

# FogQuest Newsletter

June 2002 / Issue 7

A newsletter for those working on fog and dew related projects

**W**e are very pleased to once again bring you a newsletter about what is happening in the world of fog studies and fog collection projects. The big event in the last year was undoubtedly the Second International Conference on Fog and Fog Collection, which was held in St. John's in July 2001. To those who attended, a heartfelt thanks from the organizers for your support. To everyone else, we cannot recreate for you the spectacular city setting, the warmth of the people, or the friendship of the delegates but we can offer you the possibility of sharing in the results of the work presented at the conference, through the 536 page proceedings volume.

You will notice a change at the top of this first page. The *Fog Newsletter* has become the *FogQuest Newsletter*. The *Fog Newsletter* was created after the 1998 Vancouver Fog Conference to foster communications between all the individuals and groups that make up the diverse field of fog studies. It has served its purpose well and was the primary tool for promoting the 2001 St. John's Fog Conference. It was a publication supported by our three core sponsors, CIDA, Environment Canada and IDRC, and prepared and distributed by the not-for-profit organization in Canada that was incorporated for the sole purpose of organizing and hosting the Vancouver and St. John's conferences. Now that the work on the 2001 Fog Conference has been almost completed, the conference not-for-profit organization is being dissolved and the *Fog Newsletter* will no longer be published.



Werner Kroneis preparing to leave an Austrian mountain site after examining his active fog collector.

The main reason that the newsletter has not been published between the time of the conference and now is the lack of funds to do so. The newsletter has not been self-supporting through voluntary donations from the recipients and we were not in a financial position after the conference to pay for its publication from conference resources. However, in the last six months a new not-for-profit organization called *FogQuest: sustainable water solutions* has obtained charitable status in Canada. It will have as its mission the planning and implementation of fog, rainwater, and dew collection projects for people in rural parts of the developing world. It is *FogQuest* that will continue the newsletter and this is the reason for the name change noted above.

Together with a new name is a new method of helping to defray the costs of publication. We will still look to our sponsors for assistance and would like to express our gratitude to IDRC for its recent grant. At the same time, we will reduce the distribution significantly and provide the *FogQuest Newsletter* as one of the benefits of membership in *FogQuest*. We are sending this complimentary copy to you with the hope that you will be supportive of the goals of *FogQuest*. We need you to both take out a membership for 2002 and contribute your articles, photos, and project news items for inclusion in future issues. The newsletter will highlight *FogQuest* activities but we want the newsletter to continue to be a place where you can read about the who, what and where of the scientific and technical advances in fog studies. It will also provide



## 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](mailto:FogQuest@rogers.com)

or to the address at the end of this Newsletter.

The Newsletter's purpose is to 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 to members of FogQuest three times a year. The current issue is available on the web site [www.FogQuest.org](http://www.FogQuest.org). Information on membership can also be obtained on the web site.



information on recent journal articles and again be a tool for promoting the next fog conference.

No new effort starts without some uncertainty as to what the future holds. Your participation and support are vital to making both *FogQuest* and this newsletter successes. Please join us in helping people living in arid regions to receive water from the sources that you know and work with: fog, dew and rain. And please contribute material to the newsletter that conveys your excitement and enthusiasm about your work.



### THE 2001 FOG CONFERENCE

The St. John's conference was a great experience for everyone. The photos in this issue show some of the delegates enjoying the city, the excursions and the conference social events. It's not possible to show everyone but

hopefully there can be a larger photo section developed for the FogQuest web site.

### 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.

### HOW FogQuest OPERATES

FogQuest is a not-for-profit corporation and must meet all requirements and standards for a business operating in the Province of Ontario, Canada. FogQuest also has the status of a registered charity with the Government of Canada. As a charity, it can issue receipts for tax purposes to Canadian donors. FogQuest is governed by a Board of Directors and has the advice of Advisors to the Board. The operations are managed by the Executive Director who reports to the Board. In turn, managers of specific sections report to the Executive Director. There are also a number of Research Officers who take on specific short-term tasks to develop core components of field projects.

FogQuest receives its operating funds from three sources: grants from institutions for projects; donations from individuals and corporations; and annual membership fees paid by individuals.

You are invited to visit the web site [www.FogQuest.org](http://www.FogQuest.org) for short introductions to the volunteer staff of FogQuest. This will not only let you know who is doing what but give you an idea of the expertise and experience we can bring to bear on solving water problems. A significant portion of the staff are based in Chile. Their language skills, intimate knowledge of Latin America and access to the region provide major benefits to the people served by our projects.

### HOW CAN YOU HELP?

We urgently need your support for FogQuest's activities. Please consider taking out a membership for the year 2002. The annual membership fee of \$35.00 Canadian, or \$25.00 US for those outside of Canada, can be paid by check or by credit card. We accept VISA or MasterCard. If paying by credit card, please fax a copy of your completed form (from the web site) to the FogQuest office at (1-416)225-9801 or mail it to the office. One of the benefits of membership is that you will receive this newsletter. Other





benefits will include a special member's section on the web site, members' meetings, possible tours to sites, etc.

FogQuest also needs your donations, your ideas, and your participation in our projects. Please use the information at the end of this Newsletter to get in touch with us. Donations can be directed for general support or to our current projects in Haiti and Chile.

### SEARCHABLE DATABASE

FogQuest now has available a powerful searchable database, which, among other things, presently includes well over 2000 articles, videos, reports, audio tapes, etc. on fog, rain, dew, and water issues. The database is an extremely flexible resource that can be searched by author, location, topic, keywords, language, medium type, range of years and combinations of the above. It is currently available only in the FogQuest office in Toronto but will be available to members in the members section of the FogQuest web site before the end of the year.

### SPECIAL JOURNAL ISSUE ATMOSPHERIC RESEARCH

Arrangements have been made with the scientific journal *Atmospheric Research* to publish a special issue containing selected papers presented

at the 2001 Fog Conference. This is an excellent opportunity to share a portion of the wealth of exciting fog research from the conference, with the broader atmospheric research community. Jeff Collett is serving as lead, guest editor for the issue. The editors, including Howard Bridgman and Joerg Bendix, have chosen a variety of papers to reflect the breadth of topics covered at the conference. It is anticipated that the special issue will be published late in 2002. If you have questions about the conference special issue, please contact Jeff Collett at [collett@lamar.colostate.edu](mailto:collett@lamar.colostate.edu).

### DEW COLLECTION AT AJACCIO (Corsica, France)

*submitted by  
D. Beysens and M. Muselli*

Based on the experience gained with a working model in Grenoble (France), a prototype of a 10 m x 3 m dew collector has been set-up in Ajaccio (Corsica island, France), by D. Beysens, M. Muselli and I. Mylymuk. The project was funded by the CEA, CNRS, the University of Corsica and the OPUR international association for dew utilization ([www.opur-u-bordeaux.fr](http://www.opur.u-bordeaux.fr)). The condensing surface is a rectangular foil made of TiO<sub>2</sub> microspheres embedded in polyethylene (a material elaborated by T.

Nilsson in Sweden), which faces west to remain in the shadow in the morning. The plane surface makes an angle of 30° with respect to horizontal, an angle determined from aerodynamics numerical simulations, which is a good compromise between the need to favor the sliding of dew drops while keeping a sufficient radiation solid angle.



The dew collector at Ajaccio, Corsica, France.

The hollow part of the device is thermally isolated with polystyrene and faces the direction of the dominant nocturnal wind to minimize air heating. Dew measurements are correlated with meteorological data and compared to dew condensed on a reference surface (a horizontal plate made with aluminum-coated PMMA (Plexiglas)). During July 22, 2000 January 31, 2001 (194 days), there was much more dew days recorded on the condenser (74 dew days) than on the reference plate (48 dew days). The





yield corresponded to 266.5 liters (3.6 liters in average per dew day). The maximum yield in the period was 11.4 l/day. The analysis of the chemicals present in water shows that such dew water is drinkable. The study continues in order to reduce the cost of such alternative water resources. For information contact D. Beysens at [dbeysens@cea.fr](mailto:dbeysens@cea.fr).

### NEWS

The News section will return in the next issue. People involved in fog collection projects such as the one in the Dominican Republic and scientific projects like those in Austria (see photos) will be highlighted.

### FogQuest ADDRESS

P.O. Box 151  
1054 Centre Street  
Thornhill, Ontario  
Canada L4J 8E5

Email: [FogQuest@rogers.com](mailto:FogQuest@rogers.com)

Tel. 1-416 225-7794  
Fax 1-416 225-9801

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A standard fog collector in the Dominican Republic.

