



INSTITUTE OF
MARINE
Engineering, Science & Technology

Marine Mammals Special Interest Group

Biennial Report
2022 – 2023

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Message from Co-Chairs

The Institute of Marine Engineering, Science, and Technology (IMarEST) Marine Mammals Special Interest Group (MMSIG) is pleased to present its combined biennial report for the years 2022 through to the end of 2023. This document provides an overview of the diverse activities, events, and publications organised and produced by Special Interest Group (SIG) committee members.

Since its founding in 2020, the MMSIG has distinguished itself in promoting knowledge exchange, fostering collaborative partnerships, and advocating advancements in marine mammal science, business, conservation, monitoring, and mitigation.

This report highlights the dedication and achievements of our members, demonstrated through impactful webinars, workshops, and their active role in producing industrial publications. It underscores significant advancements in marine mammal research, innovation, technology, and conservation, emphasising the critical need for ongoing support for marine mammal welfare and ocean sustainability.

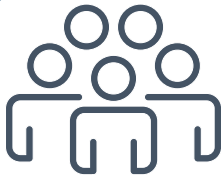
Our gratitude extends to all participants of the IMarEST Marine Mammals Special Interest Group, as their dedication and expertise have been pivotal in achieving these commendable accomplishments. These achievements speak to the strength of the group and its commitment to excellence.



Niru Dorrian
Co-Chair



Liz Ferguson
Co-Chair



COMMITTEE MEMBERS:

15



CORRESPONDING MEMBERS:

312



WEBINARS:

5



WEBINAR VIEWS:

603



MEDIA PUBLICATIONS/ARTICLES:

5



NEWS OUTLET CONTRIBUTIONS
(OPINIONS, QUOTES):

3



IMarEST BLOG VIEWS:

2700



MARINE MAMMAL CAREERS
MATRIX VIEWS:

800

SIG structure

Special Interest Groups are structured into tiers of communities where SIGs are empowered to work independently and co-create and collaborate with each other, where synergies are identified. In planning outputs SIGs can identify opportunities to work together with other SIGs to maximise value to the IMarEST.

Core committee members

Within our SIG, a dedicated Committee serves as the driving force behind the program's development and progress monitoring. Composed of a core group of 15 expert members, the Committee convenes regularly to strategize and ensure alignment with SIG goals and objectives.

Key Functions:

- Program development and progress monitoring: The Committee diligently crafts the SIG program and oversees its execution, ensuring that it remains on track and responsive to evolving needs.
- Work stream review and output creation: Committees engage in comprehensive reviews, collaboratively agreeing upon work streams and crafting outputs that contribute to the achievement of SIG goals.
- Individual expertise: Committee members participate as individuals, bringing their wealth of expertise to the table. Importantly, they do not represent their respective organisations during these sessions.

Co-Chair: Niru Dorrian

Co-Chair: Liz Ferguson

Ashleigh Kitchiner

Conor Savage

Ashley Noseworthy

Maja Nimak Wood

Carolyn Barton

Lorenzo Scala

Diana Antochiw

Rebecca Jewell

Patrick Lyne

Julia Jacoby

Heather Fowle

Harriet Bolt

Ann Carole Vallejo



Corresponding membership

There are 312 members in the MMSIG as of the end of 2023.

For those eager to stay informed and actively contribute to the Special Interest Group (SIG) community, becoming a Corresponding Member is the gateway to engagement:

- Interested members can effortlessly join the SIG mailing list by simply updating their SIG checklist through the 'My IMarEST' portal. This ensures a seamless connection to the SIG's pulse.
- Once enlisted as Corresponding Members, individuals receive regular updates directly from the SIG committee. These communications provide insights into ongoing activities and progress, keeping members in the loop with the SIG's dynamic initiatives.
- Corresponding Members play a vital role by offering their expert input, advice, or opinions as needed. This collaborative exchange ensures that the SIG benefits from a diverse range of perspectives, enriching the collective experience.

Joining as a Corresponding Member is not just about staying informed; it's an invitation to actively shape and contribute to the vibrant conversations and advancements within the SIG. Embrace the opportunity to be a part of the SIG community's journey by signing up today.





How to join?

We encourage insightful participation in this dynamic group as we rely on the expertise and knowledge content of our SIG members to provide resources and engaging informational opportunities to the community at large. All SIG members are expected to abide by the [IMarEST Rules of Professional Conduct](#).

IMarEST MEMBERS

1. Sign into the [MyIMarEST member portal](#).
2. Select My Special Interest Groups and tick the boxes of the SIGs you would like to join. You will be added to a SIG's correspondence group.
3. You can then join the relevant SIG's group on Discourse, our networking and collaboration tool. This will enable you to connect and engage with the SIG.

If you would like to get involved in the running of the Marine Mammals SIG, you can sign up to become a member of the committee. Please email technical@imarest.org with your committee membership request(s) or to find out more.

NOT AN IMarEST MEMBER:

Join us today [IMarEST membership is open to all](#), with a range of membership grades to choose from depending on your career level, experience, or interest. Membership is [complimentary for all marine students, cadets and apprentices](#).

WHY JOIN THE MMSIG?

- Advancing knowledge and education
- Networking opportunities
- Contributing to conservation efforts
- Professional development
- Influencing policy and public awareness
- Access to exclusive IMarEST resources
- Community and support



Highlights: A look back

The MMSIGs activities for 2022 and 2023 include webinars, workshops and published materials covering various topics. Here we highlight those resources and share a link to each for reference.

Webinars

The MMSIG hosted 5 webinars resulting in 603 unique viewers. Summaries and links to the webinars can be found below.

WEBINAR: Ghost Gear & Marine Fauna Entanglement

February 10, 2022

This globally relevant issue in aquatic environments was addressed by three distinguished speakers. Joel Baziuk from the Global Ghost Gear Initiative (GGGI) highlighted their extensive collaborative efforts involving over 120 organisations worldwide. Dr. Alex Loureiro of EnerGeo emphasised the energy geoscience industry's commitment to addressing marine debris threats. Sarah Dolman, representing the Scottish Entanglement Alliance (SEA), discussed their dedicated partnership in safeguarding Scotland's wildlife and marine industries. The event concluded with a panel discussion featuring GGGI's, SEA's, and GNI's global strategies to combat entanglement challenges. The **recording** is accessible to IMarEST members, providing valuable insights into combating this critical environmental issue.



WEBINAR: Marine Mammal Stranding and Research

September 28, 2022

The MMSIG hosted a compelling webinar on "Marine Mammal Stranding and Research," featuring Dr. Eduardo Morteo and Dr. Robert Bonde. Dr. Bonde, a Research Biologist with over 40 years experience, focused on manatee pathology examinations, shedding light on the challenges faced by these imperilled species and the essential conservation measures required for their coexistence with human populations. Dr. Morteo, Founder of the Institutional Marine Mammal Laboratory, delved into marine mammal population ecology, evolution, and stranding events in the southwestern Gulf of Mexico. The joint Q&A session provided valuable insights into environmental challenges affecting both marine mammals and human populations, emphasising the significance of robust conservation policies. This **webinar** stands as a crucial resource for understanding and aiding marine mammal recovery



WEBINAR: The Sources and Effects of Marine Noise on Marine Mammals

November 29, 2022

The Coastal Science & Engineering and Marine Mammals Special Interest Groups of IMarEST collaborated to discuss "The Sources and Effects of Marine Noise on Marine Mammals." The event featured speakers, including Maja Nimak-Wood, Dr. Kerri D. Seger, and Liz Ferguson. Nimak-Wood, with two decades of experience, covered diverse aspects like impact assessments, noise impacts, and marine wildlife licensing. Dr. Seger, a PhD holder in biological oceanography, shared insights on soundscape parameterization and global efforts in humpback whale sound repertoires. Liz Ferguson, CEO of Ocean Science Analytics, discussed marine mammal bioacoustic research and spatial ecology. The webinar offered a comprehensive exploration of regulatory considerations, noise sources, propagation physics, and numerical modelling, concluding with an engaging Q&A session.



Webinars

WEBINAR: Marine Mammal Monitoring Technology & Innovation

March 22, 2023

The MMSIG presented an insightful webinar on “Marine Mammal Monitoring Technology & Innovation,” exploring cutting-edge advancements in monitoring tools. The event delved into acoustic and infrared camera monitoring, AI-powered automated detection software, and drone surveillance, showcasing innovative applications to study and protect marine mammal populations globally. Dr. Andrew Wright, introduced drone technology’s non-invasive application in collecting whale blow samples. Emily Charry Tissier, co-founder and CEO of WhaleSeeker, demonstrated how AI automates whale detection from imagery, emphasising ethical considerations. Lorenzo Scala, a Senior Marine Scientist at Seiche, shared expertise in marine mammal monitoring technologies, including bioacoustics and infrared cameras. This [webinar](#) is timely as it discusses the forefront of technological advancements, bridging conservation efforts and technological innovation for the benefit of marine mammal research and protection.



WEBINAR: Small Business Entities & Consultancy in the Marine Mammal Sector

October 30, 2023

The MMSIG recently hosted an insightful webinar titled “Small Business Entities & Consultancy in the Marine Mammal Sector,” shedding light on the vital role played by small businesses and consultants in marine mammal research and mitigation services. The workshop featured a panel discussion with experts including Dr Mari Smultea from Smultea Sciences, Ashley Noseworthy representing Edgewise Environmental, and Dr Simon Berrow from the Irish Whale and Dolphin Group. The panel explored the logistical aspects, challenges, and benefits of operating as small businesses or freelance consultants in the marine mammal sector. The engaging dialogue covered obtaining contracts, navigating challenges, and providing valuable advice for those interested in pursuing a similar path. This [webinar](#) serves as a valuable resource for individuals in the field, highlighting the diverse contributions of small businesses and consultants to marine mammal research, conservation, and mitigation.



Publications

The MMSIG also published 5 articles on various topics advertised in various formats (digital and print). Summaries of the publications can be found below.

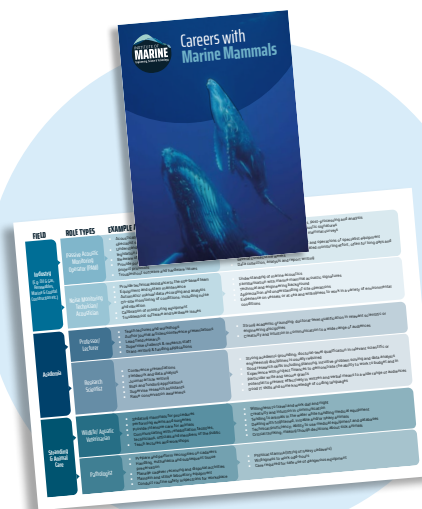
Marine Survey Operations and Ocean Clean-up

This article was published in Marine Professional magazine, co-authored by MMSIG Chair Niru Dorrian, and EnerGeo Alliance Dr Alex Loureiro, and Gail Adams, addressed the global issue of ghost gear and marine debris causing harm to marine fauna. The EnerGeo Alliance, formerly the International Association of Geophysical Contractors (IAGC), initiated the Ghost Net Initiative (GNI) to combat this problem, encouraging members to report debris removal efforts during marine survey operations. The article emphasises the EnerGeo Alliance's industry-wide guidelines for geophysical survey crews, providing insights into entangled wildlife management. The EnerGeo Alliance promotes environmental stewardship by sharing best practices publicly, emphasising human and animal safety, and encouraging other maritime sectors to adopt similar measures for assisting distressed marine wildlife.



Marine Mammal Career Matrix

Marine mammals, vital for ecosystem balance, serve as sentinels of ocean health, offering insights into environmental impacts. This **career matrix** produced in 2022 by the MMSIG illuminates diverse roles, aiding students in career choices, from protected species observers to researchers or veterinarians. Essential skills like communication, teamwork, and technical proficiency are highlighted, essential in the competitive marine mammal sector. The matrix benefits employers, offering insights into specialist roles for informed recruitment. Recognising marine mammals as charismatic megafauna, the matrix supports conservation and inspires careers in ocean-related fields, contributing to both human and animal health management. Overall, it serves as a comprehensive guide for navigating diverse roles and acquiring the requisite skills in the competitive marine mammal industry.



Taskforce on Nature-Related Financial Disclosures TNFD

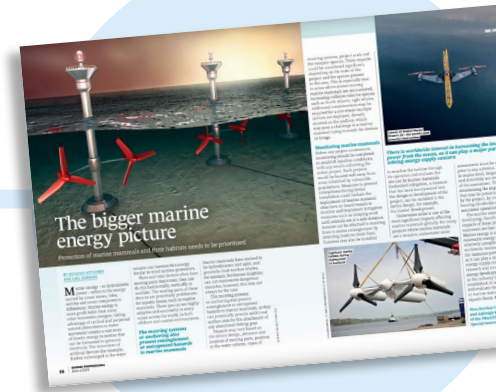
MMSIG Committee member Conor Savage prepared an article for the Marine Professional Magazine in issue 01, 2023 which discussed the intersection of finance and environmental impact. Focused on understanding how financing influences global decisions, the article introduces the Taskforce on Nature-related Financial Disclosures (TNFD). Established in 2021, TNFD aims to integrate nature into financial decision-making, fostering a shift towards nature-positive outcomes. The framework, set to launch in September 2023, aligns with global reporting standards and encourages organisations to disclose nature-related dependencies, risks, and opportunities. TNFD's four-pillar structure parallels the Task Force on Climate-related Financial Disclosures (TCFD), with a specific focus on Metrics & Targets, particularly relevant for assessing marine environmental impact. As the TNFD gains traction, it is anticipated to bring attention to marine financing, prompting businesses to align with evolving criteria and targets.



Publications

Marine Energy and Marine Mammals

MMSIG Committee Members Ashleigh Kitchiner and Niru Dorrian co-authored an article for the Marine Professional Magazine in issue 01, 2023 that explored the evolving field of marine energy, harnessing power from ocean waves and tides. While marine energy is a promising renewable source, its impact on marine mammals is a growing concern. Devices such as wave and tidal generators, with rotating or oscillating parts, pose potential risks to agile marine species. The article emphasises the need for baseline monitoring, integrated mitigation measures, and assessments of underwater noise, a significant concern for marine mammals. As the marine energy sector develops globally, understanding and addressing the environmental impacts, particularly on marine mammals, become crucial. The article calls for continued research and monitoring to fill knowledge gaps and assess potential risks to aquatic fauna in this evolving industry.



The Marine Mammal Observer Association and its Partnership with IMarEST

Dr Renata Kowalik of the Marine Mammal Observer Association and MMSIG Chair Niru Dorrian co-authored an article for the new IMarEST blog platform. This article underscored the pivotal role of Marine Mammal Observers (MMOs) and Passive Acoustic Monitoring (PAM) operators in safeguarding marine megafauna during industrial activities. MMOs and PAM operators are essential for monitoring and mitigating potential impacts on marine mammals during operations such as geophysical surveys and other offshore projects. The **Marine Mammal Observer Association (MMOA)**, founded in 2008, is a membership-based association that aims to bring together and represent individuals who work commercially and professionally as MMOs and PAM Operators. The MMOA collaborates with IMarEST to enhance professional standards, promote competency, and improve protection for marine mammals. The partnership focuses on education, collaborative initiatives, and advocacy to ensure MMOs and PAM operators are well-equipped for their vital conservation work.



Other significant news

MMSIG Committee attends IMarEST Annual Dinner

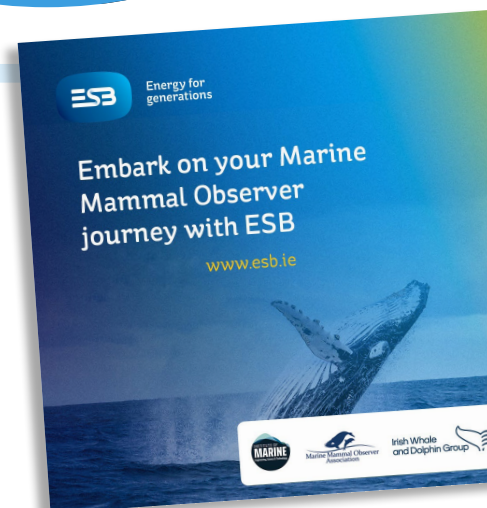
MMSIG Committee members on behalf of the SIG attended the 118th prestigious IMarEST Annual Dinner on March 31, 2023. This event is considered one of the institute's flagship events which unites 400 global industry leaders and marine professionals in London annually. This century-old tradition fosters connections and camaraderie among experts in marine engineering, science, and technology. The evening, hosted by the 120th President of IMarEST, featured captivating speakers, including Dr. Kirsi Tikka, an influential leader advocating sustainability in shipping, Richard Noble OBE, the first supersonic land speed record holder and innovator, and Mark Laurilla, known as 'Chief MAK0i,' a Chief Engineer and social media content creator offering unique insights into life at sea. The dinner, an eagerly awaited affair, not only showcased excellence in the marine community but also provided a platform for networking and inspiration.

MMSIG Committee Members: Niru Dorrian, Ashley Noseworthy, and Conor Savage attended the 118th IMarEST Annual Dinner in London



IMarEST endorses funding for Marine Mammal Observer Training Programme

In October 2023, the IMarEST **endorsed** a new Marine Mammal Observer (MMO) training program, funded and organised by ESB, aimed at graduates and postgraduates in marine science in Ireland. The initiative supports early-career professionals, offering funded industry-approved courses, including Basic Offshore Safety Induction, MMO training, and medical certifications. The Marine Mammal Observer Association, a Marine Partner to the IMarEST, also provided complimentary membership and mentoring support, while IMarEST offered one-year complimentary associate membership and access to the career development pathway. The Irish Whale & Dolphin Group provided the MMO training, including classroom sessions and at-sea experience. The program was developed to train local professionals for Ireland's offshore wind projects, contributing to employment and marine species protection and has successfully trained 5 candidates under the programme in 2023.



Other significant news

Challenges in the Marine Industry: 2023 and beyond Report

The IMarEST's 2022 analysis, incorporating insights from 700 marine professionals and experts from Special Interest Groups, explored challenges impacting the marine sector in the short, medium, and long term. The responses highlight three interconnected themes: people, technology, and the environment. These factors are crucial for shaping the sector's future and fostering a sustainable blue economy. The **report** featured the MMSIG, reflecting their valuable perspectives on the challenges facing the marine industry. Offered insight with "Investing in effective environmental management through the recruitment of qualified and competent specialists with appropriate remuneration should be considered a critical and valuable core element of all project planning. In the face of a global climate and environmental emergency, it's vital that clients, recruiters, agencies, and consultancies, implement due diligence in their recruitment processes, including CV, certification, and reference checks. By recruiting the right professional for the role we can ensure professional standards are maintained and the best quality environmental management outcomes and objectives can be delivered."



News Desk Media Enquiries

Through 2023 the MMSIG was invited to lend expert opinions on current relevant news topics. The MMSIG made impactful contributions to mainstream news platforms, including the Daily Express and Orcadian newspapers, offering insight and quotes on marine fauna stranding articles. This engagement underscores the Institute's commitment to sharing valuable marine insights and expertise with the wider community, addressing pressing issues in the marine environment.



An underwater scene with two dolphins swimming towards the left. The water is a deep blue, and sunlight rays stream down from the surface. A large, bright blue circle is centered in the upper half of the image, framing the text. The dolphins are dark against the lighter water.

The future is bright: A look ahead

The future is bright: A look ahead

As the new year unfolds, the IMarEST Marine Mammals Special Interest Group (MMSIG) is setting sail with a robust plan to amplify its impact on the marine mammal sector. Committed to championing current and critical themes, the MMSIG envisions a year of dynamic initiatives aimed at tackling complex challenges associated with the mitigation, research, and conservation of these vital ecosystem entities.

Webinars: The MMSIG will build on its successful webinar series, offering a forum for the community to explore innovative solutions and share insights on pressing issues. Experts and practitioners will delve into the latest developments, fostering knowledge exchange and collaboration.

Collaborative Event with the Offshore Renewables Special Interest Group: Following on from the success of previous inter IMarEST SIG collaborations, the MMSIG plans a joint event with the Offshore Renewables Special Interest Group for 2024. This collaborative effort will delve into the intersection of marine fauna and offshore renewables impacts, providing a platform to discuss long lead ecological survey requirements, and Environmental Impact.

Blog Articles and Marine Professional Articles: The committee will continue to disseminate knowledge through a series of engaging blog articles, offering in-depth perspectives on emerging trends and challenges. Additionally, the group aims to publish articles in the Marine Professional magazine, contributing to the broader discourse on marine mammal science, conservation, and industry best practices.

UN Ocean Decade Conference in Barcelona 2024: MMSIG has its sights set on the UN Ocean Decade Conference in Barcelona, where it will actively participate in discussions and initiatives aimed at advancing sustainable ocean practices.

Policy Papers: The group is actively reviewing options for developing policy papers, ensuring its expertise informs key policy decisions surrounding marine mammal issues, research, and conservation.

Expert Advice for Mainstream News: The committee remains committed to providing expert advice and opinions to mainstream news inquiries, reinforcing its role as a trusted source of information on marine mammal-related issues.

IMarEST Technical Leadership Board (TLB): SIG Chairs will continue to meet with the TLB twice a year on a formal basis. Through this Members of the TLB act as champions for technical themes and can assist in coordination of output related to the technical themes across the SIGs.

As we embark on these exciting endeavours, the MMSIG invites all stakeholders, from scientists to policymakers, to join in shaping a sustainable future where marine mammals thrive in harmony with their environments. Stay tuned for updates on our progress and join us in our collective commitment to the welfare and conservation of these crucial marine ecosystem entities.



Thank you

A heartfelt thank you to the IMarEST Technical Team, and the MMSIG committee for all the support through 2022 to 2023. Your commitment has been instrumental in our collective efforts to advance marine mammal research, rescue, mitigation, innovation and conservation.

As we embark on 2024, let's draw inspiration from our achievements and renew our dedication to protecting marine life. Together, we can make meaningful strides, fostering a future where our work ensures the well-being of marine mammals and contributes to the sustainability of our oceans. Your continued collaboration is key, and we look forward to achieving even greater milestones in the coming year.



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