

ICES/IOC/IMO Working Group on Ballast and Other Ship Vectors (WGBOSV)

2015/MA2/SSGEPI05 The ICES/IOC/IMO Working Group on Ballast and Other Ship Vectors (WGBOSV), chaired by Sarah Bailey, Canada, will work on ToRs and generate deliverables as listed in the Table below.

	MEETING DATES	VENUE	REPORTING DETAILS	COMMENTS (CHANGE IN CHAIR, ETC.)
Year 2016	14–16 March	Olbia, Italy	Interim report by 15 April to SSGEPI	
Year 2017	March	TBD	Interim report by DATE to SSGEPI	
Year 2018	March	TBD	Final report by DATE to SSGEPI, SCICOM	

ToR descriptors

TOR	DESCRIPTION	BACKGROUND	SCIENCE PLAN TOPICS ADDRESSED	DURATION	EXPECTED DELIVERABLES
a	Conduct strategic planning (identify and develop collaborative activities, advance and standardize methods, etc.) to advance research and address knowledge gaps through review of national activities and to respond to new requests for advice.	ICES strategic plan Goal 2: understand the relationship between human activities (e.g., shipping) and marine ecosystems to estimate pressures and impacts, and develop science-based sustainable pathways; and Goal 3: Evaluate and advise on options for the sustainable use and protection of marine ecosystems. Potential advice requests from agencies such as OSPAR.	17, 25, 27	3 years	Report to ICES. Respond to advice requests, as applicable.
b	Evaluate methods for collection and analysis of ballast water samples to inform national and/or international procedures for compliance testing of ballast water management systems	The Convention for the Control and Management of Ships' Ballast Water and Sediments, (2004) (BWMC) aims to minimize the transfer of harmful aquatic organisms with the ballast water from ships. It is imperative that the BWMC is implemented in a scientifically valid and standardized way globally. There are science and advisory requirements related to validated methods	17, 27, 31	3 years	Comparative methods manuscript submitted to a peer-reviewed scientific journal

		and procedures.			
c	Evaluate methods for, and outcomes of, type approval and operational testing of ballast water management systems to inform national and/or international procedures for type approval of such systems	As previous	17, 27, 31	3 years	Input on the general applicability or otherwise of such methods to IMO or national regulators through meeting participation, correspondence group and/or technical paper
d	Investigate and evaluate climate change impacts on the establishment and spread of ship-mediated nonindigenous species, particularly with respect to the Arctic	This work will be carried out jointly with WGITMO. Contributes to SICCOME and ICES high-priority action area 'Arctic research'	3, 10, 13, 17	3 years	At least one manuscript submitted to a peer-reviewed scientific journal evaluating risk of ship-mediated invasions to the Arctic
e	Investigate and evaluate methods/technologies to assess risks of, to minimize extent of, and to respond to vessel biofouling to inform national and/or international policies or guidelines	Ships' biofouling is, with ballast water, a primary bioinvasion vector. As management of invasion vectors is the only effective way to reduce risks of new invasions, addressing biofouling issues is of high priority in bioinvasions management.	11, 13, 17	3 years	Input on the general applicability or otherwise of such methods/technologies to IMO or national regulators through meeting participation, correspondence group and/or technical paper
f	Evaluate the current role/importance of shipping in relation to other invasion vectors/pathways globally	This work will be carried out jointly with WGITMO. As invasion of non-indigenous species is truly of global nature, such a review should have global coverage. Although shipping has been claimed as the most important invasion vector, there are regional specificities and also temporal considerations.	17, 27	3 years	Review manuscript submitted to a peer-reviewed scientific journal

Summary of the Work Plan

Year 1	Working on all ToRs, but with special focus on ToRs a, c, and d.
Year 2	Working on all ToRs, but with special focus on ToRs b, e, and f.
Year 3	Report on all ToRs

Supporting information

Priority	The work of the Group forms the scientific basis for essential advice related to the movement of harmful aquatic organisms and pathogens via ballast water and other shipping vectors. As a joint working group it also follows and supports related work
----------	---

	within the IMO and IOC.
Justification of venue (in a non-ICES member country)	As marine bioinvasions and their management is a global issue, WGBOSV/WGITMO are continuously aiming to enhance connections with scientists from non-ICES area from various regions and seas globally. In order to continue strengthening cooperation with the Mediterranean Sea scientists, who annually participate in WGITMO meetings, and to fulfil MoU between ICES and CIESM, WGBOSV/WGITMO will meet in 2016 in Italy.
Resource requirements	The research programmes which provide the main input to this group are already underway, with resources provided by national governments and scientific funding agencies. The additional resources required to undertake activities in the framework of this group are negligible.
Participants	The Group is normally attended by some 25-35 members and guests, but has more than 65 members in total.
Secretariat facilities	None.
Financial	No financial implications.
Linkages to ACOM and groups under ACOM	The group will serve as primary respondent to incoming advice requests on various issues related to ship-mediated introductions.
Linkages to other committees or groups	There is a very close working relationship with WGITMO. Potential or occasional linkage with WGBIODIV, WGHABD, WGIMT, WGMABS, WGPME and WGZE.
Linkages to other organizations	International Oceanographic Commission (IOC), International Maritime Organization (IMO), North Pacific Marine Science Organization (PICES). In addition, the outcomes are relevant to other national and international organizations involved in the development of regulatory policies.