THE ALLIAN Ε

Greater Chicago Pest

PRESIDENT'S MESSAGE: 2021 AND BEYOND -**GCPMA CONTINUES TO SERVE**

Management Alliance

Serving Pest Management Professionals Since 2004

Dear Valued Members:

As I start my 5th term as President of GCPMA. I can't help but think of how it all began in 2004. It was October 7th, and 7 of us gathered at the Smithereen office in Chicago to lay down plans for an urban based, affordable, and accessible organization designed specifically for the mid to small business owners, the over 1100 licensed PCO's in the northern region of the State, and the large companies with many branches in the area. It was in response to the lack of accessibility that this area had experienced for years, including high priced memberships that yielded very little in returns, seminars that were often not easy to get to, and very rarely having a voice in the operations needed to conduct business. So after carefully designing this, we set out on a membership drive. Or intentions were to augment the State organization in the spirit of cooperation, running our own seminars, providing testing in convenient locations and having more than 1 or 2 opportunities to do so, and having an event that would feature some of the most prominent speakers not only in the country, but Internationally also.

The start was slow at first but gained momentum rapidly. Our first Chairman of educational events, James Anderson, created the Meeting of the Minds. It was an opportunity to obtain 6 credit hours by having presentations from speakers that, in the past, could only be seen at National Events or in Springfield. It also provided an opportunity for our valued vendors to display their latest products and equipment in a setting that had ample space, and gave them time to address every attendee who

CONTINUED on page 3 [•]

SEMINAR INFO: Jim Anderson 224-619-5682

gcpma.com

©2021 GCPMA ALL RIGHTS RESERVED

Production: Stellar Graphics Design: Vibe Graphix

Spring Edition

INSIDE THIS ISSUE

2021



18

GCPMA OFFICERS:

Gary Pietrucha PRESIDENT **Grea Strohl**

VICE PRESIDENT Art White

SERGEANT AT ARMS **Dave Tumminello**

SECRETARY **Rick Aardema** TREASURER

OF DIRECTORS:

Jeff Beallis Jane Peifer Josh Groen

GCPMA BOARD

Brvan Nichols PAST PRESIDENT Ben Channon Kurt Spurgeon

Keith Henley

The Renewal of Wildlife'

Exterminating & Wildlife Conti

Spring is a wonderful time of the year that is enjoyed by so many people. It is a time for rebirth, new growth, and many baby animals are born during this time. With the re-population of many species, the opportunity for wildlife and human conflict increases.

Squirrels have two litters each year, the first one occurring in February/ March. Female squirrels have an average of 2 to 5 young which are called



"kittens". Baby squirrels nurse for 3 to 4 months until they get their teeth. After they finish nursing, they eat seeds, nuts, fruits, leaves, and other things that they can find in the wild.



Raccoons will begin having their young, which typically happens only once per year, in the March/ April time frame. They have an average size litter of 3 to 6 and the young are referred to as "kits" or "cubs". Pregnant female raccoons are of particular

concern because they may try to break into structures for adequate shelter and to protect their young from predators such as male raccoons. Male raccoons have been known to cannibalize the young.

Striped skunk, after a 63 day gestation period, will often have large litters up to 10 young in April/May. Striped skunks are born hairless with closed eyes and are called "kits". They



open their eyes around 22 days old, and nurse for about eight weeks. Young skunks can spray at just 8 days old. The awful smelling secretion comes from glands under the tail. These omnivores are

crepuscular (mostly active at dawn and dusk), and forage on a wide range of food from plants to insects, eggs, small reptiles, and rodents.

Opossum are marsupials. They have 1 to 2 litters per year anytime between February and October. Litters range from 5 to 13 and the young develop in the mother's pouch for



several months. A baby opossum is called a "joey". When frightened, these animals often pretend to be dead (i.e. playing possum) so curious predators lose interest in them. While this defense mechanism seems to be involuntary, don't be fooled into thinking opossums are defenseless: they can also be quite feisty when cornered!



Bats often return to the same location after winter hibernation to have their young, normally 1 to 2, in nurseries consisting primarily of females and their young. This occurs in June/July and in only 3 to 4 weeks young bats have reached the point

where they can gain flight.

Other wildlife are busy having and rearing their young in the spring such as red fox, coyote and beavers, to name a few. Spring is a very busy time of year for wildlife and is a peak time for human and wildlife conflicts to occur as animals try to utilize man-made structures to shelter their young.



PRESIDENT'S MESSAGE CONTINUED

came to their booth. The first meeting of the minds headlined Dr. Gary Bennet from Purdue, and Dr. Austin Frishman, known for years for his extensive study of cockroaches. The attendees numbered 250 pest management professionals along with business owners and managers. We had 14 vendors. That would turn out to be the lowest number of vendors from that point on. The word got out, and the event turned into the benchmark of educational events for the industry.

To date, we have provided the very best in pest control information, innovation, and education for over 4000 Pest Control Professionals. The event draws over 35 vendors and 350-400 pest control professionals. Speakers leap at the opportunity to be able to speak at our events, and our valued vendors and manufacturer reps have a wonderful opportunity presented to them to display their products. The key here is the affordable pricing for EVERYONE.

During this pandemic, we cannot do the MOTM's but we are pleased to announce 4 scheduled virtual seminars. The information will be posted, with our first event coming March 25th. Again, this will provide 3 credit hours along with valuable educational material from the convenience of your own computer. If something changes as far as the pandemic and public gatherings, we will keep you all informed.

We appreciate your continued support of GCPMA. I would personally like to thank the current board of directors and the executive board for their time in making this organization as special as it is. I would also like to thank Sara McGuire, not only for her years of providing both direction and education for GCPMA, but her over 12 years of involvement in the Pest Control Industry. She will be missed, but we wish her the very best. So let's keep positive, maintain your safety during this unprecedented time in our lives, and we will continue to do the very best we can under these circumstances. I thank the board for their confidence in me and we will go forward. I also would like to welcome our new members and new board volunteers for their time and their knowledge.

Take care and please be safe!

GARY PIETRUCHA, *President, Envirosafe Pest Management & GCPMA President*



SCHOLARSHIP MONEY!

GCPMA is proud to award scholarships to students who are involved in the pest management industry OR whose parents/ guardians are employed by a GCPMA member company. The GCPMA Scholarship Committee reviews all COMPLETE applications and the winning recipients are notified prior to the Fall Semester.

All applications must be postmarked by June 30, 2021. Mail Transcripts, sponsor letter and essay in a sealed envelope that is clearly marked to: Greater Chicago Pest Management Alliance – Scholarship PO Box 601, Tinley Park, IL 60477

For additional information or to complete the application online, visit gcpma.com/scholar/.

If your business serves and sells to pest management operators in the Chicagoland area, ADVERTISE IN THE NEXT ALLIANCE QUARTERLY EDITION!

Visit gcpma.com for more information and to reserve your spot.



• Compatible with all THOR liquid products as well as most competitors'.





Direct Transfer Action Bug-to-bug transfer of active ingredient reaches the bed bugs you can't see.

Sold only to professionals, Aprehend is a revolutionary biopesticide for the elimination and prevention of bed bugs, proven effective with 150,000+ treatments in the field.

Aprehend can be used as a stand-alone treatment or as part of any protocol. It kills nymphs and adults, requires minimal preparation, kills bed bugs within 3-7 days, and its non-toxic mode of action works on pesticide-resistant strains.

Contact us to get started with Aprehend today.



Aprehend as a Proactive Bed Bug Treatment

Ideal for use in multi-family, community, and hospitality environments

The **up-to-90-day residual** offers protection against the establishment of an infestation.

Give your customers the peace of mind that only protection with Aprehend treatment provides.

www.aprehend.com • 800.891.8610

How does it work?

Bed bugs cross strategically-placed Aprehend barriers.

Bed bugs pick up spores on their feet and other body parts.

Infected bed bugs return to the harborage to share Aprehend with their friends.



WHAT HAPPENS WHEN A CLAIM GOES BAD

BY ANDY MCGINTY, CEO of LIPCA Insurance National Pest/Lawn Industry OWNED PROGRAM

I get asked all the time on how we settle claims one way and on others a totally different manner. There are various factors such as location of the claim, parties involved, who our insured might be with their experience, etc. With that said one of the most important reasons we settle claims a certain way is what happened before we received the loss notice.

A lot depends on the claimants' "attitude" when we first start dealing with them after the claim hits our office. The bottom line is how did our insured treat their customer when the problem was first reported to them. Over the last 25+ years in handling pest and lawn claims I can assure you we have seen a lot of ways of how NOT to treat a customer when a potential claim occurs.

What needs to be remembered is when a customer contacts your office in the back of their mind they need to know why the problem occurred, but most feel they have been wronged in some way. The issue needs to be investigated quickly, professionally, and thoroughly explained even if you must repeat yourself multiple times. Yes, it can be aggravating but please get over it. You are always the professional and need to act like it.

One of the biggest mistakes is being defensive right from the start. "I hear what you are saying but we are not responsible for your damages." "There is no way we hit that pipe during your termite treatment." "There were no bed bugs found during our last inspection." "I placed these rodent bait stations where no pet could get to them." These examples, and trust me there are many more, are all said before the PMP even does the smallest amount of investigation. I am not sure how these comments are made without a little due diligence on your part.

Oh, please do me a favor, if a customer calls with a complaint or claim, please do not tell them you will have to charge them for an additional visit or inspection. Yea that went over well with the future plaintiff. As expected, they filed suit and the extra charge issue was one of the allegations made against the insured. Can you imagine the plaintiff attorney looking at a jury with that gem of information? Depending on the regulators we have gotten to know over the years what they might say? You could bet it would not go over too well in some states.

When the claim hits our office and our insured has said or told the customer some of the examples stated above, we start "behind the eight ball". Instead of getting right to the heart of the claim and complaint we must get them over their defensive and combative positions. This, of course, is if they have not already gone to an attorney which takes the claim to another level most times.

Most attorneys have no idea how to pursue say a termite, WDIR or inhalation claim. But as with many legal scholars, they think they are smarter than everyone involved. Again, after many years adjudicating these matters, they are not. Therefore, creates the problem.

The PMP has incensed the customer to the extent they run to an attorney and when that happens and suit is filed, the cost of the claim goes up automatically. As stated above, most attorneys are not skilled with pest claims and you have to legally "beat them over the head". We must obtain experts, do discovery and the like before they realize their claim is weak or has no credence. So, after usually spending 5 figures \$\$\$\$ on the defense we get them back to what the original claim should have cost or sometimes even less. Either way you still have a large claim against your loss history and can affect your renewal premium. Book it.

The larger companies need to really focus more on this issue. A constant person dealing with potential claims is crucial. Those answering the phone at the office, techs in the field and the like need to know what to and what not to say. If there is no consistency from all personnel in your office then the credibility factor comes into play. Once that is lost with the customer,

then the handling of the claim is taken to another level. This is an excellent training subject and give please give examples during these sessions. Best ways to handle these complaints are imperative.



Could these subsequent problems have been prevented by handling this matter a little more professionally and less defensively from the start? I can pretty much state that the answer is yes, most times. Of course, there are customers, claimants and plaintiffs that will never listen to reason. They think they know more being educated by the internet, their claim is worth more, they think they have won the lottery, etc. These are understandable and there is little you can do about that. That is what we are prepared for and ready to handle.

Oh, one more favor. Please and I sincerely request that you never tell your customers they need "professional psychiatric help". Yes, I can truly see that as being an example of how a claim can go bad. Good luck.



NEW!

Andy McGinty is the CEO of LIPCA Insurance National Pest/Lawn Industry Owned Program 800-893-9887 Ext 101 andy.mcginty@lipca.com



Proudly Serving Pest Management Professionals Across the U.S. and Canada

Target Specialty Products™ delivers value-added solutions to the Pest Management market through innovation, products, supplies, application equipment, education, and training programs.

- Insecticides
- Rodenticides
- Termiticides
- Vector Control
- Equipment, PPE and Sprayers
- Same Day / Next Day Shipping

Chicago, IL

James Lynch james.lynch@target-specialty.com 847.682.4435

2050 Clearwater Drive Des Plaines, IL 60018

target-specialty.com/ilp | 🗗 🗾 in 🖸 🞯

PEST MANAGEMENT | VECTOR CONTROL

Jun C

Protecta EVO

VERSATILE & ECONOMICAL TRAP PROTECTION

- Tamper-resistant trap cover with EVO® key
- Holds either 2 T-REX[®] or 2 T-REX[®] 😡 traps in each EVO[®] TUNNEL[™]
- Economical way to protect traps and non-targets at accounts
- Can be secured horizontally or vertically, such as on fences or pipes, via cable ties
- Low, long profile for discreet placement
- The T-REX[®] rat trap, when used with EVO[®] TUNNEL[™], meets NAWAC animal welfare standards
- Indoor or outdoor use
- EVO® TUNNEL[™] can also be used for:
 - Mini-Rex™ mouse traps
 - Trapper® Max glue boards
 - Trapper[®] Mouse glue trays

AVAILABLE NOW!

Contact your Bell distributor to learn more



THE WORLD LEADER IN RODENT CONTROL TECHNOLOGY®



in Zoecon, Zoecon with design, Altosid, Gentrol, Precor, and Essentria are registered trademarks of Wellmark International. ©2021 Wellmark International.

PREPPING FOR BED BUG TREATMENTS DURING COVID-19

CONTRIBUTED BY ZOËCON



Today's hotel guests have raised expectations for cleanliness, which means any bed bug sightings pose an even greater threat to a hotel's reputation. From inspecting hotel rooms to post-treatment tactics, following a comprehensive checklist can ensure hotel accounts keep bed bugs under control and out of site.

1 ASSESS & INSPECT

COVID-19 has heightened public awareness of just how important basic cleanliness can be in hotel rooms. Given the pent-up travel demand, the availability of COVID-19 vaccines and the potential for business travel to pick up, it's important to thoroughly inspect rooms for bed bugs before guests arrive. Scan the room and take a mental note of the prep work that's going to be required for the room before getting started with inspection. Next, what's the damage? Check the corner of walls, curtains, sofas, and any other furniture or fabric. Even rooms that have been laying vacant for months are just as susceptible to bed bugs.

2 PREP

This step is extremely important to ensure the treatment is as effective as possible. Bag up all bedding and fabrics in the room. Open up furniture like dressers and arrange all furniture in a way that will allow for optimal treatment. Finally, once everything is moved, vacuum the entire room.

3 TREAT

Right now, cleanliness and sanitation are top of mind for hotel guests and management alike. Even though the pandemic has reduced the number of stays, bed bugs are still an issue, and it's important to not become complacent about treatment. Fortunately, many of the same procedures of successful bed bug prevention and treatment remain. It's important that your technicians use a mix of products, like residuals and aerosols to treat the entire room including all furniture and baseboards. After treatment, turn the thermostat up to around 80 degrees. This will encourage the bugs to come out of their hiding places and get exposed to the products that were just applied.

4 SECOND INSPECTION

After 48 hours, have your technicians perform another inspection. Depending on the severity of the infestation, they should perform a light treatment to knock down any remaining bed bugs. Use a low-odor spray that dries quickly so the hotel room can safely get back to business.

5 EDUCATE

Depending on existing hotel protocol, educate the hotel staff on what to look out for to prevent and locate a bed bug infestation. Share with staff what the entire life cycle of bed bugs looks like since the insects can look different depending on what stage of the cycle they are in.

With limited occupancy over the past year, bed bugs in hotels are expected to be hungrier and more aggressive. It will be essential for PMPs to have a set protocol in place to help prepare for these calls. By following these steps, you can help hotel customers keep these costly infestations in check.

The Best Tools for Hotel Bed Bug Treatments

The Gentrol® family of products from Zoëcon boosts any PMP's toolbox and can ensure no more callbacks. For reaching those tough areas of infestation in a hotel room, PMPs turn to Gentrol® IGR Concentrate. Gentrol® IGR Concentrate breaks the life cycle of bed bugs

for up to 120 days with its active ingredient translocating deep into wall cavities, cracks and crevices.





SAVE THE DATE!

Upcoming GCPMA Recertification Webinars

3 HOUR RECERTIFICATION WEBINARS *will be held on the following dates:*

- March 25, 2021
- June 24, 2021
- August 26, 2021
- November 9, 2021

For full details or to sign up, visit gcpma.com/events

J. F. OAKES, LLC NOW OFFERS SNIPER HOSPITAL DISINFECTANT

CONTRIBUTED BY J. F. OAKES, LLC

J.F. Oakes, LLC is proud to announce they are now the Master Distributor of, Sniper Hospital Disinfectant, Odor Eliminator, Cleaner.

Sniper Hospital Disinfectant, Odor Eliminator, Cleaner complies with VOC laws, is non-corrosive & mild enough to wash your hands. Does NOT require rinsing and sanitizes food surfaces in 60 seconds, with no rinsing required. Has no fragrance added.

Sniper will be available in 32oz spray bottles, one-gallon jugs, 5-gallon pails and 55-gallon drums, from your local distributor.

J.F. Oakes, LLC is glad to add another advanced technology product to our inventory, to help PMP's do their jobs easier, quicker and more economically.

Sniper is in stock and ready to ship.

For more information, contact us at J. F. Oakes, LLC at 662-746-7276 or sales@jfoakes.com





Greater Chicago Pest GCCPDNAA Management Alliance Serving Pest Management Professionals Since 2004

syngenta.



INTRODUCING FIPRONIL-PLUS-C FINALLY

Labeled for indoor and outdoor use Contains Cellulose Technology

Features & Benefits:

Cellulose Entrapment Technology
Fipronil 0.65% a.i.
Reduced Toxicity
Labeled for indoors & outdoor use
Protected against UV & microbial degradation
Longer lasting protection with high efficacy
Less callbacks/save money!!!!
Review testimonials on website – ask your colleagues

To purchase Fipronil-Plus-C:

Contact your local distributor or visit our website: fipronil-plus-c.com



D • BASF

We create chemistry

Protection inside and out

With Absolute Ant Control from BASF

Trust the proven duo of **Termidor**[®] **SC** termiticide/insecticide for exterior perimeter application and **Alpine**[®] **WSG** Water Soluble Granule Insecticide for inside the home and off-structure. With Genuine Transfer Effect technology that eliminates the entire colony, **Termidor SC** is the nation's most trusted ant control solution. Use in combination with **Alpine WSG**, also featuring horizontal transfer, to gain Absolute Ant Control, inside and out.

To learn more, contact Travis Chambers, travis.chambers@basf.com.

Always read and follow label directions. Alpine and Termidor are registered trademarks of BASF. © 2021 BASF Corporation. All rights reserved. **Alpine WSG**

Water Soluble Granule Insecticide

Termidor SC

CHICAGO RIVER BEAVERS CAPTIVATE RESIDENTS DURING COVID PANDEMIC

BY EVELYN HOLMES, ABC 7 News

CHICAGO (WLS) — While most of us are familiar with rats, another version of rodent is unexpectedly increasing in numbers and captivating residents of the Chicago area during the pandemic: beavers.

Most city dwellers are used to seeing rats, and the Chicago Department of Streets and Sanitation even said there have been an increase in calls requesting rodent abatement in 2020.

But as the Chicago Tribune first reported, beavers often went unnoticed until the COVID-19 pandemic brought everything to a standstill.

"I don't know if you ever saw a beaver, but you are not expecting them, they just look like a big rodent," said Zach Selch of Evanston.

While Chicago's urban areas are known to be some of the rattiest around, their nocturnal, semi-aquatic cousin has become a regular inhabitant of the Chicago River and others of the city's waterways.

Selch first noticed a beaver family living in the lagoon on Northwestern University's Evanston campus one morning, and has been fascinated with them ever since.

"A few years ago I started posting pictures. I was like, I can't believe there are beavers in Evanston," he said. "Everybody commented, so I posted more and now we're pretty much posting something every day."

As a matter of fact, the beaver family has quite the following on social media. According to Margaret Frisbie of Friends of the Chicago River, that's brought a whole new interest in nature in the city.

She said beavers have been in the Chicago River for decades.

"The weird silver lining with COVID is people are outside enjoying nature and seeing wildlife in a way they haven't seen before," Frisbie said.

Frisbie said she first saw evidence of beavers' presence at Bubbly Creek on the south branch of the Chicago River, which runs through Bridgeport, following cleanup of the waterway by federal authorities.

"There's over 75 species of fish in the Chicago River now, because the water's so much better, and more animals every year," she said. Experts say beavers are smart and usually always busy. Natural engineers, the fourlegged rodents



never stop growing and can weigh over 50 lbs. They create family units or colonies to raise their young.

But for those now enamored, the beavers are a reminder for all of us to appreciate what's around us.

"So for me this is pretty cool," Selch said. "I'm seeing stuff I never thought I'd see and it gives me a connection to nature, which is cool."

See the video and article online: https:// abc7chicago.com/pets-animals/beavers-in-chicago-rivercaptivate-residents-during-pandemic/9210253/



DEADLY VIRUS TURNS HONEY BEES INTO TROJAN HORSES

BY ERIK STOKSTAD, www.sciencemag.org



Social distancing is nothing new to honey bees. When a colony is infected with the deadly Israeli acute paralysis virus (IAPV), bees are less likely to touch or feed their

sick nest mates, according to a new study. But the virus appears to have an alarming counterattack: When sick bees try to enter a new colony, they do a better job of getting past the guards than uninfected bees. That has led the scientists to speculate that the virus has evolved a way to spread to new hives.

The study opens an important window into a "coevolutionary arms race" between pathogens and social organisms, says Olav Rueppell, an evolutionary biologist at the University of North Carolina, Greensboro, who was not involved in the new research. The findings also highlight the dangers of putting commercial hives too close together.

Honey bees are particularly vulnerable to infectious diseases: They live in crowded conditions, and they touch each other all the time. Moreover, their immune systems are weak compared with other insects. They depend instead on hygienic behaviors, such as grooming or removing sick larvae.

Not much was known about how bees act when infected with viruses, says Adam Dolezal, an insect physiologist at the University of Illinois, Urbana-Champaign (UIUC), who studies IAPV. To find out, he teamed up with UIUC computer scientist Tim Gernat, who had developed an automated system to monitor bee behavior. The team glued labels onto the backs of about 900 bees in each of three colonies and tracked them with a camera. The camera took pictures every second, and a computer mapped the location and orientation of every labeled bee.

The researchers trained the computer to identify a behavior called trophallaxis, in which honey bees feed their fellow workers by regurgitating food from a pouch called a crop. Hungry bees approach other bees until somebody coughs something up.

To find out how they would react to the virus, Dolezal put 90 to 150 labeled bees into each colony after

infecting them with IAPV. After 5 days of recording, the team found that healthy bees were avoiding contact with the infected bees. About half as much trophallaxis took place with sick bees compared with normal workers. But it wasn't for lack of trying: The sick bees moved around the colony more than other bees, probably looking for someone that would feed them, Dolezal says. The findings show how bee behavior in a real colony can suppress an infection, says Christina Grozinger, a behavioral ecologist at Pennsylvania State University, University Park, who was not involved.

So how does the virus successfully spread? Dolezal wondered whether IAPV might have a way to sneak into other colonies, which are guarded by bees that keep out trespassers. Guards use their antennae to detect a collection of chemical signals on the outside of other bees, called cuticular hydrocarbons, that identify them as members of the colony or foreigners.

When Dolezal and colleagues took IAPV-infected bees and placed them outside another colony, the guards let about 30% of them enter, compared with about 15% of healthy foreign bees that were allowed in. "It's troubling that this level of virus movement is happening," says Dolezal, whose team reports the results this week in the Proceedings of the National Academy of Sciences.

The researchers aren't sure why IAPV is so successful at deceiving the guards, but it may be because it alters the abundance of various cuticular hydrocarbons, which differed between the sick and healthy groups. For example, they found that IAPV infection resulted in lower levels of octacosane, which has been associated with greater acceptance by other bees. The sick bees were also more submissive when challenged by guards and more likely to offer them food, and those behaviors may also help them spread the disease.

IAPV isn't the only problem these Trojan bees can bring. The new arrivals can also carry a parasite called the varroa mite, which has decimated bee populations worldwide. The mite feeds on bees' fat reserves and can also carry IAPV and other deadly viruses. If IAPV helps these other pathogens spread, that could be a big problem for commercial beekeepers who pack colonies together for efficiency. "There's very little you can do if you suspect a virus infection," Dolezal says.

And when it's easy for pathogens to spread to new hosts, Rueppell warns, they are much more likely to evolve to wreak new kinds of havoc.

ANTS & COCKROACHES MOVING IN? NO PROBLEM. NIBAN® GRANULAR BAIT

Kills the entire ant colony and the queen. • Kills resistant cockroach populations.



- Weatherized granules won't degrade in heat or sunlight and last through 6" of rain.
- Can be applied on snow during early spring prebaiting.
- No long-sleeve application restrictions (unless you're in in California).
- Non-target species don't consume it.
- No known resistance to target pests.
- The #1-selling granular bait in the U.S.



TO LEARN MORE, CONTACT JEFF CAUDILL, TERRITORY MANAGER • JEFFC@NISUSCORP.COM • 641-208-1311

800.264.0870 | WWW.NISUSCORP.COM | REMEMBER TO ALWAYS READ, UNDERSTAND AND COMPLY WITH THE LABEL | #GPCMA-NI-F-SP321 NIBAN AND NISUS ARE REGISTERED TRADEMARKS OF NISUS CORPORATION. ©2021 NISUS CORPORATION

SCIENTISTS FOCUSING ON BATS FOR CLUES TO PREVENT NEXT PANDEMIC

BY Christina Larson, Aniruddha Ghosal and Marcelo Silve de Sousa - Fox 13 News

RIO DE JANEIRO — Night began to fall in Rio de Janeiro's Pedra Branca state park as four Brazilian scientists switched on their flashlights to traipse along a narrow trail of mud through dense rainforest. The researchers were on a mission: capture bats and help prevent the next global pandemic.

> The November nighttime outing was part of a project at Brazil's state-run Fiocruz Institute to collect and study viruses present in wild animals — including bats, which many scientists believe were linked to the outbreak of COVID-19.

The goal now is to identify other viruses that may be highly contagious and lethal in humans, and to use that information to devise plans to stop them from ever infecting people — to forestall the next potential global disease outbreak before it gets started.

As this pandemic has shown, modern transport can disperse the pathogen to all corners of the globe in a matter of hours and spread easily in densely populated cities.

It's not a question of if, but of when, according to Dr. Gagandeep Kang, an infectious diseases expert at Christian Medical College at Vellore in southern India.

She pointed to previous research that found India was among the most likely places in the world for such a "spillover" event to occur, due to population density and increasing human and livestock incursion into its dense tropical forests teeming with wildlife.

It's no coincidence that many scientists are focusing attention on the world's only flying mammals — bats.

Bats are thought to be the original or intermediary hosts for multiple viruses that have spawned recent epidemics, including COVID-19, SARS, MERS, Ebola, Nipah virus, Hendra virus and Marburg virus. A 2019 study found that of viruses originating from the five most common mammalian sources — primates, rodents, carnivores, ungulates and bats — those from bats are the most virulent in humans.

Bats are a diverse group, with more than 1,400

species flitting across every continent except Antarctica. But

what many have in common are adaptations that allow them to carry viruses that are deadly in humans and livestock while exhibiting minimal symptoms themselves — meaning they are able travel and shed those viruses, instead of being quickly hobbled.

"The secret is that bats have unusual immune systems, and that's related to their ability to fly," said Raina Plowright, an epidemiologist who studies bats at Montana State University.

"Bats seem to have evolved a collateral benefit of flight — resistance to deal with some of the nastiest viruses known to science," said Arinjay Banerjee, a virologist at McMaster University in Canada.

While scientists are still untangling the mystery, two leading theories are that bats may have evolved what Banerjee called "an efficient DNA repair mechanism" or that their bodies may tightly regulate inflammation triggers and not overreact to viral infections.

Probing the secrets of bat immune systems may help scientists understand more about when bats do shed viruses, as well as providing hints for possible future medical treatment strategies, he said.

The bad news: Increasing destruction and fragmentation of habitats worldwide — especially biodiverse areas like tropical forests — means **"we are seeing higher rates of contact between wildlife and humans, creating more opportunities for spillover,"** she said.

One approach that won't help, scientists say, is treating bats as the enemy – vilifying them, throwing stones or trying to burn them out of caves.

"Stress is a huge factor in upsetting the natural balance that bats have with their viruses — the more you stress bats, the more they shed viruses," said Vikram Misra, a



virologist at the University of Saskatchewan in Canada.

Bats also play vital roles in ecosystems: They consume insects like mosquitos, pollinate plants like agave, and disperse seeds.

"We actually need bats in the wild to consume insects that otherwise destroy cotton, corn and pecan harvests," said Kristen Lear, an ecologist at Bat Conservational International.

A better approach to minimize disease risk, Frank said, is simply to minimize contact between wild bats and people and livestock.

Perhaps the most significant factor bringing bats into more frequent contact with people and domestic animals is the destruction of habitat, which forces bats to seek out new foraging and roosting grounds.

To potentially reverse the movement of bats, Montana State University's Plowright and colleagues based in Australia are studying restoring the bats' original habitat. "Every city in Australia is full of fruit bats that lost their winter habitats," she said. "The idea is to plant new forests and make sure they are away from places with domestic animals and people."

Whether the goal is to curb the spread of known zoonotic diseases or to reduce the risk of new ones emerging as pandemics, the strategy is the same: Reduce contact between humans and wild animals.

"In the history of COVID-19, bats have been more victim than victimizer," said Ricardo Moratelli, coordinator of the Fiocruz project in Brazil. "Bats host a large number of parasites, and they deal with these parasites well. The problem is when human beings enter into contact with them."

SOURCE: https://www.fox13news.com/news/scientists-focusing-on-bats-for-clues-to-prevent-next-pandemic



our lean team operates more efficiently and safely."

"With Inventory Manager,

When **Luke Rambo** needed a smarter way to manage inventory, he turned to **Inventory Manager** by Veseris.

The digital platform freed up his team by enabling service manager **Chris Somers** to approve orders, create training programs, and schedule socially-distanced restocks — from anywhere, anytime.

Learn how Veseris can make an impact on your business at Veseris.com/grow

Luke Rambo, owner, and Chris Somers, service manager of Rambo Total Pest Control

© 2020 ES OpCo USA LLC. All Rights Reserved. The Veseris mark, logo, and other identified trademarks are the property of ES OpCo USA LLC or its affiliates. All other trademarks not owned by ES OpCo USA LLC or its affiliates that appear in this communication are the property of their respective owners.



US NAVY INVENTS MAGNETIC TRAP FOR MOSQUITOES, COCKROACHES BAITED WITH METAL

BY TROY CARTER, TechLink Staff Writer

Feed the bad bugs metal so they stick to a magnet. There's a bit more to it, but that's the basic concept behind U.S. Patent 10,881,093, which was issued to the Navy on Tuesday.

> The newly granted 20-year patent protects the pest management tool devised by Jacques Bertrand, a research scientist at the Navy Entomology Center of Excellence in Jacksonville, Florida.

> > After ingesting a bait infused with metal particles, e.g., iron, nickel, cobalt, the pests find themselves bound to a magnet.

"Many conventional traps for controlling insects and other pests employ pesticides or other toxic compounds and thus not only pose environmental concerns," the Navy patent states, "but also render the use of such traps unsuitable in some settings."

"Existing insect traps that are motorized or similarly complex in design can be expensive and inconvenient to operate. For example, motorized traps which use fans and/or lights need a power source which limits their portability; batteries used for such devices may last only a short time before they have to be recharged or replaced. Motorized fan traps are also less than ideal as such traps can disseminate insect body parts or other particulate matter, thus spreading bacteria or other harmful agents. Traps with special UV lamps are also less than ideal; they can be expensive to operate given the tendency for UV bulbs to degrade and require frequent replacement, and they often do not put out the correct wavelength of light to be truly effective. Thus, there currently remains a need for improved devices and methods for controlling insects and other pests."



Preliminary trials of the magnetic trap have demonstrated success with adult and larval mosquitos, fire ants, houseflies, and cockroaches.

WATCH THE VIDEO: https://vimeo.com/223192079



Bertrand's work was for the Deployed War-Fighter Protection Program, which aimed to improve soldier health through pest control.

But like other inventions he's patented, private businesses can license the intellectual property and leverage the Navy R&D into commercial products.

Contact TechLink to learn more about this and other Navy inventions available through technology transfer.

SOURCE: https://techlinkcenter.org/news/us-navy-inventsmagnetic-trap-for-mosquitoes-cockroaches-baited-with-metal



Stays where others can't.

Lasts where others won't



Get unstoppable staying power for tough conditions.

Suspend Polyzone is formulated to stay where it's applied for up to 90 days—even in tough, wet conditions. And now with its expanded label that includes food-handling locations, it keeps working in more places than ever before.

food-handling areas // barrier treatments // mosquito contro

ALWAYS READ AND FOLLOW LABEL INSTRUCTIONS.

Bayer Environmental Science, A Division of Bayer CropScience LP, 5000 CentreGreen Way, Suite 400, Cary, NC 27513. For additional information, call toll-free 1-800-331-2867. www.environmentalscience.bayer.us. Not all products are registered in all states. Bayer, the Bayer Cross, Suspend and Polyzone are registered trademarks of Bayer. ©2021 Bayer CropScience LP.







Tinley Park, IL 60477









Products. Service. Delivery.

Supporting professionals like you since 1985.

Knowledgeable staff

Easy ordering & webstore

Competitive pricing

Just-in-time delivery

Ask about free shipping

