



# CORL Reefer News

The Coalition of Reef  
Lovers (CORL) -  
International

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## CORL-AS office starts projects in American Samoa

CORL is in the process of putting together its office in American Samoa. Mike King CORL's director, has been working with the American Samoa's Department of Marine and Wildlife Resources (DMWR) for several years now to promote the use of In-Situ Coral Farming to help restore American Samoa's damaged reefs on the Island of Tutuila. Tutuila is located in the Samoan archipelago that includes the U.S. territory of American Samoa (AS) and the independent nation of Samoa. The Islands are located about 2600 miles southwest of Hawaii between 13deg and 15deg south latitude. If you want to call Mike remember he's 6 or 7 hrs earlier (depending on the time of the year) than you (if your EST ) so if it's 12noon in Michigan it's 6am in AS.

American Samoa is the only U.S. territory south of the equator and the only territory to contain many of the Indo-Pacific coral and fish species. It consist of a five highly eroded and extinct volcanic islands and two coral atolls. The majority of the population is located on the Main Island of Tutuila which has over 60,000 inhabitants. The Island is mostly mountains 20mi long by 7miles wide at the widest area. Because of the steep inclines the majority of the population resides on the

coast on the south side of the Island. AS has a very high birth rate and the population is doubling every 19 years. This highly concentrated population places much strain upon the fringing reefs and coastal resources of AS. Many of the fringe reefs that exist near villages on Tutuila are in very rough shape with coral loss in many areas reaching 80-90% of what once existed according to long term residents of the Island. Global Warming, pollution, sedimentation, and destructive fishing, have been the major factors in the coral reefs of Tutuila's decline. The outer Islands of Ofu, Olosega, and Ta'u have faired much better some of their reefs have been called the best in the South Pacific by many. The atolls of Swains and Rose are in very good shape this is mainly due to the remoteness of the atolls. The traditions of Samoan culture which depends highly upon subsistence fishing and Fa'asamoa- The Samoan way create a difficult social barrier that must also be entered into the equation when restoring the coral reef ecosystems in American Samoa.

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## CORL Gets it's IRS Not for Profit 501-c-3 Status

The Coalition of Reef Lovers applied for IRS tax exempt 501-c-3 status in 2000, we were granted that status in May of 2003 and are now listed by the IRS as a 501-c-3 tax exempt not for profit organization.

This status gives us special Tax free status and provides sponsors a way that they can receive the highest deduction amounts possible for any donations they make to CORL directly or to any of CORL's many

projects. Most of the governmental grants we apply for require some type of outside additional funding which can be from 10% to 50%. For a Island community to come up with this percentage for a coral reef restoration project the amount needed can exceed 25KUSD. Even in American Samoa this can be a task that puts such a project out of the communities reach even after CORL donates what we can to their project. (cont. on page 5)



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### Equipment Needed for New CORL-AS Office for more information see CORL Donations equipment and Sponsorships Needed on page 2

- CORL-AS needs the following equipment to get it's new American Samoa office up and running.
- Pentium 4 computer for video editing
- 80+ Gig Hard Drives ATA100,133
- Computer monitors (LCD if possible)
- Office equipment desk, chairs file cabinets etc.
- Office supplies, any
- Printer and cartridges
- Fax, copier, scanner.
- Pinnacle liquid edition pro 5.5 video editing software and AGP card

## Community Based Coastal Resources Management



Community Based Coastal Resources Management Placing the management of the resources back into the hands of the villages

The change from National or Regional governmental management of Coastal Resources to Community Based has been underway for over 20 years in some nations such as the Philippines. In many undeveloped and remote areas throughout the Asia-Pacific region the community (village and Tribal units) have been doing their own management for centuries. As the communities lost the control of the management of their resources many also lost their traditional management practices.

While the re-empowering of the communities to again make them

directly in control of their coastal resources has been a crucial stepping stone in the creation of Marine Protected Areas and Marine Managed Areas, much more help is still needed. In many cases the traditional methods of coastal management have been lost or no longer work due to advancing technological practices and increased demands from growing populations. The role of providing assistance from outside help will be an important factor in the success of community based resource management projects. The re-empowering of the local communities to manage their

resources must be done with the help of Governmental and Non-governmental transference of the needed methodologies and Technologies needed to give the local communities the Knowledge and Tools they will need to assure that their resources are used in a sustainable manner.

American Samoa started its Community-Based Fisheries Management program in 2000 since then 9 communities have set up management areas and with management plans the help of the American Samoa Department of Marine and Wildlife Resources. (cont. on page 5)

*“To restore or minimize the amount of loss to coral reef habitats action is needed not in just creating MPA’s and MMA’s but in the removal of those stressors that are leading to the degradation of the habitat.”*

## Community Coral farming for reef Rehabilitation and Restoration. The First Steps are big ones to take even before the Project Starts

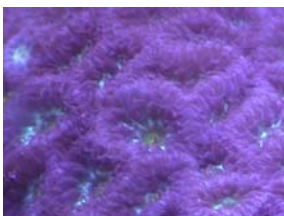
Many communities have seen a decline in the health of their coastal resources. The coral reefs located within their villages boundaries have also shown degradation. The reversal of the degradation is a complex matter to accomplish. To restore or minimize the amount of loss action is needed not in just creating MPA’s and MMA’s but in the removal of those stressors that are leading to the degradation of the habitat. While the communities may have little power to combat things like

Global warming and non-point Pollution they can combat and reduce the local stresses. Some factors that lead to added stress may take regional efforts to reduce and a watershed management approach will be needed. The Coral Reef habitat is a fragile one upsetting the natural ecosystem on the mountain many miles away has its negative effects upon the coral reef habitat.

Any Coral Reef rehabilitation or restoration project must start by eliminating or reducing the

stresses that led to that habitats degradation. Only after those stresses have been corrected can the restoration process proceed and be successful. Even after solving the problems that led to the degradation of the reef actions must be taken to assure that those stresses do not reoccur. Action is also needed to assure that future growth and development within the community is done in a way that minimizes or has no affect upon the areas habitat.

(continued on page 4)



Many species of corals can be easily propagated. Blasstomussia welsi is pictured here.

## CORL Donations equipment and

CORL is asking for help in the opening of its first overseas office in American Samoa (CORL-AS) and in the expansion of its International office (CORL-INT.) in Grand Rapids Michigan USA. For now the CORL-AS office will be located in the Townhouse that Mike King is currently located at. In the near future CORL-AS will hopefully

be able to obtain funding to open a full scale office with personnel and coral reef restoration technicians.

While CORL-AS is seeking funding for the office the search for donations for office equipment can be started.

The CORL-AS office is in extreme need of a computer that

is capable of doing video editing and the hardware that will be needed to complete the educational videos. The Computer needed must have at least a Pentium 4 2.4Ghz CPU and support USB2 technology. A large hard drive (ATA 100 or 133 min) of 160G or the ability to add several smaller ones. For more info contact Mike at [mike@corl.org](mailto:mike@corl.org)



## CORL: International/USA Office Seeks Operational funding

CORL has been running out of a small office area for the last 4 years while its founder Mike King has been busy traveling throughout the Pacific and Caribbean areas to develop CORL's Coastal Resource Center program proposal for the lay the foundation of CORL as a international organization. During this time CORL's USA and International Office Located in Grand Rapids MI has served mainly as a communication center and library for CORL. With the start of a new year 2004, the CORL-International / USA office has moved forward into the tasks assigned to it. To better fulfill its

growing roles of support for the branches overseas and CORL-USA's coral reef educational based projects the CORL office has relocated to a new 5,000 sq ft location and has a full time employee Alan J. Lavitsky who is the Assistant CORL-USA Director.

CORL-USA will be mainly funded by the proceeds generated by the sale of educational materials and donations by hobbyists.

Most of the projects that CORL-USA undertakes will be focused on teaching coral reef education of hobbyists, students, and the

public. Some of these projects that will start in 2004 are: Instructional videos and DVD's for beginners on how to set up and properly maintain marine aquariums, The continuing of CORL's Ornamental Marine Species Data Sheets (OMSDS) that give information on compatibility, feeding, habitat, and other needs of fish, invertebrates, and plant life kept in aquariums by hobbyist. The OMSDS will be made available in several formats and also to CORL members over the CORL website [www.corl.org](http://www.corl.org) 2005 will bring CORL-USA into a whole new exciting role.



Giant Clam (Fiausa) *Tridacna maxima* at the Department of Marine and Wildlife Recourses Hatchery in FoTafuna.

## American Samoa Community—Based Coral Reef Restoration Project Utulei Village.

The Utulei Community-Based coral reef restoration project will be a combined effort between CORL the DMWR and the community. Utulei is a village located on the west side of Pago Pago Harbor on the Island of Tutuila within the United States territory of American Samoa. The harbor area of Pago Pago where the village of Utulei is located has suffered greatly from years of abuse. Clean up projects like the removal of the Sewage and Cannery outfalls out of

harbor to deep water discharge lines have helped to reduce the nutrient and pollution loads in the harbor. This reduction of pollution has made it possible for some very hardy coral species to once more grow in some areas of the inner harbor. Even with the clean up of waste inside of the harbor the natural settlement and recruitment of corals has not been occurring at the expected rates. Observations and monitoring of the site during the restoration

will attempt to find answers to this problem. CORL has been working on Rain Maker Hotel's reef for several years, the results of its work have shown that while natural recruitment has been low on the reef the corals planted as fragments by CORL have had a survival rate close to 50% in most areas where they were planted. This indicates that if coral fragments are grown and planted throughout the project area the chances for their survival are good. (cont on pg 4)

*“The management of a communities coastal resources doesn't start at the waters edge but rather at the mountains crest as everything that happens from there on down to the ocean deep affects the communities coastal habitats”*

## CORL Power Point Presentations will be available for Teachers and others in June 2004.

CORL's education crew (all volunteers) in American Samoa is busy working on several power point presentations at this time. It is CORL's goal to create these programs so the teachers can easily present them to the students in the classrooms. These short productions will be made available first in English and Samoan in a CD format that can be played on power point projectors. use in the classroom. They will be also made available as a slide show and as a

video for use in those regions where the schools do not have access to the newer technology.

The first presentation on the worlds coral reefs describes : where coral reefs are found, What forms and how, The coral organism and its algal partner, The species diversity of the coral reefs, Why the coral reefs are being lost, What their loss could mean to the Islanders who depend upon their resources.

The second presentation which is being completed focuses on community based coral reef habitat restoration from planning and education to actual restoration techniques taking place on the on the reef. We are currently working out the bugs on a expanded version of this presentation that will incorporate short videos into the presentation. To better show the techniques.



Alofau's Coral Reef has been severely damaged by bleaching that has killed up to 80% of the villages



Vatia harbor on the north side of Tutuila

## CORL-AS office starts work in American Samoa

(Continued from page 1)

All these factors combined make AS an excellent area to study the problems that effect the coral reef habitat and to develop programs to combat the loss of the coral reefs.

Because of the lower levels of coral species diversity and conditions of the reefs in American Samoa the creation of a self supporting Coastal Resource Center here is doubtful. The creation of a center here will need to have a continuing source of outside funding from foundations or in the means of long term governmental grants if it is to be created and operated long

term.

CORL is currently working on the first steps in coral reef restoration. That's the education of the public to act upon those stresses that are causing their coral reef and coastal habitats decline. CORL is producing several productions to be broadcast on the two local television stations, and is also currently applying for funding to bring Timothy J. Dean a professional production engineer and editor who is a CORL member to American Samoa to help produce and edit the 2004-2005 CORL-AS awareness videos.

In addition the educational pro-

ductions CORL has started a computer printer cartridge recycling program in A.S. and the proceeds will help with the creation of a full CORL office and educational programs on the Coral Reefs for the AS school system.

Filming for the CORL production The Tide Pools of American Samoa has already started and Trips to Swains and possibly Rose Island to shoot video footage there is expected to take place in 2004.

CORL-AS will also start its 1st full restoration project at Utulei beach will start in 2004.

*“The Community-Based restoration of the coral reef habitat is possible in many cases, but the proper guidance is needed for it to be successful.”*

## Community Based Coral Reef Rehabilitation and Restoration (cont)

The process of doing coral reef restoration and/or rehabilitation is complex and time consuming. Its chances of success without the help from outside the community is slight. To leave the process of habitat restoration upon the community without supplying the Tools, Technology, or Methodology needed could easily lead to more damage to the existing habitats.

CORL is presently working on a community based habitat program that will create a simplified approach to the community based coral reef rehabilitation and restoration. CORL is working on pro-

ducing a instruction manual that will serve as a workbook for conducting community level coral reef restoration. Even with this manual the community will need help from professionals who must help guide them through the more difficult process of stress reduction and monitoring and assessment of the project. While CORL's Coastal Resource Centers can provide this help if implemented in the regions where they are located, in many other areas there will be only the limited support from their government and NGO's who may be active in their region. CORL will work on producing another more technical and informative publica-

tion on its work in creating Community Based Coral Reef Rehabilitation and Restoration with case studies as CORL's and other Community Based projects are completed and their success or failures determined.

The Community-Based restoration of the coral reef habitat is possible in many cases, but the proper guidance is needed for it to be successful. CORL will continue to develop the needed technology and methodology to provide the best guidance possible.



The last Pile of trash after a long day.

CORL / DMWR clean up Utulei Beach 2002.

## Utulei Coral Reef Restoration Project (cont from pg 3)

The educational awareness component that will be a part of the Utulei project will address and hopefully reduce many of the stresses that caused the 50% mortality and the survival percentage should increase in result.

The coral reef habitat restoration project area will be of that of the degraded natural coral reef habitat

Parking lot north of Tulutulu point. This area is approximately .5 - .75 sq kilometer and includes the sand pits, reef flats and the fringe reef face to the depth of 20 feet. The construction of several designed artificial Mother reefs and at least two coral nursery areas will be done to provide coral fragments (baby corals) for the restoration project. The Mother reefs and coral

located within the sand pits that were created by the construction of the coastal road. While the immediate results of creating these mother reefs is more inline with habitat rehabilitation rather than restoration in time the structures will in time become fully structural and functional coral reef habitats so restoration will be accomplished in the long run.



## Community Based Coastal Resources Management (continued)

While not all of the Community-Based Fisheries Management Projects (CBFMP) areas that have been set up have proven to be successful most have shown to make a difference in the amount and size of the communities fish stocks.

Fishing in the Samoa's is defined as taking any living thing off the reef. (Octopus, snails, crabs, urchins, and cucumbers etc.) Therefore a Community-Based Fisheries management project in AS can be classified as a coastal resource management project.

It will take several years of well practiced management and community involvement before the reefs themselves start to recover from the decades of abuse they

have endured. Two of the first CBFMP's that were started in American Samoa have reopened their management areas to fishing for a limited harvest after two years of total closure of all fishing. During the short re-opening of the MMA's the villagers reported catches that they hadn't seen in many years prior to the MPAs creation. They have also reported that many types of fish that have been absent on their reefs are now returning. The monitoring of the CBFMP areas is one of the main goals and has to be conducted in a manner where the villagers themselves can conduct the surveys that are needed. Seeing that most monitoring surveys are designed to be conducted by

well trained personnel and are for monitoring the degradation of reefs that are pristine to good in shape this has been a major obstacle in the program. Currently CORL is helping the DMWR to develop a new hybrid community monitoring survey method whose purpose is to measure the improvements in degraded coral reef and coastal habitats the final outcome of this effort will be reported in the future. CORL will also be teaching this new survey method to the communities it works with so they can monitor the success of their coral reef restoration projects in the future.



Masefau Bay American Samoa

## CORL gets its 501©-3 Status

It was a major undertaking to get our status because we are a new type of not-for profit organization and many questions needed to be answered. CORL will also grow and evolve and mature in the years to come. CORL's next steps have already started to take place; the first International Regional CORL branch has been started in American Samoa. The CORL-AS branch will serve as a launch site for projects within the US territory on American

Samoa and the South Pacific small Island Nations.

CORL branches are also starting to take shape in:

The Philippines (CORL-PI) where we will be starting a full office hopefully in early-mid 2005. In the Philippines CORL is currently working with the East Asian Sustainability Initiative (EASI) and a stateside funding drive for net collection supplies and sustainable fisheries develop-

ment is now underway.

CORL-Europe (CORL-EU) will be located in Denmark and should be underway in mid 2004, CORL-Canada (CORL-CA), will be also started in 2004.

We have been also asked to start a program in Samoa (formerly known as Western Samoa) and we will be looking into securing a location for a CORL Coastal Resource Center and office there in 2004-2005.

*"The north west side of AS was the worst hit with sustained winds of 100mph and wind gust of 160 to 180mph."*

## Cyclone Heta Trashes American Samoa

Super Cyclone Heta a category 5 storm side-swiped American Samoa on the 3rd, 4th and 5th of January 2004. According to one report the center eye was only 18 miles off the coast of AS at its closest point. The north west side of AS was the worst hit with sustained winds of 100mph and wind gust said to be of 130 to 150mph. The tidal surge and storm waves reached 48' and Several homes on the north side were destroyed by

waves and swept out to sea. The infrastructure on the island has been severely damaged with many people still without water or electricity a full 2 weeks after the storm. Early damage estimates have put a 150million dollar tag on Heta's rampage here, 600 homes are known to be severely damaged or destroyed.

Mike King the Director of CORL said "This was the 1st cyclone

that I have ever been through and it sounded and felt like a freight train was running through my living room"

More than 50% of the homes in American Samoa have sustained some damage, the crops are gone and many plantations totally leveled by the storm. In the next few weeks CORL will be doing dives to access the damage to the coral reefs around AS and a follow up report will be in next news letter.



## The Coalition of Reef Lovers (CORL) -International

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Creating Self funding Coral Reef  
Restoration as a Sustainable Industry for  
Island Communities



We're on the  
Web  
[www.corl.org](http://www.corl.org)

The Coalition of Reef Lover's (CORL) was formed to give the reef aquarist (or anyone who cares about the world's coral reefs) a way to directly contribute to the protection and sustainable use of the world's coral reefs. CORL understands that because of the current rapid degradation of the world's coral reefs (some predictions show 90% of the world's coral reefs destroyed within 30 years), we all must play a proactive role in their protection.

CORL's main goal is to preserve, protect and restore the world's coral reefs by: 1) promoting ornamental marine aquaculture (both *in situ* and *in vitro*) 2) promoting *in situ* aquaculture as a means of ecologically friendly and sustainable income for developing countries and as a way to supplement coral reef restoration cost 3) encouraging both ecologically friendly collecting methods and proper holding facilities 4) educating the marine and reef hobbyists on ways to lessen the impact of the hobby on the world's coral reefs 5) educating the coral collectors on methods to lessen their impact on their coral reefs 6) educating the Small Island and Developing Nations on ways to lessen their influence and improve environmental awareness. 7) Working with other organizations to pull together and work toward overcoming the many problems associated with the world's coral reefs.

CORL-AS is currently involved in: Village coastal resources management and development, coral reef restoration, aquaculture projects, and educational outreach programs in American Samoa.

CORL-USA (is now reopened) focusing primarily on: Education programs for hobbyists and the general public on reef conservation issues, informational resources such as DVD's and videos on marine aquarium keeping and our Ornamental Marine Species Data Sheets (OMSDS). CORL -USA is also setting up for the production of classroom presentations and development of audio/visual materials, for use in the United States and other impacted countries. It is the intent of CORL to start an aquaculture and holding facility for responsibly collected and cultured marine ornamental organisms in the USA within a few years.

More general info on CORL can be obtained here:

<http://www.corl.org>

Phone (616)-363-6991

## CORL Projects in the works

There are many CORL projects currently underway, things have been restarted at the CORL-USA branch finally after a year of being set aside. The creation of more Ornamental Marine Species Data Sheets (OMSDS's) has begun again and with luck we should have the first section on fish done by mid '04. CORL will be putting on a Hobbyist photo contest to help acquire more photo's for the OMSDS and as always full credits will be given to those who's photos are used by CORL. The data base and web site is being upgraded by Todd Merrifield our US web master and CORL is starting to look into the creation of a European CORL website.

CORL-American Samoa has been active in producing several educational productions for local

broadcasts. More videos are being planned that will address the problems that AS coral reefs are having and will help to educate the public on how they can help solve those problems. Some of these videos will be made available to CORL members and through the web site when we get our DVD and Video publishing capacity going at CORL-Int'l.

CORL has started a printer recycling program where the proceeds will can be targeted between 3 areas or projects CORL-USA, CORL-AS and for CORL-PI associated net training and coastal management. So pitch in and send us your used printer cartridges more info can be found on the program at [www.corl.org](http://www.corl.org) if you have any questions or need packaging supplies to send your cartridges

in, contact us at [recycle@corl.org](mailto:recycle@corl.org)

By doing your part you not only help to reduce the trash problem but you also help: keep toxic dies out of the landfills where they can escape and enter our water supplies and you will help promote CORL's coral reef education and restoration programs. Individual pre-labeled package materials and boxes along with promotional materials are available Free of Charge and shipping is also paid. Start a collection program at work we will supply all the materials and pay the postage!

FAAFETA! LAVA!!!!!!!!!!!!!!

Thank You Very Much!!!!!!



Tide Pools of American Samoa  
Video/DVD production in the  
works expected completion date  
late 2004, Available in Samoan and  
English.