



## **PLANNING OF GESAMP ACTIVITIES:**

### **BIOFOULING MANAGEMENT**

#### **Report of the Chair of Working Group 44**

1 Working Group 44 (WG 44) was established during the 46th session of GESAMP in September 2019. The group's terms of reference were formally approved in April 2019. The overall objective of WG 44 is to provide a global overview of the impact of biofouling and its role in the introduction and spread of non-indigenous species, as well as mitigation concepts and strategies and thereby support the IMO led GloFouling Partnership.

2 WG 44 is led by IOC-UNESCO (Technical Secretary for the WG: Mr. Henrik Enevoldsen), with co-sponsorship by IMO (Technical Secretary for the WG: Mr. John Alonso) and UNDP (Technical Secretary for the WG: Mr. Andy Hudson). Professor Mario Tamburri (University of Maryland Center for Environmental Science, United States) serves as the working group Chair. For the current working group membership refer to annex 1.

3 The working group was originally composed of seventeen members, and was chaired by Dr. Katja Broeg, and Prof. Mario Tamburri and Prof. Pei-Yuan Qian as the Vice-chairs. The working group completed a draft report during the first year of its work. (GESAMP 48/4/4, annex 1).

4 With the announcement of Dr. Katja Broeg's resignation as the chair of WG 44 in August 2021, IOC-UNESCO, IMO, the WG Chair and Vice-Chair held a meeting in September 2021 to clarify the scope of the remaining work, the status of the draft report, and the way forward for the working group. It was decided to hire an external consultant to assist with the organization of the work of the members of the WG, review and edit the draft report and to conduct the peer review of the draft report.

5 Prof. Mario Tamburri was selected as new Chair of the WG in May 2022, with the support of the external consultant to assist the WG. The designated consultant is Dr. Jake Rice, Department of Fisheries and Oceans, Canada, who has been involved in a number of projects in organizations such as IPPC, IPBES and in various Canadian working groups.

6 The first meeting of the WG was held on 8 June 2022, with participation of IOC-UNESCO, IMO, and the external consultant. The WG agreed on monthly meetings on a fixed day and monthly time. A new outline of the report was discussed during the meeting and the deadline of the report was extended to December 2023, (although it may be delivered before that date).

7 The next meeting of the WG was held on 5 July 2022. The WG agreed on a restructuring of the report. The main focus of the report will be on the role of biofouling in each sector as vectors of Non-native Invasive Species (NIS), and instead of discussing each sector separately, the report would discuss the transmission and impact of NIS, mitigation of risks/removal of NIS, and the benefits and environmental risks of coatings.

8 The WG met again on 2 August 2022. The external consultant, with support from the WG Chair, will reorganize the document as agreed and will place existing text into appropriate

sections. The full WG will continue to review and add examples from broad geographic regions and continue to identify gaps and possible solutions.

9 The WG is considering holding a face-to-face meeting in November 2022 or early 2023, depending on the progress of the report.

**Action requested of GESAMP**

10 GESAMP is invited to note the information provided and to take action as appropriate.

\* \* \*

**ANNEX 1**

**WG 44 members**

<b>Name</b>	<b>Surname</b>	<b>Institution</b>	<b>Country</b>	<b>Subject</b>
Joop	Coolen	Wageningen University	The Netherlands	Oil and Gas
Andrew	Want	Heriot Watt University	United Kingdom	Renewables
Pedro	Almeida Vinagre	WavEC Offshore Renewables	Portugal	Constructions
Serena	Teo	National University of Singapore (NUS)	Singapore	Aquaculture
Youna	Lyons	Centre for International Law (NUS)	Singapore	Environmental Governance
Nina	Blocher	SINTEF	Norway	Aquaculture
Kamal	Ranatunga	University of Sri Jayewardenepura	Sri Lanka	Ports
Agnese	Marchini	Universita di Pavia	Italy	Marinas
Koebraa	Peters	Stellenbosch University	South Africa	Boating
Mario	Tamburri	University of Maryland Center for Environmental Science	United States	Shipping
David	Smith	Plymouth Marine Laboratory	United Kingdom	Shipping
Marnie	Campbell	Murdoch University	Australia	iosecurity socioeconomy
Evangelina	Schwindt	Centro Nacional Patagonico	Argentina	Bioinvasions, marinas
Hiroshi	Kawai	Kobe University Research Center for Inland Seas	Japan	Bioinvasions
Jung-Hoon	Kang	KIOST (Korea Institute of Ocean Science and Technology)	Republic of Korea	Risk Bassessments

**Former members**

<b>Name</b>	<b>Surname</b>	<b>Institution</b>	<b>Country</b>	<b>Subject</b>
Pei-Yuan	Qian	Hong Kong University of Science and Technology	China	General biofouling aspects, impact
Anna	Yunnie	Plymouth Marine Laboratory	United Kingdom	Management
Katja	Broeg	Maritime and Hydrographic Agency (BSH)	Germany	General biofouling aspects, impact. Former chair of the WG