Working Group on Fisheries-Induced Evolution (WGEVO)

2018/MA2/EPDSG02 The **Working Group on Fisheries-Induced Evolution** (WGEVO), chaired by Bruno Ernande, France, will work on ToRs and generate deliverables as listed in the Table below.

	Meeting dates	Venue	Reporting details	Comments (change in Chair, etc.)
Year 2019	19–21 November	Kristiansand, Norway		
Year 2020				**Change of Chair**: Outgoing: Bruno Ernande Incoming: TBC
Year 2021			Final report DATE to SCICOM	

ToR descriptors

ToR	Description	Background	Science Plan codes	Duration	Expected Deliverables
a	Provide a forum for international collaboration and exchange of emerging scientific insights on fisheries-induced adaptive changes. The activities of WGEVO will provide ICES with a basis for advice on whether and how the effects of fisheries-induced adaptive change need to be taken into account in ecosystem approach to management.	a) Science Requirements b) Advisory Requirements	2.2	Years 1, 2, 3	Proposal of a dedicated Theme session at ICES ASC. Provision of summary recommendations about which stocks assessed by ICES are at most risk in terms of fisheries-induced evolution in Year 2
b	Assemble and review empirical evidence of fisheries-induced adaptive change and its consequences for the conservation of biodiversity and sustainable exploitation of marine species within an ecosystem context.	a) Science Requirements	2.2; 6.1	Years 2, 3	Potential participation in joint projects and publications (e.g. papers) among participants and others A Cooperative Research Report in Year 2 (and/or paper)
c	Develop scientific and methodological tools to monitor and respond appropriately to risks to biodiversity and sustainable exploitation posed by fisheries-induced adaptive change, with a	a) Science Requirements b) Advisory Requirements	2.2; 6.1	Years 1, 2, 3	Methodological tools for fisheries-induced selection pressure estimation (R-scripts) with a R notebook as a User, the results will be summarised in one peer-reviewed publication on fisheries-induced selection

	particular emphasis on making these tools readily available for a broader range of scientists and managers.				pressures
d	Link methodological tools to estimate fisheries-induced selection to stock assessment procedure to generalize fisheries-induced selection monitoring to any analytically assessed stock	a) Science Requirements b) Advisory Requirements	5.1; 5.3	Years 2, 3	Automation of fisheries-induced selection pressure estimation by using stock assessment outputs Collaboration with stock assessment WGs

Summary of the Work Plan

Year 1	Review and discuss ongoing and recently completed research in the field Statistical analysis of exogeneous (fishing characteristics) and endogeneous (stocks life-history characteristics) determinants of fisheries-induced selective pressures Complete and submit a manuscript on fisheries-induced selection pressures and their determinants in exploited fish stocks together with R scripts and User guide for fisheries-induced selection pressures estimation
Year 2	Review and discuss ongoing and recently completed research in the field Write and submit a Cooperative Research Report on the evidence for the incidence and consequence of fisheries-induced evolution across a wide range of fish stocks Start automating fisheries-induced selection pressure estimation based on stock assessment outputs
Year 3	Review and discuss ongoing and recently completed research in the field Finalize automation of fisheries-induced selection pressure estimation based on stock assessment outputs Discuss future research needs Write the final 3-year term report

Supporting information

Priority	The activities of the Working Group on Fisheries-induced Evolution will provide ICES with a basis for advice on whether and how the effects of fisheries-induced adaptive change need to be taken into account in present and future management. Due to the potentially long lasting effects of fisheries-induced evolutionary changes, such advice is needed in relation with the precautionary approach, the ecosystem approach, biodiversity conservation, and the evaluation of risk and uncertainty.
Resource requirements	The research activities providing input to WGEVO are ongoing, and corresponding resources have been committed by the engaged institutions. The administrative resources for convening the annual WGEVO meeting are negligible.
Participants	The Group is normally attended by 8–10 members and guests.
Secretariat facilities	None.
Financial	No financial implications.
Linkages to ACOM and groups under ACOM	Linkage to Assessment WGs under ACOM
Linkages to other committees or groups	Linkage to SCICOM

Linkages to other organizations	None