Highlights from this Month’s News

In this month’s edition, look for news, ideas, and trends like these:

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WELCOME NEW CORPORATE MEMBERS

WHITTLESEY LANDSCAPE SUPPLIES
AND RECYCLING
Round Rock, TX, USA
https://www.989rock.com/

Current Members

10,000 YEARS INSTITUTE
ADVANCED RESILIENT BIOCARBON
AGRINOVA
ALDER SPRINGS RANCH
AMERICAN BIOCHAR COMPANY
AMERICAN GREENFUELS, LLC
APPALACHIAN STATE UNIVERSITY
ARIES CLEAN ENERGY
ARTi
B9 ENERGY CONTROL LTD.
BC BIOCARBON
BEES SAS
BELLA BIOCHAR CORPORATION
BINNIES HONG KONG LTD.
BIOCHAR SUPREME
BIOMACON GmbH
BLUEWORLD BIOCHAR
BRUNSWICK BIOCHAR/SCATTER
GOOD FARM
CARBOFEX OY
CARBONFUTURE GMBH
CHAMPION WASTE & RECYCLING SERVICES
CIRCLE CARBON S.L.
CITY LIGHT CAPITAL
CLEAN MAINE CARBON
CORNELL UNIVERSITY
CUMMINS, INC.
We are a producer of mulch, compost, and custom soil blends. We just had our first biochar burner box delivered to one of our locations and are getting it set up and running soon.

**OFX EcoSolutions**  
Boulder, CO, USA  
[https://ofxeco.com/](https://ofxeco.com/)

OFX EcoSolutions is a carbon offset developer utilizing a circular approach to eco-friendly remediation and reclamation services within the oil & gas and mining sectors.

**TorrCoal**  
Dilsen Stokkem, Belgium  
[https://www.torrcoal.com/](https://www.torrcoal.com/)

TorrCoal firmly believes in torrefaction: a process to produce bio-carbon from wood and agro residuals. A process to renew biomass into cleaner carbon for industries. A process that we have perfected into our own TorrCoal technology. With this technology, you can build the most advanced torrefaction plant. And with that plant you can generate your own bio-carbon streams.

**Appalachian State University**  
Boone, NC, USA  
[https://stbe.appstate.edu/](https://stbe.appstate.edu/)

Our department features an integrated array of programs spanning the fields of sustainable design and technology. We have developed a reputation for innovative research and sustainable development in the areas of construction and building science, renewable energy, and other sustainable technologies. Our mission is to foster a strong and vibrant culture of inquiry, discovery, and innovation that integrates theory with application, problem seeking with problem-solving, local issues with global perspectives, and technological progress with environmental stewardship. More specifically, our department endeavors to:

- Provide exemplary teaching that inspires and challenges students through experiential learning, synergistic curricula, and community engagement.
- Conduct and disseminate scholarly work that focuses on sustainable solutions to important challenges in the design, creation, and management of technological systems.
- Serve as a resource and a catalyst for local and global communities through projects, partnerships, and outreach.

We encourage you to become part of our innovative team! Please spend some time on our site learning more about our programs, our students, and our faculty.
Rectella International (Positive BioCarbon) was the first UK Charcoal supplier to obtain FSC certification for its Charcoal products. We are a privately owned company.

AND RENEWING CORPORATE MEMBERS

**GECA Environnement**
https://gecaenviro.com/
Québec, PQ, Canada

GECA is an internationally recognized consulting firm providing expertise in waste valorization, biochar, bio carbon, pyrolytic liquids and thermal transformation projects. GECA too has a carbon branch dedicated to the biochar carbon credit market.

**EcoTopic AB**
https://ecotopic.se/
Kolmården, Sweden

Ecotopic AB is a consulting firm specializing in the development of the bio carbon market as a step toward more sustainable agricultural practices.

**North Suburban Tree Service, Inc.**
www.northsuburbanmtree.com
Gibsonia, PA, USA

North Suburban Tree is the largest clearing and grubbing contractor in western Pennsylvania and are dedicated to environmental improvements that a foster a sustainable future and lead to social and economic improvements in the communities where it does business. Compost Filter Sock installers. Hydro-seeding & Mulching. Mulch Producers.

**Pure Life Carbon Inc.**
Calgary, AB, Canada
https://purelifecarbon.com/

Pure Life Carbon Inc. is a wholly owned subsidiary of Pure Life Global Inc. and was established with the objective of being an industry-leading producer of premium carbon-based technologies. Pure Life Carbon will have a heavy focus on R&D, environmental impacts, and the displacement of outdated products.
Wakefield Biochar is a premium quality soil conditioner that gives your plantings the best opportunity for success because it helps create a healthier soil. With just one application of our premium biochar, you will increase the organic matter in your soil and help nutrients and water reliably get to the plant roots with great results for years. And, as an added bonus, biochar contributes to the reduction of greenhouse gases in our atmosphere by returning carbon to the soil.

Biochar is not a new product. It is actually a solution for great soil health that has been forgotten over the years. With a gentle nudge, we are happy to help remind the world of its benefits.

Lerchenmüller Consulting
Freiberg, Germany

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From the Executive Director

Communication is the Key

On September 13, 2021, I stepped onto a significant learning curve in starting in my role as IBI’s Executive Director. While still learning about IBI’s history, its programming, the needs of its members and all of the scientific, technical and policy issues that are wrapped up in IBI’s work, I also have had to keep the full portfolio of IBI activities operating and planning for what the organization will look like in the next three to five years.

Doing these two things simultaneously require me to categorize and prioritize the work that is ongoing as well as give attention to the work that IBI might consider taking on in the future. The critical or existential questions are the things that must be done and they must be done thoroughly and well, even at the expense of letting some of the mid-level or lower level priorities go unattended for a short time. The middle level priorities may be difficult to assess but they are likely to produce positive results if they receive the attention they need. The lower priority matters might need attention, but they don’t need it immediately.

Putting this kind of assessment in place is the job of a new Executive Director in tandem with the board. Our goal is to appropriately allocate our resources to deliver programs and practices which are valuable and worthwhile for the biochar community, while at the same time expending our scarce resources carefully and prudently. We are doing this by engaging in an in-depth strategic planning process to lay out a path for our work over the course of the next three to five years.

I have the good fortune of having an expanded level of resources to ramp up more of the good programming that IBI has in place and to consider new and innovative ways to do more work that increases biochar’s prominence globally. We are extremely thankful to the Woka Foundation for the generous grant that it provided to IBI last year to build our capacity and to try to actualize the potential of biochar as a beneficial climate change technology and for the many other productive uses it offers.
IBI’s leadership is now in the process of imagining the future for biochar and developing the strategies, goals and objectives to pursue the right mix of programs to actualize the future we are envisioning. The first step is to decide on a vision of the future. This strategic planning is a top priority and an activity that is deserving of our (nearly) full attention and energy over the past few months and extending over the next several months. Concurrently, we must keep up our ongoing and important work as well as we can during this time of discernment.

The key to all of this is **communication**. Communication is a two-way street. IBI needs to do a better job of pushing out information, expanding and improving the way we reach out to you, our members, as well as to the world at large. I am very pleased to announce that we have selected and agreed to an employment engagement of a full time Communications Director. We will formally issue an announcement via our website and press release next week once all of the i’s have been dotted and the t’s have been crossed.

There is also a **pull** element to communication: we want to hear from you, our constituents. We want to know what programs and services are most appropriate to fulfill your needs. In order to do this, IBI’s leadership will be engaging in extensive deep consideration of a range of possible options and conducting assessments of IBI’s portfolio of work. In the next few weeks, we will be posting one or more surveys for you to submit to us your ideas and suggestions for what IBI can do to cultivate and grow the opportunities for biochar. We invite you to take a little time to speak to us through these surveys. We need your input and we hope that we can successfully deliver the kind of results that best serve the interests of our industry on many fronts, not as a singularly focused organization.

So, the theme for IBI’s month of March is communication. We will be working on it and we hope you will take a little time to help us in this effort. Let me thank you ahead of time for your thoughtful and considered suggestions for how we might serve you better and to create a healthier planet.

Thanks,
Rob

Rob Nooter, Executive Director
International Biochar Initiative

**REGIONAL BRIEFS**

**ASIA-PACIFIC**
The present review inspects the significant role of biochar addition and the kinetics involved, further focusing on the limitations, perspectives, and challenges of the technology. Additionally, the techno-economic analysis and life-cycle assessment of biochar-aided AD process for the closed-loop integration of biochar and AD and possible improvement practices are discussed.

Australia New Zealand Biochar Industry Group (ANZBIG)

The new version of Puro Standard Biochar carbon removal methodology – edition 2022 – is ready to be used! The 2022 edition allows more biomass sources and different technology types to be certified. Therefore, more projects can join the Puro.earth marketplace, and more carbon can be removed from the atmosphere globally. Read the report 👉 [https://bit.ly/3sB30pU](https://bit.ly/3sB30pU) #carbon #netzero #biochar #carbonremoval #anzbig

NORTH AMERICA
Biochar Workshop and Kiln Demonstration

Event Date: March 09, 2022 1:00-4:00pm; March 10, 2022 9:00am-4:00pm, Arizona Time
Location: Globe-Miami, AZ
Russell Gulch Landfill: 5891 E. Hope Lane, Globe, AZ
Bullion Plaza Cultural Center & Museum: 150 N Plaza Circle, Miami, AZ
Please register: HERE
Online event link (workshop only):
https://arizona.zoom.us/webinar/register/WN_0J_EMWEYRfG_TbE6KGB8UQ
An in-person and virtual Extension workshop about biochar, including two biochar kiln demonstrations. More at https://extension.arizona.edu/events/2022-03-09/biochar-workshop-kiln-demonstration

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EUROPE
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GIZ (https://www.giz.de/en/html/worldwide.html) has released an updated version of the study that was first published on 17 September 2021. The updated version is at
https://wiki.afris.org/display/4COP2/Biochar?preview=/106664891/132324359/Synthesis_paper_biochar_v2.pdf . The main new features are a meta-meta-study and a weighting of how effects of Biochar on soil water balance are evaluated.
FUNDING OPPORTUNITY

Applicants must submit their applications via Grants.gov by 11:59 pm Eastern Time on: • April 8, 2022 for the first funding pool (proposals from $5 million to $100 million) • May 27, 2022 for the second funding pool (proposals from $250,000 to $4,999,999).

Applications: https://apply07.grants.gov/apply/login.faces?oppId=337878&origin=vgo-apply

RECRUITMENT ENQUIRY

The Future Forest Company is recruiting a BIOCHAR RESEARCHER. More at: https://thefutureforestcompany.bamboohr.com/jobs/view.php?id=76&source=aWQ9MTg%

IBI INTERNS UPDATES

Update by Camila Aquije, Universidad Científica Del Sur, Peru.
This month researching the biochar situation in Latin America and the Caribbean, I have been working on the database and I’ve been trying to figure out how to collect more information in Latin America and the Caribbean because not all countries respond to the emails or to any platform. Also, this month I’ve been talking to different producers in South America to see how their production is going and responding some questions they have about biochar and the webinars we’ve been having. I see a lot of interest in what’s going on with the production of biochar and as I said I think it’s a really good sign to keep learning and producing more biochar in Latin America. I hope that in the next couple of weeks I can gather more information and make contact with more people in the biochar industry so I can share with you what I found.

Update by Nithin Das, National University of Singapore, Singapore.
In this month’s update on biochar work, I have been doing pretty much the same as previous months though the progress is a slightly picking up due to our revised framework. Looking forward to work together with the IBI team in 2022. I hope we grow more as a team and foster stronger bonds this 2022.
IBI TECHNOLOGY PODCAST EPISODE 1

The first Biochar Technology podcast interview features Geoff Lindsay and Anna Grochowska from Vow, a Norwegian company providing an array of biomass and bioenergy solutions. In this episode we focus on their unique pyrolysis technology, originally developed by their French subsidiary Etia. This is called the Spirajoule, which is an electrically heated screw that simultaneously heats, mixes, and moves solids as they are pyrolyzed to become biochar. For more information, visit https://www.biogreen-energy.com/request-form.

BUSINESS OF BIOCHAR SYMPOSIUM RECORDINGS

Presentation recordings of The Business of Biochar Symposium, hosted by the International Biochar Initiative and U.S. Biochar Initiative in December 2021, are now available for purchase at $75. Please visit IBI’s website at https://biochar-international.org/the-business-of-biochar-online-symposium/ to purchase and download the recordings.

CALENDAR

Early heads-up – note the dates: COP27.

Image credit: https://sdg.iisd.org/tag/unfccc-cop-27/
Bio360 Expo returns face-to-face to Nantes from March 30-31. >400 exhibitors await you with a truly international flavour. 160 organisations from >25 countries, 4 continents and 10 country pavilions …

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Thursday, March 31st

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**IBI Upcoming Webinar:**

**Verified Carbon Removal by Smallholder Farmers**

March 4, 2022 – 9:00 – 10:30 am ET (US)

Smallholder farmers in the developing world have the capacity to contribute significantly to carbon removal efforts by converting crop residues, which today are often merely burned, into carbon sequestering biochar. With this capacity smallholder farmers in the developing world can tap into the fast-growing carbon removal markets, which will only motivate them to produce biochar and reduce in-field crop burning, as well as improve farmer livelihoods and enhance food security.

**IBI Members:** Members may register here by *first* logging into your membership accounts, then returning to this page for the link or via the Members' Only website (scroll down to the ‘IBI Webinar Presentations and Questions’ section).

**Non-IBI Members:** Non-IBI members may register here for a $40 fee.
Call for Papers: Special issue of *Process Safety and Environmental Protection*

The web page at the end of this item was originally issued during May 2021. However, the deadline for manuscript submission is **31 March 2022**.

*Recent Advances in Thermochemical Transformation of Biomass to Bio-oil, Biochar and Syngas and its Upgrading Methods.*

To be within the journal’s scope, papers must take an integrated approach to environmental protection and include relevant engineering aspects. For further details on the scope for papers related to environmental protection, see the journal’s website [https://www.journals.elsevier.com/process-safety-and-environmental-protection/](https://www.journals.elsevier.com/process-safety-and-environmental-protection/)

The website for submission to this special issue is [https://www.editorialmanager.com/psep/](https://www.editorialmanager.com/psep/) To ensure that all manuscripts are correctly identified for inclusion in the special issue, the corresponding author should select ‘**VSI: Rec Adv Thermo Transf**’ when choosing the 'Article Type' during the submission process. [https://www.journals.elsevier.com/process-safety-and-environmental-protection/call-for-papers/special-issue-rec-w-adv-thermochemical-transformati](https://www.journals.elsevier.com/process-safety-and-environmental-protection/call-for-papers/special-issue-rec-w-adv-thermochemical-transformati)

**Early heads-up:**
August 08-09, 2022 in Amsterdam, Netherlands

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Conference Code: 22NL08ICIAMMEPISFCPB001

[Submit Your Paper] [Author Registration] [Listener Registration]

[About] [Venue] [Call For Papers] [Important Dates] [Committees] [Registration Fees] [Program]

[Conference Photos] [Flyer]

**The International Research Conference Aims and Objectives:**
The International Research Conference is a federated organization dedicated to bringing together a significant number of diverse scholarly events for presentation within the conference program. Events will run over a span of time during the conference depending on the number and length of the presentations. With its high quality, it provides an exceptional value for students, academics and industry researchers.

Go to [https://www.greencarbonwebinar.org/](https://www.greencarbonwebinar.org/) for the complete schedule to mid-June, login details etc.

NEW RESEARCH FROM GOOGLE SCHOLAR

Here follow a few examples of the descriptors that are published on the Members section of the IBI website. Papers in this list are from last month’s new ‘biochar’ entries in Google Scholar. Quotes are from the papers, which are accessible through the links provided. These have been extracted by Abhilasha Tripathi PhD Candidate, Indian Institute of Technology, Kanpur to keep the length of this addendum manageable, yet informative enough to prompt further investigation by readers. Emphasis was placed on highlighting new findings leading to practical application, but with the expectation that decisions will be informed by accessing the full publication.

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From the Abstract: “Due to insulating nature, the bio-char nanoparticles has no charge carriers or phonon vibration. Hence, there is no heat conduction. At the same time, the viscosity index, flash/fire point, and pour point of 0.5 wt. % nanolubricant exhibited better increment of 15.83%, 16.05%, 16.44%, and 40% respectively as compared to base lubricant.”

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From the Abstract: “This study proposes the use of biochar epoxy to boost the barrier properties of the coating, which is both economical and eco-friendly. The incorporation of biochar can reduce the porosity of the coating and complicate the path of the corrosive media towards the steel substrate.”

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From the Abstract: “The yield of 48% H$_2$ in the gas generated using the MWP significantly surpassed that in the gas produced using CP. When the energy required for increases in temperature and H$_2$ yield were compared, 800 °C was found to be the optimum temperature for both the methods.”

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From the Abstract: “Biochar at 3% w/w enhanced thermal energy generation of organic composting by 15.0%.

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From the Abstract: “the biochar surface morphology properties were influenced by the feedstock types and pyrolysis temperature. The pores development and mineral contents in coconut shell biochar are the most suitable for soil amendment.”

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From the Abstract: “Leaf biochar with a calcination temperature of 800 °C (BC-800) achieves solar evaporation efficiency up to 65.64% under 1.37 sun illumination, and it has an evaporation rate of 1.32 kg·m$^{-2}$·h$^{-1}$. Furthermore, BC-800 shows a removal rate of about 99.00% in the purification of metal ions, which can effectively reduce the ion concentration in seawater for desalination.”

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Additional research:


From the Abstract: “In the context of green and sustainable future development, activated and functionalized biochars with abundant surface functional groups and large surface area can act as effective catalysts or catalyst supports for chemical transformation of a range of bioproducts in biorefineries.”
Work with IBI!

IBI offers the following options for collaboration with scientific projects. Select the package best for your organization and complete the accompanying payment form.

☐ Silver Package 1

a) IBI is posting a project description on its website with contact details, links, photos; the website can be updated once per year.

b) IBI is sending out a project update in the monthly newsletter twice per year of the project.

c) Publications published by the project are guaranteed to be listed in the monthly IBI publications update.

d) In-depth discussion of one publication per year by a member of the IBI Scientific Committee, sent out in the monthly IBI publication update and posted on the project site of IBI.

Costs: $1,000 per project year, payable at the beginning of the project year

☐ Gold Package 2

a) Includes all services of Package 1.

b) Webinar on project plans, progress or outcomes with a topic appropriate for IBI audience (one-hour webinar with about 50-100 participants worldwide), moderated by IBI, advertised globally, with Q&A session. Webinar is archived on the IBI website and can be seen by IBI members (add $1,000 for open access).

Costs: $4,000 per project year, payable at the beginning of the project year

☐ Platinum Package 3

a) Includes all services of Packages 1 and 2.

b) IBI excursion to your project at a time when it is attractive to a diverse audience ranging from scientists to industry representatives and policy makers, typically 40 attendees, who will pay for their own travel and a registration fee (see https://biochar-international.org/event/ibi-biochar-study-tour-finland/ for an example of previous excursions).

Costs: $15,000 per project year, payable at the beginning of the project year

Packages can vary for each project year (i.e., a project may opt for Package 1 in year 1 and 2 of their project and for Package 2 in year 3). Please inquire for additional options and combination of services not mentioned above. IBI will provide a letter of commitment that can be included in your proposal to a donor. If the proposal is approved and funded, IBI can work with purchase orders or contracts, as is easiest for the project.
International Biochar Initiative

IBI COLLABORATION WITH SCIENTIFIC PROJECTS

PLEASE PROVIDE YOUR NAME AND CURRENT BILLING ADDRESS:

Collaboration Options (Prices in U.S. Dollars)

☐ Platinum: $15,000
☐ Gold: $4,000
☐ Optional open webinar access (+$1,000)
☐ Silver: $1,000

Total amount enclosed: $_____

☐ check in U.S. dollars  ☐ cash in U.S. dollars  ☐ MC/Visa number:__________________________

Exp. Date: _________  3-Digit Security Code: _________  Name on Card: _____________________________

Email receipt to: _____________________________ / Phone #: _____________________________

Please enclose check or cash or provide credit card information, and send to the IBI Office:
by email (bschorr@ttcorp.com), fax (1-202-223-5537), or U.S. mail
(1211 Connecticut Avenue, NW, Suite 650, Washington, DC 20036, USA).

Thank you for your support!