Diversity and risk of extinction in Indo-West Pacific Sciaenidae

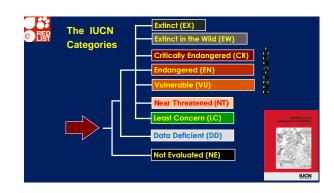
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The IUCN Red List Assessment estimates **risk of extinction**

What is the likelihood of a species becoming extinct in the near future,

given current knowledge about population trends,

range, and recent, current

or projected threats?

There are a set of IUCN criteria & guideline for the RLA, but not often applied consistently at regional or national RLA programs.

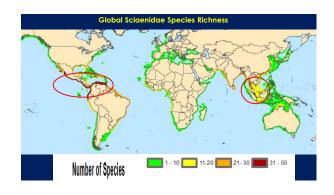


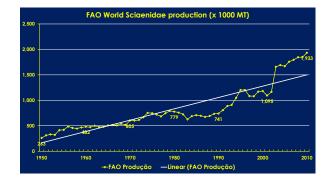
UICN MASSC

This presentation covers,

- 1. Sciaenidae species richness & distribution
- 2. Report RLA results (IUCN SSC Sciaenidae Red List Authority)
- 3. Actions on Sciaenidae Conservation
- IUCN-SSC Sciaenidae Red List Authority
- Global Sciaenidae Conservation Network

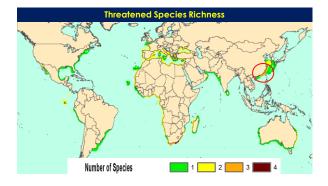
Regions	Genera (subgenera)	Species		
Indo-West Pacific	28-30	98-105		
East Atlantic + Mediterranean	6-9	18		
Americas (New World)	27- 30	167- 170		
East Pacific	25-27	81-85		
West Atlantic	22	62-70		
Total Marine	62-71	261		
FW Americas + Asia	6	22-24		
TOTAL	67-77	295-300		

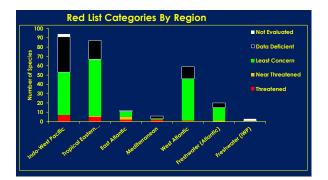




	Sciaenid	ae Global	All Bony Fishes		
	No Spp.	%	No Spp.	%	
CR	3	1.10%	171	11.91%	
EN	6	2.21%			
VU	5	1.84%	34	2.37%	
NT	5	1.84%			
LC	167	61.40%	934	65.04%	
DD	77	28.31%	297	20.68%	
NE	9	3.31%			
Total	272		1436		

Indo- West Pacific		East P (IUC		West Atlantic		East Atlantic (IUCN)		FW New World		Sciaenidae Global	
No Spp.	%	No Spp.	%	No Spp.	%	No Spp.	%	No Spp.	%	No Spp.	%
2	2.11%	1	1.23%							3	1.12%
4	4.21%	0	0.00%	1	1.72%	1	8.33%			6	2.26%
1	1.05%	3	3.70%			1	8.33%			5	1.89%
1	1.05%	0	0.00%	1	1.72%	2	16.67%	2	7.69%	6	2.28%
45	46.32%	59	72.84%	43	74.14%	7	58.33%	13	50.00%	169	61.95%
38	40.00%	18	22.22%	13	22.41%	1	8.33%	7	26.92%	78	28.65%
5	5 26%							4	15 38%	9	3.33%
	0.2070										0.007
	No Spp. 2 4 1 1	No Spp. % 2 2.11% 4 4.21% 1 1.05% 1 1.05% 45 46.32% 38 40.00% 5 5.26%	No Spp. % No Spp. 2 2.11% 1 4 4.21% 0 1 1.05% 3 1 1.05% 59 38 40.00% 18 5 5.26%	No Spp. % No Spp. % 2 2.11% 1 1.23% 4 4.21% 0 0.00% 1 1.05% 0 0.00% 1 1.05% 0 0.00% 46.32% 59 72.84% 38 40.00% 18 22.22% 5 5.26%	No Spp. % No Spp. % No Spp. 2 2.11% 1 1.23% 4 4.21% 0 0.00% 1 1 1.05% 0 0.00% 1 1 1.05% 0 0.00% 1 45 46.32% 59 72.84% 43 38 40.00% 18 22.22% 13 5 5.26%	No Spp. % No Spp. % No Spp. % 2 2.11% 1 1.23% - - 4 4.21% 0 0.00% 1 1.72% 1 1.05% 3 3.70% - 1 1.72% 4 46.32% 59 72.84% 43 74.14% 38 40.00% 18 22.22% 13 22.41% 5 5.26% - - - -	No Spp. % No Spp. % No Spp. % No Spp. 2 2,11% 1 1,23% -	No Spp. % <th< td=""><td>No Spp. % No Spp. % % % % % % % % % % % % % % % % % %<!--</td--><td>No Spp. % No Spp. % <th< td=""><td>No Spp. % No Spp. % <th< td=""></th<></td></th<></td></td></th<>	No Spp. % % % % % % % % % % % % % % % % % % </td <td>No Spp. % No Spp. % <th< td=""><td>No Spp. % No Spp. % <th< td=""></th<></td></th<></td>	No Spp. % <th< td=""><td>No Spp. % No Spp. % <th< td=""></th<></td></th<>	No Spp. % <th< td=""></th<>





	Indo- West Pacific		Sciaenida	ae Global	All Bony Fish Assessed	
	No Sp.	%	No Sp.	%	No Sp.	%
CR	2	2.15%	3	1.11%	171	11.91%
EN	4	4.30%	6	2.22%		
vu	1	1.08%	5	1.85%	34	2.37%
NT	1	1.08%	6	2.22%		
LC	45	47.31%	169	62.59%	934	65.04%
DD	38	40.86%	78	28.89%	297	20.68%
NE	5	3.23%	7	2.59%		
Total	95		270		1436	

Threatened Sciaenidae of Ido-West Pacific Region				
1 Bahaba taipingensis	Published - IUCN	CR		
2Larimichthys crocea	Draft Assessment	CR		
3 Argyrosomus hololepidotus	Published -IUCN	EN		
4 Argyrosomus japonicus	Draft Assessment	EN		
5 Argyrosomus thorpei	Draft Assessment	EN		
6Atractoscion aequidens	Draft Assessment	vu		

REP	A taxon is threatened when the best available evidence indicates that it meets any of the criteria A to E for the thresholds stated in one of the three threatened catego Critically Endangered, Endangered or Vulnerable.	•
	Critically Endangered (CR)	
	CR taxa are considered to be facing an extremely high risk of extinction in the wild	
	Endangered (EN)	IUCN Red List Gategories and Criteria
	EN taxa are considered to be facing a very high risk of extinction in the wild	
	Vulnerable (VU)	
	VU taxa are considered to be facing a high risk of extinction in the wild	



1. A 80 kg fish sold for US\$450,000 Aug 18, (2012 Fujian, Hu

Argyrosomus hololepidotus – Endangerd (EN)

Red List Category & Criteria: Year Published:

Assessor/s: Reviewer/s: Contributor/s: Justification:

Endangered B1ab(ii,iii,v)+2ab(ii,iii,v)

2007 2007 Heemstra, P.C. (South African Institute for Aquatic Biology) Donaldson, T.J. & Edgar, G. (Coral Reef Fishes Red List Authority)





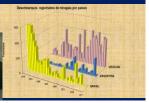


Our experinces with IUCN Red List Assessements (RLA)

- For a widely distributed species; Endangered (EN) category at regional or country level need better data to show population trend.
- 2. Data Deficiency (DD) is common among small to median sized fish from by-catch and artisan fisheries.
- 3. Good taxonomy is basic for a good RLA, aquaculture or exotic species are complicate issue.

ogonias cromis (EN- South population: azil – Uruguay -Argentina)



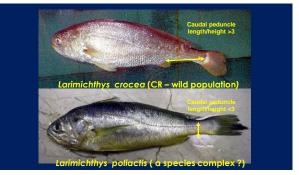


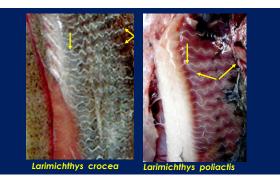
















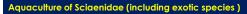




US –Asian market frozen Yellow croaker, 12 fish vertebrae counts: 5(29) & 7(28)

Is Larimichthys polyactis a species complex? or includes cryptic species?

Yellow Croaker Culture in China



China (Marine)

1 an

Larimichthys crocea Protonebia diacanthus Sciaenops ocellata

(northern China to Singapore)

Thailand (FW, an undescribed species) Bosemania sp

Brazil (FW – introduced to reservoirs) Plagioscion squamossisimus





Otoliths in systematics

3. Literature Collection:

- 4. Partnerships, New ideas & Young colleagues
- 5. Logistic & Finance support. (Croakers are hardly charismatic for fund raising campaign!)

ACKNOLEDGEMENTS IUCN – SSC , GMSA, ICMbio (Brasil), Taiwan Forest Bureau, Bio-Amazinia n Interna

d List A



