THE MINISTRY OF ENVIRONMENT AND FORESTS

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OVERVIEW ON ILLEGAL, UNREPORTED AND UNREGULATED (IUU) FISHING IN THE ROMANIAN BLACK SEA AREA

Impacts of IUU fishing on Black Sea marine ecosystems

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This Report is based on data obtained from:

- National Institute for Marine Research and Development “Grigore Antipa” Constanta

-National Agency for Fishery and Aquaculture Bucuresti, Constanta branch.

-Border Police

- Environmental Protection Inspectorate Constanta

Take into account that the object of IUU are the main value commercial species like turbot and dog fish, our data are focused in this field.

Illegal fishing is one of the major social, economic and environmental issues. Currently, poachers are usually better equipped than the representatives of the law, being fitted with satellite navigation, radio-locators, high technology sounds, monofilament nets, powerful motor boats, being capable to fish at any time in any place.

Considering the disturbances inside the population interrelationships systems, the man can play a higher role comparatively with the predators and parasites, through the unregulated exploitation, in pursuing to obtain maximum yields from ecosystems through fishing

Data or record for IUU fishing in territorial waters or Exclusive Economic Zone (EEZ)

Data on illegal fisheries have been recorded official in the Romanian marine area since 2006, whenNAFA with its regionally operational structures was established. But, take ino account ***the dolphin incidental catches in the fishing gears,*** the regular registration of the incidental catches started at the whole Pontic basin ever since 1968, after the moratorium for banning the commercial catching of the three dolphin species. At the Romanian littoral this activity begun much later, the published data being very scarce.

Up to 2001, no project aimed to the monitoring of incidental catch and stranding of dolphins did developed, although research on the fish catch, number of fishing gears, number of boats, fishing effort, seasons and fishing locations, fishing yield, complementary and incidental catch have been developed.

A research team from NIMRD, pertaining to the Department "Living marine resources" who develop research on the status of fishery resources at the Romanian littoral, performed observations also on the incidental catch.

In 2001, NIMRD launched and gained financial support from the EU Life-Nature Programmes for the Project ***"Conservation of the dolphins from the Black Sea Romanian waters".*** Two of the actions were focused on the monitoring incidental catch in fishing gears and collecting the data about the stranding.

In 2006 NIMRD "Grigore Antipa" prepared the second Project and received the financial support for the Project "*Assessment of the extent of current cetacean by-catch and strandings in the Romanian Black Sea area*".

The third Project with support from ACCOBAMS was in 2010 "Development of national network for monitoring the Black Sea cetaceans (stranded and by-caught) in Romania and identifying relevant measures for mitigation the adverse impact of fisheries"

In order to collect the necessary information, NIMRD had an adjusted network; it was completed with new collaborators through some Partnership Agreements concluded with Border Police, Environmental Protection Inspectorate Constanta, Department for Fishing and Aquaculture from Ministry of Agriculture, private fishing enterprises, etc.

Main target species

The target species of IUU fisheries have been (and are) turbot (90%) and dogfish 5-10%), high economically valuable species in fish markets.

Season/months

Take into account that the two main species object of illegal fishing, the season of fishing is in the period of migration for spawning, feeding and wintering:

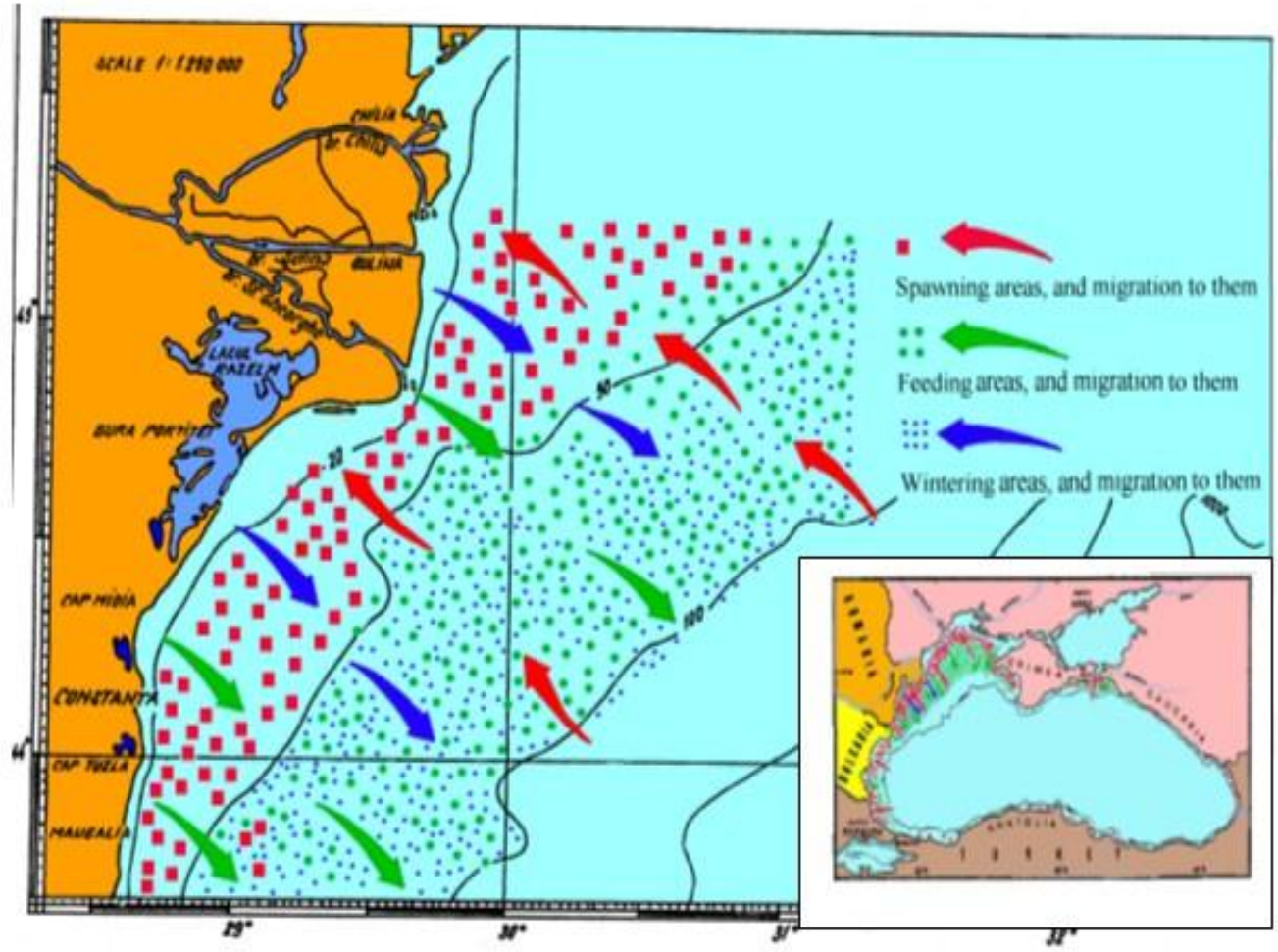
Spring [March-April]

Autumn [September-November

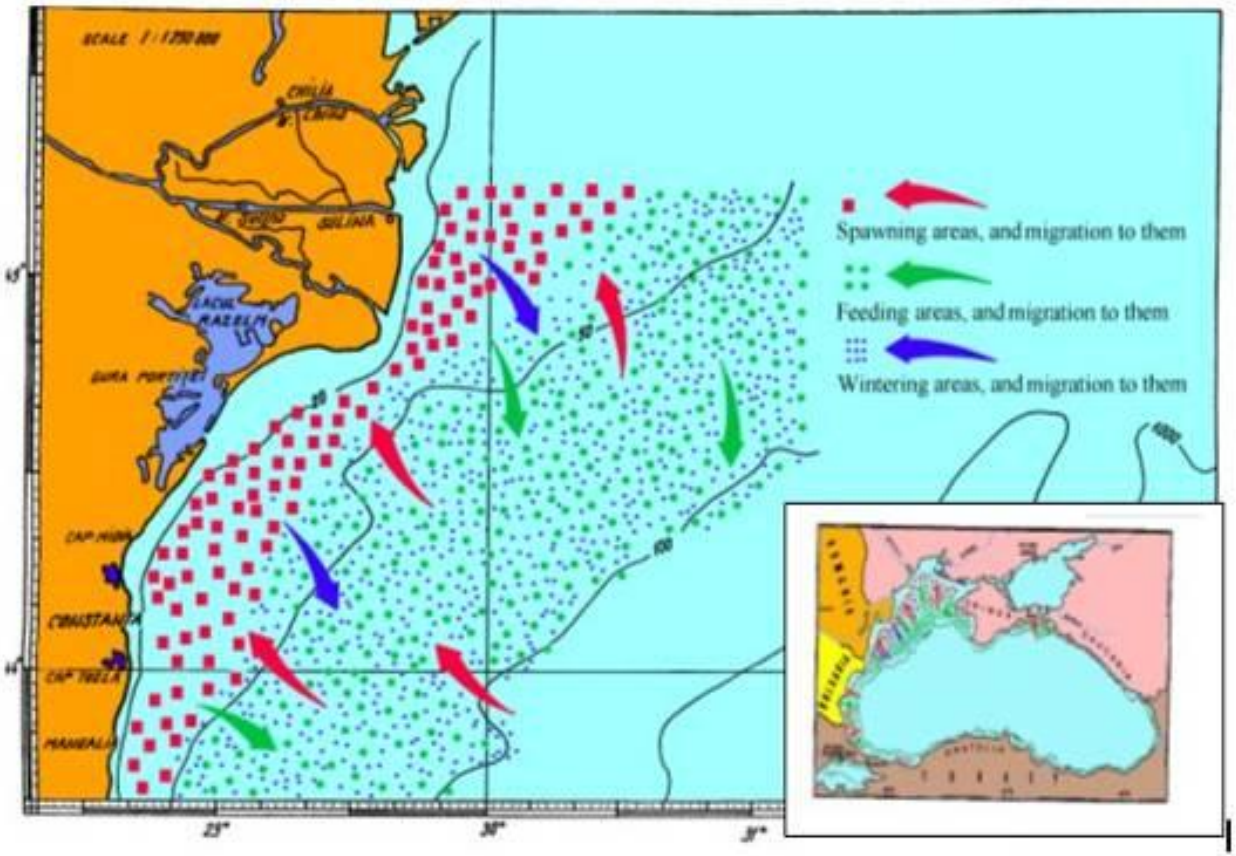
Areas

EEZ, at 45-80 m depths, close to the border lines between the Ukrainian EEZ and the Turkish EEZ

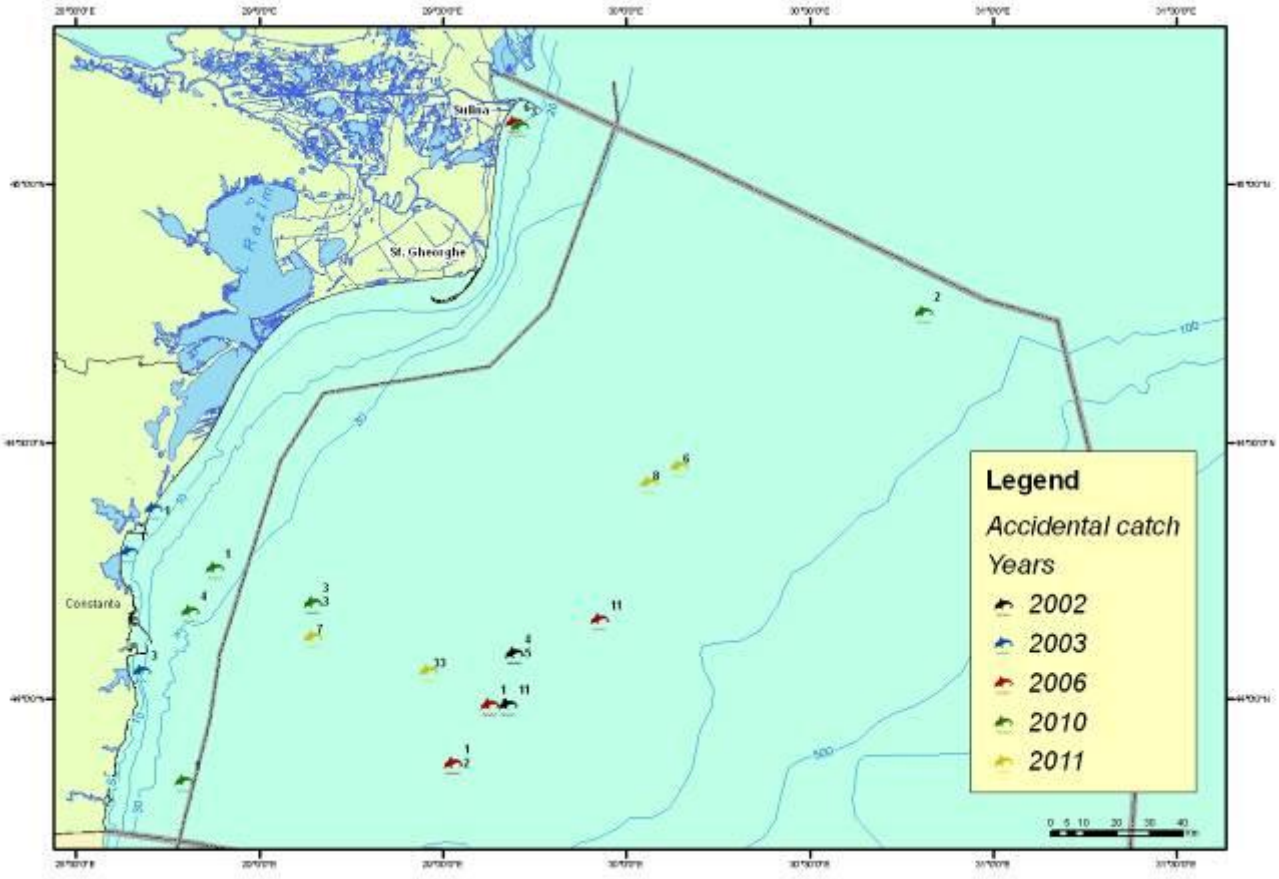
Distribution and migration routes of the turbot at Romanian littoral



Distribution and migration routes of the dogfish at Romanian littoral



Distribution of the cetacean accidental catches in the period 2002-2011, illegal fishing



Main fishing gear

The greatest hazard for Black Sea dolphins is represented by turbot gillnets, taking into account their number, distribution area etc.

The main gear type used in illegal fishing are gillnets made of polyamide, especially armed for bottom fishing, mesh size [2a] smaller than 280-360 mm; their launching is made manually from the starboard stern side, in three or four 3-5 km hauls and subsequently lifted on board by custom made hydraulic winches, some of them handcrafted.

Also, illegal vessels had on board and used trawls with boards and arming appropriate for bottom fisheries. The percentages of gear types used for illegal fisheries is 95% gillnets and 5% trawls.

Gillnet winch

Gill nets winch located at starboard

Gill nets winch located at starboard

Each year, tens of dolphins can tragically die being incidentally caught in the commercial fishing gears, mainly . The dolphins did not represent the target of fishing with these gears, but found in searching food they could meet the fishing nets, where they are able to be entangled or hung up, so they die drowning. This problem became a global one, from the Black Sea.

In Romanian area the incidental catches of dolphins were produced mainly (but non only) through the fraudulent fishing practiced by foreign vessels (mainly Turkish boats)) in the Romanian ZEE, and through the intensification of the fishing effort carried out with the gill nets and trammel nets by local fishermen.

In order to acknowledge the extent of the phenomenon, an example from references can be given from 1991, when Turkish poachers were caught in Russian waters with nets summing-up more than 640 km (6,416 gillnets), which had caught 18,424 turbots, 194 cetaceans, 143 sturgeons, 401 dogfish individuals and 1,359 rajidae (Pasyakin 1991).

According to the information from economic agents practicing specialized turbot fishing, it resulted that, at the Romanian coast, the average number of dolphins accidentally caught by turbot gillnets with mesh size = 200 mm, for a regular check (4-5 days, yet conditional upon the weather), is 1-2 dolphins at 30-40 gillnets.

The following tables comprise in chronological order the illegal vessels arrested in the act (effectively fishing) in the EEZ. During certain actions, it was necessary to make use of the weaponry and technical equipment outfitting of the Border Police vedettes, in order to seize and escort to port the vessels failing to comply with the control.

In April 2002, 7 Turkish vessels were apprehended poaching turbot and in the nets that were recovered (approx. 40 km) approx. 100 dolphin individuals were found. On 18 April 2002, the navy boats of the Romanian Coastguard caught eight Turkish trawlers fraudulently fishing in Romanian EEZ, in a sector situated eastern of Tuzla 40 Nm offshore. Seven of them have brought in Constanta harbor; the eighth one managed to escape, leaving the zone. Caught in flagrant, the Turkish vessels abandoned in the sea the rows of gill nets for turbot (installed before the moment of arrest operations), and thrown overboard the capture. None of the vessels had authorization for fishing in the Romanian EEZ; moreover, the turbot and shark specialized fishing was prohibited between 15 April and 14 June.

Status of accidental dolphin catches, recorded in 2002, recovering the nets left in the sea

Name of navy boat involved in control	Date	Record location	No. individuals	Species	Remarks
VM 28	25.04.2002	Abreast of Tuzla East, 46-48 Mm 43° 59´N / 29° 41´E	20 ind. of which 11 ind. measured	*Phocoena phocoena*	2 rows of gill nets for turbot, about 25 km gill nets were retrieved
VM-33	27.04.2002	Abreast of Eforie North, 46 Mm 44° 05´N / 29° 42´E	5 ind.	*Phocoena phocoena*	- 20 gill nets for turbot with one wall, each of them of 80 m length, a=140 mm, Ø0.65; - 6 gill nets with 3 walls (trammel net), 80 m length, a=150 mm, Ø0.65 internal wall, a=500 mm, Ø0.85 external wall.
VM-33 and VT-238 NIMRD's research vessel "Steaua de Mare 1".	30.04.2002	Between 44° 05´N / 29° 42´E and 44° 05´N / 29° 42´E	4 ind.	*Phocoena phocoena*	39 gill nets for turbot were recovered, with a=180 mm and Ø0.85-1.05.

In 2003, the data obtained within the chapter "**Survey incidental dolphin catches**" resulted that 9 animals were accidental caught in the fishing gears (gill nets, pound nets, pelagic trawl) used in the Romanian industrial fishery

In 2004, any incidental catch did not formally registered, and the strandings were lower comparatively with the previous years

Following the investigations and observations in the field carried out in **2006**, there were registered four situations when dolphins incidental catches were identified in the industrial fishing with gill nets

Status of accidental dolphin catches, recorded in 2006, recovering the nets left in the sea

Name of navy boat involved in control	Date	Record location	No. individuals	Species	Remarks
VM35	11/04	φ = 44^{0}09'N λ = 29^{0}56'E	11	*Phocoena phocoena*	Turkish turbot gill nets, 7 Km total length
MAI-1104	08/07	φ = 43^{0}52'N λ = 29^{0}32'E	2 1	*Phocoena phocoena* *Tursipos truncatus*	about 7 Km turbot gill nets, settled by the Turkish fishermen
Border Police	10/07	φ = 45^{0}07'N λ = 29^{0}42'E	6	*Phocoena phocoena*	All the animals were hold up in sturgeon gill nets, settled by the poachers from Sulina town.
Border Police	27-28/07	φ = 43^{0}59'N λ = 29^{0}38'E	1 1	*Phocoena phocoena* *Tursiops truncatus*	The dolphins were entangled in Turkish turbot gill nets. Recovering were carried out with the NIMRD's research vessel "Steaua de Mare 1". Both carcasses were very depreciated, not being possible to be lifted on board. 82 turbot gill nets (90 m/gill net, total about 7.4 Km length)

In 2007 was registered the illegal fishing

Name of navy boat	Date	Record location	No. individuals	Species	Remarks
Border Police	10.04.2007	51.5 Nm Est of Sf. Gheorghe locality	-	-	about 700 m turbot gillnet released, probably, by one of the three Turkish ships at 51.5 Nm Est of Sf. Gheorghe locality (these vessel were caught into a poaching fish between 03. – 04. o4. 2010 period)

In 2009 was registered two Turkish vessels fishing illegal:

NAME OF VESSEL	**FLAG**	**Date**
Uygunghior	Turkish	10.01.2009
Ames Sakir Reis	Turkish	12.03.2009

In 2010 the number of the Turkish vessels illegal fishing increased:

NAME OF VESSEL		**FLAG**	**Date**
	Karaca 2	Turkish	3-4.04.2010
	Kaptan Seyfullah Ogullary	Turkish	3 - 4.04.2010
	Canakcilar	Turkish	3 - 4.04.2010
	Efeler 1	Turkish	04.11.2010

Name of navy boat	Date	Record location	No. individuals	Species	Remarks
Border Police	10.04. 2010	φ = 44⁰45'N λ = 30⁰49'E H = 70 m	2	*Phocoena phocoena*	The dolphins were entangled in turbot gillnets, Turkish origin, recovered by a vessel of Border Police Constanta into an action against poaching fish. It was recovered about 700 m turbot gillnet, made of cords of 0.8 Ø relon In 2007 was registered the illegal fishing with a mesh side of 160 mm.

In 2011 the situation was the following:

NAME OF VESSEL	FLAG	Date
BCi - 5159	Bulgarian	13.04.2011
Ahmet Ckomoglu	Turkish	28.05.2011

Name of navy boat	Date	Record location	No. individuals	Species	Remarks
Border Police	28.05. 2011	φ = 44^{0}27'N λ = 30^{0}09'E Distance from shore = 56 Mm Abreast Chituc	6	*Phocoena phocoena*	The recovery of the gillnets was made by the patrol ships of the Constanta County Border Police Inspectorate. All dolphins located in the nets were dead, they were realeased and discarded into the sea. 232 turbot gillnets and 3 nylon gillnets Belonging to Turkish vessel Ahmet Comogklu
Border Police	01.06. 2011	φ = 44^{0}25'N λ = 30^{0}04'E Distance from shore = 56 Mm Abreast Chituc	8	*Phocoena phocoena*	Search and recovery of nets originating from the Turkish fishing vessel "Ahmed Comoglu", intercepted during illegal fishing activities in Romanian waters. 50 monofilament gears abandoned in sea
Border Police	27.06. 2011	Distance from shore = 71 Mm East Cape Tuzla	33	*Phocoena phocoena*	Search and recovery of nets originating from the Turkish fishing vessel "Ahmed Comoglu", intercepted during illegal fishing activities in Romanian waters.
Border Police	08.07. 2011	Distance from shore = 14 Mm South-East Constanţa	7	*Phocoena phocoena*	During a check made by NIMRD 23 days after having set 21 turbot gillnets, 100 m long and 200 mm mesh size, a single turbot catch and 7 by-caught dolphin individuals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Rate of by-catch

In 2010 were registered 17 specimens caught accidentally and in 2011 have been registered 54 specimens of *Phocoena phocoena*

The cetacean accidental catches registered at the Romanian littoral, in the last 11 years

Year	SPECIES			TOTAL
	Phocoena phocoena	*Delphinus delphis*	*Tursiops truncatus*	
2001	40	2	1	43
2002	20			20
2003	7			7
2004				-
2005				-
2006	20	2		22
2007	70	1		71
2008				-
2009				-
2010	15		2	17
2011	54	-	-	54

Rate of registered stranding dolphins

Number of stranded dolphins varied among 10 (2007) and 119 (2003). In 2011 the number was of 52 specimens.

The situation of stranding cetacean recorded at the Romanian littoral, in the last 11 years

Years	Species				Total
	Phocoena phocoena	*Delphinus delphis*	*Tursiops truncatus*	Unidentified	
2001	5	2	3	1	11
2002	20	2	13	21	56
2003	78	2	2	37	119
2004	7	2	4	5	18
2005	7	4	4	26	41
2006	33	2	2	67	104
2007	5	3	2	-	10
2008	16	1	2	4	23
2009	13	-	5	-	18
2010	35	1	6		42
2011	45	3	4		52

The monthly situation of cetacean stranding recorded at the Romanian littoral in the last 11 years

Year	February	March	April	May	June	July	August	September	**TOTAL**
2001	-	-	1	2	5	2	1	-	11
2002	-	1	7	39	4	1	2	2	56
2003	-	-	5	18	3	83	10	-	119
2004	-		5	4	7	-	1	1	18
2005	-	-	3	13	2	18	3	2	41
2006	-	6	9	30	20	35	1	3	104
2007	1	-	1	1	2	2	3	-	10
2008	1	-	4	5	9	2	2	-	23
2009	-	-	7	3	5	1	2	-	18
2010			6	4	7	20	2	3	42
2011			3	34	5	7	3		52

Ghost fishing (abandoned nets)

Due to abandoned gillnets, many times in great numbers, when lifted on board of the control vessels, by-caught dolphin individuals are often found, usually decayed. These "ghost" tools are gillnets, built in series, with no markings, mechanically armed, especially designed for bottom stationary fishing. According to existing data, the total length of the "ghost" nets found from 2006 to date is approx. 90 km.

In 2011, the situation of abandoned gears is the following:

Period	Number of fishing gears
January	14 monofilament gears abandoned in sea
February	25 monofilament gears abandoned in sea
March	5 monofilament gears abandoned in sea
April	106 monofilament gears abandoned in sea
May	39 monofilament gears and gillnets abandoned in sea
June	129 monofilament gears and gillnets abandoned in sea
July	24 monofilament gears abandoned in sea
August	10 monofilament gears abandoned in sea
September	6 monofilament gears abandoned in sea
October	8 monofilament gears abandoned in sea

Estimated revenues of the IUU products

The estimated income of products resulting from IUU fisheries amounts to approx. 250-300 thousand RON in the internal market and 3-5 times higher in the extracommunity market (Turkish), for the year 2012, for approximately 4.5 tones of turbot.

How can be solved this problem

- Increasing the awareness degree on sustainable exploitation by issuing regulatory acts/laws applicable immediately.
- Elaborating protection programs on areas and periods, based on the behavior of certain economically valuable species, mainly strongly correlated to stock evolution, along with increasing the selectivity of fishing gear.
- Enhancing controls in areas prone to poaching and discouraging access to those perimeters, as well as extending operations by creating joint inspector teams from the riparian countries.
- Improving communication means in case of spotting IUU activities, followed-up by applying immediate penalties.
- Registering vessels/boats on IUU "black lists" and forbidding the right to operate for 3-5 years and, in case of relapse, permanently

Legal measures to reduce IUU fishing

There is a well-structured legal framework, based on primary and secondary national legislation, as well as on Community legislation:

- Law no. 17/1990, ***, republished, on the legal status of internal maritime waters, the territorial sea, the contiguous zone and the Exclusive Economic Zone of Romania, as subsequently amended and supplemented;

- O.M.A.D.R./O.M.P. on fishing prohibition for 2013;

- O.M.A.D.R. no. 449/2008 on the technical specifications, use conditions of gear allowed for commercial fisheries and commercial fishing methods allowed in maritime and inland waters;

- O.M.A.D.R. no. 553/2003 on the compulsory character of elaborating sale orders of fish and other aquatic animals in sale centers;

- O.M.A.A.P. no. 179/2001 on recording and transmitting the data of marine fishing activity;

- O.M.A.A.P. no. 222/2012 on identifying fish landing sites;

- Council Regulation (EC) No. 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy;

- Council Regulation (EC) No. 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No. 2847/93, (EC) No. 1936/2001 and (EC) No. 601/2004 and repealing Regulations (EC) No. 1093/94 and (EC) No. 1447/1999. This Regulation is in force starting with 1 January 2010;

- Commission Regulation (EC) No. 1010/2009 of 22 October 2009 laying down detailed rules for the implementation of Council Regulation (EC) No. 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing;

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