

Registered number: RC000865
Charity number: 1155893

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES' REPORT AND FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 MARCH 2022

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

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THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

REFERENCE AND ADMINISTRATIVE DETAILS OF THE CHARITY, ITS TRUSTEES AND ADVISERS FOR THE YEAR ENDED 31 MARCH 2022

Trustees	Dr Gill Rider, President Dr Jen Ashworth Professor Mark Bailey (elected 23 November 2021) Professor Chris Frid (resigned 23 November 2021) Professor Patrick M Holligan (resigned 23 November 2021) Professor Heather Koldewey Professor Dan Laffoley Professor John A Raven Professor Ros Rickaby Professor Stuart Rogers Professor Alison G Smith Professor Michael J Whitaker Mr Robert Mills (Treasurer - elected annually)
Trustees (co-opted)	Mr Richard Coombs Professor Paul J B Hart Professor Judith Petts
Company registered number	RC000865
Charity registered number	1155893
Registered office	The Laboratory Citadel Hill Plymouth PL1 2PB
Secretary and Director	Professor William Wilson
Treasurer	Mr Robert Mills (elected annually)
Independent auditors	Bishop Fleming LLP Chartered Accountants Salt Quay House 4 North East Quay Sutton Harbour Plymouth PL4 0BN

TRUSTEES REPORT
FOR THE YEAR ENDED 31 MARCH 2022

The Trustees present their Annual Report together with the audited financial statements of the charity for the year 1 April 2021 to 31 March 2022. The Annual Report serves the purposes of both a Trustees' report and a Directors' report under company law. The Trustees confirm that the Annual Report and Financial Statements of the charitable company comply with the current statutory requirements, the requirements of the charitable company's governing document and the provisions of the Statement of Recommended Practice (SORP) applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS102) (effective 1 January 2019).

INTRODUCTION FROM THE PRESIDENT



Welcome to the MBA's Trustee Report and Financial Statements, which highlights our membership and scientific achievements over the last year. I continue to be amazed at the tenacity, resilience and enthusiasm of staff and students in what are globally challenging socioeconomic times. Despite this, our report is dominated by our many successes, good examples include our largest ever Young Marine Biologist Summit attended by MBA Honorary Fellow and author, Dr Sylvia Earle; the first marine biology institute in the UK to receive Laboratory Efficiency Assessment Framework (LEAF) green lab accreditations; our PhD students regularly winning talk and poster prizes at conferences (Eleanor Gilbert, Yasmin Meeda, Freya Womersley and Nora Salland); Dr Dan Smale for achieving recognition as a highly cited researcher for his work on Marine Heatwaves and Marine Ecosystems; and numerous appearances on different media outlets and news features such as Professor David Sim's feature on catsharks with BBC's *Winterwatch*. One area I have taken a particular interest in is Equality, Diversity and Inclusion (EDI) at the MBA. As the representative organisation for marine biology, it is vital that we are active in promoting EDI values for the wider profession. Our goal is to see marine biology as a discipline with a culture of inclusion that better reflects the diversity we see in society. This is why as MBA President I committed to take on the role of Trustee with responsibility for EDI challenges. This is a clear statement to our members and staff that EDI is a priority for the MBA. Finally, my thanks go to everyone at the MBA for achieving so much and maintaining our core values to be **visionary**, to **inspire** and to do so with **integrity**, throughout the year.

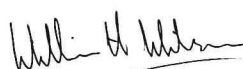


Dr Gill Rider CB
President

LOOKING AHEAD



As I write, our iconic Citadel Hill HQ is a building site as the £4-million phase 1 of our £20-million infrastructure masterplan comes to fruition. It is organised chaos (and a lot of noisy jackhammering!) as our new world-class research laboratories slowly take shape. By the end of 2022 we will be deep in a new recruitment drive to help fill these laboratories with new aspiring marine biologists to set up and/or continue their research careers. We continue to update our look through our branding and of course, our new website that I hope you enjoy. It is just a starting point and we hope to update with new features on a monthly basis, particularly with our membership section which has a state of the art customer relationship management (CRM) system driving it in the background (alongside a team of dedicated staff!). Look out for our new training and events opportunities as we expand this area of the membership. I hope you enjoy the highlights from our Trustees Report, never has there been a more important time in human history for us to better understand the role of our oceans and the life they support.



Professor Willie Wilson FMBA
Director

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

OBJECTIVES AND ACTIVITIES

With members spanning 47 countries across 5 continents, The Marine Biological Association (MBA) is a Learned Society of scientists and members working as *the* voice for marine biology.



Our in-depth scientific research into the interconnected marine environment, carried out at our prestigious Citadel Hill Laboratory HQ in Plymouth, UK, has contributed to the work of 12 Nobel Laureates and over 170 Fellows of the Royal Society. Since 1884, we have worked in the interests of the ocean and global scientific community. We were granted a Royal Charter in 2013 in recognition of our world-leading role in marine biological research.



Scan the QR code to learn more about our history or straight to our website here: <https://www.mba.ac.uk/about-us/our-history/>



Our aims are simple; to be visionary, to inspire, and to do so with integrity. With world-class expertise and facilities, we pride ourselves on giving everyone access to marine biology that is honest and true, both now and in the future.

To discover the MBA's achievements over the past year, and see our values in action, read on.

OUR VISION

To be *the* voice of marine biology

OUR MISSION

Focused on marine biology, our mission is to understand and disseminate the causes and consequences of environmental change in the ocean through research and discovery



The Board of Trustees has given regard to the legislative and regulatory requirements for disclosing how its charitable objectives have provided benefit to the public. The Board of Trustees has complied with the duty set out in Section 17(5) of the Charities Act 2011. This report outlines how our achievements during the period have benefited the public, either directly or indirectly.

In setting objectives and planning for activities, the Trustees have given due consideration to general guidance published by the Charity Commission relating to public benefit, including the guidance 'Public benefit: running a charity (PB2)'.

The Marine Biological Association; an ocean of knowledge since 1884.

TRUSTEES REPORT (CONTINUED)
FOR THE YEAR ENDED 31 MARCH 2022

OUR STRATEGY

In 2020 we released our 15-year Strategic Plan: 2020–34 “Charting 150 Years of the Marine Biological Association”. Over the past 137 years, the Marine Biological Association (MBA) has forged a path that reflects the ambitions of its beginnings and signals a thirst for further challenge. Since inception, the MBA has stayed true to its purpose to promote the investigation, and to disseminate knowledge of biology in the ocean, but has constantly evolved.

Our strategy seeks to strengthen our learned status and to equip the MBA for a more competitive and globalised future. It also seeks to emphasise the traits that distinguish us from others and will reinforce the MBA’s standing in the scientific community and beyond.

Never has there been a more important time in human history for us to better understand the role of our oceans and the life they support. The United Nations has proclaimed a Decade of Ocean Science for Sustainable Development (2021-2030). A 15-year strategic roadmap was an opportunity to reflect on these global challenges and to develop an ambitious response. It is split into 3 x 5-year phases: Horizon 1 – *Foundations* (to 2024); Horizon 2 – *Accelerator* (to 2029); and Horizon 3 – *Global Leadership* (to 2034 and the 150th anniversary of the establishment of the MBA).

Our strategy will strengthen the MBA’s position as a Learned Society that hosts a world-class research laboratory. ***We aspire to be a world-leading voice in marine biology and this strategy will support the MBA to deliver services that our members use and value.*** The plan will help the MBA to attract and develop talented scientists and staff to foster excellence, enhance performance and thereby fulfil our responsibility as custodians of the ocean to find the answers and develop the solutions for a more sustainable planet.

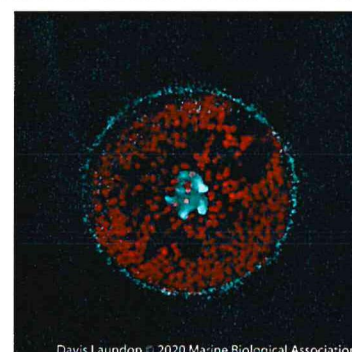


With equality, diversity and inclusion (EDI) a central theme, there are three operational pillars that underpin the MBA’s strategy (*Excellence & Growth, Reach & Influence, and Strength & Performance*). Our research will focus on discovering new biology and ecology in the ocean. It will span overlapping biological scales from molecular to ocean-basin covering three broad and highly topical strategic themes: the *Marine Microbiome*; *Coastal Ecology*; and *Ocean Biology*.

With a focus on modernising the MBA while also looking to increase operational efficiency, we plan an ambitious infrastructure improvement programme at Citadel Hill to ensure our world-class scientists have access to state of the art research and training facilities. This will include improved laboratory space to enhance our molecular biology, advanced imaging, seawater mesocosm and plankton taxonomy facilities. This is part of a strategic bid to establish a Marine Microbiome Centre of Excellence at Citadel Hill enhancing our strengths in molecular ecology and cellular physiology. The wider vision is to determine the function of the massive diversity observed in the global ocean microbiome.

We will provide value added data and information services to support research and innovation at the MBA as well as marine environmental assessment by applying analytics and visualisation on linked marine ecology and plankton datasets. This will provide biological and ecological context to global sustained ocean and coastal observing systems, of high importance in understanding biotic responses to environmental change.

We plan to increase our global reach to 10,000 members within 5 years by targeted marketing of our *Membership* offer. We will create hubs of activity in different countries and offer Marine Biology accreditation as part of our Royal Charter. There is clear ambition to become *The Royal Marine Biological Association* to align with our world class credentials in research excellence; training; and communication, advice and policy.

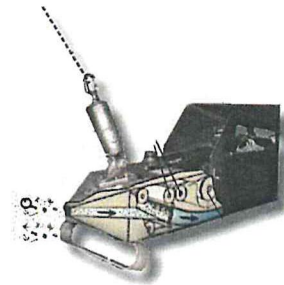


TRUSTEES REPORT (CONTINUED)
FOR THE YEAR ENDED 31 MARCH 2022

ACHIEVEMENTS AND PERFORMANCE

OVERVIEW OF OUR YEAR

12%	Social media growth
47	Countries with Marine Biological Association Membership
90	Years of the Continuous Plankton Recorder (CPR) Survey
104	Papers published
167	Conferences and events attended and presented
198	Staff, students, volunteers and trustees
896	International media mentions
42,486	Views on YouTube and TikTok
£4.5 million	Research grant and contract income
8.7 million	Press-release audience reach



THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

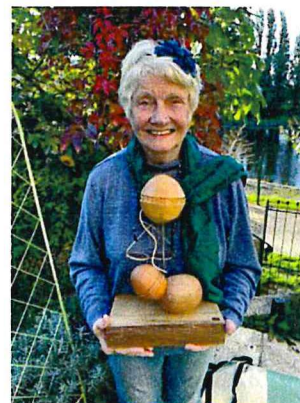
MEMBERSHIP

As a Member of the MBA, you join our growing community of marine biologists across the globe, from students to professionals, associates to Fellows.

This year, Fellow **Dr Shubha Sathyendranath** was awarded the AG Huntsman Medal for her achievements in the development of optics and satellite use in marine science.

Associate Research Fellow **Professor Linda Medlin**, was awarded the Yasumoto Lifetime Achievement Award for outstanding contributions to the study of marine phytoplankton.

"I am honoured to receive this award, which I never thought possible because I haven't devoted my career to the study of one genus, but rather to the entire phytoplankton community."



Joining the distinguished company of senior practitioners who have contributed to marine biology at the highest level, seven new Fellows were elected this year by the MBA Council:

Professor Po Teen Lim's extensive research contributes some 150 papers, as well as discoveries of harmful algal species previously unknown to science.

Dr Martin A Collins OBE, leader of the British Antarctic Survey input into the Commission for the Conservation of Antarctic Marine Living Resources.

National representative at the Scientific Committee on Oceanic Research, **Dr Daniel Weihs** is the author of ground-breaking research on fish, marine mammals and invertebrate swimming dynamics.

Dr Nicholas Hardman-Mountford, Head of Oceans and Natural Resources at the Commonwealth Secretariat. Lecturer and biologist **Professor Paul J.B. Hart**. Paul previously worked on the Continuous Plankton Recorder Survey and is a Member of the MBA Council.

Professor Peter Burkill is a long-standing MBA Member. His research includes some 200 papers, primarily on microbial biogeochemistry.

Dr Matthew Frost, Head of Policy and Engagement and Deputy Director here at the Marine Biological Association. He chairs the Marine Climate Change Impacts Partnership and is President of the European Network of Marine Stations.

This year, we began laying the foundations to provide young professionals with ongoing support. One way we aim to inspire those embarking on their professional careers is with our Travel Bursary, awarded to help cover the cost of training opportunities. Two of this year's Travel Bursary recipients were Matt Bell and Charlotte Clubley.



"The travel bursary allowed me to partake in my Polar and Advanced Polar Training for the upcoming #LastPole expedition in 2023, with explorer Jim McNeill. The knowledge and experience gained during this part of my training programme has been instrumental in my training to become a scientific polar explorer."

Matt Elliott Bell, Student

"The chance to present my work at the Postgraduate Conference was invaluable, and provided lots of opportunity for discussion with other delegates. I look forward to attending the MBA Postgraduate Conference next year!" Charlotte Clubley, Student

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

MEMBERSHIP TRAINING AND EVENTS

Whether you're at the start of your marine biology career or simply an ocean enthusiast, MBA Members are adept at sharing their wealth of ocean knowledge. The ongoing complications of Covid-19 haven't deterred our educational output; we held a variety of events, both in-person and online throughout the year.

In April, 80 people attended the 17th MBA Postgraduate Conference, an event featuring a range of talks, student presentations and keynote lectures.

We hosted a number of Meet the Marine Park tours in collaboration with Plymouth's Marine Park. The groups, which included local young people and staff from the Ocean Conservation Trust at the National Marine Aquarium, were given tours of the MBA's National Marine Biological Library, Seawater Hall and the Continuous Plankton Recorder Survey.

Elsewhere, it was a big year for our Young Marine Biologists. November saw the return of our [Young Marine Biologist Summit](#). Held virtually, highlights included the Sea Life Showdown, Careers Panel and closing session with MBA Honorary Fellow and author, Dr Sylvia Earle.

It was at the summit that we launched the [YMB Writing Challenge](#), which was won by Blair Riley Wheman (US), Ruby Hobbs (UK) and Alosha Samaraarachchi (Sri Lanka). The Microbiome SciArt Competition, launched at Marine Biology Live, was won by Skanda from India. Skanda's prize included two Digiscopes, one of which for his school in Chennai.



To join our growing community of marine biologists and explore our upcoming events, simply scan the **QR code**

- 28** Virtual Work Experience Placements
- 378** Attendees at the Young Marine Biologist Summit
- 798** People at our online courses and workshops
- 858** People watching Marine Biology Live events
- 1570** Members



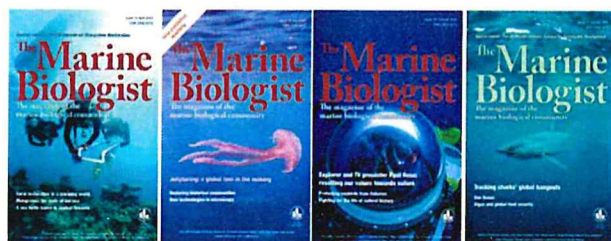
MEMBERSHIP PUBLICATIONS

It's been a year of growth for MBA membership publications.

In 2021, [The Marine Biologist](#) entered its 9th year, and continues to be a leading voice in science communication. Many of our Members stated that *The Marine Biologist* influenced them to join, with numerous Young Marine Biologists and Members requesting a print version of the magazine as an add-on subscription benefit.

The [Journal of the Marine Biological Association](#) stopped print editions and went online as part of our move towards a paperless future. This coincided with the release of the New Year edition of *The Marine Biologist*, guest edited by Professional Member, Professor Heather Koldewey.

We ended the year on a high, with the launch of [The Marine Biologist Podcast](#). Featuring the latest in marine careers and science, our first episode saw *The Marine Biologist* Editor Guy Baker and Cathy Harshaw speak to broadcaster Paul Rose about his career as "one of the world's most experienced field science and polar experts".



108
21,596

Contributors to *The Marine Biologist*
The Marine Biologist Readership

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

POLICY

From our work with the Marine Climate Change Impacts Partnership on UK Overseas Territories, to leading and participating in 6 UN Decade of Ocean Science for Sustainable Development endorsed Programmes and Projects, this year has had a strong international focus.



- 1 Newly established committee for Equity, Diversity and Inclusion. Launched in the summer, the committee have been meeting to discuss the promotion of EDI in marine science and at Citadel Hill.
- 3 Policy Internships
- 6 Endorsed Programmes and Projects of the UN Decade of Ocean Science for Sustainable Development
- 11 Policy Papers published, including [Marine journals, maritime territorial disputes and science-diplomacy](#) and [Key climate change challenges facing the UK Overseas Territories](#).
- 10 Seminars and Presentations given, including "Diversity and Inclusion: Making Meaningful Change" and "European Collaborative Networks: Unleashing the Full Potential of Ocean Knowledge".
- 36 Steering and Working Group Meetings, including the UK G7 delegation for the Future of the Seas and Oceans, Marine Research Plymouth, and the Highly Protected Marine Areas roundtable.
- 60 Conferences, Committees and Congresses attended, including the World Congress of Marine Stations, Nature's Role in Tackling Climate Change Conference, and the UN General Assembly for the UN Ocean Decade.

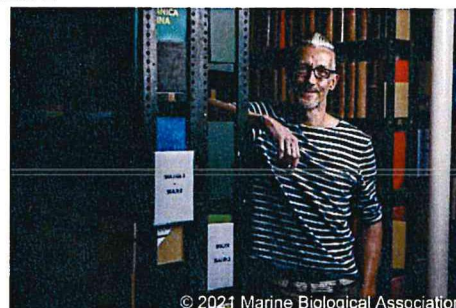
DATA AND INFORMATION

The Data and Information areas of the Marine Biological Association continue to support policy and management decision making on national, European and global scales. The provision of quality assured data and expert-interpreted information contribute to a wide range of activities in support of the UN Sustainable Development Goals, and the programmes and actions of the UN Decade of Ocean Science for Sustainable Development.

- 55 Conferences and events attended, including the International Marine Data and Information Conference, and the Marine Biodiversity Observation Network
- 8519 Datasets uploaded
- 23,204 DASSH downloads, our archive of marine species and habitat data.
- 178,000 MarLIN visitors
- 620,663 MarLIN page views

NATIONAL MARINE BIOLOGICAL LIBRARY (NMBL)

The National Marine Biological Library is one of the largest marine reference libraries in the world. Shelves full of collections are waiting for our Members in a peaceful environment with modern facilities. In early 2022, we were pleased to welcome back external visitors to browse the shelves after a long break due to Covid-19.



To see what the library has to offer, scan the **QR code**.

- 11 Conferences and events attended
- 138 New journals, magazine and publications added to our library
- 380 Articles registered to PlyMSEA, the Plymouth Marine Science Electronic Archive
- 75,213 PlyMSEA downloads



THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

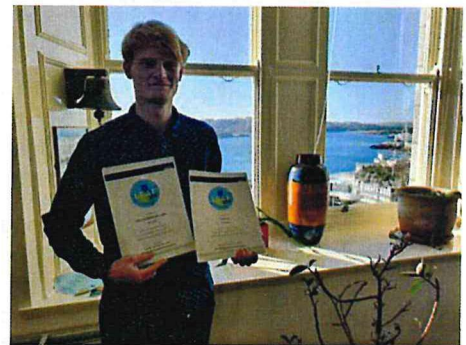
RESEARCH FACILITIES

From installing new technology to infrastructure improvements at our global HQ at Citadel Hill, Plymouth, we take our commitment to world-leading science seriously, and cutting-edge science means cutting-edge facilities.

As part of the review and reorganisation of stock in the [National Marine Biological Library](#), brand new rolling shelving was installed on the lower ground floor.

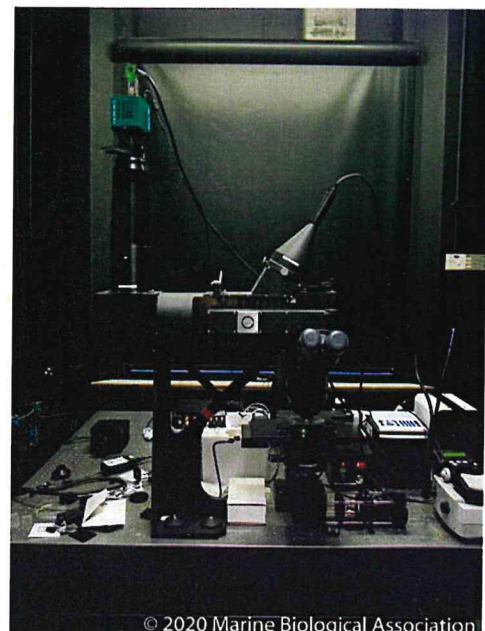
As part of our commitment to sustainability, we received a Maxus eDeliver electric van, and converted the Sir Alister Hardy Boardroom into a video conference facility complete with new acoustic panels to improve sound.

We became the first marine biology institute in the UK to receive two [Laboratory Efficiency Assessment Framework \(LEAF\)](#) green lab accreditations. Both the Cell and Molecular and Continuous Plankton Recorder Survey laboratories received Bronze, with the latter also achieving Silver. The news was covered by [Business Live](#).



A new [Smart Experimental Aquarium \(SEA\) Facility](#) was assembled in the Research Aquarium. The twelve, 1000 litre smart tanks are computer controlled, supporting life-systems and enabling controllers to monitor, record and maintain environmental conditions. The tanks are already in use, and were filmed for the G7 Summit 2021.

Cellular life and processes underpin all marine life. As part of our ongoing [Marine Microbiome Centre of Excellence](#) development, this year we opened the Mary Parke Bioimaging Centre. Containing world-leading microscopy equipment, some of which is only available at the MBA, the centre includes technology allowing the identification and sequencing of single cells, environmental control and live cell imaging.



TRUSTEES REPORT (CONTINUED)
FOR THE YEAR ENDED 31 MARCH 2022

RESEARCH HIGHLIGHTS

"For well over a century, MBA research has always been ahead of its time and others follow in our footsteps. The secret is simple; we create an inspiring ecosystem with equality at its core that allows science to excel."

Professor Willie Wilson FMBA, MBA Director

Our science motivation has a focus on the discovery of new biology and ecology in the ocean. It spans overlapping biological scales from microscopic to ocean-basin, covering: 1) *Marine Microbiome*; 2) *Coastal Ecology*; and 3) *Ocean Biology*, which contribute to three broad highly topical strategic science themes:



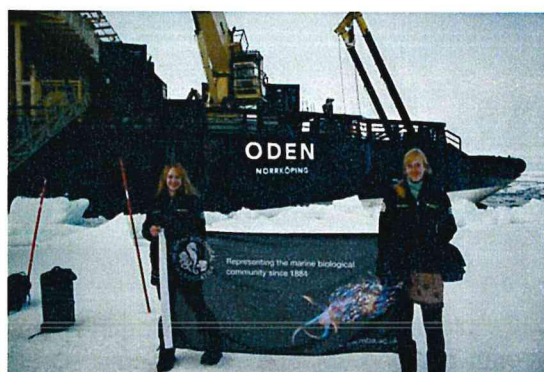
Climate Change is one of the greatest societal challenges of the 21st Century. The continued collection and interpretation of biological data provides detailed insights into how the ocean is responding to this threat and supports predictions about future impacts.

Blue Economy is best defined as taking inspiration from the ocean to derive economic benefit for a sustainable society. Biodiversity (including microbial biodiversity) and sustainable resources are the foundations of a vibrant blue economy, including biotechnology.

Ecosystem Health. As a major reservoir of natural capital, the ocean provides global economic benefits valued at \$2.5 Trillion/year. Most of that value depends on healthy ecosystems. Our researchers perform unique health checks at large ecological scales helping to identify anthropogenic threats such as microplastics, pathogens and invasive species.

MARINE MICROBIOME

The global ocean microbiome, at the base of the marine food web, represents a series of integral cogs that drive and support all life in the ocean. The MBA has excellent and proven research leaders in marine microbiome research who help to better understand global scale processes. We use the term microbiome in the widest sense to include viruses, bacteria, archaea and microbial eukaryotes (protists), including phytoplankton and fungi. Dr Kimberley Bird and Dr Birthe Zäncker travelled to the Arctic aboard icebreaker Oden to study microorganisms beneath the sea ice.



Our top paper, Dr Nathan Christmas and Dr Michael Cunliffe's study on [photobiont diversity in *Lichina pygmaea*](#), found that *L. pygmaea*'s capacity to host both marine and freshwater cyanobacteria contributes to its ability to survive the fluctuating intertidal zone.



Dr Cunliffe also co-authored the perspective piece "[A Call for a Better Understanding of Aquatic Chytrid Biology](#)", proposing that a better understanding of their biology could help us to understand the evolution of fungi and indeed, wider eukaryotic life.

TRUSTEES REPORT (CONTINUED)
FOR THE YEAR ENDED 31 MARCH 2022

PhD student Eleanor Gilbert helped to organise the Plymouth Marine Science and Education Foundation (PlyMSEF) 2022 Conference as part of their Student Committee. It was at this conference that Eleanor and PhD student Yasmin Meeda won prizes for best poster and best talk respectively.



PhD students Yasmin Meeda and Cordelia Roberts presented at the Wonder Women Talks, as part of the National Marine Aquarium Late Talks series. Cordelia also appeared on BBC Radio Leicester's Curious Kids segment, and Yasmin spoke to ITV West Country, discussing natural solutions to climate change.



Whether publishing papers that challenge and inform our understanding of microbial life, or engaging with the public of all ages, Marine Microbiome researchers have worked diligently to bring the smallest of life to the largest stage.

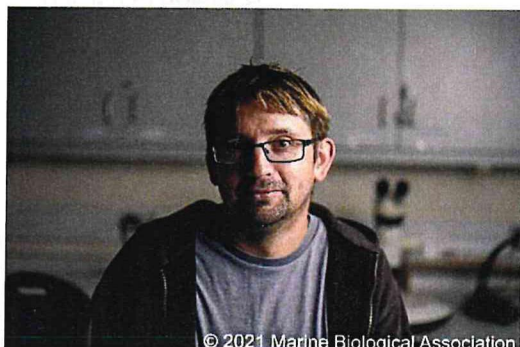
COASTAL ECOLOGY

Ecological pressures on coastal environments are increasing dramatically through a variety of different economic activities, for example, fishing and marine renewable energy and aquaculture. The study of coastal ecosystems offers a wide range of scientific issues and opportunities for MBA researchers. In fact, much of our science looks at changes on our coast and our developing models to better understand the future of our coast due to long-term climate change.



The Darwin Tree of Life team hosted numerous groups including from the Natural History Museum, which presented the chance to share taxonomic expertise and enhance the Museum's collection of specimens.

The Smale Group visited Lundy Island in the Bristol Channel. The first marine reserve established in England almost 40 years ago, the group collected data for the long-term, historical kelp survey.



Dr Dan Smale himself was included in the Clarivate for Academia and Government 2021 list of highly cited researchers, for his work on Marine Heatwaves and Marine Ecosystems.

Documentary *Ocean Greens*, exploring the environmental benefits of seaweed as a food source was released, and featured interviews with Sophie Corrigan and Cat Wilding.

PhD student Nora Salland presented a poster at the 7th Congress of the International Society for Applied Phycology, for which she won an award.

TRUSTEES REPORT (CONTINUED)
FOR THE YEAR ENDED 31 MARCH 2022



As well as collecting samples for The Darwin Tree of Life, Dr Nova Mieszkowska carried out fieldwork for the MarClim project, of which she is principle investigator, and published the paper "[Diversity and distribution of a data deficient habitat in a poorly mapped region](#)", which recommended that research be carried out in data deficient habitats, species and regions to aid management and conservation.

Finally, The Darwin Tree of Life's [first genome note for marine species](#) was published.

By observing the changes of a continually shifting environment, our scientists are helping to understand the processes that impact our coasts, from invasive species to climate change.



OCEAN BIOLOGY

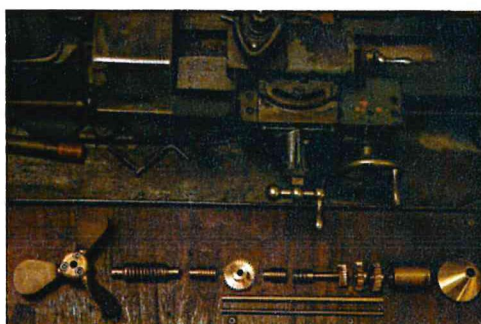
Our ocean is a huge heat sink and absorbs atmospheric carbon dioxide. The ocean plays a central role in mitigating climate change. MBA researchers focus on the impact this heat sink has on ocean biology, from plankton to sharks. Our research looking at spatial dynamics of species, environmental changes and human threats underpins advice that helps in the effective management of the high seas based upon new understandings of where plankton, fish and fisheries aggregate in relation to the environment.



The Sims Group gave three presentations at the Bio-Logging Symposium 7 Conference, where PhD student Freya Womersley won the Audience Favourite Presentation out of 300 talks. Professor David Sims also gave a lecture to the Linnean Society on the group's research; "Caught in the middle: oceanic sharks, climate change and fishing"



The Continuous Plankton Recorder Survey won a contract with Natural Resources Wales to carry out sample analysis in the Skomer Marine Conservation Zone.



Lance Gregory and David Wilson visited Iceland and Birgir Bachmann, supporter of the CPR for over 20 years. They also visited *MV Lagarfoss*, where they presented the captain with an award in recognition of his service to the Survey.

Maz Wootton was a special guest at the screening of *Under the Surface* by Cornwall Climate Care, and gave a Q&A after the film. David Johns spoke to the PlanetB612 Podcast about the CPR Survey, and both Professor Sims and Freya Womersley were interviewed for the Save Our Seas Podcast.

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TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

In collaboration with Sophie Rainbird (Plankton Analyst for the CPR Survey), Professor Sims co-authored "[Meta-Fish-Lib: A generalised, dynamic DNA reference library pipeline for metabarcoding of fishes](#)", which would create opportunities for wider metabarcoding to determine species composition.

A prototype HoloCam took the first ever digital plankton images on board a CPR.

CPR90, our [free online conference](#) celebrating 90 years of the Guinness World Record holding survey, was a great success and featured a programme developed by the CPR team of researcher and analysts.



[BBC's Winterwatch](#) featured the successful release of the 10 baby catsharks that were hatched in our research aquarium. Professor Sims also spoke about the impact of warming seas on catsharks; in recent years warming seas have increased egg production, but too high and it may drop.

To round out the year, a new CPR route between Brazil and South Africa with 8 tows began, the CPR workshop officially moved to Wallsend, and CPR Operations Manager Lance Gregory celebrated 25 years of service.

Big steps and even bigger milestones, our Ocean Biology teams are world-leading in the vast expanse of oceanic research.



TOP RESEARCH PAPERS

A selection of the top papers published by our research teams

Marine Microbiome

Dr Helen Jenkins' paper on the [diversification dynamics of cheilostome bryozoans](#), highlighted the importance of integrating fossils with molecular phylogenies to study diversification in more detail.

Dr Nathan Christmas and Dr Michael Cunliffe's [study](#) on *Lichina pygmaea* found that their capacity to host both marine and freshwater cynobacteria contributes to its ability to survive the fluctuating intertidal zone.

Professor Colin Brownlee, Dr Katherine Helliwell and Dr Glen Wheeler's research, alongside PhD students Yasmin Meeda and Ellie Murphy, outlined the [complexity of marine diatoms when acquiring key nutrients](#).

Coastal Ecology

Dr Dan Smale and Dr Katie Smith co-authored a paper on [socioeconomic impacts of marine heatwaves](#) which was widely cited and provided perspective on the need to develop globally strong mitigation and adaptation to these events.

Principal investigator on the Marine Biodiversity and Climate Change (MarClim) project, Dr Nova Mieszkowska, and Professor Stephen J. Hawkins, published research allowing [extreme weather events to be contextualised and observe their impact of biodiversity](#).

Sequencing the genomes of all eukaryotic life on earth is no easy feat. The Darwin Tree of Life team published "[Sequence locally, think globally](#)", a paper demonstrating the ambition and credibility of this ground-breaking project.

Ocean Biology

Professor David Sims and Dr Emily Southall were featured authors on the top paper from our Ocean Biology Department; "[Global COVID-19 lockdown highlights humans as both threats and custodians of the environment](#)". The research observed the complex impacts, both positive and negative, on nature during the pandemic and our role in its recovery.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

Professor Sims and Dr Southall [replied](#) to a paper on shark mortality, alongside Dr Nick Humphries, highlighting the need for additional measures in preventing the global decline of pelagic sharks, and to the paper "[Caution over the use of ecological big data for conservation](#)", asserting the importance of incorporating tracking and spatial data into scientific assessments.

Dr Clare Ostle and colleagues designed a [new tool to make complex plankton datasets accessible](#) and meaningful for policy, public interest, and scientific discovery.



RESEARCH OVERVIEW

9	Awards
11	Research groups
50	Conferences and events attended and presented at
90	Years of CPR Survey
93	Research papers published
1343	Citations and shares
10,000	Video views of our baby catsharks developing inside their eggs
104,406	Nautical miles towed by CPRs this year

To follow our Research teams, scan the QR code.



**TRUSTEES REPORT (CONTINUED)
FOR THE YEAR ENDED 31 MARCH 2022**

FINANCIAL REVIEW

GOING CONCERN

After making appropriate enquiries, the Trustees have a reasonable expectation that the charity has adequate resources to continue in operational existence for the foreseeable future. For this reason, they continue to adopt the going concern basis in preparing the financial statements. Further details regarding the adoption of the going concern basis can be found in the accounting policies.

RESERVES

It is the policy of the Council to maintain general reserves, which are included within Unrestricted Funds at a sufficient level to satisfy operational cash flow requirements and the fulfilment of contractual and statutory obligations. This reserve should cover at least three months' operational costs (excluding premises costs) and any projected annual deficit and has a current target level of £1m. Funds of £995,894 (before recognition of USS pension liability of £738,412) were held in this reserve at the year-end. It is planned to increase the general unrestricted reserve following a review of designated funds and maintain an increase in long term reserves in line with inflation.

It is also the policy of the Council to maintain a particular level of income generating reserves to produce sufficient annual income for the specific purpose of the maintenance and running of the premises occupied by the MBA. Whilst these funds are free reserves, they are not available for the general, operational and strategic application of the resources of the MBA. The Council is not bound, however, by any restriction as to application of the funds, and consequently these funds are maintained within the Unrestricted Fund, represented by the Designated Fund described in note 22 on page 43. Surplus income generated shall not be considered to be designated for these purposes. The Designated Premises Fund held £11.5m at the year-end. This has been increased to allow for the discharge of liabilities in relation to the lease of The Laboratory, Citadel Hill and the commitment for the ongoing infrastructure project - phase 1

FINANCIAL REVIEW

The MBA received a total of £5,085,253 of incoming resources which was a decrease compared to the results for 2020/21 where a total of £5,198,367 incoming resources were received. Total resources expended were £6,015,800 resulting in a deficit before investments gains and losses of £930,547 after net investment gains of £979,152 and gains on revaluation of assets the net surplus was £87,415.

As shown in the Statement of Financial Activities, of the total £5,085,253 of incoming resources from operations, £1,672,804 was generated for restricted purposes including specific research projects. £3,412,449 was generated from voluntary income and other activities to be used for other unrestricted purposes including the knowledge exchange programme and support for laboratory operations and basic infrastructure. At the year-end, a total of £16,402,935 was held as Unrestricted Funds. This includes Designated Funds of £11,587,126 to support the ongoing premises costs including the infrastructure development project and a Fellowship Fund of £2,844,331 to support world-class research.

RISKS

Under the terms of the Risk Management Policy adopted by the MBA, the strategic, operational and financial risks to which the MBA is exposed are evaluated on a quarterly basis (or more frequently when required) by the Senior Management Team (SMT) and appropriate systems put into place to mitigate any major risks identified. The Council reviews these risks and is satisfied that the policy of continual monitoring of potential risks to which the MBA is exposed is sufficient to identify those risks on a timely basis and to ensure that the appropriate action may be taken to minimise the perceived risk to an acceptable level.

A comprehensive Risk Register has been established under the control of the Senior Management Team and annual review of the three Council Committees (Finance, Risk and Audit; Membership and Engagement; and Research), the risks being categorised and allocated to the relevant department for ongoing monitoring and to be actioned as appropriate. The Committees report their findings to Council bi-annually.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

INVESTMENT POLICY AND RETURNS

In accordance with the Bylaws of the Association, the Council has the power to invest funds in any investments that it sees fit. The policy is to adopt a medium risk investment strategy with a view to maximising returns.

The performance of the investments held are managed by Professional Fund Managers who report to the Finance, Audit and Risk Committee who in turn report to Council on a six monthly basis. Additional independent advice is commissioned as necessary. During 2020/21, a large proportion of the investment portfolio was transferred to CCLA who have historically shown a greater return on investment. This decision was also taken due to ethical and responsible investment policy of the CCLA investment fund which is more in tune with the wishes of Members and Trustees.

STRUCTURE, GOVERNANCE AND MANAGEMENT

CONSTITUTION

The Marine Biological Association (MBA) was founded in 1884 and incorporated in 1885 as a company limited by guarantee (registered no. 21401) without a share capital. The MBA was granted a Royal Charter in May 2013, as official recognition of its long and eminent history and status within the field of marine biology. This resulted in the incorporation of a Charter Body (Privy Council reference C951) registered with the Charity Commission under number 1155893. MBA Council and Members agreed to transfer the assets and operations with all pre-existing restrictions over intended use from the existing limited company to this new Charter Body by way of a gift with effect from 1 April 2014.

The chartered corporation is constituted by its Charter and Bylaws. Responsibility for the overall governance of the MBA rests with the Council who are Trustees for the purposes of the Charities Act.

ORGANISATION

Review of strategy, policy and delivery of the charitable objectives is the responsibility of the Trustees who are formally elected by the Membership and referred to as 'The MBA Council'. Trustees are selected to provide specific expertise in a wide range of areas including research, business, education, public engagement, communications, policy and operations and are drawn from UK and international academia, funding institutes, statutory agencies and the commercial sector.

Appointed Trustees are composed of a mixture of expertise from both **a)** the wider community nominated by members and/or current MBA staff & Trustees, and **b)** nominated by the founding bodies of the MBA: The Fishmongers' Company; The Royal Society; The University of Cambridge; The University of Oxford; The British Science Association; The Department for Environment, Food and Rural Affairs (Defra); The Physiological Society and the Zoological Society of London. The MBA Regulations were recently updated (and subject to Privy Council of the United Kingdom approval) to limit the term of a Trustee to three years with the possibility of serving a further two terms not exceeding a total of nine years if the MBA Council so decides.

Vice Presidents are non-Trustee members of Council (typically composed of Trustee and Director Alumni) and can advise but not vote on Council matters.

The President, Vice Presidents and the Treasurer are appointed by the MBA Council from those members with voting rights, as defined in the Bylaws and Regulations, and are proposed for election at the Annual General Meeting. The President and Treasurer are individually elected for a term of five years and are eligible for re-election for a further term, but so that the total period of their office does not exceed ten years (recently updated, and subject to Privy Council of the United Kingdom approval).

Trustees serve on a number of Committees. These currently comprise Executive Committee (Chairs of the three other committees); Finance, Audit and Risk (FAR) Committee; Research Committee (RC); and Membership and Engagement (M&E) Committee.

Management of the MBA is devolved from the Council to the Director of the MBA based at its HQ at the Citadel Hill Laboratory in Plymouth. The Director also acts as Secretary to The Council. The Director is assisted by a Senior Management Team with responsibilities for research, finance, HR, policy, membership, health & safety, communications, library, data, estates and operations, sustainability, and the CPR Survey.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

TRUSTEE INDUCTION AND TRAINING

New Trustees are introduced to the objectives and policies of the MBA and briefed on their legal obligations under Charity and Company Law. They are given an induction pack containing the Charter, Bylaws and regulations of Association as well as its strategy and development document, the Annual Report and Accounts detailing recent financial performance, a list of current Council members, minutes of previous Council meetings and other leaflets and notes concerning the activities of the MBA. Where appropriate, formal Trustee training is offered and is provided through external training events and an induction visit to the Laboratory is arranged.

THE COUNCIL

Council members who were Trustees during the period (with Governing organisations where relevant noted in brackets) were:

Dr Gill Rider, President

Dr Jen Ashworth (The Worshipful Company of Fishmongers)

Professor Mark Bailey (elected 23 November 2021)

Professor Chris Frid (resigned 23 November 2021)

Professor Patrick M Holligan (resigned 23 November 2021)

Professor Heather Koldewey (Zoological Society of London) (elected 2 December 2020)

Professor Dan Laffoley

Professor John A Raven (The Royal Society)

Professor Ros Rickaby (University of Oxford) (elected 2 December 2020)

Professor Stuart Rogers (Cefas on behalf of Defra)

Professor Alison G Smith (University of Cambridge)

Professor Michael J Whitaker (The Physiological Society)

Mr Robert Mills (Treasurer - elected annually)

Council members who were co-opted Trustees during the period were:

Mr Richard Coombs

Professor Paul J B Hart

Professor Judith Petts

Council members who are not Trustees, and each hold a Vice President role (who can advise, but not vote on Council matters) include: Professor G A Boxshall, Professor M Burrows & Professor S Hawkins.

REMUNERATION

The Council Members did not receive any remuneration nor any payment for services provided in the year. Travel expenses were £NIL during the year as Council Meetings were conducted virtually using video conference facilities

RELATED PARTIES

The Ray Lankester Fund (registered charity number: 206855) provides support for researchers to undertake projects based at the MBA laboratory. Professor W Wilson (MBA Director during the year) is also a Trustee of the Ray Lankester Fund.

The National Marine Biological Library (NMBL) within the MBA houses and curates a significant collection of reports, data and archived material relevant to a range of marine biological and environmental science. The NMBL provides services locally to the Plymouth Marine Laboratory (PML) through a Service Level Agreement.

The Annual Report gives details of the wide range of collaborative projects undertaken by Fellows, students and staff.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

TRUSTEES REPORT (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2022

STATEMENT OF TRUSTEES' RESPONSIBILITIES

The Trustees (who are also the Directors of the charity for the purposes of company law) are responsible for preparing the Trustees' Report including the Strategic Report and the Financial Statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the Trustees to prepare financial statements for each financial year. Under company law the Trustees must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the group and the charity and of their incoming resources and application of resources, including their income and expenditure, for that period. In preparing these financial statements, the Trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles of the Charities SORP (FRS 102);
- make judgments and accounting estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards (FRS 102) have been followed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the group will continue in business.

The Trustees are responsible for keeping adequate accounting records that are sufficient to show and explain the group and the charity's transactions and disclose with reasonable accuracy at any time the financial position of the group and the charity and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the group and the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

DISCLOSURE OF INFORMATION TO AUDITORS

Each of the persons who are Trustees at the time when this Trustees' Report is approved has confirmed that:

- so far as that Trustee is aware, there is no relevant audit information of which the charitable group's auditors are unaware, and
- that Trustee has taken all the steps that ought to have been taken as a Trustee in order to be aware of any relevant audit information and to establish that the charitable group's auditors are aware of that information.

AUDITORS

After competitive tender, this year's auditors, Bishop Fleming LLP, will step down from office. The designated Trustees will propose a motion to appoint new auditors, PKF Francis Clark, at a meeting of the Trustees.

Approved by order of the members of the Board of Trustees on and signed on their behalf by:



Dr Gill Rider CB
President

Date: 26 October 2022

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

OPINION

We have audited the financial statements of The Marine Biological Association of the United Kingdom (the 'charity') for the year ended 31 March 2022 which comprise the Statement of Financial Activities, the Balance Sheet, the Statement of Cash Flows and the related notes, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 March 2022 and of its incoming resources and application of resources, including its income and expenditure for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the United Kingdom, including the Financial Reporting Council's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

CONCLUSIONS RELATING TO GOING CONCERN

In auditing the financial statements, we have concluded that the Trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the Trustees with respect to going concern are described in the relevant sections of this report.

OTHER INFORMATION

The other information comprises the information included in the Annual Report other than the financial statements and our Auditors' Report thereon. The Trustees are responsible for the other information contained within the Annual Report. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM (CONTINUED)

OPINION ON OTHER MATTERS PRESCRIBED BY THE COMPANIES ACT 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Trustees' Report including the Strategic Report for the financial year for which the financial statements are prepared is consistent with the financial statements.
- the Trustees' Report and the Strategic Report have been prepared in accordance with applicable legal requirements.

MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION

In the light of our knowledge and understanding of the charitable company and its environment obtained in the course of the audit, we have not identified material misstatements in the Trustees' Report including the Strategic Report.

We have nothing to report in respect of the following matters in relation to which Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

RESPONSIBILITIES OF TRUSTEES

As explained more fully in the Trustees' Responsibilities Statement, the Trustees (who are also the Directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Trustees are responsible for assessing the charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Trustees either intend to liquidate the charitable company or to cease operations, or have no realistic alternative but to do so.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM (CONTINUED)

AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an Auditors' Report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

- We have considered the nature of the sector, control environment and financial performance;
- We have considered the results of enquiries with management and Trustees in relation to their own identification and assessment of the risk of irregularities within the entity;
- We have reviewed the documentation of key processes and controls and performed walkthroughs of transactions to confirm that the systems are operating in line with documentation;
- We have considered the matters discussed among the audit engagement team regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

As a result of these procedures, we have considered the opportunities and incentives that may exist within the organisation for fraud and identified the highest area of risk to be in relation to income recognition, with a particular risk in relation to year-end cut off. In common with all audits under ISAs (UK) we are also required to perform specific procedures to respond to the risk of management override.

We have also obtained an understanding of the legal and regulatory frameworks that the Charity operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included the Charities Act 2011, Charity SORP 2019, FRS 102 and the terms and conditions attaching to material grants received by the Charity.

In addition, we considered the provisions of other laws and regulations that do not have a direct effect on the financial statements but compliance with which may be fundamental to the Charity's ability to operate or avoid a material penalty. These included Maritime Law, Environmental Law and compliance with the Natural Environment Research Council (NERC) H&S framework.

Our procedures to respond to risks identified included the following:

- Reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- Performing analytical procedures to identify unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- Reviewing board meeting minutes;
- Enquiring of management in relation to actual and potential claims or litigations;
- Performing detailed transactional testing in relation to the recognition of income, specifically grants with a particular focus around year-end cut off; and
- In addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgments made in accounting estimates are indicative of potential bias; and evaluating the business rationale of significant transactions that are unusual or outside the normal course of business.

We also communicated identified laws and regulations and potential fraud risks to all members of the engagement team and remained alert to possible indicators of fraud or non-compliance with laws and regulations throughout the audit.

As a result of the inherent limitations of an audit, there is a risk that not all irregularities, including a material

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM (CONTINUED)

misstatement in financial statements or non-compliance with regulation, will be detected by us. The risk increases the further removed compliance with a law and regulation is from the events and transactions reflected in the financial statements, given we will be less likely to be aware of it, or should the irregularity occur as a result of fraud rather than a one-off error, as this may involve intentional concealment, forgery, collusion, omission or misrepresentation.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our Auditors' Report.

USE OF OUR REPORT

This report is made solely to the charitable company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the charitable company's members those matters we are required to state to them in an Auditors' Report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and its members, as a body, for our audit work, for this report, or for the opinions we have formed.



Pamela Tuckett FCA DChA (Senior Statutory Auditor)

for and on behalf of
Bishop Fleming LLP
Chartered Accountants
Statutory Auditors
Salt Quay House
4 North East Quay
Sutton Harbour
Plymouth
PL4 0BN

Date: 14 December 2022

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

STATEMENT OF FINANCIAL ACTIVITIES (INCORPORATING INCOME AND EXPENDITURE ACCOUNT)
FOR THE YEAR ENDED 31 MARCH 2022

	Note	Unrestricted funds 2022 £	Restricted funds 2022 £	Endowment funds 2022 £	Total funds 2022 £	Total funds 2021 £
Income and endowments from:						
Donations and legacies	4	11,677	8,541	-	20,218	165,973
Charitable activities	5	2,720,676	1,664,263	-	4,384,939	4,655,341
Other trading activities	6	50,750	-	-	50,750	48,308
Investments	7	629,346	-	-	629,346	328,745
Total income and endowments		3,412,449	1,672,804	-	5,085,253	5,198,367
Expenditure on:						
Raising funds		28,984	-	-	28,984	65,364
Charitable activities		2,733,590	3,094,919	-	5,828,509	5,564,353
Other expenditure	8	158,307	-	-	158,307	-
Total expenditure		2,920,881	3,094,919	-	6,015,800	5,629,717
Net income/ (expenditure) before net gains/(losses) on investments		491,568	(1,422,115)	-	(930,547)	(431,350)
Net gains on investments		842,042	123,729	13,381	979,152	2,305,214
Net income/ (expenditure)		1,333,610	(1,298,386)	13,381	48,605	1,873,864
Transfers between funds	22	(1,050,973)	1,050,973	-	-	-
Net movement in funds before other recognised gains		282,637	(247,413)	13,381	48,605	1,873,864
Other recognised gains:						
Gains on revaluation of assets		38,810	-	-	38,810	208,865
Net movement in funds		321,447	(247,413)	13,381	87,415	2,082,729

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

STATEMENT OF FINANCIAL ACTIVITIES (INCORPORATING INCOME AND EXPENDITURE ACCOUNT)
(CONTINUED)
FOR THE YEAR ENDED 31 MARCH 2022

	Unrestricted funds 2022 £	Restricted funds 2022 £	Endowment funds 2022 £	Total funds 2022 £	Total funds 2021 £
Reconciliation of funds:					
Total funds brought forward	16,081,488	4,788,807	260,940	21,131,235	19,048,506
Net movement in funds	321,447	(247,413)	13,381	87,415	2,082,729
Total funds carried forward	16,402,935	4,541,394	274,321	21,218,650	21,131,235

The Statement of Financial Activities includes all gains and losses recognised in the year.

The notes on pages 27 to 48 form part of these financial statements.


THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM
REGISTERED NUMBER:RC000865

BALANCE SHEET
AS AT 31 MARCH 2022

	Note	2022 £	2021 £
Fixed assets			
Tangible assets	15	2,595,551	2,546,896
Heritage assets	16	1,315,475	1,276,665
Investments	17	17,088,698	16,637,483
		<u>20,999,724</u>	<u>20,461,044</u>
Current assets			
Stocks	18	79,044	63,710
Debtors	19	1,023,818	1,636,284
Cash at bank and in hand		2,315,965	2,140,645
		<u>3,418,827</u>	<u>3,840,639</u>
Creditors: amounts falling due within one year	20	(2,494,315)	(2,674,483)
Net current assets		<u>924,512</u>	<u>1,166,156</u>
Total assets less current liabilities		<u>21,924,236</u>	<u>21,627,200</u>
Creditors: amounts falling due after more than one year	21	(705,586)	(495,965)
Total net assets		<u><u>21,218,650</u></u>	<u><u>21,131,235</u></u>
Charity funds			
Endowment funds	22	274,321	260,940
Restricted funds	22	4,541,394	4,788,807
Unrestricted funds	22	16,402,935	16,081,488
Total funds		<u><u>21,218,650</u></u>	<u><u>21,131,235</u></u>

The Trustees acknowledge their responsibilities for complying with the requirements of the Act with respect to accounting records and preparation of financial statements.

The financial statements were approved and authorised for issue by the Trustees and signed on their behalf by:


Dr Gill Rider CB
President
Date: 26 October 2022

The notes on pages 27 to 48 form part of these financial statements.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 MARCH 2022

	2022 £	2021 £
Cash flows from operating activities		
Net cash used in operating activities	(440,905)	778,281
Cash flows from investing activities		
Dividends, interest and rents from investments	629,346	328,745
Drawdown from investment portfolio	995,000	113,403
Purchase of tangible fixed assets	(541,058)	(556,940)
Purchase of investments	(467,063)	(296,756)
Net cash provided by/(used in) investing activities	616,225	(411,548)
Change in cash and cash equivalents in the year	175,320	366,733
Cash and cash equivalents at the beginning of the year	2,140,645	1,773,912
Cash and cash equivalents at the end of the year	2,315,965	2,140,645

The notes on pages 27 to 48 form part of these financial statements

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2022

1. GENERAL INFORMATION

The Charity is a company limited by Royal Charter, incorporated in England within the United Kingdom. The registered number is RC000865 and the address of the registered office is The Laboratory, Citadel Hill, Plymouth, PL1 2PB.

2. ACCOUNTING POLICIES

2.1 BASIS OF PREPARATION OF FINANCIAL STATEMENTS

The financial statements have been prepared in accordance with the Charities SORP (FRS 102) - Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Companies Act 2006.

The Marine Biological Association of the United Kingdom meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy.

2.2 GOING CONCERN

The accounts have been prepared under the going concern basis. Although the COVID pandemic has impacted the operations, there is no significant impact on the finances of the Charity. There are sufficient reserves, and continuing funding streams to continue the operations of the Charity. For these reasons the Trustees consider the going concern basis is appropriate.

2.3 FUND ACCOUNTING

General funds are unrestricted funds which are available for use at the discretion of the Trustees in furtherance of the general objectives of the Charity and which have not been designated for other purposes.

Designated funds comprise unrestricted funds that have been set aside by the Trustees for particular purposes. The aim and use of each designated fund is set out in the notes to the financial statements.

Restricted funds are funds which are to be used in accordance with specific restrictions imposed by donors or which have been raised by the Charity for particular purposes. The costs of raising and administering such funds are charged against the specific fund. The aim and use of each restricted fund is set out in the notes to the financial statements.

Investment income, gains and losses are allocated to the appropriate fund.

Endowment funds have been given with a requirement that only the income arising is to be applied for specific purposes but the capital is to be retained permanently.

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

2. ACCOUNTING POLICIES (continued)

2.4 INCOME

Voluntary income including donations, gifts and legacies and grants that provide core funding, is included in incoming resources when these are received, except as follows:

When donors specify that donations and grants given to the Charity must be used in future accounting periods, the income is deferred until those periods.

When donors impose conditions which have to be fulfilled under contract before the charity becomes entitled to use such income, the income is deferred to match with future performance under contract.

Investment income is recognised when it is receivable.

Grants and awards to finance specific research programmes and the related expenditure are treated as transactions of restricted funds. Where the MBA is part of a collaborative project with other organisations, only those elements of funding awarded to the MBA or that relate to activities controlled by the MBA are recognised as incoming resources. Funds awarded to other organisations where monies are distributed via the MBA are recorded directly as creditors and not recognised as income.

Incoming resources from knowledge exchange activities are recognised in line with performance of contracts and specific deliverables.

When donors specify that donations and grants, including capital grants, are for particular restricted purposes which do not amount to pre-conditions regarding entitlement, this income is included in incoming resources of restricted funds when it is received. Donated staff costs are valued at the equivalent employer payroll cost.

Income is stated net of Value Added Tax.

2.5 EXPENDITURE

Fundraising costs are those incurred in seeking voluntary contributions and do not include the costs of disseminating information in support of the charitable activities. Support costs are those costs incurred directly in support of expenditure on the objects of the charity and include project management carried out at Headquarters. Governance costs are those incurred in connection with administration of the charity and compliance with constitutional and statutory requirements.

The following definitions have been adopted in drawing up these accounts:

Costs of generating funds are those costs incurred in attracting voluntary income, being those incurred in activities that raise funds, and an apportionment of support costs.

Charitable activities includes all costs relating to activities where the primary aim is part of the objects of the MBA, such as the core research activities and the dissemination of that knowledge, and include both the direct costs and support costs relating to those activities.

Governance costs are those associated with the governance of the MBA which relate to the general running of the charity as a legal entity and which are not connected with the generation of income or with direct charitable expenditure.

Support costs, which include central office and management functions not falling within one of the categories of expenditure above, are allocated on a basis consistent with the use of resources.

Expenditure on charitable activities is incurred on directly undertaking the activities which further the Charity's objectives, as well as any associated support costs.

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

2. ACCOUNTING POLICIES (continued)

2.6 TANGIBLE FIXED ASSETS AND DEPRECIATION

Tangible fixed assets costing £2,000 or more are capitalised and recognised when future economic benefits are probable and the cost or value of the asset can be measured reliably.

A review for impairment of a fixed asset is carried out if events or changes in circumstances indicate that the carrying value of any fixed asset may not be recoverable. Shortfalls between the carrying values of fixed assets and their recoverable amounts are recognised as impairments. Impairment losses are recognised in the Statement of Financial Activities.

Tangible fixed assets are carried at cost, net of depreciation and any provision for impairment. Depreciation is provided at rates calculated to write off the cost of fixed assets, less their estimated residual value, over their expected useful lives on the following bases:

Long-term leasehold property	- Over the remaining term of the lease
Plant and machinery	- 5 years straight line
Research and laboratory equipment	- 20-25% reducing balance
Research vessel	- 10% reducing balance

2.7 INVESTMENTS

Fixed asset investments are a form of financial instrument and are initially recognised at their transaction cost and subsequently measured at fair value at the Balance Sheet date, unless the value cannot be measured reliably in which case it is measured at cost less impairment. Investment gains and losses, whether realised or unrealised, are combined and presented as 'Gains/(Losses) on investments' in the Statement of Financial Activities.

2.8 INTEREST RECEIVABLE

Interest on funds held on deposit is included when receivable and the amount can be measured reliably by the Charity; this is normally upon notification of the interest paid or payable by the Bank.

2.9 STOCKS

Stocks are valued at the lower of cost and net realisable value after making due allowance for obsolete and slow-moving stocks. Cost includes all direct costs and an appropriate proportion of fixed and variable overheads.

2.10 DEBTORS

Trade and other debtors are recognised at the settlement amount after any trade discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due.

2.11 CASH AT BANK AND IN HAND

Cash at bank and in hand includes cash and short-term highly liquid investments with a short maturity of three months or less from the date of acquisition or opening of the deposit or similar account.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2022

2. ACCOUNTING POLICIES (continued)

2.12 LIABILITIES AND PROVISIONS

Liabilities are recognised when there is an obligation at the Balance Sheet date as a result of a past event, it is probable that a transfer of economic benefit will be required in settlement, and the amount of the settlement can be estimated reliably.

Liabilities are recognised at the amount that the Charity anticipates it will pay to settle the debt or the amount it has received as advanced payments for the goods or services it must provide.

Provisions are measured at the best estimate of the amounts required to settle the obligation. Where the effect of the time value of money is material, the provision is based on the present value of those amounts, discounted at the pre-tax discount rate that reflects the risks specific to the liability. The unwinding of the discount is recognised in the Statement of Financial Activities as a finance cost.

2.13 FINANCIAL INSTRUMENTS

The Charity only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are initially recognised at transaction value and subsequently measured at their settlement value with the exception of bank loans which are subsequently measured at amortised cost using the effective interest method.

2.14 FOREIGN CURRENCIES

Monetary assets and liabilities denominated in foreign currencies are translated into sterling at rates of exchange ruling at the balance sheet date.

Transactions in foreign currencies are translated into sterling at the rate ruling on the date of the transaction.

Exchange gains and losses are recognised in the Statement of Financial Activities.

2.15 PENSIONS

The institution participates in Universities Superannuation Scheme. The scheme is a hybrid pension scheme, providing defined benefits (for all members), as well as defined contribution benefits. The assets of the scheme are held in a separate trustee-administered fund. Because of the mutual nature of the scheme, the assets are not attributed to individual institutions and a scheme-wide contribution rate is set.

The institution is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis. As required by Section 28 of FRS 102 "Employee benefits", the institution therefore accounts for the scheme as if it were a wholly defined contribution scheme.

As a result, the amount charged to the profit and loss account represents the contributions payable to the scheme. Since the institution has entered into an agreement (the Recovery Plan) that determines how each employer within the scheme will fund the overall deficit, the institution recognises a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and therefore an expense is recognised.

Further disclosures in respect of the pension scheme are given in the notes to the financial statements.

The MBA also contributes to a defined contribution scheme on behalf of certain members of staff not eligible to belong to the USS, the costs of which are charged to the Statement of Financial Activities as incurred.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2022

2. ACCOUNTING POLICIES (continued)

2.16 HERITAGE ASSETS

The Association holds heritage assets relating to a nationally and internationally recognised Library of significant scientific importance which dates back to 1888. Many of the works are unique and are the only copies in existence. During the year ended 31 March 2021 the majority of these assets were revalued and have been accounted for as follows:

- Library books, offprints, expedition reports and journals with a value of £1,000 or more have been independently valued and included in the Balance Sheet at replacement value at the time of valuation. Expenditure, which in the Trustees' view is required to preserve the Library, is recognised in the Statement of Financial Activity when it is incurred.
- Scientific instruments, apparatus, paintings and drawings have been independently valued and included in the Balance Sheet at replacement value at the time of valuations.
- Books in everyday use on open shelves with an individual value of less than £1,000 have not been valued as the Trustees believe the benefits of obtaining a valuation for these items would not justify the cost.
- Archive material such as personal letters, diaries etc have not been valued. As these are of a unique nature the Trustees believe the benefits of obtaining valuations for these items would not justify the cost.

2.17 IRRECOVERABLE VAT

All resources expended are classified under activity headings that aggregate all costs related to that category. Irrecoverable VAT is charged against the activity of expenditure for which it was incurred.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2022

3. CRITICAL ACCOUNTING ESTIMATES AND AREAS OF JUDGEMENT

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Critical accounting estimates and assumptions:

Pension deficit liability

FRS102 makes the distinction between a Group Plan and a multi-employer scheme. A Group Plan consists of a collection of entities under common control typically with a sponsoring employer.

A multi-employer scheme is a scheme for entities not under common control and represents (typically) an industry-wide scheme such as that provided by USS. The accounting for a multi-employer scheme where the employer has entered into an agreement with the scheme that determines how the employer will fund deficit results in the recognition of a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and the resulting expense is recognised in the statement of financial activities.

The Trustees are satisfied that the scheme provided by USS meets the definition of a multi-employer scheme and has therefore recognised the discounted fair value of the contractual contributions under the funding plan in existence at the date of approving the financial statements.

Useful economic lives of fixed assets

Fixed assets are depreciated at their estimated useful life which is determined by Trustees on their knowledge of the asset and in line with the stated accounting policy.

Valuation of heritage assets

Heritage assets are included in the accounts at market value. The valuation is subject to the judgement of an expert.

Dilapidation provisions

There is judgement as to whether a dilapidation provision can be calculated on the Citadel. See note 28 for more detail.

4. INCOME FROM DONATIONS AND LEGACIES

	Unrestricted funds 2022 £	Restricted funds 2022 £	Total funds 2022 £	Total funds 2021 £
Donations	11,677	5,525	17,202	3,621
Government COVID-19 funding	-	3,016	3,016	162,352
	<u>11,677</u>	<u>8,541</u>	<u>20,218</u>	<u>165,973</u>
TOTAL 2021	<u>2,121</u>	<u>163,852</u>	<u>165,973</u>	

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

5. INCOME FROM CHARITABLE ACTIVITIES

	Unrestricted funds 2022 £	Restricted funds 2022 £	Total funds 2022 £	Total funds 2021 £
Research activities	1,973,084	1,664,263	3,637,347	3,838,246
Other knowledge exchange activities	530,570	-	530,570	564,886
Courses and workshops	20,126	-	20,126	5,031
Journals	196,896	-	196,896	247,178
	<u>2,720,676</u>	<u>1,664,263</u>	<u>4,384,939</u>	<u>4,655,341</u>
TOTAL 2021	<u>2,629,324</u>	<u>2,026,017</u>	<u>4,655,341</u>	

6. INCOME FROM OTHER TRADING ACTIVITIES

Income from fundraising events

	Unrestricted funds 2022 £	Total funds 2022 £	Total funds 2021 £
Membership subscriptions	50,750	50,750	48,308
TOTAL 2021	<u>48,308</u>	<u>48,308</u>	

7. INVESTMENT INCOME

	Unrestricted funds 2022 £	Total funds 2022 £	Total funds 2021 £
Dividends received	629,229	629,229	328,453
Bank deposit interest	117	117	292
	<u>629,346</u>	<u>629,346</u>	<u>328,745</u>
TOTAL 2021	<u>328,745</u>	<u>328,745</u>	

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

8. OTHER EXPENDITURE

	Unrestricted funds 2022 £	Total funds 2022 £	Total funds 2021 £
Loss on disposal of fixed assets	158,307	158,307	-

9. ANALYSIS OF EXPENDITURE BY ACTIVITIES

	Activities undertaken directly 2022 £	Support costs 2022 £	Total funds 2022 £	Total funds 2021 £
Research activities	3,283,102	1,694,674	4,977,776	4,703,581
Other Knowledge Exchange activities	628,363	173,539	801,902	817,762
Courses and workshops	26,347	-	26,347	27,171
Journals	12,904	9,580	22,484	15,839
	3,950,716	1,877,793	5,828,509	5,564,353
TOTAL 2021	4,000,108	1,564,245	5,564,353	

ANALYSIS OF DIRECT COSTS

	Research activities 2022 £	Other knowledge exchange 2022 £	Courses and workshops 2022 £	Journals 2022 £	Total funds 2022 £	Total funds 2021 £
Staff costs	2,018,486	452,767	-	-	2,471,253	2,400,839
Depreciation	334,097	-	-	-	334,097	499,064
Other direct costs	930,519	175,596	26,347	12,904	1,145,366	1,100,205
	3,283,102	628,363	26,347	12,904	3,950,716	4,000,108
TOTAL 2021	3,297,492	667,562	24,831	10,223	4,000,108	

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

10. Support costs

	2022 £	2021 £
Rent and rates	234,209	220,895
Repairs and maintenance	89,878	94,484
IT costs	96,403	82,717
Travel and staff costs	8,554	2,972
Office costs	47,350	45,996
Insurance	31,192	30,516
Legal and professional	18,672	15,825
Subscriptions and grant costs	74,058	52,847
Bank charges	21,787	2,591
Irrecoverable VAT	107,792	83,156
Pension interest	17,120	12,854
Staff costs	994,100	909,401
Exchange rate variances	66,562	(44,559)
Support costs - Governance	62,813	54,885
	1,870,490	1,564,580

11. GOVERNANCE COSTS

	Unrestricted funds 2022 £	Total funds 2022 £	Total funds 2021 £
Auditors' remuneration	10,350	10,350	10,350
Wages and salaries	52,362	52,362	44,535
	62,712	62,712	54,885

12. NET INCOME/(EXPENDITURE)

This is stated after charging:

	2022 £	2021 £
Depreciation of tangible fixed assets - owned by the charitable company	335,276	499,064
Auditors' remuneration - audit	10,350	10,350
Auditors' remuneration - other services	5,235	6,300

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

13. STAFF COSTS

	2022 £	2021 £
Wages and salaries	2,786,663	2,942,869
Social security costs	212,329	227,397
Contribution to defined contribution pension schemes	518,723	184,509
	<u>3,517,715</u>	<u>3,354,775</u>

Contribution to defined contribution pension schemes includes £231,908 which relates to the increase in the liability arising from the recovery plan of the Universities Superannuation Scheme. The increase is a result of changes in assumptions following the latest triennial review of the scheme.

The average number of persons employed by the Charity during the year was as follows:

	2022 No.	2021 No.
Cost of generating funds	2	2
Charitable activities	92	83
Governance	2	2
	<u>96</u>	<u>87</u>

The number of employees whose employee benefits (excluding employer pension costs) exceeded £60,000 was:

	2022 No.	2021 No.
In the band £60,001 - £70,000	1	3
In the band £70,001 - £80,000	1	1
In the band £80,001 - £90,000	1	2
In the band £100,001 - £110,000	1	-

14. TRUSTEES' REMUNERATION AND EXPENSES

During the year, no Trustees received any remuneration or other benefits (2021 - £NIL).

During the year ended 31 March 2022, no Trustee expenses have been incurred (2021 - £NIL).

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NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

15. TANGIBLE FIXED ASSETS

	Long-term leasehold property £	Plant and machinery £	Research and laboratory equipment £	Research vessel £	Total £
COST OR VALUATION					
At 1 April 2021	1,358,644	264,277	2,438,721	366,872	4,428,514
Additions	370,160	80,519	85,966	4,413	541,058
Disposals	-	(71,467)	(559,938)	-	(631,405)
At 31 March 2022	1,728,804	273,329	1,964,749	371,285	4,338,167
DEPRECIATION					
At 1 April 2021	202,782	150,880	1,388,799	139,157	1,881,618
Charge for the year	61,673	39,312	211,080	23,211	335,276
On disposals	-	(41,318)	(432,960)	-	(474,278)
At 31 March 2022	264,455	148,874	1,166,919	162,368	1,742,616
NET BOOK VALUE					
At 31 March 2022	1,464,349	124,455	797,830	208,917	2,595,551
At 31 March 2021	1,155,862	113,397	1,049,922	227,715	2,546,896

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

16. HERITAGE ASSETS

Assets recognised at cost

	Heritage asset 2022 £	Total 2022 £
Carrying value at 1 April 2021	1,276,665	1,276,665
Revaluations	38,810	38,810
CARRYING VALUE AT 31 MARCH 2022	1,315,475	1,315,475

The above represents valuations made for books and similar technical items held in the library (£1,264,860) and for other heritage assets (£50,615).

These books and similar technical items were valued in 2021 by Dr P Pollack, ABA, FLS and are included in the Balance Sheet at their estimated replacement value.

17. FIXED ASSET INVESTMENTS

	Listed investments £
COST OR VALUATION	
At 1 April 2021	16,637,483
Additions	467,063
Disposals	(995,000)
Revaluations	979,152
AT 31 MARCH 2022	17,088,698
NET BOOK VALUE	
AT 31 MARCH 2022	17,088,698
AT 31 MARCH 2021	16,637,483

18. STOCKS

	2022 £	2021 £
Finished goods and goods for resale	79,044	63,710

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

19. DEBTORS

	2022 £	2021 £
DUE WITHIN ONE YEAR		
Trade debtors	554,269	855,959
Other debtors	12,010	2,649
Prepayments and accrued income	107,621	167,942
Grants receivable	349,918	609,734
	<u>1,023,818</u>	<u>1,636,284</u>

20. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	2022 £	2021 £
Trade creditors	202,274	273,969
Amounts owed to group undertakings	13,397	13,397
Other taxation and social security	103,958	53,316
Other creditors	26,380	13,079
Accruals and deferred income	2,148,306	2,320,722
	<u>2,494,315</u>	<u>2,674,483</u>

Deferred income represents funding received for specific projects, where entitlement only arises once project costs have been incurred.

21. CREDITORS: AMOUNTS FALLING DUE AFTER MORE THAN ONE YEAR

	2022 £	2021 £
Other creditors	<u>705,586</u>	<u>495,965</u>

Other creditors falling due after more than one year represent a liability to contribute to the USS pension scheme deficit as disclosed in note 29.

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

22. STATEMENT OF FUNDS

STATEMENT OF FUNDS - CURRENT YEAR

	Balance at 1 April 2021 £	Income £	Expenditure £	Transfers in/out £	Gains/ (Losses) £	Balance at 31 March 2022 £
UNRESTRICTED FUNDS						
DESIGNATED FUNDS						
Investment reserve	408,521	-	-	-	-	408,521
Heritage assets reserve	1,266,665	-	-	-	38,810	1,305,475
Designated premises fund	11,019,395	-	-	-	567,731	11,587,126
Designated fellows fund	2,763,770	-	(60,933)	-	141,494	2,844,331
	<u>15,458,351</u>	<u>-</u>	<u>(60,933)</u>	<u>-</u>	<u>748,035</u>	<u>16,145,453</u>
GENERAL FUNDS						
General reserve	1,129,637	3,412,449	(2,628,036)	(1,050,973)	132,817	995,894
Pension liability	(506,500)	-	(231,912)	-	-	(738,412)
	<u>623,137</u>	<u>3,412,449</u>	<u>(2,859,948)</u>	<u>(1,050,973)</u>	<u>132,817</u>	<u>257,482</u>
TOTAL UNRESTRICTED FUNDS	<u>16,081,488</u>	<u>3,412,449</u>	<u>(2,920,881)</u>	<u>(1,050,973)</u>	<u>880,852</u>	<u>16,402,935</u>
ENDOWMENT FUNDS						
Southward & Todd Fund	158,913	-	-	-	8,149	167,062
Spooner Bequest	102,027	-	-	-	5,232	107,259
	<u>260,940</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>13,381</u>	<u>274,321</u>

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

22. STATEMENT OF FUNDS (CONTINUED)

	Balance at 1 April 2021 £	Income £	Expenditure £	Transfers in/out £	Gains/ (Losses) £	Balance at 31 March 2022 £
RESTRICTED FUNDS						
Grants and Research	-	989,954	(1,045,927)	55,973	-	-
EU Programme Awards	11,364	682,710	(694,074)	-	-	-
Browne Bequest	38,340	-	-	-	1,966	40,306
Browne & Bull Library	200,841	-	-	-	10,299	211,140
Mary Parke Bursary	3,048	-	-	-	-	3,048
Morely Neale Fund	1,007	-	-	-	-	1,007
Seawater Hall & Resource Centre	312,219	-	-	-	-	312,219
Capital Grants	665,646	140	(413,755)	-	-	252,031
Capital	-	-	(253,162)	495,000	-	241,838
SAHFOS	2,132,926	-	-	-	111,464	2,244,390
NERC - Blue Gold	-	-	(318,291)	500,000	-	181,709
iCPR	1,423,416	-	(369,710)	-	-	1,053,706
	<u>4,788,807</u>	<u>1,672,804</u>	<u>(3,094,919)</u>	<u>1,050,973</u>	<u>123,729</u>	<u>4,541,394</u>
TOTAL OF FUNDS	<u>21,131,235</u>	<u>5,085,253</u>	<u>(6,015,800)</u>	<u>-</u>	<u>1,017,962</u>	<u>21,218,650</u>

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2022

22. STATEMENT OF FUNDS (CONTINUED)

The transfers column within the above Statement of Funds note includes both overheads recharged to fund balances and transfers from unrestricted funds to subsidise restricted fund deficit balances.

Restricted funds are as follows:

Grants and Research - The Research Programme combined funds awarded for specific research projects that cannot be used for other purposes. The deficit represented an excess of expenditure over income on restricted research projects in the year. A transfer from unrestricted to restricted reserves was made to offset the deficit. Research Programme funds are now shown as follows:

EU Programme awards - These funds are projects supported through the Interreg Horizon 2020 programmes. Funding awarded covers only a proportion of the full project costs and transfers from unrestricted reserves.

Browne Bequest - for the purchase of apparatus and the publication of books on British Marine Fauna.

Browne and Bull Library Fund - combines specific legacies for the "purchase of rare or valuable books as need or occasion arises" for the MBA's library.

Mary Parke Bursary Fund - to provide bursaries for physiological students at the MBA.

Morley Neale Fund - to provide social facilities to the staff members of the MBA.

Seawater Hall and Resource Centre - Infrastructure grants for the Resource Centre and Seawater Hall are held as restricted funds with a proportion of the depreciation for these assets being charged to the respective fund each year, calculated as the amount that the capital grant bears to the total cost of the asset funded.

Capital grant – This is a grant for capital equipment purchased.

Save our Seas Foundation - This project will provide the first long-term tracking of shortfin mako shark movements and space utilisation in the central North Atlantic Ocean.

SAHFOS - This represents the amount transferred from the Sir Alister Hardy Foundation for Ocean Science. As part of the terms and conditions of transfer, the balance is to be restricted to expenditure relating to the Continuous Plankton Recorder Survey.

Endowment funds are as follows:

Todd Fund - is for the purchase of rare and costly books.

Spooner Bequest - represents a specific legacy for the provision of student bursaries by the MBA.

Southward Bequest - represents a specific legacy to generate income from which books, serial publications or any other scientific papers can be purchased.

Designated funds are as follows:

Investment reserve - This fund represents the difference between the original cost of the investments held and the market value at the balance sheet date, less any funds held in unrestricted general reserves.

Heritage assets reserve - This fund represents the value of the Heritage assets held on the balance sheet at year end.

Premises Fund – This fund is held to provide a capital amount that covers the remaining leasehold liabilities (including repairs and maintenance and the requirement to make good dilapidations) and an income level to cover the annual premises and running costs. A transfer is made to the General Reserve

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

22. STATEMENT OF FUNDS (CONTINUED)

to represent funds drawn down to contribute towards relevant expenditure. A transfer from the General Reserve is made from investment income received to maintain the fund at the required level. The fund has also been increased in relation to the commitment to the ongoing infrastructure project.

Fellows Fund – This supports Research Fellowships by providing underpinning salary and associated costs. A transfer from the General Reserve is made from investment income received.

STATEMENT OF FUNDS - PRIOR YEAR

	Balance at 1 April 2020 £	Income £	Expenditure £	Transfers in/out £	Gains/ (Losses) £	Balance at 31 March 2021 £
UNRESTRICTED FUNDS						
DESIGNATED FUNDS						
Investment reserve	256,907	-	-	-	151,614	408,521
Heritage assets reserve	1,057,800	-	-	-	208,865	1,266,665
Designated premises fund	9,591,146	-	-	-	1,428,249	11,019,395
Designated fellows fund	2,457,640	-	(67,273)	-	373,403	2,763,770
	<u>13,363,493</u>	<u>-</u>	<u>(67,273)</u>	<u>-</u>	<u>2,162,131</u>	<u>15,458,351</u>
GENERAL FUNDS						
General reserve	943,255	3,008,498	(2,714,414)	(142,894)	35,192	1,129,637
Pension liability	(617,990)	-	111,490	-	-	(506,500)
	<u>325,265</u>	<u>3,008,498</u>	<u>(2,602,924)</u>	<u>(142,894)</u>	<u>35,192</u>	<u>623,137</u>
TOTAL UNRESTRICTED FUNDS	<u>13,688,758</u>	<u>3,008,498</u>	<u>(2,670,197)</u>	<u>(142,894)</u>	<u>2,197,323</u>	<u>16,081,488</u>

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

22. STATEMENT OF FUNDS (CONTINUED)

	Balance at 1 April 2020 £	Income £	Expenditure £	Transfers in/out £	Gains/ (Losses) £	Balance at 31 March 2021 £
ENDOWMENT FUNDS						
Southward & Todd Fund	137,661	-	-	-	21,252	158,913
Spooner Bequest	88,383	-	-	-	13,644	102,027
	<u>226,044</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>34,896</u>	<u>260,940</u>
RESTRICTED FUNDS						
Grants and Research	97,290	1,329,638	(1,553,520)	126,592	-	-
EU Programme Awards	213,604	657,657	(859,897)	-	-	11,364
Browne Bequest	33,213	-	-	-	5,127	38,340
Browne & Bull Library	173,982	-	-	-	26,859	200,841
Mary Parke Bursary	3,048	-	-	-	-	3,048
Morely Neale Fund	1,007	-	-	-	-	1,007
Seawater Hall & Resource Centre	312,219	-	-	-	-	312,219
Capital Grants	635,139	201,598	(171,091)	-	-	665,646
SAHFOS	1,883,052	-	-	-	249,874	2,132,926
NERC - Blue Gold	224,932	-	(241,234)	16,302	-	-
iCPR	1,556,218	976	(133,778)	-	-	1,423,416
	<u>5,133,704</u>	<u>2,189,869</u>	<u>(2,959,520)</u>	<u>142,894</u>	<u>281,860</u>	<u>4,788,807</u>
TOTAL OF FUNDS	<u>19,048,506</u>	<u>5,198,367</u>	<u>(5,629,717)</u>	<u>-</u>	<u>2,514,079</u>	<u>21,131,235</u>

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

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23. SUMMARY OF FUNDS

SUMMARY OF FUNDS - CURRENT YEAR

	Balance at 1 April 2021 £	Income £	Expenditure £	Transfers in/out £	Gains/ (Losses) £	Balance at 31 March 2022 £
Designated funds	15,458,351	-	(60,933)	-	748,035	16,145,453
General funds	623,137	3,412,449	(2,859,948)	(1,050,973)	132,817	257,482
Endowment funds	260,940	-	-	-	13,381	274,321
Restricted funds	4,788,807	1,672,804	(3,094,919)	1,050,973	123,729	4,541,394
	<u>21,131,235</u>	<u>5,085,253</u>	<u>(6,015,800)</u>	<u>-</u>	<u>1,017,962</u>	<u>21,218,650</u>

SUMMARY OF FUNDS - PRIOR YEAR

	Balance at 1 April 2020 £	Income £	Expenditure £	Transfers in/out £	Gains/ (Losses) £	Balance at 31 March 2021 £
Designated funds	13,363,493	-	(67,273)	-	2,162,131	15,458,351
General funds	325,265	3,008,498	(2,602,924)	(142,894)	35,192	623,137
Endowment funds	226,044	-	-	-	34,896	260,940
Restricted funds	5,133,704	2,189,869	(2,959,520)	142,894	281,860	4,788,807
	<u>19,048,506</u>	<u>5,198,367</u>	<u>(5,629,717)</u>	<u>-</u>	<u>2,514,079</u>	<u>21,131,235</u>

24. ANALYSIS OF NET ASSETS BETWEEN FUNDS

ANALYSIS OF NET ASSETS BETWEEN FUNDS - CURRENT YEAR

	Unrestricted funds 2022 £	Restricted funds 2022 £	Endowment funds 2022 £	Total funds 2022 £
Tangible fixed assets	1,607,754	987,797	-	2,595,551
Fixed asset investments	14,318,541	2,495,836	274,321	17,088,698
Heritage assets	1,315,475	-	-	1,315,475
Current assets	230,760	3,188,067	-	3,418,827
Creditors due within one year	(364,009)	(2,130,306)	-	(2,494,315)
Creditors due in more than one year	(705,586)	-	-	(705,586)
TOTAL	<u>16,402,935</u>	<u>4,541,394</u>	<u>274,321</u>	<u>21,218,650</u>

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2022

24. ANALYSIS OF NET ASSETS BETWEEN FUNDS (CONTINUED)

ANALYSIS OF NET ASSETS BETWEEN FUNDS - PRIOR YEAR

	Unrestricted funds 2021 £	Restricted funds 2021 £	Endowment funds 2021 £	Total funds 2021 £
Tangible fixed assets	1,569,030	977,866	-	2,546,896
Fixed asset investments	14,071,785	2,309,258	256,440	16,637,483
Heritage assets	1,276,665	-	-	1,276,665
Current assets	390,285	3,445,854	4,500	3,840,639
Creditors due within one year	(730,312)	(1,944,171)	-	(2,674,483)
Creditors due in more than one year	(495,965)	-	-	(495,965)
TOTAL	16,081,488	4,788,807	260,940	21,131,235

25. RECONCILIATION OF NET MOVEMENT IN FUNDS TO NET CASH FLOW FROM OPERATING ACTIVITIES

	2022 £	2021 £
Net income for the year (as per Statement of Financial Activities)	48,605	1,873,864
ADJUSTMENTS FOR:		
Depreciation charges	335,276	499,064
Gains on investments	(979,152)	(2,305,214)
Dividends, interests and rents from investments	(629,346)	(328,745)
Loss on the disposal of fixed assets	158,307	-
Decrease/(increase) in stocks	(15,334)	6,385
Decrease in debtors	612,466	334,750
Increase in creditors	28,273	698,177
NET CASH PROVIDED BY/(USED IN) OPERATING ACTIVITIES	(440,905)	778,281

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FOR THE YEAR ENDED 31 MARCH 2022

26. ANALYSIS OF CASH AND CASH EQUIVALENTS

	2022 £	2021 £
Cash in hand	2,315,965	2,140,645
TOTAL CASH AND CASH EQUIVALENTS	2,315,965	2,140,645

27. ANALYSIS OF CHANGES IN NET DEBT

	At 1 April 2021 £	Cash flows £	At 31 March 2022 £
Cash at bank and in hand	2,140,645	175,320	2,315,965
	2,140,645	175,320	2,315,965

28. CONTINGENT LIABILITIES

Under the terms of the lease from the Crown Estate relating to the site and premises at Citadel Hill there is a requirement to meet the cost of making good dilapidations and of vacating the premises should the MBA transfer to new premises. The premises undergo a rolling programme of repairs and refurbishment, funded by a drawdown from the Designated Premises Fund to ensure they are routinely maintained in good condition. Council therefore considers that there are not expected to be any significant costs associated with dilapidations that would be without a normal annual maintenance budget. Any costs or settlement associated with vacating the premises cannot be reliably estimated at present and hence it is not possible to make a reliable estimate of the potential costs of any contingent liability.

29. CAPITAL COMMITMENTS

	2022 £	2021 £
CONTRACTED FOR BUT NOT PROVIDED IN THESE FINANCIAL STATEMENTS		
Demolition, extension and refurbishment works	2,644,059	-

30. PENSION COMMITMENTS

University Superannuation Scheme

The latest available full actuarial valuation of the scheme was at 31 March 2020 ("the valuation date"), which was carried out using the projected unit method. Since the institution cannot identify its share of scheme assets and liabilities, the following disclosures reflect those relevant for the scheme as a whole.

The 2020 valuation was the fifth valuation for USS under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to adopt a statutory funding objective, which is to have sufficient and appropriate assets to cover their technical provisions. At the valuation date, the value of the assets of the scheme was £66.5 billion and the value of the scheme's technical provisions was £80.6

THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

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30. PENSION COMMITMENTS (CONTINUED)

billion indicating a shortfall of £14.1 billion.

The key financial assumptions used in the 2020 valuation are described below. More detail is set out in the Statement of Funding Principles.

Market derived price inflation: In line with difference between Fixed Interest and Index-Linked yield curves

Inflation risk premium: 0.0% pa

RPI / CPI gap: 1.1% pa to 2030, reducing linearly by 0.1% pa to a long term difference of 0.1% pa from 2040.

Price inflation: Consumer Prices Index: RPI assumption less RPI/CPI gap.

Discount rate: Fixed interest gilt yield curve plus 2.75% pa (pre retirement) or 1.0% pa (post-retirement).

Pension increases (all subject to a floor of 0%): Benefits with no cap or subject to a "soft cap" of 5% (providing inflationary increases up to 5%, and half of any excess inflation over 5% up to a maximum increase of 10%); CPI assumption + 5bps. Increases capped at 2.5% (where applicable); CPI assumption -35bps.

Mortality base table: 101% of S2PMA "light" for males and 95% of S3PFA for females.

Future improvements to mortality: CMI_2019 with a smoothing parameter of 7.5, an initial addition of 0.5% pa and a long term improvement rate of 1.8% pa for males and 1.6% for females.

A new deficit recovery plan was put in place as part of the 2020 valuation, which requires payment of 6.2% of salaries over the period 1 April 2022 to 31 March 2024 and 6.3% from 1 April 2024. The repayment plan is for the period to 31 March 2038.

31. RELATED PARTY TRANSACTIONS

The Ray Lankester Fund (registered charity number: 206855) is a related party of the MBA. Professor W Wilson (MBA Director during the year) is a Trustee of the Ray Lankester Fund. The Ray Lankester Fund provides support for researchers to undertake projects based at the MBA laboratory. During the year, the MBA made recharges of £5,243 (2021: £20,113) to the Ray Lankester Fund. At the year end the balance owed to the MBA was £Nil (2021: £Nil)

Due to the structure of the board and management team, no members of management have been deemed to meet the definition of key management personnel and therefore no disclosure of key management personnel has been made within these financial statements.