
Fishery Leaflet 304

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1.0156 PART I - FISH OF THE PERSIAN AND OMAN GULFS

PART II - EDIBLE FISH IN THE PERSIAN GULF

Contents

	Page
Fish of the Persian and Oman Gulfs.....	1
Kinds of Fish and Habitat.....	1
Production.....	4
Fishing Methods and Equipment.....	5
Drift Net or "Daam".....	5
Fish-weir or "Moshta".....	5
Cage or "Ghafas".....	5
Seine Net or "Toor".....	5
Hook and Line or "Ghollab".....	5
Commercial Fishery Enterprises.....	5
Working Conditions among the Fishermen.....	6
Rate of Exchange.....	6
Edible Fish in the Persian Gulf.....	6
Kinds of Fish.....	7
Methods of Fishing and Types of Gear Used.....	8
Commercial Fishing Enterprises.....	8

FISH OF THE PERSIAN AND OMAN GULFS 1/

As indicated in Embassy's Report No. 82, dated January 24, 1946, the Iranian Government has established a Bureau of Fisheries and Wildlife within the Ministry of Agriculture. This Bureau is under the direction of Mr. Esmail Rostami who supplied most of the information given in this report.

Mr. Rostami related that to date his efforts have been directed toward securing factual information about the fish and wildlife of Iran preparatory to formulating recommendations for laws and regulations; organizing a program of exploitation; and establishing needed laboratory facilities. Therefore, no action has been taken to carry out the duties mentioned in the Ministry's announcement referred to in Embassy's Report No. 82 of January 24, 1946.

Kinds of Fish and Habitat

The fish indigenous to the Iranian side of the Persian Gulf and the Gulf of Oman have been identified by Dr. H. Blegvad, a Danish zoologist. 2/ Mr.

1/Prepared by H. G. Bolster, Agricultural Attache, American Embassy, Tehran, Iran. December 31, 1947. (Report No. Ag. 52).

2/ Director of Biological Station, Copenhagen.

Rostami has classified these into four groups as follows:

Group A

Chorinemus sp.
Cybium (commersonii)
Chorinemus sp.
Lutjanus argentinaculatus
Otolithus ruber
Polynemus tetradactylus
Pristipoma Guoraca
Stromateus Sinensis
Stromateus niger
Teuthis sp.

Fish of the above group are large edible fish usually weighing upward of two kilograms. This group represents about 60 percent of the catch in the Persian Gulf.

Group B

Chaetocessus
Clupea sp. (petites)
Clupea sp.
Mugil sp. (petit esp)
Mugil sp. (esp. plus grande, des escailles plus grandes)
Silago sihama.

Group "B" are small fish including sardines and represents about 30 percent of the total Persian Gulf production.

Group C

Charcharias
Siluridae (particulierament gen arius)

This group includes fish without scales such as sharks and catfish. The eating of these fish is prohibited by the religious laws of the Shi's sect of Mohammedans. They are, however, used as food by the Sunnis. The group accounts for about eight percent of the total Persian Gulf production.

Group D

Ambassis sp.
Balistos
Bent N B Aroose N: Diagramma punctatum
Chiloscyllium
Caranx sp.
Crenidens indicium
Chaerops sp. pseudoscarus sp.
Chirocentrus dorab
Chrysophrys bifasciata
Cybium (guttatum)
Clupea sp. (petit)

Charcharias
Clupea sp.
Chatoessus sp.
Clupea ilisha
Chrysophrys cuviereri
Chorinemus sp.
Diagramma punctatum
Diagramma griseum
Diagramma cinctum
Drepane punctata
Equula sp. caranx
Engraulis sp.
Echeis sp.
Elacate nigra
Ephippus orbis
Fistularia
Fahrialleh
Gerres sp.
Hemirhampus sp.
Holacanthus sp.
Lutjanus fulviflamma
Lutjanus sp. (esp. grande et rose)
Leptosynanceia melanostigma
Lethrinus sp.
Lethrinus nebulosus
Muraenides
Myliobatis
Narcine (Raie eletricque)
Narcone sp.
Percide grande indetermine
Pristis sp.
Pristis
Pseudoscarus sp.
Pseudorhombus
Pristipoma stridens
Peterois sp.
Plotosus arab.
Pteroplatea sp.
Pellona sp.
Pleuronectidae
Periopthalmus
Pellona sp.
Periopthamus
Platycephalus sp.
Polynemus neytarius
Pagrus spinifer
Requin esp. carcharias
Raie esp. trygen
Rhinobatus
Serranus (stoliczhae, petit)
Sciaena sp.
Scomber sp.
Solea sp.
Sphyraena sp.

Synagris
 Gargus noct.
 Serranus sp.
 Saurida tumbil
 Shahri (esp. petites)
 Scrophaenide
 Sphryraena sp.
 Scopiopsis sp.
 Serranus aureolatus
 Scatophagus argus
 Tetradon leopardus
 Trichiurus sp.
 Triacanthus striglifer
 Tetradon stellatus
 Triacanthus sp.
 Therapon sp.
 Tenthis sp.
 Upenoides

This large group of fish is reported to be commercially unimportant at the present time, accounting for not more than two percent of the total catch in the Persian Gulf.

The fish of the Persian Gulf and the Gulf of Oman are of marine coastal type. The percentage of small fish is higher in the Gulf of Oman and decreases westward. Except for the Khuzistan coastal region no important flow of fresh water exists. The average depth of the Persian Gulf is reported to be about 50 meters, with a maximum depth of 100 meters at the Strait of Hormuz. The sea tide of the area averages approximately two meters.

Production

The six principal fish production centers of Southern Iran and the estimated annual production of each are as follows:

Khuzistan	1000	metric	tons
Bushire	1000	"	"
Lingeh	2000	"	"
Abbassi	2000	"	"
Jask	1000	"	"
Chah-Bahar	1000	"	"

With the exception of the 50-60 tons of sardines canned annually in the Government cannery at Bandar Abbas, no data are available as to the percentage of the total 8000 ton catch which is dried, salted or sold fresh. It is thought however, that the bulk of these fish are dried, with the next highest percentage being sold as fresh fish.

The cannery at Bandar Abbas is at present consuming about 100-120 tons of fresh fish annually. The Anglo-Iranian Oil Company buys annually 400-500 tons. Purchases for both these concerns are made through contacts with merchants.

Mr. Rostami is of the opinion that the fish production of the Persian Gulf and the Gulf of Oman could easily be expanded to 200,000 metric tons and that a

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Mr. Rostami is of the opinion that the fish production of the Persian Gulf and the Gulf of Oman could easily be expanded to 200,000 metric tons and that a

ready market could be found for such a production. He points out that India alone might provide a market for even larger quantities.

Fishing Methods and Equipment

Methods of fishing and types of gear used in Southern Iran are extremely primitive. For the most part these are based on the natural movement of the fish and consequently the equipment used is generally of stationary types. In some cases boats of one-half to one ton capacity are used. These are usually propelled by oars or sails.

The most common types of equipment used by southern fishermen are briefly as follows:

Drift Net or "Daam" - This is a stationary net devised to intercept sizeable fish which, in attempting to pass it, are caught by the gills.

Fish-weir or "Moshta" - The moshta is a trap made of palm branches and works on the principle of admitting the fish on flood tide and trapping them on the ebb.

Cage or "Ghafas" - A funnel-shaped stationary trap made of palm branches and set in the sand with its mouth facing the sea. Usually a series of these traps are fitted together. Fish enter this trap also on flood tide.

Seine Net or "Toor" - This is the common fish-net and is usually employed in shallow water.

Hook and Line or "Ghollab" - Baited hook and line are commonly used for hand fishing.

Commercial Fishery Enterprises

The total number of fishermen on the southern coast of Iran is estimated at 8000. Merchants, in the several ports, usually contract with groups of 12 to 16 fishermen, furnishing them the necessary equipment. For the use of such equipment the fishermen deliver to the merchants 50 percent of their catch. The remaining 50 percent is divided equally among the fishermen except that the crew captain or "Nav-Khoda" usually receives twice as much as an ordinary fisherman.

The only important fish processing plant in Southern Iran is the Government-owned canning factory at Bandar Abbas. This plant was constructed in 1940 by a Danish company for the Iranian Government and began operations in 1941. It is a portable plant made of asbestos and is said to have a capacity of five tons of fish per eight-hour shift. Under present management, however, the plant is canning only sardines of which the average annual production is only about 50-60 metric tons. The sardines canned in this plant are packed in olive oil produced in Iran.

The Bandar Abbas plant is also equipped for oil extraction and the production of fish flour. This equipment has been used only once, however, since its installation. About three years ago 11 tons of fish flour were produced

but the cost of production was excessive and the Government still has 7 tons of the product on hand.

The operating efficiency of the cannery is almost as bad. Fresh sardines are purchased at from one to two rials a kilogram (1.75 rials a kilo at present). A kilogram of fresh sardines produces on the average about one-half kilogram of the canned product. The Government is selling canned sardines at 60-70 rials a kilogram but the factory fails to show any profit. The large number of administrative employees and the lack of competent technical supervision is said to be mainly responsible for this situation.

Working Conditions among the Fishermen

As stated above, there are approximately 8000 men engaged in fishing off the coast of Southern Iran. Together with their families, this means that about 30,000 people of that area are dependent upon fishing for a livelihood. These people are engaged in fishing about nine months out of the year. During the remaining three months most of them are employed in the date harvest. They are extremely poor, lacking even the tools needed to practice their profession. It will be apparent that even if the total annual catch were divided equally among these fishermen they would have for sale only about 1000 kilos of fish. At most these would bring 2 - 3000 rials on the market. Under such low income condition it is said that these people live largely on fish and dates throughout the year.

Rate of Exchange

The official buying and selling rate for U. S. dollars is 32 rials and 32.5 rials respectively. The free market rate on December 29 was about 65 rials to the U. S. dollar.

EDIBLE FISH IN THE PERSIAN GULF 1/

As commercial fishing in the Persian Gulf is negligible and the vast fish resources of the Gulf have long gone untapped, the gathering of information locally on edible fish in the Gulf has been difficult. In addition, since the fishing industry is a minor one, no statistics are kept on fishing operations. The fishing done by the peoples living on the shores of the Gulf is principally the labor of individual fishermen on a small scale for local consumption. Although edible fish are abundant, the main reason that commercial fishing has not been developed as it has in other areas is because of the bad climatic conditions. The torrid heat during most of the year in the Gulf area makes refrigeration necessary in fishing craft and in vehicles which transport the fish to markets. To date, fishing has been conducted in small, slow, and unrefrigerated sailing vessels which are undesirable from a commercial fisherman's point of view.

1/ Prepared by Robert R. Schott, American Vice Consul, American Consulate, Basra, Iraq. March 27, 1948. (Report No. 8).

Inasmuch as the main population centers until recently have been located from 350 - 700 miles inland from the Gulf, fishing on a large scale has been impracticable. With the growth, however, of the oil centers at Dhahran, Bahrein, Kuwait, Abadan, and Basra, with their large American and European communities, the demand for edible fish should justify commercial fishing operations.

Kinds of Fish

The fish whose habitat is in the Persian Gulf are: (production figures unobtainable)

1. Persian Gulf sea fish which do not enter the rivers and swamps:

Dahgouk	(Eleuteronema Tetractylus)
Zoulieidi	(Pampus Argenteus)
Zoubeidi	(Chondreplites Chinensis)
Halavai	(Pampidae)
Hamour	(Serranidae)
Nagrour	(Pomadsis Argiours)
Nouvebi	(Otolithus Rouber)
Shmai	(Scienidae)
Tao-tao	(Pseudosciene sina)
Zil'a	(Scuoberoidae)
Habbat	(Scuoberoidae)
Tchendal	(Petrus Belayewi)
Bintennahouda	(Scatophagidae)
Mycht Elgavvi	(Percomorphi)
Hassoun	(Sillago Shiams)
Hamam	(Percomorphi)
Wahar	(Plati cefalus Indicus)
Tchoum	(Arius Thalassinus)
Mislak el Bahr	(Heterosomata)
Messannettor	(Cynoglossus Lingva)
Abou Avena	(Ilisha Filigera)
Hoff	(Clupeoidea)

2. Sea fish which enter the Shatt-al-Arab River habitating the river and the southern swamps (Hors) but do not go beyond tide water:

Biaha	(Mugil oligolepis)
Chanak	(Sparidae-Acanthopagrus Berda)
Yaffoud	(Nematolosa Nazous)
Chiha	(Thrissoaclea Purava)
Mislak	(Heterosomata Brachirus Orientalis)
Mahiet en Nebi	(Tylosurus Strongilura)

3. Sea fish that enter the Shatt-al-Arab River and the marshes but go beyond tide water up the Tigris, Euphrates, and Karun rivers:

Sbour	(Hilsa Ilisha)
Kosetch	(Karharius Gangeticus)

Methods of Fishing and Types of Gear Used

The sea fish that enter the Shatt-al-Arab and the southern swamps do so to feed on the rich grazings that are found in these waters, and, subsequently, to spawn there. These fish are caught by nets, hook and line, spear, and by fish traps (milans). Fish traps are also used on the Iraqi and Iranian coasts to a great extent. Milans are fence-like erections made of date palm branches stripped of their leaves and interwoven with string. At low tide level these branches are imbedded on the shore. When the tide rises the milans are inundated by water and trap the unwary fish at ebb tide. Then the fishermen simply collect their catch. Large quantities are caught in this manner, but rough weather easily destroys these frail traps and the fishermen then resort to the use of nets.

There are fifty registered Iraqi sailing craft engaged in fishing in the Persian Gulf and approximately 200 Iranian craft. These vessels fish with small floating nets, and are almost all privately owned. The number of fishermen in each craft are from three to four men, often relatives. When the craft and net are owned by one fisherman who employs others not his relatives, he normally furnishes the food and gives his fellow fishermen a share of the profits from the sale of the fish. The small sailing craft used by these fishermen are open, one masted vessels, without a deck.

Commercial Fishing Enterprises

Sea fish caught at the mouth of the Shatt-al-Arab river are brought to Fao and thence to Basra, Iraq to be sold at auction in the bazar.

The Anglo-Iranian Oil Company at Abadan, Iran, which has a European population of about 2,000 purchases considerable quantities of fish. Two large motor launches have been assigned by the Company to transport fish for the Abadan bazar and Company staff mess. These launches supplied with ice go out in the Gulf each day and buy from the fishermen whatever quantity of fish obtainable. The price at which the fish is sold in the Abadan market to contractors is controlled by the oil company.

At Bandar Abbas, Iran, the Iranian Government operates a sardine canning factory. The plant is only operated four months each year because of the intense heat there during the other eight months. As this is out of the way installation is over 600 miles from Basra, little is known here about the yearly production of tinned sardines or about the methods of sardine fishing at Bandar Abbas.

The Basra Port Directorate plans to operate a small refrigerated fishing trawler with a capacity of 100 tons from Fao, Iraq. The trawler is now being built in the United Kingdom and should be ready for fishing at the end of 1948. The fish will be brought to Basra, where 80% of it will be transported to Baghdad by refrigerated railway car and the remainder will be distributed in Basra. The trawler will be captained by a British Master, will be maintained by a British engineer, and manned by an Iraqi crew.
