



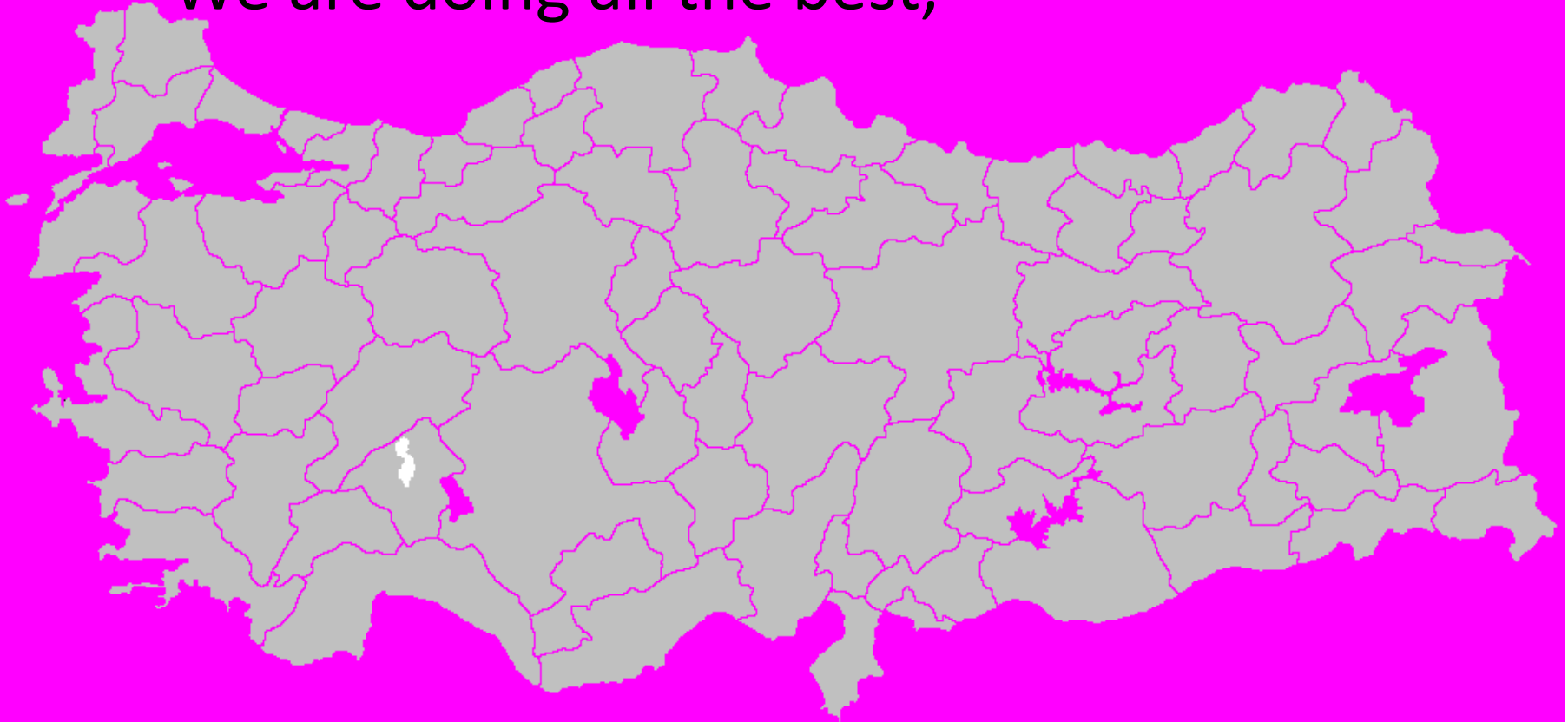
IUU Fisheries in Turkey

Based on bycatch research on major fishing methods
& 25 yrs of observations in the region

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IUU in Turkey

- We are doing all the best,



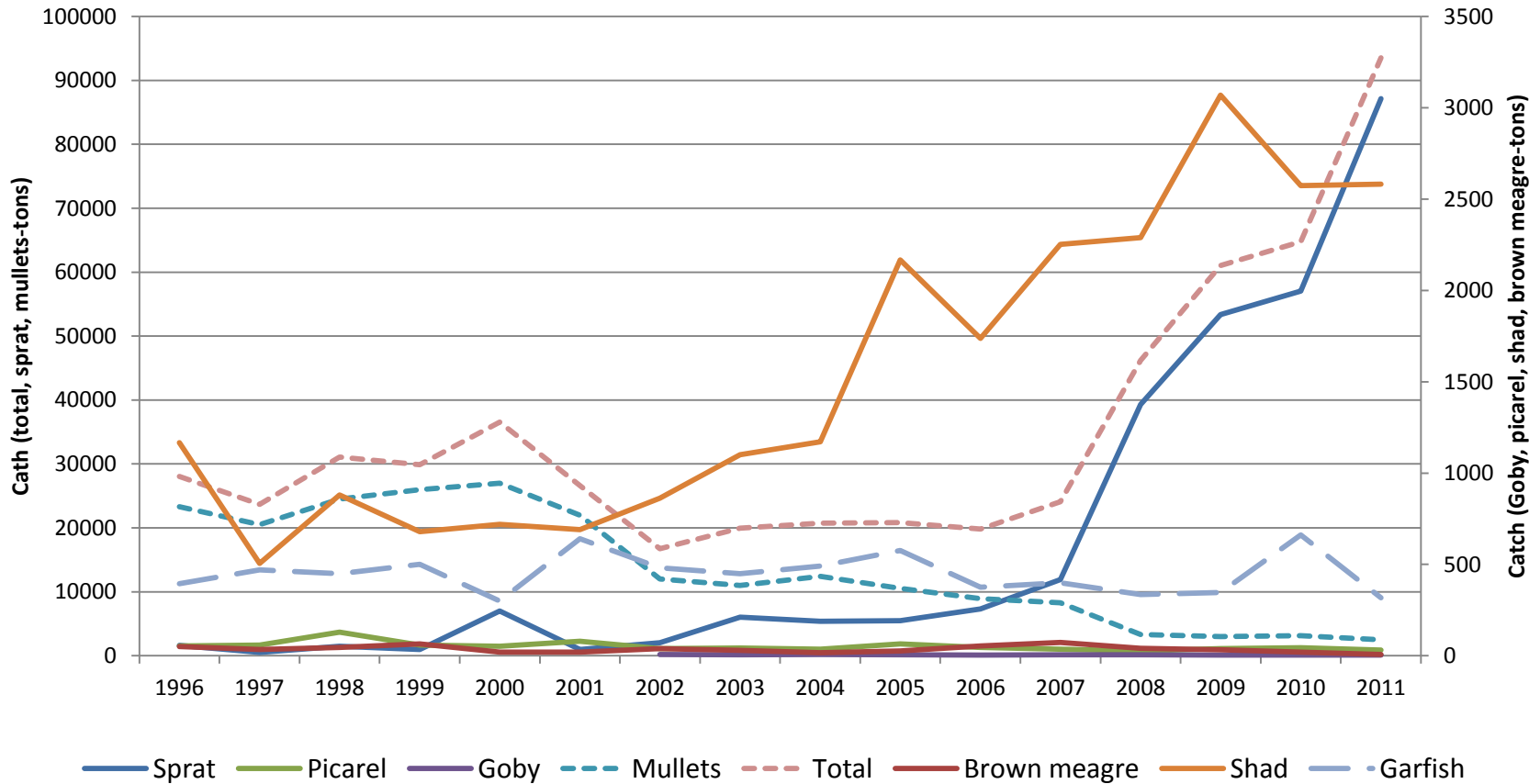
- We have effective control mechanisms...

UNREGULATED FISHERIES

- Sprat (no minimum landing size, closed seasons, gear and mesh size restrictions),
- Garfish (any regulatory measures),
- Mullet species (no minimum size but size limitations for only *M. soiuy* and *M. cephalus*, not for the other 4 mullet species).
- Goby fish species (no minimum landing size, closed seasons, gear restrictions),
- Picarel, brown meager, shad (there is any fishing regulations on these species)

Though they are included in the TURKSTAT Fishery Statistics

Production of selected unregulated fisheries



2011 Sprat : 87141, Picarel: 878, Goby: 96, Brown meagre: 7
 Mulletts: 2514, Shad: 2582 Garfish: 317, **Total :93533 tons**

UNREPORTED CATH

Almost in all commercial species as well as discards. Because;

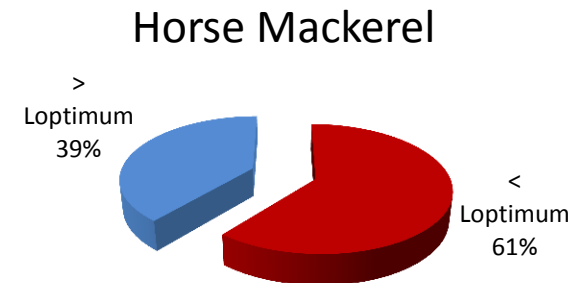
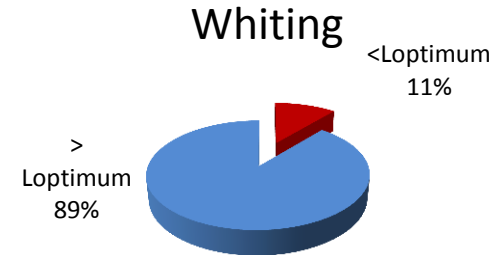
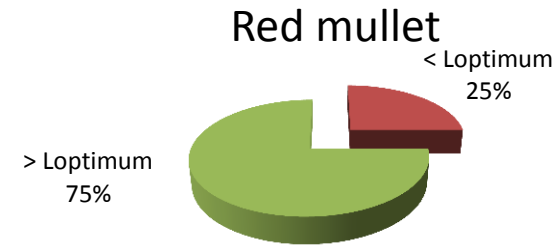
- None of the fish port offices work as it is planned.
- Actually all is locked, nobody is working there,
- There are administrative and legal uncertainties to operate port offices.
- Landing declarations of purse seiners and trawlers can not be given to the port officers in order to record to FIS,
- We are learning that the responsibility on adding landings data were given to the cooperatives during the application of skippers to have the certificate of transport.
- Actually middlemen/wholesalers are very effective in the fish markets. In order to reduce their income tax, commissions to them by the fishermen, they report lower quantities. This can be seen during any day if visit paid to any of the fish markets.
- Municipality have very limited records which are only given by wholesalers.

ILLEGAL FISHERIES

- There are illegal dredging and trawling activities for Rapana and other demersal fisheries whether in the 3 miles zone where trawling is permitted and in the areas completely closed to trawling.
- No efficient monitoring and control activities on daily quota allocated by the Ministry on baby clam.
- All the main local/main markets/restaurants selling undersized fish (anchovy, horse mackerel, whiting, bluefish).
- More landings encouraged to catch undersized anchovy is the award for fish meal and oil factories due to its quantity and lowest price as a raw material.
- Fishing regulation permits to undersized fish at 15 % on weight basis for anchovy and other small pelagics. It means, there is legal impact on the sustainability of the small pelagic stocks. Moreover, survey results indicate that the rate of undersized fish catch are too high.

Bottom Gill Nets

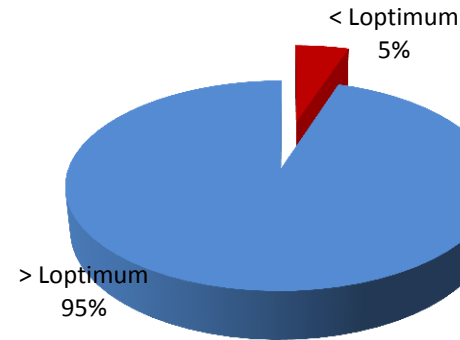
Species	N	Length (cm)	
		Min.	Max.
<u>Target Catch</u>			
Red mullet	186	8.2	17.3
Whiting	542	8.6	19.9
<u>By-catch</u>			
Anchovy	86	9.4	12.8
Horse Mackerel	105	9.7	17.0
Round goby	64	8.0	16.8
Black goby	4	11.7	12.8
Scorpionfish	1	12.1	
Picarel	13	11.5	17.94
Stargazer	5	10.6	15.8
Twaite shad	31	12.8	23.9
Bluefish	17	12.5	14.8
Surmullet	38	10.6	14.0
Wrasse	1	10.4	
Shore rockling	4	17.2	18.5
Piper gurnard	1	13.4	
Sand smelt	1	9.1	
Snake blenny	2	19.5	19.6
Greater weever	1	16.4	
Total	1102		



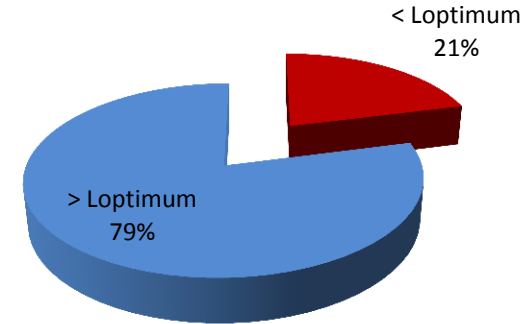
Bottom Trammel Nets

Species	N	Length (cm)	
		Min.	Max.
Traget Catch			
Red mullet	82	12.0	19.0
Whiting	44	9.3	16.3
Hedef Dışı Av			
Anchovy	2	11.5	15.0
Horse mackerel	6	15.5	19.5
Scorpionfish	11	12.1	26.0
Round goby	14	11.1	24.5
Black goby	16	10.5	15.8
Knout goby	1	32.0	
Picarel	23	10.0	20.4
Stargazer	7	11.6	21.9
Twaite shad	4	13.5	17.6
Bluefish	1	14.5	
Sand sole	5	12.8	15.7
Sturgeon	3	27.0	29.8
Shore rockling	9	11	27.1
Rapa welk	12	3.1	5.0
Oyster	1	1.5	
Thornback ray	2	58.0	61.5
Snake blenny	2	18.7	20.6
Crab	4	4.2	12.9
Seahorse	1	8.5	
Flounder	1	16.5	
Tentacled blenny	1	14.5	
Total	252		

Red mullet



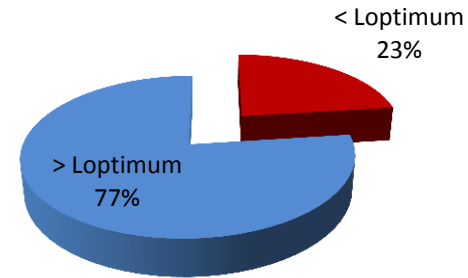
Whiting



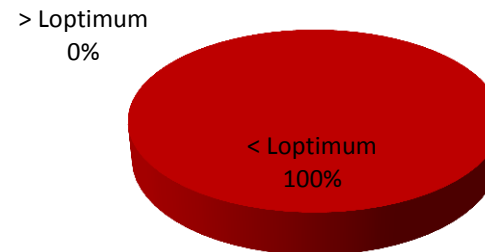
Purse Seine (Anchovy)

Species	N	Length (cm)	
		Min.	Max
Target Catch			
Anchovy	1493	5.9	14.6
Bycatch			
Red mullet	152	5.3	12.6
Sprat	138	6.4	10.7
Piperish	1	26.7	
Sole	45	3.4	6.8
Horse mackerel	164	6.2	15.2
Picarel	2	11.2	11.4
Round goby	1	6.2	
Whiting	14	7.2	14.3
Surmullet	1	10.3	
Tentacled blenny	1	20.1	
Thornback ray	4	70.0	90.0
Total	2016		

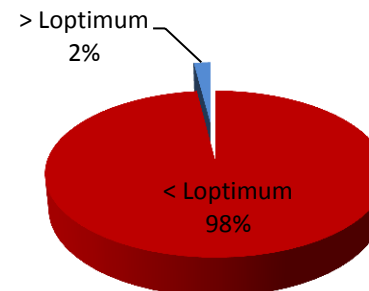
Anchovy



Red mullet



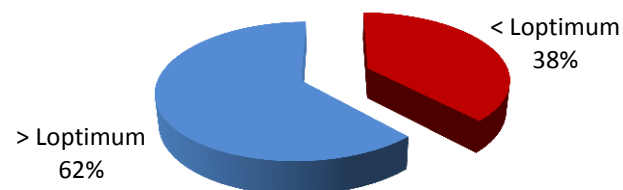
Horse mackerel



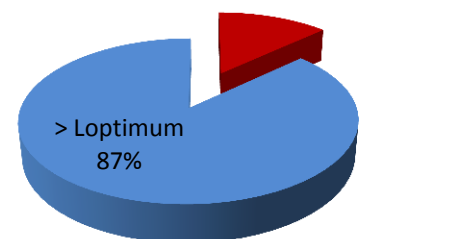
Purse Seine (Horse mackerel)

Species	Length (cm)		
	N	Min.	Max.
Target catch			
Horse mackerel	312	8.8	19
Bycatch			
Red mullet	58	8	16.7
→ Seahorse	3	8.7	9.2
Sole	4	14.4	18.2
Snake blenny	4	10.8	17.8
Anchovy	1	13	
Scorpionfish	10	5.4	15.3
Picarel	24	9	15.4
Shrimp	1	7.5	
Round goby	7	6.5	21.4
Bluefish	4	13.3	20.2
Whiting	14	8.8	21.1
Shad	11	12.4	28.3
Stargazer	28	9.4	23.4
Thornback ray	8	12.6	18.6
Garfish	4	15.5	28.8
Total	493		

Horse mackerel



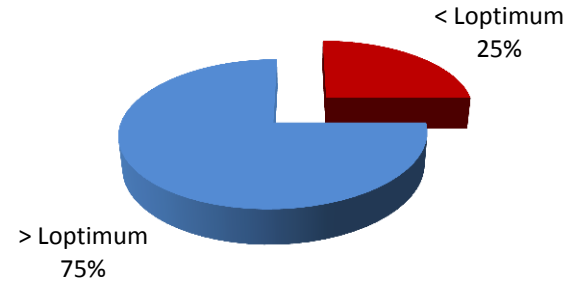
Red mullet



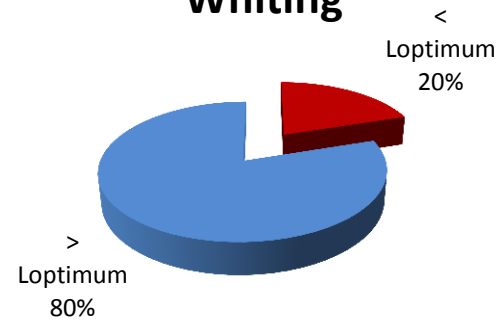
Bottom Trawl

Species	Length (cm)		
	N	Min.	Max.
Target catch			
Red mullet	133	10.1	13.2
Whiting	220	9.4	18.5
Bycatch			
Seahorse	14	7.3	9.8
Sole	12	13.5	16.1
Sprat	18	8.1	10.5
Snake blenny	2	19.5	20
Anchovy	2	12	12.3
Scorpionfish	11	10.7	19.2
Horse mackerel	8	13.2	17
Picarel	15	13.3	20.4
Shrimp	12	6	7.7
Shore rockling	1	17.3	
Black goby	10	8	10.1
Round goby	40	8	25.3
Bluefish	3	14.5	19.9
Flounder	11	15.7	27
Shad	19	15.7	29.5
Stargazer	4	10	21.9
Tentacled blenny	4	16	23.5
Thornback ray	3	38.3	61.5
Toplam	542		

Red mullet

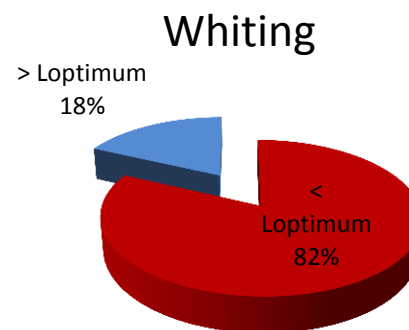
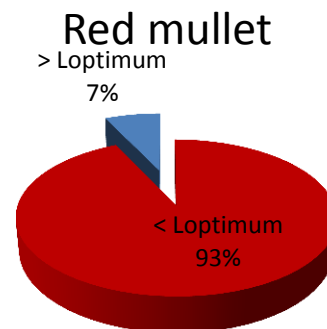


Whiting



Experimental Bottom Trawl

Species	N	Length (cm)	
		Min.	Max.
Target Catch			
Red mullet	2059	5.7	19
Whiting	1105	5.9	22.2
Bycatch			
Anadara inaequivalvis	263	1.1	5.4
Sprat	267	5.6	10.2
Seahorse	256	6.5	10.3
Pipefish	3	25.7	4.14
Gourmya vulgata	11	1.8	2.8
Sea snail	485	2	9.8
Sole	9	10.3	17.5
Shore rockling	2	21	21.1
Tentacled blenny	1	11.4	
Scorpionfish	6	10.1	16.5
Horse mackerel	1	14.9	
Shad	26	8	14.6
Turbot	3	8.9	26.6
Shrimp	8	5.4	8.3
Round goby	46	7.1	11.4
Black goby	76	6.8	19.3
Baby clam	11	1.3	0.88
Flounder	4	19	32.7
Sardine	1	16.2	
Surmullet	41	7.1	11.7
Picarel	1	24.3	
Stargazer	109	5.2	3.19
Blenny	1	12.3	
Goby	1	18.8	
Crab	23	1.4	5.7
Thornback ray	46	12.4	77.5
Total	4866		



Bycatch Rates

Fishing Gears	Weight Bases	Number Bases
Bottom Gillnets	30	34
Trammel Nets	58	43
Anchovy Purse seine	37	13
Horse mackerel Purse seine	46	52
Bonito Purse seine	11	63
Bottom Trawl	62	50
Hydraulic Dredge	19	23
Experimental Bottom gillnets	12	10
Experimental Bottom Trawl	62	80

Undersized catch



Local fish salers



Fish restaurants



Fish Market



Sport Fishing



What is needed?

- Use of selective fishing gears should be provided,
- Selectivity studies should be promoted,
- MSC is needed from sea to dish with variety of factors as well as inline with tracability,
- Port offices and manning should be active for better data collection,
- Necessary measures should be provided for unregulated fisheries for such species given here
- MCS training is essential,
- Fishery observer program can be applied where/when necessary,
- Stakeholder participation and raising public awareness programs are necessary to fight with IUU fisheries

Illegal fishermen reasoning

Their parents
have
abandoned
them, that is
why we are
keeping
them for
nursing...

