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NSAC Advice on 2027 Fishing Opportunities

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Executive summary

The NSAC notes the continued improvement in the status of many North Sea fish stocks and supports the strengthening of the scientific basis for fisheries advice through greater stakeholder involvement and ecosystem-based fisheries management. However, across several stocks, recurring concerns remain regarding discrepancies between scientific assessments and observations from the fishing industry, particularly on stock abundance, recruitment, distribution shifts, and the effects of changing fishing practices. NSAC calls for greater transparency in how methodological changes affect ICES advice, improved integration of industry observations and climate-related changes into assessments, and a more balanced consideration of ecological and socio-economic impacts in fisheries management. Improved science-policy-society dialogue could help improve catch advice and ensure long-term stability. This advice includes NSAC comments only on stocks where industry perception appears to differ from ICES' stock perception or where scientific basis needs to be further clarified.

Stock	Identified challenge	NSAC Advice
Anglerfish	Persistent retrospective revisions create uncertainty and reduce confidence in assessments.	Investigate and address the causes of retrospective patterns to improve assessment stability.

Stock	Identified challenge	NSAC Advice
Grey gurnard	Increasing stock but decreasing advice appears contradictory under Category 3 rules.	Review the Category 3 advice approach and improve communication of precautionary advice.
Haddock	Recruitment estimates do not match high biomass or widespread industry observations of juvenile fish.	Investigate discrepancies between assessments, surveys, and fishery observations, and review recruitment estimation.
Seabass	Continued moratorium despite consecutive years of stock improvement lacks justification.	Review the moratorium and consider transitioning to a regulated fishery reflecting improved stock status.
Hake	Survey results appear inconsistent with observed recruitment and changing distribution.	Review survey coverage, assessment methods, and reference points to better capture current stock dynamics.
Lemon sole	Fishing mortality and SSB indices for this Category 3 stock are assessed to be improving. Together with the rescaling of the SSB index, this results in catch advice for 2027 that is 20% higher than the advice for 2026.	NSAC recommends following ICES advice, with a request for a benchmark assessment to upgrade this stock to Category 1.
Plaice	Estimated biomass appears inconsistent with fishery observations and catch performance.	Benchmark the assessment, including discard survival, growth changes, and fishery-dependent information.
Saithe	New reference points could lead to abrupt TAC reductions and misunderstanding of past management performance.	Introduce revised reference points gradually, improve communication, and consider transitional management measures.

Stock	Identified challenge	NSAC Advice
Sole (Skagerrak/Kattegat)	Assessment may not reflect climate-driven shifts in stock distribution.	Incorporate changing distribution patterns and improve survey coverage, including additional Danish survey data.
Sole (North Sea)	Assessment may not adequately reflect changes in fleet structure and fishing behaviour.	Better integrate fishery-dependent data and account for changes in catchability and fleet dynamics.
Whiting	Large advice reductions driven by revised reference points risk being interpreted as stock decline.	Clearly distinguish methodological changes from changes in stock status and improve communication of the advice.

1 Background

At the start of June, the Commission released its Communication on the State of Play and Orientations for 2027¹. The Communication provides an overview of progress in achieving maximum sustainable yield (MSY), the state of the EU fishing fleet, the socio-economic performance of EU fisheries, and the implementation of the landing obligation. Overall, it indicates that EU fisheries continue to make progress towards meeting MSY objectives. The North Sea region, in particular, has consistently demonstrated positive progress over recent years, although challenges remain.

In 2024, the North Sea has continued the trend towards reducing average fishing pressure to sustainable levels. Average fishing pressure has declined steadily, from around 73% above the fishing mortality consistent with maximum sustainable yield (FMSY) in 2003 to approximately 5% below the FMSY target in 2023.

While these achievements are welcome, quota and effort management alone are not sufficient to ensure the long-term sustainability of fish stocks. Fisheries management must increasingly address the wider impacts of climate change, biodiversity loss, and pollution, which continue to affect marine ecosystems and influence stock dynamics. NSAC therefore supports the revision of current multiannual management plans (MAPs) as they are a key element of

¹ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/18413-Sustainable-fishing-in-the-EU-state-of-play-and-orientations-for-2027_en

predictable and long-term fisheries management. In this context, NSAC has submitted advice on the North Sea Multiannual Management Plan² in response to the Commission's consultation on the Omnibus proposal.

We also strongly advocate for conducting Management Strategy Evaluations (MSEs) particularly for key mixed-fishery stocks such as cod, to test alternative harvest strategies and incorporate ecosystem and climate considerations into long-term management. In 2026, NSAC members have been involved in the MSE for saithe, currently being conducted by ICES, and further advice on the application of MSEs is currently under preparation.

We kindly advise the European Commission to reflect on the overarching recommendations and the specific stock-level considerations below and bring them to bilateral and trilateral consultations to improve fisheries management across the North Sea region.

2 NSAC Advice

2.1 General observations

Scientific advice for the North Sea, Skagerrak, and Kattegat continues indicating positive trends, with many stocks showing stability and recovery. We welcome the continued efforts to strengthen the scientific basis for fisheries advice, particularly through greater stakeholder involvement throughout the advisory process. The inclusion of industry knowledge and observations and input from other actors (i.e., NGOs) contributes to more robust advice and supports the development of ecosystem-based fisheries management.

Continued improvement of assessment methods remains important, including through benchmarks and scientific review processes. Particular attention should be given to retrospective patterns, changes in stock distribution, environmental drivers, and whether current reference points adequately reflect evolving stock dynamics. A recurring concern is the mismatch between certain assessment results and observations from the fishers, where changes in stock availability, recruitment, catch rates, or distribution are not always fully captured. Strengthening the integration of industry knowledge and changes in fishing patterns could help address these uncertainties.

Changes in reference points, assessment methodologies, or precautionary approaches can result in substantial changes to catch advice, even when stock indicators remain positive. Without a clear explanation, such outcomes may appear contradictory and risk undermining confidence in both the scientific process and the management system. Greater transparency is therefore needed to explain the reasons behind changes in advice and to distinguish between changes driven by methodological updates and those reflecting changes in stock status. In particular, reductions in catch advice or TACs should be communicated carefully to avoid creating the perception of stock deterioration where the change primarily results from

² <https://www.nsrac.org/wp-content/uploads/2026/07/10-2526-NSAC-Advice-on-North-Sea-Multiannual-Management-Plan.pdf>

revised reference points or assessment approaches. Clearer communication of the underlying rationale will help stakeholders better understand and maintain confidence in the advice.

NSAC also wishes to repeat their call for stronger integration of ecosystem and climate considerations into fisheries management. Climate change is increasingly influencing fish stocks through changes in species distribution, reproductive capacity, and abundance³⁴, marine food webs and ecosystem productivity⁵, as well as management and governance⁶. North Sea cod provides a clear example of the need for climate-informed management, as addressed in previous NSAC advice⁷. Another example is sole, where changes in distribution patterns are not yet explicitly reflected in current assessments. In this context, industry observations and local ecological knowledge can provide valuable insights into emerging changes and should be better integrated into scientific advice and management processes. Closer collaboration between scientists and industry could help improve understanding of stock dynamics, reduce uncertainty, and increase predictability for fisheries operators.

Members also encourage assessment processes, including ICES benchmark reviews, to consider a broader range of factors influencing fish populations beyond fishing mortality alone. Climate impacts⁸, predation⁹, food-web interactions, and interspecific competition should be considered alongside fisheries pressures to provide a more comprehensive understanding of ecosystem dynamics.

The NSAC fully supports the transition toward ecosystem-based fisheries management (EBFM) with environmental and socio-economic considerations addressed together to achieve long-term sustainability. Embedding these realities within a more integrated management framework would improve stability and better reflect the complexity of fisheries systems. We welcome ICES' ongoing work towards ecosystem- and climate-informed advice, including through the FEISA framework and the exploration of approaches for integrating

³ Brander, K. (2010). Impacts of climate change on fisheries. *Journal of Marine Systems*, 79(3), 389-402. doi:10.1016/j.jmarsys.2008.12.015

⁴ Kjesbu, O. S., Alix, M., Sandø, A. B., & Strand, E. (2023). Latitudinally distinct stocks of Atlantic cod face fundamentally different biophysical challenges under ongoing climate change. *Fish and Fisheries*, 24(2). doi:10.1111/faf.12728

⁵ Skjærven, K. H., Alix, M., Kleppe, L., Fernandes, J. M., Whatmore, P., Nedoluzhko, A., . . . Kjesbu, O. S. (2024). Ocean warming shapes embryonic developmental prospects of the next generation in Atlantic cod. *ICES Journal of Marine Science*, 81(4), 733-747. doi:https://doi.org/10.1093/icesjms/fsae025

⁶ Lotze, H. K., Bryndum-Buchholz, A., & Boyce, D. G. (2021). Chapter 8 - Effects of climate change on food production (fishing). In T. M. Letcher (Ed.), *The Impacts of Climate Change: A Comprehensive Study of Physical, Biophysical, Social, and Political Issues* (pp. 205-231). Bath: Elsevier Inc. doi:https://doi.org/10.1016/B978-0-12-822373-4.00017-3

⁷ <https://www.nsrac.org/wp-content/uploads/2025/02/05-2425-NSAC-Advice-on-climate-change-and-NS-cod.pdf>

⁸ <https://www.nsrac.org/wp-content/uploads/2023/10/17-2223-NSAC-Advice-on-Climate-change-and-North-Sea-Fisheries.pdf>

⁹ <https://www.nsrac.org/wp-content/uploads/2026/05/08-2526-NSAC-BSAC-advice-on-management-of-predators.pdf>

ecosystem considerations into advice. NSAC also remains engaged in discussions with the European Commission on rebuilding strategies and stands ready to contribute to future work.

We would like to recall the importance of considering the full range of ICES advice when taking management decisions, rather than relying solely on headline advice figures. The complete advice package, including alternative catch scenarios, risk-based options, and associated uncertainties, provides a more comprehensive basis for informed decision-making and helps ensure that trade-offs are properly considered.

Finally, the NSAC welcomes the European Commission's continued engagement with stakeholders in the development of scientific advice requests, which has progressed since 2024 and continued in 2025 and 2026. Moreover, we welcome the Commission's renewed interest in working with the industry towards developing effective rebuilding strategies for ailing stocks. This interest should transform into a systematic and inclusive dialogue on appropriate management measures relevant for specific stocks, with genuine consideration of fisheries knowledge and challenges. To this end, we welcome recent attempts of MARE C5 towards creating a shared understanding between policymakers and Advisory Councils on the state of play in relevant fisheries, fish stocks, and ecosystem and industry needs, and advise the continuation of these exchanges. Meaningful stakeholder involvement is an essential element of the transition towards ecosystem-based fisheries management. NSAC remains committed to supporting this process in a constructive and efficient manner, while recognising the increasing workload and capacity challenges faced by both stakeholders and institutions.

2.2 Specific stock observations and advice

This section includes NSAC comments only on stocks where industry perception appears to differ from ICES' stock perception or where scientific basis needs to be further clarified.

Anglerfish (subareas 4 and 6, and in Division 3.a)

If substantial revisions to the stock assessment continue, NSAC recommends that the persistent retrospective pattern be investigated and, where possible, addressed. The concern is that the revisions extend well beyond the most recent years and affect the historical time series. While this may partly reflect the fact that the analytical assessment is relatively new and has not yet stabilised, such revisions can create practical management challenges. In particular, retrospective revisions may result in situations where the stock appears to increase while the TAC is reduced because the reassessed stock level is lower than previously estimated. This creates significant uncertainty for the fishing industry and can undermine confidence in the assessment and subsequent management decisions.

Grey gurnard in Subarea 4 and divisions 7.d and 3.a (North Sea, eastern English Channel, Skagerrak and Kattegat)

NSAC recommends that ICES review the approach to providing advice for Category 3 stocks, with particular attention to the communication of the advice. Where an increasing stock results in reduced catch advice due to the application of precautionary rules, ICES should clearly explain the rationale and practical implications to improve stakeholder understanding and confidence.

From an industry perspective, an increasing stock combined with decreasing catch advice appears contradictory and can undermine confidence in the scientific process, even where the mathematical basis is sound.

Haddock (North Sea, West of Scotland, Skagerrak (4, 6.a and Subdivision 20))

Members advise that ICES investigates the discrepancy between the assessment results, survey-based recruitment estimates, and observations from the fishing industry. In particular, NSAC encourages ICES to examine whether the current assessment is adequately capturing recent recruitment patterns and the observed presence of younger haddock in the fishery.

The stock is currently at its highest biomass level in decades, while recruitment has remained among the lowest observed levels for several years. This situation raises concerns regarding the relationship between biomass, recruitment, and the application of restrictive catch advice. While NSAC recognises the importance of precautionary management, it questions whether the current advice fully reflects the observed stock situation, particularly where biomass is several times above the reference level.

Industry observations from Danish and Dutch fisheries indicate the presence of large quantities of small haddock over wide areas, potentially corresponding to one- and two-year-old fish. These observations appear inconsistent with the low recruitment estimates derived from surveys and need further investigation. Recent catches from Dutch fishing grounds, including landings of approximately 180 tonnes by seven vessels over one and a half days, represent an occurrence not observed for several decades, with catches consisting mainly of fish just above the minimum conservation reference size.

These observations need to be considered alongside the assessment information to determine whether improvements to data collection, survey coverage, or assessment methodology are required. A clearer understanding of these discrepancies is important to ensure that advice is scientifically robust and credible to stakeholders.

Seabass (divisions 4.b-c, 7.a, and 7.d-h)

NSAC recommends that the longstanding moratorium on Northern seabass fishing be reviewed in light of the continued improvement in stock status. Maintaining a moratorium despite two consecutive years of stock improvement requires further justification. Relevant authorities are encouraged to clearly communicate the scientific basis underpinning this approach. Industry is not advocating for the removal of all management measures, but rather

for a transition towards a managed fishery with appropriate regulatory measures that reflect the improved stock situation.

Hake (Northern stock (3.a, 4, 6, 7, 8.abd))

NSAC believes that ICES should further investigate the observed discrepancies between survey-based recruitment estimates and observations from the fishing industry regarding hake distribution and recruitment in the North Sea. In particular, we encourage consideration of whether available survey coverage and assessment methods sufficiently reflect recent changes in hake distribution and the presence of younger age classes.

Recent changes in fishing patterns, including increased catches from northern areas, and reports from Danish and Scottish fishers of large quantities of small hake over wide areas suggest that recruitment may be stronger than currently indicated by surveys. NSAC highlights that the absence of North Sea surveys being included in the assessment may contribute to uncertainty, and recommends that this issue is revisited. In general, these observations need to be considered through an appropriate ICES process, such as a benchmark or other assessment review. This would help ensure that the assessment reflects current stock dynamics and distribution patterns.

NSAC also recommends further investigation into the factors influencing recent changes in biomass and recruitment. While stock-recruitment relationships historically indicate an inverse relationship between recruitment and spawning stock biomass, current observations suggest that additional factors may be influencing recruitment dynamics. We welcome ongoing work to review and improve reference points using more flexible assessment tools and encourage consideration of whether current reference points adequately reflect stock dynamics, including potential factors such as cannibalism, which may influence recruitment and mortality processes.

Lemon sole (Subarea 4, division 3.a and 7.d)

The NSAC notes that the fishing mortality and SSB indices for this Category 3 stock are assessed to be improving. Together with the rescaling of the SSB index, this results in ICES catch advice for 2027 that is 20% higher than the advice for 2026. The NSAC recommends following this advice. However, it reiterates its request for a benchmark assessment with the objective of upgrading this stock to Category 1.

Plaice (Subarea 4 (North Sea) and Subdivision 20 (Skagerrak))

NSAC advises that ICES examines the persistent discrepancy between assessment results and observations from the fishing industry regarding the abundance of North Sea plaice. For many years, fishers have consistently reported that the abundance of plaice observed in the fishery does not correspond to the especially high biomass estimated by the assessment. While fishers acknowledge that plaice are widely distributed and, in some areas, are in good

condition, catch rates remain substantially below what would be expected if the spawning stock biomass were at the estimated level. This discrepancy presents an ongoing challenge for stakeholder confidence in the scientific advice.

NSAC is concerned that, if future assessments were to substantially revise the estimated stock size downward, this could have significant management and economic consequences for the fishing industry. Members consider it important to examine whether the current assessment adequately reflects all relevant biological processes and available evidence.

Historical comparisons also raise questions regarding the magnitude of the current biomass estimates. Historically, substantially lower spawning stock biomass estimates supported much higher catches than are currently observed. In addition, slower growth means that fish now remain below the minimum conservation reference size for considerably longer, contributing to high discard rates and potentially affecting the relationship between biomass estimates and fishery performance.

NSAC recommends that the next benchmark considers:

- the treatment of discard survival, where scientific evidence indicates that survival occurs;
- observed changes in growth rates and size-at-age, including the increasing time required for fish to reach the minimum conservation reference size;
- whether changes in growth influence the relationship between recruitment, estimated biomass, and the proportion of the stock that is actually available to the fishery; and
- the consistency between assessment outputs, survey observations, and fishery-dependent information.

Saithe (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat (4,6,3.a))

NSAC recommends that ICES and relevant decision-makers consider a gradual and transparent transition when implementing revised reference points and management approaches. We support the review of reference points in light of the stock's continued negative response to management and scientific advice. However, it is crucial to clearly communicate that revised reference points represent an evolution in scientific understanding and should not imply that previous management decisions were inappropriate when they were based on the best available advice at the time.

We believe that the transition to new reference points should be managed carefully, with particular attention to how changes in historical reference values are presented. Retrospective adjustments to fishing mortality reference points, such as a lower revised F_{MSY} , can unintentionally create the impression that managers have knowingly exceeded sustainable limits for decades, which does not reflect the decision-making context at the time. ICES could improve communication around revised reference points by clearly distinguishing between updated scientific understanding and historical management performance.

The NSAC acknowledges the ICES recommendation to reduce the catch advice by 19.7% compared with 2026. This represents a substantial reduction, following a similar decrease in the 2026 advice.

Given the magnitude of the changes between the previous and revised management frameworks, the NSAC recommends considering a more gradual transition. Such an approach would reduce fishing mortality while allowing the stock to be rebuilt before the new reference point regime is fully implemented.

In addition, given that saithe recruitment is showing signs of improvement and that a Management Strategy Evaluation is forthcoming, the potential socio-economic impacts of the proposed ICES reduction should be carefully considered. The NSAC therefore recommends maintaining management stability and avoiding short-term TAC variability in order to support both sustainable stock management and the long-term viability of the fishing industry.

Sole (Subdivisions 20–24 (Skagerrak and Kattegat, western Baltic Sea))

NSAC Members advise ICES to consider whether the current assessment adequately reflects recent changes in the spatial distribution of the stock.

Climate change may be contributing to an expansion of the distribution range of sole, with increasing abundance observed in southern areas, including the south-western Baltic. Currently, changes in distribution are not explicitly incorporated, which may create uncertainty where parts of the current distribution are not fully covered by the assessment.

Members also advise that survey coverage and data sources are reviewed, including the addition of the Danish sole survey conducted by DTU Aqua, in collaboration with other relevant scientific institutes. Sole has clearly shifted in distribution, with increasing abundance in southern areas and declining abundance in northern parts of the range, and this should be reflected in future assessment work.

Sole (Subarea 4 (North Sea))

NSAC considers that the implications of fleet structure changes, fishing patterns, and catchability should be fully examined when interpreting the stock assessment and evaluating the appropriateness of current catch advice for sole in subarea 4.

Compared with 2005, only around 25% of the former Dutch fleet remains, with the number of beam trawlers operating in the North Sea having declined from approximately 180 vessels to around 35. In addition, fishing strategies have changed, with fewer vessels now targeting sole exclusively throughout the year and many fleets diversifying into other fisheries, including plaice and round fish fisheries.

Despite these structural changes, NSAC notes that catch rates per Dutch active vessel have remained relatively stable. Vessels targeting sole throughout the year continue to achieve catches of approximately 120-150 tonnes, which is comparable with historical levels. Recent observations of good catches of sole just above the minimum conservation reference size also suggest the presence of a new year class entering the fishery.

NSAC recommends that these fishery-dependent observations are considered alongside assessment results to improve understanding of stock availability, catchability, and the relationship between quota uptake and stock status. A decline in fishing capacity should not be interpreted directly as evidence of reduced stock abundance without considering the wider changes in fleet structure and fishing behaviour.

Whiting (North Sea and eastern English Channel (4 and 7.d))

When communicating catch advice, ICES should clearly distinguish between changes resulting from revised reference points and changes resulting from actual changes in stock status. In particular, we would welcome improved explanation of situations where substantial reductions in advice occur despite positive stock indicators, to avoid misleading interpretations among stakeholders and the wider public.

The advised catch level remains below previous reference points despite the stock being in good condition. While members recognise the scientific rationale for updating reference points and assessment methodology, the resulting reduction in advice of almost 50% is difficult for fishers to reconcile with the observed positive stock situation. The key issue may not be the methodological change itself, but the disconnect between reference points, available data, stock perception, and the resulting advice.

Whiting is an important predator within the ecosystem and there is increasing industry interest in considering whiting within mixed-fishery approaches. The stock currently appears to be in good condition, with high abundance of small whiting being observed. A 47% TAC reduction may create the perception of a declining stock, despite the reduction primarily resulting from revised reference point methodology rather than deterioration in stock status. Advice drafting and communication should place greater emphasis on the reasons behind such reductions. A reduction in TAC does not necessarily indicate a decline in stock condition, particularly where quota uptake is below the available TAC and there is no requirement for the fleet to fully utilise the allocation. This distinction should be made clearer to ensure that stakeholders understand the basis for management advice.

3 Conclusion

Scientific advice for the North Sea, Skagerrak, and Kattegat continues indicating positive trends, with many fish stocks showing stability and recovery and NSAC welcomes ongoing efforts to strengthen the scientific basis for fisheries advice, especially through the involvement

of relevant stakeholders throughout the advisory process, improving the incorporation of industry observations and advancing EBFM. However, across several stocks, concerns remain regarding discrepancies between assessment outcomes and observations from the fishing industry, particularly related to stock abundance, recruitment, distribution changes, and the effects of changing fishing practices.

A recurring message is the importance of ensuring that scientific advice is transparent, well explained, and reflects the realities of fisheries. Changes in reference points, assessment methods, or precautionary approaches can result in substantial changes to advice that may appear inconsistent with positive stock indicators. Clear communication of the reasons behind such changes is essential to maintain confidence in scientific advice and management decisions. Continued review of assessment assumptions, data sources, and uncertainties remains important to improve robustness and credibility.

Finally, NSAC stresses that fisheries management must increasingly account for broader ecosystem and climate-related drivers affecting fish populations. Changes in distribution, environmental conditions, predator impacts, food-web interactions, and socio-economic realities need to be better integrated into assessments and decision-making processes. A stronger collaboration between scientists, managers, and stakeholders, together with consideration of the full range of scientific advice and management options, will be needed to deliver effective and sustainable fisheries management.

The NSAC thanks the Commission for the opportunity to comment on the scientific basis of the ICES advice and provide observations on the process of defining fishing opportunities for 2027. For further engagement or clarifications regarding this advice, we invite your services to contact us bilaterally.