

= Seacology =

Seacology is a nonprofit 501 (c) (3) charitable organization headquartered in Berkeley , California , that works to preserve island ecosystems and cultures around the world . Founded in 1991 , it began with the work of ethnobotanist Paul Alan Cox , who researched tropical plants and their medicinal value in the village of Falealupo in Samoa during the mid @-@ 1980s . When the villagers were pressured into selling logging rights to their rainforest in 1988 to build a new school , Cox and his wife offered to help secure funds for the new school in return for an agreement with the villagers to protect their forest . With the help of his friends and family , Cox secured the funds within six months , later earning him and the village chief , Fuiono Senio , the Goldman Environmental Prize for their efforts . Word spread throughout the islands , and with increasing demand for similar projects , Cox , along with Bill Marré and Ken Murdock , decided to form Seacology and expand their work internationally . For the first few years , the organization operated on a volunteer basis . Duane Silverstein became the first employee in 1999 , and headquarters were relocated to Berkeley , not far from his residence .

Because of the high risk of extinction for island fauna and the decline in coral reef ecosystems , Seacology 's primary focus is projects in which villagers sign contracts under which they agree to help protect either terrestrial or marine habitat for a specified time in return for new buildings or services . The operations are low @-@ cost , averaging around US \$ 20 @,@ 000 to \$ 25 @,@ 000 . Construction is done with local labor and without the use of machinery . Seacology selects its projects by reviewing the recommendations of its field representatives and its scientific advisory board .

By mid @-@ 2016 , Seacology had initiated more than 275 projects globally , and helped preserve 753 @,@ 456 acres (3 @,@ 049 km² ; 1 @,@ 177 sq mi) of marine habitat and 615 @,@ 745 acres (2 @,@ 492 km² ; 962 @.@ 1 sq mi) of terrestrial habitat . At the same time , they had helped construct 104 new facilities and provided 36 programs , which included educational materials , vital medical services , and environmental training . In addition to helping local people on islands like Fiji , Kendhoo , and many others , their projects have helped protect mangrove forests , sea turtles , marine mammals called dugongs , and one of the rarest primates in the world : the Hainan black crested gibbon . Seacology also awards an annual Seacology Prize to indigenous islanders for their efforts in conservation and cultural preservation . The organization helps support island communities by fostering ecotourism , and has helped raise emergency funds following destructive tsunamis . Its budget is modest , and it does not compensate its board members . It has won awards from Yahoo ! and Travel + Leisure magazine , and has been featured in the music video " What About Now " by the American rock band Daughtry .

= = History = =

Seacology was founded in 1991 by ethnobotanist Paul Alan Cox in Hawaii using prize money and consulting fees resulting from his efforts to preserve 30 @,@ 000 acres (120 km² ; 47 sq mi) of rainforest outside the village of Falealupo on the island of Savai 'i in Samoa . He later recorded these events in his book , *Nafanua : Saving the Samoan Rain Forest* . Cox began his work in Samoa in 1973 during his first Mormon missionary service , at which time he learned from local people about the medicinal properties of the native plants . After working with local communities in other rainforests , Cox returned to Samoa in 1984 with his family . His aim was to find a cure for cancer , which had claimed the life of his mother earlier that year . In return for the help of the local healers (called fofo) , Cox offered to share the revenue generated by his research with the local villages . Over time , his research identified five new drugs , including the therapeutic agent prostratin , a potential treatment for HIV . Prostratin was isolated in a concoction made from the bark of the local mamala tree (*Homalanthus nutans*) and shared with him by a healer named Epenesa Mauigoa , who used it to treat hepatitis . Cox set up royalty agreements to ensure that the Samoans will share in the revenue .

In 1988 , his research was threatened when the Samoan government pressured the village of

Falealupo to pay \$ 65 @, @ 000 for a new school , warning that if the village did not provide a new school within a year , they would withdraw the teachers from the village , leaving the children without an opportunity for a formal education . Shortly after receiving this notice from government , a foreign @-@ owned logging company offered the village exactly \$ 65 @, @ 000 to log the entire 30 @, @ 000 acres (120 km² ; 47 sq mi) surrounding Falealupo . Lacking a source of revenue , the villages eventually sold the logging rights to the forest , but when Cox learned of the situation and witnessed the logging for himself , he immediately sought an explanation from the village elders and then requested that they halt the logging so that he could raise money for the school . Despite initial skepticism , Cox convinced the high chief , Fuiono Senio , who then helped persuade the rest of the elders . Senio then drew his machete and raced 5 kilometres (3 @. @ 1 mi) to halt the logging .

The new school was built after Cox and his wife , Barbara , were able to raise the money in six months partly by mortgaging their house . Cox also obtained financial support from others and took over payments on the mortgage for the school . Verne Read , a businessman and financial supporter of Bat Conservation International , took over payments on the mortgage for the school . Ken Murdock , founder of the herbal company Nature 's Way , and Rex Maughan , owner of Forever Living Products , funded the construction of the school and repaid the loggers for their \$ 20 @, @ 000 advance . During a tribal ceremony held in February 1989 , Cox , along with the village chiefs (matai) signed the " The Falealupo Covenant " , which legally protected the forest for 50 years in exchange for their help . During the ceremony , the village chiefs also bestowed chief 's titles on Murdock and Maughan and proclaimed that Cox was a reincarnation of their god , Nafanua , because like Nafanua , he did not come from Samoa and both had fought to protect the village and the forest . The title bestowed upon him made Cox responsible for the well @-@ being of the village and obligated that he return to visit .

In 1992 , Cox and his friends had finished helping the Samoan villagers at Falealupo , as well as nearby Tafua , which encountered the same problem . Prior to that , Murdock , who later became Seacology 's President , suggested continuing their work by seeking out more villages with which they could exchange projects for marine and forest reserves . As demand among island villages grew , Bill Marré , a business consultant and executive coach who later became a member of the Board of Trustees and the Chairman 's Advisory Council , suggested establishing a nonprofit organization to continue their work . He suggested the name " Seacology " to reflect the organization 's focus on island conservation , and helped cofound the nonprofit in 1991 , along with Cox and Murdock . Using his own funds , Marré paid the costs of starting the organization and covered its administrative costs for the first three years . Together with his assistant , Marré helped advertise Seacology by giving lectures at schools and universities , visiting other island nations , and writing articles about the work for the local media .

In Falealupo , Seacology continued their work , funding projects with a total of \$ 485 @, @ 000 as of 2005 . When cyclone Ofa destroyed the primary school at Falealupo in 1990 , Seacology helped raise funds to rebuild it . The school was completely rebuilt again in 1991 following Cyclone Val . Several years after completing the school , the organization helped establish trails and build a rainforest information center , followed in 1997 by an elevated canopy walkway as part of an ecotourism project to help generate income for the people and provide funds for a retirement system for the village elders . The walkway has since become one of Samoa 's leading tourist attractions , and was yielding an average of \$ 1 @, @ 000 each month for the community in 2001 ? bringing in more money than the villagers would have earned from selling their forest . Satisfied with the results , the villagers at Falealupo declared that they would honor the contract they had made with Cox to protect the forest forever , rather than just 50 years . In 1997 , both Cox and Senio , the village chief , shared the Goldman Environmental Prize for their work .

For the first six years of its existence , Seacology operated as a volunteer organization with no employees . Four years after being founded , Seacology 's administrative office moved to Ken Murdock 's office . The office moved again in 1999 to Berkeley , California after Cox offered a job to Duane Silverstein ? then the Executive Director of the Goldman Fund , which had previously honored Cox with the Goldman Environmental Prize . Silverstein had been inspired by the work Cox had done in Samoa , and agreed to take the position of Executive Director of Seacology under the

condition that the office be relocated to within walking distance of his house .

= = Activities = =

Seacology is a nonprofit organization that works to preserve both island habitats and cultures by exchanging services for local assistance and cooperation with conservation efforts . As of 2000 , it was reported to be the only conservation organization to focus entirely on island preservation . Seacology has 501 (c) (3) status (providing federal income tax deductions for some donors) because it is a charitable , non @-@ profit organization . According to its mission statement on its website , " Seacology searches for win @-@ win situations where both the local environment is protected and islanders receive some tangible benefit for doing so . "

Islands constitute a large portion of the world 's surface . Combined , the largest 125 islands cover an area the size of Europe , and if the economic zones that include marine resources (found within a few miles of shore) are included , islands make up one @-@ sixth of the Earth 's surface area and hold half of all marine species . Scientific surveys have shown that coral reefs are declining rapidly due to climate change , dynamite and cyanide fishing , and marine pollution . According to evolutionary biologist E. O. Wilson , bird species that are endemic to islands face a greater risk of extinction ? 40 times greater than on the continents . At least 255 island bird species have become extinct since the appearance of humans , with 158 lost during prehistory and 97 lost between 1600 and 1994 . In comparison , between 17 and 20 species of continental birds became extinct between 1600 and 1994 . Because the small land area of islands can only support small populations , the biggest threat to endemic wildlife is habitat loss . Other threats include direct exploitation (hunting and pet trade) , disease , and invasive species .

To save island habitats around the world , Seacology staff initiate projects by first holding meetings with local villagers to determine their needs . These needs often include schools , a community center , solar energy , or freshwater delivery . Once their needs are determined , Seacology makes a deal with the local community , offering to provide the needed service in return for a forest reserve or a no @-@ take fishing area around a coral reef . Facilities such as schools and community centers are built using local labor , and Seacology provides approximately \$ 20 @,@ 000 for supplies and to facilitate the construction . Seacology has field representatives stationed around the world who monitor and report the progress of the projects in their region , as well as seek new projects in their respective regions or islands . New project suggestions are reviewed by the Board of Directors . The Scientific Advisory Board provide additional recommendations , based on the latest research .

In addition to their projects , Seacology played an active role in the creation of the National Park of American Samoa through the work of their scientists and donors . In 2008 , Seacology started its Carbon Offset Fund , where donations of \$ 40 @.@ 00 went directly towards renewable energy and reforestation projects . That same year , they collaboratively funded the creation of a nursery run by the non @-@ governmental organization (NGO) Azafady in Madagascar to raise 3 @,@ 000 seedlings of the endangered palm *Dyopsis saintelucei* . The two organizations have also collaborated to protect the Manafiafy Forest in southeastern Madagascar . In Bunaken and Manado , Seacology was involved in testing a new method of restoring coral reef , which involved planting white ceramic modules that were shaped like 3 @-@ dimensional snowflakes to maximize the surface area for corals to grow .

In 2007 , Seacology became an international organization with greater visibility , despite their small staff . International affiliate programs , such as Seacology Germany and Seacology Japan were created to help raise funds to support island projects . The following year , Seacology U.K. was created , followed by Seacology Scandinavia in 2009 . For its global efforts , Seacology has received several awards , including the Global Vision Award in Travel + Leisure , the Blue Award in Islands Magazine , and Yahoo ! ' s Pick for Good in September 2006 .

= = = Projects = = =

According to their 2014 Annual Report , Seacology has funded over 250 projects globally . The island communities that have aided in these efforts have collectively received facilities , including schools , community centers , and other important structures . Educational materials , vital medical services , and environmental training have been provided in many programs .

When projects are agreed upon with an island community , local rituals often coincide with the start of the project , particularly in the Pacific Islands , where a common custom involves drinking kava , a mildly narcotic drink made from the ground @-@ up root of a pepper plant . The ritual is hundreds of years old , and has been described by the Seacology staff as being relaxing , especially because of the friendly environment . Seacology staff often dress in local attire . The villagers perform dances , and the staff are invited to join in , often to the amusement of the villagers .

When the projects begin , the work is done without machines , with supplies being shipped on small boats and then carried by hand from the beach . Project costs range between \$ 5 @,@ 000 and \$ 150 @,@ 000 , although the average is between \$ 20 @,@ 000 and \$ 25 @,@ 000 . The protected areas that result from these deals typically involve a 20- to 30 @-@ year commitment . Seacology hopes that during that time the local people grow to respect these resources and ideally progress to a point where they are less dependent on natural resources . According to marine biologist Mark Erdmann , in a worst @-@ case scenario , if the people violate the contract and destroy the habitat , Seacology will have still made a difference in their lives through its low @-@ cost investment , whereas larger conservation organizations might invest large sums of money but through not addressing the immediate needs of the people , if the project fails , both lose that investment and not have helped the community .

In one of Seacology 's projects , villagers in Fiji refused a \$ 700 @,@ 000 offer by foreign businessmen to buy one of the islands and signed an agreement that prohibited development for 20 years and established a 10 @-@ year no @-@ take fishing reserve encompassing 80 square miles (210 km²) around the island . On the island of Kendhoo , part of the Baa Atoll in the Maldives , Seacology paid \$ 30 @,@ 000 in 2003 to build a kindergarten in exchange for a ban on harvesting endangered sea turtle eggs , which the government did not prohibit . In the Trang Province of Thailand , another project helps protect the habitat of seagrass beds and mangrove forest to provide habitat for endangered marine mammals called dugongs (Dugong dugon) . In 2003 , Seacology and a Chinese organization worked together to form an agreement with the people of Hainan Island where in return for scholarships for nearly 200 middle @-@ school children , the people would stop cutting down the trees around Bawangling Reserve , home to one of the rarest primates in the world , the Hainan black crested gibbon (*Nomascus nasutus hainanus*) and the nearly extinct subspecies of Eld 's deer (*Panolia eldii*) found on Hainan . In a project on Cát Bà Island in Vietnam , the organization helped protect the golden @-@ headed langur , another one of the world 's most endangered primates , by paying cash and helping establish exclusive harvesting and fishing rights for the local people in return for their efforts in patrolling the beaches and forests for poachers . In 1999 , Seacology began work to establish a new national park around Mt . Angavokely , near Antananarivo in Madagascar . The mountain is home to 120 species of endangered orchids and several medicinal herbs , including *Helichrysum gymnocephalum* , which is used as an antiseptic and treatment for bronchitis ; *Secneicia faujasiodides* , which is used for healing wounds ; *Psiadia altissima* , which is used to treat eczema ; *Bryophyllum proliferum* , which is used to treat coughing ; and *Brachylaena ramiflora* , which is used to lower malarial fever .

= = = Sri Lanka Mangrove Conservation Project = = =

In 2015 , Seacology launched its largest @-@ ever project , a \$ 3 @.@ 4 million initiative to protect all of Sri Lanka 's remaining mangrove forests and restore many degraded ones . Through Sri Lanka @-@ based NGO Sudeesa (also known as the Small Fishers Federation of Lanka) , Seacology is funding a significant expansion of that organization 's existing microloan and job @-@ training programs . In exchange , the beneficiaries of these programs must agree to assist in protecting their local mangrove habitats . The training is designed in part to give low @-@ income women in these communities alternatives to harvesting mangroves , a subsistence activity that has contributed to the

forests ' degradation . The project also established three large nursery facilities to grow several species of mangroves , to be replanted in areas previously cleared for aquaculture and other unsustainable development , as well as several areas destroyed during the Sri Lankan Civil War .

The effort was endorsed by the government of Sri Lanka , which has agreed to assist with demarcating the country 's mangroves .

= = = Service awards = = =

Created by cofounder Bill Marré in 1992 and underwritten by Ken Murdock in honor of his mother , the Seacology Prize is awarded each year to an indigenous islander based on achievements in island conservation and cultural preservation . Many of the award recipients are people who risk their lives and wellbeing to preserve their culture and environment but receive little or no public recognition for their work . The prize includes a reward of \$ 10 @, @ 000 .

In 2010 , it was awarded to Rabary Desiré from Matsobe @-@ Sud in Madagascar for his forest conservation efforts in Belaoka Marovato in northeastern Madagascar . Rabary , an ecotour and research guide , had created his own forest reserve , called Antanetiambo (meaning " on the high hill ") , and planned to use his prize money to fund reforestation efforts , develop tourist facilities , and expand the reserve . Another winner of the Seacology Prize was the Icelandic filmmaker and former reporter for RÚV Ómar Ragnarsson , who won the award in 2008 for his efforts in preserving the highlands of Iceland .

= = = Ecotourism = = =

In response to the growing demand for ecotourism , Seacology opened up its fundraising expeditions to the public in 2006 . These trips include destinations like Fiji , and offer both unusual travel opportunities and a means to help improve the quality of life for the indigenous people . The experiences have been described as " moving " because of the close personal interactions with the local people . Some tours visit locations seldom visited by Westerners . On the tours , Seacology encourages travelers to explore the culture and economy by trying local foods .

Following the 2002 Bali bombings , Silverstein reported that tourism fell by over 90 percent on the island of Bali , mostly due to sensational media reporting . He was in Bali a few days after the attack and reported that he saw little or no risk to tourists in the Muslim villages of the region .

= = = Tsunami relief funds = = =

Following the 2004 Indian Ocean tsunami , Seacology established a tsunami relief fund to help four impacted communities with which the organization had previously completed projects . Following the model of their projects , the Seacology staff asked the local people what they needed to rebuild their economy and infrastructure . In Kiralakele , Sri Lanka , the people requested fishing nets and boats . The people of Kadachang Village in the Andaman Islands requested goats and chickens . On Kendhoo in the Maldives , the tsunami had destroyed the local plant life , so seedlings were needed in order to restore the environment . In Trang Province , Thailand , basic structural repair was requested . Seacology emphasized that it would repair and replace the projects that had been damaged or destroyed in the tsunami .

As of late 2005 , Seacology had raised \$ 261 @, @ 716 for the relief work , with all of it going directly to fund the efforts . All donors received details of how the money was spent , as well as photos of the work . The California Association of Nonprofits later honored Seacology for the relief work with their Achievement in Innovation Award .

Previous work by Seacology in the region had helped minimize the damage caused by the tsunami . Seacology Prize recipient Anuradha Wickramasinghe from Sri Lanka noted that the mangrove forests that were preserved shielded the community , whereas nearby villages that had cleared their mangroves to create industrial shrimp farms had not fared so well . Mangroves also buffered Kadachang Village in the hard @-@ hit Andaman Islands ; the village suffered little loss of human

life or structural damage compared to the nation 's capital city of Port Blair .

Following the 2009 Samoa tsunami , Seacology once again started a tsunami relief effort . They helped Samoan villages by providing new water tanks and pipelines , and also helped to clean up mangroves and inshore coral reefs that were littered with debris from nearby motels .

= = Finances = =

Seacology is a small nonprofit , with only seven full @-@ time staff , and as a result has little overhead costs and operates on a modest budget . Its tax identification number is 87 @-@ 0495235 . According to Silverstein , its annual budget for all of its staff and office expenditures is significantly lower than the median compensation for business chief executive officers (CEOs) alone . Board members receive no compensation and are not reimbursed for the costs of attending board meetings . Unlike other environmental groups , Seacology does not offer memberships , which further reduces its expenditures . Staff answer the phone instead of using automated answering services , and Seacology respects donor privacy and is compliant with the Children 's Online Privacy Protection Act (COPPA) .

In 2014 , Seacology reported \$ 2 @,@ 309 @,@ 541 in donations and grants and a total of \$ 2 @,@ 335 @,@ 266 when other revenue was included . Its expenses that year totaled \$ 1 @,@ 656 @,@ 772 with \$ 286 @,@ 981 going toward fundraising and \$ 130 @,@ 329 supporting management and other general expenses . Financial support comes mostly from individuals , foundations , and companies such as Nu Skin Enterprises , which pays annual royalties for the plant @-@ based cosmetic formulas Cox developed for facial creams and other skincare products . Board members also contribute a sizable portion of the annual budget , donating a minimum of \$ 10 @,@ 000 per year to the organization .

= = Leadership = =

Seacology is governed by its Board of Directors , which consists of corporate leaders who share a commitment to island conservation and the preservation of island cultures . Paul Alan Cox is the Chairman of Seacology . He received his PhD from Harvard University , and served as a professor at Brigham Young University , the Swedish University of Agricultural Sciences , and Uppsala University . Cox served as the Director of the National Tropical Botanical Garden (NTBG) for seven years , and as of 2011 , he is the Executive Director of the Institute for Ethnomedicine , which is affiliated with the NTBG . His research interests include island plant ecology and ethnobotany of island cultures , and he has published more than 150 scientific papers and reviews . For his research on new medicinal plants , he was named one of eleven " Heroes of Medicine " by Time magazine . Cox is an advocate of indigenous peoples , and has learned several of island languages .

The Executive Director of Seacology is Duane Silverstein , who for 18 years prior to joining the organization acted as the Executive Director of the Goldman Fund and headed the Goldman Environmental Prize . He has written articles that have appeared in Asian Geographic as well as various scuba diving magazines , and he is a National Fellow of The Explorers Club . Silverstein has met with heads of state around the world , including several presidents of the United States , as well as several Secretaries @-@ General of the United Nations . In addition to having his work covered in newspapers and periodicals , including Time magazine , the Bangkok Post , and the San Francisco Chronicle , he was also selected as an " All @-@ Stars Among Us " in People magazine , for which he was honored at the 2009 Major League Baseball All @-@ Star Game . In 2008 , Silverstein and Seacology were briefly featured alongside several organizations in the music video for " What About Now " by the American rock band Daughtry . In 2010 , Silverstein was awarded the one of the Jefferson Awards for Public Service and also was given the 2010 Coastal Hero Award by Sunset magazine .

The vice chair of Seacology is Ken Murdock , who also founded the herbal company Nature 's Way after his mother was cured of a serious illness with an herbal medicine . Murdock played a key role

in the creation of Seacology , and Nature 's Way covered Seacology 's administrative costs for three years . Murdock has volunteered in Samoa , during which time he resided on Manu 'a and learned the local language .

The Scientific Advisory Board of Seacology includes island biodiversity specialists , whose research focuses on the conservation of oceanic and terrestrial island ecosystems . The Scientific Advisory Board generates recommendations for new conservation projects based on the latest research available . Among the eleven members are researcher and Pulitzer Prize winner Jared Diamond , entomologist and evolutionary biologist E. O. Wilson , and oceanographer Sylvia Earle . As the founder of Seacology , Cox is also a member of the advisory board .