

PROJECT BASELINE



EXPLORE-DOCUMENT-PROTECT

Project Baseline
2017 Annual Report



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Photo Credit : Houcine Koudri

Letter from the Director

Dear Project Baseline supporters,

We began Project Baseline in 2009 with one project at Wakulla Springs that I started with Jarrod and the WKPP. At present, we've grown to over 100 projects in over 35 countries made up of nearly 500 volunteers that are systematically documenting the underwater world they love. Together, we've done 5,982 dives and our database now holds 2,898 pictures; 3,878 visibility measurements; 46,231 temperature measurements; as well as lots of other types of data important to the entities we're increasingly working with. We continue to steadily grow our reputation in the global conservation and aquatic research and management communities.

The reason we started Project Baseline is tragic. Nearly everywhere we look today, we see underwater ecosystems that have either collapsed or are on the brink of collapse, while we're only now coming to terms with the degree to



Photo Credit: Rob Wilson

which we have relied on these places and these life-forms for our own existence. But I am proud, and I hope you are proud, that we are not going gently into the dark and depressing night. We have gotten off our asses and have committed to at least trying to do our part to protect what's left and maybe even reverse the trends.

The most successful of these projects, in my eyes, are the ones that have developed ongoing collaborations with academic, conservation, and/or government entities who leverage the data our teams collect in their own efforts to create positive change for the underwater world. At present, about 28% of our teams are engaged in this manner.

In 2017, thanks to the efforts of Mel Jeavons and Jamie Obern in New Zealand, we were able to execute another exciting collaboration. Our time in Fiji was focused on documenting one of the last remaining healthy coral reef ecosystems in the world. We worked aboard the m/y *Ad-Vantage* with scientists from the University of the South Pacific and Nova Southeastern University to establish baselines for coral health at two of the Fijian Islands that may become baselines for coral health in the broader South Pacific.

As we move forward, my hope for Project Baseline is that more and more of our teams will learn how to—and decide to—engage with other entities to find ways, through their combined efforts, to more aggressively advance the protection efforts that need to happen—and very often are trying to happen—all around the world.

I hope to continue and expand our global missions; they bring considerable media attention to our organization and our mission and create amazing opportunities for GUE divers that decide to join them. I am also very hopeful that, through our good work as Project Baseline divers and as a consequence of the

incredible training and standardization that are the hallmark of GUE, we'll see progressively more opportunities to work directly with world-class research organizations like NOAA. These collaborations push our mission to new heights and create unprecedented opportunities for our divers and members.

Finally, I hope that in 2018 we'll be able to advance our database to make more varied forms of the images, video, and numeric data that we're collecting visible to the 99.99+% of the world that doesn't dive and never sees, or probably think much about, what's happening underwater. Go diving, have fun, record what you see, and share it with the world!



Dr. Todd Kincaid
GUE Vice President
Project Baseline Director of Science and Conservation

Our Mission

Project Baseline is a call to action for the most important environmental cause of our time: to protect and sustain the world's rapidly diminishing fresh and marine ecosystems and the treasures contained within them. Project Baseline's goal is to foreground the critical condition of our most valuable natural and cultural underwater resources by developing and maintaining a record that charts underwater conditions over time. Participating in Project Baseline is a way for divers of all levels to validate their training, create and grow local communities, and preserve the underwater world.

Our Vision:

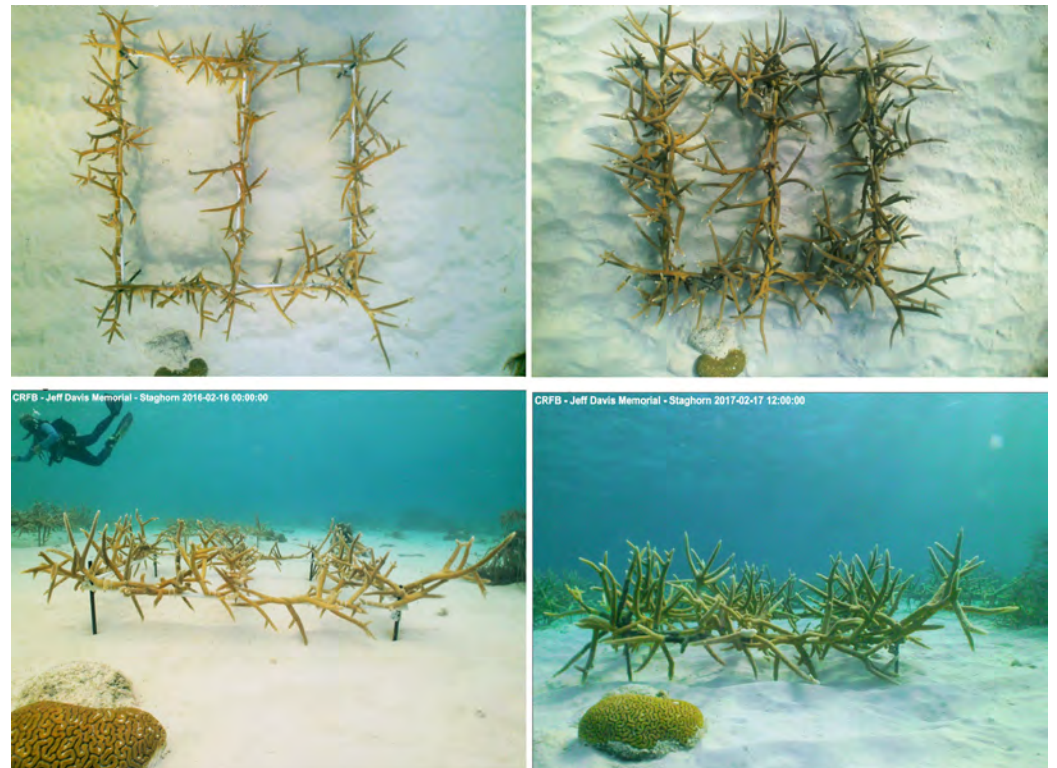
To realize exhaustive documentation of aquatic areas all over the world, allowing future generations of people to know the state of water through time.

Our Mission:

Project Baseline empowers passionate citizens to observe and record change within the world's aquatic environments in a way that fosters public awareness and supports political action.



Photo Credits: Axel Gunderson (above) and Francesca Viridis (below)





“I help Project Baseline because I have a son. If we don’t monitor the environment, we will eventually destroy it. I do not want my son to hear about how beautiful his planet WAS. Unfortunately, only in poems profitability rhymes with sustainability. There are approximately 7 billion humans on the planet. Some of them need to step up and play the trumpet when the environment needs it the most.”

-Francesco Cavasino, Project Baseline Volunteer

This Year's Accomplishments

This year we strived to encourage creation and growth of projects around the globe, foster more collaborative missions with NOAA and other academic and scientific entities, and promote the efforts of our teams to the public.

This year...

- We hosted our first online film festival on DiveGUE.tv to promote our global Project teams' efforts.
- Director Dr. Todd Kincaid spoke at the 2017 GUE Conference and presented a short course on how to start a baseline.
- Our teams submitted more than 690 photos to the online database.
- We conducted a Global Mission in Fiji, during which we collected more than 109 video transects of fish populations and benthic conditions.
- The data that volunteers collected in 2016 for Miami WaterKeeper was successfully used to postpone the dredging in Miami until further research can be completed to evaluate environment effects.

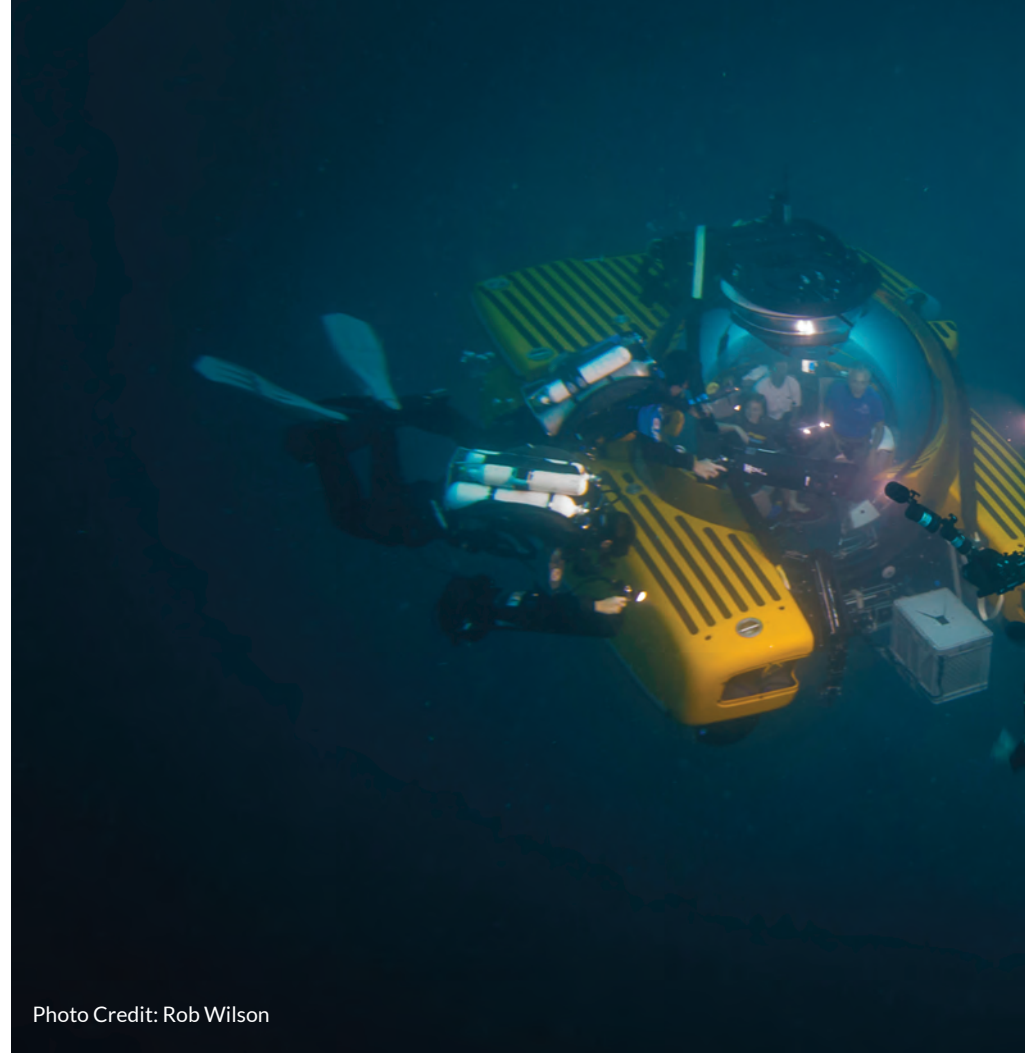


Photo Credit: Rob Wilson



Photo Credit: Axel Gunderson

“The oceans are changing very rapidly so its important to get baselines because of the speed of change in the oceans. It may be that in 10 years time we will want to take a look at this exact locality and understand how the coral cover has changed and whether there are differences in the fishing communities all as result of human activities.”

- Dr. Alex Rogers, Oxford University



Highlighting Successful Projects: Lake Pupuke, NZ

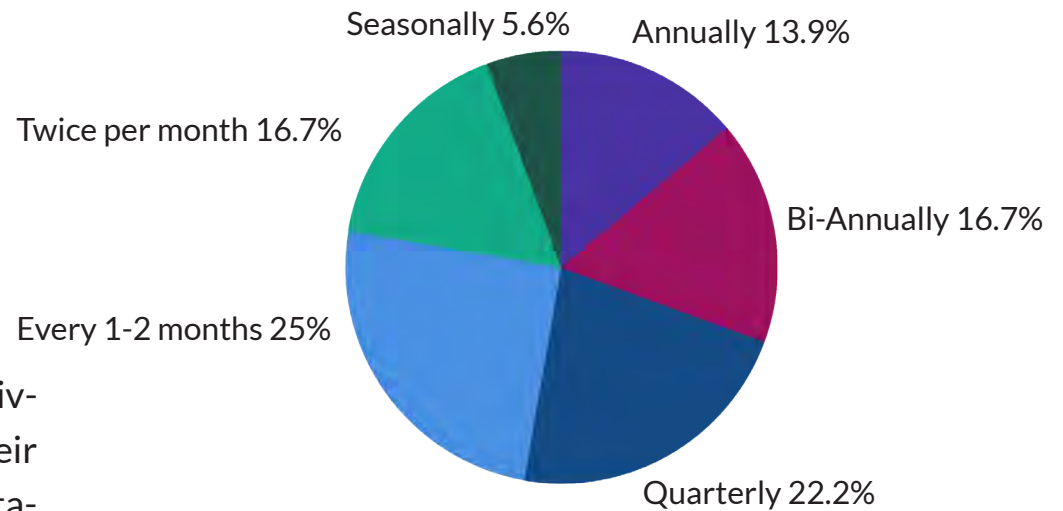
Ebrahim Hussain works for the Auckland Council Environmental Monitoring & Evaluation team were one of his responsibilities is running the Regional Lakes Water Quality Monitoring Program. He is also the founder of the Lake Pupuke Project Baseline initiative. This project came about after Ebrahim had been diving in Lake Pupuke for a few years and noticed a decline in subsurface water clarity. In 2014, a thick algal bloom developed across the entire lake during the summer. This cycle has been observed every year since 2014, and the subsurface water clarity is still declining. In December 2017, the Auckland City Council released a statement about the state of the lake, referencing the data collected by the Project Baseline Lake Pupuke team. “This summary is in response to the water discoloration which has occurred at Lake Pupuke over the past two weeks. Surface and sub-surface observations were made by the Project Baseline Lake Pupuke team on the 26th of November and the 3rd of December 2017,” says the public statement. “The test results indicate the discoloration is due to an algal bloom concentrated within the surface layer (epilimnion) of the lake. These types of algal blooms are a common occurrence in stratified lakes during the spring and summer seasons. No significant concentrations of potentially harmful cyanobacteria were found and there is no immediate human health risk.”

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Our Volunteers

Our volunteers sustain us. They are the motivated divers and concerned citizens who are dedicating their free time to collecting data, submitting it to our database, building collaborations, and sharing their work within their communities.

How often PB teams visit their Project Sites



28% of teams received funding from outside sources

47% of teams document a man-made structure

30% document a mixture of man-made and natural stations.

Photo Credit: Claudio Provenzani Project Baseline: Tyrrhenian Sea

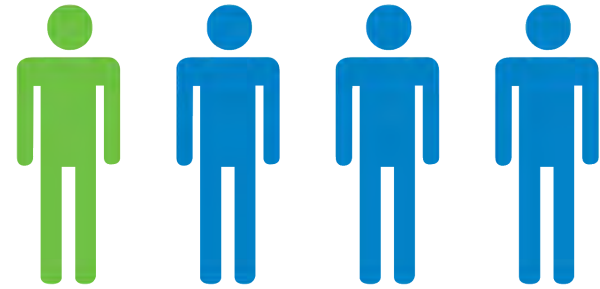
“I talked a LOT about Project Baseline. What we do globally, what we do on a local basis, and how freakin’ awesome scientist are going to think it is in ten years time when all the data collected from around the world is put together in a pattern.”

-Caterina Cattaneo, Project Baseline Oslo Volunteer



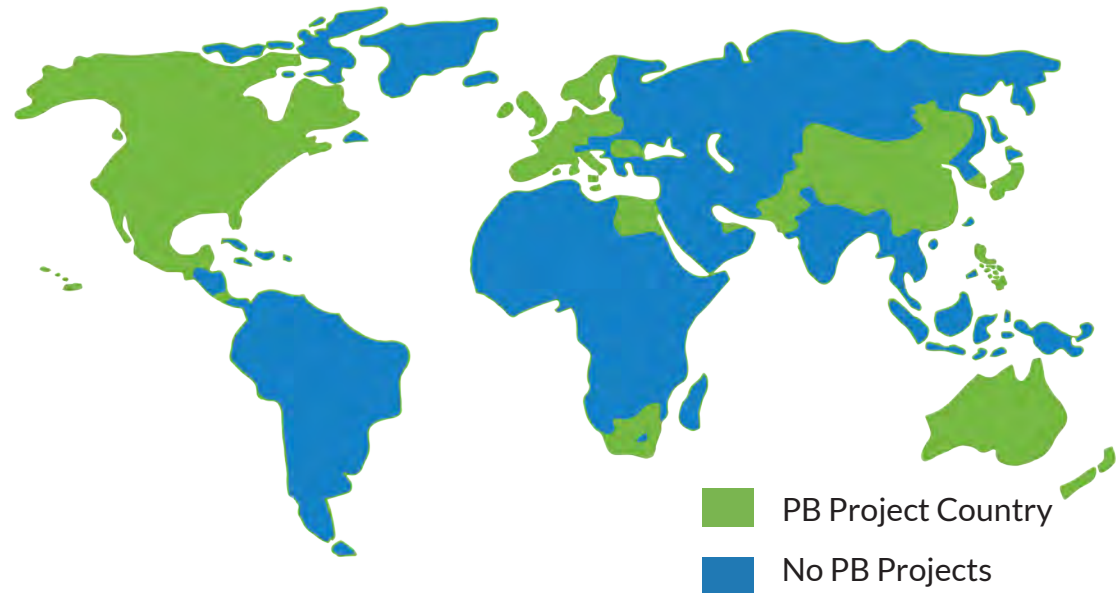
Photo Credit: Axel Gunderson

1 in 4 teams has collaborated with an outside entity



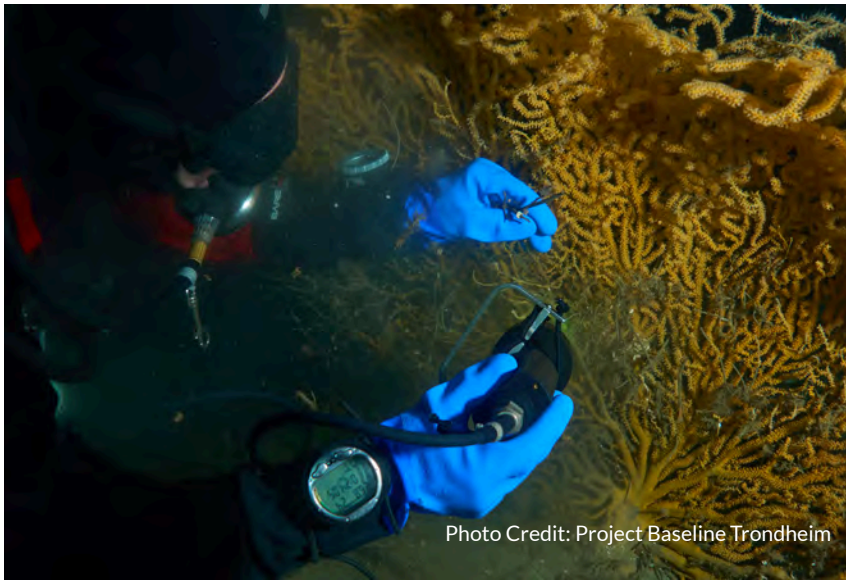
Project Baseline Haarlemmermeer, which is part of the group Project Baseline: Netherlands, hosts a yearly **clean-up** in their community.

**ALMOST 500
WATER-LOVING
VOLUNTEERS IN
OVER 35 COUNTRIES**



The Year in Photos

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“Remember, Project Baseline certainly isn’t there for GUE divers alone, because the pool of GUE divers is not endless. Project Baseline is ideal for all divers who seek a new challenge and purpose to diving. Some even may run into certain limitations, when doing Project Baseline tasks. After a while they just might pop the question where you’ve learned to dive and want to know more about it.”

-Axel Gunderson, Project Baseline Haammeramer Bos Project Manager





“The project aims to collect a variety of surface and subsurface data which will feed into and complement the current monitoring program run by Auckland Council. In this way we will have a completely holistic approach to tracking environmental change and anthropogenic stressors in the lake. This collaborative project makes Lake Pupuke the most intensively monitored lake in Auckland.”

-Ebi Lincoln, Project Manager for Lake Pupuke

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Database Numbers

The Project Baseline database was created in 2009 in an effort to increase accessibility and provide teams with a better platform to display their efforts. Through the database, anyone with an internet connection can view the data collected by our teams of citizen science divers around the world. Curious about what is going on in Bermuda? Look in our database! Want to know what the lakes are like in the Netherlands? We have data there as well! Through our spatial database, anyone can look at temperature, depth, visibility, and images for each of our ever-evolving Projects.



Photo Credit: Dr. Todd Kincaid

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“Since 2013, we have followed some corals in Borsa, some of them have died, and this is what we have extended the project from. There are also living corals a few miles further into the fjord, so we have started comparing these sites using photos and placing automatic temperature loggers at the sites. They have now been at the sites for one and one and a half years and we want them to stay there for a year more, so we can read the temperature development over two years.”

-Kristian Andersen, Volunteer for Project Baseline Trondheim

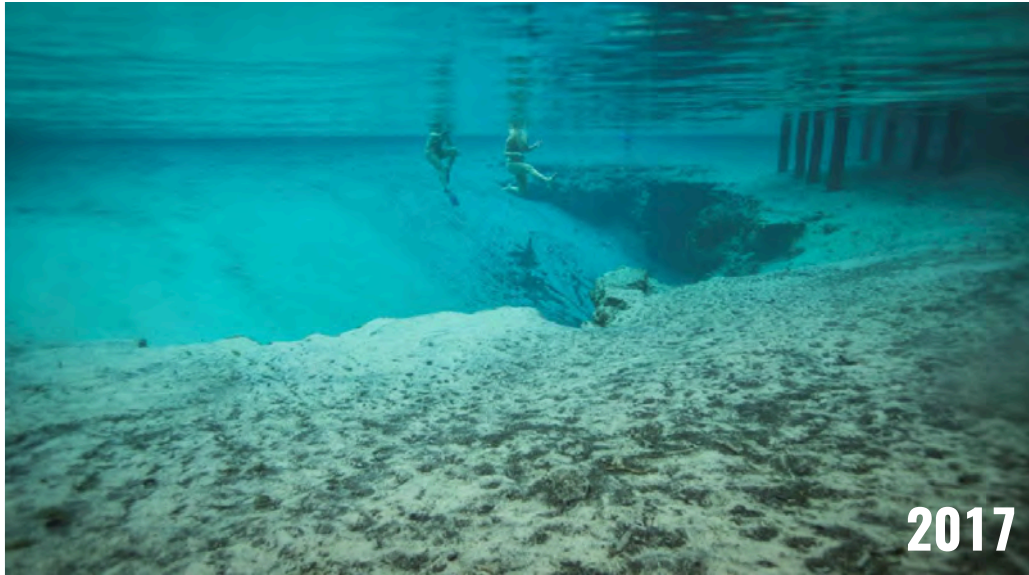


Photo Credit: Rich Denmark

2017

Florida's springs have been rapidly changing over the past **20 years** as a result of run off, invasive species, and high nitrate levels. This image is of Gilchrist Blue Springs Park's vent. The first image shows fish and an invasive species of grass. The second image shows the grass has disappeared.



Photo Credit: Project Baseline Atami

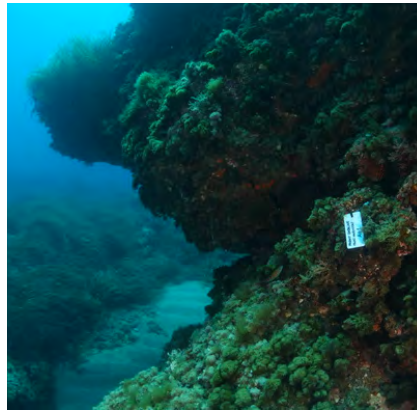
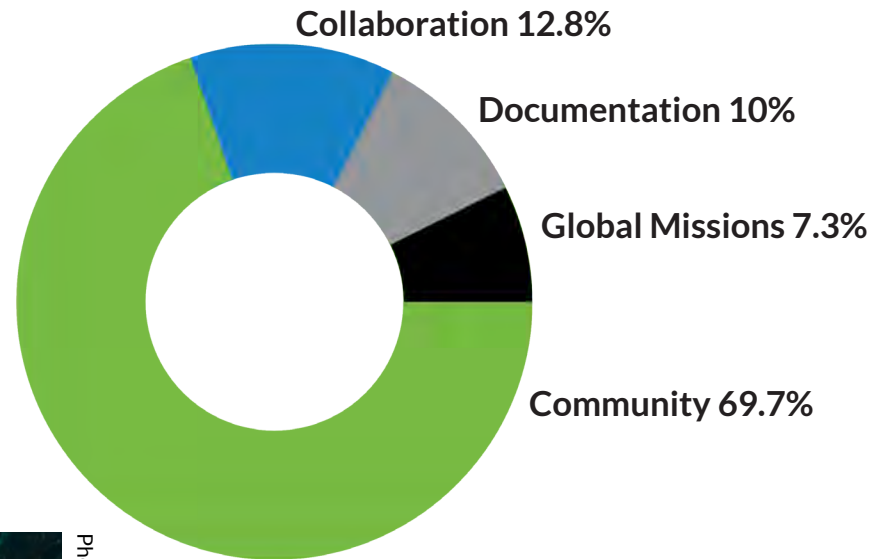


Photo Credit: Axel Gunderson

Photo Credit: Project Baseline Islas Hormigas



Types of Projects



Since 2009

108 Projects

1,203 Stations

307 Sites

2,898 images

3,878 visibility recordings

46,231 temperature readings

412 videos

Public Outreach

Part of our mission is to increase public awareness by sharing the underwater world with those who are not able to dive and explore it for themselves, with the hope that they will work harder to protect it.

This year, many of our Projects were successful in engaging their local communities. Several of them gave presentations to schools in their area, while others organized cleanup events during which volunteers helped remove trash both above and below the water.

62% of teams have hosted an outreach event since starting their Project.

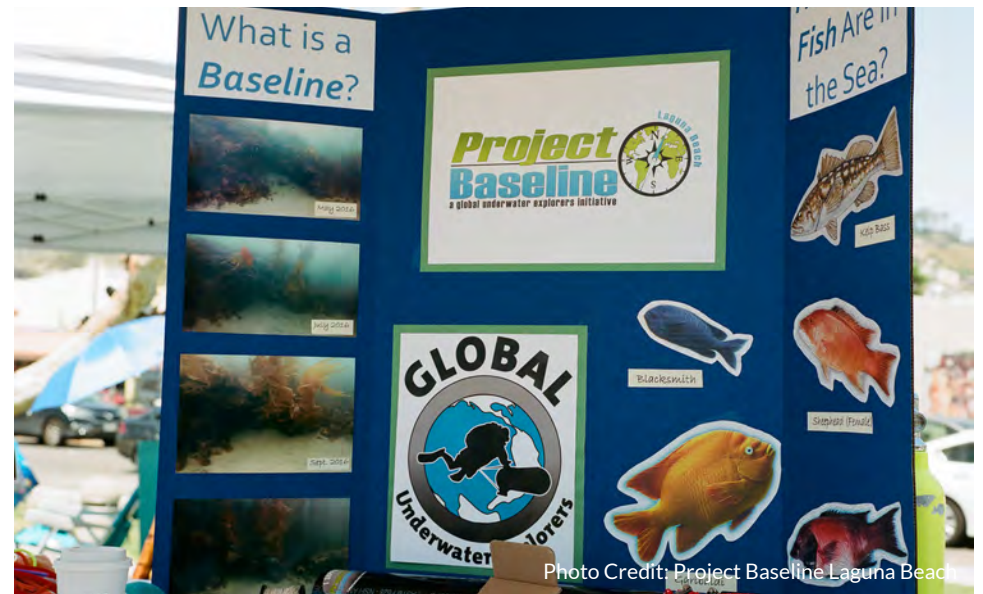


Photo Credit: Project Baseline Laguna Beach

Almost **60%** of our teams have visited a school or university to share their project efforts and the importance of aquatic conservation.



Photo Credit: Whittier Community School



This year we hosted our first-ever online **Project Baseline Film Festival**. Our volunteers submitted videos highlighting the conservation efforts of their projects. More than **15** videos were shared with viewers around the world via DiveGUE.tv.



Photo Credit: Project Baseline Oslo

This year, Project Baseline Oslo volunteers were able to visit a high school in Drammen to give a presentation about **micro plastics** and cleaning up our oceans to two senior classes.



Photo Credit: Project Baseline Saanich Inlet



Photo Credit: Project Baseline Trondheim

2017's Global Mission

Global Underwater Explorers' Project Baseline initiative, in collaboration with GUE NZ, Nova Southeastern University, the University of the South Pacific, GlobalSubDive, and the m/y *Ad-Vantage*, completed extensive documentation of Fijian coral reef ecosystems at ten different sites around the islands of Fiji.

The mission took place over 14 days in May 2017. The mission's goal was to establish a baseline for health in the area so that future data can be compared. Data was collected through the use of technical rebreather divers, a three-person Triton submersible, and scientific divers who collected images, stereo video transects of near-bottom fish populations, and benthic conditions. They also carried a data sonde that collected pH, salinity, and temperature measurements across the water column.

In terms of location, our primary objective was to explore and document the Great Astrolabe Reef, which is one of the largest barrier reefs in the world and is listed in the Register of



Sites of National Significance to Fiji in Fiji's National Biodiversity Strategy and Action Plan. The reef is a breeding ground for many large billfish, sharks, tuna, giant trevally, mahi-mahi, and snapper. Our plan was to survey the reef on both the windward and leeward sides of the island chain at multiple depths in order to expand on previous surveys conducted in shallow waters by the World Wildlife Foundation and the Planetary Coral Reef Foundation.

In terms of public outreach, we were able to engage with local communities on both Malolo and Kadavu, including 17 school children from Darvuni. All were invited aboard the m/y *Ad-Vantage* and given tours of the ship and the sub, as well as an overview of our mission and its relevance to sustaining their histori-

cal and continued cultural relationship with the sea. We also met with and described our mission to municipality leaders in Vunisea and representatives of Fiji's Department of Fisheries and Wildlife. Our engagement with the public will continue through our social media outlets.

16 scuba dives

10 technical dives

12 submersible dives

29 physical samples collected

109 stereo video transects

Expedition Program Goals

- Explore and document critical environments around the globe with submersibles and dive teams
- Inspire action to protect these places
- Support scientific studies of aquatic environments



Our Online Reach

2017 News Coverage

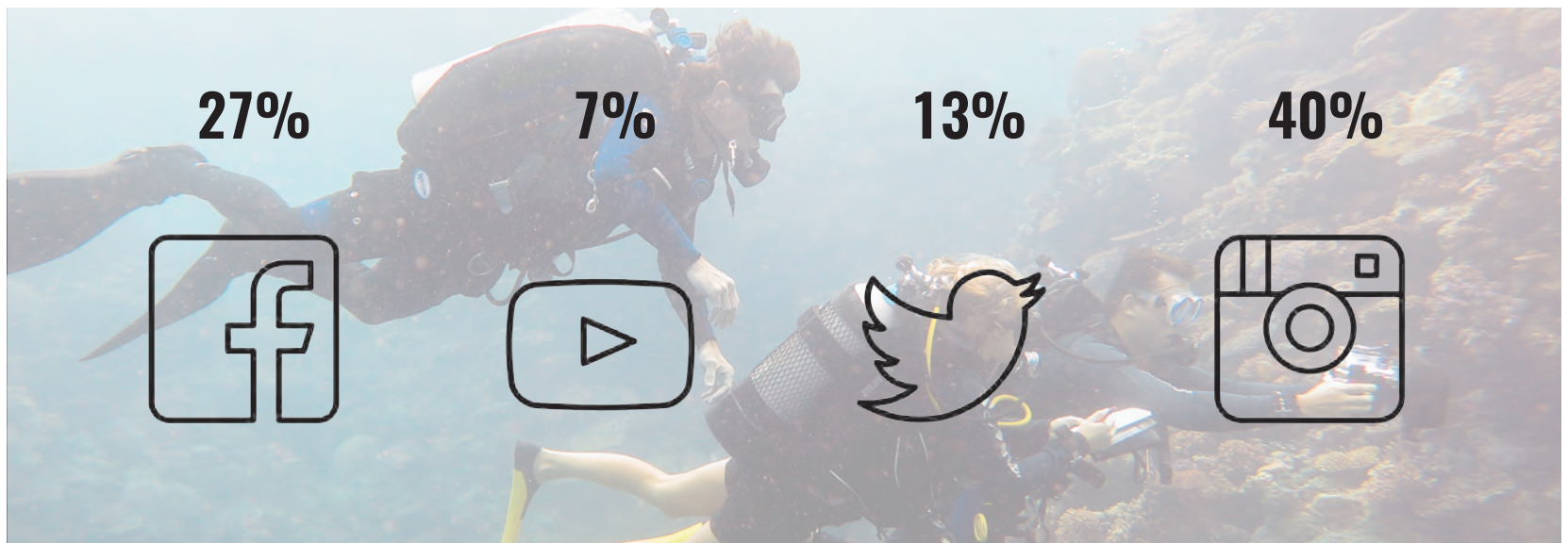


39,361 unique visits to www.projectbaseline.org in 2017

And more...

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2017 saw an increase in social media engagement on all Project Baseline accounts:



Objectives for 2018



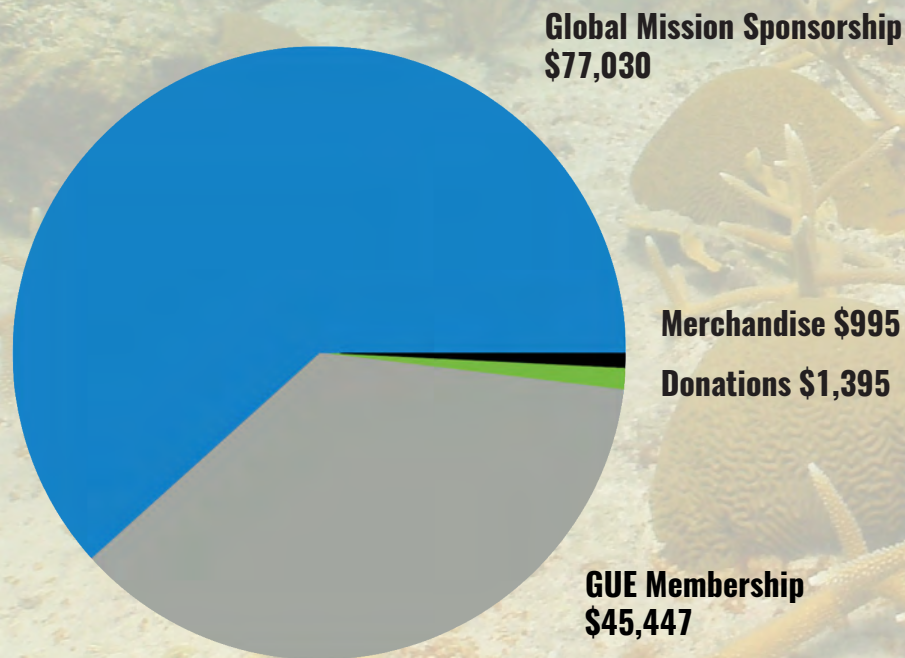
Photo Credit : Houcine Koudri



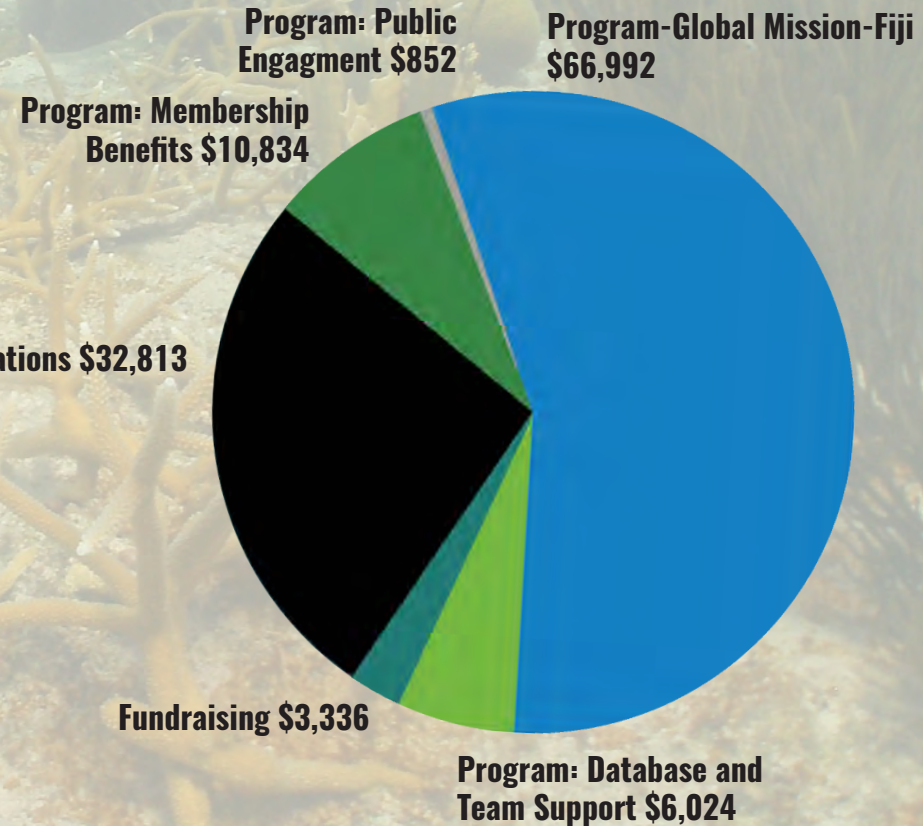
Photo Credit: Project Baseline Saanich Inlet

1. Release a scholarship for Project Baseline global teams.
2. Change the Project Baseline database from Flash to HTML so that it will be accessible on all devices.
3. Develop a mission with NOAA to be conducted in a National Marine Sanctuary in 2019.
4. Include global teams in fundraising efforts to support both individual projects and the organization.
5. Create and release one video highlighting global team efforts on YouTube each month.
6. Create a calendar for the year's events and make it available to the public in the second quarter.

2017 Revenue



Funds are used to support the database, fundraising, office operations, public outreach, and collaboration development and management. Individual Project Baseline projects are self-funded through local donations, grants, and fundraising efforts.



Project Baseline is funded by donations, funds allocated to specific projects (for example the Fiji project this year), and \$39 from every GUE membership purchased.

Expenses

Breakdown of Expenses

Program- Global Mission-Fiji \$66,992

Project Personnel \$18,200
Program Manager \$3,900
Submersible Support \$10,150
Specialized Equipment \$13,090
Travel Expenses \$21,652

GUE HQ Support \$32,813

Employee Salaries \$21,049
Facility and Equipment \$2,773
Business Expense \$3,607
Payroll taxes and fees \$2,800
Employee Benefits \$2,584

Program- Public Engagment \$852

Marketing \$852

Program- Membership Benefits \$10,834

Membership Benefits \$5,885
Quest Publication \$4,949

Program- Database and Team Support \$6,024

Program Manager \$5,821
Database Manager Volunteer \$0
Program Related Expenses \$203

Fundraising \$3,336

Program Manager \$1,668
GUE HQ Support \$1,668

Total \$120,851

Rollover for 2018: \$4,016

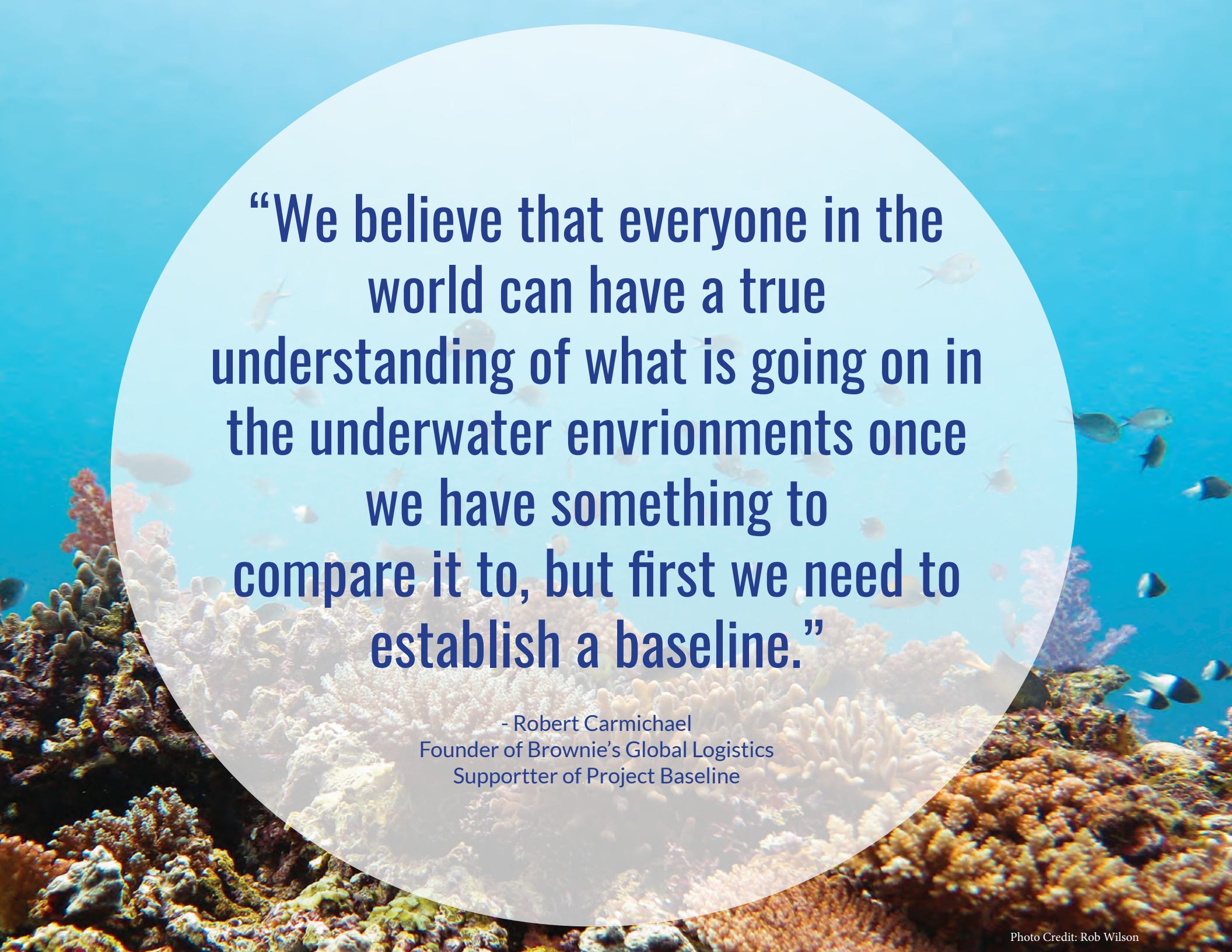
Show Your Support

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You can show your support for GUE's conservation initiative, Project Baseline, by donating on our website at www.projectbaseline.com/donate or by volunteering and starting your own project.

Can't donate money, but have a special skill? Donate your time and support us with your knowledge. Email info@projectbaseline.org to find out how you can help.

**Donate today to support aquatic
conservation!**

A vibrant underwater scene featuring a diverse coral reef. The foreground is dominated by various types of coral, including branching and table corals, in shades of brown, orange, and yellow. The water is a clear, bright blue, and numerous small, colorful fish are swimming throughout the scene. A large, semi-transparent white circle is centered over the image, containing a quote in dark blue text.

“We believe that everyone in the world can have a true understanding of what is going on in the underwater environments once we have something to compare it to, but first we need to establish a baseline.”

- Robert Carmichael
Founder of Brownie's Global Logistics
Supporter of Project Baseline