

SMART Marine Institute RV Bursaries 2021-2025: Participant Impact and Impressions

Strategic Marine Alliance for Research and Training

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Summary

From 2021 to 2025, 126 bursaries were delivered, enabling 1605 days at sea across fisheries and seabed mapping campaigns. These bursaries directly contribute to Ireland's marine data infrastructure while building a skilled, marine ready workforce aligned with the National Marine Research & Innovation Strategy and Ocean Knowledge 2030.

Each bursar was awarded €95/day, supporting survey participation while advancing professional development. Academic recognition is embedded via a 10 ECTS Level 9 module at ATU, completed by 38 participants.

Evaluation shows strong performance across all education levels, with 68% achieving top grades and chief scientists reporting high satisfaction ratings with bursar performance.

Feedback from bursars highlights the transformative nature of the experience—hands-on training, expert mentorship, and offshore experience. The programme is widely endorsed by participants, with growing interest from European universities and a strong gender balance (58% female).

The SMART MI RV Bursaries programme exemplifies strategic investment in Ireland's marine future—delivering measurable outcomes in capacity building, survey support, and career progression.

SMART MI Research Vessel Bursaries Evaluation by Learners

After each survey bursars are asked to complete a survey feedback form. Question 6 asks what the survey highlights were, and question 7 asks for recommendations to improve the programme.

1.1 Survey Highlights

The most frequently cited highlight was the hands-on experience gained. There are many more highlights including training and mentoring by expert scientists, the friendliness and camaraderie of scientific and vessel crews, the sense of a contribution being made and valued, the critical insight gained into survey operations and its outputs, the sense of achievement and stimulation from adapting to and performing on a research vessel. Taken together these responses are an unambiguous endorsement of the immense value of the experience to the bursars. Highlights for 2021 to July 2025 are included as Appendix 1.

1.2 Recommendations

Overall recommendations are motivated by a desire to increase awareness of the programme's benefits, particularly in the undergraduate cohort. The most frequent recommendation is to improve the promotion of RV Bursaries. Suggestions for improved promotion include direct mail to course coordinators and lecturers, direct mail to students and postgrad email groups, increased profile on social media, campus visits to directly promote bursaries, and encouraging lecturers and coordinators to directly promote bursaries on their campuses.

Recommendations are included as Appendix 2.

1.3 Response to recommendations

Existing promotion for RV bursaries includes direct promotion on SMART SeaSchool training surveys, direct mail to students, lecturer and school and department offices, and on LinkedIn. Email lists are continuously updated, and reminders repeated on all platforms throughout the year. The evaluation questionnaire shows that the most effective promotion is by course coordinators and lecturers and the least effective is email.

Programme Impact (Bursar Feedback 2020–2024)

40 responses were collected from an impact questionnaire for 2020-2024. These clearly show bursaries have transformative positive impacts on early-career development, technical skill acquisition, and professional advancement of participants.

2.1 Survey Experience and Support

- Over 85% of respondents to a survey impact questionnaire strongly agreed that their bursary experience was positive, their role was clear, and they were well supported both before and during the survey (Table 1).
- Learning new skills (95%), offshore experience (87%), networking with established scientists (72%) were reported as the most valuable aspects of the bursary experience (Table 2).
- Bursars reported the survey environment as professional, inclusive, and highly conducive to learning.

2.2 Career Progression

Direct career progression from the bursary experience is clearly indicated (Figure 1):

- At the time of their bursary 18 were BSc qualified and 14 were MSc/PhD students
- At the time of the survey 14 reported marine employment and 14 were either continuing or had progressed to MSc or PhD programmes.
- Progress into contracted survey roles, international placements, or postgraduate research are often directly linked to the bursary experience.

2.3 Skill Development

- 95% report “significant” or “highly significant” skills growth (Table 2).
- 88% attest that the bursary was a “significant” or “highly significant” milestone in career or personal development (Table 3).
- Respondents highlighted growth in species identification, acoustic survey techniques, biological sampling, and data handling.
- Several noted that the bursary was their first exposure to offshore research, describing it as a “foot in the door” to the marine sector.

2.4 Programme Reputation

- The bursary was widely described as transformative, with some recommending it as essential for marine science undergraduates.
- Participants valued being treated as full members of the scientific crew, with responsibilities aligned to their career stage.

2.5 Impact Conclusion

The bursary programme is recognised by participants as a rare and valuable opportunity to gain real-world experience, build professional networks, and advance careers in marine science. Impact testimony is presented in Appendix 3.

Table1. Bursar valuation of bursary experience

Bursar Rating Gradient	My bursary experience was brilliant!	My role and responsibilities during the survey were very clear to me.	The level of support and supervision I received on the survey was very good.	I was well supported by the bursary organisers before the survey.	Sum of ratings
Strongly agree	80%	78%	75%	70%	76%
Agree	20%	20%	23%	25%	22%
I suppose		3%	3%	5%	3%
Disagree					
Strongly disagree					
N	40	40	40	40	40

Table 2. Most valued aspect of survey experience.

What was most valuable aspect of the survey?	Count	Count %
Learning new skills	37	95%
Offshore real-world experience	34	87%
Networking with established scientists	28	72%
Mentorship	9	23%
Other	1	3%

Table 3. Skill growth and significance of bursary experience.

Rating Gradient	How would you rate your overall skill growth on the survey?	Was the survey a significant milestone in your personal and career development?	Sum of ratings
Highly significant	60%	65%	63%
Significant	35%	23%	29%
Maybe	5%	10%	8%
Don't know			
No		3%	1%
N	40	40	80

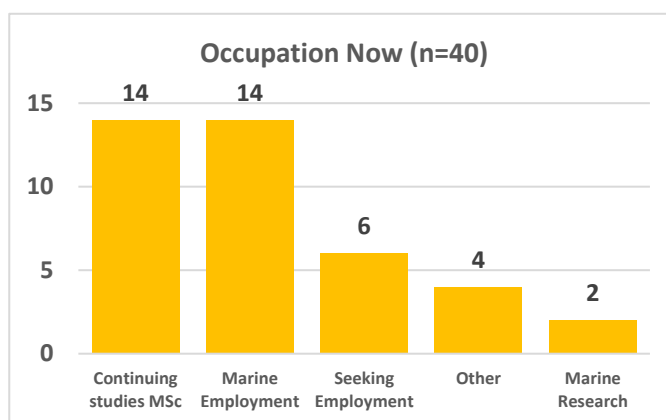
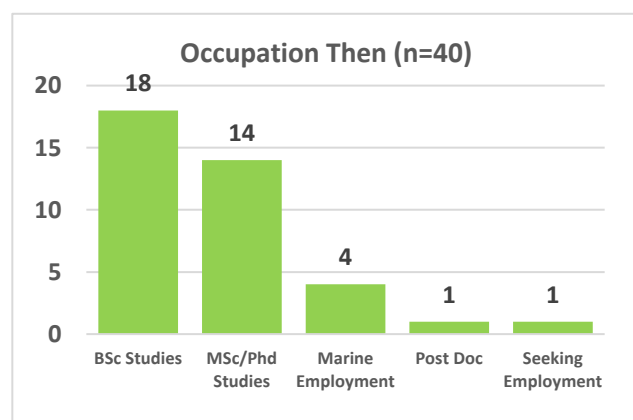


Figure 1. Then and now. Respondent occupation at time of bursary and time of survey.

Appendix 1. RV Bursar highlights 2021-2025

Year	Survey	Survey Highlights
2021	IGFS	Highlights include doing a little bit of benthos during the fisheries survey. Getting my fish ID skills way up, I can't believe what I didn't know, truly shocking. This experience was certainly beneficial in adding to my marine sciences repertoire. I went from not knowing how to filet a fish properly to sufficient. Have a fantastic appreciation for the fisheries people that go out every year. Was great learning about the data collection tools we have and am thankful we weren't pencil and paper recording all those biometrics. The gang I got to work with were so helpful, I am thankful they didn't throw me out having asked if the Norway pout was a poor cod about 50 times. The experience made me feel like a real marine biologist and I'll be able to apply for ship time with more confidence knowing I have participated in the groundfish survey.
2021	IGFS	The hands-on/practical experience on a seagoing vessel was hugely beneficial. I learnt an enormous amount in a short space of time about marine surveying (especially bottom trawling), international monitoring programmes, species identification and other work of the Marine Institute. I also really enjoyed meeting colleagues from the Marine Institute and learning from them. In previous work, especially my PhD, I have focused on the development of statistical expertise, so the time on the vessel contributed significantly towards my development as a well-rounded marine scientist with both practical and analytical skills.
2021	IGFS	The highlights for me were being able to learn species identification methods firsthand and in a very interactive way that strictly academic learning cannot replicate, as well as getting the experience of a full fortnight of working at sea, which gave me the knowledge and confidence that I can do such a feat. This will benefit my future career as I now have the experience of not only working at sea but also of having given me greater experience of working with and identifying marine life.
2021	IGFS	The highlights of the survey for me were getting hands-on and practical experience on a survey at sea and learning from the other scientists onboard. I really appreciate the chance to greatly improve my understanding of how a marine survey is carried out, from operations in the wet lab to how the Chief Scientist co-ordinates with the captain and crew. It was especially useful to improve my fish ID and handling skills i.e. removing otoliths and identifying sex and maturity. This experience will greatly benefit my future career in marine science by providing me with valuable ship time onboard a research vessel and has expanded my skillset as a marine scientist. Participating in this survey has helped me gain confidence in my own skills and abilities as a marine scientist and has encouraged me to seek more opportunities onboard a research vessel in the future.
2022	CSHAS	I thoroughly enjoyed learning from experts in the field in the wetlab carrying out biological sampling and getting the opportunity to speak with scientists about how the acoustic technology works. It was also a privilege to be on the brand new RV Tom Crean and get to see the new state of the art technology. Learning from the MMO and seabird observer about their roles was a great experience.

Appendix 1 Continued. RV Bursar highlights 2022-2025

2022	IGFS	<p>As a data scientist, it has been really beneficial to experience how the ground fish survey is conducted. We were involved in many different aspects of data collection, including fish morphometrics/ maturation/ sorting/ and data entry. Being part of a well organised and efficient team of scientists helped me to appreciate the work that goes on to provide the data work with for my PhD.</p> <p>In the future I would like to get a position in fisheries research, and being able to join the survey helped provide me with important experience in the field. I think even beyond ticking the obvious boxes, the experience opened my eyes generally and was very fulfilling. It was a pleasure to be a part of it, something that not everyone gets to do.</p>
2022	IGFS	<p>As someone that is interested in working in fisheries, particularly on commercial and research vessels in the first years of my career, I believe this experience has been invaluable. Indeed, positions aboard vessels, particularly for the whole leg of a survey, tend to be restricted to scientists with multiple years of experience and a number of cruises under their belt. I am therefore very grateful to have been able to participate in this survey, as I believe it will now allow me to strengthen my application to similar opportunities.</p> <p>I found it particularly enjoyable to be able to learn from other scientists and to be considered seriously and as part of the team. I felt particularly at ease during the last few days, where I could sort through biometric sampling efficiently and without relying on any assistance.</p> <p>I do therefore believe that the RV Bursary program is an excellent one and should continue, allowing young scientists to get a foot in the sometimes impenetrable world of research cruises.</p>
2022	IGFS	<p>Gaining at-sea experience, getting the opportunity to apply the skills learned as part of my course was invaluable, and has opened up opportunities applying for similar fisheries science and foreign observer roles. I now feel confident in identifying key demersal fish species, identifying sex and maturity, and extracting otoliths and properly recording measurements and storing samples. I really enjoyed the experience of working on a research vessel and becoming part of a friendly team of fisheries scientists.</p>
2022	IGFS	<p>I enjoyed seeing the different species of fish and invertebrates captured. All of my work so far has been in the Gulf of Mexico, so a majority of the catch was new to me. The experience helped me learn what to expect when I begin sampling for my PhD.</p> <p>I think having an idea of local fish species in the area is good baseline knowledge as a scientist. I think the Groundfish survey was the best way to introduce those species to me.</p>
2022	IGFS	<p>I experienced numerous highlights during my time on the Celtic Explorer. I really enjoyed the opportunity to see first-hand so many species present in the Celtic Sea that I otherwise would never have seen. I felt I really improved on my ability to sex various species and also to remove otoliths with much more confidence. I can comfortably say I have come out the other end of this survey feeling much more experienced, and I owe that to the people who worked on the survey with me and gave me every opportunity to learn and grow. For that I am grateful. Prior to the survey I accepted a position as an Ecologist in Cork, so for the immediate future these skills I have learned may not be required in my position. However, I do believe this survey has further confirmed my interest in working in marine science and I will most definitely be looking into joining this field in the coming years now that I have had such a positive experience.</p>

Appendix 1 Continued. RV Bursar highlights 2022-2025

2022	IGFS	I really enjoyed the practical hands on experience and the help and guidance from the other scientists on board. Immediately you are part of the work and action on board. The environment is completely friendly and it is easy and often encouraged to ask questions. The skills gained were incredibly useful - otolith extraction, sexing and maturity staging, species ID and sorting on the conveyor. The scientists were eager to teach and went above and beyond to help you learn and ensure that nobody was standing around or without a task to do. The camaraderie was fantastic and the crew were also very jovial and were keen to chat and teach us themselves. Very good demonstration of how surveys are designed and how they operate under different weather conditions.
2022	IGFS	I think the survey was very beneficial to me and my career. The hands on work is something I have always enjoyed and was the highlight of the trip. being able to see and hold a variety of fish species I had not seen before was wonderful. The experienced scientists onboard were extremely helpful and patient in the first few days when we were learning how the operations are done. All the equipment on board was looked after very well and cleaned thoroughly at the end of each day.
2022	IGFS	Sorting and ID of different species before biometric sampling. Specific techniques between species for otolith collection and attention to detail throughout sampling was very interesting. I think this experience will help benefit future marine career prospects as identification was a crucial part of the survey which once slightly experienced made the running a lot more efficient. Very difficult to get this sort of experience on a learned course as cannot be effectively taught. Learning while doing was evident when comparing the first few days sampling during survey to the remainder of the leg.
2022	IGFS	The highlights for me were working with experienced fisheries scientists, learning about the fishery and the processes and procedures involved in collecting scientific data and how it is applied. Also getting the view of experienced crew most of whom are/were fishermen and getting to hear their thoughts on the current state of stocks and the fishery. This has been directly applicable to my new position working in Fishery Improvement Projects as the collection and understanding of stock status data is vital to improving the fishing industry. Species identification was another big highlight for me as I feel I gained an excellent understanding on species differentiation and feel confident in my ID and sex determination skills as a result of this survey.
2022	IGFS	<p>The participation in the IGFS brought me several benefits for my future career. I was able to get hands on experience in fishery science data set up, and survey procedures on a large research vessel. This will be attractive for potential future employers, such as the Marine Institute. The survey helped me to broaden my professional network, which will also be beneficial when seeking future jobs. Regarding my studies, I have a better understanding of the origin of fishery data, which I will later on include in models of my PhD research.</p> <p>Besides the overall experience, I trained my fish ID and dissection skills, gathered more offshore sea time and I was able to understand the set up of such a survey with sampling stations etc. I have also now a realistic impression of the nature of such fishery surveys, being dependent on several factors such as weather.</p>

2022	IGFS	<p>There were so many highlights! Firstly it was an amazing, immersive way to learn about fish - I couldn't believe how quickly we learnt so much and in such a practical way. All of the more senior scientists were so patient and helpful too.</p> <p>Also, it was an amazing way to learn about the marine institute (who I had not had much to do with before) and the work that is being done, as well as all the other surveys that are going on. I learnt so much about different opportunities and career paths in marine science.</p> <p>It was a great way to meet and get to know other scientists too, as well as the crew members who taught us some of their own skills like net mending.</p> <p>Compared to the others, I had relatively low experience in fisheries/ marine science having studied an arts undergraduate and then doing a geography masters in Coastal and marine environments. So for me, this cruise was amazing as I learnt so much and everyone I spoke to was an absolute wealth of knowledge!</p>
2022	Mac Egg	<ul style="list-style-type: none"> - The opportunity to network with Marine institute staff and learn about how things work in the institute. Chatting to MI staff you learn about hiring processes, what makes an attractive employee, things they look for in an interview. I found this to be invaluable. - Opportunity to develop niche skills. Skills such as ichthyoplankton identification and operation of plankton sampler are not commonly taught at undergraduate, making it difficult to learn and hone skills in these areas. As they are highly employable skills, the chance to develop them is brilliant. - Opportunity to talk to career scientists at different levels. The marine institute staff have a wealth of knowledge of marine science, but also in building a career in this area. Things to learn, mistakes to avoid etc were all great feedback from the staff on the boat.
2022	Mac Egg	<p>The highlights of the survey for me was getting the rare opportunity to gain sea time and get hands on experience in the field. I believe the SMART survey provided invaluable experience that will serve useful to me throughout my career.</p>
2022	UWTV	<p>I couldn't recommend the marine institute bursary program enough. Being integrated closely with the scientific team and exposed to all aspects of the survey work gave a really well-rounded understanding of what is involved with offshore biological surveying. I found it especially useful to see what skills were important for a career in fisheries science. My key takeaway was the importance of data analytics and competency with software such as RStudio and GIS. I found the experience and understanding gained by participating in the bursary program to be a great advantage and talking point when speaking to potential employers, and certainly believe it helped me get my current job with the British Antarctic Survey.</p>
2022	WESPAS	<p>Due to the amount of skills and knowledge acquired throughout the survey it is difficult for me to find the main highlights as participating on WESPAS was a milestone and an enormous highlight of my PhD. All my personal objectives were fulfilled and this can be appreciated from my survey report. In addition, all these objectives will and are benefiting my career. For instance:</p> <ul style="list-style-type: none"> - Acquire offshore experience: Thanks to participating on this survey, I can now confidently apply to become a survey contractor in order to participate in other offshore research vessels. - Fish acoustic survey: With the knowledge I have acquired during the survey, I am planning to apply for research funding to use similar methodology on a Postdoc. Without this experience, it would be very difficult to apply for it.

2022	WESPAS	I gained experience on acoustics that is extremely beneficial for developing the scientific ship in my home country (if I have the ability to join again, I would like to be part of the acoustic group to learn more). In addition, I learned how to extract the zooplankton and which data should be registered. Moreover, I have been taught the sample strategy for stock assessment and management. Overall, it was a wonderful chance to be a part of that survey.
2022	WESPAS	<p>The survey was a great grounding in offshore research operations, which allowed opportunities to partake in multiple aspects of hands on research beyond your specified role on board.</p> <p>The scientists on board were performing research in a wide variety of topics which kept things interesting. Overall spending 3 weeks at sea on the Celtic Explorer is an experience that will stay with me for life and will stand to benefit my career in Marine science.</p> <p>The food on board was surprisingly good, I never went hungry thanks to chef Gavin!</p>
2022	WESPAS	This survey I very much consider to be the "first step" in further pursuing a career in a marine or similar scientific field. It gave me invaluable insight into an actual working environment - which may sound trivial but this is something I know a very small percentage of my fellow graduates in marine science simply do not have. Not only do I now have actual time at sea under my belt, I also have a working knowledge of the surveying techniques employed for this particular survey, and the experience to replicate these techniques moving forward. My own personal highlights for this survey was the experience of being fully integrated within the scientific personnel on board. I was not given a "student" or "trainee" experience, I was trusted and expected to deliver on any work that was given. While the "working" aspect of the survey was valuable, there was also the "networking" aspect. Students will be happy to find that (if) they show interest, enthusiasm, and above all else - work, the senior members of scientific personnel will be more than happy to provide references, recommendations etc. In addition, varying scientific disciplines converge on a research vessel and this provides an excellent opportunity for students to learn about other areas of research that may be different to what they are currently working. egg Learning the role of the Chemistry department while working in Biology and vice versa. Being a student or recent graduate looking for work, it is invaluable to have one of these surveys for your CV, going forward, I'm certain this survey has or will open doors for me in my career.
2023	CSHAS	<p>I loved the hands on experience you get surrounded by experienced scientists. Being able to process fish and gain confidence in species ID.</p> <p>Also getting the opportunity to go to the MMO station and gain experience with them, spotting marine mammals and Identifying seabirds with the SBO.</p> <p>To be honest I enjoyed the whole thing. Being immersed into a scientific team and getting sea going experience was amazing.</p> <p>This experience will really help my future applications as an MMO/ fisheries analyst. It really cemented that I enjoy fieldwork the most and the heavier the better for me.</p>
2023	CSHAS	<p>One the main highlights was getting hands on experience in the wet lab. Being given the opportunity to learn skills in which I can use in the future was extremely beneficial.</p> <p>I loved learning to remove and age otoliths in particular and this showed me what kind of work I'm interested in pursuing in the future.</p>

Appendix 1 Continued. RV Bursar highlights 2023-2025

2023	IAMS	For me, the highlights of the training were to be able to get insights into the survey data collection. It was a great opportunity to see how in practice the survey takes place, biometric data is collected, and possible problems that may arise.
2023	IAMS	<p>The highlight of the survey was the fish biometric data collection as a whole. During the training, I was able to distinguish the different fish species, even the ones which are very similar. Recognize the species with a commercial interest and have a close look at the differences in the sexual apparatus and the different maturity stages. Also, I learned to extract otoliths from several group species. Additionally, the occasional talk with the Chief Scientist (Eoghan Kelly) made me understand the further steps from data collection to the individual fish species stock assessment.</p> <p>This hands-on experience allowed me to have a holistic overview of the fish stock assessment process and ultimately experience a great onboard working environment.</p> <p>This experience will certainly open the doors for future jobs related to marine sciences due to the high credibility of the marine institute of Ireland. I could also perceive that I would enjoy working on fish data collection.</p>
2023	IAMS	The survey was a great opportunity for me to get first hand experience upon a research vessel. It gave me my first experience working at sea for a prolonged period and gave a really good insight in to the work involved in fisheries stock assessments.
2023	IAMS	<p>The survey was a tremendous learning experience in terms of fisheries data collection (fish length, weight, count), including biological samples (i.e. otoliths) from a variety of fish from different taxonomic families. I also learned the technical details of demersal trawl operation. This knowledge was greatly beneficial for my research project. I attended the survey to gather survey experience and technical knowledge of demersal trawl operation which is why I primarily focused on these learning opportunities. In general however, I think the survey is a unique and great opportunity for any student of marine science. The survey allows to work with the fish and to experience the species diversity of the Celtic Seas ecoregion (within Irelands' EEZ) first-hand - a rare opportunity for many marine scientists.</p> <p>My second highlight was the overall experience with the scientific team and crew. The analysts and chief scientists were very helpful and open to spend time with me to explain survey operation (i.e. invitation to the bridge) whereas the analysts were very friendly and trained me in data collection. The crew was very welcoming and also open to explain aspects of their work.</p>
2023	IGFS	<p>Getting to expand my knowledge of Fish identification and data input, while working alongside scientists with experience in working at sea. I was able to freely ask about fish that were similar in appearance for example poor cod and Norway pout which I struggled with correctly identifying.</p> <p>The pairing of someone that was more experienced was a help not just in the lab environment but also outside as it allowed me to settle in easier amongst the research crew and make connections.</p> <p>Another highlight was being able to see areas like the Hebrides Islands and the Scottish coast from a point where not many other people will ever get the chance to</p>

2023	IGFS	<p>I have a background in Marine Biology, so joining this survey really helped me learn more about fish identification in Irish waters. In my studies, I learned a lot of theory but did not get many chances to have hands-on experience with many of the species that I observed during the survey. Working with experienced marine scientists who were super helpful was truly great. I gained valuable knowledge, not just about identifying fish but also about how offshore surveys work and how data collection takes place. In addition, the views were stunning! Overall, it was the best experience for learning marine biology firsthand.</p>
2023	IGFS	<p>I really enjoyed taking part of the survey and find out how it is like to spend a couple of weeks onboard a RV. Getting a first experience on a RV can be difficult so I hope this experience will enhance my future candidatures.</p>
2023	IGFS	<p>I really enjoyed working on the benthos identification with Helen McCormick. She was a brilliant teacher and I was thrilled to get the opportunity to learn from her in the field.</p> <p>I also enjoyed getting to know the other researchers and make connections with them, they were all inspiring to me and always happy to answer any questions.</p> <p>It was also great to experience my first time working offshore on a survey, I think this will stand me in good stead.</p>
2023	IGFS	<p>The highlight for me was getting to work with an amazingly encouraging, patient, and dedicated group of scientists. They all assisted in teaching me and giving me insights into the work we were doing and tricks for identifying different species and their different maturity levels, and how to take the otolith samples.</p> <p>I believe the experience will greatly benefit me in my future career, from this experience I've gained valuable skills in fish identification, data collection, otolith sampling, and working at sea.</p>
2023	IGFS	<p>The survey has been an absolutely great experience. The overall number of different species, I only have read about before, has been fascinating. I have been especially impressed by smooth workflow and high level of professionalism the survey was conducted at.</p> <p>During my work onboard I did improve my ID skills a lot, as well as my ability to process large amounts of biological samples in a short time.</p> <p>Living onboard a Research vessel for two weeks in a row, working as a part of an international Team in a highly professional environment is an invaluable experience.</p> <p>The overall experience of this survey generates an invaluable set of skills that may prove its worth in any future scientific career. I would definitely recommend anyone to join such a survey in order to get some real hands-on-experience in fishery science.</p>
2023	UWTV	<p>The survey was packed full of highlights. I very much enjoyed encountering such a diverse range of demersal species. The experience has left me with a much updated skillset in wet lab procedures. I got the opportunity to build on my scientific network and work with industry professionals, who were always full of knowledge. I gained hands-on experience with the process of fisheries data collection. I drastically improved my fish identification and sexing skills.</p>
2023	WESPAS	<p>Getting more experience with data collection and fish dissection. I'm not sure what I want to do in the future but I want to do more work on research vessels.</p>

Appendix 1 Continued. RV Bursar highlights 2023-2025

2024	CSHAS	<p>The highlight was probably getting in touch with scientific research in a ship and life onboard, since I am now in another ship and I feel more comfortable because not everything is new to me. As they said in Ireland, if we were not dizzy then we wouldn't be anywhere else, and they were right. The RV Tom Crean was also very new, modern and comfortable.</p> <p>The crew and scientists were very welcoming and open to explain their work.</p> <p>We had our own work to do but could also help on the fishing part; learning to identify the species and see how that is done even if I'm not going to do it in the future was very interesting. That and seeing the acoustic part of the survey. Working with the plankton samples was useful for me because it's what I want to work on, and I was happy to hear it was going to be done in this survey. We didn't have an expert onboard and it was the first time I saw alive marine zooplankton from this area, but we could look at the guide and in the internet and learn by ourselves. I really enjoyed doing this, and even if I didn't go into much detail I think I have some experience for when I have to identify zooplankton in my current PhD.</p> <p>Apart from that, we took our free time to look for mammals and birds in the MMO deck and I also learnt about what species appear around Ireland.</p> <p>The only thing that was a little hard was my unfamiliarity with Irish accent which was hard to understand in the beginning, but I think I became better at it by the end of the survey.</p> <p>I really enjoyed the experience and wouldn't have minded staying more days onboard, which was the trial I needed to see if I wanted to choose a career path with oceanographic expeditions. The answer was yes.</p>
2024	IAMS	<p>As I had very little previous experience of learning about and working with fisheries this entire survey was a new and exciting learning experience. I really enjoyed the work associated with fisheries data collection, from the species sorting to using EFDAQ software to measure the parameters of different fish and shark species. This experience has greatly increased my interest in fisheries research with in Ireland EEZ and has been a great chance to work with and learn from experienced marine biologists.</p>
2024	IAMS	<p>This survey was an incredible experience. I use data from the IAMS & IGFS for my PhD and I really appreciated being a part of that data collection. It was great to see the fish species in real life to have a better idea in my mind of what fish I'm discussing when I use their data. My PhD is very computer-based so this was a great experience to expand more hands-on skills.</p>
2024	IGFS	<p>I think taking part in this survey was especially beneficial as it constituted an opportunity to gain additional seagoing fieldwork experience, which is extremely important to improve a CV and make it more competitive. This applies not only to fisheries sciences, but more in general, to basically any career in marine biology.</p>
2024	IGFS	<p>Learning from everyone else onboard (crew and scientists) was definitely a highlight, as they all had so much experience. I especially enjoyed learning how to sample otoliths from a wide range of species and knowing how to identify the different fish species, which I strongly believe will be beneficial for my future career.</p>
2024	IGFS	<p>Learning to Identify species and techniques to extract otoliths from different fish.</p>

Appendix 1 Continued. RV Bursar highlights 2023-2025

2024	IGFS	One of the best parts of the survey was working offshore and getting to be involved in everything from bottom trawls to CTD scans. Working with the research team and seeing how a survey like this is carried out made it a great learning experience. It helped me get more comfortable with fieldwork at sea. This will help in my future career since I got to practice key survey methods, improve my data collection skills, and get a better idea of what working on research vessels is actually like.
2025	IAMS	It has given me my first taste of biological surveys and opened the door to new career avenues more closely aligned to my interests.
2025	IAMS	The main highlight from the programme was the hands on approach to data collection of unique deep sea species. The opportunity working on research vessel provides is truly an exciting environment with complete professionalism found throughout the ship.
2025	IAMS	There were many highlights from my experience from participating in the IAMS. It was great to get hands on experience in marine surveying. Seeing the intricacies of how the wet lab works, how the catch is organised and how the data is logged and inputted into the system was really interesting. It was also really important to determine whether I actually enjoy extended periods of time offshore. This allowed me to see whether this is a line of work I actually wish to pursue. It was great to chat to everyone on the research vessel and network with different individuals who could offer me helpful advice, along with teaching me valuable skills during the survey. This experience will definitely help me with future career prospects. It offered me first hand marine surveying experience, offshore hours onboard a research vessel and in depth knowledge on the workings of these survey types. It will help me "get my foot in the door" in the marine industry, which is very hard to do with little to no experience graduating from university. This is without a doubt a valuable experience that will stand to me going forward. I am glad it is an initiative that the Marine Institute offers.
2025	IGFS	<p>For me, the highlights of the survey were getting hands-on experience in the Wet Lab, working as a part of the research team. In many workplace experiences, you are not given the opportunity to work within the team/ without constant supervision fully. What I really enjoyed about this experience was the ability to work as a fully-fledged member of the team, processing hauls, taking genetic samples and biological measurements. I think that this is a really beneficial way to gain insights into the work of fishery scientists.</p> <p>Outside of the Wet Lab, sitting down with the scientific team and hearing about their careers and experiences was extremely beneficial. Being able to ask them questions, get their advice was beneficial. I think that this will benefit my future career by introducing me to different roles I didn't know existed/ that I would enjoy.</p>
2025	INFOMAR	The survey highlights for me was mapping the shipwrecks we encountered during the transect. One that I found particularly interesting was a shipwreck that had been sunk during World War 2.

2025	Mac Egg	<p>Learning how to sample zooplankton was especially new to me and certainly the highlight of the survey. While I studied zooplankton in university, I had never seen more than a couple of samples, let alone, process them for 12h at a time.</p> <p>It was an incredibly enriching and valuable experience for my career. Not only was I able to learn about fisheries management at an oceanic level and fish developmental stages, but also understand the logistics of working offshore with vast areas to sample. Moreover, while it was not the main goal of the survey, it was fascinating to mentally classify planktonic creatures by their taxonomic groups and observe in situ how variable the composition and species abundance was between neighbouring stations and across latitudes. From several types of gastropods, ctenophores, and copepods; to cephalopods, fish, and echinoderm larvae, there was always something to discover, even on the last day of the survey. It sparked my curiosity in this marine realm and will allow me to progress into my field of interest, i.e., systemic biology and food web dynamics.</p> <p>With all this in mind, I am particularly looking forward to applying what I learned during this survey in future research on productivity and integrative ecosystem dynamics within marine protected areas. Thus moving the field beyond biodiversity classifications.</p>
2025	Mac Egg	<p>The highlight of the survey was working in close contact with the scientists at the Marine Institute, which gave me the opportunity to learn about different techniques for examining samples under the microscope, about the structure of an international survey effort such as the mackerel egg survey, and about life and work as a marine scientist in general. The scientist team were all more than happy to take my questions and I think I learnt a great deal from them. In addition to this, learning the workings of a ship the size of the Celtic Explorer and about the research equipment used not only on this survey, but on others too, was very useful. I think this experience will be very helpful to my career as it gave me my first long-term seagoing experience in the scientific sphere, which would be difficult to obtain otherwise. During the trip I learnt many skills which I know will prove useful in future positions.</p>
2025	UWTV	<p>During this survey, I had the opportunity to gain hands-on experience, acquire theoretical knowledge, and develop field-specific skills. Working closely with other scientists, engaging in discussions, and sharing insights about our respective backgrounds has been an invaluable experience. I truly believe that opportunities like this are priceless for young researchers like myself who are just entering the world of scientific research and professional development. Spending 10 days aboard a research vessel was an enriching experience that has greatly contributed to my growth, both personally and professionally, and one that I will carry with me throughout my career.</p>
2025	WESPAS	<p>I think it was a brilliant opportunity for me to regain labs experience including learning a new field of marine research by surveying pelagic species. Outside of the research and surveying aspect, I think it is a brilliant opportunity for anyone wanting to experience working in remote/at-sea environments. It is ideal that there are variety of surveys ranging from 10 days to 3 weeks which allows people to cater what they would like to survey and for how long. I think WESPAS in particular suited me because I had time during the survey to not only work in the wet lab and dry lab learning about acoustic surveying (which I was unfamiliar with prior to the survey), but it also gave me the opportunity to work with fellow researchers including marine mammal observers and a PhD student carrying out eDNA testing. I think SMART allows people to experience the variety of fields marine science offers and is particularly invaluable as a recent graduate navigating my own studies/interests.</p>

2025	WESPAS	<p>One of the biggest highlights was getting first-hand experience working on a large multidisciplinary survey like WESPAS, contributing to real-time data collection on pelagic fish populations. I gained valuable insights into acoustic survey methods, net sampling, and fisheries data recording. The opportunity to work alongside experienced scientists and technicians allowed me to learn practical skills that aren't always accessible in university settings.</p> <p>Equally important was the chance to engage in day-to-day life on a research vessel " learning how to manage shifts, adapt to shipboard living, and understand how different disciplines come together in marine research. This experience has not only expanded my technical skills but also helped shape the direction I want to take in marine science going forward.</p>
2025	WESPAS	<p>The highlights of the experience for me was the whole boat life in general which I thoroughly enjoyed. I also found the work extremely interesting and learned an incredible amount. All the people were lovely and so willing to teach me everything and answer any questions I had.</p>
2025	WESPAS	<p>The highlights of the survey for me were: The opportunity to spend an extended period working at sea for the first time and the variety of different types of work I was exposed to. I felt extremely fortunate to have the chance to spend time at sea because I now know that I am fit to potentially work at sea in the future, that I can adjust to a varying schedule and not get sea-sick.</p> <p>I was also extremely grateful for the variety of tasks I was exposed to and able to participate in, such as Zooplankton sampling, Fisheries sampling and Marine mammal observation, and for the team and the crew who offered lots of helpful advice and guidance. These things gave me a greater insight into the practical execution of the theory I have been studying in my course and furthered my interest in field surveillance of the marine environment.</p>

Appendix 2. Recommendations

Survey	7. What recommendations would you make to improve and promote the programme?
IAMS 2023	I think from a promotion point of view it's already well renowned for the experience offered making it suitably competitive. Further promotion may make it overly competitive. I don't feel there are any improvements required to the programme.
IAMS 2023	I think including the SMART training information in marine scientist mailing lists would help to promote the programme.
IAMS 2023	<p>Honestly, I think the program is very well structured. The onboard working environment is ideal for someone who wants to have some experience in fish data collection. The scientists are very friendly and always available to help and explain any doubt that may arise. The equipment/software used to collect the biometric data is user-friendly and allows progressive learning through all the necessary steps. Finally, the rest of the crew is very welcoming.</p> <p>In my opinion, the promotion of bursaries among students and scientists should be broader, for example, announced on LinkedIn and specific email channels.</p>
IAMS 2023	Since I was perfectly satisfied with the survey experience, I have no recommendations on how to improve or promote the programme. I think that the programme is (beside others) promoted well by word-of-mouth, as I experienced it.
UWTV 2023	Ultimately, I think there should be more bursary positions made available. Perhaps more information should be provided to successful bursary applications regarding what to expect of daily life on board. For example, what a schedule may look like aboard a survey for a scientist.
WESPAS 2023	Advertise to marine science students and zoology and environmental-related courses as well who might be interested in the experience by email, or through lecturers. I have friends from related courses who hadn't heard of it until I mentioned it to them.
IGFS 2022	I would've liked an opportunity to witness any CTD measurements taken and learn a bit more about that side of the survey as well as any data verification / summarisation that may take place after it is inputted into the software. Some insight into the planning of the actual survey including locations and data requirements would have also been interesting. Emailing the various college marine departments was a good way to promote the program for students.
IGFS 2022	None come to mind. I feel like the programme was well promoted, and the team were great teaching me the skills required and addressing any queries or issues I encountered whilst on survey.
IGFS 2022	Honestly nothing, I thought it was perfect. Apparently it was unusual to have 5 beginners on board, but I liked this as it made it easier for us to step out of our comfort zones sooner with regard to taking otoliths etc.
IGFS 2022	I would maybe recommend getting the message out to the students in a more effective way. While I was aware of the program before I did not know anything about what would be involved and many of my friends did not know about it at all.
IGFS 2022	I would recommend that if students want a career in marine science to actively pursue these opportunities as really separates experienced people coming out of graduate studies when comparing someone that has seen these techniques physically and gained experience when doing compared to someone who hasn't had the opportunity to take part in such a setting.
IGFS 2022	I think constructing a small presentation/packet on the standard measuring for the most common fish, and which fish require otolith extractions/sexing. I was able to catch on a bit after a few days, but I think a packet would have been very helpful in learning quicker.
IGFS 2022	More communication prior to the survey detailing the general survey itinerary and details of day-to-day workplans to allow for more efficient preparation particularly for first time students/scientists
IGFS 2022	I can honestly say there is nothing I would change about the experience I had on the Celtic Explorer during this survey. I thoroughly enjoyed the work, company, and the food! I would say that if it were not for my university sending on the information regarding the bursary, I would not have known about it. So perhaps more promoting through different platforms could be beneficial. Also, I would have appreciated the information regarding the report (template and information required) prior to doing the survey so I knew exactly what information I was looking for and how to frame my report. However, these are minor changes, and I enjoyed my time immensely regardless of these points.
IGFS 2022	I am not sure how promotion is carried out in the south of Ireland, perhaps it is a bit more accessible - but in my experience this opportunity wasn't something that was very publicly advertised. Maybe having some kind of stall or information day during student weeks would make it more available to people. Though I understand that the marine research teams are quite small at the post graduate level, within them at least, the programme is well known, but not exactly circulated.

Appendix 2 continued. Recommendations to improve and promote RV Bursaries 2021-2025

IGFS 2022	<p>I believe the programme is quite famous among students and scientists that are interested in seagoing experience. In case more applications are wished, there could be such things as emails to the postgrad mailing list at ATU.</p> <p>I also believe that the programme itself functions well. More information (or overall information) about the final report might be helpful before the survey. Here deadlines are not clear neither. I do appreciate not having a strict deadline though...</p>
Mackerel Egg 2022	I would advise students to obtain their Personal Survival Techniques (PST) STCW-95 course accreditation as well as their seafarer's medical certificate in order to be eligible for surveys as they become available.
Mackerel Egg 2022	Personally, I already had good experience before joining the ship however I think providing some training material to students prior to survey would be useful. Even if the student is just provided with a cruise report or ICES working doc, it allows them to familiarize themselves with methodologies and protocols before joining the boat. I think this would add to the students experience and ideally make them more useful on the survey.
UWTV 2022	Overall, I was very happy with how the program was run and I have recommended it to a number of people over the past few months. A glossier social media campaign may be a possible way to reach a wider audience if it is felt further promotion is necessary.
WESPAS 2022	Nothing springs to mind, perhaps advertise it more
WESPAS 2022	<p>My only half-issue with the program is that I had only learned of the SMART Seaschool and these bursaries in the second semester of my final year. Not once had I heard of these surveys being discussed with us by our academic staff up until the latter stages of final year. Speaking with first, second, third and even fourth year marine science students through the marine society, it was apparent to me that quite literally none of them are informed on how to even start looking for a job in this field. The first to second years assumed that work experience on a research vessel would be included in their degree, as was told to them doing orientation. Which is somewhat untrue or at least an exaggerated aspect of the degree. The third to final years were hoping on either "something coming up" or further pursuing a master's degree in order to obtain work experience. I myself did not know of these surveys until we had a module with SMART Seaschool in Cork harbour in surveying techniques. Upon completion of this, it was only then through direct conversation with the course co-ordinators of this module onboard the Celtic Voyager that I was made aware of these surveys and applied immediately after. It should absolutely be encouraged, and at the very least mentioned, by the university staff for Marine Science that these surveys exist, as no marine science undergraduate that I personally spoke to were aware. I fully understand the reasonings behind why getting every single undergraduate onto these surveys as part of their degree is not feasible, or even desirable in some cases. However, if the need is to promote this program, it must happen at the university level. An in-person presentation/seminar/lecture from SMART on the benefits of survey work on campus will ensure essentially all students are informed of the program existence and will establish that a further percentage of those in attendance will partake in the program in the future. I also understand that places on these surveys are limited and screening a high volume of undergrads may not be feasible, another option is to work closer with the staff that are supervisors to the 4th years doing their final year projects. Supervisors can recommend the program to their students if they feel they are displaying a certain aptitude for it, or the student shows interest in gaining work experience. Furthermore, SMART will then be receiving applicants that will have both someone vouching for them and already display desirable qualities and/or skills. A key point here is that input from supervisors should be on the basis of referral and recommendation, not allocating "slots" onboard surveys for each supervisor. My own supervisor had open positions available for students on WESPAS this year, however as this was unpaid, I opted for the standard application procedure. However, this program being initially perceived as unpaid was taken a major barrier for applying by other students doing the project with me and for the rest of the fourth years as word spread. As a result, I was the only one to apply for a survey out of virtually my entire year. Word of mouth amongst students is critically important and, as I saw, can completely change the general perception. It may also be a good idea to have graduates who did partake in a bursary to share their experience on campus in a lecture setting. In terms of program improvement, there is not much else left to achieve. The experience is invaluable, the networking aspects are crucial and gives a clear edge when competing for jobs in the future when up against other recent graduates. My only recommendation would be to get the word out that this is the case and these opportunities do exist, but I do see why this may not always be best.</p>
WESPAS 2022	I found out about the RV SMART Bursary through the Research Professional webpage. No one I know or work with had ever heard of this and one of the bachelors' students on the survey had not heard of the bursary either. Perhaps it would reach more students if the call could be sent through the graduate and post-graduate email accounts of different Universities.
CSHAS 2021	Get them involved in the technical data management side of things. So as a part of the process if the bursar could have a closer hand in the final report for the survey that would round off the experience and make it more valuable.

Appendix 2 continued. Recommendations to improve and promote RV Bursaries 2021-2025

IGFS 2021	I heard about the survey by chance through a colleague at MRAG. There may be opportunities to advertise the programme more broadly to students across Europe-in my experience, it is a unique opportunity. It would be amazing to collaborate with other institutes, such as Marine Scotland, to deliver similar opportunities.
IGFS 2021	None. All was perfect.
IGFS 2021	This is an amazing programme which offers such unique and important opportunities to recent graduates. I can't think of anything that could improve the experience. Perhaps it could be promoted more by lectures and encourage students to apply. I only really knew to apply as all my friends were, but I am very happy and grateful that I did apply!
IGFS 2021	I would recommend a greater description of what to bring for a cruise as I ended up overpacking. And of improving the advertisement of these bursary programmes on social media, to attract young eager scientists.
IGFS 2021	Perhaps more testimonials from previous students who have taken part would be a good way to inform potential students of what the experience is like and how it could benefit them. Especially for those who haven't participated in any marine surveys before or had much previous seagoing experience. An introductory video that can be shown to students could also be beneficial to give them more of a feel for what they would be doing and what type of work is involved. To help improve the programme a debrief or follow up meeting once the survey has completed would be useful to get feedback on how the survey went and clarify any queries students might have.
IGFS 2021	No improvements that I can recommend for this leg. The expected work was very clear from the beginning. Continued social media blasts from SMART Seaschool think is effective as that's how I see/hear about the voyage listings.
IGFS 2021	Perhaps more testimonials from previous students who have taken part would be a good way to inform potential students of what the experience is like and how it could benefit them. Especially for those who haven't participated in any marine surveys before or had much previous seagoing experience. An introductory video that can be shown to students could also be beneficial to give them more of a feel for what they would be doing and what type of work is involved. To help improve the programme a debrief or follow up meeting once the survey has completed would be useful to get feedback on how the survey went and clarify any queries students might have.
IGFS 2021	I would recommend a greater description of what to bring for a cruise as I ended up overpacking. And of improving the advertisement of these bursary programmes on social media, to attract young eager scientists.
CSHAS 2021	Get them involved in the technical data management side of things. So as a part of the process if the bursar could have a closer hand in the final report for the survey that would round off the experience and make it more valuable.
IGFS 2021	None. All was perfect.
IGFS 2022	The only thing that could possibly come to mind is the communication leading up to the survey leg itself. I was able to ask John Boyd questions and could therefore keep up but I'd say communication was not the most efficient for a first timer on a research vessel. Else I believe the program to be well promoted among students.
IGFS 2022	I think constructing a small presentation/packet on the standard measuring for the most common fish, and which fish require otolith extractions/sexing. I was able to catch on a bit after a few days, but I think a packet would have been very helpful in learning quicker.
Mac Egg 2022	I would advise students to obtain their Personal Survival Techniques (PST) STCW-95 course accreditation as well as their seafarer's medical certificate in order to be eligible for surveys as they become available.
IGFS 2022	I would've liked an opportunity to witness any CTD measurements taken and learn a bit more about that side of the survey as well as any data verification / summarisation that may take place after it is inputted into the software. Some insight into the planning of the actual survey including locations and data requirements would have also been interesting. Emailing the various college marine departments was a good way to promote the program for students.
IGFS 2022	More communication prior to the survey detailing the general survey itinerary and details of day-to-day workplans to allow for more efficient preparation particularly for first time students/scientists
IGFS 2022	I can honestly say there is nothing I would change about the experience I had on the Celtic Explorer during this survey. I thoroughly enjoyed the work, company and the food! I would say that if it were not for my university sending on the information regarding the bursary, I would not have known about it. So perhaps more promoting through different platforms could be beneficial. Also, I would have appreciated the information regarding the report (template and information required) prior to doing the survey so I knew exactly what information I was looking for and how to frame my report. However, these are minor changes, and I enjoyed my time immensely regardless of these points.

Appendix 2 continued. Recommendations to improve and promote RV Bursaries 2021-2025

UWTV 2022	Overall, I was very happy with how the program was run and I have recommended it to a number of people over the past few months. A glossier social media campaign may be a possible way to reach a wider audience if it felt further promotion is necessary.
WESPAS 2022	Nothing springs to mind, perhaps advertise it more
WESPAS 2022	An in person presentation/seminar/lecture from SMART on the benefits of survey work on UG campus will ensure essentially all students are informed of the program existence and will establish that a further percentage of those in attendance will partake in the program in the future. I also understand that places on these surveys are limited and screening a high volume of undergrads may not be feasible, another option is to work closer with the UG staff that are supervisors to the 4th years doing their final year projects. Supervisors can recommend the program to their students if they feel are displaying the certain aptitude for it, or the student shows interest in gaining work experience. Furthermore, SMART will then be receiving applicants that will have both someone vouching for them and already display desirable qualities and/or skills. A key point here is that input from supervisors should be on the basis of referral and recommendation, not allocating "slots" onboard surveys for each supervisor. My own supervisor had open positions available for students on WESPAS this year, however as this was unpaid, I opted for the standard application procedure. However, this program being initially perceived as unpaid was taken a major barrier for applying by other students doing the project with me and for the rest of the fourth years as word spread. As a result, I was the only one to apply for a survey out of virtually my entire year. Word of mouth amongst students is critically important and, as I saw, can completely change the general perception. It may also be a good idea to have graduates who did partake in a bursary to share their experience on campus in a lecture setting. In terms of program improvement, there is not much else left to achieve. The experience is invaluable, the networking aspects are crucial and gives a clear edge when competing for jobs in the future when up against other recent graduates. My only recommendation would be to get the word out that this is the case and these opportunities do exist, but I do see why this may not always be best.
IGFS 2022	I would recommend that if students want a career in marine science to actively pursue these opportunities as really separates experienced people coming out of graduate studies when comparing someone that has seen these techniques physically and gained experienced when doing compared to someone who hasn't had the opportunity to take part in such a setting.
WESPAS 2022	I found out about the RV SMART Bursary through the Research Professional webpage. No one I know or work with had ever heard of this and one of the bachelor's students on the survey (from NUIG) had not heard of the bursary either. Perhaps it would reach more students if the call could be sent through the graduate and post-graduate email accounts of different Universities.
IGFS 2022	Honestly nothing, I thought it was perfect. Apparently it was unusual to have 5 beginners on board, but I liked this as it made it easier for us to step out of our comfort zones sooner with regard to taking otoliths etc.
Mac Egg 2022	Personally I already had good experience before joining the ship however I think providing some training material to students prior to survey would be useful. Even if the student is just provided with a cruise report or ICES working doc, it allows them to familiarize themselves with methodologies and protocols before joining the boat. I think this would add to the students experience and ideally make them more useful on the survey.
IGFS 2022	None come to mind. I feel like the programme was well promoted, and the team were great teaching me the skills required and addressing any queries or issues I encountered whilst on survey.
IGFS 2022	I believe the programme is quite famous among students and scientists that are interested in seagoing experience. In case more applications are wished, there could be such things as emails to the postgrad mailing list at ATU. I also believe that the programme itself functions well. More information (or overall information) about the final report might be helpful before the survey. Here deadlines are not clear neither. I do appreciate not having a strict deadline though...
IGFS 2022	I am not sure how promotion is carried out in the south of Ireland, perhaps it is a bit more accessible - but in my experience this opportunity wasn't something that was very publicly advertised. Maybe having some kind of stall or information day during student weeks would make it more available to people. Though I understand that the marine research teams are quite small at the post graduate level, within them at least, the programme is well known, but not exactly circulated.
IGFS 2022	I would maybe recommend getting the message out to the students in a more effective way. While I was aware of the program before I did not know anything about what would be involved and many of my friends did not know about it at all.
UWTV 2023	Ultimately, I think there should be more bursary positions made available. Perhaps more information should be provided to successful bursary applications regarding what to expect of daily life on board. For example, what a schedule may look like aboard a survey for a scientist.

Appendix 2 continued. Recommendations to improve and promote RV Bursaries 2021-2025

IAMS 2023	Since I was perfectly satisfied with the survey experience, I have no recommendations on how to improve or promote the programme. I think that the programme is (beside others) promoted well by word-of-mouth, as I experienced it.
CSHAS 2023	<p>Again overall it was a brilliant opportunity. I think if I had looked into identifying the common fish that will be caught on the survey before getting on the boat would have helped me greatly. It helped a lot reading the previous years reports before getting onboard. Also to ask questions, everyone is so helpful and willing to give you time which is really great. Spending time in the dry lab also improved my experience, and visiting the bridge. It helped to understand the boat operations taking place.</p> <p>Bring microwave popcorn for the film evenings. And also a hard drive with films, tv shows, or study material etc. Binoculars if you have time to visit the MMO.</p>
CSHAS 2023	There wasn't a strong promotion of the bursary amongst those in the university of Galway. from speaking to other students who've taken part in the bursary it seemed like the bursary is much better promoted within UCC and ATU.
IAMS 2023	<p>Honestly, I think the program is very well structured. The onboard working environment is ideal for someone who wants to have some experience in fish data collection. The scientists are very friendly and always available to help and explain any doubt that may arise. The equipment/software used to collect the biometric data is user-friendly and allows progressive learning through all the necessary steps. Finally, the rest of the crew is very welcoming.</p> <p>In my opinion, the promotion of bursaries among students and scientists should be broader, for example, announced on LinkedIn and specific email channels.</p>
IGFS 2023	Having a more active social media (especially LinkedIn) presence may help make finding new students finding the program, and help returning students like myself find out when I can apply again!
IGFS 2023	<p>It would be great if the professors in NUIG and GMIT for the undergraduate marine science and other courses were more vocal about the opportunities that are out there.</p> <p>Also maybe a SMART SeaSchool social media page would be brilliant for awareness in general.</p>
WESPAS 2023	Advertise to marine science students and zoology and environmental-related courses as well who might be interested in the experience by email, or through lecturers. I have friends from related courses who hadn't heard of it until I mentioned it to them.
IGFS 2023	<p>I wouldn't change much, as I found the offer and information about the programme pretty straight forward and had no problems applying for it. After successful application I have been included in the survey's mailing list and received any information needed. Onboard I was heartily welcomed and included into the workflow straight away.</p> <p>I know that a few of my fellow students were held back by the costs and expenditure of time needed to accumulate the right certificates to join the survey. A better encouragement of the overall benefits of these certificates might push more students into applying for these programmes.</p> <p>Though, anybody who is really interested in joining these surveys can find any information needed online.</p>
IAMS 2023	I think from a promotion point of view it's already well renowned for the experience offered making it suitably competitive. Further promotion may make it overly competitive. I don't feel there are any improvements required to the programme.
IAMS 2023	I think including the SMART training information in marine scientist mailing lists would help to promote the programme.
IGFS 2023	Possibly promote the existence of the bursaries more openly in colleges or secondary schools to make students more aware of the potential the bursaries can offer them for their future careers.
IGFS 2023	I think describing a typical day online and publishing on social networks and/on ATU email list could be a good idea.

Appendix 2 continued. Recommendations to improve and promote RV Bursaries 2021-2025

IGFS 2023	My experience was truly exceptional. From a student's perspective, it's hard to pinpoint areas for improvement because the team was outstanding in every aspect. Their friendliness and assistance made the trip incredibly enjoyable, and their professionalism provided a strong sense of safety throughout. While everyone was incredibly professional, I found myself contemplating ways to further enhance our environmental impact, particularly regarding marine species discards. I understand the complexities involved, but perhaps exploring methods to prioritise the well-being of vulnerable species like elasmobranchs during sampling could be beneficial. For instance, aiming to minimise their time out of the water, by prioritising them when sampling to allow them for a quick return into the water. I firmly believe that while maintaining professionalism, there might be avenues to further reduce our environmental footprint in these surveys. I want to emphasise the exceptional work and professionalism of the entire team. This suggestion merely comes from a desire to explore additional ways to make our engagement with the ocean even more sustainable. Thank you all for your outstanding efforts and dedication.
IAMS 2024	To further promote student involvement within the programme I would suggest carrying out the SMART sea school course either at the start of 4th year or in 3rd year as I have found that within my course students' interest in marine science and oceanography increased greatly after gaining this experience. This would give students more time to get the necessary certifications sorted so they are able to work aboard the Celtic Explorer and Tom Crean.
IAMS 2024	The program could be advertised through the EuroMarine OYSTER Twitter page (@EM_OYSTER), they put together weekly job/opportunity threads related to marine sciences and have quite a large audience.
IAMS 2024	I don't have any recommendations. I think the experienced scientists on board were really helpful, they showed us what to do at the beginning but let us do our own thing once we knew what we were doing, and there was always someone to ask for help if needed.
CSHAS 2024	It would be important to improve communication between the programme supervisor, scientific team, and students during the organizational phase, to ensure that key information is conveyed clearly and effectively.
CSHAS 2024	Advertise it through EuroMarine OYSTER if it hasn't been done yet or other platforms easy to access. I received it via email but it was by pure luck. I think we IMBRSea students are very used to travelling, but I am sure other students from abroad would be interested. The only thing I would do is tell students about what surveys they can go to (which months) with more time in advance, so that they can prepare with time (e.g. plane flights in some cases, security boots...)
IGFS 2024	Providing more information on career opportunities and how the survey experience can be applied in marine science
IGFS 2024	I think it is well promoted and targeted at the right audience.
WESPAS 2025	I would recommend hosting a seminar and sending out an invite to students in relevant university courses via course co-ordinators, or perhaps a guest lecture appearance from an ambassador for related university courses.
IAMS 2025	I thought it was pretty flawless - good communication, support and training. A little bit more pay wouldn't go amiss!
WESPAS 2025	I think it would be of benefit for annual workshops/talks from the Marine Institute/SMART Programme at a variety of universities/conventions/events etc. As someone who applied outside of my college, it was through my own research that I found SMART and I think having speakers in to talk to students would encourage people to take the opportunity to gain sea experience.
Mac Egg 2025	It could be useful to pair bursars together during trips, so as to have two people learning together and learning from each other throughout the bursary.
IAMS 2025	I do feel this area of science is becoming more popular in recent years. I would value seeing longer contracts for potential post graduate students seeking further work in this area instead of a two week contract.
WESPAS 2025	<p>I would recommend further outreach through university departments and marine science networks, especially by sharing stories or testimonials from past bursary recipients to show the diversity of experiences available. A short video or infographic showcasing a day in the life onboard could really help demystify what life at sea is like for students new to this environment.</p> <p>It could also be helpful to provide more information beforehand about what to pack, life onboard, and what kind of work participants will be doing. A brief virtual or written pre-departure orientation would go a long way in helping students feel prepared and confident. Overall, this is an incredibly valuable opportunity and I would strongly encourage others to apply.</p>
WESPAS 2025	I don't really have any recommendations, everything was great.

Appendix 2 continued. Recommendations to improve and promote RV Bursaries 2021-2025

Mac Egg 2025	<p>It would have been nice to complement the survey with training on keeping a field notebook and with some sort of symposium where the past students could showcase their learning experience. The latter could perhaps be part of already existing MI events.</p> <p>Regarding the logistics prior to the survey, since shiptime is often allocated months in advance, in order to allow enough time for students to obtain their certificates and international flight tickets (when applicable), notifying students earlier would release some of the financial burdens of the survey.</p> <p>Moreover, I truly appreciated the availability of vegan options and the adaptability of the cook. However since it was a 21 day long survey, I would have been nice to have access to a greater variety of vegetables and pulses rather than relying on processed meat-alternatives (e.g., burgers, nuggets, sausages, etc) for every meal.</p>
INFOMAR 2025	I recommend providing more detailed information about the tasks the student will be expected to complete during the survey, as well as the work schedule, prior to the start of the survey. This will help the student to better prepare and understand that they may have 10 to 12-hour shifts, including night shifts.
IAMS 2025	I would recommend allowing students to return for a second survey. I think that during your first survey, there is so much to take in that going a second time would be highly beneficial. I would also recommend setting up some sort of contact between new students and past participants. Possibly organising a call/ some sort of contact before they head to sea? I think this would be a great way to let new students know what to expect/ what to bring to sea.
UWTV 2025	The programme is already highly valuable; I don't have any recommendations.
IAMS 2025	I do not really have any recommendations. I suppose to increase reach for the programme, ensure that all department heads in various universities have been contacted with updated dates about deadlines and who is eligible to apply. Also, posting on all social media platforms is a great way to improve the reach of the initiative. Otherwise I do not really have any improvements. It was great :).

Appendix 3. Highlights from 2021-2025 Impact Survey

What	Were there any aspects of the survey you want to highlight?
2020 IAMS	The survey was a fantastic experience that definitely made the difference on my CV. Being in a working research wet lab which was snuggly reflective of wetland I've been in since.
2020 WESPAS	These programs give students and fresh graduates and opportunity to get out to sea and gain real experience. It is the best opportunity to meet with MI staff and other industry representatives and provides invaluable networking for further career development.
2021 CSHAS	The survey was very good and new skills were learnt. I never received any feedback from my report so I felt unsure as to what the value was in it, although any new experiences are always valuable. I did feel that I was getting a lot out of it but I did have to push a little.
2021 IGFS	The survey was an invaluable experience. I learned a lot and gained great experience/knowledge
2021 IGFS	Great communication with the bursar team and everything was clearly organised. I learned a lot onboard and have since been able to apply the skills to my current position. MI personnel v encouraging
2021 UWTV	I would just like to offer some general comments on the benefit of the bursary program to my own career. The opportunity to participate in the 2021 UWTV survey was my first time doing offshore research and was transformative in many ways. I thoroughly enjoyed the experience and gained so much knowledge from the scientists and crew onboard the RV Tom Crean. Through the experience gained during the bursary program I was able to participate in further offshore research as a Marine Mammal Observer (MMO) again onboard the RV Tom Crean and as an Irish Government Observer onboard the RV Endeavour with CEFAS. These experiences really shaped my trajectory as a researcher and were hugely valuable for future employment and study. Thanks to this hands-on offshore research and fisheries work I became involved with as a result of the bursary program I got the opportunity to do my MSc thesis with the British Antarctic Survey investigating spatial and temporal changes in the diet of mackerel icefish (<i>Champscephalus gunnari</i>) around South Georgia in the Southern Ocean. I am now doing my PhD at the University of Western Australia investigating "spillover" from Marine Protected Areas (MPAs) and the extent of the effect of protection on fish community structure beyond MPA boundaries. It is not an exaggeration to say that the Marine Institute bursary program is one of the major reasons why I am where I am today and I am very thankful to John Boyd for giving me the opportunity to participate back in 2021.
2021 WESPAS	I took part in WESPAS, it's a really great survey to get a handle on all aspects of the work - participants can and should get involved in the acoustics, biological sample from trawls and nets, CTD use and MMO and SBO operations. It's a great opportunity to learn new skills and meet new people
2022 IAMS	Getting to be on a fisheries cruise allowed me personal insight into this career path and also allowed me to be a better ambassador for EurOcean Youth with the Surfrider Foundation. This also helped me better develop my PhD methodology and significantly strengthened my CV.
2022 IGFS	It was a good introduction on how data is collected during annual surveys. Learning to identify local species was important to me, as I was new to the northeast Atlantic.
2022 IGFS	Really good instruction and learning in the wet lab. The MI scientists were really instructive and patient. Learned a lot. They were good fun and welcoming.
2022 IGFS	It was great getting hands-on experience with fisheries science. The experience was great for me and I went back on as a contractor the following year and have since been working offshore. So the bursary gave me the necessary experience to do my current role and introduced me to a field I hadn't previously considered within marine biology, so thank you for the opportunity!
2022 IGFS	Getting the opportunity to learn from experienced scientists on how to run a marine survey and how to be a part of a research crew
2022 Mac Egg	Although my survey was unfortunately delayed and abandoned due to weather conditions and other unforeseen factors, I still really enjoyed the week spent offshore and valued the opportunity and experience gained which I believe has benefitted my career progression.
2022 WESPAS	Thanks to participating on the survey, I was able to gain experience on fisheries acoustic surveys which I needed to set up a PostDoc project for which I won the grant
2022 WESPAS	Having the ship time to be able to gain more when the opportunity is available. This experience has led me to gain more experience at sea through the foreign vessel observer scheme.

Appendix 3. Highlights from 2021-2025 Impact Survey continued

2022 WESPAS	Being treated as a full time member of the scientific crew was a welcome surprise. No one treated me as an intern or student because I was on this bursary program. Being able to help out with any aspect of the survey gave me the most development as I wasn't pigeon-holed as a lesser crew member. Being a bursar puts you on the same level and gives you better opportunities for training and work experience compared to being labelled as a student or intern, not to mention receiving payment. The bursary provides real world experience for what life at sea would be like and during my time at college, this program was the first time many marine science students had even set foot on a research vessel despite being in their final year of their bachelor's degree. Invaluable experience, should be mandatory for every marine science undergraduate.
2023 CSHAS	Being trusted with the responsibility for watching the acoustics and identifying targets was really motivating and a valuable learning experience.
2023 IGFS	This survey was my first time offshore on a research vessel. For my future career, I would like to participate to sea-going expeditions so getting this experience through the bursary will definitely be a strong asset in this path.
2023 UWTV	The whole experience was amazing for my work experience in the marine sciences. The people I worked with during the survey were extremely helpful which allowed me to develop real-life work skills in this field that I wouldn't have been able to get during my degree. Most of these people are now my work colleagues. I can say for certain that experiences like this are extremely rare (even outside of Ireland) and they can make a whole difference when looking to start in this field, especially for students/graduates.
2023 UWTV	Everyone onboard was very nice and professional with a great sense of camaraderie. I was able to learn and execute every aspect of the data collection onboard. I have much appreciation for those who run this program every year, helping undergraduates and graduates of marine biological sciences to have a real onboard experience.
2023 WESPAS	The conversations I had with the scientists about all aspects of a career in marine science during the survey were priceless, and helped me to build a real impression of what possibilities were out there.
2023 WESPAS	I absolutely loved the pace of it all. Being able to learn about the techniques that go into such a large and influential survey. Specifically I really enjoyed being able to move around the vessel to different scientific stations.
2024 CSHAS	I was very pleased to have first hands experience with plankton sampling, and me and my colleague could be very independent while working after we were explained how to sample on the first day. It allowed me to take a first look at some zooplankton taxa and learn by myself information that I have found useful, especially since my PhD encompasses also zooplankton research. I liked the ambient on the ship too, everyone was friendly.
2024 IGFS	Participating in the IGFS was an invaluable experience for me. Getting to see what work happens on an offshore survey has motivated me to pursue a career in marine science. The skills I learned on the survey have prepared me for future offshore surveys I may work on.
2024 IGFS	Participating on the survey allowed me to become much better at species identification, that now extends to crustaceans. I also practiced my skills in extracting biological samples from more difficult species, i.e. mackerel which have very small and fragile otoliths. On rare occasions, we also get to see larger sharks and cetaceans that were caught in the net and can witness tagging procedure to monitor their movement.
2024 IGFS	It is a fantastic path to gaining employment on board research vessels.
2024 IGFS	Taking part in this survey allowed me to network and gain significant knowledge, thanks to which I ended up working as contractor on other surveys. It ultimately led me to obtaining my current employment at SLU in Sweden where I also go on fisheries research surveys as well as commercial fisheries vessels.
2024 IGFS	Everyone from the scientists to the crew is very supportive and really creates a welcoming environment for the students. Gaining more practical experience but also understanding better how survey data is gathered will be very valuable for my future career.
2024 IGFS	I found the survey experience to be hugely beneficial. I was able to gain an understanding of the overall survey process, from data collection to data management, and was greatly supported by the scientists onboard. Additionally I was able to collect samples for my own PhD research, and plan for future sample collection on subsequent surveys. Though the surveys I have also built a new network with the survey scientists, which is both helpful for my current work and future work prospects.

Appendix 3. Highlights from 2021-2025 Impact Survey continued

2024 IGFS	The bursary provided me with a great opportunity to improve my ID skills. The scientific personnel were approachable and eager to help. However, the fish welfare and handling practices during the survey were incredibly poor. Fish were often cut up live for sexing and then put aside for further measurements while still alive! Individuals for otolith extraction were prioritised over species that have a good survival chance if measured and released in a timely manner.
2024 UWTV	Very useful to know what is expected on these kinds of surveys, and to gain practical experience in that regard
2024 WESPAS	I liked the professional setting in which the research was conducted. I was guided by scientific experts in the field, that were always helpful in communicating the purpose of the survey in an engaging manner. The real-world scenario and data that our team collected was vital, and could be disseminated in a public forum or conference, such as the International Council for the Exploration of Seas (ICES).