Turbot Survivability, Catches and Gillnet-Caused Injuries. Scientific Support for the Exemption from the Landing Obligation in EU Black Sea Countries *(Victor Niță, Magda Nenciu, Cristian Danilov, George Țiganov, Mădălina Galațchi, Cătălin Păun, Dragoș Diaconu, Daniel Grigoraș)*	**"Cercetări Marine" Issue no. 52** **Pages 106-122**	**2022**
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TURBOT SURVIVABILITY, CATCHES AND GILLNET-CAUSED INJURIES. SCIENTIFIC SUPPORT FOR THE EXEMPTION FROM THE LANDING OBLIGATION IN EU BLACK SEA COUNTRIES

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ABSTRACT

The European Common Fisheries Policy aims to gradually eliminate discards in all European Union fisheries through the introduction of a landing obligation for all catches of species subject to catch limits (turbot and sprat for the Black Sea). In 2016, the Commission established a discard plan for turbot fisheries in the Black Sea, that provided for a survivability exemption of turbot caught with bottom-set gillnets, applied from 1 January 2017 until 31 December 2019. Subsequently, Romania and Bulgaria submitted an updated Joint Recommendation to the Commission, requesting the renewal of the discard plan and the survivability exemption based on the high survival rates of this species. The Scientific, Technical and Economic Committee for Fisheries (STECF) acknowledged the existence of data demonstrating the high survivability of turbot caught by vessels from non-EU countries using the same gears, however they requested that Member States concerned should submit additional data on survival estimates relating to the gillnet fishery for turbot. In this context, NIMRD "Grigore Antipa" was commissioned by the Romanian National Agency for Fisheries and Aquaculture (NAFA) to perform a pilot study aiming at obtaining scientific evidence for the exemption of turbot from the landing obligation, carried-out during January-April 2022. Scientific fishing was performed in the Romanian marine area with specialized gears - turbot gillnets on board of NIMRD's boat. The methodology consisted of launching the gillnets in established locations and recovering them after a soaking time depending on weather conditions. After each operation to recover the nets from the water, all turbot specimens caught were retained on board, parked in a fiber-reinforced polymer (FRP) container filled with seawater and equipped with an aeration system. The specimens were kept in the tank for 1 hour, during which time they were monitored from the point of view of their condition (dead, alive, injuries, other negative effects produced by the fishing gear). Subsequently, all turbot specimens declared viable were released back into the sea. The results indicate high survivability rates of turbot caught in gillnets (81.67%). Some injuries were reported in the dead specimens, probably caused by the mechanical action of the gear.

Keywords: turbot, gillnets, landing obligation, exemption, survivability, selectivity

AIMS AND BACKGROUND

Turbot (*Scophthalmus maeoticus* Pallas, 1814) is a benthic marine fish, which is particularly characteristic of soft bottoms. Juveniles aggregate in the vicinity of the shore on sandy slopes, and as they grow, they withdraw at greater depths. Adults aggregate in winter at depths of 60-70 m in the area of the faseolinoid facies (Niță *et al.,* 2011). In spring, between March and April, sexually mature specimens leave the deep-sea wintering grounds and undertake short trips close to the coast, where they spawn at 20-30 m depth (Radu & Radu, 2008). After spawning, turbots withdraw again in deep waters. The growth rate is rather slow: at 3 years old the average length (without the caudal fin) of 17 cm and a biomass of 170 g is reached and, only after 20 years, approximately 70 cm and 6 kg. As a predatory fish, its feed consists mostly of mollusks, crustacea, shads, horse mackerel and gobies (Radu *et al.*, 2008).

S. maeoticus represents an important segment of the fishing potential in terms of commercial interest and demand in the internal and international markets. Of all demersal species, turbot is of particular interest, as it can be expected to engage in specialized, industrial-type fisheries and, through an adequate management of exploitation and proper capitalization of catches, it can ensure the economic recovery of national marine fisheries, driven by the supply of valuable fishery products on the market, whose demand is currently poorly satisfied (Maximov, 2012).

Following the scientific fishing surveys carried out by NIMRD experts under the National Fisheries Data Collection Programme, the biomass of *S. maeoticus* from the Romanian coast is calculated annually. According to the latest available information (NIMRD, 2022), in 2021 the biomass of the turbot population was estimated around 3,441 tonnes, the maximum stock size recorded in the past 6 years, with an increase of 56% compared to the minimum stock size of 1,523 tonnes (2017). At the same time, the recorded catches of turbot increased after 2016 (from 29 tonnes) to a maximum catch of 75 tonnes in 2021 (increase by 61%), reaching the Total Allowable Catch (TAC) value (NIMRD, 2022).

In a wider European context, along with the recent reform of the Common Fisheries Policy (CFP), measures have been taken to reduce discards through the introduction of a landing obligation. This change to the regime aims to stimulate greater selectivity and provide more reliable catch data. In order to allow fishermen to adapt to this amendment, in line with Article 15.d of Regulation (EU) No. 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, the landing obligation for Black Sea Member States was gradually introduced between 2015 and 2019. According to the basic rules for the application of the landing obligation, all catches must be retained on board, landed and counted against

quotas. Undersized fish cannot be sold for consumption. The landing obligation applies to all commercial fisheries in the EU in accordance with the TAC (Total Allowable Catch) and the quota regime or minimum conservation reference size (MCRS) (EC, 2013).

Member States may cooperate in accordance with Article 18 in the development of Joint Recommendations (JR) for discard plans. They shall contain details of the implementation of the landing obligation and may be adopted temporarily for a maximum period of three years if no multiannual plan has been adopted for the fishery concerned. After approval of a Joint Recommendation, Member States may propose it to the Commission for adoption as a delegated act. If Member States cannot agree on a Joint Recommendation that is in line with the objectives of the CFP, then the Commission is empowered to adopt delegated acts for discard plans which only contain provisions for *de minimis* exemptions (EC, 2013).

In 2016, the Romanian National Agency for Fisheries and Aquaculture (NAFA) and the Bulgarian Executive Agency for Fisheries and Aquaculture (EAFA) discussed the implementation of a discard regulatory plan for turbot fisheries. The two Member States submitted to the Commission a Joint Recommendation on the discard elimination plan for turbot fisheries in the Black Sea, taking into account the opinion of the sector. The recommendation was based on a study carried out by the Institute of Fisheries Resources (IFR) Varna, Bulgaria, according to which turbot caught with gillnets has a survivability of 90% after being released back to water (NAFA RO-EAFA BG, 2016).

As a result, in 2017, the European Commission adopted Commission Delegated Regulation (EU) 2017/87 establishing a discard plan for turbot in the Black Sea (EC, 2017). The plan lasted for 3 years, providing for a 1-year survivability exemption for turbot fishing with gillnets. Due to the lack of information on discards, Romania and Bulgaria did not send additional discard data as required by Article 3, paragraph (3) of the same Regulation, so as to make the implementation of the landing obligation mandatory for Romania and Bulgaria as of 1 January 2019.

A bilateral meeting took place in February 2020 between the National Agency for Fisheries and Aquaculture - Romania and the Executive Agency for Fisheries and Aquaculture - Bulgaria, where possibilities for developing a new Joint Recommendation and a discard reduction plan for turbot were discussed.

Taking into account the recovery trend of the turbot stock observed in recent years and the high survival rates of turbot, both authorities agreed that it is appropriate to assess the possibility of obtaining a new exemption from the landing obligation in the turbot fishery in the Black Sea. This recommendation was developed through the collaboration of both fisheries

agencies in Romania and Bulgaria and submitted to the Commission for approval.

In early 2020, the Institute of Fisheries Resources (IFR) Varna issued a new scientific opinion on the survival rate of turbot. Thus, given that the minimum mesh size allowed to be used in turbot fishery is 400 mm, no catches of undersized juvenile individuals have been recorded. In addition, in the scientific trawl fishery carried out in the Bulgarian fishery data collection programme, the same high survival rate of turbot was found (90%).

At that time, NIMRD experts also confirmed, following demersal trawl survey fishing carried out under the National Fisheries Data Collection Programme between 2015 and 2019, that the survival rate of turbot caught was more than 95%.

As a follow-up, the Scientific, Technical and Economic Committee for Fisheries (STECF) assessed the updated Joint Recommendation presented and noted that improvements to the information provided were needed. The Commission has recognised the existence of scientific studies demonstrating the high survivability of turbot caught by vessels from non-EU countries fishing with gillnets in the Black Sea (Başaran & Samsun, 2004; Samsun & Kalayci, 2005; Giragosov & Khanaychenko, 2012). Having regard to the fact that the studies cited relate to the same maritime basin, the same species and gears as included in the exemption requested by Romania and Bulgaria, the Commission considered that this Joint Recommendation should be taken into account for the purposes of granting the exemption.

Based on scientific evidence and the STECF evaluation, the exemption substantiated by the high survivability permitted under Article 15, paragraph (4), letter (b) of Regulation (EU) No. 1380/2013 was granted for the year 2022 by Commission Delegated Regulation C(2021) 2065/25.08.2021 (EC, 2021), with the following mentions: the allowed exemption for species for which scientific evidence demonstrates high survival rates shall apply in 2022 to turbot caught with gillnets (GNS) in the Black Sea; turbot caught in those circumstances shall be released immediately in the area where it was fished.

Accordingly, by 1 May 2022, Member States having a direct management interest in the turbot fishery in the Black Sea, namely Romania and Bulgaria, were bound to submit to the Commission additional data on survival estimates for turbot fisheries with gillnets and any other relevant scientific information supporting the exemption.

In this context, the general objective of our study was to carry-out and implement a pilot-research aiming to assess the survival rate of turbot in gillnet fisheries (GNS), by developing an adapted working methodology, implementing field activities (scientific fishing), recording and centralizing field data, in order to scientifically support the exemption from the landing obligation.

EXPERIMENTAL

Study area and gear type selection

In order to obtain the information necessary to calculate the survival rate of turbot, scientific fishing was carried-out in the Romanian marine area with specialized gears - monofilament turbot gillnets (mesh size a/2a = 200/400 mm, thread diameter < 0.35 mm, net length 100 m, net height 6 m) - similar to the gears used by commercial Romanian fishermen. The map of the stations where the scientific fishing operations were carried out is shown in Fig. 1.

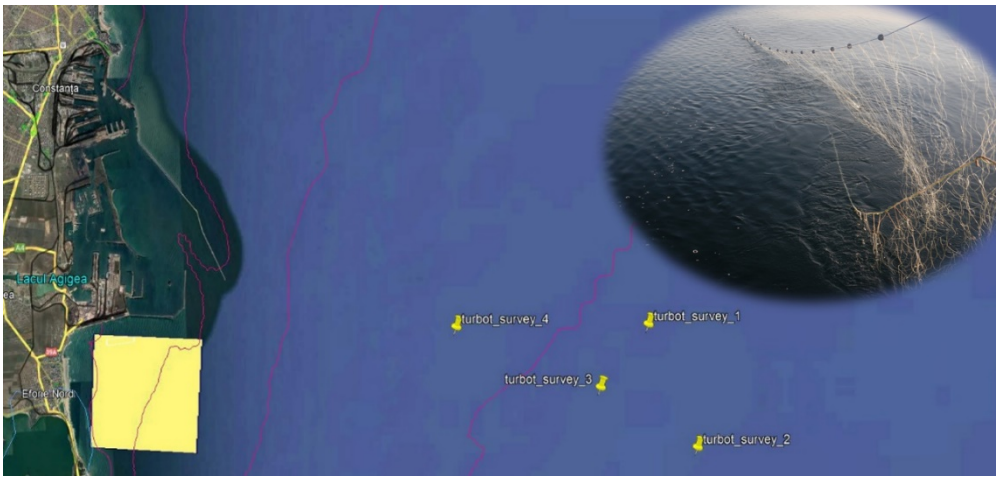

Fig. 1. Map of stations where scientific fishing operations with monofilament turbot gillnets (GNS) were performed

Fishing operations design

The scientific fishing was carried out using NIMRD's Fibramar Thetis motorboat (Fig. 2 left), equipped with 2 engines and similar to the type of boats used by authorized fishermen from the Romanian coast, and consisted of launching gillnet gear at established locations (Fig. 2 right) and recovering them after an ideal soak time of approximately 14 days (Fig. 3), depending on meteorological conditions. At each recovery, a new row of gillnets was launched and recovered after a similar soak time.

In order to obtain the necessary data, 4 gillnet launching and recovery surveys were carried out during January - April 2022.

The gillnet is a network fishing gear made of a single net wall with a vertical operating position, generated by the reinforcing elements provided at the top (floats) and bottom (weights), intended for catching by hooking and entanglement of fish species moving in the body of water or on the substrate. Depending on the fishing technique, gillnets can be fixed (fixed on piles or anchors) and drifting (free in the body of water) (Anton, 2016).

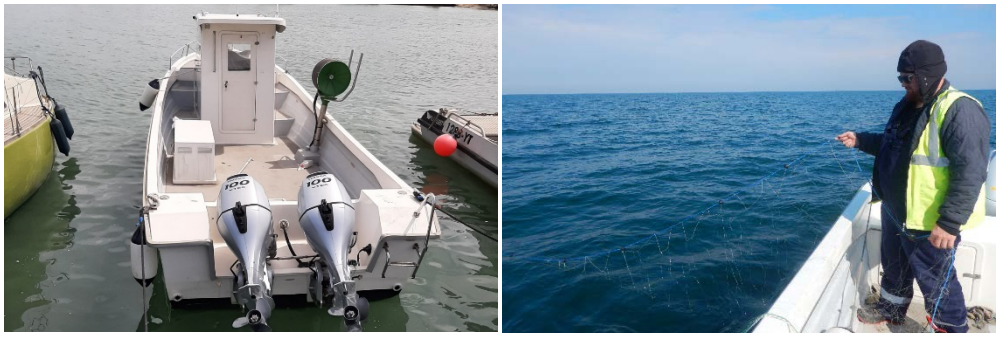

Fig. 2. NIMRD's Fibramar Thetis motorboat (left); Turbot gillnet launching operation (right) *(NIMRD original photos)*

Fig. 3. Turbot gillnet recovery operations *(NIMRD original photos)*

Gillnet fishing is a method of fishing by entangling and trapping the fish, which consists of blocking the direction of movement of fish with a vertical wall of netting, in which the fish remains entangled and retained when attempting to pass. Three types of retention of fish in gillnet gear are possible: entanglement by the opercula (the net stops at the edge of the opercula); attachment by the body (the net stops in front of the dorsal fin); entangling in the meshes (teeth, jaw, fins, without penetration of net meshes) (Anton, 2016).

Turbot gillnets are made of netting composed of synthetic polyamide (relon) or nylon (monofilament) materials (Table 1), of mesh size 2a = 400 mm, formed on polypropylene ropes of 3-5 mm diameter, equipped at the top with floats and weights at the bottom, respectively.

Only monofilament gillnets with the following characteristics were used in this study: mesh size a/2a = 200/400 mm, thread diameter d < 0.35 mm, net L = 100 m and net H = 6 m, in full compliance with the legislation in force (MARD, 2022) (Table 1). It must be pointed out that this type of gear is the one predominantly used by authorized fishermen fishing for turbot on the Romanian coast, so that the results obtained in terms of survival rates reflect the actual situation in commercial fisheries.

Table 1. Technical characteristics of turbot gillnets approved by Romanian legislation (MARD, 2022)*

Gear type	Mesh size a/2a (mm)	Thread diameter d (mm)	Thread fineness (tex) (m/kg)	L net (m)	H net (m)
Turbot gillnets	200/400	< 0.50	< 6.350	100	6
Monofilament gillnets for turbot	200/400	< 0.35	N/A	100	6

**Order No. 38 of 22 February 2022 supplementing the Annex to Order No. 1.369/2018 of the Minister for Agriculture and Rural Development on the technical characteristics, the conditions for the use of the gear permitted in commercial fishing and the methods of commercial fishing in marine and inland waters.*

Turbot condition monitoring

After each recovery of gillnets from the water, all turbots caught were lifted on board the boat. Turbot individuals caught were parked in a fiber-reinforced polymer (FRP) container, filled with seawater and equipped with an aeration system, on board the research boat (Fig. 4).

Fig. 4. Monitoring the condition of turbots caught with gillnets by placing them in a FRP container equipped with an aeration system *(NIMRD original photos)*

Based on expert judgement, the specimens were kept in the tank for 1 hour, during which time they were monitored for condition (dead, alive, injuries, other adverse effects caused by the gillnet fishing gear). Biometric and gravimetric measurements were also carried out (Fig. 5), for all specimens captured. After the 1-hour monitoring period passed, all turbot specimens declared viable (alive and in good condition) were released back into the sea. Only the dead turbot individuals were retained on board and preserved for future age readings and other ichthyologic analyses in NIMRD's laboratories.

Fig. 5. Onboard measuring and weighing the turbot caught during the surveys *(NIMRD original photos)*

Upon completion of the field operations, all data collected during surveys were centralised, statistically processed and the survival rate of turbot caught in gillnets was calculated.

RESULTS AND DISCUSSION

The research surveys were carried out at depths between 40 and 50 m in traditional turbot gillnets fishing areas on the Romanian coast (as shown in Fig. 1 above). As the study was conducted in the cold season (January - April 2022), the seawater temperature ranged between 6.58 °C and 9.47 °C, with salinity being relatively constant (between 17 and 18 PSU).

Survey 1 (Launch on January 6, 2022 - Recovery on February 6, 2022)

The first row of gillnets was launched in water as soon as the meteorological conditions allowed, at the beginning of January 2022 (Fig. 6 left). Afterwards, the weather worsened, leading to a prolonged immersion time, with gillnets being delayed well beyond the optimal soak time of 14 days. Gillnets were recovered after 31 days in the water, so that some of the dead turbot specimens were already decaying (Fig. 6 right). The turbot individuals recovered alive were placed in the tank equipped with an aeration system on board the research boat and monitored for 1 hour for their condition.

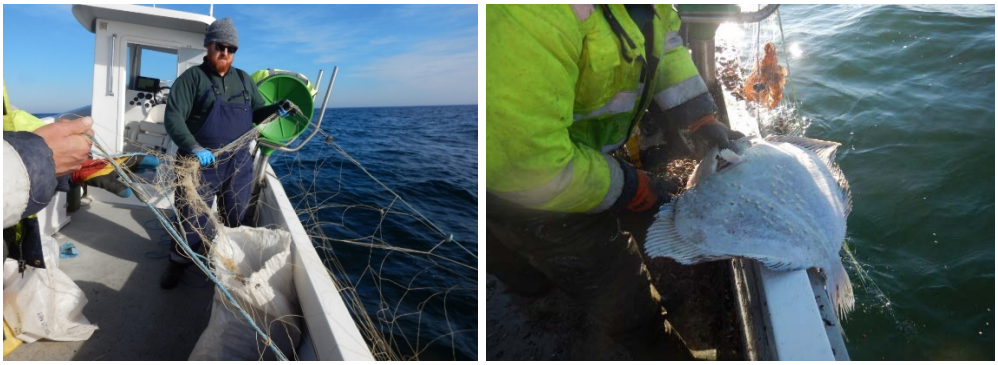

Fig. 6. Gillnet launching during the first survey (left); Recovery of gillnets after a prolonged soak time caused by adverse weather conditions - dead turbot individuals already decaying (right) *(NIMRD original photos)*

Following the monitoring carried-out, Survey 1 recorded a survival rate of turbot caught with nets of 78.12% (Fig. 7): out of a total of 32 specimens caught, 25 were live and viable and 7 were dead. The lower survival rate is most likely the consequence of the extremely long soak time of the gear.

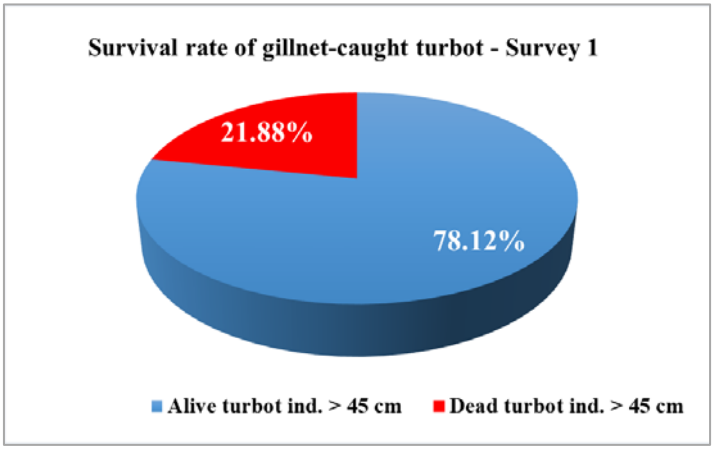

Fig. 7. Survival rate of gillnet-caught turbot during Survey 1

The measurements carried out showed that no undersized individuals were caught, all specimens exceeding 45 cm, indicating a good selectivity of the gear used. The mean total length of turbot caught in Survey 1 was 62.56 cm (±6.26 cm) (alive) and 58.86 cm (±5.05 cm) (dead). For the average biomass in Survey 1, the recorded values were 4,588.92 g (±1,536.35 g) (alive) and 3,637.86 g (±1,091.14 g) (dead) (Table 2).

Survey 2 (Launch on February 10, 2022 - Recovery on February 26, 2022)

The second survey was carried out in February 2022, with the optimum soak time of the gear (16 days), so that the recovered specimens no longer

showed signs of decomposition.

Consequently, the survival rate recorded in Survey 2 was higher, with 86.95% of the specimens captured being alive and viable (Fig. 8). Out of a total of 23 turbots fished, 20 were alive, with only 3 dead.

Again, in this survey, no undersized specimens were recorded following the measurements made. Thus, the mean total length of turbot caught in Survey 2 was 61.15 cm (±6.06 cm) (alive) and 61 cm (±4.32 cm) (dead) and the mean biomass recorded was 4,678.75 g (±1,390.47 g) (alive) and 4,633.33 g (±1,281.49 g) (dead) (Table 2).

However, the bad weather in the cold period of the year caused another phenomenon: following the storm immediately before gillnet recovery, part of the turbots caught (dead individuals) had suffered injuries due to the physical impact of the gear pulled by swelling current/waves (Fig. 9).

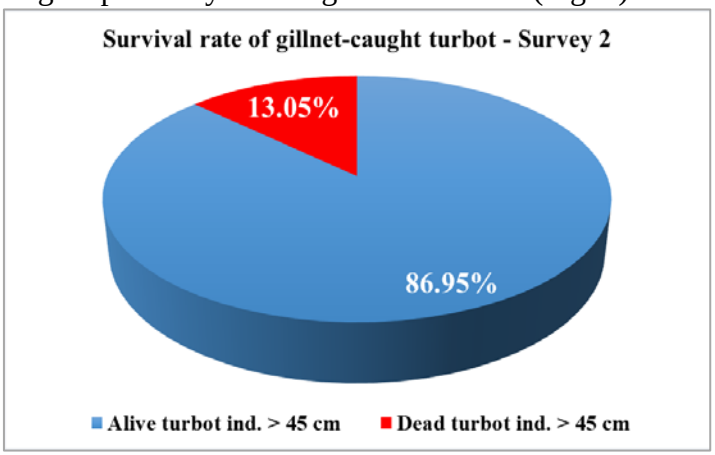

Fig. 8. Survival rate of gillnet-caught turbot in Survey 2

Fig. 9. Injuries caused by gillnets - physical impact of a storm (Survey 2) *(NIMRD original photo)*

Survey 3 (Launch on March 4, 2022 - Recovery on March 29, 2022)

Research Survey 3 was carried-out in March 2022, with a 25-day soak time of gears (Fig. 10), the long duration of which was also caused by adverse weather conditions, which prevented gillnets from being recovered within the optimum range.

Thus, the survival rate of turbot caught during Survey 3 was also lower (70.83%) (Fig. 11): out of a total of 24 specimens caught, 17 were alive and viable and 7 dead. In dead specimens, mechanical injuries caused by the action of gillnets under the influence of waves were reported (severe weather conditions) (Fig. 12).

Fig. 10. Turbot gillnet recovery in Survey 3 *(NIMRD original photos)*

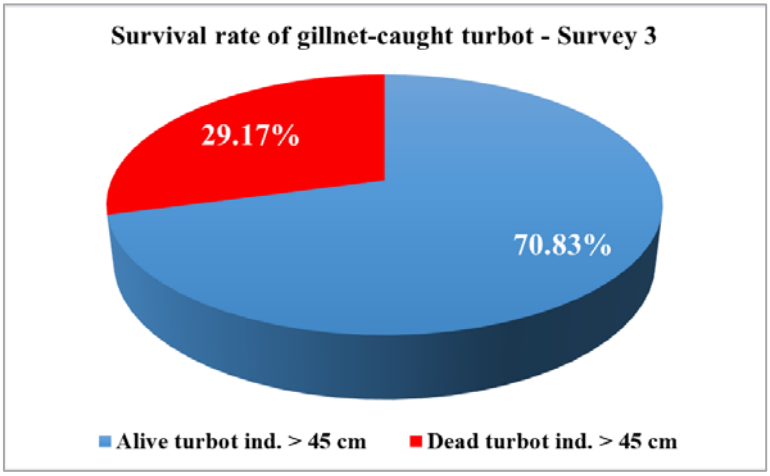

Fig. 11. Survival rate of gillnet-caught turbot in Survey 3

Fig. 12. Gillnet-induced injuries - physical impact from a storm (Survey 3) *(NIMRD original photos)*

Measurements carried out showed a mean total length of turbot of 62.88 cm (±8.35 cm) (alive) and 59 cm (±5.48 cm) (dead) and a mean biomass of 4,897.06 g (±1,890.65 g) (alive) and 3,728.57 g (±1,068.66 g) (dead), respectively (Table 2).

Survey 4 (Launch on March 29, 2022 - Recovery on April 15, 2022)

Survey 4 was carried out in April 2022, with an almost optimal soaking time (18 days) (Fig. 13). The catch taken in the April survey was the most significant in quantitative terms (the period coincided with the turbot migration close to the shore for spawning): 52 turbot individuals were fished, of which 45 were alive and viable, resulting in a high survival rate of 86.53% (Fig. 14). Again, no undersized catches were recorded, with the smallest turbot individual caught measuring 46 cm.

Fig. 13. Gillnet recovery during Survey 4 *(NIMRD original photos)*

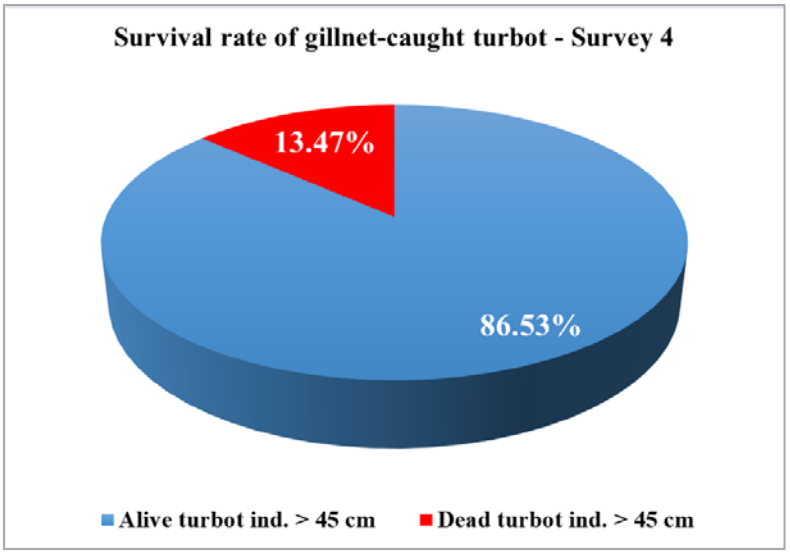

Fig. 14. Survival rate of gillnet-caught turbot in Survey 4

Measurements of turbots caught in Survey 4 showed a mean overall length of 59.82 cm (±7.92 cm) (alive) and 61.29 cm (±7.67 cm) (dead) and a mean biomass of 4,468.89 g (±2,138.49 g) (alive) and 5,185.71 g (±2,252.10 g) (dead), respectively (Table 2).

Summary over the entire period of the study

The centralisation of the results of the scientific fishing surveys with turbot gillnets (GNS) carried-out in the frame of the pilot study led to the calculation of a survival rate of 81.67% (Fig. 15): out of a total of 131 turbot individuals caught, 107 individuals survived and were viable (without injuries).

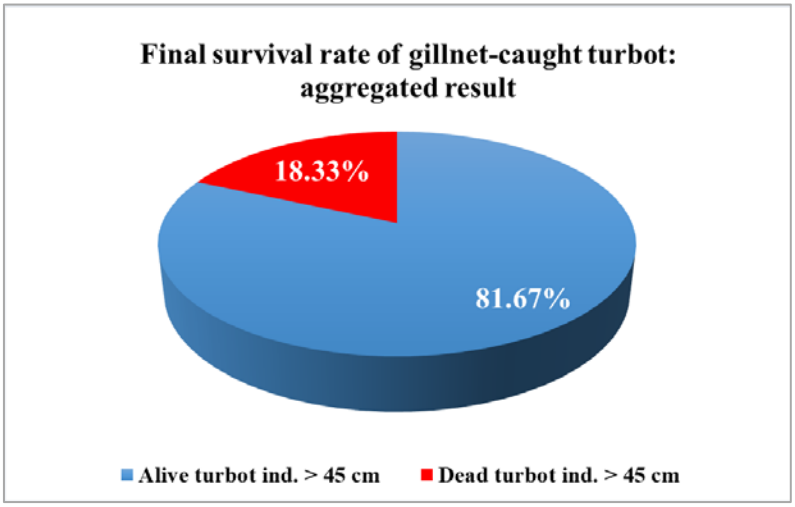

Fig. 15. Total survival rate of gillnet-caught turbot during the pilot study = 81.67%

As regards biometric and gravimetric parameters, the mean total length over the entire turbot batch analysed was 62.10 cm (±7.43 cm) (alive) and 59.88 cm (±6.08 cm) (dead). The minimum length was 46 cm (alive) and 51 cm (dead) and the maximum length 79 cm (alive) and 72 cm (dead), respectively (Table 2).

The mean biomass of the turbot studied was 4,604.19 g (±1,851.08 g) (alive) and 4,240.21 g (±1,681.42 g) (dead), with a minimum biomass of 1,500 g (alive) and 2,050 g (dead) and a maximum biomass of 9,430 g (alive) and 8,300 g (dead), respectively (Table 2).

Table 2. Biometric (mean total length/TL) and gravimetric (mean biomass) parameters of turbot specimens analysed

Survey date (2022)	Condition of turbot specimens	Mean TL (cm) (+ SD)	Mean biomass (g) (+SD)
Survey 1 Jan. 6 - Feb. 6	Alive	62.56 (±6.26)	4588.92 (±1536.35)
	Dead	58.86 (±5.05)	3637.86 (±1091.14)
Survey 2 Feb. 10 -26	Alive	61.15 (±6.06)	4678.75 (±1390.47)
	Dead	61.00 (±4.32)	4633.33 (±1281.49)
Survey 3 March 4 - 29	Alive	62.88 (±8.35)	4897.06 (±1890.65)
	Dead	59.00 (±5.48)	3728.57 (±1068.66)
Survey 4 March 29 - Apr. 15	Alive	59.82 (±7.92)	4468.89 (±2138.49)
	Dead	61.29 (7.67)	5185.71 (±2252.10)
TOTAL	**Alive**	**61.20 (±7.43)**	**4604.19 (±1851.08)**
	Dead	**59.88 (±6.08)**	**4240.21 (±1681.42)**

Thus, we underline the fact that no catches of undersized turbot have been recorded throughout the implementation of the study, which confirms the optimal selectivity of the monofilament gillnet gears used.

With reference to the injuries reported in some of the caught specimens, it should be noted that injuries specific to gillnet entanglement include compression, internal injuries, abrasions, and disruption of the mucous layer, which increases susceptibility to pathogens (Baker *et al.*, 2013), thus jeopardizing the overall survivability of the fish. The material of the net is likely to have a substantial effect on the injury and subsequent survival, references suggesting that thinner threads (such as the monofilament gillnets used during the present study) cause less harm than traditional relon nets (Van der Haegen *et al.*, 2004). In this context, we propose a more in-depth analysis of the effects of monofilament gillnets by laboratory observations of the evolution of injured individuals for a longer period, in order to accurately

quantify the harmful potential of this fishing gear on discarded specimens.

However, the main limitation of our study would be the reduced time for condition monitoring of turbot specimens onboard the fishing vessel, as 1 hour might not be sufficient to accurately estimate the survival rate. An extended observation time on the vessel could be considered, however, in order to avoid oceanographic and meteorological conditions hindering the operations, an observation tank should be arranged onshore, for a long-term monitoring of some specimens (up to 48 hours).

Consequently, future research prospects include increasing the survivability monitoring time, as well as performing similar surveys during the warm season, in order to avoid bad weather influencing the soak time and the overall outcomes of the investigation. Ultimately, valuable by-catch data should also be collected during a similar research endeavour.

CONCLUSIONS

The pilot study was implemented between January and April, 2022 and 4 gillnet launch and recovery operations were performed. The working methodology involved the use of the gear type used by commercial fishermen on the Romanian coast (monofilament gillnets with mesh size a/2a = 200/400 mm) and the area studied covered traditional turbot fishing grounds.

During each survey, the individuals captured were placed in an aerated tank on board of the research boat, being monitored in terms of condition (dead, alive, injury, other adverse effects caused by the gillnet fishing gear).

Adverse weather conditions (storms, waves) led to injuries caused by the mechanical action of gillnets on some of the individuals caught (resulting in higher mortality rates). Moreover, a more reduced soak time (16/18 days) resulted in higher survival rates (86.95%/86.53%). However, even after a prolonged soak time caused by severe weather conditions (31 days), the survival rate was good (78.12%).

We would point out that the gillnet gear used showed 100% selectivity and no undersized specimens (L < 45 cm) were caught, the smallest turbot individual measuring 46 cm in length.

The final results show a high survival rate (81.67%), in line with studies carried-out on the same species in other areas of the Black Sea, which scientifically supports the continued application of the exemption from the landing obligation.

Acknowledgement: This research was carried-out in the frame of the „Pilot Study Aiming at Obtaining Scientific Evidence for the Exemption of Turbot from the Landing Obligation, in Accordance with Commission Delegated Regulation C (2021) 2065/25.08.2021“, acronym DerLOT (contract no. 145/27.12.2021), funded by the National Agency for Fisheries and Aquaculture (NAFA) Romania.

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