



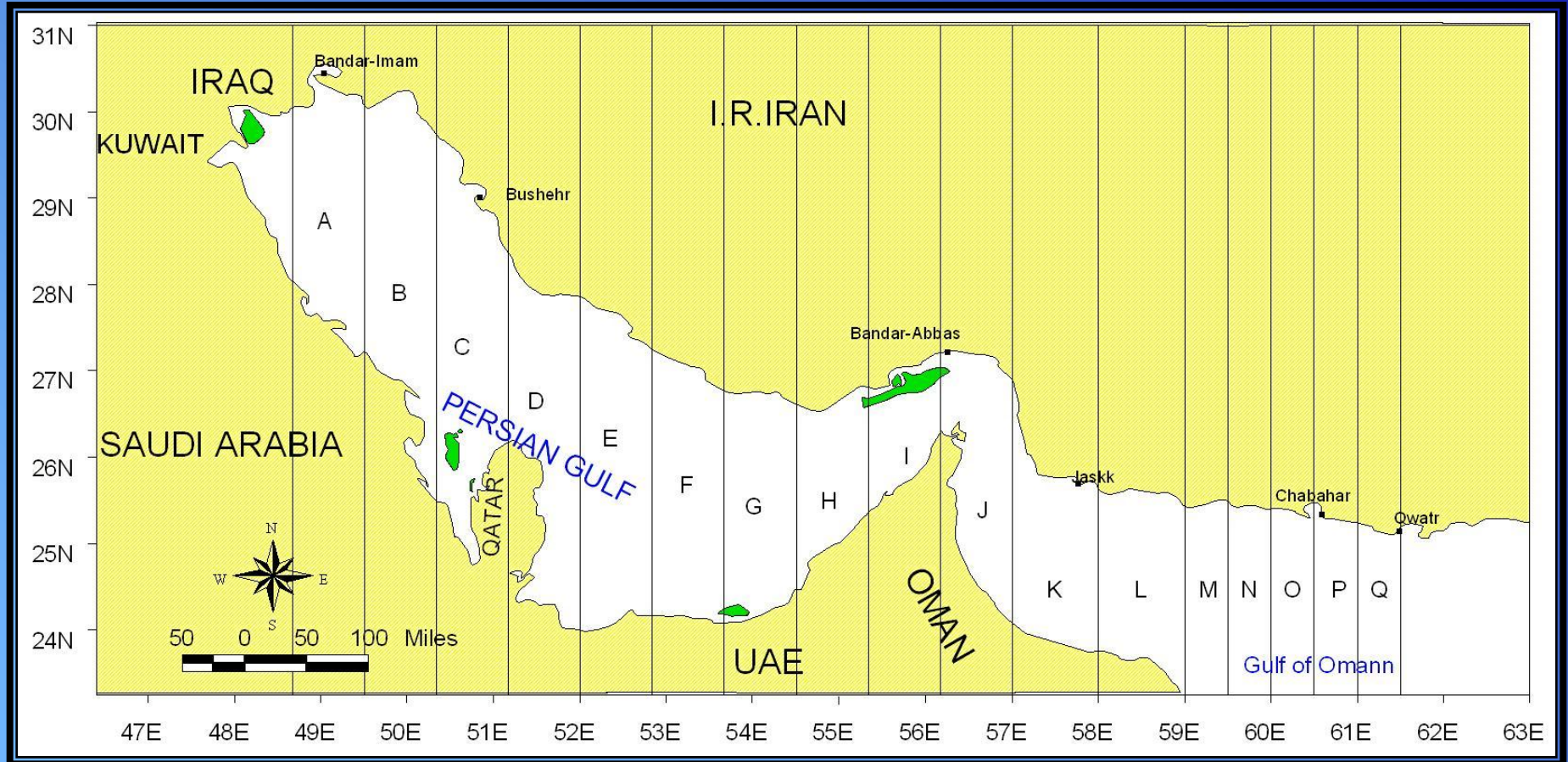
Joint-Management on Shared-Resources is a necessity for Sustainable Exploitation in the RECOFI Area

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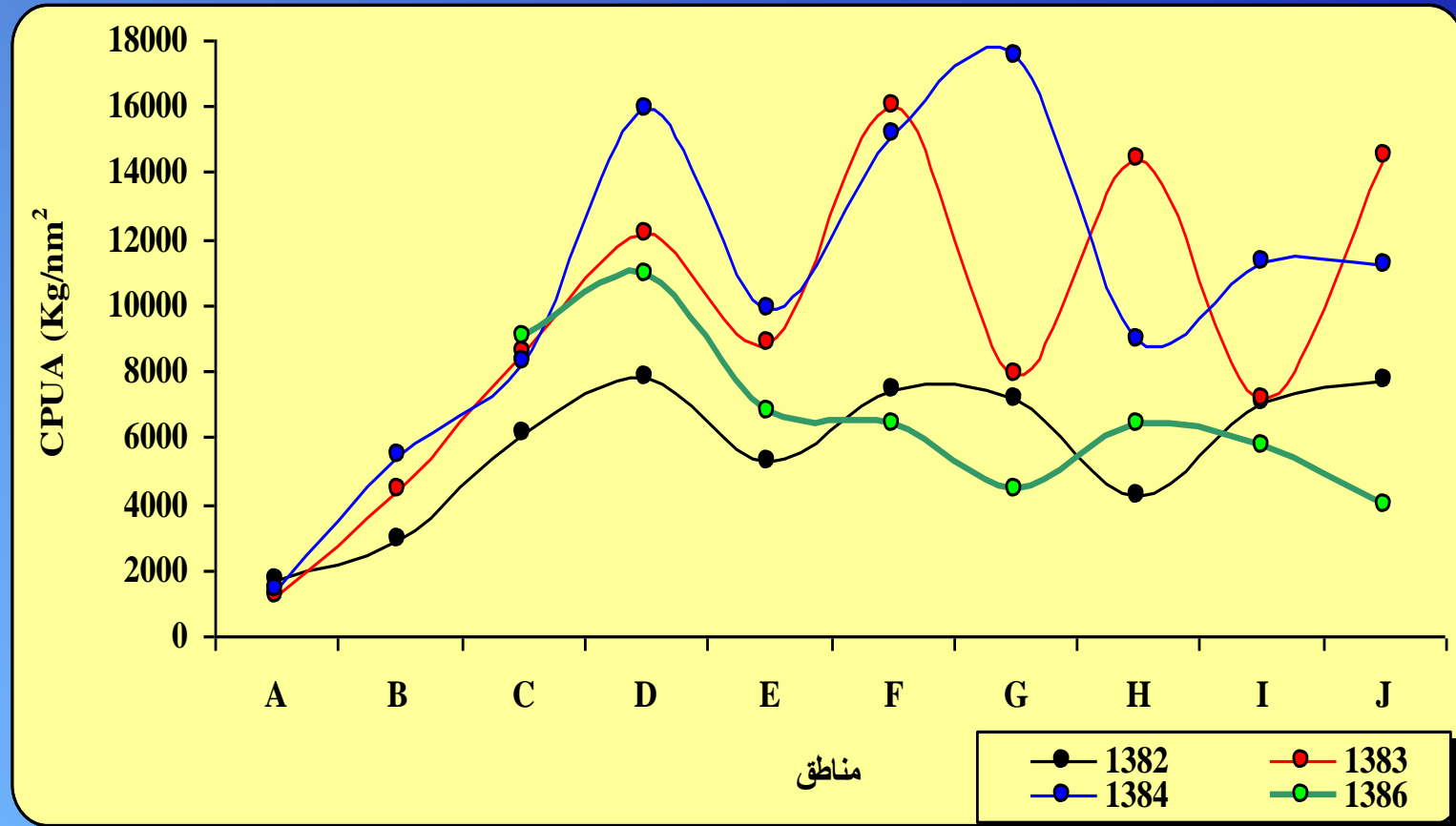


Study Area

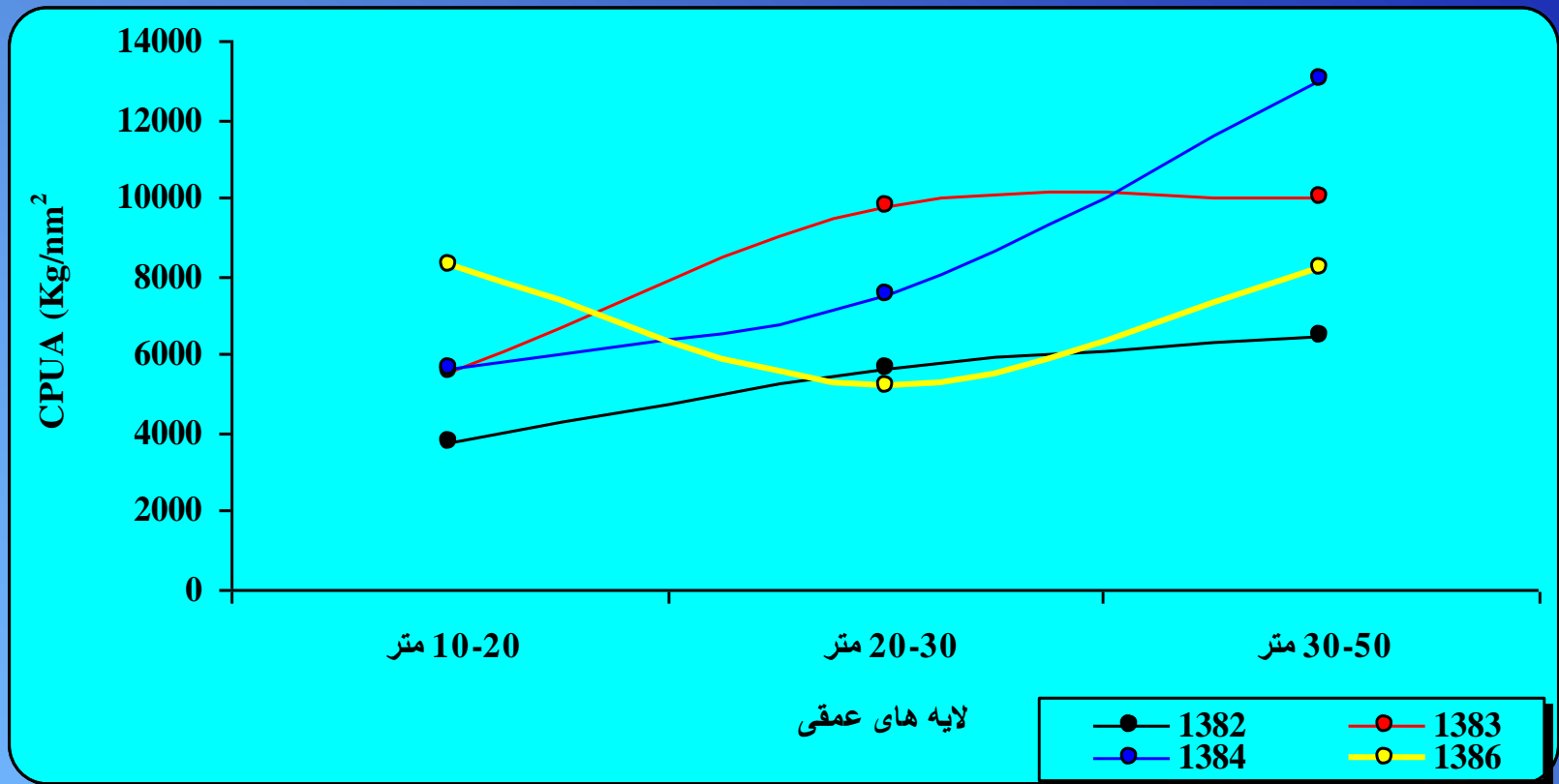


Depth layers: 10-20, 20-30, 30-50 & 50-100 m

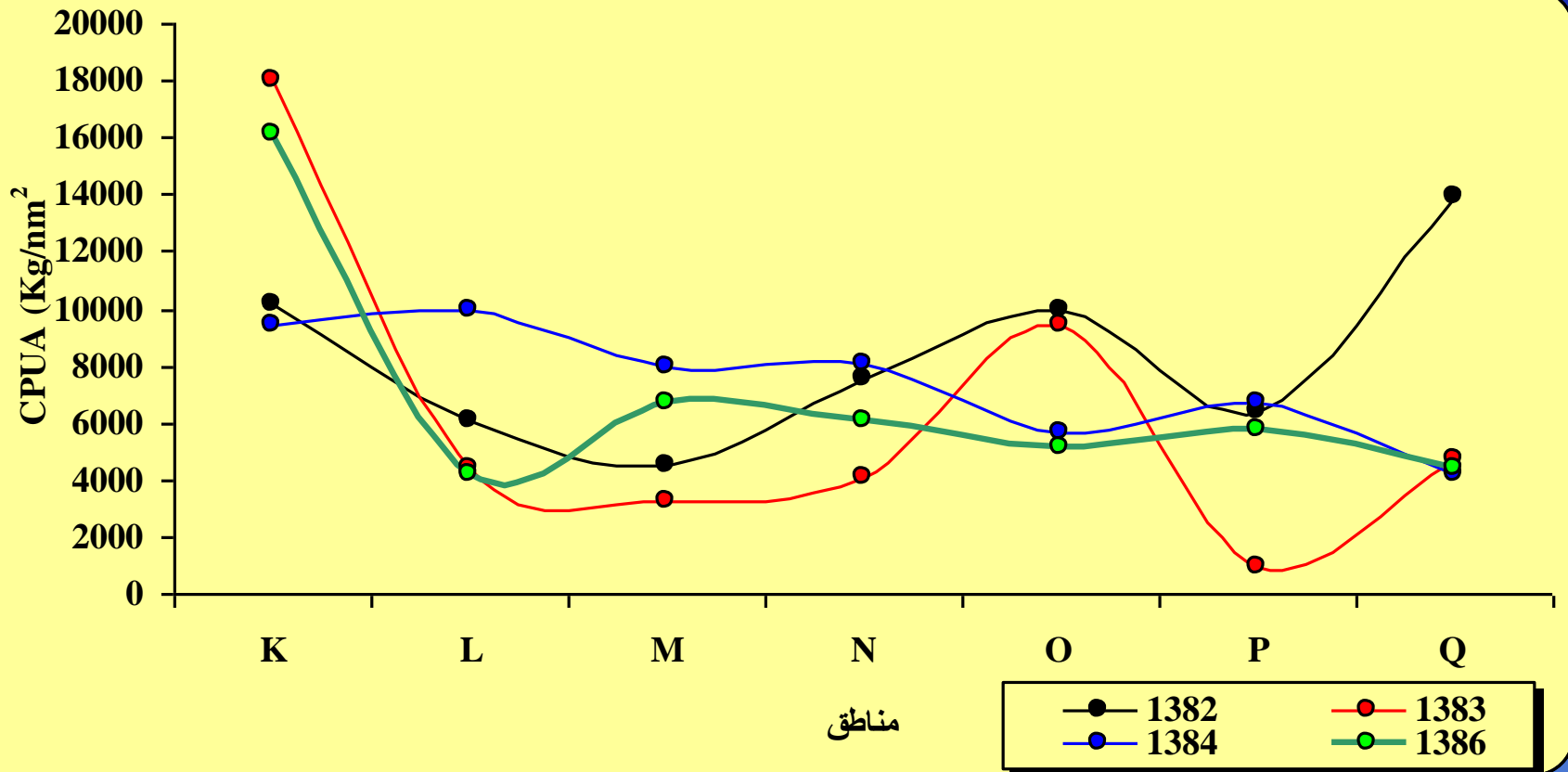
CPUA changes in the Persian Gulf for different sub-region



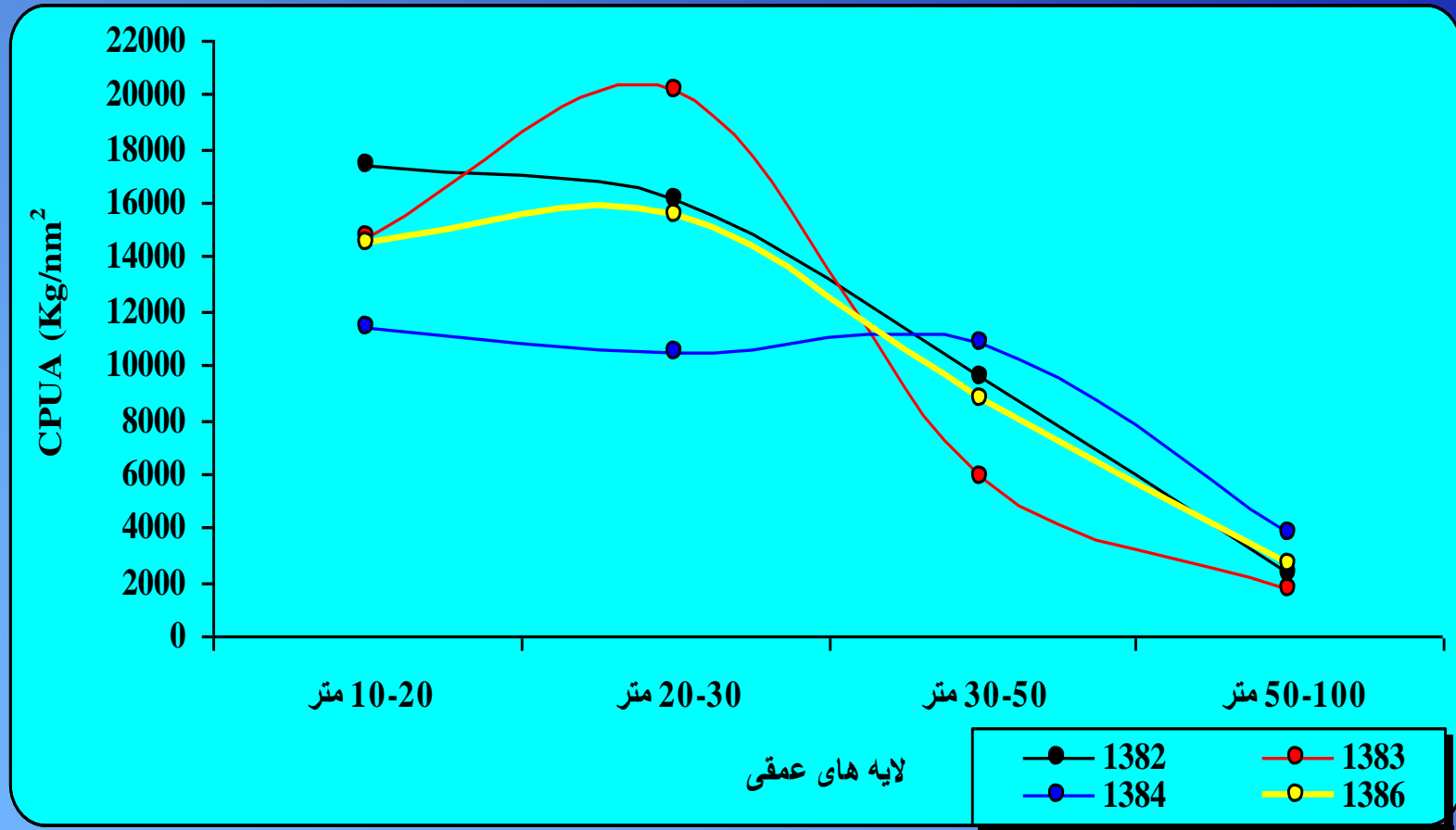
CPUA changes in the Persian Gulf for different depth layers



CPUA changes in the Oman Sea for different subregions



CPUA changes in depth-layers in the Oman Sea (A comparison for 4 yaers)



Checklist of species/species groups in bottom trawl catches in the Persian Gulf and Oman Sea and percentage from total catch

	Species / Species group	Ecologic group	Economical value	% of total biomass	
				Persian Gulf	Oman Sea
1	<i>Uroteuthis duvauceli</i>	Demersal	Commercial	0.30	0.01
2	URANOSCORPIDAE	Demersal	Non-commercial	0.00	0.03
3	Sea fans	Demersal	Non-commercial	0.00	0.00
4	TETRADONTIDAE	Demersal	Non-commercial	0.02	0.01
5	MULLIDAE	Demersal	Non-commercial	2.27	0.10
6	<i>Trachinotus spp.</i>	Demersal	Commercial	0.05	0.13
7	CHAETDONTIDAE	Demersal	Non-commercial	0.00	-
8	LEIOGNATHIDAE (others)	Demersal	Non-commercial	0.72	0.08
9	<i>Leiognathus fasciatus</i>	Demersal	Commercial	0.15	0.90
10	MONACANTHIDAE	Demersal	Non-commercial	0.02	0.01
11	SCOMBRIDAE	Pelagic	Commercial	0.04	0.03
12	PRIACANTHIDAE	Demersal	Non-commercial	0.09	0.01
13	OSTRACIIDAE	Demersal	Non-commercial	0.00	0.00
14	Seaweeds	Demersal	Non-commercial	0.00	0.00
15	GERRIIDAE	Demersal	Non-commercial	0.21	0.72
16	<i>Saurida tumbil</i>	Demersal	Commercial	6.53	3.72
17	<i>Pampus argenteus</i>	Demersal	Commercial	1.31	0.84
18	<i>Parastromateus niger</i>	Demersal	Commercial	1.21	0.46
19	DIODONTIDAE	Demersal	Non-commercial	-	0.08
20	CHIROCENTRIDAE	Pelagic	Commercial	0.17	0.03

21	CRABS (others)	Demersal	Non-commercial	0.02	0.19
22	<i>Portunus pelagicus</i>	Demersal	Commercial	0.01	0.02
23	<i>Portunus sanguinolentus</i>	Demersal	Non-commercial	-	0.02
24	TRIGLIDAE	Demersal	Non-commercial	0.06	0.89
25	Platax spp.	Demersal	Commercial	0.00	0.01
26	Sea cucumbers	Demersal	Non-commercial	0.00	0.00
27	DACTYLOPTERDAE	Demersal	Non-commercial	0.00	0.00
28	APOGONIDAE	Demersal	Non-commercial	0.00	0.00
29	POLYNEMIDAE (others)	Demersal	Commercial	0.22	1.26
30	<i>Eluthernema tetradactylum</i>	Demersal	Commercial	0.14	0.00
31	PLATYCEPHALIDAE (others)	Demersal	Non-commercial	0.00	0.00
32	<i>Grammoplites suppsitus</i>	Demersal	Non-commercial	0.33	0.32
33	<i>Platycephalus indicus</i>	Demersal	Commercial	0.19	0.01
34	CLUPEIDAE	Pelagic	Non-commercial	1.09	0.19
35	<i>Scmberoides</i> spp.	Demersal	Commercial	0.97	0.43
36	Rays	Demersal	Non-commercial	11.37	21.92
37	Sea Stars	Demersal	Non-commercial	0.00	0.00
38	Cephalopods (others)	Demersal	Non-commercial	0.00	0.00
39	<i>Lutjanus malabaricus</i>	Demersal	Commercial	3.08	0.06
40	<i>Lutjanus johni</i>	Demersal	Commercial	0.08	0.37

41	LUTJANIDAE (others)	Demersal	Commercial	0.31	0.02
42	<i>Pomadasys kaakan</i>	Demersal	Commercial	4.69	9.81
43	HAEMULIDE (others)	Demersal	Non-commercial	0.52	1.39
44	TRICANTHIDAE	Demersal	Non-commercial	0.01	0.02
45	RHYNOBATIDAE	Demersal	Non-commercial	0.35	0.41
46	<i>Rachycentron canadum</i>	Pelagic	Commercial	1.82	0.10
47	<i>Acanthopagrus bifasciatus</i>	Demersal	Commercial	0.07	0.02
48	<i>Acanthopagrus latus</i>	Demersal	Commercial	1.04	0.80
49	SPARIDAE (others)	Demersal	Commercial	0.41	0.22
50	LETHRINIDAE	Demersal	Commercial	0.50	0.11
51	<i>Ilisha spp.</i>	Demersal	Non-commercial	2.52	0.24
52	SILAGINIDAE	Demersal	Non-commercial	-	0.00
53	<i>Otolithes ruber</i>	Demersal	Commercial	0.65	1.67
54	SCIANIDAE (others)	Demersal	Commercial	1.70	2.39
55	FISTULARIIDAE	Demersal	Non-commercial	0.00	0.01
56	<i>Scomberomorus commerson</i>	Pelagic	Commercial	1.56	0.22
57	<i>Ephippus orbis</i>	Demersal	Non-commercial	0.55	0.05
58	SIGANIDAE	Demersal	Commercial	0.05	0.00
59	Sea shells	Demersal	Non-commercial	0.01	0.01
60	<i>Rastreliger kanagurta</i>	Demersal	Commercial	0.16	0.09

61	Jelly fish	Demersal	Non-commercial	0.30	0.26
62	<i>Drepane punctata</i>	Demersal	Commercial	1.17	0.42
63	<i>Drepane longimana</i>	Demersal	Commercial	0.01	4.67
64	SCORPAENIDAE	Demersal	Non-commercial	0.03	0.11
65	Stomatopods	Demersal	Non-commercial	0.00	0.00
66	<i>Scomberomorus guttatus</i>	Pelagic	Commercial	0.47	0.24
67	CALLIONYMIDAE	Demersal	Non-commercial	-	0.01
68	<i>Megalaspis cordyla</i>	Demersal	Commercial	0.04	0.34
69	<i>Psettodes erumei</i>	Demersal	Commercial	0.71	0.37
70	Pleuronectiformes (others)	Demersal	Non-commercial	0.42	0.91
71	<i>Argyrops spinifer</i>	Demersal	Commercial	1.36	2.30
72	SPHYRAENIDAE	Pelagic	Commercial	2.88	2.54
73	Sharks	Demersal	Non-commercial	2.12	1.10
74	<i>Netuma thalassinus</i>	Demersal	Commercial	8.82	1.49
75	<i>Plicofilis tenuispinis</i>	Demersal	Non-commercial	2.30	2.24
76	<i>Plicofilis dussumieri</i>	Demersal	Commercial	2.54	4.81
77	PLOTOSIDAE	Demersal	Non-commercial	0.00	0.00
78	<i>Nemipterus japonicus</i>	Demersal	Commercial	10.53	4.40
79	NEMIPTERIDAE (others)	Demersal	Non-commercial	0.17	2.24
80	<i>Lactarius lactarius</i>	Demersal	Commercial	0.01	0.57

Gulf of Oman

Fish Name	Biomassa	%	Score
Rays	11364.2	28.07	1
Carangids	2254.9	6.48	2
Ribbon fish	2246.3	6.46	3
Grunt	2043.4	5.87	4
Barracuda	1573.7	4.52	5
Nemipterids	1526.1	4.39	6
<i>Argyrops sp.</i>	1329.4	3.82	7
Grouper	1278.6	3.68	8
Drepanids	1134.7	3.26	9
Leiognathids	1016.5	2.92	10

Persian Gulf

Fish Name	Biomass	%	Score
Carangids	16190.7	14.14	1
Rays	11911.8	10.40	2
Nemipterids	10988.3	9.59	3
Ribbons	9978.3	8.71	4
Lizardfish	8192.1	7.15	5
Catfish	4766.1	4.16	6
Grunt	4596.0	4.01	7
<i>Illisha sp.</i>	3987.6	3.48	8
Barracuda	3553.1	3.10	9
Catfishes	2747.1	2.40	10

**1* (Joint-Resource between Iran-Kuwait) Persian Gulf
Silver Pomfret**



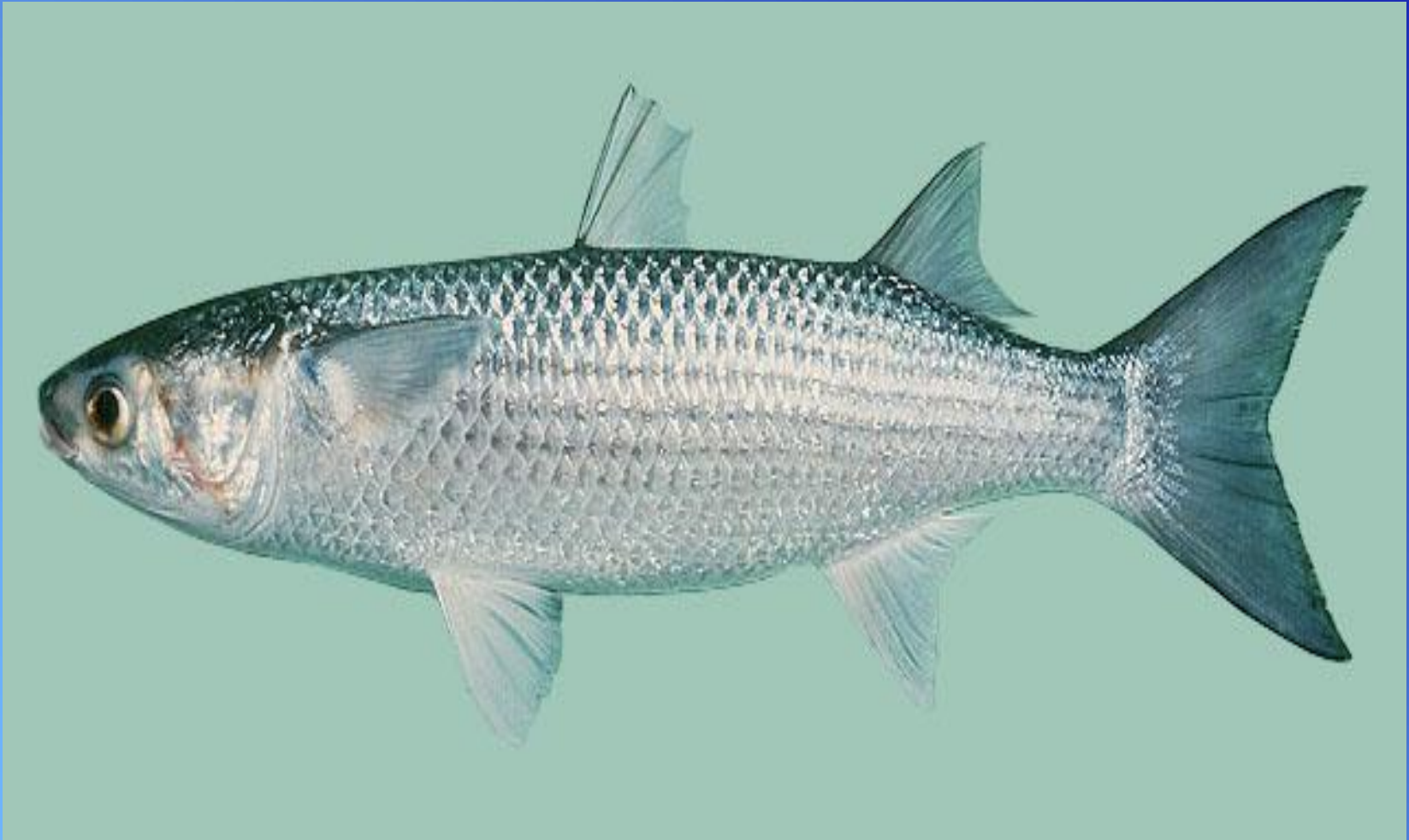
2* (Joint-resources between Iran- UAE) Oman Sea

Tenualosa ilisha (SOBOOR)



Joint resource between Kuwait-Iraq &Iran

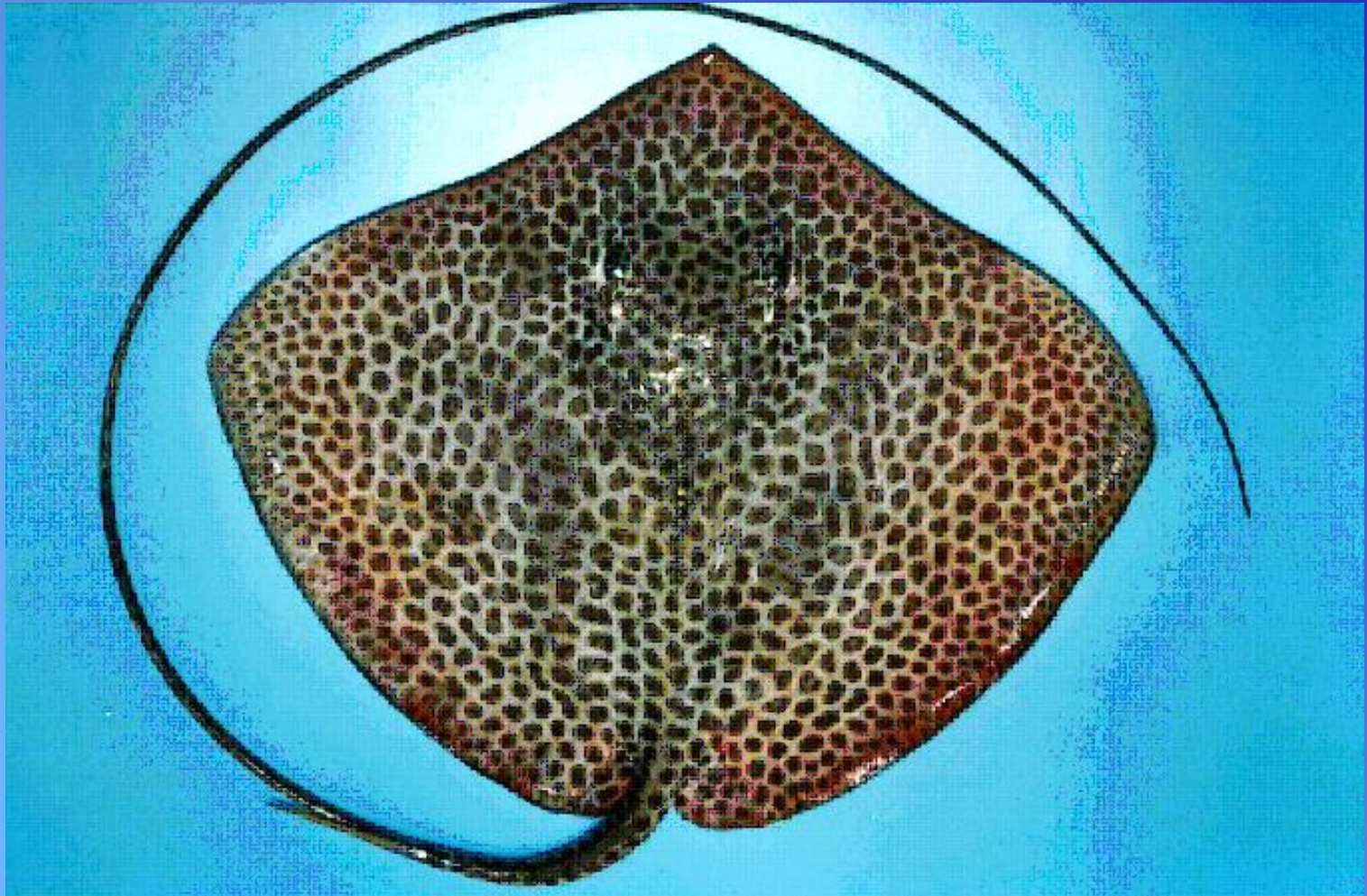
Liza klunzingeri (MULLET)

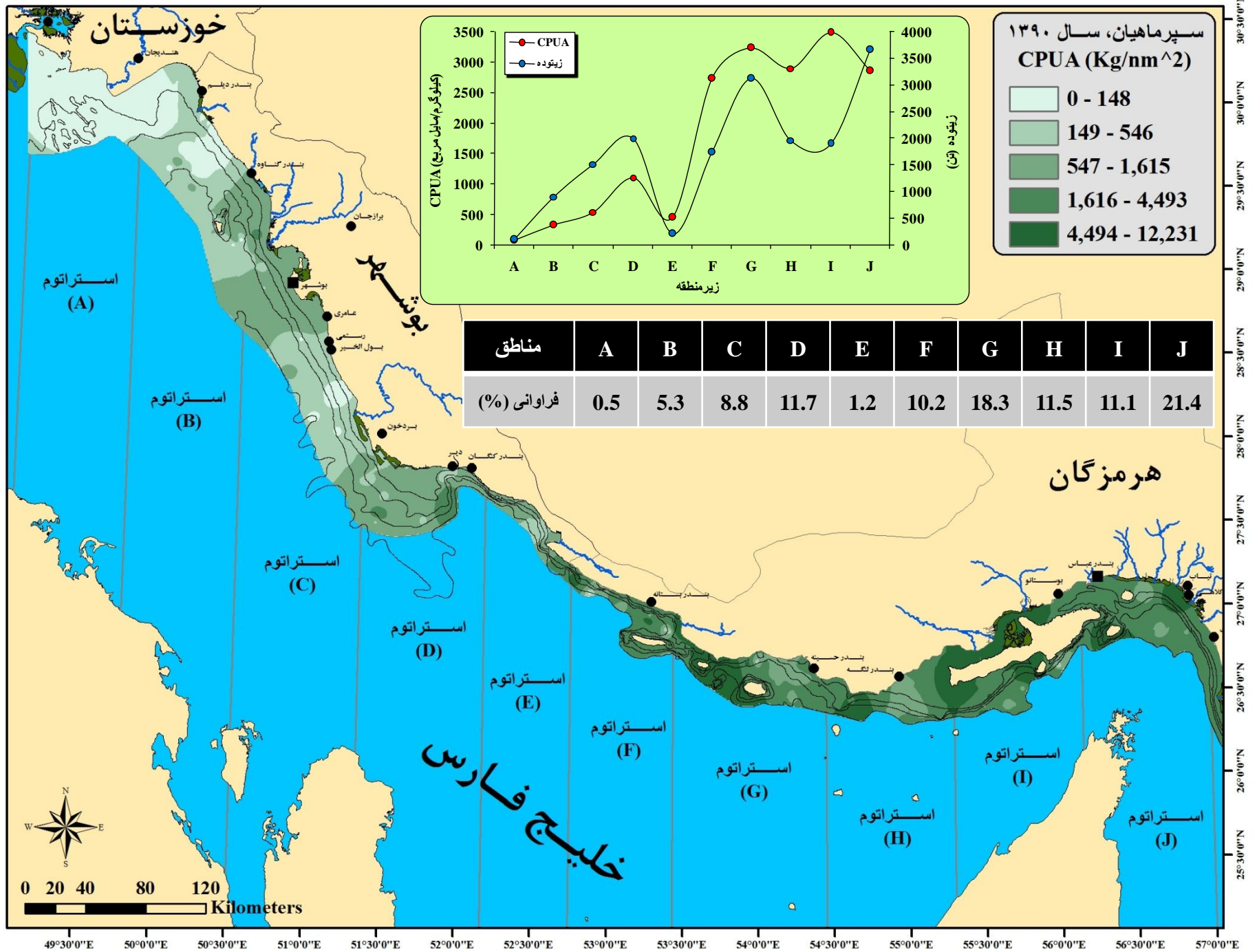


Joint resource between Kuwait-Iraq &Iran

Rays

(Joint-resource between all neighboring countries)





خوزستان

استراتوم (A)

استراتوم (B)

استراتوم (C)

استراتوم (D)

استراتوم (E)

استراتوم (F)

استراتوم (G)

استراتوم (H)

استراتوم (I)

استراتوم (J)

هرمزگان

خلیج فارس



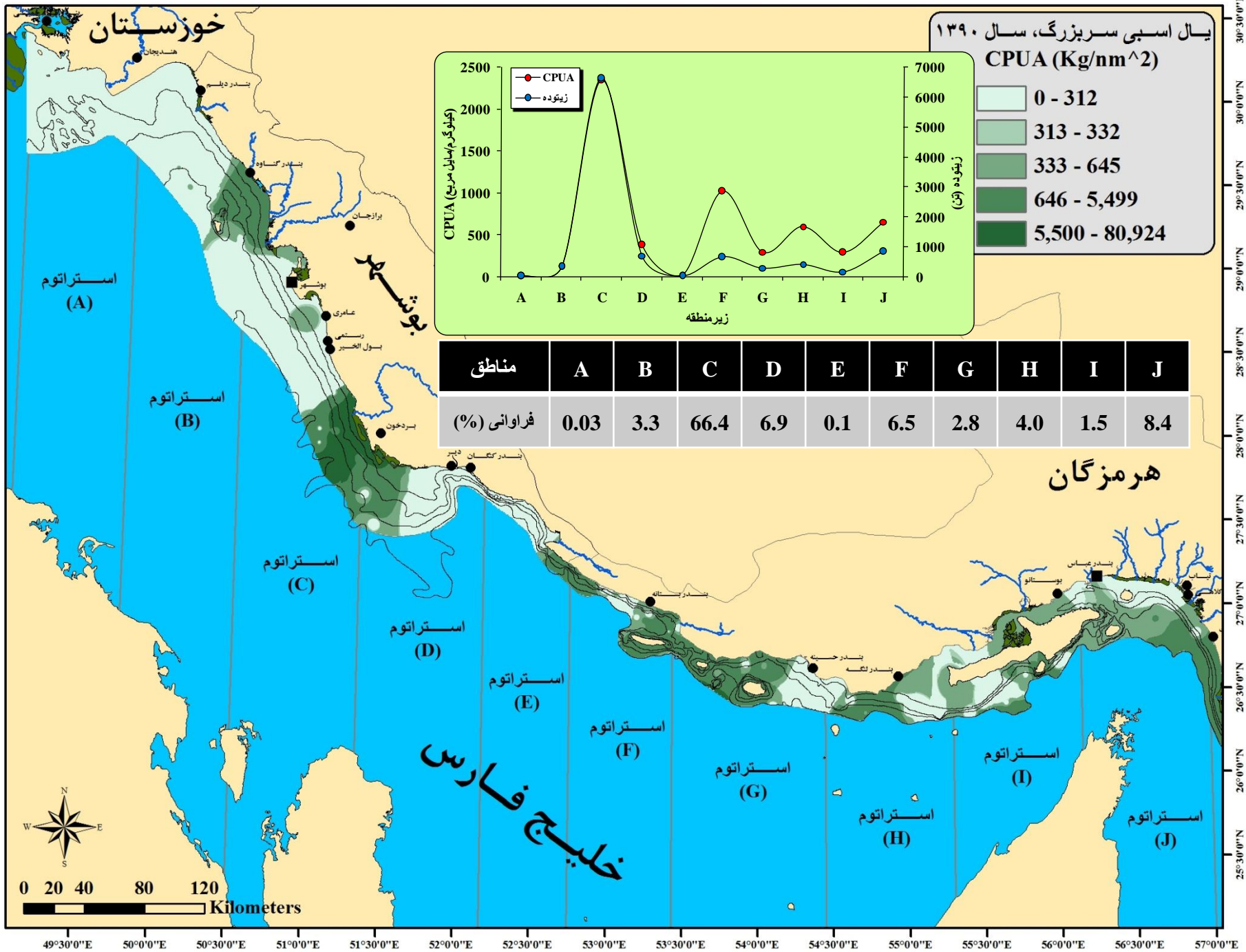
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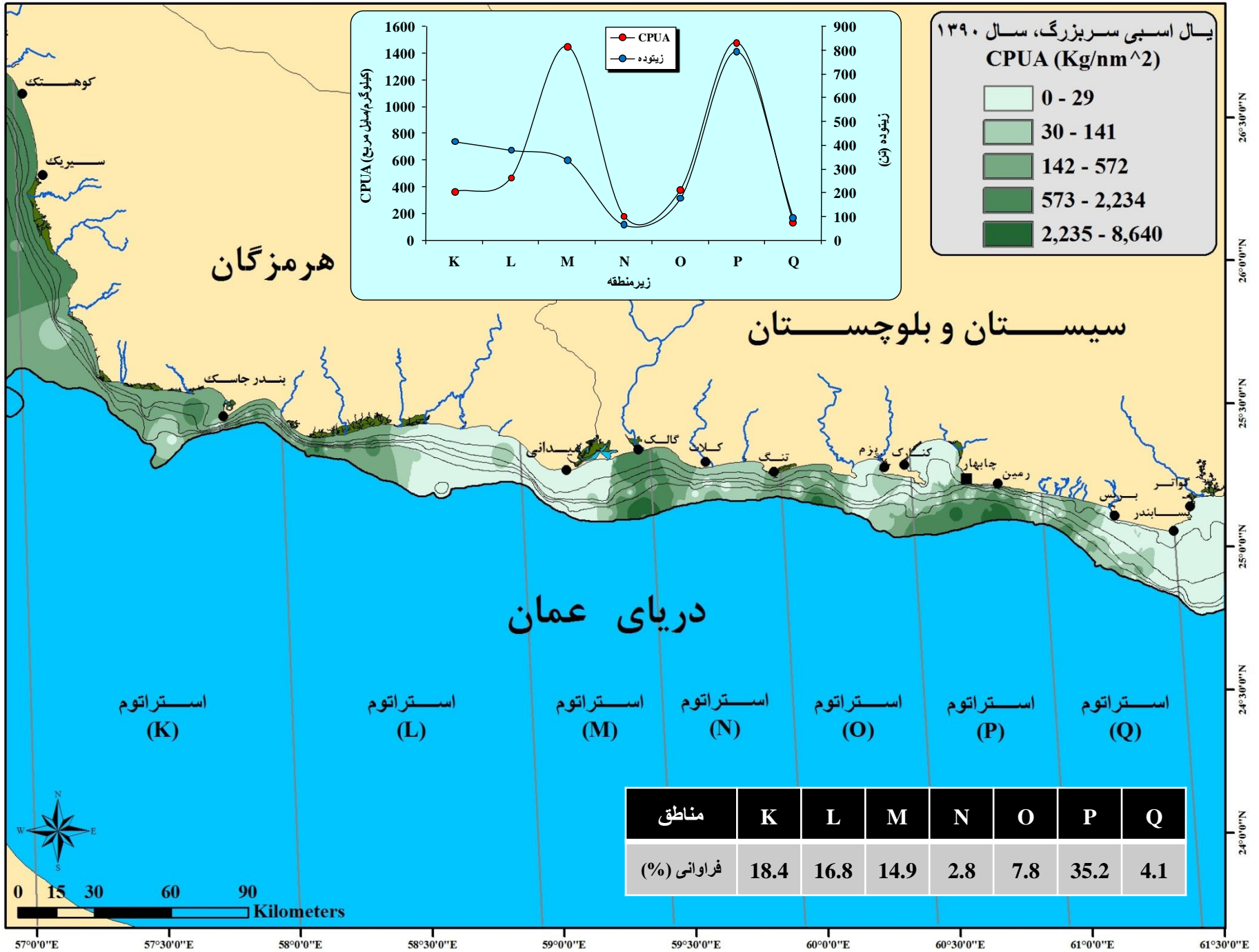
30°30'0"N
30°0'0"N
29°30'0"N
29°0'0"N
28°30'0"N
28°0'0"N
27°30'0"N
27°0'0"N
26°30'0"N
26°0'0"N
25°30'0"N

Ribbonfish

(between all neighboring Countries)







هرمزگان

سیستان و بلوچستان

دریای عمان

استراتوم (K)

استراتوم (L)

استراتوم (M)

استراتوم (N)

استراتوم (O)

استراتوم (P)

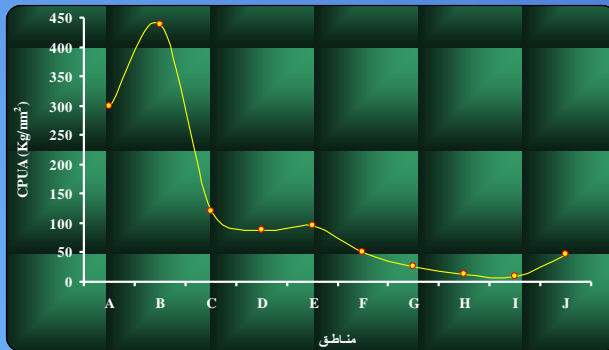
استراتوم (Q)



57°0'0"E 57°30'0"E 58°0'0"E 58°30'0"E 59°0'0"E 59°30'0"E 60°0'0"E 60°30'0"E 61°0'0"E 61°30'0"E

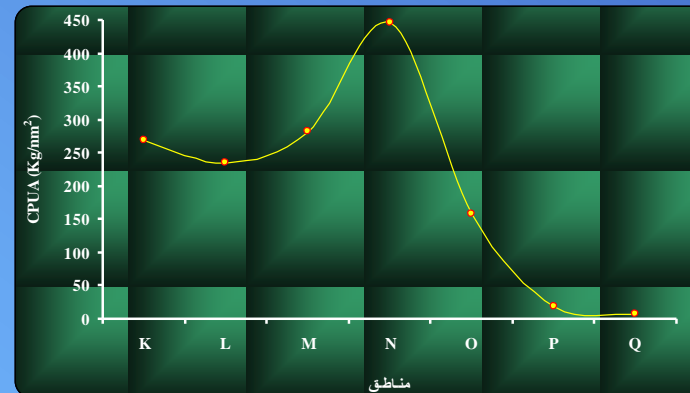
26°30'0"N
26°0'0"N
25°30'0"N
25°0'0"N
24°30'0"N
24°0'0"N

Cuttlefish (Iran- Saudi Arabia – Oman – UAE – Bahrain – Qatar)



Persian Gulf

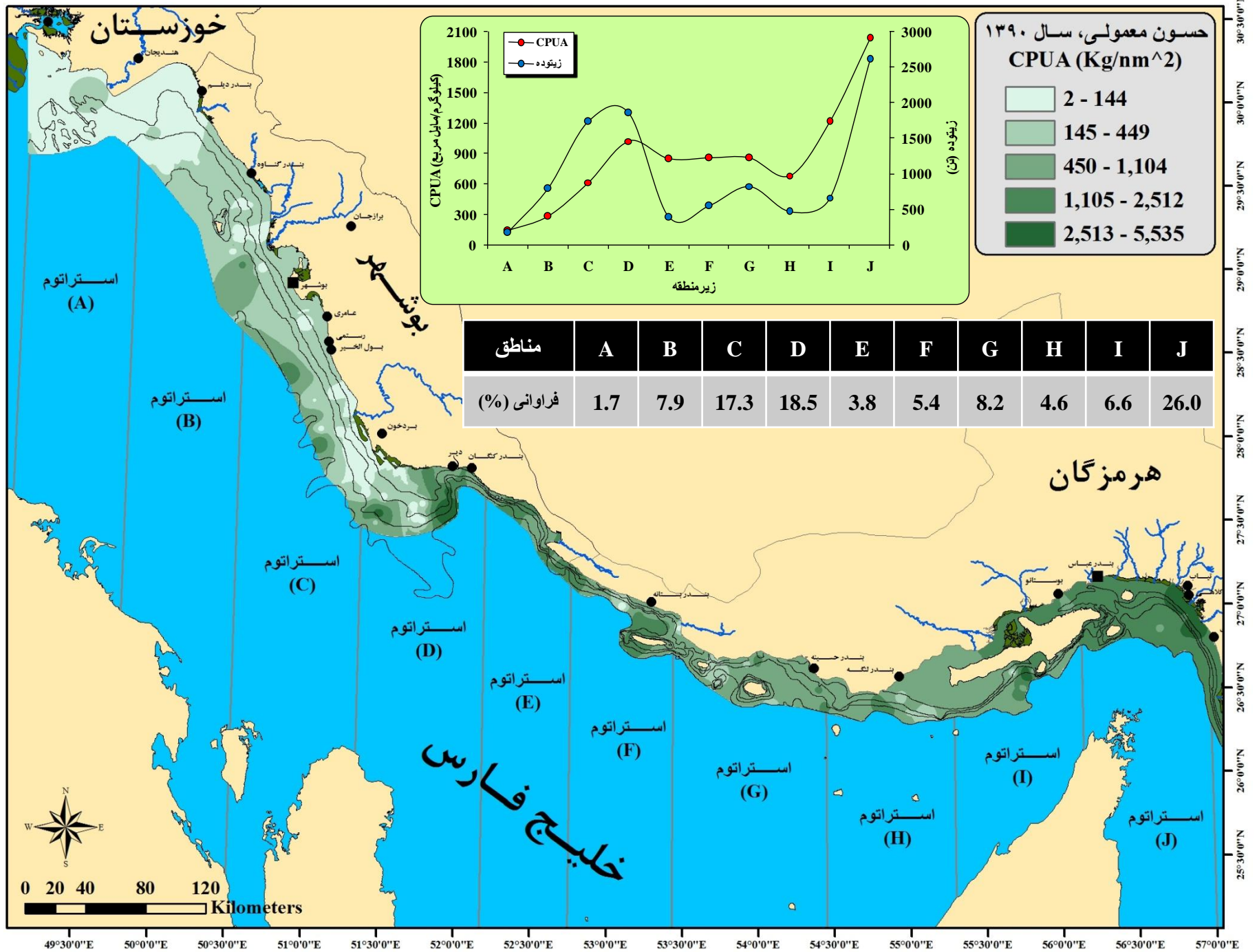
Oman Sea



Lizardfish

(between all Neighboring Countries)





Catfishes

(Between all Neighboring Countries)



Threadfin Bream

(Joint-Resources between all neighboring Countries)



Lanternfish

(Iran – Oman)



TL= 4 cm

D₁ & D₂ layers



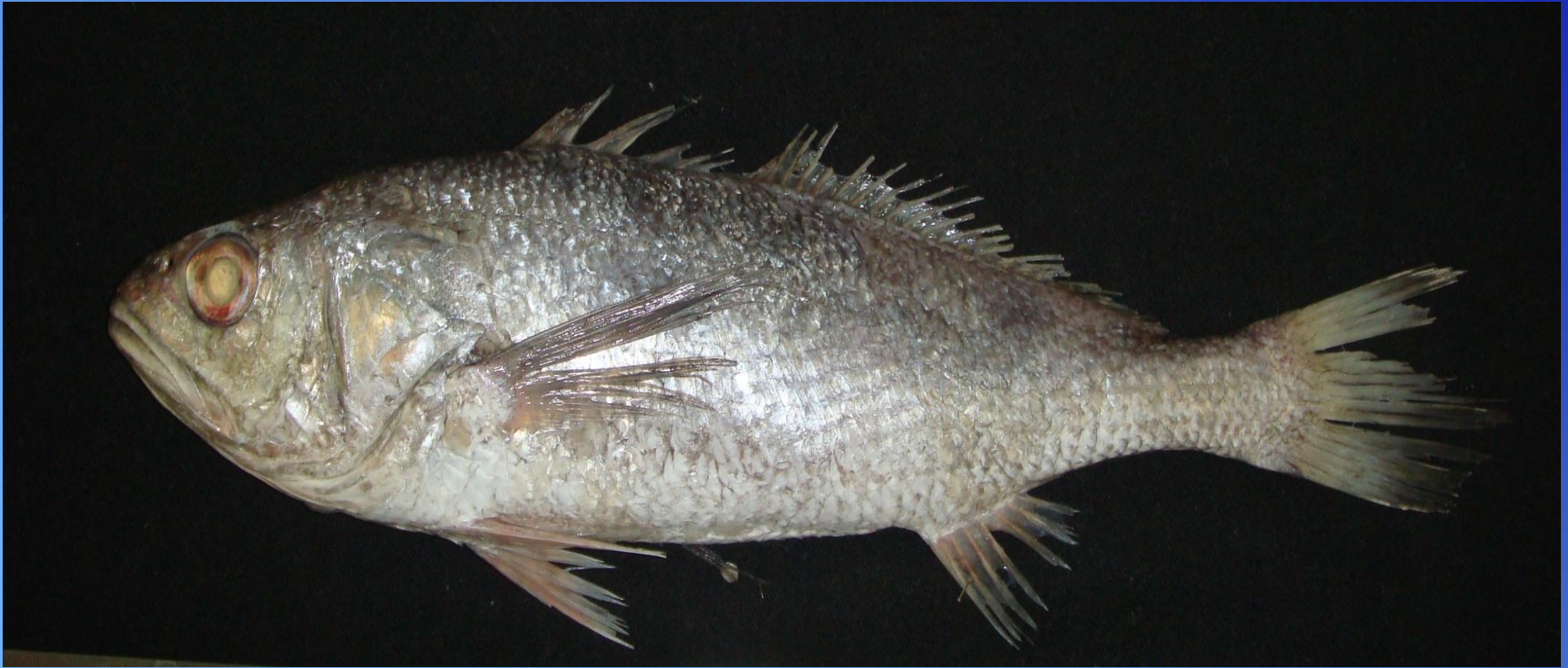
D₁- layer



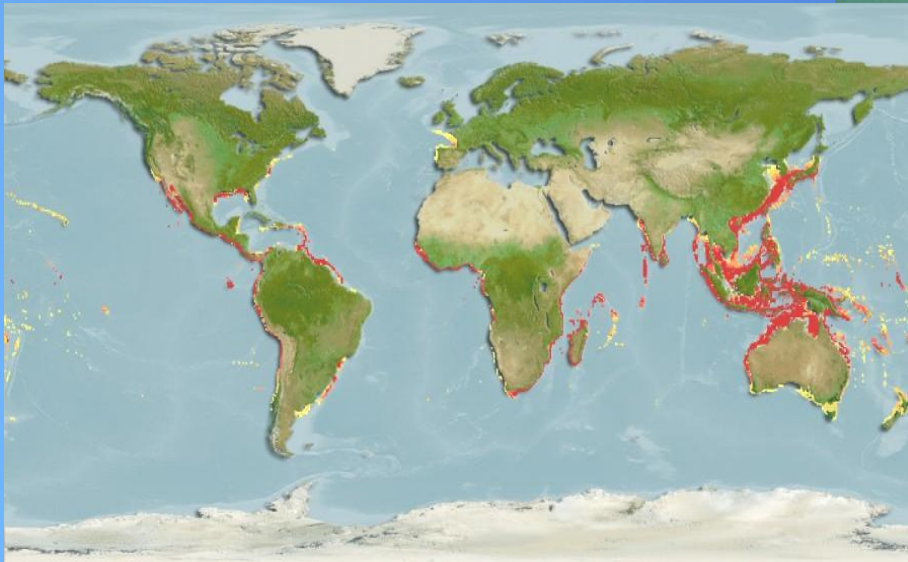
Commercial fishing of lanternfish



Black mouth croaker



Black mouth croaker



Deep Sea Sharks

Joint-Resources between Iran – Oman





Un-exploited resources of Purple Back Squids

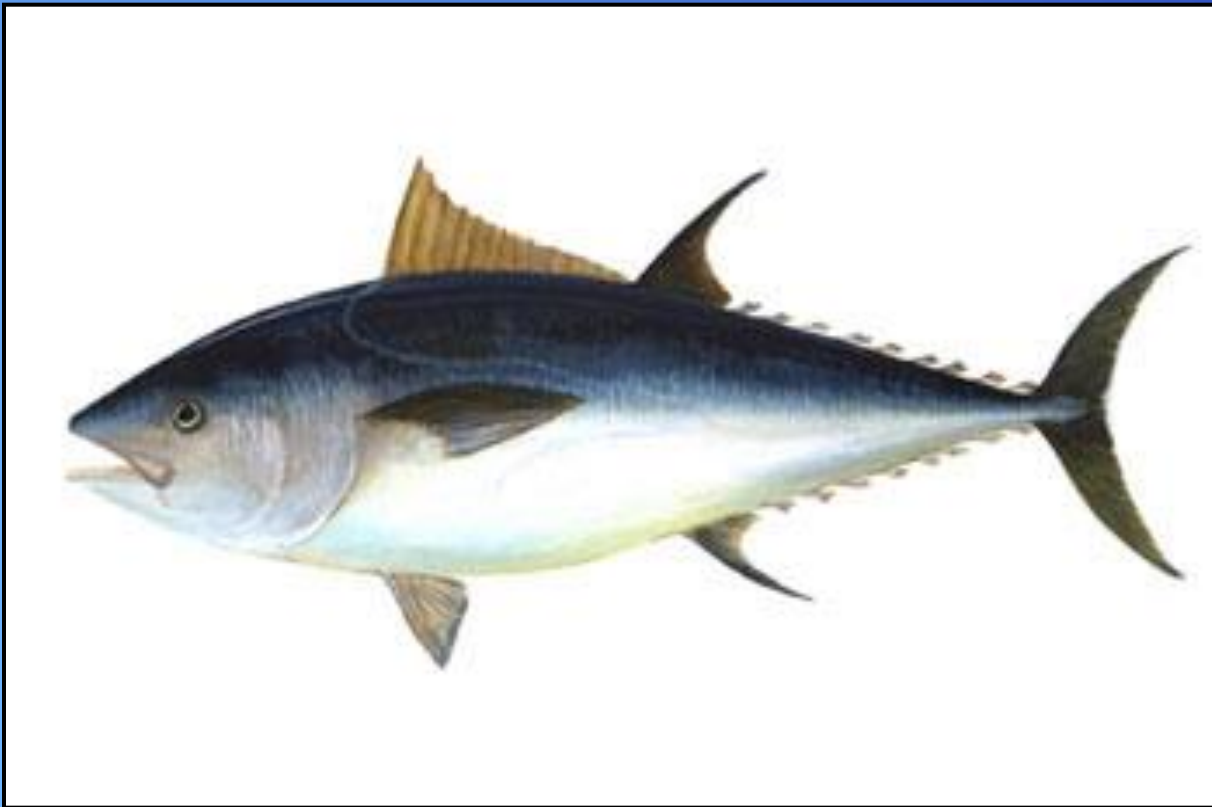
Joint –resource between Iran - Oman

Under-exploited Resources of Sardines and Anchovies (Joint-resources between Iran – Oman – UAE – Saudi Arabia)



Tuna and Tuna-like fishes

- 1- (Longtail, Kawa-Kawa, Spanish Mackerel & King Mackerel
Joint-resources between most of neighboring countries)
- 2- Yellowfin & Skipjack (Iran – Oman & UAE)



Shrimps



Metapenaeus affinis (Kuwait-Saudi Arabia – Iran-Bahrain)

Penaeus semisulcatus (Saudi Arabia – Iran-Bahrain-Qatar...)

Crabs (different species)



(Joint-resource between all neighboring countries)

Lobster

(Iran-Pakistan - Oman)

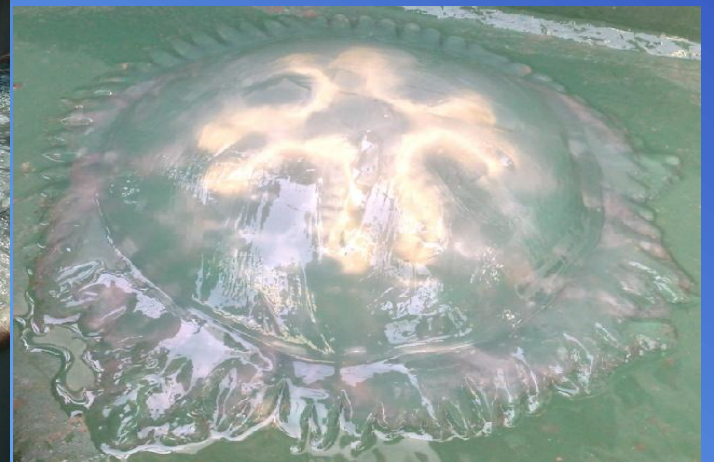


Jellyfish

(All neighboring Countries)



Jellyfish Bloom and Explosion in the Persian Gulf & Oman Sea





**Decrease of efforts or
CPUE**



Sea Ranching and Stock Enhancement

