



The Explorers Club Northern California Chapter MAY 2021

Also available at our web site: <http://www.explorersnorca.org>

**ANNUAL MEETING AND PRESENTATION
FRIDAY, 21 MAY 2021, 6:30 PM
GATHER BY ZOOM INVITATION**

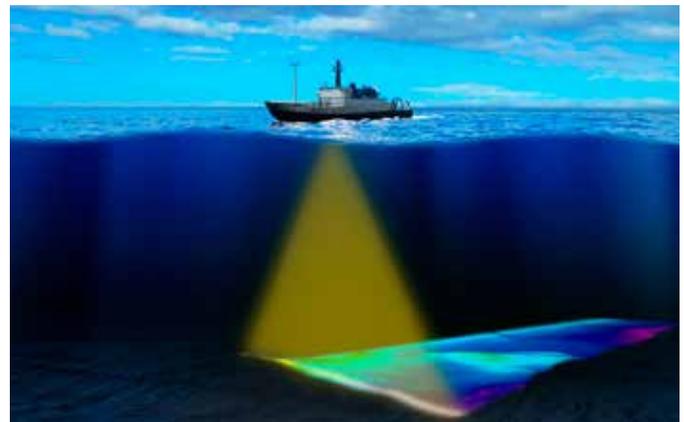
Deep-sea Exploration

Recent discoveries and the continued search for Amelia Earhart

Allison Fundis FN'20

Allison Fundis leads a team of talented scientists, engineers, educators, and communicators to conduct annual missions aboard the exploration vessel Nautilus. Her talk will cover recent discoveries, new technologies that are changing the deep-sea exploration field, mounting a recent technologically advanced search for Amelia Earhart's plane, and why it is so important to engage youth and the public in ocean exploration and research.

Fundis has spent much of the last 15 years at the bottom of the ocean, exploring and studying underwater volcanoes, unique ecosystems, and underwater sites of historical and cultural significance. Her work has taken her to remote stretches of the world, where she has led or participated in more than 50 expeditions at sea.



Allison Fundis MS is the Chief Operating Officer for the Ocean Exploration Trust where she leads the development and management of the organization's ocean exploration and outreach activities and teams. She pulls from diverse background in scientific, education, and extensive sea-going experience to engage the science community, students, and the public in telepresence-enabled expeditions aboard the Trust's exploration vessel Nautilus.

Since 2006, she has led or participated in 50+ expeditions utilizing a variety of deep-sea technologies and submersibles in the Eastern, North, and South Pacific Ocean, Gulf of Mexico, Gulf of California, Caribbean Sea, and the Mediterranean Sea.

EDITOR'S NOTE: For a great presentation of modern deep-sea exploration, check out the link below:
<http://nautiluslive.org/>

**ANNUAL CHAPTER MEETING AND ELECTION OF OFFICERS
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THINKING OUTSIDE THE BOX

FARM-FROM-A-BOX

Brandi DeCarli MN'21 and Scott Thompson MN;21

The program for the March 26, 2021 Northern California Chapter meeting was presented by Brandi DeCarli and Scott Thompson, one of the Explorers 50 teams, a recognition program of The Explorers Club. What began as a spin-off of a UN program has evolved into a highly effective, relatively inexpensive system with applications throughout the world. The speakers met when they were both about to begin working for UN-HABITAT to construct the Youth Empowerment Center in Kisumu, Kenya, Africa .

From the background of rapidly degraded resources and drought-related crop loss due to climate change, the importance of the local farm for food production had become clear but access to the advances in agricultural technology was not available. So they came up with the concept of a completely self-contained off-grid structure system to support local agriculture.

tions as well as internet connectivity with the support team. Farm-from-a-Box is a non-profit NGO established in 2009 to provide this integrated, high-tech operational system to permit previously untrained people to apply the latest in agriculture methods for a community that wishes to grow their own food for survival.

Pre-Installed, Turnkey Unit for Rapid Deployment



- 1 Independent Solar Power
- 2 Lithium-ion Energy Storage
- 3 Wi-Fi Connectivity
- 4 Water-efficient Drip Irrigation
- 5 Solar-powered Pumping
- 6 Internal Cold Storage

This system is modular and highly scalable, and includes all hardware and software to grow any crop. A giant smart farm complete with irrigation and cold storage.

Complete Off-Grid Infrastructure for Local Agriculture



- ✓ Grows any crop.
- ✓ Modular & Highly Scalable.
- ✓ All-in-one Hardware & Software Solution.

With independent solar power, lithium-ion energy storage, Wi-Fi connectivity, drip irrigation with solar powered pumping, lots of system monitors and internal cold storage the system enables connectivity with local market condi-

Solar Irrigation for any crop

- ✓ Support growth of high-value Specialty Crops
- ✓ Increase & stabilize production of Staple Crops
- ✓ Grow multiple crops for both community consumption & commercial production

This story began in Kenya, in 2009 when the speakers set up a used container as an educational situation within the UN-HABITAT health and sports program. They wondered "why not extend the project to a system to control the growth of crops" to enable communities around the world to grow nutritious, high-quality crops with clean technology. So they established the Farm-From-A-Box project and revolutionized local community food production.



The first installation was the test site in Kenya.

Connecting with various vendors around the world located the best systems who became supportive partners. Those partners are still with them today and includes Grundfos, a Danish pump company. The system was very hardware oriented and simple, but it worked within the Kenya school situation. Profits went to support local civic benefit programs.

A second system was set up in Sonoma and integrated into the local school district.

(continued on page 3.)

(Review of Farm-in-a-box continued from page 2.)

A third installation was planned for the rift valley in Ethiopia but with civic unrest there it was diverted to an area in West Sacramento that is settled with refugees from Bhutan and Nepal who are happy to be involved as farmers. Another system is in development for Pittsburg.



All operational and technical support is provided by the nonprofit to back up the local operators. The operating systems are preprogrammed and the end users are trained and supported remotely by internet. The nonprofit stays in touch via the internet and has access to all the data from the monitoring systems to permit advise for unforeseen situations. MASTERCARD supports the local operator to monitor market availability as the crop ripens to meet local demand. Cold storage is a vital part of the system since crops from different farms usually peak at the same time, resulting in a drop in prices and loss of value, especially if you don't have cold storage.

“How this project came about

In the words of the speakers:

“When the idea struck in 2009. Scott had just started a nonprofit working with the UN- HABITAT to construct a youth empowerment center in Kisumu, Kenya. Brandi had just returned from working in South Africa. When we met, it was clear that we shared a lifelong passion to help empower people

in vulnerable parts of the world. Three days later, we went to work together on the Kisumu Youth Empowerment Center.

“ When we first set out, our intention was to create a mobile infrastructure that could provide people with the tools they needed to grow their own nutritious food. Over time, that idea has grown— we now see Farm from a Box as a tool that can transform local food production and make our global food system sustainable, equitable, and locally-based.

“ Rather than directing advances in technology towards furthering an extractive industry, we uplift local and regional food production with a regenerative modular system designed to increase production sustainability and efficiency. Instead of mass production, our mission is to empower production by the masses. Our goal is to revolutionize local food production and enable communities around the world to grow their own nutritious food with clean technology.

“ Farm from a Box is designed as a modular, plug and play infrastructure that provides independent solar power, water efficient drip irrigation, cold storage, connectivity, and a data platform that can optimize efficiencies and provide remote support. This technology can help us grow food more efficiently at the community level while conserving resources.

‘STATEMENT OF VISION FOR FARM-IN-A-BOX

Everyone should have access to healthy food produced in a way that benefits the land and regenerates life. We failed to meet the foundational need of food for almost 700 million people last year. This trajectory will have 840 million people chronically hungry by 2030. Local farms, the ecological gatekeepers of our future, are our greatest asset towards achieving zero hunger and average about two acres. Our goal is to revolutionize local food production and enable communities to grow their own nutritious food with clean technology.“

Brandi DeCarli, MN’21 and Scott Thompson, MN’21 have recently been recognized for their work by inclusion in The Explorers Club 50, recommended by Lee Langan MED’99

Anders Jepsen FN’03

Looking for a dive trip this summer? The Aquarium of the Bay is running some small research dive trips. The next one will be this June -- to the Golfo de Papagayo, June 13 - 22, 2021, focusing on shark research and conservation, hands-on training and experience in shark tagging and underwater shark visual monitoring. For more information visit: <https://www.aquariumofthebay.org/tickets/#activities>

POST COVID-19 CHAPTER FIELD TRIPS

- * **Chapter Annual Picnic:** Date and Time to be Announced (some time this Summer)
- * **Survival Field Medicine** with Dr. Paul Freitas: Date and Time to be Announced (hoping for early fall).
- * **Pinnacles National Park:** Early 2022, possible 2-day expedition.

For more information or suggestions, contact Jimmy Friedman MN’ 19 - sfaikido@gmail.com.

FROM THE CHAIR – the May edition

What a difference a year makes (and some effective vaccine)! I hope that some of the plans you were making for last year might be able to happen this year. I made an early morning foray into the City to see the Energy Observer (left and below). San Francisco was one of 101 ports-of-call for EO's 6-year, 50-country tour to test innovative energy linkages. The ship is a catamaran, literally decked out with solar panels; it uses wind, hydropower and the sun as energy sources and stores energy in both lithium-ion batteries and hydrogen cells.



We are very fortunate that the Bay Area seems to be a magnet for such ventures; they might not all start here, but most energy innovators consider SF to be a must-stop for their tour. A few years ago, I watched the Solar Impulse glide above the bay. Technology can be so inspiring.

Our meeting this week is an early start to the Club's World Oceans Week, with Alison Fundis, FN'20, talking about deep ocean exploration and her search for Amelia Earhart. Those who have been in the chapter for a while might remember that past Chair, Ron Reuther, FN'74 was an avid Earhart researcher. It's nice to have that passion continue with a newer member.

We will also hold our Annual Meeting on May 21st, for the election of officers for the 2021 - 2023 term. The people who have announced an interest in running for office are Tom Dolan, MN'14, (Chair), Anna Freitas, MN'17, (Treasurer), and Joyce Chang MN'17, (Secretary). No one has yet indicated interest in the Vice-Chair position. Members can make nominations at the meeting, but assuming no one steps up to be Vice-Chair, we are developing a few committees to help with many of the officer activities, such as suggesting and contacting speakers, ideas for meeting space, people to greet folks when they come to each meeting, and people to help writing materials for the newsletter. If you want to volunteer to help with any of this except the newsletter, talk with Tom Dolan, MN'14; for the newsletter, talk with Anders Jepsen, FN'03.



World Oceans Day is June 8th, but for many years now, HQ has celebrated World Oceans WEEK, and will kick-off the week-long recognition on June 6th. Also on June 6th, we'll have our own celebration of the oceans with an evening presentation about whales by world-famous big animal photographer, Amos Nachoum, MN'04.

Have a safe Memorial Day and put June 6th on your calendar for the NorCA Oceans Week kick-off with Amos. Explore safely and bring back good stories,

Lesley

Lesley Ewing, FN'93

ANNUAL CHAPTER MEETING AND ELECTION OF OFFICERS FRIDAY 21 MAY 2021, 6:30 PM

Election of the Chapter officers for the 2021 - 2023 period will take place at the Annual Meeting which is scheduled for 6:30 PM Friday, 23 May 2021. A proposed slate will be presented by the Board of Directors, and nominations from the floor will be permitted. The by-laws specify that officers of the Chapter must be Members of The Explorers Club. Some officers have expressed interest in the available positions -- Anna Freitas, Chapter Treasurer and Joyce Chang, Board Secretary, have both expressed interest in continuing in their positions; Lesley Ewing has expressed interest in stepping down as Chair; and, Tom Dolan has expressed interest in transitioning from Vice-Chair to Chair. All positions will be open for election and if you would like to learn more about any of the officer positions, feel free to contact Lesley Ewing, or any of the Directors, all of whom are identified in this newsletter and in the roster. While it is useful to determine interest in these positions prior to the Annual Meeting, nominations from the floor will be permitted.

May 2021 Issue
Northern California Chapter
Established 1973



CHAPTER OFFICERS & TEAM

Chair: Lesley Ewing FN'93
chair@explorersnorca.org
510-459-0858
Vice Chair: Tom Dolan MN'14
tdolan@outdoorstorms.com
Secretary: Joyce Chang MN'17
Treasurer: Anna Freitas MN'17
Treasurer@explorersnorca.org
Webmaster: Mike Diggles FN'92
Newsletter: Anders Jepsen FN'03
ajviking@aol.com
925-322-8893

2021

May 21 ANNUAL MEETING
May 21 Alison Fundis
Deep Sea Diving. Zoom

2019

September 27 Robert Anderson
Material Science & Forensic Engineering Creola
October 25. Michelle Westmorland
Headhunters Revisited. Dolan
November 22 Dr. Barbara Bekins
Windows into Subduction Dolan
December 15 Holiday Party
. Home of Rick and Aldeana Saber

2020

January 24 Dr. Jo Anne Van Tilburg
Easter Island Dolan
February 28 Dr. Robert Griffith
Endangered Rhinos Dolan
March 27. Cheryl Leonard
Found Objects and Music RESCHEDULED
April 24 Dr. Paul Auerbach
Enviromedics RESCHEDULED
May 24 Dr. Sandra Cook
Foreign Devils on Silk Rd RESCHEDULED
May 22, 9:30 AM: Roz Savage
The Gift of Solitude ZOOM Presentation
May 29, 7:30 PM ZOOM ANNUAL MEETING
June 5, 8 PM. Eliot Jessup
24 hr Grand Canyon Rim-to-Rim. Zoom
September 20 Explorers Club Chapter VP
Intro to Northern California Chapter Zoom
September 25 Liz Taylor and Sylvia Earle
Mission Blue- Hope Spots. Zoom
October 30 Mimi George
Vaka Taumako Project Zoom
November 20 Cheryl Leonard
Found Objects and Music. Zoom
December 13. Holiday Party
. Zoom
January 22 Diana Pickworth & John Wilken
Explorations (2) Zoom
February 26 Kent Lightfoot
Fires & indiginous land use practices Zoom
March 26 Deana Weibel
Motivations for robotic space exploration Zoom
April 23 Brandi DiCarli & Scott Thompson
Farms from a box Zoom

CHAPTER DIRECTORS

Directors (Past Chairs)

Joan Boothe MN'07
Lesley Ewing FN'93
Lee Langan FN'99
Anders Jepsen FN'03

Alan Nichols FN'84
Bob Schmieder FE'86
Rick Saber MN'01
Stephen Smith FN'96

Elected Directors

Sandra Cook MN'16
Paul Freitas MN'10
Jimmy Friedman MN'19
Kimberly Chambers MN'16

Chapter Email Addresses and Chapter Phone Number

chair@explorersnorca.org
vicechair@explorersnorca.org

treasurer@explorersnorca.org
secretary@explorersnorca.org

webmaster@explorersnorca.org
fieldtrips@explorersnorca.org

MEETING VIDEOS

Our Chapter tries to record all of our dinner meetings. Videos of recent speakers' presentations are available on the Chapter Website.

DO YOU WANT TO GET INVOLVED IN THE INNER WORKINGS OF THE CHAPTER?

There are lots of tasks that come up during the course of a year: speakers, meetings, field trips, membership, newsletter, etc. A good place to get started is by volunteering to serve on a committee. Talk to any of the Chapter Officers or Directors for more information.

NORTHERN CALIFORNIA CHAPTER 2021 DUES

The Northern California Chapter dues are paid for the calendar year. Dues are now due for 2021. New members who signed up in the 4th quarter of last year are covered for this year.

Sirdars have annual dues of \$50.00. In addition to their national dues, Explorer Club Members have optional dues of \$25.00. Dues can be paid by check payable to The Northern California Chapter of The Explorer's Club or by paypal. If you use paypal, there will be a \$2.00 fee for the service. If you pay by check, please mail your check to Anna Freitas, 161 Camino Posada, Walnut Creek, CA 94595.

Please note that Northern California Chapter dues can be tax-deductible depending on your individual tax situation.

ECAD 2021

HQ is tentatively thinking about holding an in-person, outdoor event the weekend of October 22nd, somewhere in the New York area. Don't book your plane tickets yet, but we are scheduling our October meeting for the 15th to avoid conflicts, just in case the Club-wide gathering does occur.