

# Project Baseline

a global underwater explorers initiative



2016 Annual Report



# A letter from our Director

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"I'm proud to say that our GUE volunteers both below and above the water greatly exceeded all expectations and have truly demonstrated the value of our Project Baseline citizen science model."

Dear Project Baseline Supporters,

2016 has been an exciting year for Project Baseline and our global conservation mission. As always, we continue to exist and advance only because of the sustained efforts of our global team of Project Managers and volunteers. Supporting and promoting their efforts constitutes the pillars of our mission. As this report will show, we've grown our global network of projects this year by 25% and are closing in on 100 active projects – a goal that is now within reach in 2017. A growing number of our teams (28%) are actively working with external organizations to collect the data needed to effect real and positive change in our underwater environments. Since achieving these types of sustained collaborative efforts has been my personal goal for Project Baseline since its inception, I am particularly proud to see this percentage continue to rise.

On the other end of the spectrum but no less important, we've embraced and are now fostering ad hoc submissions, so long as they adhere to our core concept of reproducible documentation. Being more accessible to a larger number of divers, these efforts are rapidly increasing the geographic scope of our documentation coverage and fostering increased and broader participation in our mission. I'm thrilled to see these contributions growing and look forward to seeing even more growth here in 2017.

Once again, Brownies Global Logistics (AKA GlobalSubDive) made substantial contributions to increasing awareness of Project Baseline as well as mission opportunities for GUE divers. These came in the form of three collaborative missions aboard the Baseline Explorer. By soliciting funding from private entities, GlobalSubDive has created opportunities for GUE and Project Baseline to work hand in hand with leading marine scientists. As a consequence, GUE and Project Baseline are becoming recognized for our profoundly important contributions. The 2016 missions were the first in which the collaborating entities were themselves substantial financial contributors. I'm proud to say that our GUE volunteers both below and above the water greatly exceeded all expectations and have truly demonstrated the value of our Project Baseline citizen science model.

Aside from Baseline Explorer, your collective efforts combined with the skill and professionalism of GUE divers are opening other exciting opportunities for collaborations as well. Project Baseline organized a mission with NOAA in the Great Lakes that, despite poor weather, resulted in the successful delivery of site-wide photomosaic and photogrammetric imagery that NOAA will use to quantify environmental change through time. As a consequence, we expect to see a formal reciprocity agreement between Project Baseline and NOAA in 2017 that will open the door to regular and recurring collaborative mission opportunities hosted aboard NOAA's vessels in the US National Marine Sanctuaries.

Sadly, 2016 also marked the end of Vanessa's time with us as Project Baseline's Program Manager. She has worked diligently over the past six years to encourage Project Managers and volunteers in their own PB efforts, created and maintained a substantial website and social media presence that provides our best avenue of communication with each other and the broader public, and continuously supported my efforts to promote Project Baseline with scientific and established conservation entities. Though I'll miss her, as I'm guessing many of you will as well, I see this transition as an opportunity to recommit to the collaborative nature of our mission by involving more of our Project Managers and volunteers in the advancement of Project Baseline. Please join me in wishing her nothing but success with her new path as an educator and also in encouraging her to move forward with us as a GUE diver and PB volunteer.

2017 is sure to see some changes for Project Baseline, all of which I believe will be positive steps in our growth as a global contributor to underwater conservation. We'll be working to transition to a new database platform that I hope will include the long-awaited and much-requested data upload interface. It will also allow for a new level of regional participation and control over Project Baseline's endeavors, new collaboration opportunities for GUE/PB divers, and reaching new heights of citizen scientist involvement through the ongoing efforts of our global community of underwater explorers.

Please accept my most sincere gratitude for your participation in and support for Project Baseline. Together, we are making a difference! Go diving, record what you see, and share it with the world.

Best wishes for 2017.

Todd Kincaid  
Director of Science and Conservation

# Who we are and what we do

## Our Mission

Project Baseline's mission is to empower passionate citizens to observe and record changes in the world's waters, including oceans, lakes, rivers, and springs. We are documenting the health of the underwater world to increase public awareness of the threats to these environments. We help develop meaningful protections for our aquatic world by connecting these environments to the people that live, work, and play in and around the world's waters, and by encouraging them to engage with the researchers and managers working to monitor and protect aquatic resources.

## Project Types

- Community projects are ongoing projects managed by a Project Manager.
- Collaboration projects actively collaborate with an external organization.
- Documentation projects are ad hoc submissions to the database from any volunteers that follow our data collection protocols.
- Baseline Explorer missions are hosted aboard the r/v Baseline Explorer.

In a world of shifting environmental baselines it becomes impossible to determine an objective level of environmental quality. Project Baseline and the collaborations we foster endeavor to rectify this problem.

## This Year

In 2016, we remained committed to creating a lasting visual legacy of all aquatic environments by encouraging our volunteers to systematically take pictures of freshwater and marine environments in over 27 countries. In addition to photos, these visual legacies include:

- Independently produced videos for our YouTube channel that received over 18,000 combined views
- Transect videos to characterize environmental conditions
- Photogrammetry image capture and processing, which bring never-before-seen images of the underwater world to the surface



# Our project teams around the world

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50%

are engaged in self-promotion using multi-media tools

were featured in non-self-published, multi-media outlets

27%

14%

independently raised funding to support their projects by facilitating or participating in at least one fundraising initiative

hosted or participated in one or more clean-up events this year  
Nearly 6,000 pounds of debris removed by approximately 170 volunteers!

23%

100%

are self-funded

facilitated a special community event or activity

37%

22%

of teams attended at least one special event, sharing their work with an estimated 200+ people in person!

Project Baseline team volunteers who are GUE members

42%

28%

collected data from surface and/or underwater environments on behalf of an entity external to Project Baseline.\*

\*Most common types of entities include: scientific, academic, nonprofit, and government

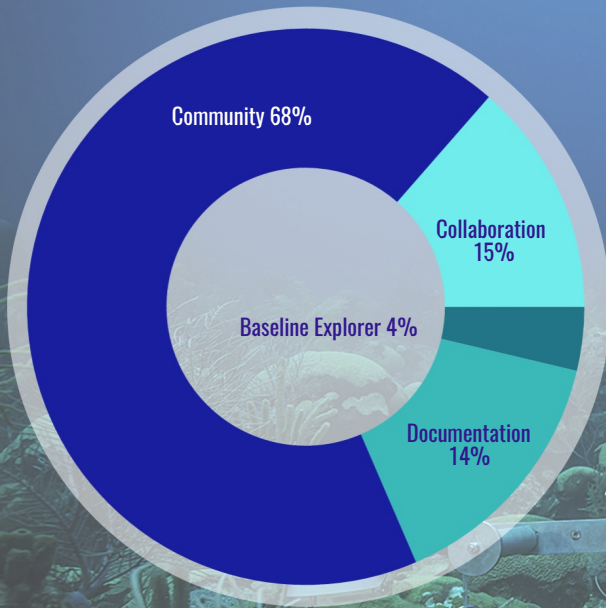
Proportion of teams who expect to continue collecting data for entities external to Project Baseline in 2017

74%

# Our database

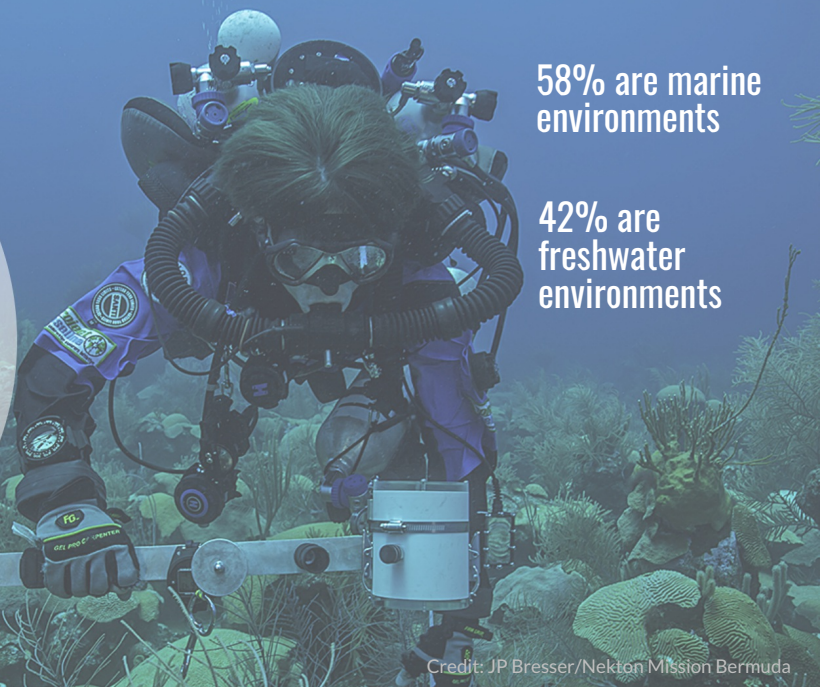
\*Database statistics as of September 30, 2016

## Projects by Type of Involvement



58% are marine environments

42% are freshwater environments



Credit: JP Bresser/Nekton Mission Bermuda

Numbers are totals as of Jan. 2017 from the beginning of Project Baseline

# 110

Community, Collaboration, and Documentation Projects worldwide

Media uploads

# 2063

# 4938

Station visits

Stations established within Sites

# 946

Over 4,500 hours volunteered in support of Project Baseline worldwide!\*

Over 400 water-loving volunteers dedicated their time to our program in 2016!\*\*

\* Excludes Baseline Explorer volunteer hours

\*\* Excludes Baseline Explorer and Documentation volunteers

# Baseline Explorer Collaborations

GlobalSubDive (GSD) is a company started in 2013 with the primary mission of supporting and promoting GUE and its Project Baseline conservation initiative. GSD obtains private funding to engage collaborative expeditions with scientific, government, and conservation entities aboard the r/v Baseline Explorer, a state-of-the-art underwater exploration and research platform hosting two 2-person 1000 ft/300 m observation submersibles and a technical diving support system.

Project Baseline brings together highly skilled and exceptionally motivated GUE-certified technical divers from around the world to volunteer their time and talents for Baseline Explorer collaboration missions. Our volunteer divers execute their missions and bring back otherwise inaccessible data for our scientific partners.

Credit:Graham Blackmore/Nekton Mission Bermuda

## Miami Waterkeeper Collaboration (March, 2016)

## Fort Lauderdale, FL, USA

We teamed up with MWK for a two-day event to increase understanding and awareness of coral reef conditions near Port Everglades in advance of dredging to expand the port. Special guest appearance by renowned explorer and environmental advocate Philippe Cousteau brought international attention to the project and the problem. Scuba and submersible divers collected valuable baseline data from sections of the Florida Reef Tract surrounding the Port Everglades shipping channel. Our efforts with MWK resulted in a huge environmental win! The dredging in the area has been paused until 2019 while an environmental analysis is run by the U.S. Army Corps of Engineers.

## Nekton Foundation Collaboration (July-August, 2016)

## Bermuda

Project Baseline teamed with scientists from several universities, including Oxford and Stanford, to execute the first mission of the XL Catlin Deep Ocean Survey. We explored and documented 5 sites at depths between 15 and 300 meters: submersibles at 300, 200 & 150 m and volunteer divers at 90, 60, 30, and 15 m. Scientists identified approximately 300 new species of coral, sponge, and algae, and carried journalists and UNESCO representatives to depth to announce the world's first High Seas World Heritage Site, the Sargasso Sea.

## NOAA Collaboration (August-September, 2016)

## Ocracoke, NC, USA

We teamed with the National Oceanic and Atmospheric Administration (NOAA) and scientists from National Marine Sanctuaries, the Bureau of Ocean Energy Management, and the Office of Ocean Exploration and Research to conduct laser and photogrammetry surveys of wrecks that sank in battle off the North Carolina coast in WWII and hadn't been seen since. The work completed here will advance NOAA's goal of expanding the Monitor National Marine Sanctuary and foster ongoing Project Baseline collaborations.

### This Year:

**122** scuba and submersible dives

**68** submersible passengers

**18** divers from all over the world

**25** kilometers of underwater video transects

**7** photogrammetric and laser surveys

Learn more about the 2016 missions on our website

# Our reach

32485

unique page views on projectbaseline.org in 2016

at least 25

featured stories in news outlets

blog updates on projectbaseline.org

18

## Featured stories in national news outlets

The Washington Post

SiriusXM  
SATELLITE RADIO

FOX NEWS

Forbes

theguardian

2016 saw an increase in social media activity from Project Baseline:

27%



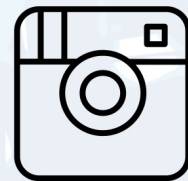
29%



61%



38%



# Project Baseline Objectives in 2017

## ► Improve team support

- Establish Regional Project Liaisons who will regularly interact with developing teams in prescribed regions
- Establish monthly team meetings with liaisons to identify optimal paths forward for increasing team numbers and productivity
- Revise training presentation describing all critical aspects of Project Baseline and distribute this to our teams
- Revise promotional presentation for Project Baseline and distribute to all teams

## ► Solicit short videos from all Project Baseline teams

- Five minute maximum for all videos
- Showcase the top five films at the 2017 GUE Conference and then release them online

## ► Create new collaboration mission opportunities

- Continue our work with NOAA by establishing at least three collaboration missions in National Marine Sanctuaries
- Continue our work aboard Baseline Explorer by establishing at least two funded Project Baseline missions in conjunction with GlobalSubDive

## ► Promote our teams

- Create one short video per quarter featuring one of our Project Baseline teams.
- Develop and release at least one article in a mainstream print media outlet describing the work of our global network of PB teams.
- Publish articles in Quest: The Journal of Global Underwater Explorers

## ► Improve our database interface

- Port our database interface onto a platform that can be accessed from PC, Mac, tablet, and smartphone devices.
- Render our video transects and varied forms of numeric data accessible from the database interface.
- Integrate our database interface into the main PB splash page on our website.
- Develop and release an upload interface for Project Managers.

## How you can help:

Become a member of GUE today!

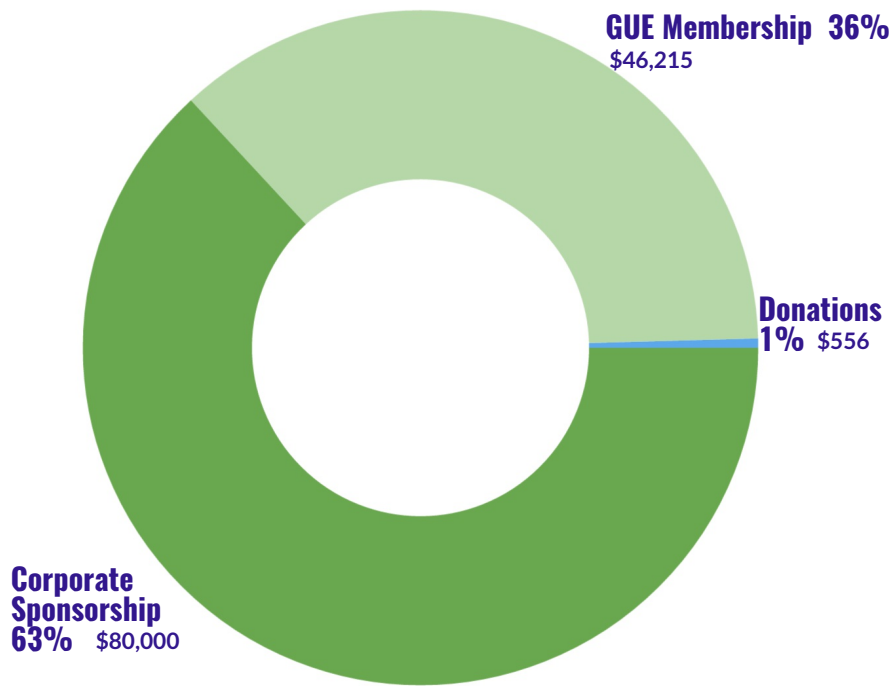
Get involved with a Project Baseline project in your area or start your own.

Donate a skill or talent you have to helping us achieve our objectives.

Help with fundraising to support our mission and collaboration efforts.



# Support and Revenue



Project Baseline is made possible by donations, and funds from GlobalSubDive, along with \$39 of every membership fee from GUE being donated to the effort.

Corporate Support:

GlobalSubDive  
GeoHydros\*  
Halcyon\*

\*In-kind support not monetized

# Expenses

Funds are used to support the database, fundraising, office operations, public outreach, and collaboration development and management.

