

**SURVEY OF FISH FAUNA OF SHATT-AL-ARAB**  
(from Abu-al-Khasib to Karmat Ali)

SUFIAN K. AL-NASIRI & S. M. SHAMSUL HODA

Department of Fisheries, University of Basrah  
Basrah Natural History Museum, University of Basrah,  
Basrah , Iraq

'The oldest known civil fishery laws are those of the Sumerians living between the Tigris and the Euphrates about 4000 years ago' (Nikolsky 1965). To begin with their operations were believed to have been on subsistence level. Shatt-al-Arab formed by the union of these two fertile rivers at Qurna, meets the river Karun at Khurumshahr and then flows into Arabian Gulf at Fao (Fig.1). The physico-chemical conditions of the water fluctuate greatly during the year; the pH is 7.0 to 8.5, the salinity 0.6 at low tide to 1.2 parts per thousand at high tide, the oxygen content 6.3 to 6.5 ml per litre, the temperature 14.3 to 32.5, the turbidity nearly 3.5 and annual water level fluctuation 1.5 m (Arndt and Al-Saadi 1974)

The previous works on the fishes of Iraq were based on irregular expeditions which do not give a clear idea to the distribution of the fishes in Shatt-al-Arab. Therefore, the authors made a programme in the August of 1973 to explore and survey the fish fauna from the middle region of Shatt-al-Arab i.e. from Abu-al-Khasib to Karmat Ali (Fig.2).

**Period of Collection**

A total of thirty-eight collections were made involving weekly collections (16) between September 15 and December 29, 1973 and irregular collections (22) between January 19 and May 20, and August 24 and October 10, 1974

## Methods of Collection

The fishes were collected from the fishermen fishing in the river from 6.00 to 13.00. The fishermen used different gill nets (*Hayala* or *Karfa*). Cast nets (*Salihya*) and seine nets were occasionally used by the authors near the bank of the river. The fishes were studied in fresh as well as formalin-fixed condition.

## Areas Surveyed

Shatt-al- Arab runs a distance of about 192 km from Fao to Qurna and the distance under investigation i.e. from Abu-al-Khasib to Karmat Ali is nearly 35 km (Figs. 1,2). This was considered to be a favourable habitat for both the migratory and nonmigratory fishes. The following regions were particularly visited: Abu-al-Khasib, Ajairawiya, Salichiya, near Khora creek, Sind' bad and Karmat Ali. Besides these areas, Nahr Salichiya about 12.5 km long opposite to Salichya island was also surveyed.

## FISH FAUNA

Thirty-two species belonging to twenty-three genera coming under eighteen families were encountered during the survey.

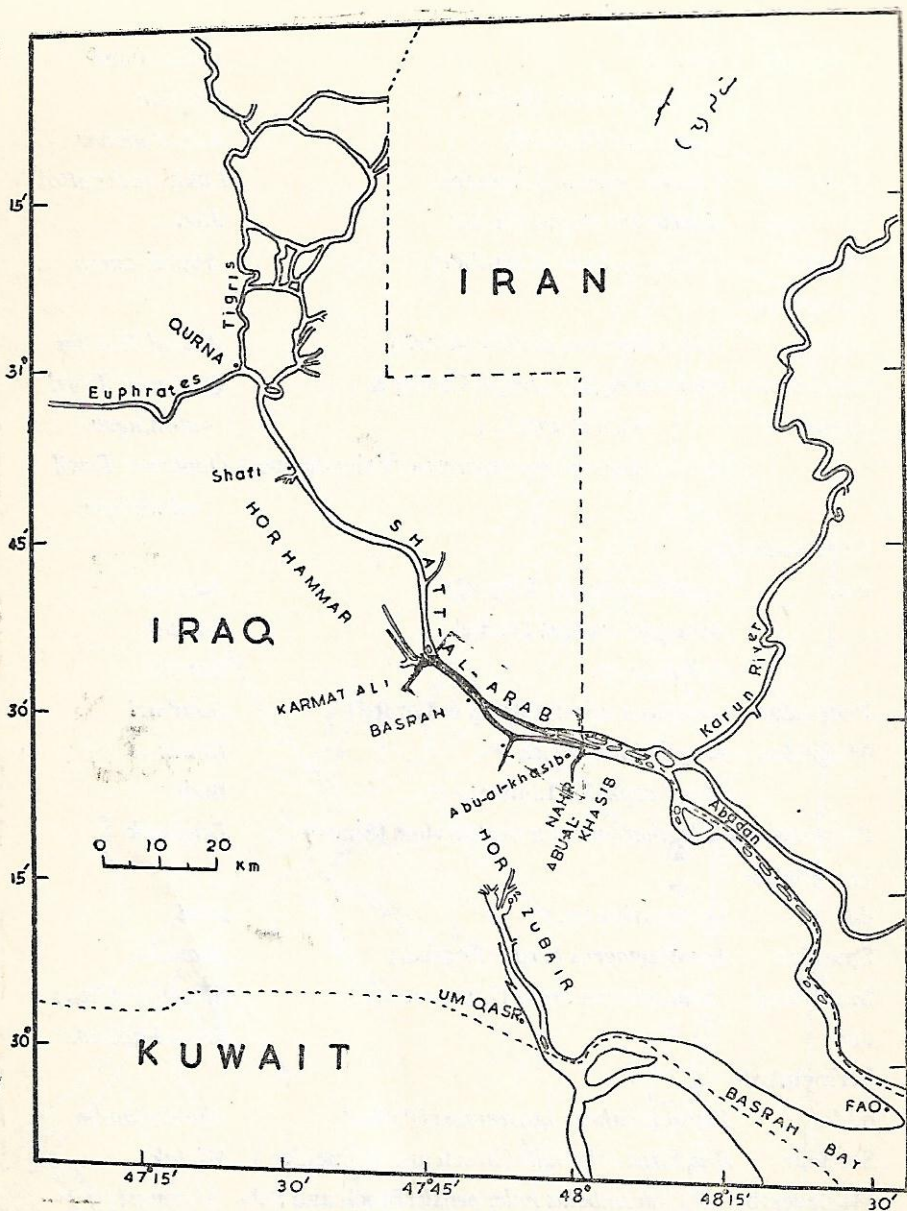
Family	Species	Local name
Clupeidae	<i>Hilsa ilisha</i> (Hamilton-Buchanan)	<i>Soboor</i>
	<i>Nematalosa nasus</i> Bloch	<i>Yafood</i>
Engraulidae	<i>Engraulis purava</i> (Hamilton-Buchanan)	<i>Shigha</i>
Cyprinidae	<i>Acanthobrama</i> sp .	
	= sp .	
	<i>Alburnus sellal</i> Heckel	<i>Samnan</i>
	= sp .	
	<i>Aspius vorax</i> Hecel	<i>Shilik</i>
	<i>Barbus luteus</i> (Heckel)	<i>Himri</i>
	= <i>sharpayi</i> Gunther	<i>Bunni</i>
	= <i>xanthopterus</i> (Heckel)	<i>Gattan</i>





Family	Species	Local name
	<i>Barbus grypus</i> Heckel	Shabout
	<i>Garra rufa</i> (Heckel)	Kokur ahmar
Cobitidae	<i>Cobitis taenia</i> Linnaeus	Lakh mokhattat
Siluridae	<i>Silurus triostegus</i> Heckel	Jirri
Bagridae	<i>Mystus colvilli</i> (Gunther)	Abu-al-zamir
Saccobran-		
chidae	<i>Saccobranchius fossilis</i> (Bloch)	Abu-al-Hukum
Hemirham-	<i>Hemirhamphus georgi</i> (Cuvier &	Qanbroor Tuwi!
phidae	Valenciennes )	-al-minqar
	<i>Hemirhamphus xanthopterus</i> (Valenciennes)	Qanbroor Tuwil
		-al-minqar
Cyprinodonti		
dae	<i>Aphanius dispar</i> (Ruppel)	Batrikh
	<i>Aphanius sophiae</i> Heckel	Batrikh
	<i>Aphanius</i> sp.	Batrikh
Poeciliidae	<i>Gambusia affinis</i> (Baird & Girard)	Gambuzi
Mugilidae	<i>Mugil hishni</i> Misra	Khisni
	<i>Mugil cephalus</i> Linnaeus	Biah
Polynemidae	<i>Eleutheronema tetradactylum</i> (Shaw)	Daghook
Leiognathi-		
dae	<i>Leiognathus</i> sp.	Boni
Sparidae	<i>Acanthopagrus berda</i> (Forskal)	Shanak
Scatophagi	<i>Scatophagus argus</i> (Linnaeus)	Bint-al-nokhza;
dae		Bint-al-qabtan
Periophthal-		
midae	<i>Periophthalmus koelreuteri</i> (Pallas)	Abu shelambo
Soleidae	<i>Brachirus orientalis</i> (Bloch and Schneider )	Mizlak
Mastacembe-	<i>Mastacembelus haleppensis</i> (Bloch and Sch-	Marmari j ;
lidae	neider)	Salbu-al-sayan





## DISCUSSION AND CONCLUSION

Our findings of fish fauna in the area under investigation are in agreement with those of Khalaf (1961) and Mahdi (1962, 1971) in Shatt-al-Arab and near Fao except the species mentioned in the later paragraph which may be due to the limitation of the distance i.e. 35 km from Abu-al-Khasib to Karmat Ali. The following 10 species (Fig.3) were recorded in the present survey which were not recorded before, although these were reported from Tigris at Baghdad and Mosul. *Alburnus sellal* (Fig.3A), *Alburnus* sp. (Fig. 3B), *Acanthobrama* sp. (Fig.3C), *Acanthobrama* sp. (Fig 3D), *Cobitis taenia* (Fig. 3E), *Mastacembelus haleppensis* ((Fig. 3F), *Leiognathus* sp (Fig. 3G), *Aphanius sophiae* (Fig.3 H,I) *Aphanius* sp (Fig.3 J,K.) and *Hemirhamphus xanthopterus*.

The *Leiognathus* sp. is marine collected one in number only opposite to Ma'qil on September 23, 1974 around noon during low tide; this is supposed to be carried away from the Arabian Gulf by tide.

Eight species i.e. *Engraulis hamiltonii* (Gray), *Tachysurus thalassinus* (Ruppel), *Strongylura strongylura* (van Hasselt), *Mugil dussumieri* (Cuvier and Valenciennes), *Chondroplites chinensis* (Euphrasen), *Pampus argenteus* (Euphrasen), *Boleophthalmus tenuis* Day, *Pomadasys argyreus* (Cuvier and Valenciennes) were recorded by Khalaf (1961) and Mahdi (1962, 1971) seven species i.e. *Ilisha filigera* (Valenciennes), *Mugil oligolepis* (Bleeker), *Boleophthalmus dentatus* (Cuvier and Valenciennes), *Drepane punctata* (Linnaeus), *Cybbium guttatum* (Bloch and Schneider), *Cybbium commersoni* (Lacepede) and *Cynoglossus lingua* (Hamilton-Buchanan) recorded by Khalaf (1961) and two species i.e. *Si'ago sihama* (Forsk.) and *Orcolithus ruber* (Bloch and Schneider) by Mahdi (1962) only, but these were not recorded during our survey. It is expected that the surveys in future may explore more species from Shatt-al-Arab.

## ACKNOWLEDGEMENT

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## SUMMARY

A survey of fish fauna of Shatt-al Arab (from Abu-al-Khasib to Karmat Ali) was made from Sept. 15, 1973 to Oct. 10, 1974. Thirty-eight field trips were made; the fishes from 18 families comprising 23 genera and 32 species were encountered. Ten species i.e. *Alburnus sellal* *Alburnus* sp., two *Acanthobrama* sp., *Cobitis taenia* Linnaeus, *Mastacembelus haleppensis*, *Leiognathus* sp., *Aphanius sophiae* *Aphanius* sp. and *Hemirhamphus xanthopterus* recorded for the first time from this region. Seventeen marine species recorded previously could not be explored during the present survey. More surveys are being suggested.

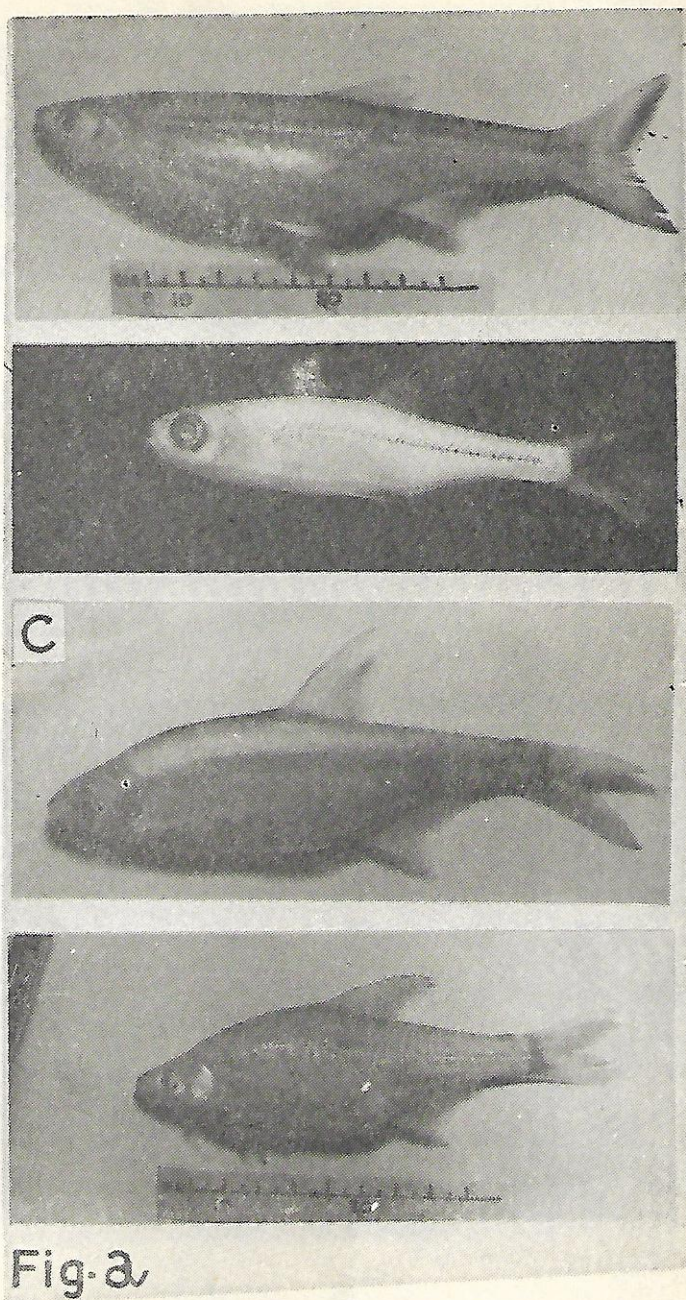
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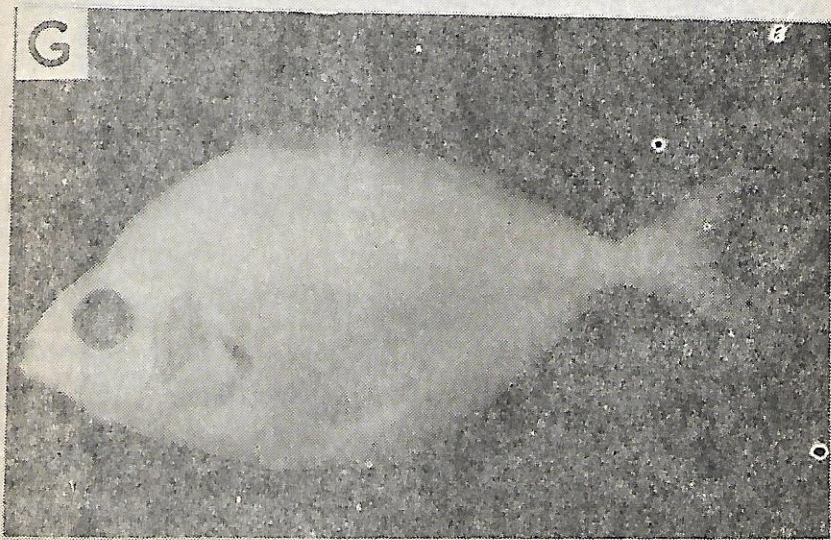
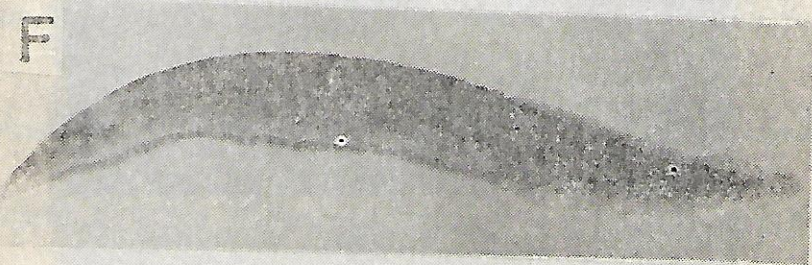
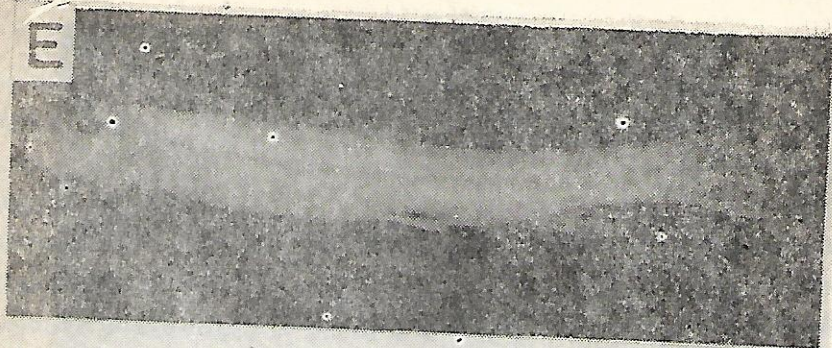
الملخص

أجرى مسح لاسماك شط العرب في المنطقة الواقعة بين أبي الخصيب وكرمة علي في الفترة الواقعة بين ايلول ١٩٧٣ إلى تشرين الأول سنة ١٩٧٤. كان مجموع السفرات (٣٤) جمعت خلالها ٣٢ نوع من الاسماك تعود إلى ٢٣ جنس وكلها تعود إلى ١٨ عائلة . عشرة أنواع وجدت لأول مرة في هذه المنطقة ، ولكن سبعة عشر نوعاً من الاسماك البحرية سبق وأن ظهرت في مسوحات سابقة ولم تظهر في المسح الحالي يقترح القيام بمسوحات اخرى للتعرف بصورة دقيقة على بيئة المنطقة .









(Fig. 2 continued)



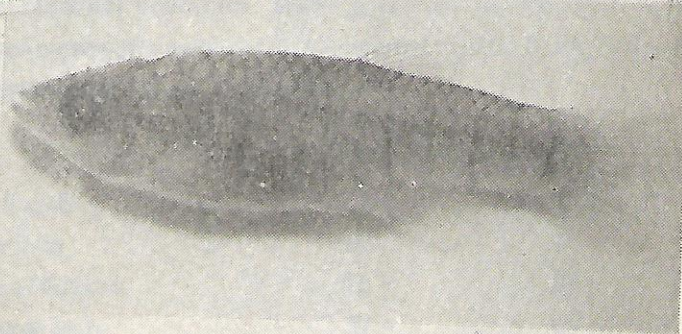
H



I



J



K



(Fig. 2 continued)



FIGURE 1. Map of Iraq showing Shatt-AI-Arab and the area surveyed

FIGURE 2. Fishes recorded for the first time between Abu-al-khasib and Karmat Ali: A. *Albrnus sellal*; B. *Alburnus* sp.; C & D. *Acanthobrama* sp.; E. *Cobitis taenia*; F. *Mastacembelus haleppsnsis* ; G. *Leiognathus* sp.; H & I. *Aphanius sophiae*; J. *Aphanius* sp.; K. *Aphanius* sp.