THE LONGEST SWIM

AN EXPEDITION ACROSS
THE PACIFIC OCEAN

SUMMARY

THE LONGEST SWIM AN EXPEDITION ACROSS THE PACIFIC OCEAN

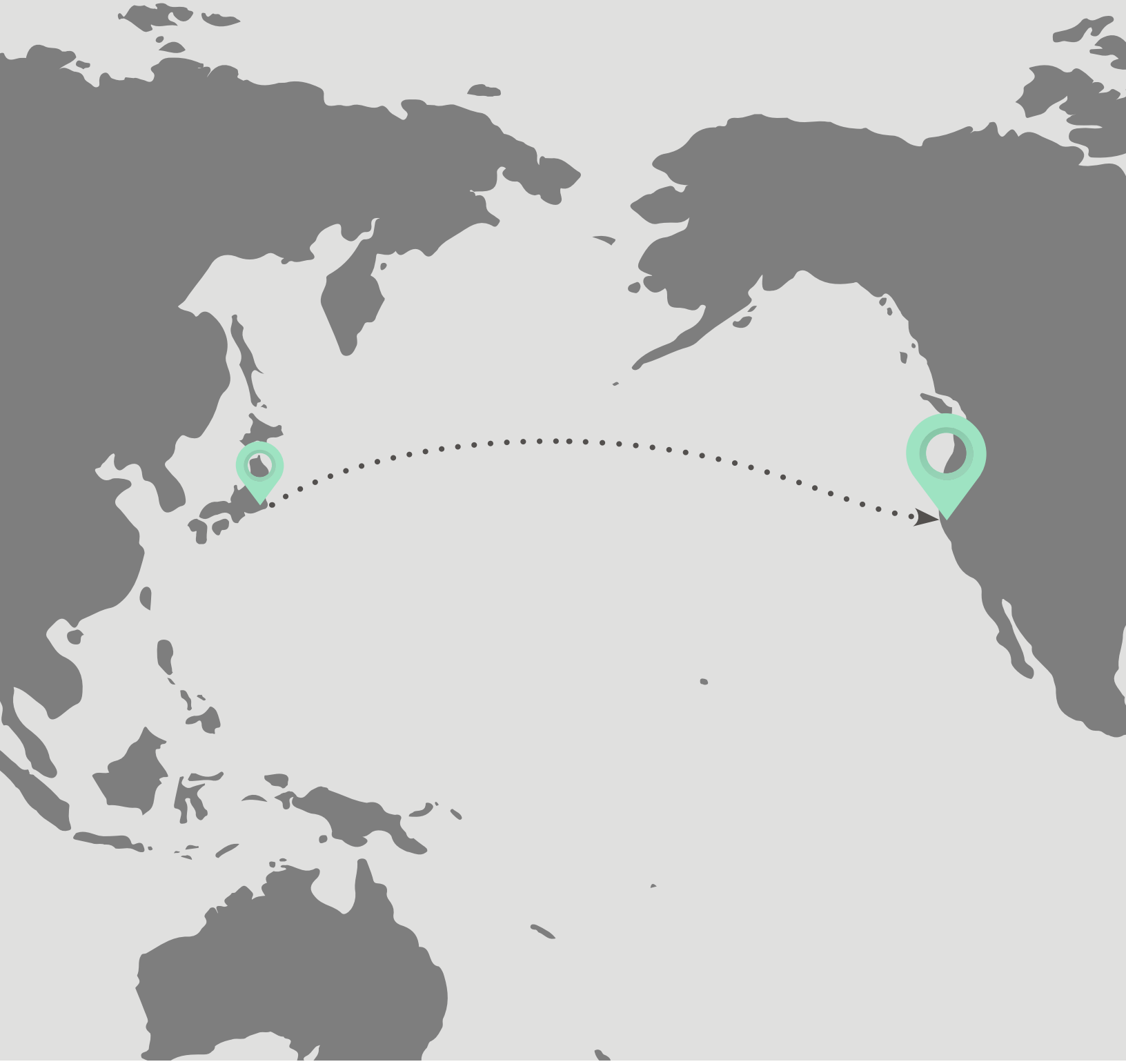
BEN LECOMTE IS TAKING ON THE PACIFIC IN A 5,500-MILE SWIM ACROSS THE OCEAN. THE LONG DISTANCE SWIMMER AND HIS CREW ARE PREPARING TO EMBARK ON THE LONGEST SWIM: A SWIMMING EXPEDITION FROM TOKYO TO SAN FRANCISCO IN THE NAME OF SCIENCE AND SUSTAINABILITY.

Ben Lecomte is no stranger to crossing the ocean. He was the first person to swim across the Atlantic Ocean without a kickboard in 1998. This time, he will swim across the Pacific— for eight hours a day for six months—accompanied by a support sailboat and his six crew members.

The Longest Swim is so much more than an athletic accomplishment. It's the first trailblazing expedition of its kind. Ben and his crew will conduct medical and oceanic research using equipment provided by such renowned institutions as NASA and the Woods Hole Oceanographic Institution.

The Longest Swim is many things: It's a world-record-setting endeavour, an unsupported six-month journey, a science expedition and an opportunity to raise worldwide awareness for environmental sustainability and the impact that we have on our oceans.

FROM TOKYO TO SAN FRANCISCO



THE NUMBERS


5.5K
miles from Tokyo to San Francisco
8
hours of swimming per day
180
days offshore

THE NUMBERS

1K

miles through the Great Pacific Garbage Patch

1.44K

hours swimming in the water

8K

calories burned per day

THE NUMBERS

1K+
scientific samples collected

12
scientific institutions involved

4
years of preparations

15
cameras on board

BEN'S RAISON D'ÊTRE

"I'm not an Olympic swimmer; I'm an adventurer who likes to swim".

– BEN LECOMTE

In 1998, Ben Lecomte swam across the Atlantic Ocean in support of cancer research as a tribute to his father. Despite being followed by a shark for five days, being stung by jellyfish, and being completely exhausted, Ben successfully completed the swim in 73 days.

"Never again," said Ben when he finally arrived in France. But his sense of adventure and passion for the ocean's well-being made him feel like a fish out of water. Now he wants to make history once again by fulfilling his latest dream: swimming across the Pacific Ocean from Tokyo to San Francisco.

While Ben spent the last four years training physically for this incredible feat, it's the emotional impact—taking on climate change as a society—that is the most significant for him.

Ben is currently the Associate Director of Sustainability Services at Progea, a global environmental and sustainability consulting firm that helps organizations worldwide to assess their exposure to environmental, health and safety, social, and sustainability issues.

The swim itself, as intense as it is, is just a drop in the Ocean. In the grand scheme of things, the swim enables Ben to open a dialogue with a wide audience around global environmental issues, and to be a catalyst for sustainability and scientific research.

THE EXPEDITION

"No one has ever tried to go so far so slowly. There are very few "firsts" left in this world, and this six-month unsupported expedition is a rare chance to be a core part of one of those."

– JAMES "SCOTTY" SCOTT, Captain/Expedition Manager

Accompanying Ben on this trailblazing ride is a support sailboat with a highly-trained crew, and a professional support team on land—to keep a close eye on Ben and on the expedition as a whole.

Ben plans to swim eight hours a day for 180 days, with an average speed of 2.5 knots. With the push of the Kuroshio and North Pacific currents from Tokyo to San Francisco, he will swim an average distance of 30 miles per day.

An electrically-powered dinghy will be dispatched from the support sailboat throughout the day to assist Ben, provide him with food and drink, and help him in case of an emergency.

After a day of swimming, Ben will come onboard the support sailboat. There he'll eat, rest and spend time with the six-member crew. The crew will mark his GPS location when he breaks for the day and bring him to that exact spot to dive back in the next morning.

The swimmer will be supported by a team of doctors and other specialists on land, who will remotely monitor his physical condition and provide any required support.

All along the way, the crew will also be conducting oceanic and medical research by sampling the water and studying Ben's performance.

30
miles a day

with an average swimming speed of 2,5 knots and the push of the currents

Shark Repellent Bracelet

Ben will wear a magnetic bracelet to keep sharks away without causing harm to them

Source: NOAA, Standford University

BEN'S EQUIPMENT

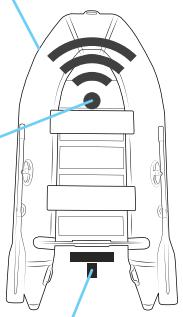
THE CONVOY

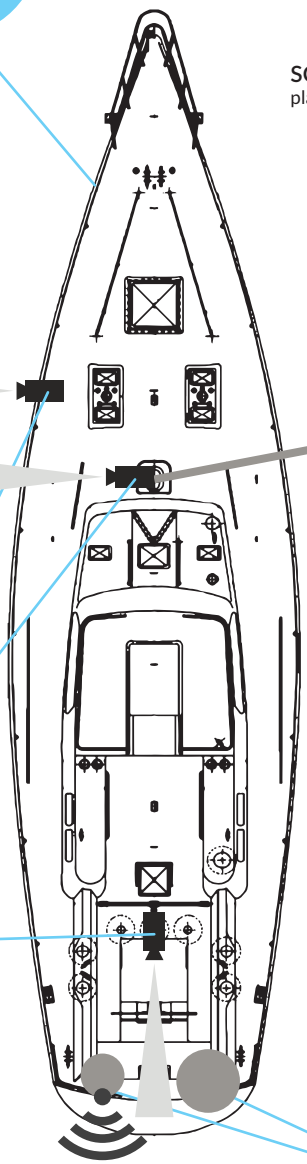
THE SUPPORT SAILBOAT "DISCOVERER"
The rest of the crew will stay close to the swimmer, while performing scientific samples, recording and sharing the adventure online.

2

THE RHIB
Operated by 2 crew members to keep Ben on the right track, feed him, and bring him support depending on the conditions.

1





SCIENTIFIC SAMPLING
plastic, radioactivity, water data...

6

3

GPS TRACKER

4

ELECTRIC OUTBOARD ENGINE

5

CCTV SYSTEM AND 360° CAMERAS

SATELLITE COMMUNICATIONS

7

MEET DISCOVERER

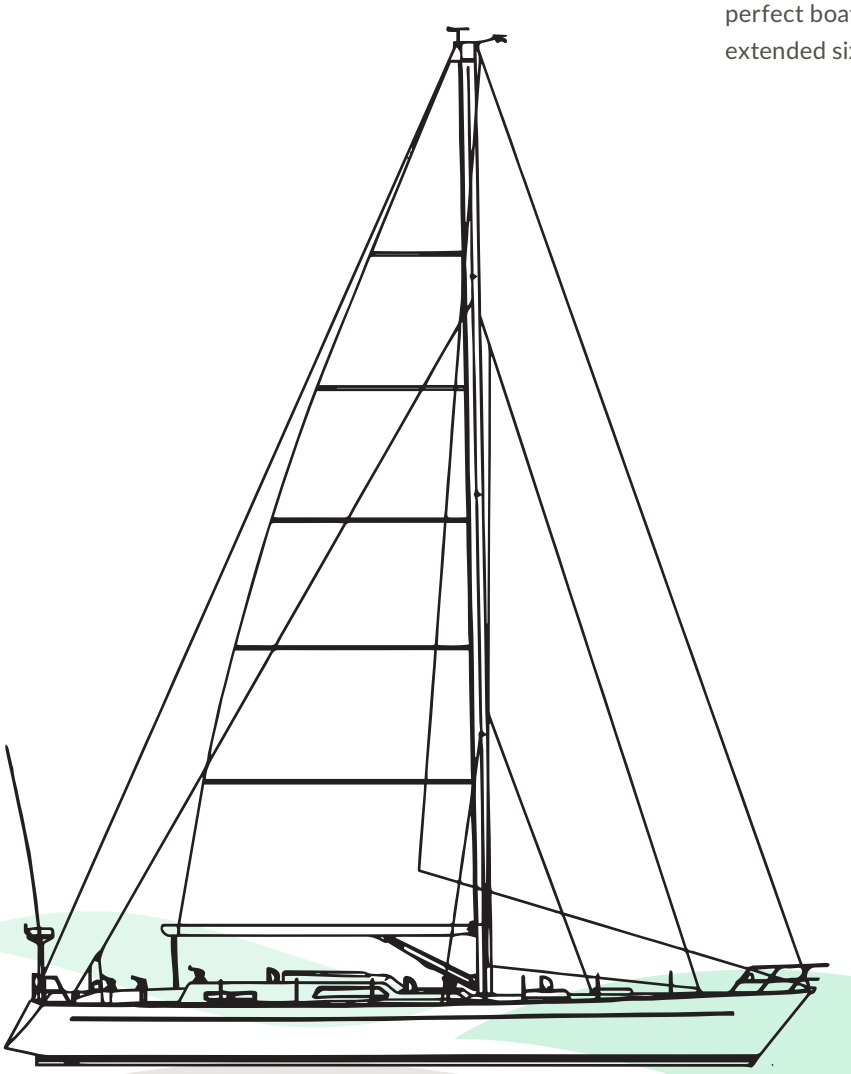
THE SUPPORT BOAT

MEET DISCOVERER, THE SUPPORT BOAT

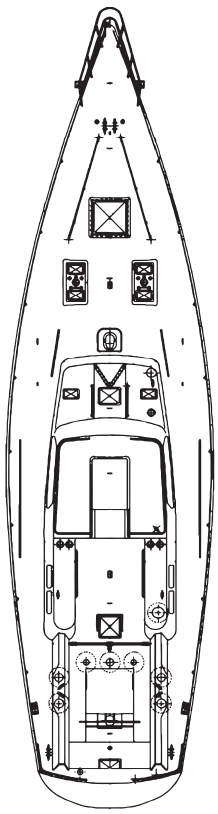
The Longest Swim has fairly unique requirements of a boat. It must be structurally strong and reliable, have exceptional storage characteristics for supplies and scientific equipment, and provide a versatile working environment for the crew to live and work, for a non-stop six-month expedition. There aren't many boats out there that can accommodate this.

Discoverer is a 67 ft (20 m) steel hulled sailing yacht, she was originally built as an ocean racer, to be part of a 14 strong fleet of identical yachts to take part in the legendary Challenge Business round the world race. To this end, they were designed to be exceptionally strong, with high quality steel hulls and decks.

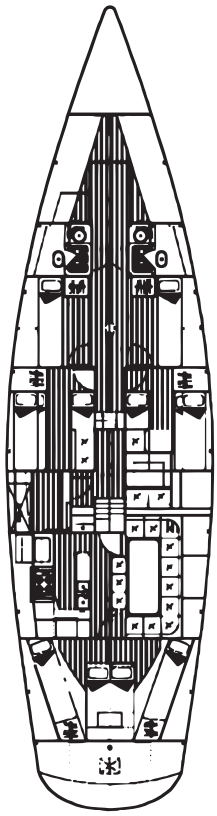
Due to the demands of long ocean racing, Discoverer is "built like a warship" to quote one surveyor. With a few modifications to the systems (satellite communications, CCTV…) and storage down below, she is the perfect boat to support Ben and host the crew for this extended six-month expedition in the North Pacific.



DISCOVERER – 67 ft (20 m) steel hulled sailing yacht



DECK



BELOW DECK

SWIM FOR SCIENCE

"The Longest Swim is a unique opportunity to better share our scientific results and our message to the public, but also to collect very valuable samples for our research."

– Dr. ERIK ZETTLER, Sea Education Association

BEYOND THE WATER

The Longest Swim is an opportunity to rally people and challenge them to contemplate the impact we have on our oceans. Throughout the expedition, especially when crossing the Great Pacific Garbage Patch, Ben and his crew will interact with scientists and their audience to share their experience every step of the way.

A CITIZEN SCIENCE EXPEDITION

Under the direction of researchers from 12 scientific institutions including NASA and Woods Hole Oceanographic Institution, the crew will perform oceanic and medical research throughout the journey, marking the first time such scientific work will be conducted by the general public.

In connection with organizations like *The Maritime Alliance* and *The Ocean Project*, Ben and his team will use the project as a testbed for innovative technologies and to develop sustainable solutions that relate to the impact we have on our oceans.

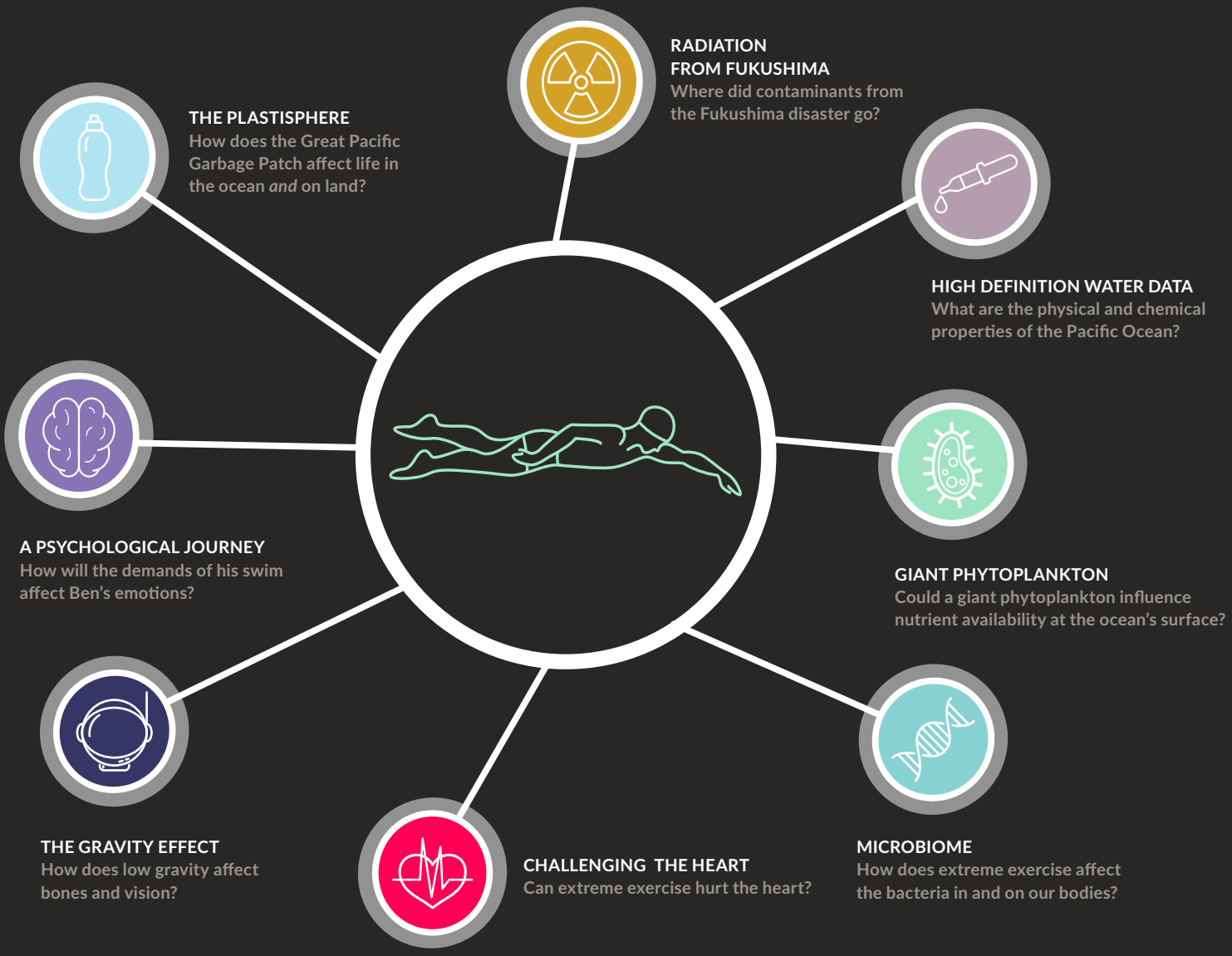
The journey will not stop once Ben dries off in San Francisco. He and his team will continue to tell their story and inspire change and action worldwide. With the help of partners like Progea and The Climate Group, they plan to spread the word and share all the data they will have collected.

"Before anything else I am a father, and as a father the future of my children concerns me. I don't want to be passive and pass on them the liability we are tagging on to our environment." Ben says.

THE LONGEST SWIM – Swim for Science (cont'd)

THE LONGEST SWIM - SCIENCE PROGRAM

A team of researchers from 12 scientific institutions will conduct studies on 8 different subjects during The Longest Swim. From plastic pollution to space exploration, this adventure will be a unique opportunity to collect data and learn more about the oceans and human body in extreme conditions.



How does the Great Pacific Garbage Patch affect life in the ocean and on land?

THE PLASTI-SPHERE

Plastic debris is found throughout the world's oceans, reaching concentrations of more than 1 million microplastic pieces per square kilometer in some regions, like the "Great Pacific Garbage Patch". By examining particles the crew will collect between Tokyo and San Francisco, researchers will learn more about how long they've been in the ocean and what mechanisms created them. Scientists will also study the microbes associated with this debris and how they affect a variety of oceanic processes, as well as their potential to spread disease.

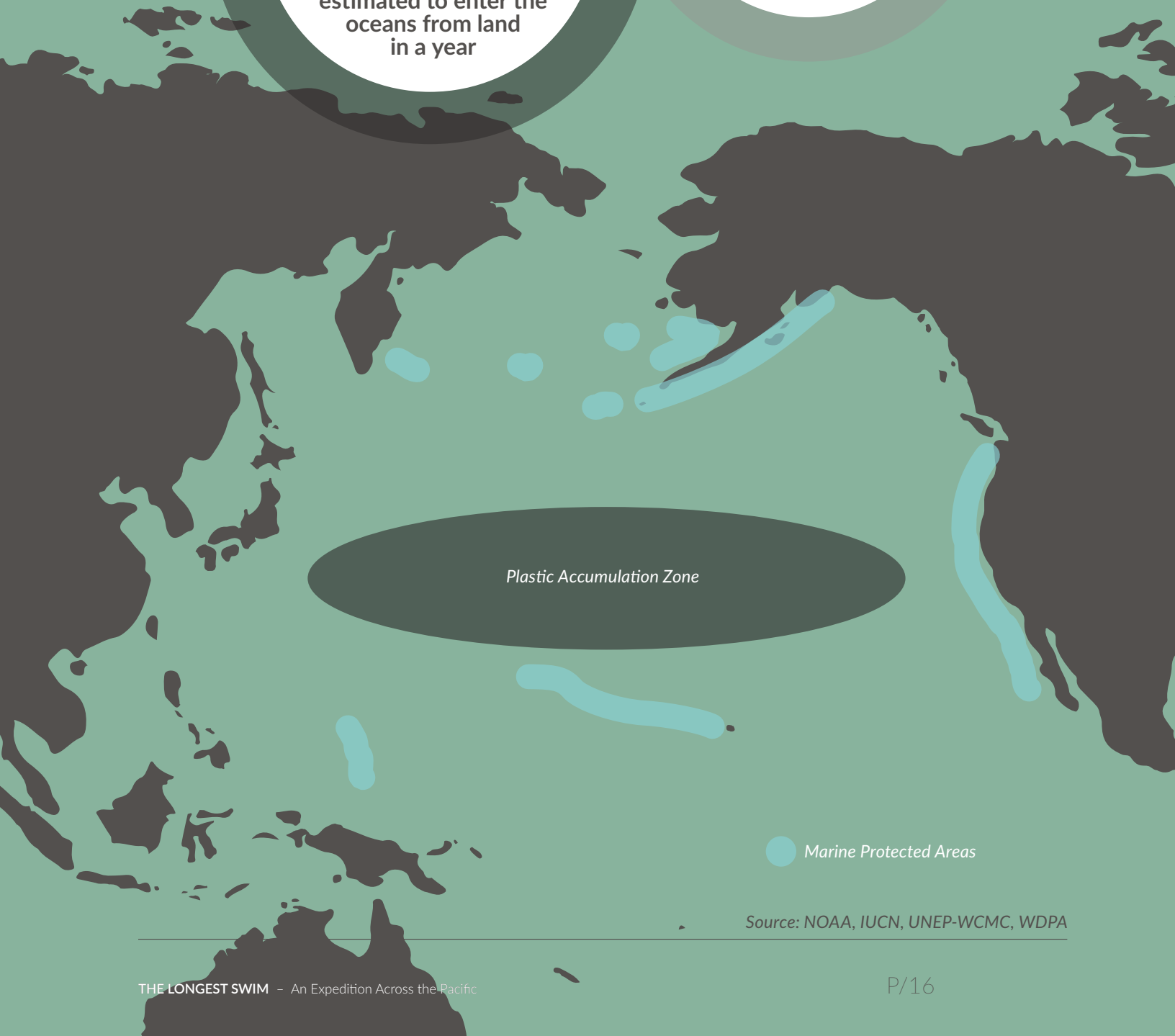
How does the Great Pacific Garbage Patch affect life in the ocean and on land?

8M

metric tons of plastic estimated to enter the oceans from land in a year

up to 1M

microplastic pieces / km² in the Eastern North Pacific



Source: NOAA, IUCN, UNEP-WCMC, WDPA

RADIATION FROM FUKUSHIMA

RadBand
on Ben's leg to collect radioactive cesium during his swim

Scientists estimate that most of the contaminants released from Japan's Fukushima Dai-ichi Nuclear Power Plant in 2011 wound up in the ocean, where they were diluted and transported westward. Ben will follow a similar track during his swim so, thanks to a wearable "RadBand" sampling device and conventional water sampling, he and the crew will collect data on how far and how fast these contaminants are moving, as well as their concentration across the Pacific Ocean.

HIGH DEFINITION WATER DATA

Every day of the cruise, the crew will use the i-SAMI Ocean pH Sensor prototype and a conductivity, temperature, and depth (CTD) device to collect data on the properties of the Pacific Ocean. This provides essential environmental measurements for several of the swim's projects and also helps researchers investigating the effects of ocean acidification, a result of climate change that is harmful to coral reefs and other marine life. The crew will also evaluate water quality at key points during the swim using a novel light-cycling technology provided by Assure Controls.

Could a Giant Phytoplankton influence nutrient availability at the ocean's surface?

GIANT PHYTO-PLANKTON

Half of the world's oxygen comes from primary producers living in the ocean, but sometimes essential nutrients can be depleted in the upper layers where photosynthesis occurs. Some giants in the phytoplankton world may avoid this problem by migrating to deeper water to harvest these nutrients, then rise back up for photosynthesis. Ben and the crew will record any sightings they make of this phytoplankton, as well as take samples. Learning how this species acquires nutrients can help scientists understand large-scale nutrient cycling in our oceans, as well as the future impacts of global warming.

How does extreme exercise affect the bacteria in and on our bodies?

MICRO-BIOME

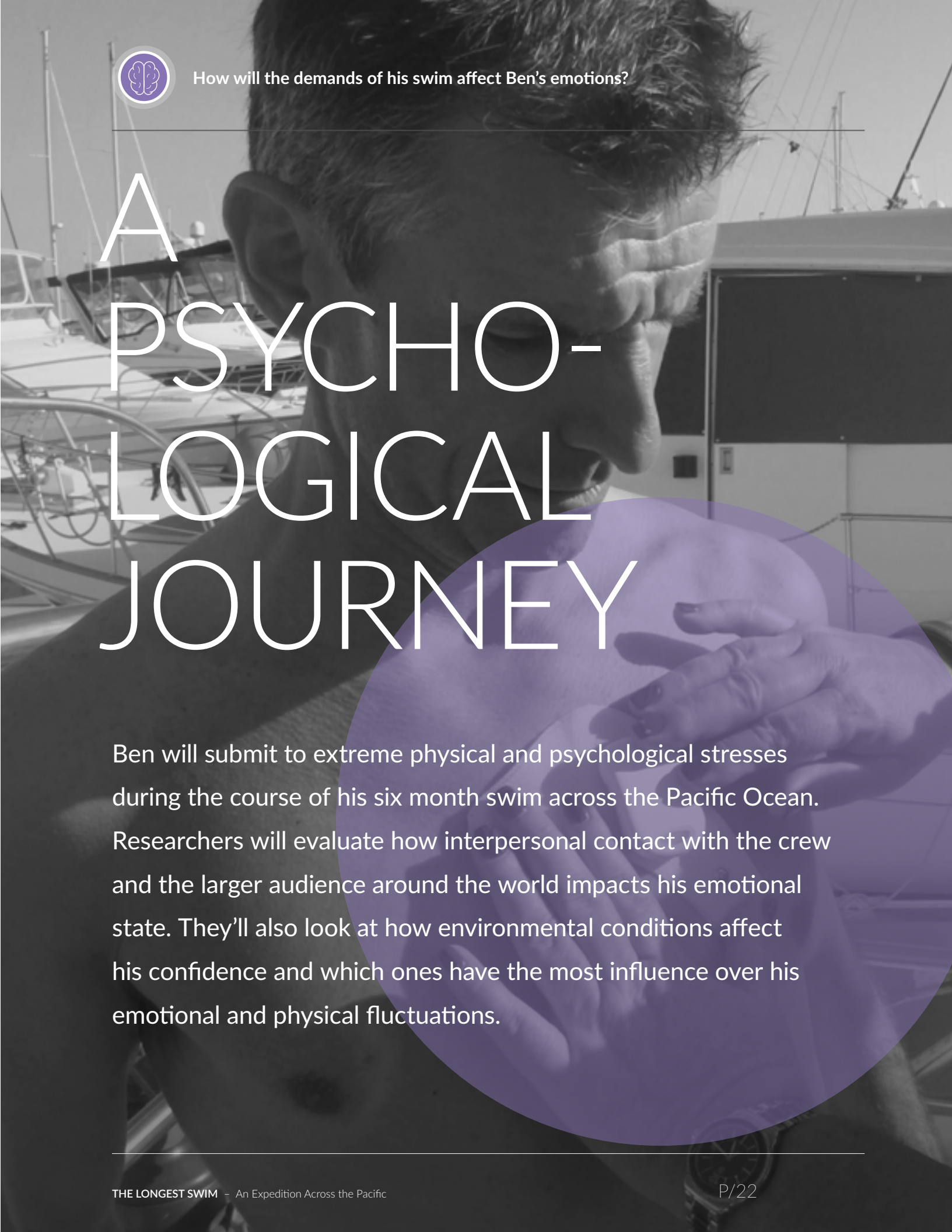
Samples from Ben's gut will be used to help determine what kind of changes occur in the digestive system of extreme athletes during exercise.

Swabs will be taken from the surface of Ben's skin after a day of swimming, to provide clues to how his microflora interacts with marine bacteria.

CHALLENGING THE HEART

NASA's
remote guidance echocardiography

Using the same remote guidance echocardiography NASA uses to monitor astronauts on the International Space Station, the crew will help doctors in Dallas, Texas keep track of any changes to Ben's heart during his six month swim. Researchers will use this data to explore what impact extreme exercise has on the heart, and determine if there's a limit to how much exercise the human heart can handle.



How will the demands of his swim affect Ben's emotions?

A PSYCHO-LOGICAL JOURNEY

Ben will submit to extreme physical and psychological stresses during the course of his six month swim across the Pacific Ocean. Researchers will evaluate how interpersonal contact with the crew and the larger audience around the world impacts his emotional state. They'll also look at how environmental conditions affect his confidence and which ones have the most influence over his emotional and physical fluctuations.

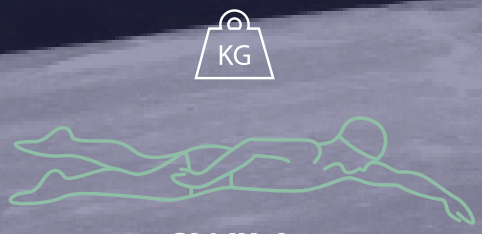
THE GRAVITY EFFECT

During his swim Ben will be immersed in water for eight hours a day, which will eliminate two gravitational gradients: head-to-foot and front-to-back. This creates a unique analog to long-term space travel that is better than land-bound research protocols. Researchers want to know if the non-weight bearing exercise Ben will be doing can help protect against the loss of bone density in low-gravity conditions, as well as how his posture out of the water can help prevent or reduce vision loss due to increased eye pressure.

How does low gravity affect bones and vision?

"One of the unique aspects of Ben's swim, above and beyond its importance for studying the effects of extraordinary endurance activity on the heart, is that it provides a very good model for long term spaceflight."

– DR. BENJAMIN LEVINE, Institute for Exercise and Environmental Medicine



SWIM

While in the water, not only will the upward force of Ben's buoyancy counteract gravity, but his orientation eliminates its head-to-foot gradient.

SPACE

During space travel, gravitational force is greatly reduced or eliminated, which can have negative effects on an astronaut's bones and eyes. This reduced gravitational force can be simulated and studied during Ben's six month swim.

EARTH

Here on earth, gravity acts on you normally, with a downward force from head-to-foot.

FOLLOW THE SWIM

Even though they'll be in the middle of the ocean, Ben and the crew won't be alone. Equipped with an advanced satellite communication system, the team will invite its audience to stay connected and be a part of the journey– every step of the way.

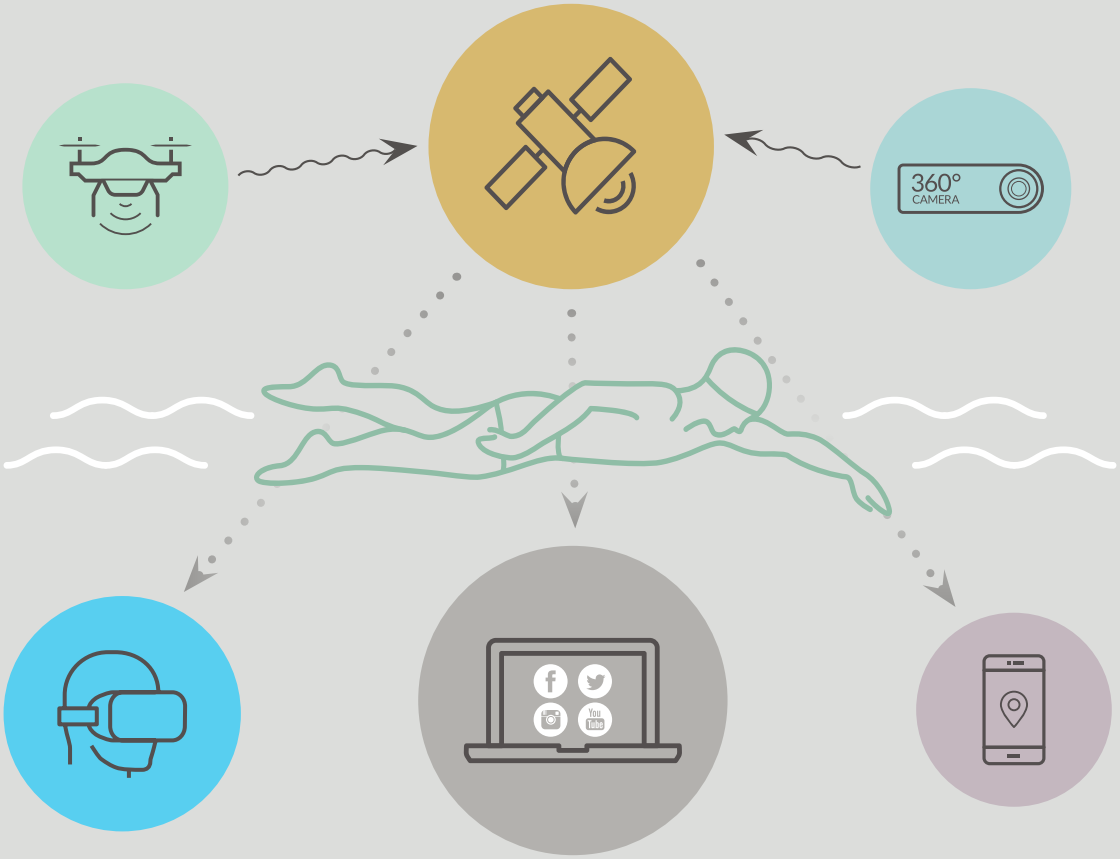
REAL-TIME TRACKING
Thanks to GPS and activity trackers, the audience will be able to follow Ben's progress each day on an interactive map, as well as his performance and the weather conditions.

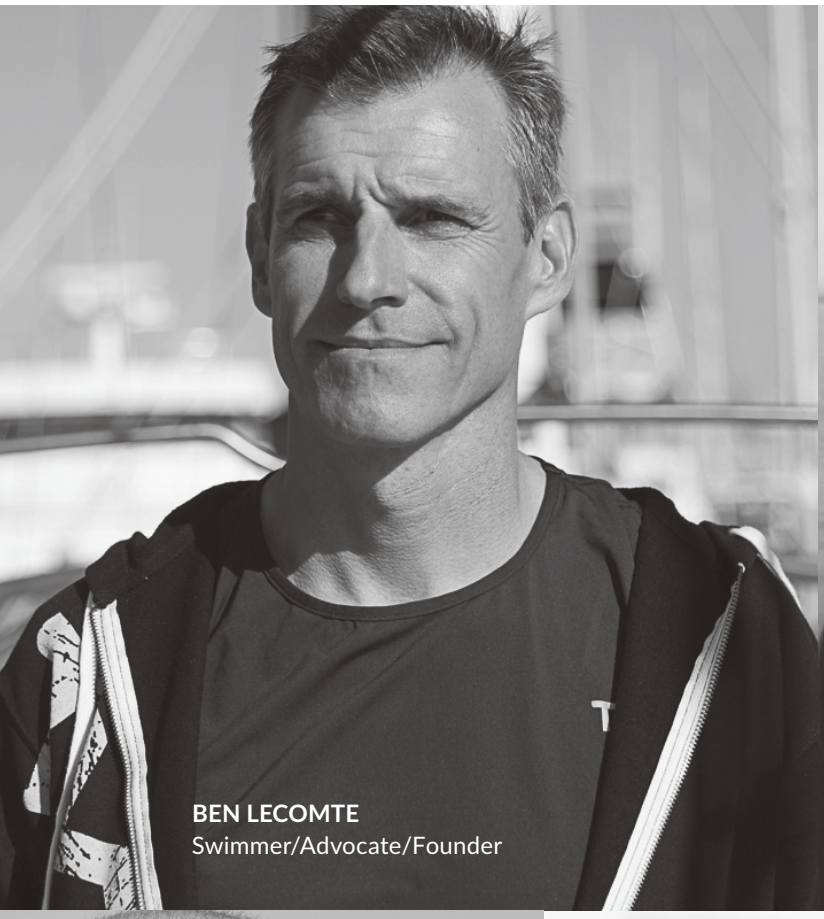
VIDEOS
With a CCTV system recording 24/7, drones, action cameras and 360° cameras, the crew is fully-equipped for constant updates with regular interviews, scenes from the boat, special milestone coverage... And when it's all over, the team will release an epic documentary and a GoPro story about their journey.

JOIN THE NAVSTATION
On the official website, mobile app, and social media, the followers will have daily updates such as:

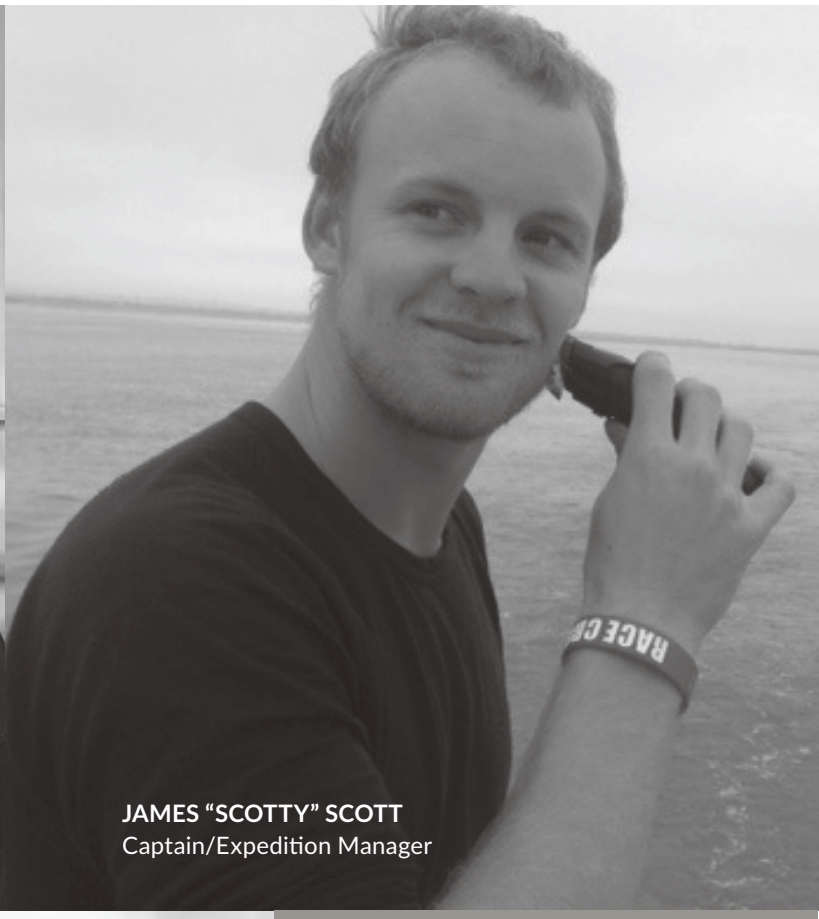
- Skipper Reports
- Logbook articles
- Video shorts
- Interviews and Q&A live sessions with Ben and the crew

The audience will be able to send comments and questions to Ben and the crew directly via the mobile app and social media. It's the next best thing to being there!





BEN LECOMTE
Swimmer/Advocate/Founder



JAMES "SCOTTY" SCOTT
Captain/Expedition Manager

PAUL LECOMTE
Project Manager

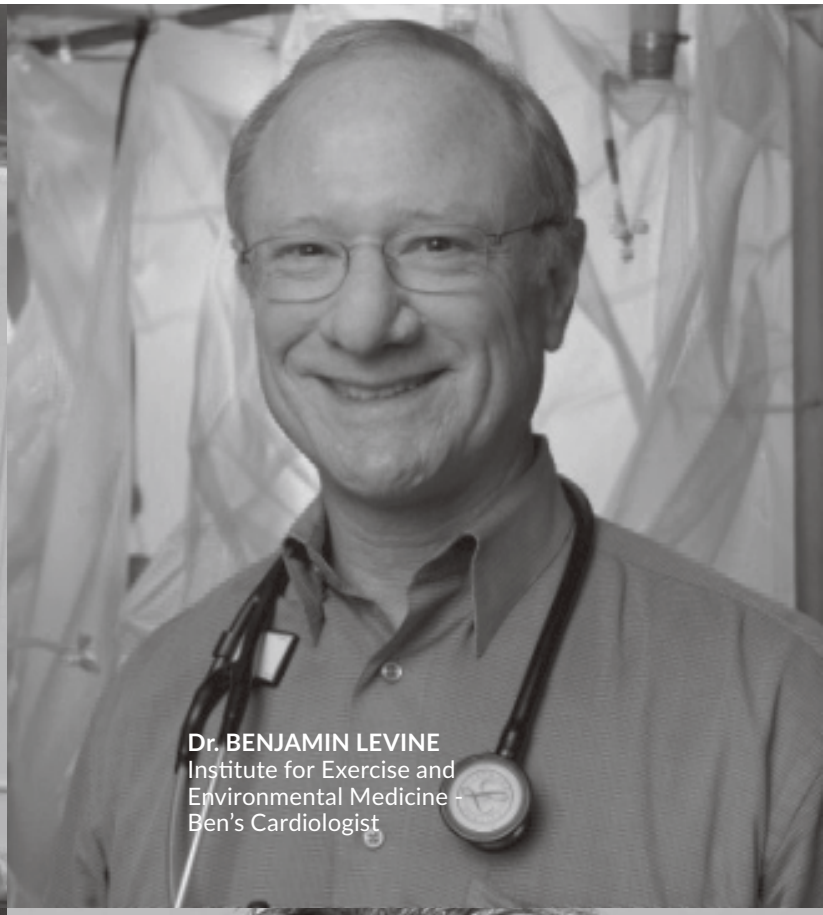
GINO GÖNENÇ KALGANOĞLU
Filmmaker

+3

crew members

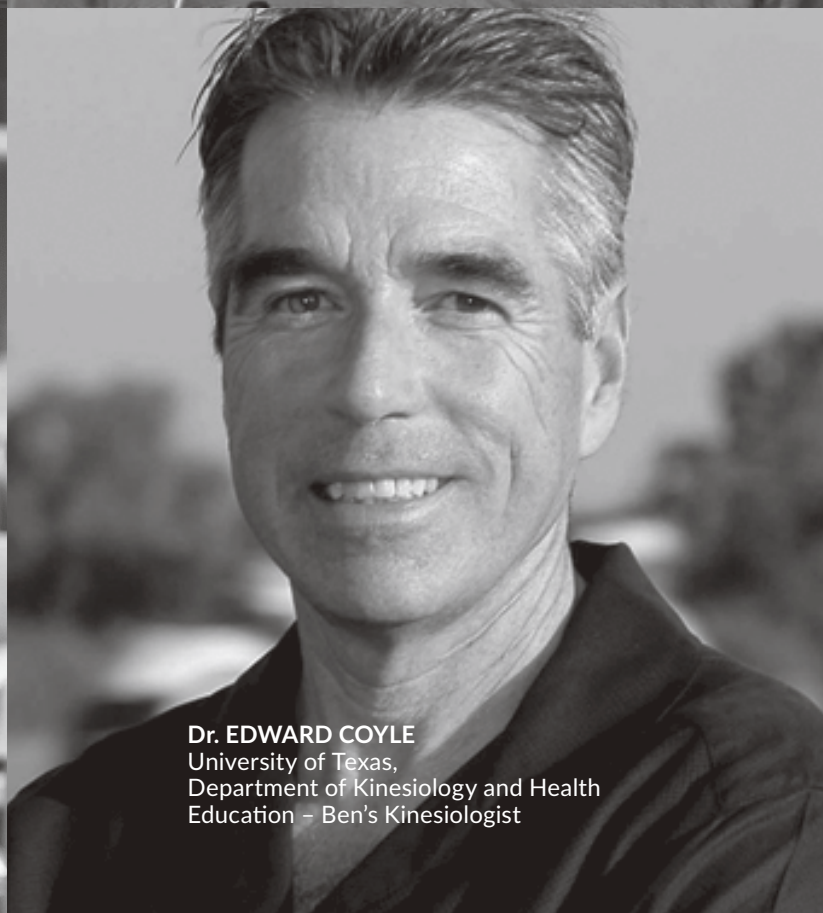
will be hired to assist the team

Dr. SPIKE BRIGGS
MSOS-
Chief Medical Advisor



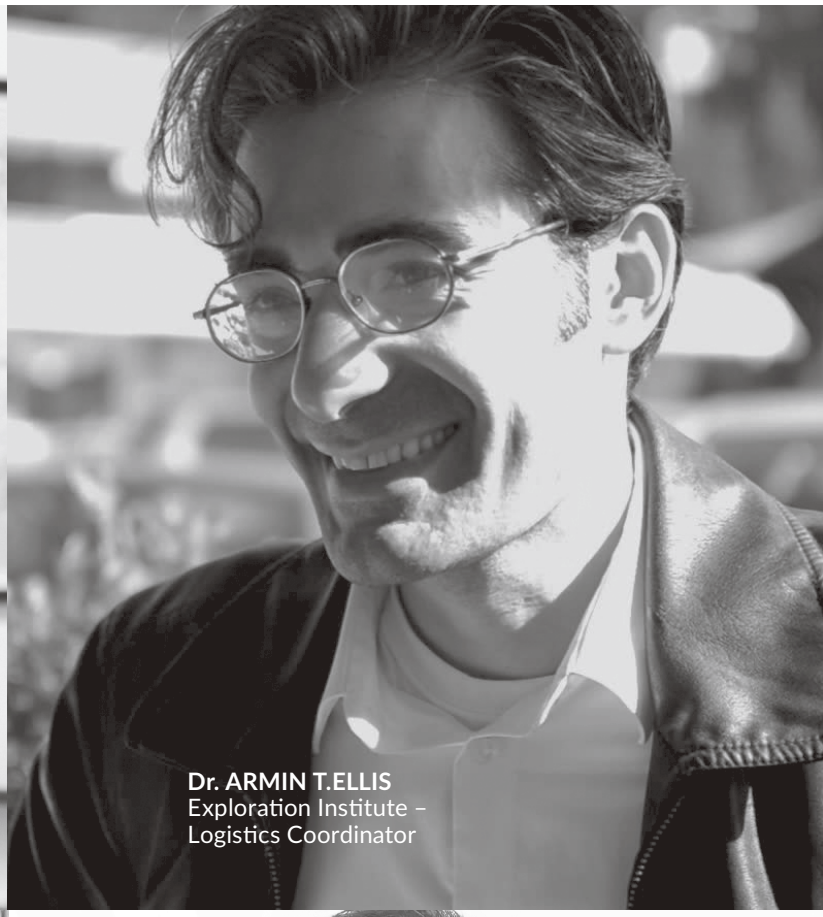
Dr. BENJAMIN LEVINE
Institute for Exercise and
Environmental Medicine -
Ben's Cardiologist

Dr. MOLLY S. BRAY
University of Texas,
Department of Nutritional Science –
Ben's Nutritionist



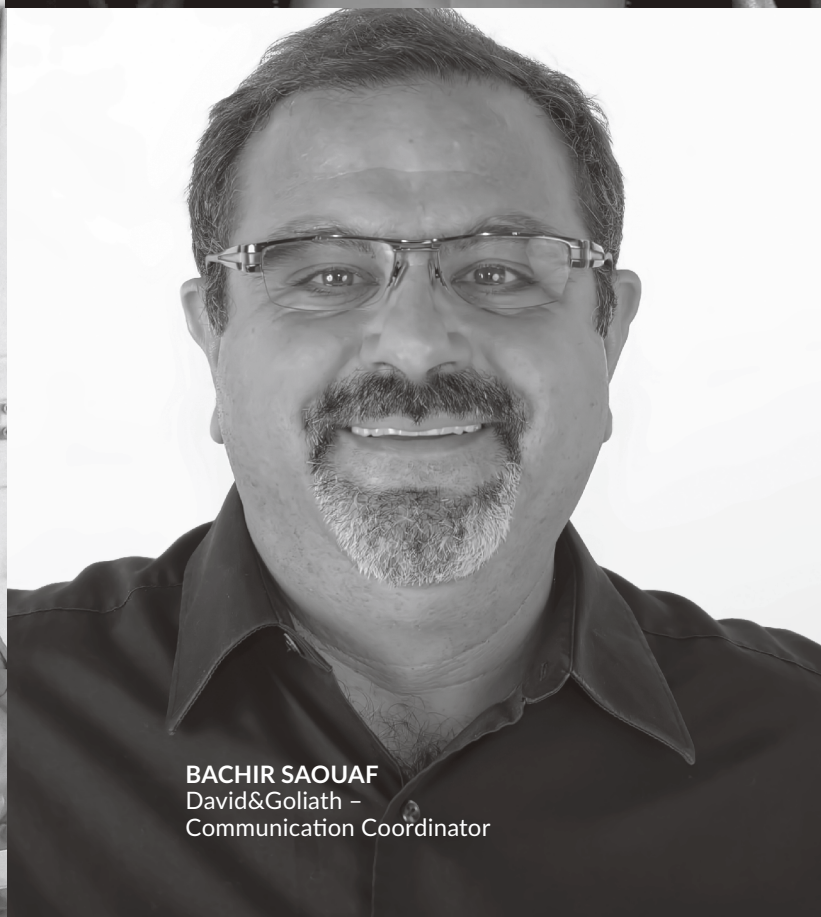
Dr. EDWARD COYLE
University of Texas,
Department of Kinesiology and Health
Education – Ben's Kinesiologist

JEREMY DAVIS
Weather Routing Inc. –
Senior Meteorologist Advisor



Dr. ARMIN T.ELLIS
Exploration Institute –
Logistics Coordinator

JACQUELIN HIPES
Science Program Coordinator



BACHIR SAOUAF
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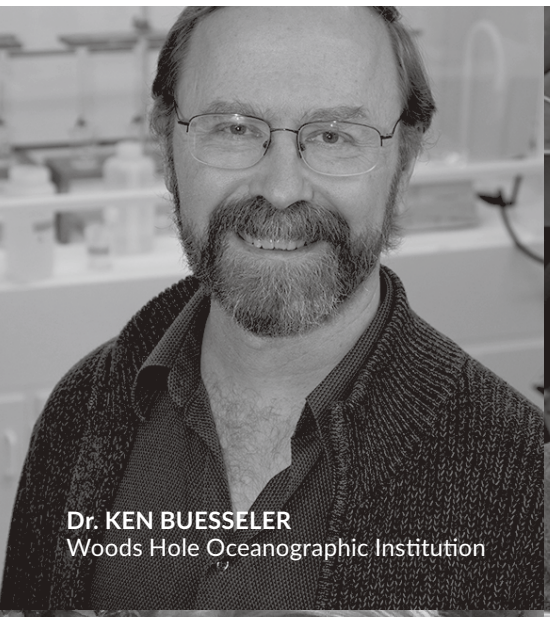
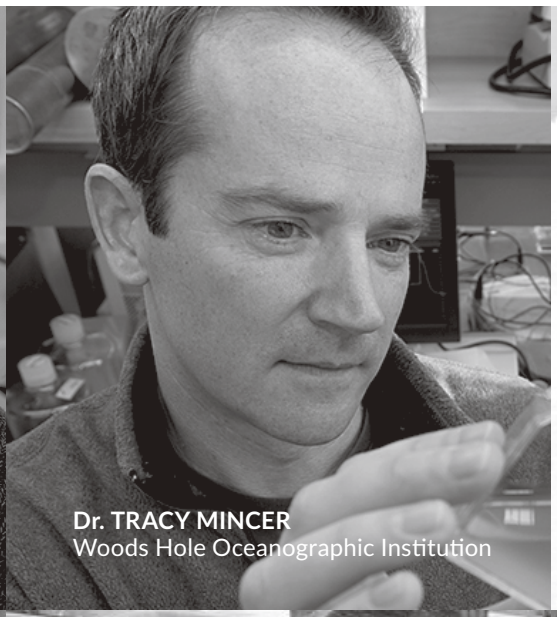
Communication Coordinator



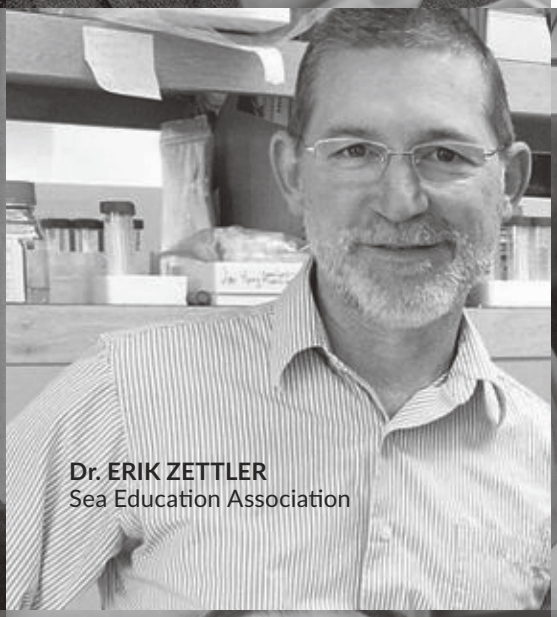
Dr. KEN BUESSELER
Woods Hole Oceanographic Institution



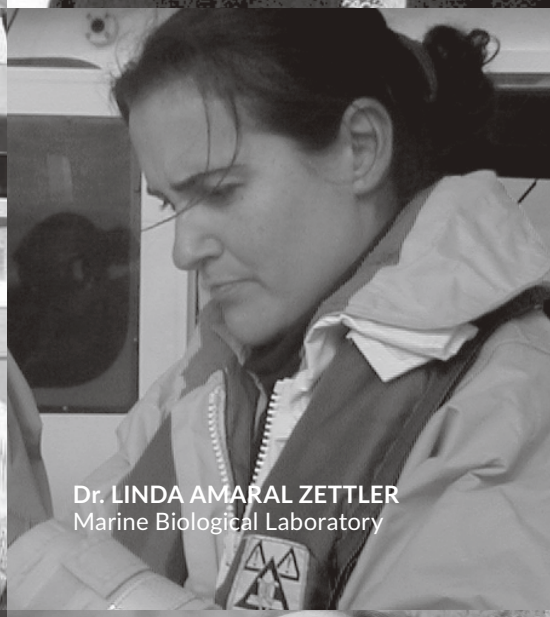
Dr. TRACY MINCER
Woods Hole Oceanographic Institution

Dr. MICHAEL DEGRANPRE
University of Montana

Dr. KARA LAVENDER LAW
Sea Education Association

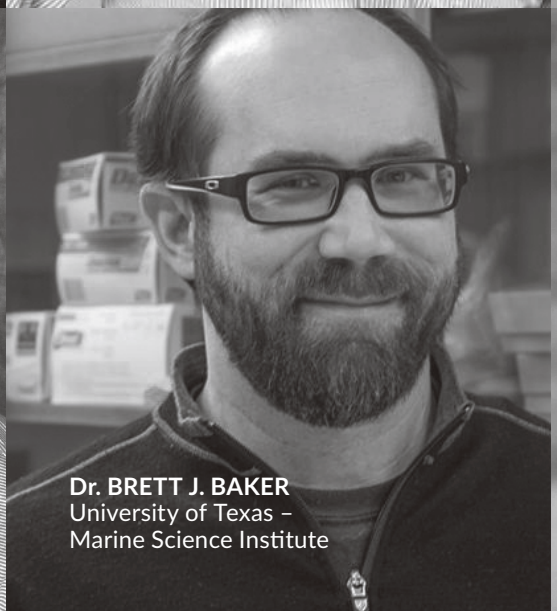


Dr. ERIK ZETTLER
Sea Education Association

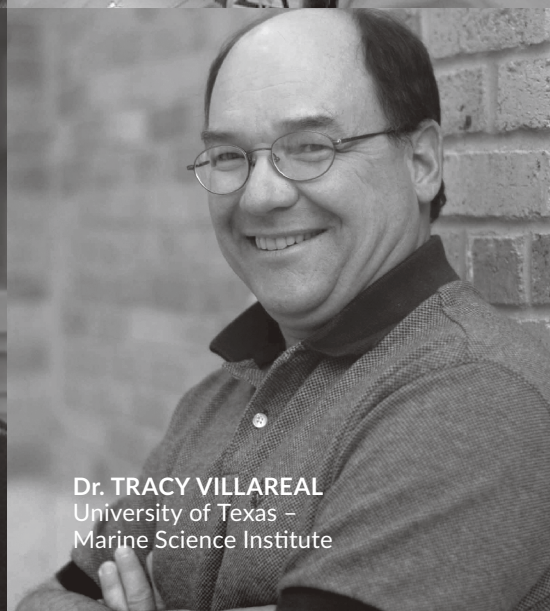


Dr. LINDA AMARAL ZETTLER
Marine Biological Laboratory

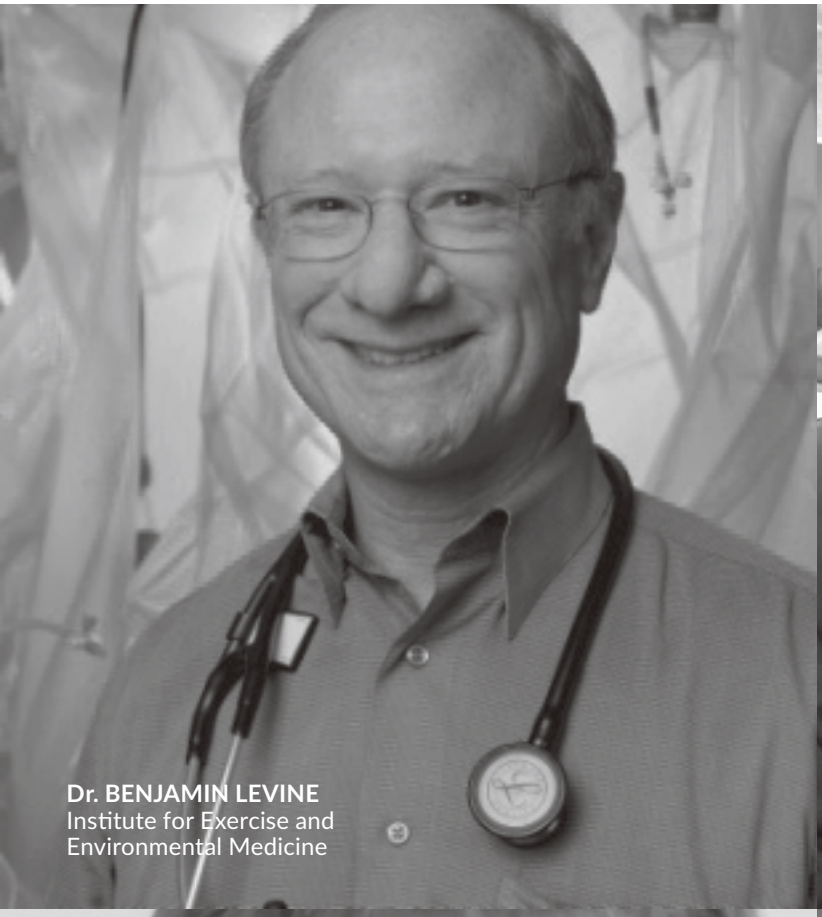
Dr. GERALD CHRIS SHANK
University of Texas –
Marine Science Institute



Dr. BRETT J. BAKER
University of Texas –
Marine Science Institute



Dr. TRACY VILLAREAL
University of Texas –
Marine Science Institute



Dr. BENJAMIN LEVINE
Institute for Exercise and Environmental Medicine

Dr. ADRIAN LEBLANC
Universities Space Research Association

Dr. JACK A. GILBERT
Argonne National Laboratory

Dr. EDUARDO MARQUES
INESC TEC

MEDIA COVERAGE

MORE THAN 60 INTERNATIONAL MEDIA OUTLETS HAVE BEEN FOLLOWING THE PREPARATIONS

Visit The Longest Swim website to access to the press review.


THE
LONGEST
SWIM
PHOTO GALLERY

THE LONGEST SWIM – Gallery (cont'd)

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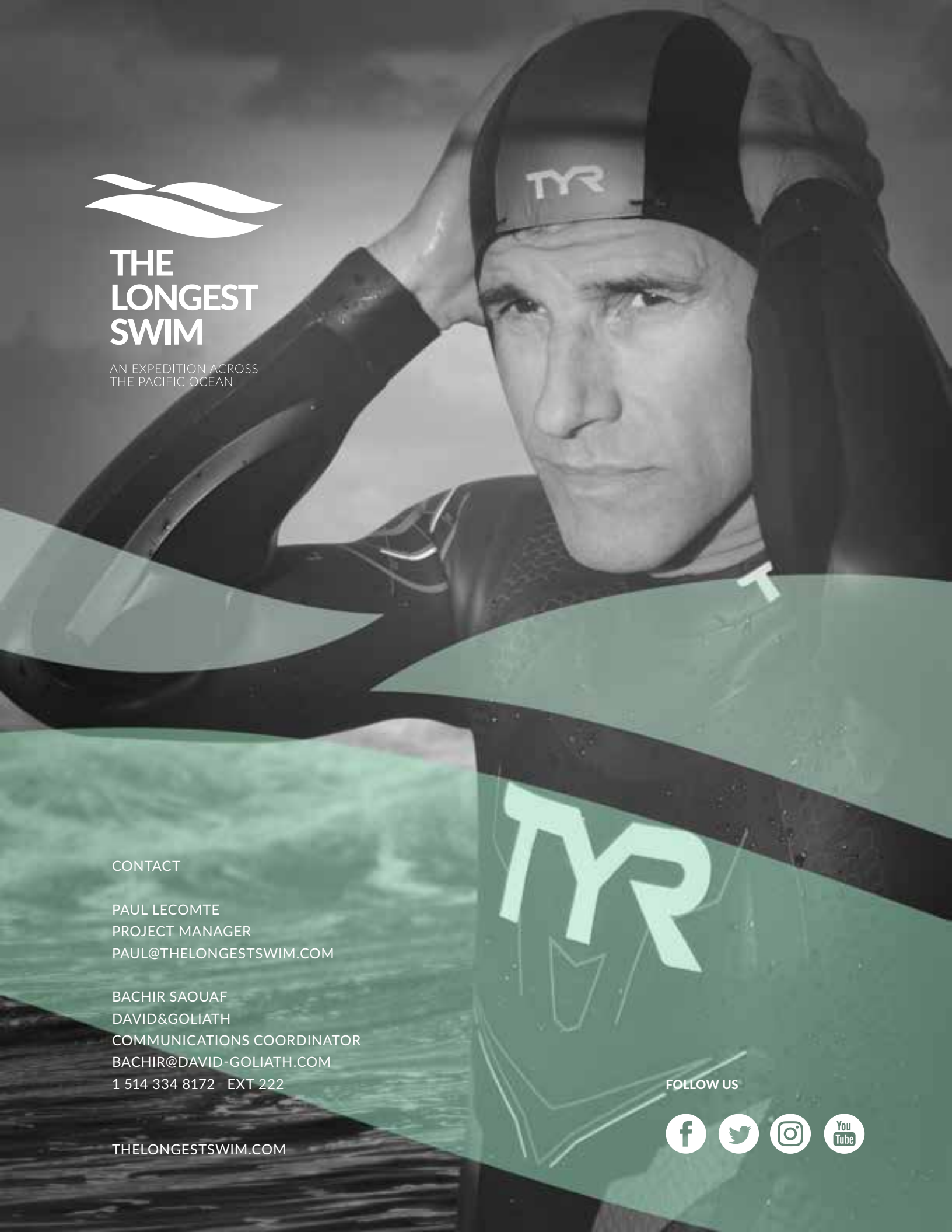

THE LONGEST SWIM

AN EXPEDITION ACROSS
THE PACIFIC OCEAN

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