

Review, March 2023

# **Improper and fraudulent fishery – a threat to the Baltic Sea**

Commercial fish populations in the Baltic Sea are under severe threat. Warnings have been raised in 2022 of an altered ecosystem along the east coast, with major shortages of larger and older individuals in the herring stock, coastal fishermen with no catches, and fermented herring factories threatened with closure.

Herring is not the only vulnerable species in the Baltic. The cod stock has collapsed, the eel is endangered and numbers are declining dramatically for several other important species.

There are multiple reasons for this. Fisheries management is flawed on many levels, including ineffective fishery control, doubtful scientific data and a management model focused on a “maximum outtake” of fish even as the number of fishable-size fish is decreasing. Risks are generally brushed aside when determining allowable fish catches.

Politicians and responsible agencies have known for decades about serious problems with illegal discards, unreported by-catches and widespread misreporting of what is caught. But the problems persist.

# Contents

<b>Glossary</b>		3
<b>Summary</b>		3
<b>Background</b>		5
<b>The review</b>	Widespread misreporting among those who fish the most	6
	- Case: Trawler A	7
	Incentives to misreport	8
	- Low administrative fines	8
	- Cancelled and reduced fines	8
	- Quota allocation	9
	- Mesh size regulations and by-catch limits	9
	- Case: By-catch limit	10
	Other challenges	10
	- Difficulties in fishery control	10
	- Large catches	10
	- Similar cases, different assessments	11
	- Noncompliance with requirements	11
	- Case: Landing obligation used as a justification	12
<b>Measures to improve control</b>	SwAM's proposals	12
	BalticWaters' proposals	13
	- Regulatory changes	13
	- Reduced fishery	13
	- Only sorted catches	13
	- Fish and land in the same area	13
	- Remote Electronic Monitoring (REM)	14

## Glossary

**Demersal fishing** – Fishing for species, such as cod, that live in areas on or near the bottom of water bodies (in contrast to pelagic species, which live in open water).

**Discards** – Caught fish thrown off the boat by professional fishermen; for example, when the catch is illegal, too small to be sold or is not part of the fisherman's quota. Fish often die or are injured in the process of being caught. Unreported discards can lead to inaccurate assessments of the number of fish that die, resulting in an overestimation of stock size and quotas that are set too high.

**ICES** – International Council for the Exploration of the Sea, an organisation that co-ordinates and promotes marine research in the Baltic Sea and North Atlantic and is tasked with providing recommendations on fishing quotas as a basis for the EU's quota decisions.

**Landing** – The part of the fish catch that is put ashore. "Landing numbers" or "landing data" refer to the catch reported at landing.

**Landing obligation** – EU regulation introduced in 2015 requiring professional fishermen to land all fish caught, rather than discarding unwanted catch in the sea. Its goal is to encourage the use of low-impact gear and minimise discards and unwanted catches. The regulation has not been complied with, however.

**MSY** – Maximum Sustainable Yield, one of the goals of the EU's fisheries policy. In theory, MSY should involve maximising catches in the long term without jeopardising stock recovery. Unfortunately, this does not always work in practice; for example, MSY does not take into account a stock's size distribution.

**Pelagic fishing** – Fishing for species, such as herring and sprat, that live in open water (in contrast to demersal species, which live on or near the bottom of water bodies).

**Quota** – A fixed quantity of a particular fish species that a fishing nation or vessel may catch in a sea area during a limited period of time.

**Stock** – Amount of a fish species in a specific area.

**Tolerance margin** – Allowable percentage difference between estimated and landed weight.

## Summary

### **BalticWaters' new review confirms a widely held perception**

Although frequent attention has been called to the problems with fishery compliance over the past 50 years, no effective action has been taken. In this review, BalticWaters shows that misreporting and illegal discards are widespread practices and that the regulatory framework and its application are seriously flawed.

Inaccurate catch statistics create ripples throughout the system, extending all the way to quota setting. When vessels report incorrect weights or species, we are unaware of what is being fished in the Baltic Sea. This results in inaccurate assumptions about the number of fish in the sea and the effect of fishery on ecosystems. It also makes International Council for the Exploration of the Sea (ICES) assessments of the amount of fishing pressure a stock can withstand unreliable — thereby also the supporting documentation used by politicians to set quotas.

This review directs particular focus to the vessels that fish the most, as their activities represent a significant share of the Swedish fishery. In sanction decisions taken by the Swedish Agency for Marine and Water Management (SwAM) between July 2021 and June 2022, 16 of the 20 largest vessels that fished in the Baltic in 2021 were found to have committed 60 offences, the majority of which involved misreporting of herring and sprat. The 20 vessels collectively account for 95 per cent of Sweden's total catch in the area. This report also highlights additional cases of fishery and control inadequacies, including the by-catch of cod.

## Incentives to misreport

This review demonstrates how fishery management design and the lack of controls currently encourage fishermen to misreport their catches. Quotas, regulations and ease of evading detection have all created incentives to misreport species and weights. Sprat, for example, can be reported as herring when the herring quota is more difficult to fill. This makes it possible to continue fishing for sprat even if the quota for that species has already been filled.

When errors or deceptive practices are discovered, the consequences are normally minimal. While judgments for some offences are based on the landing value of the catch, misreporting usually results in a fixed fine of SEK 2,000, based on SwAM's interpretation of the Fisheries Act. For other prohibited catches, the fisherman normally only pays back the sales value of the illegally caught fish. The fines have not been changed for the past 30 years, despite the fact that the value of a landed catch can amount to several million kronor and that EU fisheries legislation specifies that administrative fines must be proportionate and dissuasive.

This review also finds that administrative fines have repeatedly been reduced or cancelled despite confirmed infringement and despite the fact that the leeway for refraining from imposing the full fine is to be limited and only applied in exceptional situations. The determination of who is actually required to pay the fine can also vary between similar cases, which means that decisions can be perceived as arbitrary or unfair.

The most common justification for a penalty reduction is that the sanction is deemed unreasonable, but other reasons are also cited. In 2015 the EU introduced a new regulation, the landing obligation, which requires professional fishermen to land virtually all fish they catch. The purpose of the regulation is to encourage the use of low-impact gear and minimise discards and unwanted catches, but research has found that the new rules are not being followed and that the problems remain as serious as they were before the law was introduced. In this review, BalticWaters found that SwAM has used the landing obligation's requirements as a justification for cancelling or reducing fines imposed for violations.

One explanation for this is that the agency views the captain's requirement to land a prohibited catch rather than making an illegal discard as a mitigating circumstance. But reducing penalties has consequences. When financial penalties are minor, incentives to comply are weakened.

As the current rules are applied, prohibited catches can often be profitable for fishermen. This can lower interest in switching to low-impact fishing methods that can minimise by-catches, and also discourages compliance with the landing obligation.

Other challenges are presented by the sheer size of the largest vessels' catches. In sanction decisions, the Swedish Pelagic Federation, a manufacturing organisation, has responded to SwAM by stating that it is impossible to avoid sanctions for large-scale herring and sprat fishing because it is "difficult or impossible in practice to estimate the volume correctly." There are clear incentives to report errors, fishermen recognise this themselves, and it is verified by controls. Yet fisheries management fails to address these problems.

## Essential to introduce measures

This review demonstrates the need for politicians and administrators to take strong action against fishery misreporting. For decades, no clear signals have been raised against deceptive fishery practices, and concrete measures are needed to address the problems and ensure the fish stocks' recovery. In this report, BalticWaters presents measures proposed by SwAM and identifies important regulatory changes that would be instrumental in achieving a more sustainable Baltic Sea fishery and would make it easier for fishermen to do what is right.



Many thanks to everyone who contributed to this report, and to David Langlet, Ragnar Elmgren and the government official at the Swedish Agency for Marine and Water Management who read and commented on the documentation prior to publication.

## Background

### Cheating practices well known for many years

Problems with deceptive fishery practices have been well known for years. The Swedish National Audit Office found inaccuracies between landing numbers and fishermen's logbooks back in 1987, with cod catches misreported as haddock and herring catches as sprat. The landings were 20.7 million kilos (11.5%) greater than what the fishermen reported in their logbooks.

Nine years later, the Swedish Environmental Protection Agency wrote that statistics on catches, by-catches and discards were inadequate and that the problem had worsened. There were so many unreported incidents that it was impossible to reliably assess the stock. [A 2004 report](#) highlighted the problems once again, with fishery activity estimated at "anywhere from 0 to over 100 per cent above reported quantities." Fraudulent weighing and logbooks as well as prohibited sales were found – including agreements between recipients and fishermen to share proceeds from the unreported catch.

Since then, it seems little has been done to address these problems. In the report "From Sea to Table: Fishery Crimes from a Swedish Perspective" (2018), the Swedish Tax Agency, Coast Guard and Agency for Marine and Water Management found that inaccurate reporting and under-reporting of catches occur across the entire value chain.

In terms of volume, the problems are significant. [A 2019 control operation](#) found that one in two Swedish fishing trawlers caught greater or lesser amounts of fish than they had stated in their logbooks, and that fishermen had actually caught 50 per cent more sprat and 50 per cent less herring in the Baltic Sea than they reported.

In terms of weight, herring and sprat fishery accounts for 97–98 per cent of annual Swedish catch from the Baltic Sea, and inaccurate reporting of these species therefore has a major impact on catch statistics. When vessels report catches incorrectly, fisheries management draws incorrect conclusions about the amount of fish we have in the sea and the effects of fishery on ecosystems. This renders International Council for the Exploration of the Sea (ICES) assessments of the amount of fishing pressure a stock can withstand – and the supporting documentation used by politicians to set quotas – unreliable.

Following the 2019 herring and sprat fishery control operation, [SwAM vowed](#) to increase controls in coming years and to review opportunities to implement further measures. Solutions to rectify the problems were to be presented by a [government commission](#) in 2020, to clarify for government agencies that inaccurate reporting does occur, that the landing obligation is not complied with and that the current limited fisheries control of the landing obligation is ineffective and costly.

Today, over SEK 100 million is spent on fisheries control, corresponding to nearly one-eighth of Swedish fishery's total landed value.

The fact that misreporting continues to occur was verified once again in 2022 by [the ICES and the EU Commission](#), as confirmed by BalticWaters' review. During the Council of Ministers in October last year, Sweden and the other Baltic Sea countries pledged to rectify the problem. So far, nothing has been done.

### Impact on scientific data

Catch statistics form a crucial foundation for scientific assessment of the stock's size, and strongly influence the setting of catch quotas. Scientists' assessments are based on catch reports from

Herring and Baltic herring are the same species, which is called "herring" in the south and "Baltic herring" north of the Kalmar Strait. The specific name "herring" is used in this report to refer to the entire Baltic Sea stock.

commercial fisheries, exploratory fisheries and scientific studies, and the models are based on the accuracy of the numbers reported by captains. Although it is well known that these reports contain errors, there are not enough in-built safety margins to limit the risk of overfishing.

This is highly problematic, not least because setting quotas is risky from the outset. Scientists base their recommendations on next year's fishery on the politically adopted Maximum Sustainable Yield (MSY) model – a risky tool that involves setting the fishing quota at the highest possible level that a stock is deemed able to cope with. In theory, the model should ensure maximum outtake of fish without jeopardising next year's brood, but there is still a high risk of the stock being fished down, as we have seen in the Baltic. Of seven Baltic fish stocks analysed in 2019, five were overfished and four were deemed to be outside safe biological limits.

The scientists' models contain several uncertainties. In 2017 the ICES estimated that there were 1.34 million tonnes of herring in the central Baltic, but after updating the models the estimate for the same year was changed to 600,000 tonnes – a reduction of over 700,000 tonnes. Quota decisions had already been made, based on the higher estimate. Similarly, the models overestimated the number of western Baltic cod, of which only a fraction remains after years of overfishing.

This development is not surprising, given that the idea of maximum outtake is based on uncertainty and that scientific recommendations therefore lack data on the species' condition and the effects of fishery on the ecosystem. This situation should have led to rapid, effective administrative changes. And yet reporting errors and the decline of Baltic Sea fish stocks have been allowed to continue for decades. Despite historical developments, the lack of reliable data and frequent warnings from scientists and coastal fishermen, more than one-fifth of the Baltic's herring and sprat is still being fished – every year – by a fishery that politicians often refer to as “sustainable”.

## The review

### Data

BalticWaters examined all 230 sanction decisions taken by SwAM between July 2021 and June 2022 concerning Swedish fishery violations. The vast majority of the cases discussed in the report pertain to Baltic Sea fishery, although the data is not limited to the Baltic. Fisheries control is national and compliance violations occur in all waters, national as well as international. Although cases involving other vessels are included in the report, this review is focused on the twenty largest vessels that fished in the Baltic in 2021. These vessels account for 95 per cent of Sweden's total catch in the area. Of the 230 sanction decisions, 105 dealt with the fishing of herring, Baltic herring, mackerel and other species. Of this number, most cases concerned the misreporting of herring and sprat. The remaining cases concerned bottom fishing, primarily bottom trawling, and included cases of lack of traceability.

During the period under review, 621 landing controls were conducted on a total of 60,125 port unloadings; i.e., only around one per cent of landings in Sweden were inspected.

### Unreported incidents

Because such a small percentage of landings are inspected, this review, which is based on inspection results, is not a comprehensive assessment of reporting errors during the period. A large number of unreported incidents can be presumed. Neither do all reporting errors discovered by inspectors result in sanction decisions, as misreporting is accepted by fisheries management within certain limits. In order for Baltic herring and sprat fishery practices to be fined at all, the estimated misreporting of a species needs to exceed a tolerance margin of 10 per cent of the total catch. This means that many erroneous reports do not result in a sanction, even though they may involve tens of thousands of kilos. Taken together, the unreported incidents can affect estimates of the Baltic's fish stocks, jeopardising the accuracy of scientific data and quotas. In a 2004 report, the Swedish National Board of Fisheries (predecessor to SwAM) found that the margin of tolerance results in “significant underestimates” of what has been caught, without any sanctions being imposed on the fishermen.

## Widespread misreporting among those who fish the most

Our review found extensive reporting errors. Sixteen of the 20 largest vessels misreported during the period, and the five vessels that caught the most – and which collectively accounted for over half of Sweden’s 2021 Baltic Sea catch – had all reported incorrect catches. Misreports of herring and sprat were most common, representing 51 of 60 cases for the 16 vessels. All discovered offences are presented in table format in [an appendix to this report](#).

There was a significant difference in the extent of misreporting between the vessels. The larger the catches, the more misreports were discovered, in terms of both weight and per cent. During a single landing, tens of thousands of kilos or thousands of per cent of a species might be misreported. The erroneous figures might relate to the landing’s total weight or the species distribution of the catch, and the weight might be over- or underestimated.

Misreported weight – including every kilo over- or underestimated or of the wrong species – was calculated at approximately 600,000 kg, of which 235,000 kg was misreported by the five largest vessels. Reports of less than what was actually caught were more common than the opposite. Misreported weight for the 16 vessels was estimated at 2.15 million kilos, while the verified weight was 2.42 million kilos – nearly 13 per cent more than reported. The inspections therefore confirm that more fish are being taken from the Baltic Sea than is being reported.

For all 16 vessels, an average of 10,870 kg was misreported per catch. The five vessels with the lowest catch rates misreported an average of 2,465 kg per catch, with the vessels with the highest catch rates misreporting an average of 21,322 kg.

### Case: Trawler A

Trawler A would have been at the top of the catch statistics, but it was sold in 2021 and is therefore not included among the 16 vessels that are the focus of this report. The vessel was identified in our review of 12 cases involving misreporting of herring and sprat, with misreporting totalling over 120,000 kg. The vessel has contested the administrative fines. In several cases the fishermen have not responded themselves but have been represented by manufacturing organisation SPF PO, which claims that the Swedish pelagic fishery, with unsorted catches, has no possibility of avoiding fines for exceeding tolerance margins as it is “difficult or impossible in practice to estimate the volume correctly.” This is a remarkable statement coming from the collective group of herring and sprat fishermen, who have claimed in [other contexts](#) that they are unaware of any evidence of misreporting. The vessel belonged to one of the largest fishery operators in Sweden and Denmark.

In another case, Trawler A’s captain claimed that the herring was “extra fat” (24 per cent) and that it was therefore easy to estimate the catch’s total weight. SwAM accepted this argument and cancelled the fine. There is, however, no scientific data on herring’s normal fat content; there is only some landing data from Scottish and Dutch vessels suggesting a fat content of around 5–20 per cent, according to scientists at the Swedish University for Agricultural Sciences that BalticWaters spoke with.

The administrative fine was cancelled despite inadequate knowledge of herring’s fat content, with no background on how fat content affects measurement of weight in a 400,000 kg catch, and despite the fact that the vessel admitted in other cases that it is incapable of estimating the volume correctly.



Photo: Tobias Dahlin/ Azote

## Incentives to misreport

Systematic misreporting presents risks for ecosystems, species and erroneous stock estimates, and thus the stocks' survival. In a [2004 report](#), the Swedish National Board of Fisheries found that professional fishermen are encouraged not to report accurately due to factors including reduced profitability for fishery companies, fleet overcapacity and a control system that cannot be everywhere at once.

Our review focuses particular attention on certain aspects of the regulatory framework that should be re-examined. There may be other incentives that are not addressed in this report.

### Low administrative fines

According to SwAM, most detected fishery violations fall under “logbook errors” or “violations of tolerance margin”, which are assessed a fine of SEK 2,000 pursuant to a [1993 Swedish law](#). The [Common Fisheries Policy \(CFP\)](#), which regulates today's fisheries, specifies that sanctions must be dissuasive. But a fine of SEK 2,000 is far from dissuasive when the value of a single landing can be several million kronor for the largest vessels.

An administrative fine shall correspond to the value of the prohibited catch and be calculated based on the actual sales price or the market price at time and place of landing for catches of a similar type, whichever is higher. According to the contract note from the operation in question (settlement number 926), a total of 669,947 kg of herring/Baltic herring was sold for a total of SEK 1,808,361.99, producing a sales price for herring/Baltic herring of approximately SEK 2.70 per kg. Total revenue from the landing amounted to SEK 3,148,743.12.

Text from a sanction decision in which the value of the catch amounted to just under SEK 3,15 million.

Fines totalling SEK 94,000 were imposed in the 55 cases involving misreporting from the 16 largest vessels.

The problem was highlighted in a [2013 bill](#) from the Reinfeldt government, which maintained that administrative fines cannot be considered “effective, proportionate and prohibitive” – as they are required to be pursuant to the EU's Common Fisheries Policy – and that introduction of stricter sanctions was therefore necessary. Now, ten years on, still nothing has happened and the fines remain the same.

### Cancelled and reduced fines

SwAM is responsible for the legal assessment of most fisheries violations, which are therefore not adjudicated by the legal system. This applies, for example, to cases concerning misreporting, in which the agency can cancel or reduce administrative fines when it considers there are valid reasons to do so.

Administrative fines should not be imposed if they can be considered unreasonable, but this relief should be granted only in exceptional circumstances. The scope for refraining from imposing such a fine is limited by law.

The captain is strictly liable for the accuracy of the logbook. Accordingly, the administrative fine shall be paid regardless of intent or non-intent to commit an error.



Our review of misreports shows that the most common reason for cancelling a fine is that the violation is deemed to be minor. In several cases, SwAM writes that a violation “is insignificant in terms of control”. But thousands of kilos of misreported fish were involved in all cases concerning cancelled fines for the largest vessels. And despite the well-known fact that misreports can affect stocks and scientific data, there is currently no assessment of the extent of these effects.

Fines are also cancelled or reduced in other fishery segments such as the shrimp fishery, where by-catches and discards are a major problem. These cases are not included among the 16 vessels studied in this review focused on herring and sprat misreporting. According to sanction decisions, several shrimp fishermen have excessive by-catches of white fish (cod, haddock and pollock) – in several cases representing 50 per cent of the total catch. Pursuant to the Ordinance (1994:1716) on fishing, aquaculture and the fishing industry (the Fisheries Ordinance), in cases of prohibited catches, the fine must correspond to the value of the prohibited catch. One should question whether it can be considered “dissuasive” when all the fishermen lose is the value of the illegally caught fish – and very often this amount is not fully assessed.

In one case, SwAM cancelled the administrative fine because the violation was considered minor, despite the fact that the by-catch represented nearly one-third (29 per cent) of the total catch. In another case, in which the captain’s by-catch was 63 per cent of the total catch and was sold for nearly SEK 60,000, SwAM reduced the fine to SEK 25,000 without accounting for why imposition of the full amount would be unreasonable. As a result, the captain was well paid for the prohibited catch, which can obviously serve to reduce the incentive to avoid future by-catches.

A frequent justification by shrimp fishermen for the avoidance of fines is that their fishing practices are more selective than prescribed by law and that it is currently “impossible” to comply with the rule of maximum 20 per cent by-catch. Such claims should prompt administrators to initiate a review of permitted gear and catch areas, to discourage by-catches of the threatened cod stocks and other species.

### **Quota allocation**

The herring quota is generally more difficult to fill than the sprat quota, creating an incentive to report sprat as herring so that sprat can continue to be fished even after the country’s sprat quota has been filled. Vessels also have individual quotas, which can create incentives to misreport another species if the captain has already filled, or is in the process of filling, the quota for the species actually caught.

### **Mesh size regulations and by-catch limits**

In the targeted trawl fishery for sprat in the Baltic, the captain is allowed to use a 16 mm mesh size, unlike the herring fishery which requires a 32 mm mesh size. When the year’s sprat quota has been filled, vessels are required to switch to the larger meshes, so there is an incentive to continue reporting low sprat catches in order not to fill the quota. The use of the smaller meshes continues, which can result in wide-spread, unreported by-catches of herring.

There are other economic incentives for misreporting associated with mesh size. When fishing with smaller meshes, the law only allows a maximum of 45 per cent herring, with fines imposed for exceeding this percentage. This can motivate the captain to report a lower percentage of herring than what is actually in the hold.



### **Case: By-catch limit**

By far the largest administrative fine found in our review involved Trawler 2, which was levied a fine of nearly SEK 200,000 for a violation of the by-catch limit. The captain was fishing for sprat using 16 mm mesh. He contested the fine claiming that, after catching too high a proportion of herring, he tried to stop fishing at the site and move to new locations to increase the proportion of sprat, but without success.

The captain claims there are no instructions available to help in situations when too high a proportion of herring has been caught. There is a risk that the problem may be aggravated if he continues fishing to reduce the proportion of herring – conversely, the proportion of herring versus sprat may increase. But by interrupting the fishing immediately, the catch violated the by-catch limit as the proportion of herring in the hold was already greater than the regulations allow.

In the above case, SwAM reduced the fine 50 per cent on the grounds that the captain tried to relocate to reduce the proportion of herring in the hold and that the case concerns a “quota species covered by the landing obligation” (see section on the landing obligation), but also stated that the captain bears the risk of exceeding the by-catch limit when he uses gear to which the by-catch limit applies. The captain could use a larger mesh to avoid the risk, but the regulations also allow use of a smaller mesh that is more advantageous when fishing for forage fish.

If the proportion of herring is exceeded when fishing for sprat, there is therefore a strong incentive for the captain to still report that the catch has less than 45 per cent herring. If the catch is inspected and the violation discovered, no extra fine is imposed for an incorrect logbook – the captain is only required to pay the same amount as if he had reported the correct catch. Fisheries management has created a situation in which the captain has an incentive to use the smaller mesh and misreport if the catch exceeds the limit.

## **Other challenges**

### **Difficulties in fishery control**

There are several major challenges in controlling the various fishery segments. These include vessel construction, cost of monitoring, the large number of landing ports, catch size and difficulties in monitoring at just the right time. There are currently several advantages in misreporting and the risk of detection is very low. Taken together, this does not encourage captains to report accurately and correctly.

### **Large catches**

Large vessels' catches can exceed 1,000,000 kg, for which only spot checks are conducted. Samples are taken of catches weighing at least 100 kg, while catches in excess of 200,000 kg require samples of at least 0.5 per mille. Only a small fraction of the catch is therefore inspected. In sanction decisions, captains raise the defence that the small spot checks are one reason why control numbers do not need to correspond to landing control numbers. Sampling and percentage calculations can be done in different ways and produce different results.

### Similar cases, different assessments

For vessels that received fines, several of the arguments used to justify their violations were similar to those used by vessels for which fines were cancelled. The captain of Trawler 7 had two fines cancelled on the grounds that his vessel was new and it was therefore more difficult to calculate the catch correctly.\* But when Trawler 2 made the same argument, SwAM did not consider this a valid justification for the violation. SwAM's assessments were different in these cases, even though the captains' justifications were the same.

In several cases, fines were cancelled on the grounds that the violation was a minor one, while other vessels with similar misreports were required to pay the fine.

<p>Trawler 11</p> <p>Length: 34,9 m</p> <p>Share of Sweden's total Baltic Sea catch: 2.8%</p> <p>Fine: SEK 0.</p>	<p>Reported 43,040 kg sill/sprat but landed 47,500 kg, a 10.4 misreporting rate.</p>	<p>Citing the fact that the exceeding amount was a very small percentage of the catch, SwAM found that the violation was insignificant for control purposes and cancelled the fine.</p>
<p>Trawler 17</p> <p>Length: 20,4 m</p> <p>Share of Sweden's total Baltic Sea catch: 1.1%</p> <p>Fine: SEK 2 000.</p>	<p>Reported 40,020 kg sill/sprat but landed 44,480 kg, an 11 per cent misreporting rate.</p>	<p>The captain's argument, that the tolerance level was exceeded by only 1.1% and the fine should therefore be considered unreasonable, was rejected by SwAM.</p>

Assessments that are or that can be perceived as arbitrary create distrust of the legal system. This is something that SwAM should work on minimising, with detailed guidelines and policies.

### Noncompliance with requirements

In 2015 the EU introduced a landing obligation for the Baltic Sea, signifying that all catches of quota species – such as herring and sprat – must be landed. Although the landing obligation was introduced to minimise discards and unwanted catches and to provide a better knowledge base, [the Department of Aquatic Resources at the Swedish University of Agricultural Sciences](#) argues that landing obligation regulations are not being complied with. Discards of quota species in the Baltic have remained largely unchanged since introduction of the landing obligation.

Apart from the landing obligation's failure to achieve its objectives, it is also used as a justification for reducing administrative fines. This applies mainly to cases where SwAM discovers violations regarding by-catches, including of herring and cod.

In some sanction cases, SwAM appears to make the assessment that the captain's fine should be reduced because he was obliged to land the species pursuant to the landing obligation, as opposed to making an illegal discard. Under this reasoning, the captain can still make a profit when he sells the illegal catch, and incentives for using more selective gear are undermined. Rather than improving fishery compliance, SwAM's approach to the landing obligation may therefore have the opposite effect. This is particularly problematic for endangered stocks.

\* In another case, Trawler 7 was required to pay the fine on the grounds that the boat was not new but had been purchased a year earlier. The two previous fine cancellations had actually applied to an older boat and were therefore incorrectly assessed, most likely due to an unintentional or technical error on the agency's part.



### **Case: Landing obligation used as justification to cancel fines**

A vessel fishing for North Sea shrimp with a bottom trawl had an excessive by-catch of white fish (cod, haddock and pollock) on two occasions: 34 per cent and 39 per cent of the total catch, respectively.

No administrative fine was imposed, on the grounds that catches of cod, haddock and pollock “are covered by the landing obligation” and that these were “relatively minor violations”. SwAM therefore elected to dismiss the case.

A similar assessment has been made in most cases, including the by-catch limit exceeded by Trawler 2 (see page 10), in which case SwAM cancelled the fine on the grounds that the captain attempted to relocate the fishery activity to reduce the proportion of herring in the hold and that the case concerned a “quota species covered by the landing obligation”. The landing obligation was introduced to reduce discards and by-catches but is being used as a reason to reduce or cancel administrative fines when violations are detected, which can result in lower levels of compliance – contrary to the regulation’s intent.

## **Measures to improve control**

The decline of fish stocks not only affects ecosystems – it has economic, social and cultural effects on communities that depend on a healthy marine environment, fishing and tourism. This review demonstrates the need for vigorous political and administrative action to tackle deceptive fishery practices. For decades, no clear signals have been raised against these fraudulent practices, and concrete measures are now needed to address the problems and ensure the fish stocks’ recovery.

In the following pages BalticWaters discusses regulatory changes, reduced fishery and REM monitoring as potentially valuable tools and summarises measures previously proposed by SwAM.

### **SwAM’s proposals**

In a 2020 government commission, SwAM specified measures required to improve fisheries control. SwAM proposes:

- that the government clarify the tasks and duties of the various agencies as regards supervision, monitoring, inspection and control.
- the introduction of electronic monitoring (see REM monitoring on page 14).
- utilising digitalisation to streamline and simplify fisheries control, by developing digital control monitoring systems, collecting exemptions digitally and establishing a database for fisheries’ geographical data.
- developing the regulatory framework for weighing and species composition sampling to ensure accurate reporting of landed catches for the herring and sprat fishery.
- a government commission mandating SwAM and the Swedish Coast Guard to work with other agencies to develop proposals for measures and indicators regarding illegal and unreported fishery activities.
- an annual increase of SEK 14 million to the administrative appropriation to, among other things, strengthen investigative capacity and the analytical, operational and process development fields of competence.

## **BalticWaters' proposals**

### **Regulatory changes**

Misreports can be made inadvertently, but there are also significant incentives for vessels to misreport a particular species or weight. This may involve the quota allocated to the captain, rules on gear or the allowable by-catch. If customary misreports of herring or sprat are discovered, the administrative fines are also extremely low (normally SEK 2,000 per violation), which does not strengthen incentives to report accurately. For other regulatory violations (e.g. prohibited by-catch of cod), the captain is only required to pay the sales value of the prohibited catch.

- The Swedish Parliament should significantly increase administrative fines.

It is essential that SwAM's legal department works in accordance with explicit policies that reduce the risk of decisions being perceived as arbitrary. Fisheries management should also take into account the impact of misreporting on stocks and ecosystems and should consider this in its assessments and imposition of fines.

- SwAM should have detailed and restrictive policies specifying when fines are to be deemed unreasonable.

Fisheries management needs to be responsive to and capable of changing the rules and systems that currently make fishery control difficult. This review shows that both shrimp and herring fishermen find it "impossible" to comply with regulations in their current form. This should prompt administrators to rewrite regulations, including on permitted gear, to fit the needs of species protection and make it much easier for fishermen to do the right thing – and make violations more costly.

- SwAM should continuously evaluate how well current regulations correspond to expectations for fishery and, where needed, tighten regulations regarding gear, species sorting, etc.

### **Reduced fishery**

One control problem is that catches are large, sometimes over one million kilos per landing. It is difficult to take representative samples of such large catches without tools such as electronic monitoring or e-DNA. This results in inaccurate assessments of species composition and by-catches. For the time being, the smaller the catches, the easier they are to control and assess correctly.

High quotas also involve greater risk to stocks and ecosystems when misreporting occurs. One in five herring and sprat are currently being fished from the Baltic Sea – every year. The lower the quotas are set, the less impact misreporting will have on stocks.

- The government and the EU Commission should take steps to ensure that more catches are controlled and that quotas are reduced by, for example, reviewing the current management model, and should ensure that quotas are set pursuant to the Marine Strategy Framework Directive.

### **Only sorted catches**

Today, catches are landed unsorted and, for large catches, samples corresponding to 0.5 per mille of the catch are taken. With little statistical data, there is a great risk of incorrect conclusions and missed by-catches. There is currently low awareness of by-catches in large catches. In large catches of herring and sprat, by-catches of salmon, cod and other species may seem small in terms of percentage, but they have a significant impact on vulnerable populations in terms of weight.

- The government should introduce requirements to sort all catches in order to enable correct landing data, improve conditions for fishery control and reduce the risk of misreports and missed by-catches. Introduction of these requirements would be facilitated by requiring smaller catches, using scientific methods (e.g. e-DNA) to analyse waste water and effective camera monitoring to sort species mechanically.

## Fish and land in the same area

Quotas are set for specific areas, but it is difficult to verify that vessels fishing in multiple areas during the same operation are reporting the correct catch for the correct area. Because the mix of herring and sprat varies between areas, inaccurate reports of species and areas can produce inaccurate assessments of the presence of these species in various parts of the Baltic, thereby affecting scientific data and quotas.

- Introduce requirements that vessels fish and land in neighbouring areas to facilitate control and make catch statistics more reliable.

## Remote Electronic Monitoring (REM)

REM-system using cameras and other equipment has been discussed for more than 20 years but has still not been introduced in Sweden. It can be an effective way to control the landing obligation, detect prohibited discards and quality-assure catch data. Camera surveillance also has the potential to determine species and control volume mechanically, thus creating an automated logbook that eliminates the human factor in herring and sprat fisheries. GPS transmitters and sensors on ships and equipment can also increase knowledge about where and how fishing is being done.

For monitoring to work, however, the cameras need to be situated in the right place and be impossible to manipulate.

Sweden currently has a voluntary camera surveillance pilot project. According to SwAM's assessment, at least ten bottom trawling vessels fishing for fish, crayfish and shrimp and five pelagic vessels trawling for herring and sprat were needed for the trial. But the project has been running for over one year and only two vessels have joined. In a government commission, SwAM's assessment was that a new Fishery Act provision would be required if the trial could not be carried out voluntarily, which has proven to be the case.

- Parliament should introduce the required legislative changes and requirements for REM-systems of fisheries and large catches.

### How are the controls done?

The Swedish Agency for Marine and Water Management is responsible for landing control, which is done by taking an evenly distributed species composition sample when the catch is unloaded. Total weight is checked and compared with the boat's data.

The Coast Guard carries out regular inspections of vessels and catches, although catches of herring and sprat are difficult, if not impossible, to inspect at sea.

Inspectors' work is impeded by regulatory deficiencies, the large size of catches, vessel construction and the fact that fishing is done in different ways and in different areas.



## About BalticWaters

BalticWaters is an independent foundation engaged in efforts to improve the Baltic Sea environment. The foundation conducts large-scale environmental projects with focus on action-oriented measures, and applied research to show which measures can contribute to a healthier sea and viable fish stocks. The projects are carried out on land, along the coast, and in the sea. BalticWaters also develops and disseminates knowledge about the Baltic Sea to the general public, governmental authorities, and decision-makers. The aim is to increase knowledge about the challenges facing the sea and build public opinion so that decisions are taken, and measures are implemented.

Read more at [www.balticwaters.org](http://www.balticwaters.org)