

The *Journal*

IEHA Spring Conference set for The Garrison

The venue and theme of this year's Spring Educational Conference are in place, with final details to be worked out. The Garrison inside Ft. Harrison State Park near Indianapolis is the conference site.

Conference chair Andrew Pappas has titled the conference, "The Science of Sampling, Lab Data for Environmental Public Health". The conference date is April 13, 2023.

"Whether you are reviewing soils for a septic installation, monitoring water for maximum contamination limits, or tracking down a community health threat with epidemiology colleagues, the science behind lab analysis underpins good environmental health work," Andrew says in the official conference announcement.

More information will

be found at the IEHA website. Click on the link below.



<https://iehaind.org>

For mapping purposes to the conference site, use 6002 N. Post Rd., Indianapolis.

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Highlights:

- The IEHA Spring Conference will be April 13 at the Garrison at Ft. Harrison State Park.
- The Annual Fall Educational Conference is set for September 25 to 27 at the Horizon Convention Center in Muncie.
- Details of all conferences are found on the IEHA website - www.iehaind.org.
- Also find scholarship information on the website.

Plan for the next fall educational conference

Plans are well underway for the 72nd Annual Fall Educational Conference of the Indiana Environmental Health Association. The locations selected by confer-

ence chair Krista Click is the Horizon Convention Center in Muncie. The dates are September 25-27 with arrival and pre-events set for the preceding Sunday.

Lodging will be available at a special rate at the Courtyard by Marriott adjacent to the conference location. Find more information on the IEHA website.

From the Ed Desk

Here's the latest Journal for your enjoyment! I am experimenting with a newer format this time that I hope you will find easy to read.

A few days ago, I spotted the first flock of sandhill cranes flying north. (Actually, you hear them before you see them.) I can't be sure, but I suspect they were trying to get someplace where they could access the *Journal* to read about the bug sniffing dogs at DNR!

We've tried something new. In two spots where there is a web address, hovering your mouse over it should provide a hyperlink. See if it works for you!

Contact information is on the back page. Keep comments and ideas coming!

Ed



From the President

Hello IEHA members.

I am honored to be able to fill the IEHA President position in 2023. I'm sure we're all entering into this year with some trepidation as to what new situations can either sidetrack or enhance our environmental positions. That is the nature of our jobs though, always something new and unexpected coming our way.

It is my sincere hope that we all continue to support the IEHA and stay involved in the association through our participation in the conferences, Chapter meetings and Standing Committees. Just the opportunity for the networking with peers is well worth the cost of membership, not to mention the diverse educational experiences provided by the Chapters, Standing Committees and the conferences.

Please contact me at any time with concerns, thoughts or ideas. My email is bcenvironmental@browncounty-in.us and my office phone is 812-988-2255, or text me at 317-809-4341. Here's hoping 2023 is a banner year for everyone and we can look back on a year with environmental progress and issue mitigation.

Jennifer

"I hope that we all continue to support IEHA and stay involved through Chapter meeting, Standing Committees and Conferences."

2022 Annual Fall Educational Conference (AFEC) update

When last year’s AFEC award winners were presented in the Fall/Winter *Journal*, one of the winners was inadvertently left out so it is published here. Kacie Schenck was awarded the “Rookie of the Year” honor. Kacie works at the Boone Co. Health Dept., and is a vice president of the Wabash Valley Chapter.

Pictured here are JoAnn Mercado, left, Jennifer Heller, center, presenting the award to Kacie.

We are sorry the oversight.



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Sesame added to allergen list

The U.S. Food and Drug Administration (FDA) is adding another product to its food allergen regulatory requirements. This means that as of now, manufacturers will need to add sesame to labels as defined in law.

The Food Allergy Safety, Treatment, Education, and Research (FASTER) Act went into effect nearly two years ago and manu-

facturers were given until now to get into compliance. Sesame joins the existing list of eight allergens that includes: milk, eggs, fish, Crustacean shellfish, tree nuts, peanuts, wheat, and soybeans.

Consumers who are allergic to any one or more of these allergens will have reactions from mild



to severe, and in some cases, an allergic reaction may result in death. Having allergen information on labels allows consumers to make safer choices.

Food safety in other countries a concern here

Some countries that ship food to this country have a problem meeting food safety standards set by the United States. Foods like fish, fruit, vegetables, meat, meat products, plus cereals and bakery products can be, and are, rejected upon entry into the U.S. This can add up to 649,000 pounds of

food worth over \$1 billion annually, says *Food Safety News*.

The G20, a group of 19 European countries plus the European Union, gather regularly to discuss economic issues. It is looking at ways to encourage member countries to invest in food safety,

“Food products rejected by the U.S. can be returned to the countries of origin, reworked, or sold there . But much of it is destroyed.”

partly by exchanging food safety knowledge with other countries, thereby reducing food rejections.

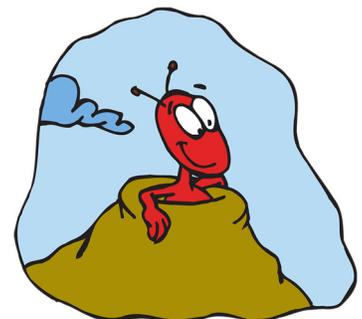
Do you know how many insects (say, ants) there are?

Here’s a question that an entomologist will know the answer, but do you? The question is, “How many ants are there in the world? Are there approximately

- 20,000,000
- 20, 000,000,000

- 20,000,000,000,000 or
- 20,000,000,000,000,000

The answer is “d” or 20 quadrillion, say researchers at the University of Hong Kong. That works out to be about 2.5 million ants per every person on Earth.



Medical spas: cause for a public health concern?

Medical spas, or med spas, aren't the normal spa experience. While still providing facials and pedicures, med spas specialize in treatments once only available in a doctor's office. Med spas may offer a variety of services, including (but not limited to) laser hair removal, microdermabrasion for exfoliation and skin rejuvenation, IV therapy for hydration and vitamin absorption, and laser skin rejuvenation for increased collagen production and reduction of lines, wrinkles, or blemishes. A med spa visit brings high quality, physician-level treatments to patients, without the need to go to a doctor's office or hospital.

To provide these services, certain licensures and regulations are required. A physician must oversee the procedures performed by a med spa, and most procedures provided at med spas require that the individual performing the pro-

cedure be properly trained by an accredited program and licensed by the appropriate agency. Medical associations, professional licensing agencies, and other associated entities govern the procedures. Med spas are inspected by their regulatory body to ensure proper procedure, record keeping, and sanitation practices are followed. Some med spas may also provide permanent makeup, which would then fall under the Indiana State tattoo code.

Indiana currently has no codes or regulations pertaining directly to Health Departments regulating medical spas. Due to the procedures being performed, and the professional requirements for being able to perform procedures legally, most med spa procedures are regulated and enforced by medical professional bodies, such as boards of medicine or professional licensing agencies. All ap-

plicable licensing, permitting, regulation, inspections, and best practices are performed by these agencies.

Complaints against med spas are directed to the Attorney General.



There are exceptions. For example, a med spa may choose to perform permanent makeup proce-

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“They may choose to offer permanent makeup procedures that fall under the Indiana Tattoo Code allowing a health department to require a permit”

Nation's drinking water infrastructure at serious risk

The infrastructure that provides most of the nation's potable water is failing. The American Society of Civil Engineers (ASCE) says a crack develops in a water pipeline once every two minutes. Potable water lines carry over 2 million gallons and those pipes are aging. And so are the 145,000 wa-

ter treatment facilities.

As the water systems age, the costs to repair and replace pipes and treatment plants goes up. ASCI has urged Congress to replenish funding intended to help upwards of \$35 billion over five years, minimal costs to start the

upgrades needed. Funds could be loaned to qualified applicants.



In addition, wildfires pose a threat as know pollutants contaminate water resources and systems.

New type battery might solve storage challenges

Renewal energy such as solar and wind are becoming cheaper and more dependable sources of electricity. But one problem has remained – a cost effective way to store excess power that is generated but not needed at the time. Lithium-ion batteries do work, but lithium is costly, not to mention the cost to the environment from mining.

Freethink.com is reporting that another source, “Room-temperature sodium-sulfur (RT-Na

-S)” batteries are showing promise as alternative storage, relying on chemical reactions between a sulfur cathode and a sodium anode to store and discharge electricity. Materials are relatively cheap, and the sodium can be extracted from salt water. Earlier versions had short life cycles and limited capacity, but a new type developed by storage researcher Shenlong Zhao at the University of Sydney is said to have four times the storage capacity of lithium-ion and

very long life, still retaining half of its capacity after a thousand cycles.

The improvement came in part from the use of carbon-based electrodes with a process called “pyrolysis” that “improves the reactivity of sulfur and the reactions between sulfur and sodium.”

The process has worked in a lab. Now the challenge is to scale up the process, which might take years to perfect.

Med spas (continued)

(Continued from page 5)

dures that fall under the Indiana Tattoo Code, which allow local health departments to choose to require a med spa to obtain a tattooing permit. Indiana’s tattoo code § 35-45-21-4(d) states: “This subsection does not apply to an act of a health care professional (as defined in IC § 16-27-2-1) licensed under IC § 25 when the act is performed in the course of the health care professional’s practice. Except as provided in subsection (e), a person who recklessly, knowingly, or intentionally performs body piercing upon a person who is less than eighteen (18) years of age commits body piercing a minor, a

Class A misdemeanor” This code does allow for adoption of an ordinance that is at least as restrictive as state law.

Medical spas are excellent ways for patients to receive physician-level cosmetic care, allowing them to look and feel good, which can have significant impacts on the overall well-being of an individual. While Local Health Officials may never encounter a medical spa or may never have thought about how they fit into society as a local health institution, med spas play a role in providing access to healthcare. Whether someone is looking to turn back the clock on aging, or for a way to mitigate the appearance of scarring, med spas pro-

“Medical spas are excellent ways for patients to receive physician-level cosmetic care.”

vide services and resources for many individuals. They are vigorously regulated in the field of healthcare and must meet the high standards of a physician-lead institution. While interaction between local health departments and med spas may be slight, the impact on our communities cannot be overstated.

(contributed by Derek Adams)

A rising threat to the nation's fresh water supplies: salt

Cold weather threatens and highway departments react by applying layers of salt and brine to the streets and highways. But evidence now shows that this is posing a serious threat to our fresh water systems, including rivers, lakes, wetlands and large water bodies like the Great Lakes as the salt washes away.

"We're blanketing the Earth with

salt," says Bill Hintz, an ecologist at the University of Toledo's Lake Erie Center.

Sodium Chloride, a version of table salt, lowers the freezing point of water melting ice relatively cheaply. It's use has improved highway safety, but at what cost? Studies have already predicted that surface waters in the Northeast could become toxic to hu-

mans and freshwater life within this century. And current safety thresholds appear not to be sufficient to protect sensitive species. The disappearance of sensitive organisms leads to ecological change, Hintz says.



Are Hydropanels the answer to world's fresh water needs?

Solar panels catch the sun's energy and convert it to electricity. What if there was a way to "capture" fresh, potable water? A company in Arizona believes it has that answer. "Hydropanels" created by *Source* does that.

The company says its panels use the sun to extract moisture from air resulting in safe drinking water. This could be invaluable in areas of the world where potable water is scarce, affecting upwards of two billion people.

According to the company, solar energy powers each panel so no external power connection is needed. Fans push air through a water-absorbing material which traps the moisture. Water vapor extracted is condensed into a liquid which collects in a reservoir. Specific minerals like magnesium

and calcium are added to the water to improve the taste.

Each panel is able to produce about 1.3 gallons of fresh water a day, at an initial cost of about \$2,000 per panel. The panels can operate effectively with humidity ranges from as low as 10% to 100%, meaning effective operation in extremely dry areas.

It has been estimated that nearly half the world's population might not have access to safe drinking water by 2050 unless a solution is found.

The company also believes that systems such as theirs could reduce the reliance on plastic bottles to store water and view this process as the most sustainable source of drinking water.

"Each panel can produce 1.3 gallons of potable water per day in areas with as low as 10% relative humidity."



Source Hydropanels operate completely independent of the power grid. Special moisture absorbing materials collect moisture from the air which is collected in reservoirs. Minerals are added to improve taste.

Kitchen cross contamination from unsuspected source

What is the most likely source of cross contamination in a home kitchen? Handles of equipment? Buttons on appliances? Good guesses and if cleaning and handwashing are not adequate, likely sources.

A recent study conducted by FSIS (Food Safety and Inspection Service) at USDA had unsuspecting participants prepare turkey burgers, believing they were trying new recipes, and had no idea this was a food safety study. Food safety knowledge among typical home cooks is certainly less than the average food worker with some training, but the results of the study can shed light on potential issues in commercial kitchens. Home cooks' understanding of cross contamination is likely low, not grasping the importance of cleaning and sanitizing hands and equipment.

There were nearly 400 people in the study that was conducted in

various kitchens from small to large, prepared by cleaning and sanitizing thoroughly ahead of time. Then, a harmless tracer bacteria was injected into the ground turkey as a substitute for norovirus.

Results were termed "surprising" following the swab tests of surfaces. Researchers said an average of 20% contamination rate was found on most surfaces. But spice jars used in the recipes tested positive nearly half of the time, and at higher concentrations, about the

same as cutting boards, but double that of items like knobs and handles.

This is likely an indication of a lack of handwashing and also a lack of cleaning and sanitizing of spice rack storage areas. This might also show increased need for handwashing during food preparation, not just before.



(reported in the *Journal of Food Protection*)

IEHA
Spring Educational Conference
April 13
The Garrison at Harrison State Park

A potential new use being tested for plastic not recycled

Some used plastic containers might find new life as a park bench, but what about items from plastic cartridges to plastic bags that are not recyclable?

According to the *Good News Network*, the answer might be to turn them into highways. Pilot

programs in Missouri, Pennsylvania, Virginia, California and Hawaii are turning plastic into aggregate material for asphalt mixtures and are being monitored for durability as well as whether any microplastics migrate into the soil. A quarter mile stretch of road in

Virginia contains a mixture with 150,000 plastic bags, plastic waste that did not go into a landfill or waterways. Testing will continue with a view toward expansion to other states.

So far, no problems have been found.

IEHA members support Public Health Day in Indianapolis

Intended to show support for the Governor’s Public Health Commission recommendations requesting the Indiana legislature provide more financial support to improve Indiana’s lagging public health infrastructure, hundreds gathered inside the Rotunda at the state capitol on January 26.

Among speakers for the two-hour event included Governor Eric Hol-

comb, and several members of the Public Health Commission including State Health Commissioner Dr. Kris Box, all sharing the common theme, “Why Public Health Matters”. They all promoted increasing investment in public health in Indiana since the state ranks 45th in the nation in public health funding. Adequate funding of local health departments is

critical to improvement.

A number of IEHA member attended including several past IEHA presidents.



JoAnn Mercado from the Marion Co. Public Health Dept. was one of the attendees.

Found only in Indiana, facts unique to the Hoosier state

As residents know, Indiana is unique in many ways, not all good, of course, but the state can point to areas that set it apart.

Did you know the state has an official insect? It’s the firefly. Which is dwarfed by the state fossil, the mastodon. But there is no state fish.

Indiana, the land of lakes? Could be, with hundreds of lakes including Lake Monroe, the largest at 10,750 acres. Monroe is manmade, so the largest natural lake honor goes to Lake Wawasee with 3,500 acres.

Two stars of Guns N’ Roses came from Lafayette, and Garfield the

cat hails from Fairmount. Indiana stars also include Michael Jackson and David Letterman.

The first train robbery happened in Jackson Co. in 1866. Robbers made off with \$13,000, about \$242,664 in today’s dollars.

(Reported in *OnlyInYourState.com*)

Unimaginable wind chill recorded, coldest on record

“Baby, it’s cold outside,” as the old song lyrics go. But composers Frank Loesser, Ehud Manor, Alex Weiss could never have envisioned the conditions at Mt. Washington, New Hampshire recently. Wind chill - the temperature plus the chilling effects of

wind on one’s skin - was recorded at minus 106° F. That would be the coldest temperature in the United States ever recorded. Temperatures that cold can freeze skin in a few minutes.

Actual air temperature reached

minus 47° F., while winds hit 97 miles per hour on the 6,288 high peak.



Homemade food sales increasing all over the country

The trend is to allow people to make and sell food from home kitchens. Indiana is just one of several states where state legislatures have opened the kitchen door, so to speak, allowing would-be food sellers to offer all sorts of food items to the public without the benefits of inspections.

How restrictive, or lenient, are various state laws? *Food Safety*

News (FSN) reported some findings from a recent survey. At least some types of homemade food is allowed in all states and DC. Often referred to Cottage Food Laws, the trends started out limited to shelf-stable foods, like baked goods to be sold at farmers markets. Now, five states allow the sale of home-cooked dishes with meat, openly competing

with commercial restaurants.

In 19 states FSN says

home sellers are free to market fermented foods. Plus 26 states say the sale of acidified foods is

(Continued on page 11)



Why are cut tomatoes considered “hazardous”?

Food inspectors have known this was coming. Whole tomatoes are fine as is, but cut them up, and some control is needed, like refrigeration. The FDA says bacteria growth in foods can be controlled by lowering the water activity and / or increasing the acid level, (lower the pH).

Fruits are generally “low acid” foods, (vegetables higher acid), but a tomato is borderline with a pH from 4.2 to 4.8. A pH of 4.6 or lower is necessary to reasonably assure that bacteria won’t grow too quickly. When there is insufficient acid or too much moisture in a food, the only viable alternative for safer storage is to keep it cold. A temperature below 41° F. is generally cold enough that any bacteria present will grow at too slow a rate to be concerning. This

temperature also won’t change the character of the food, says FDA.

All species of Salmonella have been shown to grow in a pH environment as low as 4.2, with the nutrients available in tomatoes. Salmonella is the pathogen of most concern with tomatoes.

So why is slicing worse than intact tomatoes? FDA explains it like this. It’s the “biofilm”. Salmonella can survive under adverse conditions because it can create a biofilm to protect itself. Salmonella can get to the tomatoes from sources like irrigation water. Salmonella attached to a tomato skin can begin forming a biofilm in ten hours. It does not die during transportation, ripening, or storage. It is difficult to clean a tomato skin without damage. There

“Salmonella is the pathogen of most concern and can grow with a pH from 4.2 to 4.8 and a tomato is a perfect environment.”

isn’t enough water on a tomato’s surface to support growth, but slice the tomato, and, well, you see the issue.

Tomatoes can be gently washed, but use water warmer than the tomato. Cold water can cause the cells to contract and draw surface contaminants inside.



Dog's sense of smell can aid DNR officers to find invaders

Dogs are generally known for a sense of smell far surpassing humans. Police departments use K9 units in a variety of ways, from finding bad guys, or illicit drugs, to search and rescue operations.

Now officers at Indiana's Department of Natural Resources have come across a new use for dog's noses - finding invasive species of bugs.

Outdoor Indiana says that Kallie Bontrager, a division nursery inspector, has two Australian Shepherds who have honed skills in agility, herding, and obedience, but had never had "scent" training. So she connected with Me-

gan Abraham, director of the Division of Entomology and Plant Pathology (DEPP). Bontrager's dogs would begin learning the smell of the spotted lantern fly, an invasive insect making its way to the Hoosier state. They had learned that dogs in Pennsylvania had learned to detect spotted lanternfly nests.

Bontrager says that with her travels around the state for her job, the dogs can get plenty of practice sniffing out any potential infestations. A discovery allows her to treat the invaders before they

get out of hand. "Egg masses can show up just about anywhere," she says, "including trees to

house foundations."

With Bontrager using her own dogs, DNR has reportedly saved thousands of dollars by not having

to hire professional dog teams from out of state.



The spotted lanternfly is invading Indiana, but trained dogs can sniff them out.

"Dogs can detect odors humans can't, even those subtle odors given off by insects."

The eight regional chapters of the Indiana Environmental Health Association will benefit from the success of the last Annual Fall Educational Conference. Conference chair and current president, Jennifer Heller announced that she wanted to divide some of the extra funds among chapters to aid them with expenses. In her proposal approved by the Executive Board, each chapter received \$400.00.

Homemade food sales up all over the country (continued)

(Continued from page 10)

OK, as are refrigerated baked goods (like cream pies).

The latest push likely started in Wyoming, but some jurisdictions still maintain some food safety

control. DC, for example, requires inspections and permits for any homemade food business. DC and 19 other states ask for recipe approval before selling some homemade foods. But 25 states have no licensing, permitting or inspection requirements of home

food vendors. Some states do allow local ordinances to be more restrictive than the state.

The Institute for Justice's National Food Freedom Initiative wanting to challenge laws restricting food sales is behind the sales increase.

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"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" as defined may vote or hold an office..

