seamen for the captains of Faroz. The 'Han Cafés' were a popular hangout. The fishers slept on the benches at the beachside of those cafés, they drank, ate, and took shelter there. The owners of those cafés were at the same time captains. The most famous of those captains, whose names are forgotten today, were 'Incenin Sali', 'Baranlarin Salih Ağa', 'Şemsiler', 'Emin Reis', 'Kalafat Temel', 'HisimaĞa Teel Reis', 'Vanlioğlu Recep (Denizer)', 'Mucoğlu' and 'Loloğlu'. Most of those captains also stayed in these cafés and had an eye on their crew. Those captains had been powerful in their times. Each of them had their men in Moloz/ Pazarkapı doing shipment. When the anchovy season started, the shore of Faroz was bursting at the seas and everywhere became cheerful. The fishers gathering in the cafés made merriments every evening and danced and sang to the melody of the 'kemence'. Those fearless and hook-nosed fishermen, who had dedicated themselves to the sea, danced horon¹ and made merry all night long.

Faroz, where only very few traces of its past can still be seen today and which is more than only a district of its city, still functions as a bridge between the past and the future. Although it has lost most of its distinctive features, it has maintained some traces of its own distinctive life style. With its fishery, weaving, coppersmiths, which belong to its long history, with its famous footballers since the 1960s and its 'kolbasti' of modern times, Faroz has become more than just a district and is a class of its own as it has developed its own lifestyle. With its narrow side streets, flowing fountains, its masonry constructed, half wooden, two stored, tiled roofed houses and large gardens, grape vineyards, ivies, pink and white wild roses, fragrant honey suckles, all of which are hanging down from the garden walls onto the cobbled streets, Faroz takes its viewers back to these old happy days. In fact, Faroz is the district where the warm and friendly neighbourhood culture is lived out in its deepest and sincerest way. He talked about anchovy fishing and Faroz in a TV documentary prepared by BBC reporter Cathal O'Shannon in 1965 on the daily life of the city of Trabzon. (www.bbc.com/turkce/haberler-turkiye-42564639).

'Because the city was founded on the Black Sea coast, many men here earn their living by fishing. And the fish they solemnly sought was anchovies with great aphrodisiac properties. In this corner of the coast, in Faroz, Trabzon's important fishing district, there was a magician selling wind suitable for fishermen. It was believed that with this 'wind spell' that he would earn a few liras, he would direct the fish to the nets...'

At the beach from Faroz to Pazarkapı, and from there until Moloz and Kemerkaya, a high number of rowboats were waiting at the capstans to go to sea. Before the mobilization and exchange, Muslims, Pontians and Armenians lived together in Faroz as it was the case in other villages at the coast. There was a good neighbourhood relationship between Pontic and Muslim fishermen. These were the years when there still was peace and order. They went to sea, cast their nets together and helped each other in bad times. Before dawn, they snatched the bread of 'Baker Dimitri of Sotka', which had just been baked, and went to sea. The sea was bountiful. After fishing, the quay in Moloz was full of anchovy barges. There were so many fish that anchovy schools were washed ashore. All the children took their loincloth (pesternal), basket, can, and ran to the guay to gather around the small sailing boats...

The captains, who spent their nights in Faroz and went to sea from there, delivered their fished anchovies from the quays of Pazarkapı and Moloz. During the Second Constitutionalist Period of Istanbul, Moloz and Pazarkapı were the most dynamic districts of the province of Trabzon and of the regional economy. A lot of factories, shipbuilding yards, offices and commercial buildings, especially hazelnut factories, carried on their activities in this surrounding. The goods were disembarked by the ships approaching the shore and were transported to the quays by rowing boats. After that, these boats were bound on the boatyard of the Tabakhane stream. Until the 1950s and 1960s, there were no big, well organized, modern harbours at the coast of the Black Sea, which had a pier, and whose backyard was available. There were quays in the sheltering bays of important centres such as Istanbul, Samsun, Trabzon, İnebolu, Rize, Hopa, which were the

¹ Horon is a folk dance of the eastern Black Sea coastal region.

most important harbour cities. Big freighters did not approach to the shore, but cast their anchor far from it. People and loads were transported to the quays at the shore by barges and boats, and there, they were embarked on and disembarked from the ships. These quays were named differently in different cities, e.g. passenger, gas, flour, and customs quay.

Salih Ağa² of the Barans

At that period, sea transport was mainly under the control of 'Salih Aga of the Barans in Faroz'. The sailing boats of Sâlih Aga cruised from Batum until inner Russia and from there until the Sea of Azov, and fished seine and fish there. On their way back, they also took goods which were not available in Trabzon. The captains fished anchovies in winter, and during the summer months when there were no anchovies, they made trade. In the harbours of Batum and Samsun, they loaded corn, wheat, tobacco and salt on their ships. Besides, Sâlih Ağa also imported yarn. He sold the yarn which he had imported from England to the captains in Faroz. At that time, the captains in Faroz where the only one in these coasts who had seine net for anchovies. The seine nets were hand-knitted at home by women who lived in the villages near the coast. The most famous seine weavers at the coast of Trabzon were from Zavena (Salacık) and İskefiye (Çarşıbaşı). At that time, only the chieftains from Faroz used to have 'hamsi ığrıbı' on these beaches. The seine net has maintained its size and shape since the Byzantine period. While seine net was used to fish one level above the seafloor, the beach seine was used for fishing fish on the seafloor. The size of the seine net and the equipment for fishing differed according to the size of the group of fish to be hunted and according to the depth and streams of the fishing site (Zengin, 2013).

The Bugler Kalfa Ağa

With the start of the anchovy season, the fishermen of Faroz returned to their usual working routine. The ships returning from fishing were full of anchovies. The 'Bugler Kalfa Aga' bowled his bugle in Faroz in the direction of Kavakmeydan and this sound could be heard in near districts, distant villages, and even at the Karlık Tepe (a local hill). This was the job of Kalfa Aga. In the dawn, he announced with his bugle the coming of the boats, which were loaded with anchovies, to the shore. The sound of his bugle could be heard from the seaside until 2 to 3 leagues

The first man to come near to the barbecue was 'Mucoğlu Reis³' (Bostan, 2008). Actually, Mucoğlu was a typical Trabzon man. The blood of a real seaman was running through his veins. He was born and grew up here, and when he was a child, he ate what the sea gave to his family and so, later, when he was an adult, he also earned his livelihood at the sea. He was one of the most famous and skilful captains in Faroz. With his impatience and impetuosity, and his inner energy he had all the qualities typical of a 'Black Sea Child'. Sometimes, he burst like the waves at the sea with joy and happiness, and sometimes, he suddenly got angry and burst with anger. Patience and calmness were alien to him. If something went wrong, he began to curse and used all the swearwords he knew. But he was a man of such credulity and gracefulness, that after a few words of excuse, he became soft and calmed down again. His nature was an exact mirror of the nature of the Black Sea.

This way of life of the people living at the sea, which had continued for hundreds of years, was put to an end when in 1916 the Russian attacked the coast of Trabzon... From that day on, peace and order were destroyed. During the years of mobilisation, there was no peace anywhere. The Pontians, Armenian and Turkish people, who had breathed the same air and had filled their jugs from the same fountains for hundreds of years, were now fighting against each other...

The first fishery shelter and the construction of the first coast road

Today, there is only very little left of that old fishery past in Faroz (Picture 4). The fishermen are craving for those

in distance. All the people, "old and young, ran bareheaded and barefoot to see the fish (anchovies)" (Kayaoğlu vd, 2007). In spite of his old age, Kalfa Aga fulfilled his job with great passion. He was the bugler of the union. Moloz, Pazarkapı, and Faroz became overcrowded by those who had heard the sound of his bugle. The shore was bursting at the seams with people who had come from districts and villages near or far. But this tumult did not last for long. After that, the captains and seamen enjoyed their fishing. First of all, they warmed their freezing hands and tired bodies at the fire made by woods of oaks. After that, the fresh and living anchovies were cut, salted and arranged quickly on the barbecue. The smell of grilled anchovies spread all over the beach.

² The Turkish word "aga" means "landlord, landowner".

³ reis= engl. captain

old blessed days! Neither the mystic rocks along the shore, nor the natural shelters at the seaside can be found anymore. None of them could adapt to the new living conditions, which changed during a long time period, and gave in to the ravages and were destroyed. The seaside, which was enlarged through filling again and again, was changed into roads, lodgings and settlements, parks, restaurants, and wholesale market halls, and succumbed to

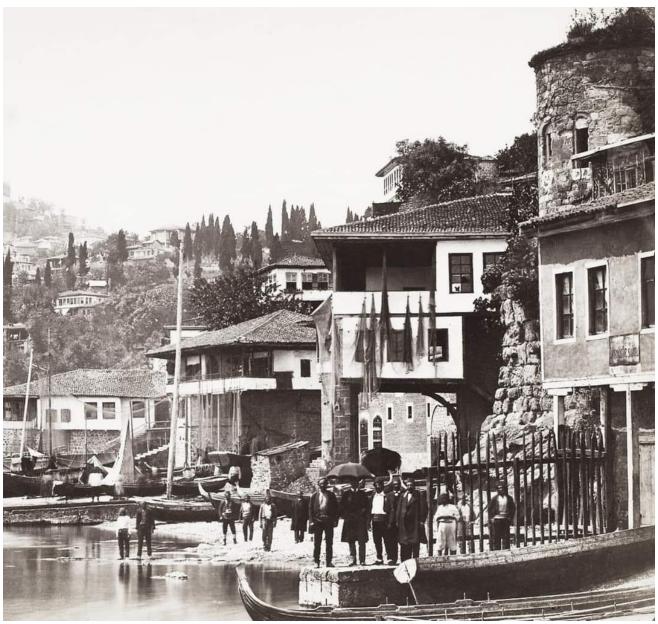
the merciless trade economy, which developed especially after the 1980s. During this time, the old great captains kept their hands off the sea one after another. Only very few of them continued their profession. The majority departed this life and got lost in eternity. Leaving so much pain behind them... Those who remained remembered Faroz as it was like in the past and their good old fishermen days and took a trip down memory lane.



Picture 4. Historical Faroz fishing shelter; Beginning of the 1920s (from Muzaffer Bozali Albums)

Muzaffer Bozali has outlived this long past of Faroz and his fishermen days and is one of its oldest citizens. Today at the age of 85, captain Muzaffer still feels those deep traces within his heart and longs for those old times: "Our family was one of the oldest households in Faroz. In the time we settled here, there were no more than 20 Muslim households in Faroz. Almost all of them earned their living by fishing. My ancestors had learned fishing from the Pontic captains. The Armenians earned their living usually as tradesmen. The business of coppersmiths, smithereens', weaving, the construction business, and

bakeries were in their hands. Most of the coppersmiths, boiler smiths and thinners working in Kemeralti and in the ateliers at the coppersmith market were people from Faroz. The craftsman working in those ateliers produced oven vessels which had a handle on the top, copper buckets, kettles, copper vessels, cups for milk and compote, dough basins, frying pans with caps for anchovies, metal drinking cups, shallow frying pans with a cap, pots, and braziers, all in a style characteristic of this region' (Picture 5).



Picture 5. 1900's. The Çömlekçi's side of the current big harbor in Trabzon. Yelkenli aynakıç boats ...

'No matter if Pontians, Armenians or Turks, a weaving loom could be found in every household. A wide array of ornate linen, towels, peştemal, undershirts, and socks were woven with them. The dowry of girls who were going to marry was always ordered from the households of this district. After being expelled from this region, Turkish families continued to practice hand weaving until the 1950s and 1960s. But when modern weaving looms were produced for factories, weaving at home also became history. Until the foundation of the 'National Unity Government' in 1960, there were no roads at the seaside. There was a pathway between Faroz and Sotka-Pazarkapı. The transport between the harbour of Faroz

and Pazarkapı and between the quays of Moloz was carried out by transporter barges at that time. The Fishery Association in Faroz was founded in 1952. In the year when I became head of this association, I went to Ankara in order to make a petition to the National Unity Government. Then the first thing made in Faroz was a shelter. Until then, the boats were pulled ashore near the rocks. In fact, the first asphalt road was completed in these years, at the beginning of the 1960s. Until then, there was no city road at the seaside. The road starting in the provincial centre at the Maras Cadde, passes Tabakhane and the Zağanos bridges and reached Kavakmeydan, and from here St. Sophia Church. At the right time, our three

storied fishing house which was used as headquarters during the occupation of Trabzon by Urusun fell down during the first road constructions. This house had been built by my maternal grandfather. My grandfather captain Emin was a sailor. He transported goods from Istanbul to Batum...

The white foam of wild waves washed the stone walls of tile roofed houses...

Until the early 1960s when the asphalt road was built, the houses in Faroz were seafront. The white foam of wild waves, whose speed was broken by the rocks, washed the stone walls of tile roofed houses. It was a time when technology had not been sufficiently developed yet. Until the end of the 1950s, the sea was very profitable for the fishers. The people of Faroz sampled the fish such as anchovies, skipjack tuna, and horse mackerel, which were washed to the shore, with their hands. Unfortunately, these were not the only changes to come! After the 1960s with an interval of almost 10 years each, the road enlargement constructions at the seaside destroyed the unique natural beauty of Faroz until nothing was left. Even worse, the 'Black Sea Seaside Road Project' during the first years after 2000 caused the biggest destruction and the historical traces of Faroz were lost forever. The land reclamation towards the sea destroyed the old face of this area forever and shaped a new geography. Apart from this, the settlement structure of this district, its houses, buildings, gardens and streets became object of the merciless rules of the trade economy after the 1980s. This district, which had a high migration from outside, distant villages and small towns, had lost its original characteristics to a great extent.

Captain Temel

Captain Temel, who had the nickname 'Hisimağa', was of the oldest and most famous fishery families in Faroz. There was no captain above him. He knew the sea very well and was always careful. Looking from Faroz at the horizon of Yoroz, he could tell the weather of the following day. He knew that the south wind was immediately followed by the northwest wind. According to this, he took his precautions and put out to sea... He had two brothers. When the immigrants came and came up against, they also left Faroz as all the other Muslim families did. The three brothers gathered and sailed until they reached Samsun. While other families were troubled with hunger, poverty and illnesses, they had better luck. As they knew the sea inside out, their journey did not last

very long. Also after leaving Faroz, captain Temel spent his whole life at the sea. Like others, he had also dedicated himself to this painful way of life. The life of the people at the Black Sea went on like this from generation to generation. They were born into this profession which they regarded as their honour and pride and as a holy heritage. It was their inevitable destiny. And this was exactly the case with the family of Hisimaga.

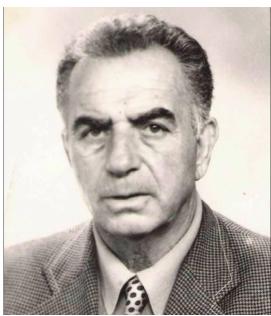
The descendants of Hisimağa are one of the very few old fisher families of Faroz who are still alive today. Today, there is only very little left of the magnificent old fishery times of Faroz but the profession is still continued in the third generation...One of Captain Temel's sons, Captain Murat, who was born in 1931 and is still alive today, regrets that there is unfortunately nothing left today of the old good fishing times, of the fishing shelter in Faroz and the copper coloured coasts. "I was born in Samsun. My father returned to Faroz when I was five years old. After he had returned, he tried to earn his living by fishing. Later, he was captain on big ships, and on "capital ships" of 10-15 metres size, 10-12 tons. He did not know the meaning of the word "stop". He had always been working. In winter, he was a fisher, in summer; he worked as a captain on transporter ships. He suffered a lot. When he died in 1956, he left only a lot of hardship and connoisseurship of this profession as heritage for us. He never stopped being an honourable man. Then he passed his flag on to us. These shores are not the ones we remember from our childhood. They have filled the sea and at the same time there are ships everywhere. Since we did not learn another profession, being a fisher was the only way for us to earn our living and we continued this job. In remembrance of him, we have named our ship after him. The day came when even captain Temel had to defer to the new technology. At the end of the 1990s, the old fishermen of Faroz finally gave up and moved away. They either moved to bigger cities or gave up their profession. We are the last of the old fishermen of Faroz. But since the beginning of the 1980s, villagers have left their homes and sold their animals and moved to Faroz. Since then, peace has been completely disturbed. The rules of the sea have been flouted. There is no respect of and love for the sea, the fish and the captains...and those who leave us don't come back again. Now, we comfort ourselves by remembering the old days... We have no expectations for the future... I grieve about the times when we went fishing dolphins, enormous cods, Atlantic bonitos, turbots which were as big as a tray without calculating..."

In spite of all these misfortunes, the people of these coasts, who have dedicated their lives to the sea, those tall and slim, sharp nosed people with sea blue eyes, have never lost their endless hopes and love for the sea, the Black Sea, and anchovies and have always carried them in their hearts...

A mighty fisherman family: Denizerler

'Denizerler' was one of the most famous, established and wealthiest fishery families that have survived from those magnificent fishing years of Faroz. Even though the glory of that old days does not last enough today, 'Denizerler' has been known as the leading and leading family of the Trabzon, Black Sea and even Istanbul fish market for many years ... Yahya Reis started from the end of the 1940s until the mid-eighties, until his death in 1986 He was a leading leader in the fishing market, who has always been mentioned, listened to. He always led the fishing movements in the Black Sea. His name was always mentioned until the support of the Hasan Saka Government in 1948 for the first time for dolphin fishing (Zengin, 2009), the use of the first modern purse seiners in the Black Sea, and the establishment of the first modern fish market / brokerage system in the country.

Yahya Reis's father was born in Vanlıoğlu Recep Reis Ayvasıl (Giresun). There is no clear information about when Vanlıoğlu came and settled in Faroz. But he, like the other chiefs, worked as a puller on these coasts in his time and was carrying the wheat, corn and flour he loaded to his ten meters tall 'aynakıç' (old vessel) from Samsun pier to Trabzon. In those years, he started to grow from small to small and fished anchovies during the fishing season. He used to take shelter in the natural shelter in Akçakale in bad weather. Vanlıoğlu Reis passed away this mortal world in the early fifties... Vanlıoğlu Recep Reis; He was on the team of 'Yahya Kâhya', one of the important men of the Committee of Union and Progress in the 1915s and was influential in many domestic and foreign national political events of the period (Üçüncü, 2015), and they were close friends. He gave his son the name of the murdered 'Boatmen Steward Yahya. This Yahya Captain was so powerful that he used to take a man from the rope'. These days, in the fish market sector, especially in the domestic market; As the company that directs anchovy trade for processing, canned food and fresh consumption, there are fishing stories from the grandfathers of 'Denizer Fishery' dating back to the very old years, the end of the 1880s. First Vehbi Ağa opened the Black Sea with a small crew team and his crew, then his children, then his grandchildren... They were attached to the sea with such passion; when the surname law was passed, their surnames immediately became Denizer. After Vanlıoğlu Recep Reis, his two sons Abdullah and Yahya (Picture 6) took up the fishing business. After them, their children ... Then their children ... As you can see, the passion for the sea and fish passed down from generation to generation...



Picture 6. Yahya Denizer: Two generations of fishermen who made an important effort in the development of anchovy fishing in the Black Sea

Past fishing times in the Sinop peninsula

At the beginning of the 20th century, fishing was done under very primitive conditions compared to today. Fishing boats were towed by sailboats or two or three pairs of oars. Fishing was mainly based on dolphin hunting, diving, fishing and pickling. Fishing was done in coastal waters with weeping (ığrıp). In anchovy fishing, coastal 'voli' nets and a kind of router network traps called 'pie' were used. The anchovies that entered the trap were transported to the deck with the help of a bucket, and from there to baskets made of straw, wood, baskets or cubes made of clay. In those years, bonito and 'torikçilik' were famous. With the 'alamana' nets, starting from June, first the torik, and following the "chestnut black" storm (kestane karası) in September, acorn farming started. The oldest traditional fishing left from the Greeks was dalyan. Until the 1980s, fish were caught along the Black Sea coast, as well as perch, mullet, torik, and even tuna. In these years, when money was not used as an important commercial commodity, instead of the exchange of goods in marketing, the anchovies that were hunted were exchanged in the villages for eggs and for corn. Maybe the people were poor, maybe poor, in need of a bowl and a straw roof, but the seas were not so spoiled (Zengin, 2019a).

American traveller David Robinson describes Sinop, which was very famous for fishing along the Black Sea coast, in 1903 as follows; "... Bonito is the most important fish. Schools of fish spread to the north and south of the coast to spawn. It was made from acorn in brine and shipped to Greece. The price of fish was increasing enormously from Greece to Rome. A small jar of Sinop brine was sold for 400 drachmas. In addition, many fish such as mackerel, turbot, red mullet and dolphin were caught and shipped. The dolphin, on the other hand, was kept not for food, but mostly for its oil and the medicinal value of its lungs" (Robinson, 1906). The building of "Mumyakmaz Nikola" in the shipyard, which existed in Sinop until the last period of the Ottoman Empire, was a fish salting plant. These pickled fish, which Armenian and Greek women worked on, were imported to Crimea, Italy, and from there to France, and into Europe through the Danube and Volga. In this facility, the pickled fish obtained from the fish of 'dalyan' Kırımizade İsmail Hakkı Bey, were stacked in oak barrels of different sizes and loaded onto the ships. 'Vasil Usta', son of Yorgi from 'Varos District', the last craftsman who made barrels of pickled fish in Sinop, has devoted himself to teaching this profession to Turkish subjects. He even opened a course for inmates at a midterm prison. He also donated 43 pieces of his tools here. This period is the years of turmoil in which the country fell into war and poverty. The last salted fish export to appear in the records was the Kosovo Ferry and 100 barrels of bonito from September, 1922 (Deniz, 2012).

Another person pointing to Sinop's reputation for fishing in the past is; the famous writer and intellectual Refi Cevat Ulunay was exiled to Sinop Prison in 1913 and spent two years there. Refi Cevat Ulunay made the following determinations about the fishing of Sinop, where he came with the "Bahri Cedid Ferry". "Essentially, fishing in Sinop is very primitive. However, the city makes

great use of fish, especially anchovy, every year. I also saw a strange situation there; they consider the fish that do not play as dead and do not eat it as dead fish! Turbot fish will surely jump in the scales. Especially the Christian people of Sinop are extremely fond of fish. For this reason, all of them have red faces, and at least six children's heads appear on the door of each house. Fertility is extremely high" (Ulunay, 1999). This abundance mentioned by Ulunay continued until the end of the 1980s. Especially the news that anchovy flocks have entered Sinop bays; He grabbed his net from the house and cheered on the houses of the people who gathered on the seaside for free. When the ladies weeded the anchovy for cooking at noon, when they saw the boats full of anchovy coming to the pier from the window, they threw the anchovies in front of them as fertilizers and rushed back to the port to grab free anchovies (Deniz, 2012).

The first fishing activity of the Turks in Sinop; It was started by the first generation Dangaz, Osman Reis, who worked alongside the Greeks. In those difficult years, he reached Sinop Port two days after departing from Istanbul on May 16, 1919 on the 'Bandırma Ferry' to implement Mustafa Kemal's 'National Liberation Plan', and he landed here and met with the notables of Sinop. In this meeting, one of the two heroes from Sinop who guided Pasha with his horses was the son of Osman Reis; Mehmet Reis is from the second generation and the other is Cerkez Ali. Basically, after Osman Reis emigrated to Sinop from Crimea, he started to be a shepherd in this poor state on the Peninsula. On the western side of the island, he would help Greek fishermen to pull their ewes into the sea when the weather was good... Osman Ağa improved his friendship with the Greek fishermen in this way and also he has gotten the profession of weeping. He learned the skills and subtleties of this work from his friendly neighbours... Equipping nets, throwing nets, the time of fishing... Today, the brothers Niyazi and Hikmet Kuruoğlu from the third generation continue their fishing activities with their fourth generation sons, although they are 87 and 91 years old (Picture 7). It is the end of the 1980s (Zengin, 2019).



Picture 7. The year is the end of the 1940s ... Dangaz are sharing their food with their crew after an anchovy fished in Sinop's Daşbağı region, during a break ...

The seas had not gotten worse yet ...

In the first half of the 1900s, both the ecosystem and the fish populations in the seas of Turkey have not deteriorated yet compared to the 1980s, 90s and 2000s. And especially the residential areas of the coastal fishermen are small villages and towns in terms of population, industry and tourism. Nature, sea and coasts have not been contaminated yet; fish populations have not been decreased. Industrial fishing has not reached its current dimensions, aquaculture activities have not started in the near coasts, the coasts have not been filled, sea areas have not been closed for different infrastructure activities such as energy, transportation, blood-bridge, highway, and fishing areas have not been narrowed. Along the Black Sea coast, the problems of intensive urbanization, urban discharges and pollution caused by industrial wastes have not started since the 2000s. In this process, the populations of tuna, torik (big bonito), swordfish, mackerel, horse mackerel and even dolphin, which were hunted in

In this period, traditional fishing activities were also carried on in many fishing settlements along the Black Sea coast outside Istanbul. In the pre-industrialization period of the fishing industry in Turkey, fisherman-sea relations were traditionally made with local resources and physical labour, and indeed, being a fisherman required a great deal of experience. This structure continued until the 1980s. Since 1980, radical changes in the national economy have gradually reflected sea and fisheries⁴. While one end of these changes is technologically based on fishing, on the other hand, human relations of the capitalizing profession

the mixed / semi-statist economic model on January 24, 1980 and switched to a liberal / market economy.

abundance in the Black Sea, have also entered the process of extinction. These are the years when our fishing has not yet transitioned to the stage of capital accumulation, fishing is still self-sufficient, and there is an inadequate and limited subsistence economy. This period is also the years when there was no capital accumulation and technological development in fishing (Zengin et al., 2010; Zengin, 2019b).

⁴ This period is a period in which the greatest radical transformations have been achieved historically in the sociopolitical and socio-economic structure of Turkey. Turkey left

have also been affected (Zengin, 2019b; Ulman et al., 2020). With the market economy, a capitalization process has been entered in the fishing sector. The people involved in the fishing profession, especially the local coastal fishermen, were poor, and the most important motivation for them was their passion for sea.

Technological developments in anchovy fishing

In our country, 'purse seiners', which were first used in fishing of pelagic fish such as anchovy, horse mackerel, bluefish and bonito, started to become widespread after the First World War. The first examples of these nets were 110 fathoms long and 15 fathoms deep, and the anchovies that came to the mouths of the bay and dalyan were hunted with these nets. Over time, these nets were replaced by purse seiners made of cotton yarn, which were enlarged to a length of 300-400 fathoms and a depth of 30-40 fathoms. These purse seiners were named as 'anchovies' in the Eastern Black Sea Region (Yalıngün, 1967). However, these purse seine nets, which were completely knitted from cotton yarn and whose ropes were made of hemp called 'oktun' in the region, had to be dried every day and the processes of throwing these purse seiners into the sea and withdrawing them to the sea should be done completely with human power. The boats used in fishing with these nets were wooden boats of 10-15 meters, called three or four pairs, and fish shoals were detected using the sparkle at night and the rash during the day, and 4-5 tons of anchovies were caught each time. Fishing was also affected by the rapid development of technology after the Second World War. First of all, by importing nylon nets and using them in making anchovy purse, the problem of drying the nets every day is eliminated. At the same time, because of the high bearing power of nylon nets, the splitting and explosion problem of the nets is also reduced. Since there are redundant networks, it has been possible to easily replace the torn parts of the networks (Düzgüneş, 2010; Düzgünes et al, 2015).

On the other hand, the size of both the boats and the nets has increased, as the engine power enters the fishing boats. The boats were made of wood, 18-20 meters tall, called 'kancabaş' (Picture 8). Pressing (pulling and shrinking) of the gold of the used nets with cranes based on engine power has introduced "steel ropes". The "echosounder" (fish finder), which detects schools vertically

next to a synthetic (nylon) net and machine, has started to be imported. With the import of fish finders, the problem of day and night fishing of anchovy schools has been eliminated. With fish finders, the amount of catch has increased rapidly. Therefore, carrier boats were needed. Therefore, one or two carrier boats started to travel behind each fishing boat. However, the carrier boats doing the same course while the fishing boat was looking for the fish shoals caused huge fuel costs. Therefore, it would be more appropriate for the carrier boats to go to the vessel after the catch is wrapped. The problem of providing communication between carrier boats and the fishing boat, determination of the port where the catch will go, communication of the fishing boats or carrier boats with the marketers or organizations, on the other hand, the problem of a fishing boat informing other fishing boats when it found dense schools arose. This problem has been solved by the introduction of "wireless" communication into fishing (Celikkale et al, 1993).

Anchovy (Engraulis encrasicolus); It is the most important commercial species in both Black Sea and Turkish fisheries. Fishing in the Black Sea is characterized by anchovies and the fishing industry is largely dependent on anchovy fishing. Why anchovy is so important in Black Sea fishing. (1) First of all, it constitutes the largest prev among all fish species that are caught. Black Sea, even Turkey fishing is characterized by anchovies. (2) It has a high trophic level in the food chain. (3) It is a very important food source for people living in the coastal zone and (4) it is a very important source of economic employment for work and business life. Although the anchovy landing constitutes 70-75% of the total catches landed according to the averages of many years, it has shown a decreasing fishing trend for the last 10 years. It is likely that the oceanographic conditions are decisive. Total anchovy production reached from 60 thousand tons in the early 1970s to 375 thousand tons with an increase of approximately 300% in the mid-1990s (1995). However, as a result of both overfishing, increased fishing power and overfishing, and irrational administrative practices in anchovy fishing, the amount of catches landed in the second half of the 2010s (2016) decreased to 70 thousand tons.



Picture 8. Kancabaşlar... The years of 1950's when the fishing fleet was not technologically developed yet... tekneler...

Autumn-winter migration on the Southern Black Sea coasts begins in early November and lasts shortly until mid-December and the anchovy schools migrates to the Caucasus coasts from the end of December. In this process, anchovies in about a month; it is fished by Turkish fishermen with bilateral agreements with the Georgian government. The history of anchovy fishing by Turkish fishermen in the Caucasus coasts dates back to the mid-1990s. Anchovy fishing in the waters of Georgia was carried out with the personal relations of local entrepreneurs in both countries and largely illegal. The catch amount of Turkish fishing boats during this period is unknown. Since 2000, the Georgian Government has unilaterally tried to regulate fishing activities in its national waters. In this new process, it has given the fishing right in its national waters to private companies. Approximately 46 thousand tons of anchovy were caught in the waters of Abkhazia and Georgia in the 2011/12 fishing period. Approximately 10 thousand tons of this catch was shipped to Turkey for fresh consumption. The remaining 34.4 thousand tons were given as raw material to the fish meal-oil factory operated by Turkish entrepreneurs in Abkhazia and 2.8 thousand tons in

Georgia (Zengin et al, 2012). In order for Turkish fishermen to make a profitable and efficient fishing in the Eastern Black Sea, cross-border fishing conditions with neighbouring countries should be addressed in terms of legal and commercial legislation. On the other hand, in order to monitor the biological sustainability of the anchovy stock, it is necessary to implement a "regional monitoring program" together with the countries bordering the Black Sea. It is important for our national interests to expand this national program to include cross-border and to establish political, technical and economic cooperation with the countries in the region.

Since the end of the 20th century, significant changes have been observed in the migration of anchovy to the coasts of Turkey. The fishing season has started to narrow gradually. School of anchovy leave the Southeastern Black Sea coasts earlier than in the past. Many scientific studies have been conducted to support this phenomenon (Gücü et al, 2017). It is claimed that global climate changes are effective in this strategic change in the migration of anchovy population. About 90 years ago; news in the local newspaper published in Trabzon in 1932 reveals this situation in a striking way. The following

information was included in the news titled 'Beautiful Trabzon Morning and Abril Five Storm'. 'The strong 'kıble' wind tonight, the warm weather this morning, the burning sun, the half-covered sky are nothing but preparation for the five storm of Abril (April)... Indeed, the fog spreading from the smoky mountains to the vast valleys shows this. Because of in Trabzon, it may be after the five storms of Abril, in the words of the commons who did not care about the full spring and then the storms and weather disruptions. This morning I made a walk around the city in this weather. I went to Mumhane beach, passing through narrowly spaced streets of the city backing to the sea. Here, the people surrounding the anchovy boats buy anchovies, the various sounds (sedas) of the vendors shouting from the anchovy boats (for five kuruş), the porter (hamal), donkeys, horses, mules being loaded with anchovies in the baskets, cooking anchovies on tin barbecues, large sliced bread in front of them, a head onion or radish, You should see these places and this view, which resembles a fair in general, where porters eat anchovies around wooden tables and the delegation to the general public, although there are pan anchovies on the floor! (Akşam Newspaper, 1932).

Difficult working conditions at sea, on the vessel and expatriate for months

Working and living conditions in purse seiners, which constitute the basic fishing tool of anchovy fishing, are quite difficult. Crews, who have to live and work on the sea for about four to five months, can visit their families only twice during a fishing season, using leave periods ranging from one week to ten days. On the other hand, working hours are uncertain and long. Since the fishery season mostly involves the winter months, the workers struggle not only with the difficulties of the work but also against the difficult weather conditions (Picture 10). The uncertain working hours, sleep and rest periods during the hunt further aggravate the working conditions. The crew working in a purse seiners express these conditions as follows: 'The heaviest work after mining is ours. There are no working hours; we are vigilant for 24 hours, sleep time according to the flow of the fish. Especially in the first three months' bonito, horse mackerel hunting is very difficult. We work under all of them cold, rain, snow, storm and frosty. When the fish is dense, we cannot rest at all and cannot be fed regularly. This is not making money, not working, it's war! The day and night are not clear on the boat. Boots on our feet, linoleum on our backs, cold rain,

we work non-stop day and night. It happens that you don't feel your hand from the cold. I know that I never took that linoleum off my back for three days; I was sleepless for three days. We work for 30 days, but we have been working day and night for 60 days a month because' (Can, 2013). In addition to working conditions, the difficulty of staying away from home for months is frequently expressed by crews who are married and have children: 'You always think about home in anchovy fishing, how they will end this month. They say that he uses cigarettes and alcohol a lot, how about the fisherman, how not to drink. His family comes to mind, light a cigarette. You travel with your child on the shore; I look at you from the sea, and light another cigarette...' (Can, 2013). During the fishing season, which lasts for months, the boats, which have working environments for crews whose numbers vary between 20 and 30 depending on the size of the purseseiners, are also living spaces. In this context, the intertwining of working environment, social environment and living space often causes the distinction between work and leisure / rest to be blurred. 'There is no rest, no social life, in this profession, you work 18-20 hours a day, 8 months a year. Especially when the prey is intense, you cannot even sleep, let alone rest. We even pray for the weather to blow and the storm to break out, so that the boat should move to the shore so that we can rest. But that doesn't happen; we fix the nets when we're not fished...' (Picture 9) (Can, 2013).

For these reasons, it is extremely important to make the working relations, labour and labour process of the fishing sector visible first. Because the fishing industry are continues its existence as an invisible area in terms of labour relations, organization, worker health and safety, and social security. The capitalist relations and labour process in the fishing industry have not been understood or questioned even today. Both by those within the sector and by bureaucrats... It is that fish workers, who work with or without salary in purse seiners, which make up the largest part of employment in fisheries, have a wide range of precariousness that affects their daily practices. However, in addition to the shares paid to these seasonal workers (crews) employed by the fishermen chiefs, credit debts, fuel oil and food brought a significant burden (Ersin, 1967). This broad insecurity begins with the establishment of informal relations at the beginning of the work process. This process, which started with no formal agreement of any crew, continues with the lack of a healthy working environment and social insecurity in terms of worker health and safety. These working conditions, which lack social security, unregistered and unorganized work in the fishing sector, which is seen as the most dangerous sector in the international literature, undoubtedly place the workers working here next to those who are in the category of the most insecure, whose number is increasing day by day (Ulukan, 2016).



Picture 9. The early 1980s... The crew team working at the port during the anchovy fishing season (Can, 2013).

Tens of tons of fish caught overnight, unloaded and loaded onto trucks in ports where they are sent require a large workforce on its own. There is a never-ending race between fishing boats and anchovy flocks. For example, when a stream sailing from Ordu finds and catches a fish off Giresun, it fills it with a spare engine and sends it to the nearest port. In order to unload this prey from boats and load it onto trucks, human labour is needed on land as well as on the boat. However, it is not easy to find crew members during the anchovy hunting season. It is hard to find a person who can endure this hardship. In this respect, the most important source of income for the coastal fishermen living in coastal villages such as Ordu, Perşembe, Vona, Ünye and Fatsa in their small boats out of season is expatriation in anchovy purse seiners.

Yusuf Kaya, the head of the boat 'Can Kardesler', who was hunted in Hopa harbour; He complains about the intensity of operations in the fishing area, saying 'I am afraid that at least ten boats will be followed by me on my way back to Samsun'. Heads of the purse-seine team find permanent carriers who will transfer the anchovies they fished from boats to trucks through subcontractors / great captain, who call them 'sergeant'. The people of the Black Sea called the 'misery convoy' to the community of mobile hotels in which the carriers who had to follow the fleet in the sea from land used to sleep and leave. They follow the anchovy flocks by sailing every evening with 2 or 3 carrier boats that will carry the anchovies to the shore with their purse-seiners. Wherever the sea fleet moves, the 'misery convoy' will follow them by land. While some of the carriers sit in cafes and spend time, others rest by cooking and drinking tea in mobile shelters consisting of vehicles such as buses, trucks and caravans. One of the crew members on land; '15-20 people sleep together in a tarpaulin truck bed. We cannot even find water to wash our faces in the ports. He reproached, saying, "We are working in misery in these places that are better than the grave and worse than prison" (Hopa, November, 1984). Some of the crews who had to lead a miserable life in mobile convoys had to leave the university due to financial problems. Some of them chose seasonal workers / crews because they could not find a job after finishing high school. Actually they had three options; they will work seasonally in constructions, woods in the forest or sea (Can, 2013).

The famous traveler Fikret Otyam (1982) described his observations on anchovy fishing and fishermen during his

trip along the Black Sea coast during the fishing season in the late 1960s in his book, *Habu Diyar*'. 'Crews with long, crooked noses, silent and awaiting their fate in boats... Poor people who have pinned their hopes on anchovy... Farfars was burned. 'Farfar'; coarse wick kerosene lamp. Two farfars tore the darkness of the night yellow and red... The faces of the crew lit up... The nets were being drawn. Thirty people were hung on the collar of the net, saying 'Ya Allah'. The water flowing from the nets slid down the yellow, brown, green tarps. The shouting gave the night a terrifying mystery. Excitement was at its height... The crews were pulling the net in a horon order, as if they had received a command from somewhere. It was like a game... As he bent down, the patches on the bottom of his trousers felt like they were going to pop. There was an indescribable joy, in the middle of the Black Sea, in the night... The crew pulled the 'irip' and poured it onto the deck. The deck was filled with live anchovies playing and fluttering."

In those years, electronic fish finder devices such as sonar and echo-sounder were not yet in the engines of the reis' (chiefs). By trial and error, or most certainly the vast experience of the chiefs, a schools of anchovy were found and the net was wound... The chiefs were not always lucky. Most of the time, after so much hardship, the chief and crew were returning to the port empty-handed. "The crew were very quiet about getting a share of the income from anchovy after the fishing! They kept their earnings in a season like a secret. For some reason, they weren't very interested in it. I was able to force a few words out of their mouths. 'Half the profit goes to the engine, the cost of the work, this, to the owner, then we divide the rest between us'. Since the invention of anchovy, this business has been going like this. The rich have problems too, the poor already have problems. It's not a problem, it's a lot... 'The fisherman's money is flakes, his wife is a widow...' The Black Sea 'uṣak' (uṣak/friends is a local term used for people in the Black Sea culture) does not like to worry too much. That's why he doesn't get into everything too much, talks a lot, expresses himself, tells everything... He is sprightly. He smokes his cigarette. Whatever comes to his mind and heart is poured into his tongue at that moment, he sings his song" (Otyam, 1982).

Development of fish meal-oil industry based on anchovy fishing

With the transition to the market economy in 1980, especially the anchovy fishing fleet/purse-seine fishing

showed improvement in terms of numerical and technical capacity, and also caused an increase in the amount of catches landed. In the previous period; the annual anchovy catches landed in the early 1970s were around 60-70 thousand tons; Anchovy hunting increased to 300 thousand tons in the mid-1980s, and 375 thousand tons in the mid-1990s. In this period of approximately 20-25 years, anchovy catch has increased four or five times. Despite this increase in anchovy hunting in the Black Sea; due to the lack of interest in the marketing network and consumption habits, it faced the problem of evaluating the hunted product. More interestingly, the large amount of anchovy hunts in these years, which are mentioned due to the inadequate marketing network, were used as fertilizer in the hazelnut orchards in the region (Zengin, 2010)

Fish meal-oil industry in Turkey started to be established in the second half of the 1970s based on the existing anchovy fishing potential in the Black Sea and developed only in this region. Until 1972, EBK's existing 100 tons/day capacity fish meal-oil factory in Trabzon was the first and only investment of the sector, with the introduction of the private sector, as of 1980, the number of factories was 23 and the processing capacity of the sector was 7855 tons / day (DPT, 1989), It has reached the day. Since the early 1980s in the Black Sea, due to the increase in anchovy catches, the use of surplus anchovy outside of fresh consumption has come to the fore and entrepreneurs have been provided with various investment facilities for this purpose. In addition to the incentives provided, this sector has become attractive in parallel with the cheapness of raw material / anchovy and the developments in fish oil exports (Özdamar ve Aral, 1995). However, due to the short duration of the anchovy hunting season, factories could not reach their installed capacity in terms of productivity and their capacity utilization could not exceed 25% (Zengin et al, 1992).

Orhan Çakır is one of the first entrepreneurs and pioneers of the fish meal-oil sector in the Black Sea. Until the establishment of the Meat and Fish Institution by the state in 1952; before 1952, there was only a 'işlekhane' (small local business) belonging to Vessel Çakıroğlu in Trabzon. This facility was established jointly with the support of the Germans before the Second World War (Picture 10) (Çakıroğlu, 1969). In 1927-1928, for the first time, a joint facility that processes dolphin oil was established by Veysel Çakır and Mr. Ernest Hegler (Swedish citizen) called 'Delphin' (Veysel and Ernest Collective Comp) (Köse, 2014).



Picture 10. The first dolphin oil factory established by the 'EBK Fisheries Organization' in Değirmendere, Trabzon in the early 1950s (Çakıroğlu, 1969)

In 1976, KARSUSAN was established as a publicly traded company in Trabzon. This company covered two processing units: one is fish processing for human consumption and the other fish meal and oil processing unit. Ten months after the establishment, the company started to produce fish meal and oil. About the same year as KARSUSAN established, another firm called BALIKSAN has also opened to public trade in 1976. The company produced fish meal and oil using anchovy as raw material (Köse, 2014).

KARSUSAN firstly gained capital from processing and marketing fish meal and oil from anchovy. In 1980s, the company started to produce salted fish using support from Türk Sanayi ve Kalkınma Bakanlığı (Turkish Ministry of Industry and Development) using the World Bank funds under a project that uses local raw material and high local labour. The project aim was to process salting anchovy packed in oil in cans, and then marketing. It was also aimed to use fish waste from salting process as in the fish meal and oil factory unit. The owner of the company hired a foreign expert on fish salting according to criteria of consumers in some European markets (Köse, 2014).

Although anchovy has the largest share in the production of marine fish in the Black Sea, the processing

and evaluation technology in our country could not develop and become widespread until the 1980s, anchovy fishing intensified in a certain period of the year and the fishing period lasted as short as three months. This has led to the use of the amount of the landed catch, other than the portion that can be offered for fresh consumption in the market, as the basic raw material in fish meal-oil factories (Zengin, 2000). In addition to the anchovy, horse mackerel, stingray, shark and whiting were also given to factories in the first years (seventies and eighties), albeit in small quantities, from time to time (Özdamar, 1988). However, the majority of the raw material input of these enterprises (93%) was anchovy, and thus the dependence on anchovy resulted in overfishing of anchovy stocks (Zengin, 2000). One of the pioneers of fish meal-oil enterprises and the first private business owner in Trabzon, Orhan Çakır (over 100 years) was producing only one fourth of the anchovy processing capacity, which was 300 tons/day. Çakır in this regard; he stated that anchovy fishing has come to these days unconsciously and by being encouraged by daily political decisions (September, 2000, Personal Interview).

Today, there are important operational problems caused by working at low capacity in fish-meal oil

factories operating in the Black Sea Region. Profitability in such industrial enterprises; Capacity utilization in enterprises significantly affects the availability of input prices as well as. It is not possible to work profitably and efficiently by working at low capacity. This situation has brought up the constant raw material problem for these enterprises. These enterprises have a significant share in the collapse of anchovy stocks since the early 2000s. As a result of the decrease in the anchovy catch and its use more directly as human food, sprat has been used as an important source since the 2000s in order to meet the raw material capacity in the factories.

This song will be sung forever...

Anchovy, which has a wide range from bread to pilaf, steamed to grilled, flour to oil and is the subject of anecdotes, is the most important symbol of the Black Sea region and culture. With the approach of the winter season, its paths are observed and it is the most important food of the tables for three to four months a year. It is one of the important activities of the local economy with its sub-sectors such as anchovy fishing as well as marketing, transportation, and restaurant and it is the "bread gate" of many people.

The definition of 'anchovy is fish' is not valid for Black Sea people. 'Anchovy is an anchovy'. For its fishing, seller, restaurateur, and consumer, anchovy is not a fish; it is as if it is another creature. The fish transcended its identity centuries ago. He is small, his culture is big.

Ethical Approval

The author declares that no need ethical approval.

Funding Statement

The author does not declare any fund.

Conflict of Interest

The author declares that he has no conflict of interest.

References

Akşam Gazetesi. (1932). 20 Nisan 1932 Tarihli Trabzon, Akşam Gazetesi, s. 10.

Al, E. E. (2004). *Trabzon Halk Mutfağı*. Trabzon Halk Kültürü Araştırmaları. Trabzon Valiliği, İl Kültür Müdürlüğü Yayınları, Trabzon, 170-190.

Ak, M. (1997). Aşık Mehmed'e Göre Memleketi Trabzon ve Havalisi. Bir Tutkudur Trabzon, İ. Gündoğ Kayaoğlu, Ö. Ciravoğlu, C. Akalın (haz). YKY, İstanbul, 189 s.

Bostan, T. (2008). Son Krifos. Ötüken Neşriyat, 532 s.

Anchovy is not only unique to the Black Sea; it has spread too many seas. However, nowhere like in the Black Sea, it has become integrated and intertwined with the life of the local people and even has become an indispensable part of daily life, a lifestyle. For example, in the traditional Black Sea dance 'horon', the calmness of the sea is replaced by the rough sea in the finale, while the white metals on the waist of the male dancers revive the reflections of the anchovy in the water.

Anchovy is a part of the social, cultural and economic life of the Black Sea people and has completed its identity with it for centuries. For them, anchovy is a lifestyle... Maybe it's an important motivation to exist. Just like in the lines of the great poet Nazım Hikmet... (Hikmet, 1987).

"There were people at the helm and under their heads that These:

Long crooked nose

And people who lustfully loved to talk

For the glory of navy blue anchovies and cornbread on the back

Without expecting anything from anyone They could die like singing a song... "



Can, K. (2013). *Balık Ağalara Takıldı*. Ekin Kitap Görsel Yayıncılık, İstanbul.

Çakıroğlu, A. S. (1964). *Tarihi Ekonomik Sosyal Yönleriyle Trabzon*. Ankara.

Çakıroğlu, A. S. (1969). *Karadeniz'de Balıkçılığımız*. 1. Basım. 183 s.

Çelikkale, M. S., Dzgüneş, E., & Candeğer, A. F. (1993). *Av Araçları ve Avlama Teknolojisi*. KTÜ Sürmene Deniz Bilimleri Fakültesi, Yayın No: 162, 541 s.

Çolak, A. Ş. (2007). Balıkhane Nazırı Ali Rıza Bey'in Gözüyle İstanbul'da Balık Kültürü. *Türk Edebiyatı Dergisi*, 409, 36-39.

Dağlı, Y., & Kahraman, S. A. (2005). *Günümüz Türkçesiyle Evliya Çelebi Seyahatnamesi*. 2. Cilt 1. Yapı Kredi Yayınları, İstanbul, 327 s.

Deniz, İ. (2012). *Amazon Sinop: Bir Sinop Monografisi*. Çatı Kitapları, İstanbul, 1. Baskı, 176 s.

Deveciyan, K. (2006). *Türkiye'de Balık ve Balıkçılık*. İnceleme. Yayına Hazırlayan: Rober Koptaş, Aras Yayıncılık. 2006, İstanbul, 574 s.

- DPT. (1989). *Altıncı Beş Yıllık Kalkınma Planı Özel İhtisas Komisyonu Raporu*. Su Ürünleri ve Su Ürünleri Sanayi. TC Başbakanlık Devlet Planlama Teşkilatı Müsteşarlığı. Yayın No: DPT 2184, öik: 344. 210 s.
- Duman, M. (2003). *Trabzon Maçka'da 1950-197 Yılları Arasında Geleneksel Mutfak Kültürü*. Yemek Kitabı. Tarih-Halk Bilimi-Edebiyat. Hazırlayan M. Sabri Koz, Genişletilmiş 2. Baskı, 793-826.
- Düzgüneş, D. (2010). Hamsinin Karadeniz Kültüründeki Yeri ve Hamsi Avcılığının Tarihsel Gelişimi. 1. Ulusal Hamsi Çalıştayı: Sürdürülebilir Balıkçılık. 17-18 Haziran 2010, Trabzon. Bildiriler Kitabı, 13 s.
- Düzgüneş, E., Sağlam, H., & Kasapoğlu, N. (2015). State of Anchovy Fisheries in the Black Sea by Management Perspective in the last 40 years. GFCM Working Group on the Black Sea Workshop on the Management of Anchovy in the Black Sea, 15-16 Aralık 2015. Trabzon, Türkiye.
- Emiroğlu, K., Saydam, C., & Çevik, N. K. (2008). *Hamsi Kurban O Göze*. Heyamola Yayınları, 200 s.
- Emiroğlu, K. (1999). Trabzon Vilayeti Salnamesi/1881, Cilt 12. Trabzon İli ve İlçeleri Eğitim Kültür ve Sosyal Yardımlaşma Vakfı, 367 s.
- Ersan, F. (1967). Genel Balıkçılık Ekonomimiz ve Türk Hamsiciliği. *Balık ve Balıkçılık*, 15(3), 17-19.
- Gücü, A. C., Genç, Y., Dağtekin, M., Sakınanan, S., Ak, O., Ok, M., & Aydın, İ. (2017). On Black Sea Anchovy and Its Fishery. Reviews in Fisheries Science & Aquaculture, 2017 DOI: 10.1080/23308249.2016.1276152
- Gürsoy, B. (1984). 100. Yılında Duyun-u Umumiye İdaresi Üzerinde Bir Değerlendirme. İstanbul Üniversitesi İktisat Fakültesi Ord. Prof. Şükrü Baban'a Armağan, İstanbul 1984.
- Hagen, G. (1998). The Traveller Mehmed Aşık', in Essays on Ottoman Civilization. Proceedings of the XIIth Congress of CIEPO, Praha 1996. Archív Orientάlní Supplementa VIII, Prague, 145-54.
- Hamamizade, İ. (1928). *Hamsiname: Küçük Balığın Büyük Öyküsü*. Günümüz Türkçesi ile Hazırlıyanlar: Sayılır, B, Babuçoğlu, M, Phoenix Yayınevi, 1. Baskı, 2007. Ankara, 160 s.
- Hikmet, N. (1987). *Kuvayi Milliye, Şiirler: 3.* Adam Yayınları, 225 s.
- Kayaoglu, G., Ciravoglu, Ö., Akalin, C. (2007). *Bir Tutkudur Trabzon*. Yapı Kredi Yayınları, İstanbul, Birinci Basım, İstanbul, 574 s.
- Konan, B. (2006). *Osmanlı Devletinde Yabancıların Kapitilasyonlar Kapsamında Hukuki Durumu*. Doktora Tezi. T.C. Ankara Üniversitesi, Sosyal Bilimler Enstitüsü, Kamu Hukuku Anabilim Dalı.
- Köknar, E. (1996). *Karadeniz Mutfağı*. Sanat Dünyamız. Yapı ve Kredi Yayınları, 53-54.

- Köse, S. (2014). Seafood Processing Industry in the Turkish Black Sea. Turkish Fisheries in the Black Sea. (Eds: Düzgüneş, E., Öztürk, B., Zengin, M.) Published by Turkish Marine Research Foundation (TUDAV), Publication number: 40, İstanbul, Turkey, 36 p.
- Özbay, Ö. (2002). Nart Magazine. P. 30
- Özdamar, E., & Aral, O. (1995). Orta Karadeniz Bölgesindeki Balık Unu Fabrikalarında 1994/1995 Av Sezonunda İşlenen Balıkların Kompozisyonunun İncelenmesi. Doğu Anadolu Bölgesi I. (1993) Ve II. (1995), Erzurum. Su Ürünleri Sempozyumu, Bildiriler Kitabı, 691-703.
- Özdamar, E. (1988). *Hamsi Balıkçılığının Sorunları ve Çözüm Önerileri*. Karadeniz'de Hamsi Balıkçılığı ve Sorunları Sempozyumu. İktisadi Araştırmalar Vakfı, İstanbul. Bildiriler Kitabı, s. 112-122.
- Robinson, D. M. (1906). New Inscriptions from Sinope. *The American Journal of Philology*, 27, 447-450.
- Sezer, Ç. (2007). *Kalbimin Kuzey Kapısı Trabzon*. Heyamola Yayınlları. İstanbul, 31 s.
- Otyam, F. (1982). *Habu Diyar: Doğudan Gezi Notları (Harran, Hoyrat, Mayın, Irıp)*. Adam Yayınları, 358 s.
- Tiryaki, K., & Özlü, Z. (2019). Osmanlının Son Dönemlerinde Duyun-u Umumiye'ye Yönelik İmtiyaz Politikasına Bir Örnek: Tütün İşletmesi İmtiyazı Mukavelenamesi (1913). Tarihin İzinde Bir Ömür, Prof. Dr. Nuri Yavuz'a Armağan. ISBN: 978-605-7634-65-8 Editörler: Armağan, Y., Hayta, N., Demirtaş, B., Can, M., s. 717-753.
- Ulman, A., Zengin, M., Demirel, N., & Pauly, D. (2020). The Lost Fish of Turkey: A Recent History of Disappeared Species and Commercial Fishery Extinctions for the Turkish Marmara and Black Seas. Frontiers in Marine Science, 7, 650.
- Ulukan, U. (2016). Balıklar, Tekneler ve Tayfalar: Türkiye'de Balıkçılık Sektöründe Çalışma ve Yaşam Koşulları. Çalışma ve Toplum Dergisi, 48, 115-142.
- Ulunay, R. C. (1999). *Menfalar/Menfiler, Sürgün Hatıraları*. Arma Yayınları, 264 s.
- Üçüncü, U. (2015). Milli Mücadele Yıllarında Trabzon'da İttihatçı Bir Sima Kahya Yahya. Sarander Yayınları, 461 s.
- Üstündağ, E. (2010). İçinden Hamsi Çıkan Kitaplar. *Yunus Araştırma Bülteni*, 10(2), 18-21.
- Yalıngün, T. (1967). Doğu Karadeniz'deki Hamsi Av Faaliyetleri. *Balık ve Balıkçılık*, 1(2), 18 s.
- Yerasimos, S. (1997). *Az Gelişmişlik Sürecinde Türkiye, Bizanstan Tanzimata*. C.I, Çev. Babür Kuzucu, Gözlem Yayınları, İstanbul 1997.
- Yüksel, A. (2007). Karadeniz'de Balık Avcılığı Tarihi. http://www.serander.net/karadeniz-kulturu/karadeniztarihi/631-ayhan-yuksel-karadenizde-balik-avi-vebalikcilik.html
- Yüksel, M. (1989). *Türk Edebiyatında Hamsi*. Trabzon Kültür ve Turizm Derneği.

- Zengin, M., Şahin, T., Bozali, M., & Özke, M. (1992). Karadeniz'de Av Araç ve Geçleri ile Avlanma Teknolojisinin Belirlenmesi. Proje Sonuç Raporu. Su Ürünleri Araştırma Enstitüsü, Trabzon, 105 s.
- Zengin, M. (2000). Hamsiye Dayalı Olarak Üretim Faaliyetinde Bulunan Balık Unu-Yağı Fabrikalarının Bugünkü Durumu ve Bu Fabrikalar İçin Alternatif Hammadde Oluşturabilecek Balıkçılık Kaynakları. 20-22 Eylül 2000, Sinop Su Ürünleri Sempozyumu, Bildiriler Kitabı, s. 327-341.
- Zengin, M. (2010). Hamsi Avcılığının Uzun Geçmişi. SÜMAE Yunus Araştırma Bülteni, 10 (2), 14-17.
- Zengin, M., Genç, Y., & Ak, O. (2012). Kuzeydoğu Karadeniz (Gürcistan, Abazya) Kıyılarında Hamsi Avlayan Türk Balıkçı Filosunun Durumu Üzerine Bir Ön Araştırma. *Yunus Araştırma Bülteni*, 4, 27-43.
- Zengin, M. (20139. Zavena'nın Eski Balıkçıları: Malkoçoğlu Mustafa Reis. 26-28 Nisan 2013; Dünden Bugüne Akçaabat Sempozyumu, Bildiriler Kitabı, Akçaabat Belediyesi Yayınları, 1, 325-334.
- Zengin, M. (2019a). *Antik Dönemlerden Günümüze Palamutun Karadeniz'deki Serüveni*. II. Sinop Lakerda Festivali, 15-17 Kasım, 2019. Sözlü Sunum.
- Zengin, M. (2019b). Karadeniz Türk Balıkçılığının Yüz Yıllık Tarihine Genel Bir Bakış. *Karadeniz Araştırmaları Enstitüsü Dergisi*, 5/7, 31-67.