

THE JOURNAL

INDIANA ENVIRONMENTAL HEALTH ASSOCIATION, INC.

Fall Conference forced to cancel

The Coronavirus COVID-19 has claimed another victim, the IEHA



The Lawrenceburg Event Center on the Ohio River was to be host for the Fall Educational Conference.

Annual Fall Educational Conference. President Elect Holley Rose had chosen The Double-Tree Hotel

and Event Center in Lawrenceburg for the conference, the same location as a few years ago.

But the uncertainty of the current pandemic with restrictions on travel and gatherings of large groups made the decision necessary. At a recent Executive Board meeting, members faced the reality of what was a difficult decision. A fall conference had never been cancelled

and the Board members discussed what the ramification would be.

Putting together a conference of this magnitude is a major undertaking costing typically well over \$50,000. Surplus money after the conference is over (what's left from conference fees and sponsorships after all bills are paid) is a major part of the IEHA income. Each conference usually generates from a few hundred to a few thousand dollars. Even if the conference could have been held safely, keeping with safety guidelines, Executive Board members wondered whether enough members be able to travel and attend, with some budgets being cut, and fears of contracting the virus.

But all is not lost. There is ongoing discussions about holding virtual sessions one day during the time the conference would have been held. More information will come.

Special points of interest:

- **COVID-19 claimed another victim, the fall conference.**
- **Even if held safely, there were concerns about enough members and speakers being able to attend.**
- **Some virtual sessions are being considered as replacements.**

IEHA Constitution requires meeting

Why do we have an Annual Fall Educational Conference? The IEHA Constitution under Article VIII says that the association hold an "Annual Spring Meeting" and an "Annual Fall Meeting." It says nothing about having conferences.

But long ago, it was learned that the way to get members to (maybe) at-

tend the business meetings was to have a conference featuring educational sessions. Spring Conference has traditionally been one day, but the Fall Conference has grown into a three-day event, that has been said to be one of the best conference values in the country.

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From the Ed desk



Welcome to the Summer edition of your Journal. We're all anxious for life to get back to normal, although "normal" might not be the same. But we will adjust. One thing that hasn't changed is the need for environmentalists to protect public health with trained inspectors performing inspections. I think if we project some normalcy in our jobs, it will provide encouragement to those we inspect. They might even be glad to see us!

As always, comments and contributions are welcome at any time. See the contact information on the back page.

Ed

Solar farm, pollinator habitat planned

"The ground around the solar farm can be used to plant flowers that will attract pollinators."

Coal power plants are shutting down to reduce greenhouse emissions. What is the best use for the remaining sites? Solar farms provide one answer that can serve more than one purpose. Not only can electricity be generated, but the ground around the solar farm can be used to plant flowers, that will be beneficial to pollinators like bees and butterflies.



One such site is planned in Logansport, where the former electrical generating plant was shut down in 2016. Indiana Public Radio is reporting that Inovateus Solar will build the pollinator habitat on an 80 acre plot and is expected to generate nearly as much power as the former coal fired plant.

Purdue University biologist Brock Harpur is reported to be in line to help create the native habitat. He says that there are additional benefits to local farmers such as ones who keep bees.

Bee keepers need a place to keep bees that has food throughout the year. This spot would mean bee keepers wouldn't have to keep moving colonies to find suitable plants. Additional benefits could include less maintenance as areas around solar farms usually need mowing. That's not necessary with the area self-sustaining with flowers. The plants can also provide a cooling effect on the solar panels, making them more efficient in hot weather.

This solar farm plan coincides with the first ever proclamation of National Pollinator Week by the U.S. Environmental Protection Agency (EPA). EPA Administrator Andrew Wheeler said in a press release, "Pollinators like bees and hummingbirds sustain nearly 80 percent of the food in our diets." EPA says that three quarters of the world's flowering plants and over a third of the food crops depend on animal pollinators to reproduce, yet pollinators are declining from stress, pests, loss of habitats, and excessive exposure to pesticides.

PB&J, the story of a legend

The peanut butter and jelly sandwich seems to be legend in foods, but how did this combination come to be? Peanut butter appears to be the youngest of the three ingredients, jams and jellies have been around since the 1500s, and bread is thousands of years older than that.

On its website, *mashed.com* credits Ambrose Straub, a physician who came up with a peanut paste for his older patients who had trouble swallowing, or perhaps had bad teeth. But the process was later

patented by John Harvey Kellogg (yes, that Kellogg) who was convinced by Straub to make the peanut paste, which was a hit at the 1904 St. Louis World's Fair.

Grape jelly came along shortly after when Paul Welch (yes, that Welch) patented a process for turning grapes into jelly. Soldiers in World War II began spreading it on bread. The idea of a sandwich - food placed between bread slices - was popular in England from the time of the American Revolution,

but not so much in the United States yet.

It wasn't until late 1901 when *Boston Cooking School* magazine featured an idea of making a sandwich filling using peanut butter paste and jelly, although peanut paste at the time was still sticky and thick. The invention of the peanut grinder mill helped that.

PB&J wouldn't be here without sliced bread. The bread slicer is credited to Otto Rohwedder in 1928, whose machine could cut "neat and precise" slices not possible with a knife by hand.



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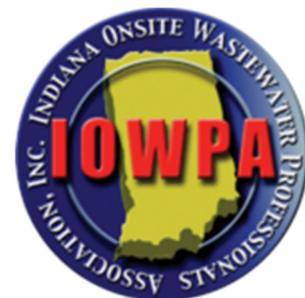
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IEHA sustaining members invaluable



Sustaining members enable IEHA to provide the programs and services to all its members.

Supporting them can help show our appreciation!



ATMOSPHERIC CARBON DIOXIDE LEVELS ARE AT RECORD HIGHS. THE LAST TIME 442 PPM WAS REACHED WAS TWO AND A HALF MILLION YEARS AGO. THERE WERE TREES NEAR THE SOUTH POLE.

Attack of the killer Asian Giant Hornet?

The world's largest hornet species has made it to the United States. The Asian Giant Hornet was spotted in Washington state last December. Because of the emerging threat, the Washington State Department of Agriculture has begun a project to eradicate them.

Scientists at Washington State University (WSU) say the hornet, which may be longer than two

inches, has a sting that can be lethal to humans even if not allergic due to its powerful neurotoxin. The sting has been described as getting poked by a "red hot thumbtack".

Described by WSU scientists as a "voracious predator", the insect lives in forests and low mountain areas in parts of Asia and feeds on large insects including honey bees that have no

real defense.

The hornet's life cycle begins in April when queens emerge from hibernation, then will build dens underground. Hornets are most destructive in late fall and can destroy bee hives.

How and when the hornets arrived is not yet known. They've also been found in British Columbia.



The Asian Giant Hornet is the world's largest, at over 2 inches long. It feeds on bees.

Ride-hailing services and the climate

Ride-sharing services are gaining popularity, but do they help or add to climate change? Analyst with the Union of Concerned Scientists (UCS) say while services like Uber and Lyft might fill in gaps in transportation systems, especially

in major cities, but might make climate change worse. Drivers can practice "dead-heading", driving the streets looking for customers, or just driving to pick up fares with no passengers. Surveys showed up to 47% more energy used than if

someone used his or her own vehicle. UCS also noted that riders would use Lyft or Uber instead of walking, biking, or public transit. All factors considered, pollution might be 69% higher and might be increasing.

"While ride services might fill in transportation gaps, pollution can be 69% higher than with other methods."

Streaking satellites' light pollute sky

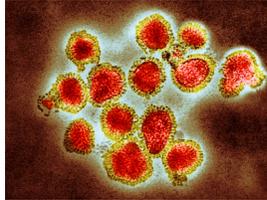
How many man-made satellites would you guess are orbiting the Earth? Are there 90? 900? About 9,000? As of last year, there were nearly 9,000 satellites orbiting the planet, says *StarDate* magazine, and the number is about to get much larger.

Companies like SpaceX, Amazon, and others plan to launch swarms of small satellites to provide Internet access and communications around the world. Not just a few satellites, as more than 12,000 are planned by SpaceX alone.

Although tiny, these satellites can reflect sunlight just after sunset and just before sunrise. This can cause streaks of light in the view of large telescopes scanning the sky. A few satellites is not a concern, but such large numbers could be an issue for space views.



Why can't we kill viruses like bacteria?



By the end of World War II, antibiotics were available to treat bacterial infections. But antibiotics don't work on viruses. It takes an antiviral to attack viruses and, as the *World Economic Forum (WEF)* reports, antivirals are much harder to develop.

The biggest challenge they say is that viruses use our cells to multiply and destroying the viral particle can also destroy the cell. Killing the virus is easy, but also keeping the host cell alive is not.

Bacteria are self-contained life forms that live on their own. They can be similar to cells

but are different enough to allow antibiotics to kill them. Further, viruses can vary greatly from each other making a broad spectrum antiviral harder to develop.

There has been some success with drugs that can stop the "matrix-2 protein" that allows the virus to duplicate.

"Extreme heat making areas uninhabitable is happening decades sooner than first predicted."



Some areas getting too hot to inhabit

Climate change is about to make some parts of the planet too hot for humans to tolerate, and it's happening decades sooner than expected, warn researchers.

A study reported in the *Independent* says that it's been clear for decades that the planet is heating up and there would be extreme weather conditions in the future. But the study of bouts of extreme heat and humidity revealed that the crisis is already upon us affecting parts of Asia, Africa, Australia, South and North America. The Southeastern U.S. along the Gulf Coast have been hard hit with evidence that periods of extreme heat and humidity doubled in the years from 1979 to 2017.

The study's author, Colin

Raymond, doing research while at Columbia University, said while extreme weather can be localized and last just hours, events are becoming more frequent and can pose an extreme risk to life and potentially damage economies. During the study's time frame, potentially fatal readings of heat and humidity were recorded 14 times in places like Saudi Arabia, Qatar, and United Arab Emirates, all home to over three 3 million people. Add to the list parts of China, Africa and the Caribbean. Unless air conditioning is available, such extreme conditions can cause the body's core temperature to rise beyond its survival range. Even someone in good health and hydrated can die within hours.

Humid heat is worst on people than dry heat as the air is already heavy with moisture, which slows the body's ability to perspire, the mechanism to remove body heat. If the "heat index", the combined effect of heat plus humidity, goes above 132° F. as has happened, performing any activity outside is impossible. Already, heat indexes over 120° F. have been recorded in the U.S.

A Union of Concerned Scientists climatologist, Kristina Dahl, says weather stations don't account for hot spots in dense areas of concrete so conditions may be even worse. Cities with "green areas" might fare better, but air conditioning might be critical for survival, which many areas of the world lack.

Imperiled monarchs find safe haven

Less than 40 years ago there were over 4 million monarch butterflies that wintered in California's Central Valley. Today, because wildflower meadows have been turned over to row-crops and developers, that number has dwindled to less than 29,000. According to *EDF Solutions*, pesticide use and climate change have also contributed to the decline.



As Monarchs are a valuable pollinator, a new project underway is intended to restore Monarch populations. Project "Orchards Alive" will engage farmers to plant native plants as cover crops among their farm orchards to restore native habitat. Two pecan farms alone have already agreed to plant several hundred acres of

plants that will include eight native perennial wildflowers like milkweed, which Monarchs depend upon for survival. Milkweed can bloom in the spring during breeding and provide food in the fall during migration. Thousands more acres of suitable habitat are planned.

Daniel Kaiser is Environmental Defense Fund's (EDF) Director of Western Conservation and says that

"time is running out" for native pollinators.

"Conservation and agricultural communities need to team up and incorporate insect habitat into commercial food production because we can't save pollinators without the help of farmers." Kaiser says.

Orchard management has not typically included biodiversity as a goal, Kaiser adds, but pecan orchards can be ideal for wildflowers, and better than looking at bare soil.

"Orchards Alive" is funded partly by a \$3 million state grant for monarchs and other pollinators. The project can also be a benefit to farmers as having beneficial insects means less spraying. For example, wildflowers will attract ladybugs who devour aphids that attack pecan trees. Wildflowers also improve the soil microbial diversity and can capture carbon.

While focusing on pecan farmers to start, the program may expand to other tree nut crops.



Monarch butterflies depend upon milkweed for survival.

"Monarch populations have dropped from over 4 million to under 29,000 in just over 40 years in California."

WV chapter not deterred by virus

Not wanting to miss a scheduled meeting, but remaining very much aware of the COVID-19 guidance, Wabash Valley members held their April and June meetings via telephone conference call.

Since April was the first time the chapter had tried a virtual meeting,

chapter president Jennifer Asbury decided to forego a formal presentation and see "how this goes," she said.

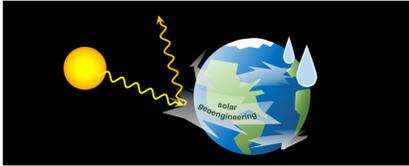
Jennifer followed the usual meeting agenda, but also involved each attendee by letting each comment on how they were coping with the pandemic restrictions,

and what problems they were facing.

Member feedback indicated that this was a popular way to meet, while keeping with the social distancing guidelines. But the downside was each was responsible for his or her own snacks!



Solar geoengineering - can it work?



Climate change is presenting a real threat to the planet's future. As the effect from heat from the sun intensifies, is there a way to reduce the sun's heat and help the Earth? Scientists studying this possibility are in a field called "solar geoengineering".

The *Catalyst* is reporting that although it sounds like science fiction, one approach to reducing the heat from the sun reaching the Earth would be to inject aerosol particles into the stratosphere to radiate some solar radiation back into space. Another plan involves spraying sea salt into low clouds to enhance their brightness and reflectivity.

Why even consider such

drastic measures? The Union of Concerned Scientists (UCS) says the world's efforts to reduce carbon emissions have not been drastic enough to keep temperature from rising. UCS, however, says these ideas are not good, even though costs would be relatively low. Such solar geoengineering projects do not address a primary cause of climate change - the release of heat-trapping emissions. UCS says these proposals don't stop acidification of the oceans or the serious impacts of ever increasing carbon dioxide levels on the world's ecosystems. It's likened to applying a Band-Aid as a solution. What's needed is a large scale solution to capture and store the carbon in the atmosphere.

The answer to climate change is complicated by a general lack of understanding of the problem and the solutions being offered, UCS says. There are environmental and geopolitical risks to solving the climate problem that needs to involve major research universities, and governments around the world, each with different goals and interests. Who decides what is best for the planet's climate? One country shouldn't deploy its own solar geoengineering solution that is meant to serve its own interests, which could be seen as putting other nations' security at risk.

Nothing currently exists to address a solution to climate change worldwide, and it's time for the public to be involved.

"One country shouldn't deploy its own solar geoengineering solution meant to serve its own interests."

IEHA officer slate set for 2021



Nominations for IEHA officers are now complete, reports Nominations Committee Chair Mike Sutton.

There are:

President - Holley Rose;

President Elect - Jennifer Heller;

Vice President - Krista Click;

Past President - Jammie Bane;

Secretary - Lisa Chandler,

Treasurer - Gretchen Quirk;

Auditors - Matthew Herrick and Catherine Hess.

There were only minimum candidates for each office, so elections will not be needed. Other positions are appointed by the President.

Are there germs in your vehicle? Yes!

Environmentalists can spend a lot of time in their vehicles. But with the COVID-19 concerns, how can drivers help keep germs at bay?

AAA.com offers several techniques that can help. First, use a vacuum for the seats, floors, console, trunk, especially getting into the crevices. Clean carpets with suitable cleaners.

Disinfectant wipes with at least a 70% alcohol content can be used to clean all hard surfaces, then follow up with a microfiber cloth. A soft brush can clean hard to reach spots.

Wipe surfaces touched frequently, like knobs, switches, seat belts, door handles, buttons, remotes and the visors. But, be cautious using

any alcohol-containing products on touch screens, as that can damage the screen. Better to use a vinegar / water solution and spray it on the cloth, then use the cloth to clean the screen.

A disinfectant spray can be used on vents and other hard-to-reach spots. Be sure everything, especially carpets, dry thoroughly.



Restaurants we'll never see again

Foodservices in Indiana are slowly reopening, even if at partial seating capacity. Many were able to operate as take-out venues or "curbside" pickup even with inside dining closed.

But that brought to mind the restaurant chains that are a part of history and will never come back. One has to be a certain age to remember some of these!

Considerable.com shared some tidbits about restaurants that are history now and reminded us that many were identified by "funky décor and colorful mascots". Some facilities had little or no presence in the state, but others were well patronized in Indiana.

Let's start with *Howard Johnson's*. Fifty plus years ago, it would be hard to find a parking spot at lunch time at any of the 1,000 plus places. Only one remains, in Lake George, New York.

There was *Farrell's Ice Cream Parlor*, with singing waiters, train whistles, and Tiffany-style lamps. Most of the 130 locations closed by the 1990's.

Remember *Arthur Treacher's Fish and Chips*? Forty to fifty years ago, there were over 800 locations. This chain used vinegar as a condiment for French fries. Just a handful remain on the east coast and in Ohio.

In the late 1960's, one could eat at *Ponderosa*

Steak House. That one and competitor *Bonanza* were bought out by a management company that ended up closing most locations.

Chi-Chi's is gone in the United States now but had over 230 locations at one time. Competition hurt the chain, but a final blow came from a Hepatitis outbreak from Mexican green onions in 2003 that left over 600 sick and killing four.

Hoosiers might remember (if you remember the 50's and 60's!) *Burger Chef*. They are credited with the first "kid's meal" that included a toy with a sandwich and fries. The chain had as many as 1,200 locations around the world. The chain was sold to Hardee's Restaurants.

"At one time, Burger Chef restaurants were second only to McDonald's in number, and is credited for the first kid's meal."



IEHA is an Indiana not for profit corporation since 1951.

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www.iehaind.org

"The Mission of the Indiana Environmental Health Association, Inc. is to promote, preserve and protect environmental public health in the state of Indiana, and to encourage a spirit of cooperation among all environmental health stakeholders while serving its members in the regulatory, industry, and academic communities."

More about IEHA



The Indiana Environmental Health Association, Inc. (IEHA) was founded in 1951 as the Indiana Association of Sanitarians (IAS). There were 16 charter members. The name was officially changed to the

Indiana Environmental Health Association in 1985. IEHA is affiliated with the National Environmental

Health Association (NEHA), and the International Association for Food Protection (IAFP).

IEHA is comprised of eight regional chapters. They are Central, East Central, Northeast, Northwest, Southeastern, Southern, Wabash Valley, and West Central. There are four standing committees, which include Food Protection, General Environmental Health Services, Terrorism And All Hazards Preparedness, and Wastewater.

The operations of IEHA are governed by an Executive Board that meets regularly. The Board and various standing committees are made up of voting and non-voting members. Information plus meeting dates, times and locations for the chapters and standing committees may be found on the IEHA website listed on this page. All meetings are open to any member or guest but only "voting members" may vote or hold an office.