FogQuest NEWS

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A NEWSLETTER FOR MEMBERS AND SUPPORTERS OF FOGQUEST

Editor
Dr. Robert Schemenauer

Contributions of short articles, news items and photographs for upcoming issues of the Newsletter are welcome. They should be sent to: FogQuest@rogers.com or to the address at the end of this Newsletter.

The Newsletter's primary purpose is to be a means of exchanging information with our members. We hope that it will also promote better communications between those working on water projects using fog, rainfall and dew collection, and those studying the many scientific aspects related to these atmospheric water sources. The Newsletter is sent three times a year to members of FogQuest: sustainable water solutions. The current issue is available on the web site www.FogQuest.org. Information on membership can also be obtained on the web site.

Summer is a time of the year when conventional water sources are more abundant in many parts of the northern hemisphere where FogQuest is active. Through the Caribbean and Central America, rainfall is abundant and in some cases excessive, as we have seen recently in Haiti and the Dominican Republic. Because of the rain there is water in reservoirs and springs flow. In Yemen there are also showers this time of the year and cisterns are replenished. In Oman fog is very thick during the summer and in locations like India and Nepal the monsoon rains are beginning. Along the coastlines of Chile and Peru winter showers or drizzle wet the desert and the clouds that produce fog on the coastal mountains are lower. There are, of course, exceptions. Israel, for example, where a fog collection evaluation is underway, is hot and without rainfall this time of the year. In general, though, this is a time of the year for project planning, whereas the northern hemisphere fall and winter, and the southern hemisphere spring, are the times for active field work. In the next issue of the Newsletter we hope to bring you news of some exciting initiatives that we are presently examining.

We encourage our members to be involved in our activities. If you wish to speak to schools, raise funds for projects, volunteer to work on a field project, or take on another task, please get in touch with us. Please also keep your eyes open for new members and for potential sponsors of our projects. We need to grow to be more successful in bringing water to people who have no other alternatives.

The 3rd International Conference on Fog, Fog Collection and Dew continues to move ahead well thanks to the guidance of Hannes Rautenbach, Jana Olivier and an international scientific committee headed by Detlev Möller and Simon Berkowicz. Please see the new information on page 4 of this issue. There is still time for you to participate.

Girls at the foggy La Fe site near Lake Atitlan, Guatemala. A large fog collector is now providing water for the family at the farm.

FogQuest member, Bernadita Silva [center], and two girls near lake Atitlan, Guatemala.

FOG COLLECTION PROJECT — LAKE ATITLAN, GUATEMALA

In the last issue of the Newsletter, the new project in Guatemala was introduced and some photos shown. The project is proceeding in small steps as funding and volunteers are available. The project is in the hills surrounding Lake Atitlan, with 14 standard fog collectors, each 1 m^2 in size, being installed at locations north and south of the lake. Measurements of the water production began in January and continue to the present. The data are being collected by our Guatemalan partner organizations, VSF and AMSCLAE, and processed by students in Chile under the guidance of Juan Luis Garcia and Pablo Osses. A series of visits by FogQuest

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OPEN HOUSE Jan 2004

HOW CAN YOU HELP?

Please consider taking out a membership in FogQuest. A solid network of members will be our means of spreading information on fog collection and generating support that is vital to our operations. The annual membership fee of $35.00 Canadian, or $30.00 US for those outside of Canada, can be paid by check or by credit card. We accept VISA or MasterCard. Students receive a $5.00 discount on their membership fee. Donations from both individuals and institutions are encouraged and can be directed for general support or to our projects in Guatemala, Chile, Yemen and Nepal.

WHAT IS FogQuest?

FogQuest is an innovative, international, non-governmental, non-profit organization, which implements and promotes the environmentally appropriate, socially beneficial and economically viable use of fog, rain and dew as sustainable water resources for people in arid regions of developing countries.

FogQuest member, Bernadita Silva [left], preparing an SFC with local children in Guatemala.

Juan Luis Garcia

An idyllic bay on Lake Atitlan, Guatemala.

People currently obtain water from Lake Atitlan, Guatemala.

Fog at the Las Trampas, Guatemala, site.

Rick Taylor working on the LFC at the La Fe, Guatemala, site.

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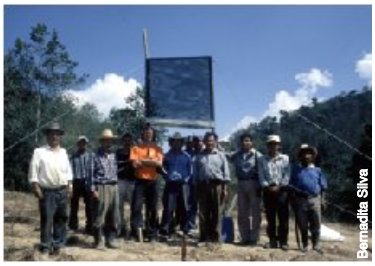
members working as volunteers (Darrell Piekarz, Melissa Rosato, Juan Luis Garcia) has kept the project moving forward. In addition, one of the members of our Board of Directors (Rick Taylor) was there in March along with his daughter, Tara Cracknell. A student member, Nikolaus Arsenault, will be there for six weeks this summer. The initial goals are to assess the availability of fog and rain water, and to survey the rural population to determine where the water needs are the greatest. We will then select a location where a water need, a motivated community, and good fog-water production coincide.

The initial data from the SFCs have identified some sites with good fog-water production during the dry, winter period. Two of these areas are north of the lake (La Fe and Las Trampas) and one south of the lake (Rey Tepepul). Rick Taylor went to the two northern sites in March and built one large fog collector at each. The collectors used metal posts and were an opportunity to try some different construction techniques. Each collector is on the property of a farm family and the water produced is for their use. In one case the water goes to a small private tank and in the other to a community tank. The construction of the fog collectors was made possible as a result of donations from St. Francis School and Denis Morris High School in St. Catharines, Canada. Nikolaus Arsenault's upcoming visit will be to assess the water needs of the people, to look at the reception to the initial fog collectors, and to see how one can best work with the people on new initiatives. A report on the results to date will be produced late this summer as will a paper for the Cape Town conference in October. The project requires on-going funding and we would welcome ideas for possible sponsors.



FogQuest member, Juan Luis Garcia, and community workers in Guatemala beside a completed SFC.

The first large fog collector in Guatemala at La Fe.

FOG WATER IN SOUTHERN COLOMBIA

Submitted by: José Manuel Molina [1]
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Climate variability in Colombia is highly influenced by its geographical position as well as the presence of the Andean mountain chain, the Pacific Ocean to the West and the Caribbean Sea to the North. Despite being very rich in water resources, droughts occur frequently in mountainous zones of the Colombian Andean watersheds. This situation is nowadays aggravated by an increasing deforestation rate of the native highland forests. However, water scarcity problems in the mountainous zones could be managed partially by means of water from fog collection. Geographical, topographical, and climatic features of the Colombian Andean System create optimal conditions for the presence of a high atmospheric humidity and for fog formation. An experiment with fog collection is currently being carried out in the Southern Andean Mountains of Colombia. Twelve Standard Fog Collectors (SFC) are being used, using Chilean polypropylene mesh of 35 and 50% shade coefficient, and are located at different sites between 1650 and 1850 m above sea level and under several wind conditions. To date, measurements of fog collection indicate a high potential for the use of large fog collectors for water supply in rural areas. Data collection and analyses cover both dry and rainy seasons (November 2003 to March 2004), with average collection rates of 4.7 L m^{-2} day^{-1} for the wet season (November - December) and 2.1 L m^{-2} day^{-1} for the dry season (January - March).

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Two SFCs installed at right angles in Columbia.

Construction of an SFC using bamboo posts in Columbia.

Worker on the large fog collector at La Fe, Guatemala.

3rd INTERNATIONAL CONFERENCE ON FOG, FOG COLLECTION AND DEW

CAPE TOWN, SOUTH AFRICA 11 - 15 October 2004

The conference in Cape Town has issued a last call for abstracts of papers. Short abstracts of up to 300 words must be submitted immediately. They will be reviewed by the Scientific Committee and the authors notified as to whether their papers are accepted. The deadline for extended abstracts of up to four pages in length has been changed to 31 July 2004. They will be published in a conference proceedings volume. The Conference will be held in the Commodore Hotel on the waterfront. Delegates may stay in other local hotels. The conference is being organized by Professors Hannes Rautenbach and Jana Olivier of the University of Pretoria. For more information, please contact Professor Rautenbach at hannes.rautenbach@up.ac.za. You can reach the conference website through the FogQuest site or go directly to:

http://www.up.ac.za/academic/geog/meteo/Events/fogdew2003/fogdew.htm

NOTE: You can still purchase copies of the Proceedings Volume of the 2001 Fog Conference through FogQuest. It is an important addition to a personal or institutional library.

NEWS

We are currently discussing with the foundation, **WasserStiftung**, based in Munich, Germany, how we can work together on future water projects. There will be more on this in the next issue. **Michael Witiw** has left TerraBeam in the USA and is doing consulting work in optical technology and meteorology. Discussions are underway concerning the possible expansion of the Falda Verde fog collection site in northern Chile. Mr. **Tony Makepeace** will be joining the Board of Directors of FogQuest as of the June Board meeting. He is a photographer and film maker based in Toronto, Canada, and has a long-term involvement in development projects in Nepal. We welcome his input and advice. He joins our current Directors, **Rick Taylor**, **Peter Schuepp** and **Susana Sandoz**.

STUDENTS

Juan Luis Garcia is now in Valdivia, Chile, where he is doing his Master's degree and also continuing to assist with analysis of the data from Chile. **Nicholaus Arsenault** of the University of Waterloo, Canada, will be in Guatemala assisting with the project there as part of his fourth year thesis work. **Gabriel Ladouceur** and **Arnaud Roussy** of the University of Montreal, Canada, are attempting to do a survey of groups managing fog collection projects for a class assignment. **Sanjoy Mallick** of York University, Canada, will do volunteer work with FogQuest this summer. **Melissa Rosato** of the University of Waterloo, Canada, is assisting FogQuest with fund raising activities this summer. **Mary Rosas Cardenas** from Chile, is in Paris, France, working with UNESCO on a project to complete her requirements for her geography degree. **Pablo Osses** at the Pontifical Catholic University of Chile has a group of students being trained on fog collection technology and helping with data analysis: **Sebastian Grau**, **Virginia Carter**, **Margarita Canepa**, **Estefania Rojas** and **Javiera Espinoza**. **Vincent Levesque** is a physical engineering student in the École Polytechnique Montréal, Canada, and is using fog collection for a project on appropriate technology. Fifteen students from the Ecole Nationale Supérieure Agronomique de Rennes, France, are doing a project on water in Cape Verde, which includes consideration of fog collection.

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