

Participant evaluation of SMART Marine Institute Research Vessel Bursaries 2021-2024

The testimony presented here is from RV bursaries from 2021 to 2024. There are two strands. The first is bursars highlights of their survey experience. The second is bursar's recommendations to improve the promotion of RV bursaries.

Highlights

The most frequently cited highlight was the hands-on or firsthand experience. There are many more 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, and the sense of achievement and stimulation from adapting to and performing on a research vessel. Taken together this testimony unambiguously endorses the immense value of the experience to the bursars and demonstrates the success of RV Bursaries in building capacity. Highlights are presented in Appendix 1 in order of newest to oldest.

Recommendations

Overall recommendations are motivated by a desire for increased awareness of the programmes 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.

It is suggested that the bursary experience could be improved by sharing survey resources such as cruise reports, sampling guides, and report templates prior to embarkation. Recommendations are presented in Appendix 2 in order of newest to oldest.

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 social media by Twitter and LinkedIn. Email lists are continuously updated, and reminders repeated on all platforms throughout the year. Polling shows that the most effective promotion is by course coordinators and lecturers and the least effective is email. This is borne out to some extent by the low number of responses to our email circulated poll (Table 1).

Table 1. Source for applying to RV Bursaries, 2021-2023

Where did you find out about RV Bursaries	Count
Course coordinator/supervisor	17
LinkedIn/Twitter	7
SMART website	6
Direct email from SMART	2
Total	32

Appendix 1. RV Bursary highlights 2022-2024

Survey	6. What were the highlights of the survey for you? We are especially interested to hear how you think the experience will benefit your studies or future career in marine science,
IAMS 2024	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.
IAMS 2024	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.
IAMS 2024	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 within Ireland EEZ and has been a great chance to work with and learn from experienced marine biologists.
IGFS 2023	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.
IGFS 2023	<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>
IGFS 2023	<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>
IGFS 2023	<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>
IGFS 2023	<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>
IGFS 2023	<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>

Appendix 1. RV Bursary highlights 2022-2024

CSHAS 2023	<p>"I loved the hands on experience you get surrounded by experienced scientists. Being able to process fish and gain confidence in species ID. 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>
CSHAS 2023	<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. 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>
IAMS 2023	<p>The survey was a great opportunity for me to get firsthand experience upon a research vessel. It gave me my first experience working at sea for a prolonged period and gave a really good insight into the work involved in fisheries stock assessments.</p>
IAMS 2023	<p>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.</p>
IAMS 2023	<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>
IAMS 2023	<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 Ireland's 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 open to explain aspects of their work.</p>
UWTV 2023	<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>
WESPAS 2023	<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>
CSHAS 2022	<p>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.</p>

Appendix 1. RV Bursary highlights 2023-2021

IGFS 2022	<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>
IGFS 2022	<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>
IGFS 2022	<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 setup 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>
Mackerel Egg 2022	<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>
UWTV 2022	<p>I could not 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>
WESPAS 2022	<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>
WESPAS 2022	<p>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. e.g., 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.</p>

Appendix 1. RV Bursary highlights 2023-2021

WESPAS 2022	<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. - Understand ICES data acquisition and the role and contribution of this offshore survey to marine policy and stock assessment: I have a great interest in fisheries science and this survey has been incredibly useful to understand the role of ICES and how they base their assessments which I believe it will be incredibly beneficial in my future as a marine scientist.
WESPAS 2022	<p>I gained experience on acoustics that is extremely beneficial for developing the scientific ship in my home country (if I can 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.</p>
CSHAS 2021	<p>I loved working with the team!!! I really tried to make use of time by engaging with each aspect of the survey and making myself competent and knowledgeable in the subject, from birds and mammals to fish and acoustics, as well as plankton and other duties. The CTD deployment was good but I would like to at some point experience a more in-depth chemical analysis of the water with use of CTD systems. This gave me a good insight into the management process when gathering the data then writing a report based in what I saw and what measures were out in place previously on the back of the data being gathered. I can use the experience in my overall knowledge and experience going into offshore renewable energies, as fisheries management and all the other aspects are part of the daily survey requirements for offshore renewables.</p>
IGFS 2021	<p>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.</p>
IGFS 2021	<p>All aspects of the survey. From handling and sorting of fish, to data input and general onboard work ethic. Furthermore, populating the data and finalizing report has given great insight into pressures that apply on fish stocks in Ireland as well as relative abundance of key species. I feel this bursary has added invaluable experience in offshore surveying that will help immensely in pursuing a PhD and career in Marine Science.</p>
IGFS 2021	<p>The whole survey was amazing! I really enjoyed spending time at sea with so many knowledgeable scientists and crew. I loved chatting to the crew and hearing about their different roles and life experiences. I loved talking to the scientists on board and hearing about their careers in marine science and the paths they have taken. Fisheries Science was already my biggest passion, but it has grown even greater after this survey. I enjoyed all the time in the lab, sorting the fish, and sampling them. I am itching to get back out to sea!</p>
IGFS 2021	<p>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.</p>
IGFS 2021	<p>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.</p>

Appendix 1. RV Bursary highlights 2023-2021

<p>IGFS 2021</p>	<p>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.</p>
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Appendix 2. Recommendations to improve and promote RV Bursaries 2023-2021

Survey	7. What recommendations would you make to improve and promote the programme?
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.
IAMS 24	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.
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.
IGFS 2023	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. 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. Though, anybody who is really interested in joining these surveys can find any information needed online.
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	It would be great if the professors in NUIG and ATU for the undergraduate marine science and other courses were more vocal about the opportunities that are out there. Also maybe a SMART SeaSchool social media page would be brilliant for awareness in general.
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/or ATU email list could be a good idea.
CSHAS 2024	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. 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.
CSHAS 2024	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	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.

Appendix 2. Recommendations to improve and promote RV Bursaries 2023-2021

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	<p>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.</p>
UWTV 2023	<p>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.</p>
WESPAS 2023	<p>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.</p>
IGFS 2022	<p>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.</p>
IGFS 2022	<p>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.</p>
IGFS 2022	<p>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.</p>
IGFS 2022	<p>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.</p>
IGFS 2022	<p>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.</p>
IGFS 2022	<p>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.</p>
IGFS 2022	<p>More communication prior to the survey detailing the general survey itinerary and details of day-today workplans to allow for more efficient preparation particularly for first time students/scientists</p>
IGFS 2022	<p>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.</p>
IGFS 2022	<p>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.</p>
IGFS 2022	<p>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.</p> <p>Else I believe the program to be well promoted among students.</p>

Appendix 2. Recommendations to improve and promote RV Bursaries 2023-2021

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 masters 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. Recommendations to improve and promote RV Bursaries 2023-2021

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.