INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA

Working Group on Bycatch of Protected Species (WGBYC)

Our work, terms of reference and contribution to ICES advice

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Who we are

WGBYC is ICES' expert group on the incidental capture of endangered, protected, and threatened species (ETPs) in fisheries.

- Brings together fisheries scientists, protected-species experts, and data specialists from ICES member countries.
- Meets annually and on data, estimation, and assessment.
- Operates under the ICES Science Committee and supplies evidence to the Advisory Committee (ACOM).
- Outputs: annual scientific report, bycatch estimates, and input to ICES advice and regional assessments.



Marine mammals

Cetaceans and seals



Seabirds

Diving and surface feeders



Marine turtles

Mainly southern areas



Sensitive fish

Elasmobranchs and others

Why bycatch matters: the policy context

Bycatch is a direct source of mortality for many long-lived, slow-reproducing species – and several legal frameworks require it to be monitored and minimised.

EU Habitats & Birds Directives

Strict protection of cetaceans, seals, seabirds and turtles

Marine Strategy Framework Directive

Biodiversity descriptor (D1): mortality from incidental bycatch

Technical Measures Regulation (EU) 2019/1241

Mitigation and monitoring requirements for PETS bycatch

EU Data Collection Framework (EU-MAP)

Collection of bycatch data in national monitoring programmes

OSPAR & HELCOM

Regional indicators and thresholds for marine mammals and birds

ASCOBANS & ACCOBAMS

Cetacean conservation agreements and bycatch targets

Terms of reference

What ICES has tasked WGBYC to deliver

WGBYC multi-annual terms of reference

ToR A

Collate data

Compile and quality-assure fishing effort, monitoring effort and PETS bycatch data submitted through the annual ICES data call.

ToR B

Mitigation solutions

Review the effectiveness of mitigation measures and advice on mitigation solutions to minimize bycatch .

ToR C

Bycatch estimation

Estimate bycatch rates and total bycatch by species, area and métier by use of the BEAM.

ToR D

Poor data

Continue to develop and refine the methodology to assess data poor species, for which bycatch rates and associated markers of sustainability are unavailable.

ToR E

Review monitoring

Review ongoing monitoring of different taxonomic groups in relation to spatial bycatch risk and fishing effort to inform coordinated sampling plans

Provide the scientific basis for ICES advice

From data call to advice: the annual cycle



1

Data call

ICES issues annual call for effort, monitoring and bycatch data

2

Database & QA

Submissions checked and stored in the WGBYC database

3

Estimation

Bycatch rates raised to total fishing effort

4

Risk assessment

Evidence combined per species and ecoregion

5

Advice

Input to ICES advice, OSPAR/HELCOM indicators

Data are increasingly drawn from the Regional Database and Estimation System (RDBES), improving consistency with other ICES data streams.

Our work

Monitoring, assessment, mitigation and collaboration

Monitoring bycatch: sources and gaps



At-sea observers

Most widely used source; often designed for commercial discards rather than ETPS.



Electronic monitoring

Cameras and sensors (REM) can extend coverage, especially in small vessels.



Strandings & surveys

Strandings, post-mortem evidence and abundance surveys add context.



Key gaps WGBYC highlights

- Low monitoring coverage of high-risk gears such as static nets
- Under-sampling of small-scale and inshore fleets
- Inconsistent recording of PETS across national programmes
- Limited population estimates to judge sustainability

Assessing risk: the Bycatch Evaluation and Assessment Matrix (BEAM)

BEAM gives a structured, transparent way to judge whether bycatch may pose a threat to a population, even where data are incomplete.

1

Define units

Species / population and ecoregion combinations

2

Weigh evidence

Bycatch estimates, monitoring quality, population status and thresholds

3

Classify

Evidence of a threat, no evidence, or insufficient data

4

Prioritise

Flag where mitigation or better monitoring is most needed

Developed by WGBYC with the ICES species expert groups on marine mammals, seabirds and elasmobranchs.

Where the evidence has driven advice

Common dolphin – Bay of Biscay

High winter strandings and bycatch estimates led to ICES advice on emergency measures; winter fishery closures in French waters followed from 2024.

Harbour porpoise – Baltic Proper

A critically endangered population of a few hundred animals; ICES advised measures to bring bycatch as close to zero as possible.

Seabirds in gillnets

Diving ducks, auks and divers are caught in set nets, notably in the Baltic and North Sea; evidence feeds regional bird assessments.

Reviewing mitigation measures



Acoustic deterrents (pingers)

Effective for harbour porpoise in some fisheries; enforcement and habituation are concerns.



Spatial & temporal closures

Removing high-risk gear from hotspots at the times bycatch peaks.



Gear modification & switching

Alternative gears to gillnets, modified nets and set-up changes.



Visual deterrents

Net lights and high-contrast panels being trialled for seabirds and turtles.

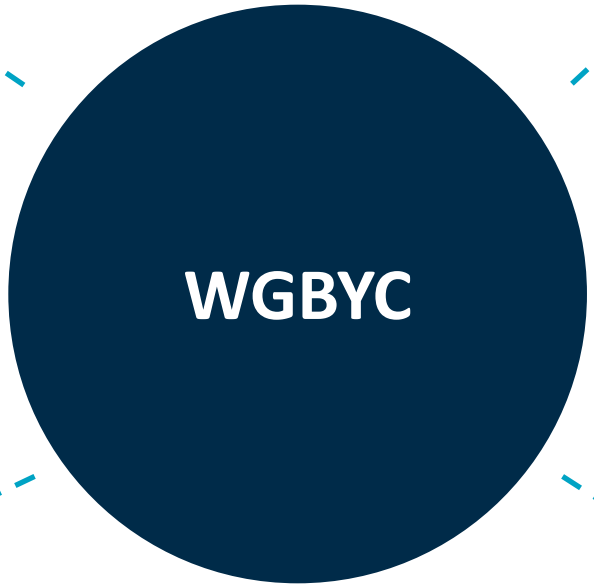
Working with others

ICES expert groups

WGMME (marine mammals), JWGBIRD (seabirds), WGEF (elasmobranchs)

Fishing technology

WGFTFB on gear design and mitigation trials



Data governance

RDBES and Regional Coordination Groups (RCGs)

Regional bodies

OSPAR, HELCOM, ASCOBANS, ACCOBAMS and the European Commission

Priorities going forward

1. **Better monitoring** — Targeted, representative PETS monitoring of high-risk fleets, including small-scale vessels and electronic monitoring.
2. **Robust estimates** — Consistent methods for raising bycatch rates, with clear uncertainty, using RDBES data.
3. **Thresholds** — Supporting agreed population-level thresholds so that bycatch can be judged as sustainable or not.
4. **Effective mitigation** — Evaluating measures in real fisheries and tracking whether bycatch actually falls.

Thank you

WGBYC reports and ICES advice are available at ices.dk