



26 February 2010

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## IBI Announces Carbon War Room Biochar Battle Launch

IBI is pleased to announce the launch of the Biochar Battle in concert with the Carbon War Room. Coined "Operation Black Gold", the battle plan was developed by IBI in concert with the Carbon War Room over the past 10 month period. IBI Executive Director Debbie Reed and Chairman of the Board Johannes Lehmann presented the Biochar Battle concept to the founders of the Carbon War Room at their launch in June, 2009 in New York, and since then IBI has devoted significant resources to fleshing out a battle plan to help build a strong biochar industry in both developed and developing country settings. The Carbon War Room recently retained a project manager to assist in carrying out the Biochar Battle, and the Board of the Carbon War Room recently approved the first year budget for the Operation Black Gold.

"The biochar industry and the underlying science behind sustainable biochar systems has grown exponentially in the past several years," said IBI Executive Director Debbie Reed, "yet significant resources are needed to continue critical R&D while also developing market-based and economic models and business plans for biochar systems, and developing standards and classification systems to provide quality and market assurances for biochar materials and production and utilization systems." Also, Reed noted, "Financing for pilot and demonstration projects at all scales is needed, together with support to continue IBI's policy work in the international and domestic arenas to recognize biochar as a near-term technology to address climate change mitigation and adaptation."

IBI's objective is the global scale-up and deployment of sustainable biochar to enhance soils and fight global warming. Sustainable biochar also provides numerous other benefits such as boosting food security, discouraging deforestation, and generating clean energy. To achieve this objective, IBI is creating global awareness of sustainable biochar systems. "We really can't afford not to pursue sustainable biochar," said Reed.

IBI welcomes the support of the Carbon War Room to the biochar industry and to IBI, and looks forward to a continued successful partnership to help build a global, viable, sustainable biochar industry.

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## Themes announced for 3rd International Biochar Conference, IBI 2010, Rio de Janeiro Brazil

The Brazil 2010 conference science committee recently announced the 10 themes and topics for the September 12 - 16 2010 conference. IBI will be posting a formal announcement of a call for abstracts in the next week and invites scientists, engineers, policy analysts, policy makers, users, producers, investors, and students to submit abstracts for consideration for oral presentations and poster sessions. The deadline for receipt of abstracts is April 9, 2010.



### Conference Themes and Topics:

1. Biochar production and new products. Biomass sources, residues and co-products recycling. Management of emissions, wastes, and byproducts from biochar production.
2. Integrated biochar systems. Design and evaluation of small and large scale systems.
3. Characterization of fresh and aged biochars. Physico-chemical characterization of structural recalcitrance and functionalities. IBI's biochar characterization effort.
4. Biochar quantification in the environment.
5. Biochar amendments to soils. Agronomic evaluations and effects on soil carbon dynamics.
6. Terra Preta de Índios: state of the art.
7. Climate change mitigation value and potential.
8. Sustainability, certification and legislation.
9. Commercializing biochar and large scale dissemination - economic, commercial, and industrial issues.
10. Emissions trading and climate change policy.

A full conference website with registration options as well as an agenda, information on travel and lodging, and the field trip will be available online soon.

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## Thanks to New Members, IBI Charter Membership Drive a Success!

In mid-December 2009, IBI launched an individual membership campaign recruiting charter members to help us build the foundations of the biochar

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industry. The 6-week membership campaign brought in 280 new memberships, exceeding our expectations. IBI board and staff would like to say Thank You to all who joined. This is a great start to our membership program. If you have not yet joined IBI, we invite you to do so. [Click on this link to go to the IBI membership signup page.](#)

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## Practitioner Profile: Biochar Stoves in Central America

Good coffee and great biochar are a match made in heaven. Especially since one product of that match is a cleaner cook stove for migrant coffee pickers who often have only open fires for cooking.

The match started in Seattle, a global center of coffee consumption and home of the Seattle Biochar Working Group. SeaChar (as it is known) is barely one year old, but this biochar regional group has a huge stack of accomplishments already. Last summer, SeaChar brought in



TLUD (Top-Lit UpDraft) gasifier stove expert Paul Anderson to give a stove making workshop. That inspired SeaChar member Scott Eaton to pack his tin snips and head down to Nicaragua to start building stoves for people who were still cooking over smoky open fires.

SeaChar co-founder and metal sculptor Art Donnelly was also bitten by the TLUD bug. He began making elegant TLUD stoves with artistic scrolls and whimsical touches like an air controller made from an Altoids mint can. Showing off his stoves at a Seattle garden fair, Art met Arturo Segura, owner of Sol Colibri, a sustainable, shade grown, organic coffee farm in the Santos region of Costa Rica. Segura is also a direct trade sales rep for La Alianza, an alliance of organic producers of coffee, cocoa, and bananas. Arturo Segura was interested in making biochar on his coffee plantation and he also wanted to help the migrant coffee pickers from Panama and Nicaragua who live with very little resources in difficult conditions during the picking season. Poor indoor air quality associated with cooking on an open fire is a major cause of respiratory disease.

In January, Art traveled to Arturo's farm in Santa Maria de Dota, Costa Rica. What followed was an intense two weeks of interviews with pickers, demonstrations for farmers, and scrounging the countryside to see what stove making materials were available locally. The result was another elegant Art Donnelly design - the Estufa Finca (farm stove).

To read the remainder of this story, please see: <http://www.biochar-international.org/profiles/centralamerica/stoves>.

*Photo: The Estufa Finca cooks dinner. Courtesy of Art Donnelly.*

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## Updates on Biochar Work in Haiti

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You may have heard stories about deliveries of rice and other food commodities in Haiti that are unusable because people do not have stoves or fuel to cook with. Nathaniel Mulcahy, CEO of [WorldStove LLC](#), has set up a workshop in Haiti and is making clean, fuel flexible, pyrolytic cook stoves that also happen to make biochar - potentially a boon for Haiti's eroded hills and fields. Information about Mulcahy's progress is hard to come by, as he has virtually no email access. Nathaniel tries to keep up communication via mobile phone and twitter messages at <http://twitter.com/worldstove>. You can also find updates and pictures of his work at the [WorldStove Facebook page](#).

If you would like to help the WorldStove effort, you can make a donation that will go directly to Nathaniel's work through the [International Lifeline Fund](#).

And here is some news from the Biochar Haiti subgroup of the Biochar Offsets Group on LinkedIn by Victoria Kamsler, Chair, Biochar Offsets Group:

"As you may have heard, just two days after the earthquake struck, Nathaniel Mulcahy of WorldStove was on the ground and hard at work making and distributing stoves in Haiti. Dave Sleuwaegen of Meldynique Solar was already there; they had projects in Haiti and the Dominican Republic well underway when the quake struck, and their team has been in meetings with President Clinton and the Haitian Minister of the Interior. Another member, expat Vickens Moscova, has organized a fundraising dinner cruise out of New York on February 27. The cruise will benefit Dave's Biofuel and Food project for Haiti.

"Recently, a remarkable thing happened in our Biochar Haiti subgroup. Nathaniel has been down in Haiti with member Vijay Jahangir, Director at International Lifeline Fund trying every way possible to get the large donation of stoves (in Minnesota) and wood pellets (on the panhandle in Florida) down to Haiti where they are waiting for them. Member Hoi Trinh of ILF has been working the phones in DC to get this moving, but like everything else on the way to Haiti, the stoves were stuck. Finally, Vickens Moscova hooked us up with a contact at [International Relief and Development](#) who offered to ship everything to Haiti for us. By the time you read this, the stoves may be on their way.

*Photo: WorldStove institutional cook stove in Haiti. Courtesy of Nathaniel Mulcahy.*

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## **ETHOS Stoves Conference Report**

*by Kelpie Wilson, IBI Communications Editor*

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You may have read about the "stovers" in the New Yorker last December in Burkhard Bilger's article, "Hearth Surgery". This dedicated group, intent on providing clean cook stoves to the world, met at their annual conference January 29 - 30 in Kirkland, Washington. The conference is organized by the ETHOS group and Dr. Mark Bryden at Iowa State University. This was my second year in attendance and the stovers are slightly less quirky but even more wonderful than Bilger's portrayal of them.

It has been a very successful year for the stove community. Two companies, Envirofit and StoveTec, are now manufacturing and distributing hundreds of thousands of the clean-burning rocket stoves. Mass production of a desirable and affordable stove for developing countries is a major milestone. However, the mood at the conference was not of self congratulation but of deeper probing into the problem of access to clean stoves. After all, the need for stoves is huge; 2 billion people are still cooking over open wood fires. Even a million stoves is just a drop in the bucket.



There was much discussion of the history of stove projects: how they have largely failed to meet objectives and how the objectives have multiplied over time as new requirements are added to the original goal of reducing fuel wood use. Stoves are now required (at a minimum) to slow deforestation, provide cleaner indoor air, and reduce greenhouse gases. New objectives for cook stoves include generating electricity with Thermo Electric Generators (TEGs are like a solar photovoltaic chip that runs on heat) and producing biochar for use in soil. To read the remainder of the story, please see:

<http://www.biochar-international.org/ethos/2010>.

*Photo: Dr. Paul Anderson at tin can TLUD alley. Courtesy of Kelpie Wilson.*

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## Malaysia Biochar 2010: 1 Day Workshop March 25th

Following up on the success of the "Biochar Malaysia Workshop 2009", coupled with the steadily growing interest in this emerging field, the University of Kuala Lumpur (UniKL) is pleased to announce another opportunity to share knowledge and network. UniKL MICET is organizing a 1-day biochar workshop on the 25th of March and cordially invites everyone to attend.

The 1 day workshop will cover many aspects of biochar, including production, characterization, and application. The event will feature speakers Dr R.T. Bachmann of the University of KL, Dr Gerard Cornelissen of the Norwegian Geotechnical Institute (NGI) and the Swedish Institute of Applied Environmental Research (ITM), Dr Sarah E. Hale, a postdoctoral researcher at NGI (Norway),

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and Trevor Richards an environmental services consultant and contractor based in Malaysia. For more information, an agenda, and to register, please see: <http://www.biochar-international.org/malaysia/2010>.

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## **Congo Basin Biosphere Bio-Carbon Forum April 2010**

Pro-Natura, an NGO that has worked extensively in Africa with biochar projects, is partnering with UNESCO's Man and the Biosphere Programme (MAB) to organize a Congo Basin Biosphere Bio-Carbon Forum in Brazzaville, Republic of Congo April 21 - 22, 2010. The forum will bring together regional stakeholders to discuss concrete steps toward strengthening the biosphere reserve network in Central Africa and using Congo Basin biosphere reserves as pilot sites to combat deforestation, protect biodiversity, and promote sustainable development through bio-carbon modalities. It will also include a training session for partners in bio-carbon opportunities, project design, and management.

The MAB Programme's Africa Bio-Carbon (ABC) Initiative seeks to develop strategies and models for bio-carbon sequestration projects in biosphere reserves in Africa through modalities such as REDD+, afforestation/reforestation, biochar, and alternative energies. For more information on the program, please see: <http://www.biochar-international.org/congo/2010>.

IBI featured Pro-Natura's work with green charcoal in Senegal in March 2009. For more information, see: <http://www.biochar-international.org/Pronatura>.

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## **IBI Website Highlight: IBI Publications**

Do you ever find the need for some short biochar handouts? Some longer research summaries on a specific topic such as biochar's impact on soil carbon losses or soil moisture? Or information papers such as the carbon offset potential of biochar? Look no further than the IBI Publications page on the website. You are welcome to download and print materials as needed for use in conferences or meetings, as information when talking with elected officials, or for use as teaching materials. IBI is continually adding to these materials, so check back for new items.

<http://www.biochar-international.org/publications/IBI>.

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## **Regional Biochar Group Updates**

To see more information on regional groups, please see IBI's website at: <http://www.biochar-international.org/network/communities>. This month includes updates from the North East Biochar Association (US), Biochar Hawaii (US), and The Seattle Biochar Working Group (SeaChar) (US).

### **Northeast Biochar Association (United States)**

The Northeast Biochar Association, the new group conceived at the Northeast Biochar Symposium at Amherst Massachusetts last November, has announced that it is formally organized and incorporated, and is seeking members. The 13 founding Board members represent most of the New England States, New York, and Pennsylvania. NEBA has adopted as its mission "To advance the ethical use and creation of biochar".

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In pursuit of this mission, NEBA President and Board Chair Peter Hirst has announced three new initiatives. First, NEBA is sponsoring the Northeast Research and Development Initiative, led by Dr. Hugh McLaughlin, a group of biochar researchers and innovators who also joined forces at Amherst to develop biochar technology, applications and standards. Second, NEBA's first public appearance will be at the Ecological Landscaping Association Conference on February 25 at the MassMutual center in Springfield Mass. This Conference will feature a number of biochar exhibits, including an IBI booth and a display of the newest Mobile Adam Retort.

The Association's third planned activity will be a three-day presentation, training and demonstration program at SolarFest in Tinmouth Vermont, July 16, 17, and 18. At SolarFest, NEBA will sponsor an information and sales booth, several tent presentations, and a continuous series of demonstrations and hands-on workshops, including pyrotechnics, at the outdoor Biochar Theater set up especially for the purpose. For more information, please see: <http://www.biochar-international.org/regional/northeast>.

### **Biochar Hawaii (United States)**

A research grant was awarded to a group in Hawaii in September 2009 to study the effects of biochar on local agriculture. The funding was provided by Big Island Resource Conservation and Development (BIRC&D) a local non-profit funded by the USDA with the help of Senator Daniel Inouye. The grant titled: "Charcoal amended compost: plant growth responses in local agricultural systems" was awarded to Josiah Hunt and has helped fund the production of 20 cubic yards of finished compost containing approximately 30% charcoal (biochar) which is now being delivered to participating agricultural businesses. A more detailed write up on this project will come in June including physical, chemical, and biological aspects of compost and plant growth responses from more than ten agricultural systems.



Biochar used in the grant project was produced by Josiah Hunt. Dry lumber scraps were used as feedstock and combusted in a well managed fire. In the absence of more sustainable production options, this crude method has served well in producing relatively large quantities of biochar to conduct research and supply local demand. However, the project has procured plans and materials to build an enclosed unit to achieve a cleaner more controlled combustion, which should improve the efficiency of biochar production and reduce emissions involved. Analysis of the biochar by Hugh McLaughlin and detailed pictures of production can be seen on the Biochar-Hawaii group page at <http://groups.google.com/group/biochar-hawaii?hl=en>.

*Photo: Biochar compost application at Loeffler farms, courtesy of Josiah Hunt*

### **The Seattle Biochar Working Group (SeaChar, United States)**

SeaChar will be working at the South Seattle Community College Carbon Garden to welcome spring--on Saturday the 13th of March starting at 10am we will have a garden chore and stove demo day and at 1pm we will have our first meeting of 2010. As any of you who have followed our activities this winter know: SeaChar

has some exciting biochar related projects on tap for the coming year. The agenda for the meeting will be as follows:

- Forming a 2010 biochar test plot committee (first order of business: picking the spring crop)
- An update on the Adam-retort building project (scheduled build: April-May)
- An overview of the recently announced SeaChar/Sol Colibri: Estufa Finca Central America stove project and how you can get involved.

SeaChar will also be tendering a freshly revised SeaChar Mission statement and matching goals and strategic for our discussion and possible approval.

Thanks to the good work of our volunteer Vivian Scott and the far sighted generosity of the curators of Bellevue's Open Satellite Gallery <http://www.opensatellite.org>, we will also have several hundred, small, wild native strawberry starts to plant at the plot. These are from the recently closed Meiro Kolzumi installation: "The Corner of Sweet and Bitter". This will be our group's first contribution to the Campus Crops Initiative, recently announced by the S&A Campus Sustainability Task Force <http://www.southgoesgreen.blogspot.com>; fitting support for Seattle's "Year of Urban Agriculture". For more information and directions to the garden, see: <http://www.biochar-international.org/regional/seattle>.

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