



FACILITIES, OPERATIONS & DEVELOPMENT REPORT 2017

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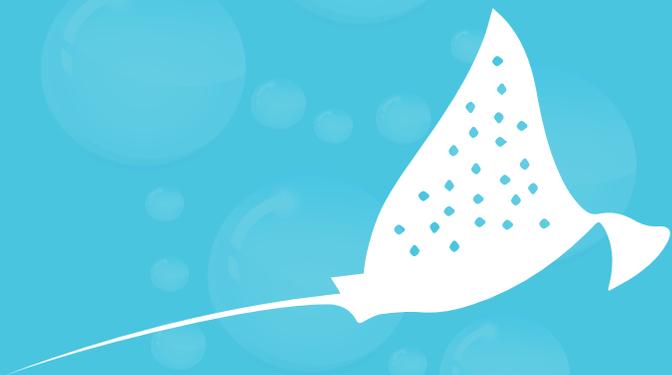
OUR SPONSORS

We would like to thank the following organisations and individuals for making our work possible through support for necessary equipment and facilities:

THE DART FOUNDATION

THE EDMUND F. AND VIRGINIA B. BALL FOUNDATION

THE UNITED STATES NATIONAL SCIENCE FOUNDATION



Visual Identity and Brand

NEW LOGO, WEBSITE AND DIGITAL COMMUNICATIONS

The CCMI logo and brand identity were redesigned for the first time in 2017. The CCMI website subsequently underwent a complete overhaul in 2017, in keeping with the new brand. The new website is managed through WordPress. All broadcast emails are distributed via targeted email lists in Constant Contact. CCMI sends out a quarterly email newsletter to an audience of over 3200 addresses with open rates ranging from 30-37%, which exceeds the non-profit industry average by 11-18%.

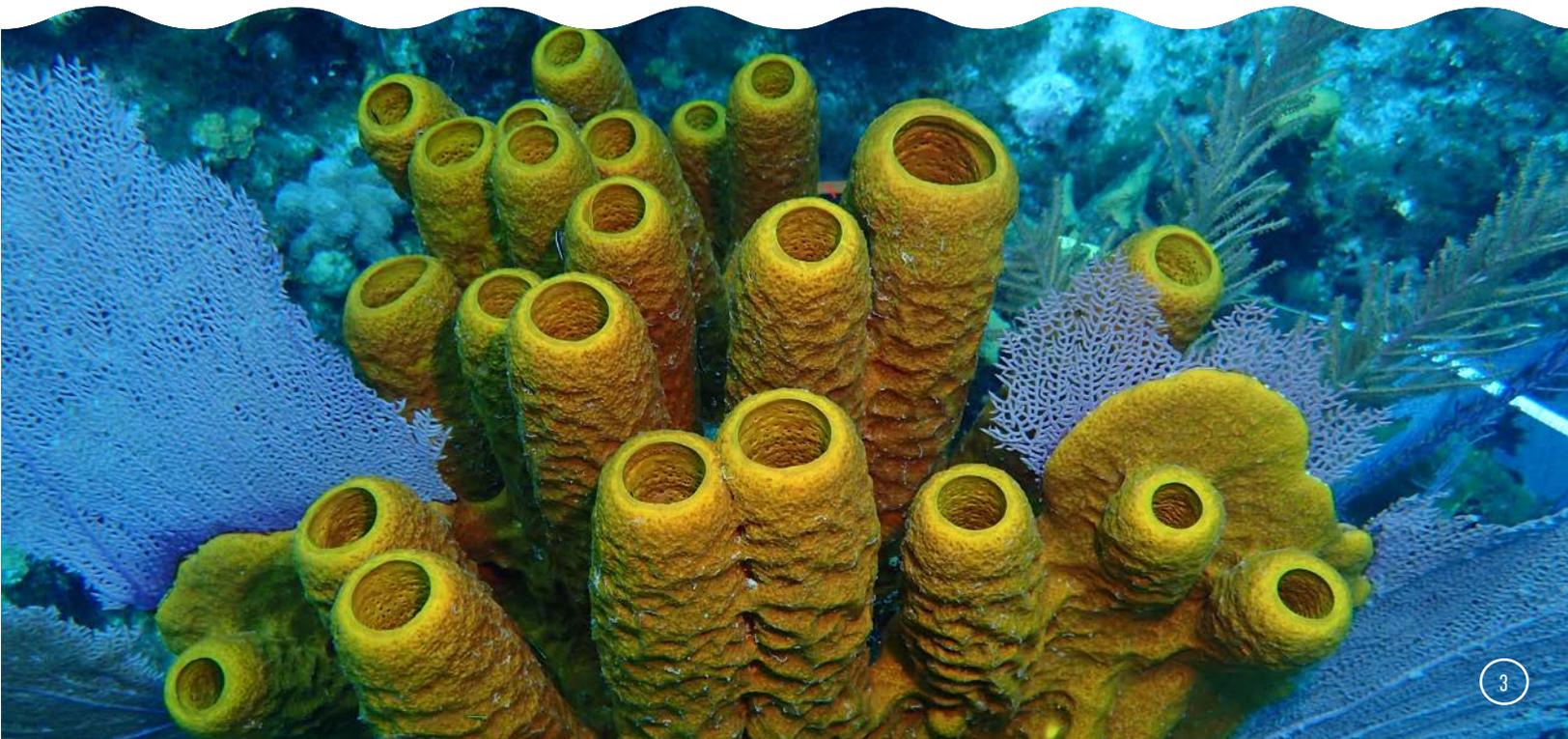
SOCIAL MEDIA

CCMI's social media presence has increased in 2017. CCMI's Facebook page "likes" have increased by roughly 30% or 1000 individuals. Rich content, in the form of video and photos, has been utilised to increase engagement of followers. In 2017, over 51,100 video views (more than 29,200 minutes of video) occurred on CCMI's Facebook. CCMI's following also reflects the increasingly global impact of the organisation, as fans of the page and people who engage with content which CCMI posts hail from around the globe.

MEDIA

CCMI has been featured in over three dozen news articles in 2017. Our researchers and educators have been interviewed for over a dozen additional television and radio segments. CCMI's increasing international presence was also demonstrated through media coverage in 2017. Dr. Manfrino was invited by the United Nations to author an article on climate change for the UN Chronicle. This article, entitled "Can We Save Coral Reefs?" called for more aggressive action and societal-level change. Dr. Manfrino also was quoted in an article on coral bleaching in Popular Science. Two articles on our coral restoration and herbivorous fish research projects were featured in the Darwin Initiative's 25th Anniversary newsletter and Climate Change newsletter, respectively.

The UK's Department for Environment, Food, and Rural Affairs (DEFRA) shared video footage of CCMI's coral restoration work across their social media platforms (Facebook, Twitter and Instagram) in conjunction with the UK release of the coral reef episode of Blue Planet II.



INFORMATION TECHNOLOGY

CCMI acquired a large amount of new equipment in 2017 to expand the organisation's capacity to conduct research. A new HP Omen computer with high-speed processors was purchased to support the use of ArcGIS mapping software and other advanced programmes that require extensive computing power. This new workstation allows research and communications staff to complete high quality products in a timely manner.

CCMI is also undertaking a modernisation project, evaluating computer and networking resources and upgrading technology to improve efficiency. In addition, CCMI is also developing a stringent data management system, including redundant back-up systems in the Cayman Islands and in the United States.

A new project management software, Teamwork Projects, has been implemented to track tasks, streamline collaboration, reduce email congestion, and organise files, particularly during iterative editing. A team communication platform, Slack, has also been put in place to provide a single, consistent platform for chat, audio and video communication and conferencing, IT remote support and remote presentation.



CCMI Research Station and Equipment

FIELD STATION

In 2017 CCMI completed a major upgrade to its capacity through a grant supported by the National Science Foundation. This has allowed the station to upgrade old equipment and fixtures along with developing an increased capacity to host researchers and projects.

The first component of the upgrade was to install brand new windows and doors in the main building and kitchen. A total of 37 windows and 5 double doors were installed. These windows and doors are designated to Dade County hurricane specifications and are also impact resistant thereby negating the need for hurricane shutters. This increases the physical security of the station while relieving the cost of hurricane shutters.

Dining facilities at the station were improved by extending the kitchen and installing a walk-in fridge/freezer. The station is able to store larger quantities of food to accommodate larger groups and plan further in advance, which is particularly advantageous when inclement weather prevents the supply barge from being able to dock on Little Cayman. The installation has increased the seating capacity of our dining area by adding another 30% to the floor space. This alleviates some of the difficulties faced in the past by allowing more people to dine at any given time and thereby alleviating the need to serve meals in stages. The outdoor deck seating area has been rebuilt and replaced utilizing new Trex decking materials. The Trex decking, which was removed, was over a decade old however, it was repurposed as flooring material in the dining area extension, in keeping with our sustainable philosophy.

CCMI increased capacity to house visiting researchers and students by designing an addition into the main building attic space, thereby staying within our existing footprint. This modification adds two more rooms that allows us to have four more residents on-site. These rooms will primarily be made available to longer term visitors.

It is important for CCMI to better the fundamental sustainability of our physical plant while expanding and modernising. To that end, we have been able to increase our solar energy harvest by doubling the storage capacity with four more batteries and adding four more solar panels into the system. This increase now powers more systems such as lighting and cooling at the station and thus lowers the station's need to use diesel-generated power from the grid. CCMI has made a significant upgrade to the station's passive solar water heating array by the addition of two further heaters. This has tripled hot water output around the station and will now allow us to operate our washing machines utilising hot water.



FIELD STATION AND EQUIPMENT cont

MARINE VESSELS AND EQUIPMENT

Due to unresolvable communications issues between the local internet provider and the previous CREWS buoy, CCMI has decided to invest in a new buoy, which was purchased at the end of 2017 and will be deployed in 2018. This system will communicate via realtime data streaming to computers and mobile devices. It contains an updated sensor platform which will monitor weather (wind speed, direction, gust, rain gauge, barometric pressure, air temperature) and light conditions above and below water, CTD (conductivity, temperature and depth), PH, and dissolved oxygen. It is powered by solar panels and will be significantly smaller than the previous buoy, making it easier to deploy and remove in the event of severe weather. It will also have far less expensive and intensive maintenance requirements.



Graphic rendering of new buoy system

As an essential component of both the BEST-funded lionfish acoustic tagging project and the Darwin Initiative-funded herbivory study, CCMI purchased and deployed an array of 9 acoustic receivers, which will not only support these current projects, but will also allow CCMI researchers to conduct acoustic telemetry projects in the future.

CCMI has also purchased two new 250 horsepower engines to repower our largest boat, Banana Wind, which is vital to education and research projects year-round.

