WGCATCH – Working Group on Commercial Catches

2016/2/SSGIEOM09

The **Working Group on Commercial Catches (WGCATCH)**, chaired by Hans Gerritsen, Ireland, and Nuno Prista Sweden, will meet in **Oostende, Belgium, 7–11 November 2016** to address the following terms of reference:

Specific ToRs

a) Compile and evaluate approaches to estimate fishery-dependent CPUE and LPUE using case studies. Discuss conclusions of recent workshops and EGs that addressed effort-related issues.

b) Review current and emerging sampling and estimation procedures of commercial catches, focusing on total catch, length and age distribution.

c) Document recent changes in sampling design and data availability from commercial fisheries, particularly changes due to the introduction of the landings obligation and other legislation that can affect data collection and estimates.

d) Liaise with other ICES groups (PGs, WG, WK, SSGIEOM) and research projects that deal directly with commercial catch data, and collaborate with PGDATA in the support to Benchmark process.

e) Continue to document current as well as best practices for data collection schemes to estimate catch, effort, catch composition, biological parameters and spatial mapping of activities of small-scale commercial fisheries (under-10m vessels) with particular focus on European fleets. Evaluate approaches to data collection by census, surveys or self-sampling.

f) Document current sampling and estimation practices for Protected, Endangered and Threatened Species (PETS) and rare fish species. Evaluate limitations of current data and communicate them to main end-users

g) Review developments of the Regional Database (RDB) and exchange formats from a design-based sampling and estimation perspective.

h) Investigate suitable methods for estimating the fraction of landings coming from foreign vessels.

Generic ToRs

i) Foster regional cooperation on publications related to the work of WGCATCH.

j) Develop and maintain a reference list of key publications and contacts dealing with design and implementation of fishery sampling schemes and associated data analysis.

k) Respond to recommendations to WGCATCH from ICES expert groups RCMs, liaison meetings or other groups.

l) Review the work of WGCATCH 2014–2016, identifying present and future research and training needs. Develop work plan for 2017–2019 and the ToRs for the next WGCATCH meeting, identifying intersessional work, timelines and responsibilities.

m) Ensure, where appropriate, that systems are in place to quality assure the products of WGCATCH.

Supporting information

Priority	WGCATCH supports the development and quality assurance of regional and national catch sampling schemes that can provide reliable input data to stock assessment and advice, while making the most efficient use of sampling resources. As catch data are the main input data for most stock assessment and mixed fishery modelling, these activities are considered to have a very high priority.
Scientific justification	Tor a): Fishery-dependent abundance indices are used in many stock assessments, and for some species where fishery-independent surveys do not provide reliable information, these indices can be the only source of information on stock trends. There is no design-base for fishery cpue (i.e. the data are not collected according a sampling design), and various methods are applied worldwide to get round this problem, for example using species composition data to exclude trips considered to have a very low probability of catching the species (Stephens and MacCall, 2004: Fish Res 70(2)), and delta-lognormal models to provide relative abundance signal after factoring out the influence of area, season, vessel/gear characteristics etc. WGCATCH will analyse these different methods and identify the limitations and biases of CPUE and LPUE data from a commercial catch perspective. If case studies are available, This can include the use of detailed spatial information from VMS and the use LPUE/CPUE data from small-scale fisheries data which suffer less from technological creep. ToR b): WGCATCH provides a forum for the discussion of design - based sampling and estimation of catch data. WGCATCH and previous EGs (e.g., WKPICS, SGPIDS, PGCCDBS) provided guidelines for best practice in sampling at sea to estimate discards and the length or age compositions of landings and discards, and sampling onshore to estimate length/age compositions of landings, and reviewed the sampling practices in European countries. As probability-based sampling expands to more MS, more detailed national case studies are needed to demonstrate the performance of such schemes in practical applications covering different operational conditions and types of fishery. WGCATCH will continue to review and advice on progresses in this implementation. ToR c): The landing obligation will expand to the North Sea and North Atlantic waters in 2016 and will involve many more MS and fleets. Fisheries labs will be monitoring the effects of the implementation of the landing obligation on sampling opportunities and will need to adapt their sampling designs to meet the new challenges sampling under the landing obligation poses. WGCATCH will continue to compile and evaluate the implementation of the landing obligation from a commercial catch sampling and estimation perspective as well as to document and inform on other legislation that can affect data collection programmes from ICES fisheries. ToR d): WGCATCH pools knowledge of MS sampling programmes and estimation of commercial catches all across ICES waters. It also pools statistical expertise on commercial catch sampling. It is therefore a WG which may support the interpretation of patterns in the data that may result from changes in sampling or estimation procedures. WGCATCH will meet intersessional by video conference if requests arise from data compilation and benchmark groups, continuing to foster the collaboration and information flow between data collection and stock assessment teams. ToR e): Small-scale commercial fisheries (SSF) pose particular challenges due to large numbers of vessels operating from many harbours, and lack of exhaustive data on activities and catches. Such fisheries can contribute to a significant amount of the landings in some areas. WGCATCH 2015 made considerable progress in documenting the importance of SSF and existing sampling approaches. In 2016 the work will be extended to definitions of best-practice guidelines for sampling and estimating commercial catches from small-scale fisheries. ToR f): WGCATCH 2015 enhanced its collaboration with WGBYC and agreed to start routine documentation of sampling practices for Protected, Endangered and Threatened Species (PETS) and rare fish species by means of a specific ToR. Such documentation will provide an annual check-point on whether MS have implemented some of the best practices for PETS sampling previously proposed and would provide a reference that allows the tracking of sampling methodologies applied at MS-level and their evolution through time. Alongside this, WGCATCH will communicate to end-users the current limitations in the sampling data from rare events with the aim of managing the expectations from these end-users.

	ToR g): WGCATCH provides a forum to discuss ideas on exchange formats that aim to provide design-based estimates. The RDB is developing one such format but at WGCATCH 2015 other formats were presented that are in development (e.g. Norwegian StoX / R-ECA software). WGCATCH will continue to monitor the development of these formats and foster coordination and integration among them. ToR h): ToR i): WGCATCH and other ICES groups dealing with sampling design have made considerable progress that is of interest to the wider scientific community. WGCATCH 2014 planned an ICES cooperative research report (CRR) but WGCATCH 2015 decided a peer-reviewed paper would be more appropriate. Other work that is ongoing in WGCATCH is also expected to lead to publications, for example a review of SSF sampling approaches across Europe/world (along the lines of recreational fisheries group paper) would be a useful deliverable of the group. ToR j): The combined expertise of WGCATCH members includes a considerable knowledge of key publications and other resources that deal with the design and implementation of catch sampling schemes and estimation procedures. A reference list of key publications and resources with a short reviews of each has started to be developed and will be a valuable output for future research and implementation of these designs. ToR k, l and m): These are mainly administrative ToRs that will be dealt with by the chairs on an ongoing basis.
Resource requirements	The WG builds extensively on experiences gained within PGCCDBS, WKACCU, WKPRECISE, WKMERGE, WKPICS, SGPIDS and WGRFS. European countries are encouraged to provide the WG with any requested documentation of their sampling programmes, updated manuals and protocols for review and feedback by the WG, and to ensure that their national members of WGCATCH have sufficient resources to conduct the necessary intersessional work to address the ToRs.
Participants	The Group is normally attended by around 30–40 members and guests.
Secretariat facilities	None.
Financial	No financial implications.
Linkages to advisory committees	WGCATCH falls under the joint ACOM-SCICOM steering group on integrated ecosystem observation and monitoring (SSGIEOM), and supports the ICES advisory process by promoting improvements in quality of fishery data underpinning stock-based and mixed fishery assessments, and ecosystem indicators related to fishery affects, and in developing data quality indicators and quality reports for use by assessment EGs and benchmark assessments.
Linkages to other committees or groups	WGCATCH links with: • WGBIOP in relation to collection of stock-based biological variables from sampling of fishery catches • PGDATA, stock assessment EGs and benchmark assessment groups by providing input on the data quality of commercial catches. • WGBYC to provide input on sampling design and estimation of PETS • Regional Coordination Groups, the Regional Database Steering Group, STECF EWGs dealing with EU-MAP and the Liaison Meeting.
Linkages to other organizations	The work of this group is closely aligned with similar work in FAO and in the Census of Marine Life Programme.