# News Items

A Compendium of Pest Management News Items from the Media Relevant to **FAOPMA Member Countries** 

Compiled by Stephen L. Doggett and David Lilly

## **ALAYSIA: HUGE COCKROACH NUMBERS IN POPULAR TOURIST SPOT**

A man walking along the popular Melaka River waterfront in Malaysia was horrified when he noticed a pillar for the safety chain to prevent people from falling into the river, absolutely covered in cockroaches (they appear to be the American species). He even saw two people fishing in the river, one fanning away roaches from this neck. His images have been shared multiple times via social media and can be seen in the link below.

Source: Says (30/Mar/2021), https://says.com/ my/news/melaka-river-cockroach

#### **INDIA: ANTS STEAL GOLD CHAIN**

In New Delhi, a group of thieving ants were filmed carrying away a gold chain. The video can be seen on Twitter at https://t.co/6kBASYP0si. It is curious to speculate why they were doing this – presumably the chain contained body odours or the remains of a meal to attract the ants. Or was it a present for their Queen's coronation?

Source: ZeeNews (26/Mar/2021), https://zeenews. india.com/viral/video-of-these-ants-stealing-goldhas-taken-over-social-media-netizens-cant-stoplaughing-2350790.html

## PHILIPPINES: AMUSING 'ACCIDENTAL' **COCKROACH TIKTOK VIDEO**

A woman from the Philippines was filming a TikTok video of her making an omelette and unfortunately a cockroach crawled onto her shirt while in the middle of recording. She thought that she had brushed the offending roach off, but it crawled up her shirt to sit on the collar. Her facial expression gives a great indication of how she felt about the roach. The video has since gone viral and worth a watch.

Source: RojakDaily (23/Mar/2021), https:// rojakdaily.com/entertainment/article/11877/ohno-no-girl-oblivious-to-cockroach-on-her-tshirt-while-filming-cooking-video-goes-viral

#### TIME-LAPSE OF ANTS DEVOURING FRUIT

A time lapse video was recently taken of ants eating a slice of tangerine. The video appears in the link below. Sadly the ant species is not mentioned

Source: BoingBoing (23/Mar/2021), https:// boingboing.net/2021/03/23/watch-timelapsevideo-of-ants-devouring-a-tangerine-slice.html

#### **AUSTRALIA: FLOODS CAUSE SPIDERS TO MOVE ONTO BUILDINGS**

Much of eastern Australia is presently experiencing flooding with extreme weather conditions. This had forced all the ground dwelling spiders such as wolf spiders, to seek higher grounds. Buildings, fences, and homes, are being covered with thousands of spiders, as these eight legged creatures attempt to keep their feet dry. See the amazing images and videos of the spider plague in the links below.

Source: ABC News (22/Mar/2021), www.abc.net. au/news/2021-03-22/nsw-floods-spark-plague-ofspiders-on-mid-north-coast/13265850 and www. youtube.com/watch?app=desktop&v=wMe6H7LV y94&feature=youtu.be

#### **AUSTRALIA: HOPE FOR SUCCESSFUL EXOTIC ANT ERADICATION**

Pheidole fervens is a species of ant originally described from Singapore and is a widespread invasive species that poses a serious biosecurity risk. The ant was first detected in 2019 at a Brisbane port in Queensland and an eradication program was initiated. Twelve months after the initial detection, the ant can no longer be found and the species now appears to be eradicated [SLD: sadly there are other exotic ant introductions into Australia that have not been so successful, such as the Red Imported Fire Ant].

Source: Mirage (22/Mar/2021), www.miragenews. com/biosecurity-winning-against-exotic-antsat-531847/

### **UK: RODENT STEALS GPS PET TRACKING UNIT, SENDS OWNER ON WILD CHASE**

A pet owner in the UK purchased a GPS tracking unit for his cat that was controlled by an App on the owner's phone. Unbeknown to the owner, the GPS device dislodged from the cat's collar, but when the owner logged into the tracking App, it showed the GPS device was running across people's gardens. When the pet owner attempted to follow the unit, he could not find the cat, even though the App was suggesting the tracker was present. Upon following the tracker, the owner realized that it was following the drainage system in the area. Apparently a rat had bitten the cat, swallowed the tracking unit in the process, causing the wild goose chase!

Source: The Sun (20/Mar/2021), www.thesun. co.uk/news/14404478/cat-owner-confused-gpsrat-ate-device/

## **AUSTRALIA: PATIENTS BITTEN IN HOSPITAL WITH MOUSE PLAGUE**

As mentioned in other news items below, eastern Australia is in the middle of one of the most severe mouse plagues ever documented. The mice are even entering hospitals and a number of patients have been received bites. In response, health staff have enhanced the trapping and baiting program, added odour repellents, enhanced sanitation efforts, and tried to improve seals around access points. So far all the bites have been considered minor.

Source: The Bulletin (19/Mar/2021), www. themorningbulletin.com.au/news/hospitalpatients-bitten-in-rodent-plaque/4219906/

#### SINGAPORE: STALLHOLDER SEEN SPRAYING INSECTICIDES NEAR PRODUCE FOR SALE

At a food stall located at Bangkit Road in Bukit Panjang, a stall holder was seen turning over vegetables and spraying underneath for cockroaches. Several people observed and recorded the act and reported the stall holder to the Singapore Food Agency (SFA). According to the stall holder, she claims cockroaches are a "headache" and was not sure how to control them. The SFA stated that, "Baygon is an insecticide meant for vector control and should not be used on food. SFA is looking into the matter."

Source: Mothership (16/Mar/2021), https:// mothership.sg/2021/03/bukit-panjangvegetables-stallholder-spray-insectide/

#### **VIETNAM: MAJOR OFFENCE AGAINST RATS** INITIATED

Rats have been causing major crop damage in the City of Can Tho on the Mekong delta. There are now plans to spend VND30 billion (USD\$1.3million) in order to combat the rodents over the next five years. Farmer will receive training on how to combat the rodents and will receive traps and rat poison. The Mekong area accounts for around 17% of the nation's GDP and the rodents have been causing serious economic

**Source**: VNExpress International (14/Mar/2021), https://e.vnexpress.net/news/news/can-thoplans-major-offensive-against-rats-4248181.html

## INDIA: NETS INSTALLED OVER CANAL TO **STOP MOSQUITOES**

In one of the stranger mosquito control programs, officials in Kolkata have installed a net over a canal to contain the mosquitoes that breed in the

water system. The authorities admit that they do not know if this will work and are using this as a pilot test program. However, they have failed to tackle the real problem; the build-up of rubbish and extensive growth of water hyacinth that is blocking water flows leading to the mosquito breeding.

Source: The Times of India (13/March/2021), https://timesofindia.indiatimes.com/city/kolkata/ net-cast-over-canal-to-curb-mosquito-menace/ articleshow/81473398.cms

#### **AUSTRALIA: DENGUE MOSQUITOES FOUND** IN TENNANT CREEK

Tennant Creek is a remote town in the Northern Territory of Australia, which is a non-endemic region for the dengue mosquito, Aedes aegypti. In the last few decades, the mosquito has become established in the town, which has prompted a costly but successful eradication campaign. The mosquito was again detected in Tennant Creek during surveys by health entomologists during late February. An enhanced monitoring program will now begin along with a new eradication program. Tennant Creek is a transport hub and it is thought that the mosquitoes were brought in via vehicles. Much of the Northern Territory is receptive to Aedes aegypti and if the species became established in this town, it could spread to other areas, leading to outbreaks of dengue virus.

**Source**: The West Australian (9/Mar/2021), https://thewest.com.au/news/health/denguemosquitoes-found-in-outback-nt-ng-s-2052657

#### **UNITED ARAB EMIRATES: MOSQUITO AND** FLY PROGRAM ENHANCED IN ABU DHABI

With the onset of the mosquito breeding season, the management program has been enhanced along with fly control. The program involves site surveys to look for potential breeding, as well as sustainable control solutions. Post treatment control is always accessed. Pictures from the program can be obtained in the link below.

Source: Khaleej Times (9/Mar/2021), www. khaleejtimes.com/photos/nation/abu-dhabisteps-up-mosquito-fly-control-measures

#### **ALEUTIAN ARCHIPELAGO: RAT ISLAND NOMORE!**

In the Aleutian Archipelago on the western tip of Alaska, one island was so rodent infested it became to be known as 'Rat Island'. The rats were introduced via shipwrecks dating back to the 1700s. They quickly became established and severely damaged native habitats, along with the flora and fauna. Many shorebirds quickly became extinct on the island along with a range of invertebrates. A rodent eradication program was initiated in 2008 and proved to be successful. Now wildlife has returned and the island is rapidly recovering [SLD: it is very encouraging to see humans fixing past mistakes, the next big challenge will be dealing with the devastating effects from Climate Change.]

Source: US San Diego News Center (8/Mar/2021), https://ucsdnews.ucsd.edu/pressrelease/island-ofrats-recovers

#### INDIA: BENGALURU IS THE COCKROACH **ALLERGEN CAPITAL**

A study undertaken in collaboration with the electronic manufacturer Dyson, found that homes in Bengaluru (formerly known as Bangalore) had the highest rate of cockroach allergens compared with a number other major cities in India. Cockroach allergens are a major source of respiratory problems such as asthma and can also trigger allergic rhinitis. Proper cockroach management will reduce the amount of allergens in the home.

Source: The New Indian Express (6/Mar/2021), www.newindianexpress.com/cities/ bengaluru/2021/mar/06/in-allergy-capital-homesfull-of-roach-cats-allergens-2272876.html

## **USA: FLEA COLLAR LINKED TO 1,700 PET**

A popular flea collar sold in the US and marketed under the name of 'Seresto' has been linked to more than 1,700 pet deaths and have led to more than 75,000 complaints being raised to the US Environmental Protection Agency. The collars use two different insecticides and it is the combination of actives that is thought to be causing the problem. The company behind the product, Elanco, is denying the link between the pet deaths and the collars.

Source: News10 (6/Mar/2021), www.news10. com/top-stories/report-popular-flea-tick-collartied-to-1700-pet-deaths-epa-received-more-than-75000-complaints/

#### **NEW METHOD FOR RODENT MANAGEMENT: BIRTH CONTROL**

With the considerable adverse news on the non-target impacts of the second generation anticoagulants (see previous issues of the FAOPMA Magazine), alternatives means of management need to be investigated. One company in the US has developed a product called 'ContraPest', which renders rodents infertile from two to six months. The product contains two naturally occurring substances, triptolide and 4-vinylcyclohexene diepoxide, which stops the release of eggs in the female rat, and deforms sperm in the males. The product is high in sugar and fats, which makes it tasty to rodents. Unfortunately the product is expensive and can double the cost of rodent programs.

Source: AZCentral (6/Mar/2021), www. azcentral.com/story/news/local/arizonascience/2021/03/06/how-roof-rat-birthcontrol-could-curb-growing-populationproblem/4541408001/

## INDIA: RESIDENTS IN BOPODI IN LOCKDOWN **DUE TO MOSQUITOES**

The residents of Bopodi, near Mumbai are in lockdown not to COVID-19, but due to the plagues of mosquitoes that appear at dusk. The Mula River has become blocked by an overgrowth of water hyacinth, which has provided habitat for mosquitoes to breed in. Currently the local government has not attempted to control the hyacinth and rates of mosquito-borne disease in local residents have increased.

Source: Pune Mirror (5/Mar/2021), https:// punemirror.indiatimes.com/pune/cover-story/iafretiree-unearths-plot-to-grab-his-land-with-fakedocuments/articleshow/81317107.cms

## **COOK ISLANDS: DENGUE ERADICATION PROGRAM LAUNCHED**

An outbreak of dengue was declared in February and so a mosquito control campaign was initiated. So far for the year there have been 28 probable and 30 confirmed dengue cases in Rarotonga with 21 admissions to hospital. Young people in the age range of 11 to 19 have been most affected.

Source: RNZ (4/Mar/2021), www.rnz.co.nz/ international/pacific-news/437624/cook-islandsmosquito-eradication-steps-up

#### **AUSTRALIA: CHIEF EDITOR APPEARS ON TV** TO DISCUSS BED BUGS

Stephen Doggett, the Chief Editor of this magazine, recently appeared on the television program, The Morning Show, to talk about bed bugs, the global resurgence and the factors behind their recent rise. You can watch this from the link below.

**Source**: Channel 7 The Morning Show (3/Mar/2021), https://twitter.com/i/ status/1366895116770709506



## AUSTRALIA: DANGERS FROM 'JACK JUMPER' **ANTS**

'Jack jumpers' (pictured above) are so called for their propensity to jump. These are a large primitive group of ants belonging to the genus Myrmecia. They have extremely good eyesight, are highly aggressive especially if the nest is attacked, and possess a very large, and painful sting [SLD: I can testify to the pain!]. In Tasmania, in the south of Australia, the sting from Jack Jumpers commonly cause severe anaphylactic reactions. In fact Tasmania has the highest rate of anaphylactic reactions in all of the country from ant stings. It is estimated that around 1 percent of the population is at risk of a serious reaction. As such, many patients are required to go through a desensitization program to avoid serious complications, even death, from the sting of the

ant.

Source: ABC News (3/Mar/2021), www.abc. net.au/news/2021-03-03/jack-jumper-ant-bitetreatment-works-for-tasmanian-family/13208530

#### **NEW ZEALAND: HUTS ON FAMOUS WALKING** TRACK INFESTED WITH BED BUGS

Rakiura Track is a popular walking trail on Stewart Island in southern New Zealand. Along the way is a hut where walkers often spend the night. Unfortunately the hut became badly infested with bed bugs and many chose to sleep on the floor in the kitchen rather than being bitten in the bunk beds. The hut has now been treated four times. There are now calls to alert future users of the hut that bed bugs are present and people should bring their own camping gear instead of using the huts [SLD: it is not uncommon for overnight accommodation on popular walking trails to become infested with bed bugs. The famous Camino de Santiago trail in Spain, a well-known route for pilgrims, has had huge issues with bed bugs in the huts along the trail to the point of an information pamphlet being produced warning walkers of bed bugs.]

Source: Stuff (3/Mar/2021), www.stuff.co.nz/ travel/travel-troubles/124416440/stewart-islandvisitor-disappointed-by-visit-to-bed-bug-infesteddoc-hut-on-rakiura-track

#### **RUSSIA: RAT FAECES IN SCHOOL FOOD LEAVE 56 CHILDREN CRITICALLY ILL**

Children from 17 different schools in Krasnoyarsk in Russia became ill after eating food that was contaminated with rodent faeces and urine. The student were infected with a bacteria called Yersinia, which can cause fever, abdominal pain, and diarrhoea. A total of 91 students were infected, with 56 seriously ill. Not cleaning the vegetables or under cooking them increases the risk of the disease.

Source: The Scottish Sun (3/Mar/2021), www. thescottishsun.co.uk/news/6764982/mass-ratfaeces-poisoning-children-critically-ill-school/

#### TAIWAN: TERMITES SPREAD VIA DRIFTWOOD

Research has shown that some species of termites can resist saltwater supporting the claim that some species can be spread across oceans via driftwood. While adults can only fly a few

kilometres at best, many species of termites are found across continents and island chains. A researcher from Taiwan examined the ability of a number of termite species to withstand saltwater and found that some could survive for months. This supports the claim that termites can be spread across oceans via driftwood.

Source: Focus Taiwan (3/Mar/2021), https:// focustaiwan.tw/sci-tech/202103020009

#### INDONESIA: FROG SWALLOWS MOUSE

A photographer captured the moment when a green tree frog in Indonesia captured and swallowed a mouse. The frog used its mouth to crush and kill the mouse, which then took around five minutes to swallow. Images of the mouse being captured can be viewed in the link below. Perhaps this is a new form of rodent control?

Source: The Scottish Sun (2/Mar/2021), www. thescottishsun.co.uk/news/6763707/frog-eatsmouse-whole-indonesia/

#### **CAMBODIA: DENGUE MOSQUITOES INVADE** PHNOM PENH

A mosquito survey undertaken in Cambodia has found Aedes albopictus living in the capital of the country. Previously it was thought that they only occurred outside Phnom Penh. However the survey found the species in 40 different sites, including urban areas. The city does have Aedes aegypti, the main dengue vector, but a second species capable of transmitting the virus will increase the risk of local outbreaks. The last biggest dengue outbreak in the capital occurred during 2019 where there were more than 68,000 cases and 48 deaths.

Source: Khmer Times (1/Mar/2021), www. khmertimeskh.com/50819098/denguemosquitoes-invade-capital-2/

#### **INDIA: MOSQUITO COIL FIRE DESTROYS** THREE HOUSES IN NAGERCOIL

Even more examples are emerging of the dangers of mosquito coils in starting fires. In Nagercoil, in the far south of India, three homes were destroyed after a fire started from a mosquito coil. One woman suffered severe burns in the process. This again highlights the need to be careful in using these products.

Source: Times of India (26/Feb/2021), https://

timesofindia.indiatimes.com/city/madurai/firefrom-mosquito-coil-guts-3-houses-in-nagercoil/ articleshow/81218364.cms

#### **AUSTRALIA: FLESH EATING ULCER SPREADS TO MELBOURNE**

A form of flesh eating ulcer, originally called 'Bairnsdale' ulcer, but now termed 'Buruli' ulcer has appeared in Melbourne suburbs. It was first identified in the Gippsland area of the state back in the 1930's but in more recent times a number of human cases have occurred in the Bellarine Peninsula, on the western shores of Port Phillip Bay. The ulcer is caused by a type of bacteria, a Mycobacteria, which is difficult to treat even with antibiotics. Current thinking is that it is spread by mosquitoes, but research into the transmission pathways of the bacteria are still underway (see second article listed below). The condition spread eastward and has made its way northern to Melbourne, which is the most populated city in the state and capital of Victoria. So far some 21 human cases have been identified in 2021.

Source: Nine news (24/Feb/2021), www.9news. com.au/national/buruli-ulcer-cases-emerge-inmelbourne-from-victorian-coastline/83cf5874-51e0-4849-ba76-df345560efc8 and The Age (20/ Feb/2021), www.theage.com.au/national/victoria/ new-research-to-curb-march-of-flesh-eatingdisease-in-victoria-20210219-p5740v.html



## **CHINA: CUSTOMS SEIZE OVER 400 LIVE ANTS** The live ant trade is a real problem in China with many collectors actively seeking exotic species

from around the world. Naturally this comes with the risk of the potential of the introduction of exotic diseases and the establishment of potentially new ant pests. Custom officials in Shanghai x-rayed a container marked 'dental supplies' and found it full of small vials, each containing a live ant (see image bottom left). It was stated in the article below that in 2021, customs seized over 380 species of pests on almost 700,000 occasions. It is easy to see how exotic pests can be introduced into a country.

Source: Shine (24/Feb/2021), www.shine.cn/ news/metro/2102245047/

#### **BAYER TO DIVEST ENVIRONMENTAL SCIENCE BUSINESS**

Bayer announced that they are going to strengthen their core agricultural division by 'divesting' (i.e. selling) their Environmental Science Professional Businesses (ESPB), which includes the chemicals used in vector and urban pest control. This follows on from their sale of the garden products some time ago. The sale of ESPB is arguably not good for the pest control industry as there is one less big player in the game, meaning fewer sponsorship opportunities. It has been speculated that the sale could be related to Bayer's purchase of Monsanto as Bayer has inherited the huge payouts (USD\$10.9billion) associated with legal claims concerning the product Roundup and its link to cancer in users of this product. However, no one from the company has confirmed this speculation. Odds on favourite for the purchase is Sumitomo, but we will have to wait and see if this comes to fruition.

Source: Bayer (24/Feb/2021), www.media.bayer. com/baynews/baynews.nsf/id/Bayer-Divest-Environmental-Science-Professional-Business-Further-Strengthen-Leadership-Team-Crop?

#### BANGLADESH: HOW NOT TO DO MOSQUITO **CONTROL!**

In a report titled "CCC starts anti-mosquito drive", details are provided on how the Chattogram City Corporation is initiating a program to control mosquitoes. However, the image depicted is a prime example of how not to do mosquito control. The image shows presumably an official of the Corporation pointing a fogger at a water body, while he is surrounded by onlookers. Not

only are foggers not used for the control of larvae (and foggers would not be used during the middle of the day when the image appears to have been taken), none of the people are wearing safety equipment or have the correct respiratory protection fitted. Furthermore, it is disappointing to see a lack of social distancing during the COVID-19 pandemic (including the guy in the background who removed his mask for a selfie). While we can have sympathy with the mosquito problems in the region and the disease burden on the community, it is hard to find empathy for officials who blatantly ignore the principles of sound pest management.

Source: New Age Bangladesh (20/Feb/2021), www.newagebd.net/article/130742/ccc-startsanti-mosquito-drive

#### **AUSTRALIA: RAT SEEN ON MANNEQUIN IN DESIGNER CLOTHING STORE**

In Adelaide, the capital city of South Australia, a shopper noticed a rat on the mannequin in the window of the clothing store Witchery. The store was closed at the time. The shopper made a video of the incident, which has been viewed more the 50,000 times on Instagram. This can be seen in the link below.

Source: Daily Mail Australia (18/Feb/2021), www. dailymail.co.uk/news/article-9272125/Horrifiedshopper-spots-RAT-mannequins-shoulderdesigner-store.html

### THAILAND: HOTEL THREATENS TO SUE PATRON AFTER SERVING HIM FOOD WITH **COCKROACH**

A quarantine hotel in the Chonburi province is threatening legal action after a guest reported on social media that they served food containing the remains of a cockroach. The guest was quarantining at the Ambassador City Jomtien Hotel and made multiple complaints about the hotel online, mostly relating to the unsanitary conditions that he claims to have experienced. Now the hotel is threatening legal action if the guest fails to apologize but he is not backing down. Images of the hotel appear in the links below. Late last year an American staying in a hotel on Koh Chang was forced to apologise after making an online complaint as he was facing a jail sentence.

Source: The Taiger (18/Feb/2021), https:// thethaiger.com/news/chon-buri/guarantinehotel-threatens-to-sue-over-complaint-aboutcockroach-in-food and Coconuts (17/Feb/2021), https://coconuts.co/bangkok/news/thaiquarantine-hotel-serves-man-a-roach-leg-thensues-him-for-talking-about-it/

#### INDIA: MAN LOOSES LIFE SAVINGS AFTER **TERMITES EAT CASH**

An Indian man from the city of Mylavaram lost his entire life savings after termites attacked the paper currency that was stored in a suit case. The man dreamed of owning a house and was devastated when he found the notes destroy. He lost an estimated 5 lakhs (around USD\$7,000).

Source: The New Indian Express (17/Feb/2021), www.newindianexpress.com/states/andhrapradesh/2021/feb/17/termites-devour-pigrearers-lifetime-savings-of-rs-5-lakh-2265118.html

#### MIDDLE EAST: PEST CONTROLLER LEFT RAT POISON IN SCHOOL GROUND

A pest control employee in Israel and his company was indicted after leaving rodent poison in a kindergarten yard. Children were seen opening the container that held the poison and touching it. Fortunately they were quickly stopped by a teacher. Apparently the pest controller did not have the correct license as well as violated the label instructions by leaving the product in an inappropriate location. Some three years ago, a pest controller was jailed for three years after his actions lead to the death of two young girls after exposing them to toxic chemicals.

Source: The Times of Israel (17/Feb/2021), www. timesofisrael.com/pest-controller-indicted-forleaving-rodent-poison-in-kindergarten-yard/

#### **NEW ZEALAND: ANTS FOUND ON ELDERLY** WOMAN

A 95-year-old women was receiving hospital treatment and was relying on others for her care. Some ants were noticed in her room and they were sprayed with insecticide by staff of the facility. The patient was then visited by a relative shortly afterwards who found ants crawling on the women's face and head. An independent investigation of the incident concluded that the staff took insufficient action to investigate

the problem and did not provide immediate care to the patient. [SLD: sadly the care of the elderly needs improvement all around the world and these incidences, in a developed country, highlights that a lot of work still needs to be done.1

Source: Scoop (15/Feb/2021), www.scoop.co.nz/ stories/GE2102/S00068/care-of-elderly-womanafter-ants-found-in-her-room-and-bed.htm

#### SRI LANKA: WOLBACHIA PROGRAM TO RECOMMENCE

A program to release Wolbachia infected mosquitoes to combat dengue, was suspended for four months due to the COVID-19 pandemic. However, the program will be starting up again and hopefully the numbers of dengue infections will decline soo.

Source: Daily News (13/Feb/2021), http://www. dailynews.lk/2021/02/13/local/241503/wolbachiacontrol-dengue

#### **AUSTRALIA: DOGS POISONED FROM RODENT BAITS**

Secondary issues associated with the ongoing mouse plaque in eastern Australia continue. Now veterinarians are reporting an increasing number of dogs that are suffering internal bleeding caused by the ingestion of mouse baits. A lot of the poisoning is due to the indiscriminate placement of baits without being positioned in bait stations. Thus pets have ready access to the baits. Plus dogs are eating poisoned mice and suffering secondary poisonings. Symptoms of poisoning may include lethargy, bruising, soft joints, coughing, and blood in urine and faeces, and bleeding.

Source: Scone.com.au (12/Feb/2021), www. scone.com.au/rat-bait-poisoning-local-dogs/

## **AUSTRALIA: WARNINGS OF RODENT-BORNE DISEASE TO RESIDENTS**

With the current mouse plague occurring across eastern Australia (see news items below), residents of affected areas are being warned about the possible increase in the rodent borne disease, Leptospirosis. The bacteria is spread via the mouse urine and symptoms may include "kidney failure, jaundice, haemorrhaging of the skin and mucous membranes, meningitis or bleeding in the lungs" and hospitalization may

ensue. The disease is treatable with antibiotics if caught early. Further fears for people's health has been raised as the mice are dying in large numbers in drinking water tanks in affected regions. The mice could have received a dose of poison, which could be passed onto the resident, but the dead rodents will contaminate water sources (see second link below).

Source: Scone.com.au (10/Feb/2021), www. scone.com.au/rodent-disease-warning/ and ABC News (17/Mar/2021), www.abc.net.au/news/ rural/2021-03-16/health-concerns-as-poisonedmice-found-in-water-tanks/13248938

#### INDIA: GROWING NUMBERS OF DENGUE **CASES IN COIMBATORE**

In Coimbatore, in India's south, cases of dengue in humans is rapidly on the rise. Already this year some 74 people have been hospitalized with the disease. The authorities are claiming that they are undertaking mosquito control and urging all residents to ensure that they have no mosquito breeding on their premise.

Source: The Times of India (10/Feb/2021), https:// timesofindia.indiatimes.com/city/coimbatore/ growing-mosquito-menace-worries-residents-asdengue-cases-go-up/articleshow/80776269.cms

#### INDIA: CONCERN ABOUT RISE IN **MOSQUITOES IN DELHI**

With warming weather, there are concerns that mosquitoes may become a serious issue. A survey of homes found some 102 cases of mosquito breeding leading to fines being issued. In total some 177 notices were issues by the local government over mosquito infringements. Interestingly, most positive breeding sites were inside the home rather than outside. Plant related containers including vases accounted for the most common mosquito breeding site, followed by water storage containers.

Source: The Times of India (9/Feb/2021), https:// timesofindia.indiatimes.com/city/delhi/asmercury-rises-spectre-of-mosquitoes-loomsagain/articleshow/80756347.cms

#### MALAYSIA: COCKROACHES LED TO CLOSURE OF FISH BALL FACTORY

A fish ball factory in Penang was ordered to close down after pests were found contaminating the

food. Cockroaches, flies and centipedes were found in the food and in storage areas along with rat faeces. The company was ordered to close for 14 days and was fined RM4,100 (USD\$1,000).

Source: New Straits Times (9/Feb/2021), www. nst.com.my/news/nation/2021/02/664322/ penang-fish-ball-factory-crawling-centipedescockroaches-ordered-shut

#### **AUSTRALIA: HOSPITALISATIONS AFTER USING RODENT BAIT**

As per the story below, parts of Australia are in the middle of one of the worst mouse plagues seen for years. Unfortunately there has been an increase in the number of poisonings as a result of people using a bait that contains zinc phosphide. Now several people have been hospitalised. People are now being cautioned and advised not to use this product in the home.

Source: Liberal Daily (8/Feb/2021), www. dailyliberal.com.au/story/7116776/residentsurged-to-be-careful-as-mouse-bait-misuse-leadsto-poisoning/

#### **AUSTRALIA: WORST MOUSE PLAGUE FOR YEARS**

With the current wet conditions across eastern Australia, mouse populations have exploded. Numbers are so large that population control is now near impossible. Supermarkets in the stricken regions are catching two hundred mice a night while hundreds are being caught in pool filters overnight. The mice are now threatening crop harvests, which have been poor due to ongoing drought conditions. A video in the Daily Mail link below shows hundreds of mice crossing a highway in outback New South Wales. The numbers of mice are so high, they are threatening the food supply for the state (see last link)

Sources: 7News (7/Feb/2021), https://7news. com.au/news/australia/worst-mouse-plaque-ina-decade-thousands-of-rodents-wreak-havoc-inrural-australia-c-2110992, Daily Mail (8/Feb/2021), www.dailymail.co.uk/news/article-9230761/ Shocking-moment-MICE-plague-swarmsroad-wild-weather-creates-perfect-breedingconditions.html, and The Sydney Morning Herald (7/Mar/2021), www.smh.com.au/national/ofswarming-mice-and-desperate-men-20210304p577qz.html

#### BANGLADESH: FIRE FROM MOSQUITO COIL **DESTROYS FOUR SHOPS**

One mosquito coil was believed to the cause of a fire that destroyed four shops in the city of Chattogram. It was estimated that the losses totalled around Tk 5 lakh (around USD\$6,000). Mosquito coils are well known for starting fires if placed in a high risk location surrounded by flammable items.

Source: NewAge (7/Feb/2021), www.newagebd. net/article/129477/fire-from-mosquito-coil-burnsfour-shops-in-chattogram

#### **AUSTRALIA: AUD\$22,000 FINE OVER** COCKROACHES

A popular restaurant in Brisbane was fined AUD\$22,000 (USD\$17,000). This was the result of health inspectors finding cockroaches in Happy Bowl Vietnamese Kitchen in Sunnybank.

Source: Courier Mail (6/Feb/2021), https://www. google.com/url?sa=t&rct=j&q=&esrc=s&source= web&cd=&cad=rja&uact=8&ved=2ahUKEwiMi7r2 zdjuAhUlH7cAHYFRByQQFjABegQlCRAC&url=htt ps%3A%2F%2Fwww.couriermail.com.au%2Fques tnews%2Fsoutheast%2Fwould-you-like-roacheswith-that-asian-restaurant-fined-22k%2Fnews-sto ry%2Fd639c9765b66a48c59237bf83de2edbd&us q=AOvVaw1OYA4PClbJtPzqXdmH3riF

#### **AUSTRALIA: INTERVIEW ON ELIMINATING COCKROACHES IN THE HOME**

Many in the pest management industry in Australia would know Keith Farrow who longed worked for Rapid Training and has recently set up his own consultancy business. Keith was recently interviewed on the ABC on the methods than can be used to reduce cockroaches in the home. This is well worth a listen.

Source: ABC (4/Feb/2021), www.abc.net.au/ radio/newcastle/programs/drive/how-to-get-ridof-german-cockroaches/13122986

#### INDIA: RISE IN DOG AND CAT TICK-BORNE DISEASE

Veterinarians in Chennai are saying that they are seeing more cases of tick-borne diseases in dogs and cats. The pathogens causing the disease include Babesia and Ehrlichia, and both cause blood disorders leading to anaemia, with affected animals often requiring transfusions. Dogs will

often have haemorrhaging and will bleed from various parts of the body. Pet owners are being warned to keep a watch for such symptoms in their pets [SLD: perhaps some smart pest management companies will take up tick control as part of their treatment regimens.]

Source: The Hindu (4/Feb/2021), www.thehindu. com/news/cities/chennai/spurt-seen-in-tickborne-diseases-in-dogs-and-cats/article33744480. ece

#### **AUSTRALIA: RODENT CONTROL SUCCESS ON LORD HOWE ISLAND**

Lord Howe Island is a World Heritage Listed island off the east coast of Australia. It is home to unique flora and fauna that has been decimated with the introduction of feral pests including rodents. As previously mentioned in the FAOPMA Magazine, a rodent eradication program was introduced to the island, which was considered highly controversial by some residents. The program was begun in 2019 with the aim of killing the 300,000 population of feral rats and mice on the island. Now no rodent has been seen for some 15 months and some bird populations have doubled in a very short time. Plus many insects have increased in number and many plants are flowering, something never seen by the locals. The result has exceeded the expectations of the team behind the eradication program. Mice first appeared on the island in 1850 and rats some 68 years later, both species from shipping. This is a terrific result and represents the first eradication program undertaken on an island with permanent human inhabitants.

Source: ABC (3/Feb/2021), www.abc.net.au/ news/2021-02-02/lord-howe-island-recoversfrom-rat-infestation/13111770

## **NEW ZEALAND: FAMILY AWARDED** NZD\$5,000

A family in Auckland were awarded NZD\$5,000 (USD\$3,600) by the Tenancy Tribunal after living in a rental property with a "distressing and frightening" rat infestation. There were also a number of engineering defects that were not corrected prior to the family moving in, which contributed to the penalty.

Source: Stuff (3/Feb/2021), www.stuff.co.nz/lifestyle/homed/renting/124121250/family-awarded5k-after-living-in-rat-infested-west-aucklandrental

#### **USA: NAME A COCKROACH AFTER YOUR EX** AND HAVE IT FED TO AN ANIMAL!

In an almost reverse to the traditional Valentine Day sentiment, a company in the US offered a rather curious deal for the customary day of romance. You could have a cockroach named after your ex-partner and then the roach was fed to an animal. The final demise of your christened insect then happened live on Facebook on 14/February.

Source: WeAreGreebBay.com (1/Feb/2021), www.wearegreenbay.com/local5live/name-acockroach-or-rodent-after-your-ex-and-watch-itget-fed-to-an-animal-on-valentines-day/

#### **NORTH AMERICA: TOP BED BUG CITIES**

Typically around this time of the year, Orkin, one of the largest pest management companies in North America, releases its list of most infested cities in the US and Canada. The number one most infested city in the US for 2020 was Chicago, up two places upon last year. Next comes Baltimore, Chicago, Washington DC, Columbus, Cleveland, Indianapolis, Cincinnati, Los Angeles, and Grand Rapids. In Canada, Toronto made the number one spot, followed by Sudbury, Oshawa, Vancouver, Winnipeg, St John's, Scarborough, Whitby, Edmonton, and Ottawa. Fortunately (and somewhat surprisingly) Las Vegas, the location of PestWorld 2021, did not even make the top 50 on the list.

Sources: Orkin USA (1/Feb/2021), www.orkin. com/press-room/orkin-top-bed-bug-cities-2021 and Orkin Canada (25/Jan/2021), www. orkincanada.ca/blog/canadas-top-25-bed-bugcities/

#### **AUSTRALIA: COUPLE CRASHES BOAT, SPOOKED BY SPIDER**

A couple who were travelling in their boat along Hawkesbury River in the outskirts of Sydney, were spooked by a spider. The result was that they failed to watch where they were going and crashed into an embankment. The 32-year-old woman was catapulted several metres and the man also suffered severe injuries that required hospital treatment. It is not known if the spider was injured!

**Source**: ABC News (30/Jan/2021), www.abc.net. au/news/2021-01-30/spooky-spider-leads-tosvdnev-boat-crash/13106198

#### SINGAPORE: RESIDENTS KILLING HELPFUL **MOSQUITOES**

In Singapore, Project Wolbachia is aiming to reduce the incidence of dengue infections. The project involves releasing male mosquitoes that are infected with an intracellular bacteria. When these males mate with the females, the eggs fail to hatch. Some residents are claiming that mosquito numbers have increased since the start of the project, which is affecting their quality of life. As people are not sure if the mosquito is a deadly female, or a helpful male, all are given equal treatment and promptly killed.

Source: Today (30/Jan/2021), www.todayonline. com/voices/project-wolbachia-residents-arekilling-helpful-mosquitoes-which-can-benuisance

## **CHINA: AUTHORITIES PROACTIVE AGAINST MOSOUITO PROBLEM**

Authorities in the Shanghai Center for Disease Control and Prevention are undertaking mosquito control in numerous locations in an effort to reduce populations early in the season. The aim was to lower vector numbers prior to the warmer months, thus reducing the risk of a mosquitoborne disease outbreak.

Source: Shine (29/Jan/2021), www.shine.cn/ news/metro/2101294064/

### INDIA: CALL TO SCREEN ALL DOORS AND **WINDOWS**

Residents in India are being asked to ensure that all windows are doors are adequately screened. This simple non-chemical procedure will help prevent mosquitoes (and other flying insects) from entering the home, thereby reducing the risk of mosquito-borne diseases.

Source: The Times of India (29/Jan/2021), https:// timesofindia.indiatimes.com/most-searchedproducts/home-decor-and-garden/utility/ mosquito-screens-keep-mosquitoes-at-baywith-mesh-screens-for-doors-and-windows/ articleshow/80571028.cms

#### **AUSTRALIA: NEW TICK-BORNE DISEASE**

#### AFFECTING DOGS

A new tick-borne disease that can kill dogs has been recognised in Australia; canine ehrlichiosis. This is transmitted by the brown dog tick, Rhipicephalus sanguineus, which tends to occur in the drier parts of the country. The disease was first discovered in May 2020, however more than 300 dogs have tested positive for the disease. It is also spreading south and has now been detected in South Australia. Symptoms of the disease include fever, lethargy, and uncontrolled bleeding. Antibiotics can combat the disease and various anti-tick products on the dog will stop the ticks from feeding on the animal and passing on the disease. Insecticidal applicants can be used to control the ticks in the environment or the home. There are now reports that Australia's native dog, the dingo, is being affected by the tick-borne disease (see second reference below).

Sources: The Conversation (28/Jan/2021), https:// theconversation.com/protect-your-dog-fromthis-new-deadly-disease-outbreak-we-stilldont-know-how-it-got-here-153794 and Farm Weekly (12/Mar/2021), www.farmweekly.com.au/ story/7164491/first-dingoes-believed-found-withkiller-dog-disease/

#### INDIA: HIGH MOSQUITO NUMBERS PLAGUE **CUTTACK RESIDENTS**

In Cuttack on the east coast of India, mosquito numbers are presently at the high level, and annoying residents both day and night. The locals are claiming that the situation has become notably worse over the last month. Typically this is the peak mosquito breeding period, and intensive mosquito control operations are underway using fogging against the adults and chemical treatment of larval habitat.

Source: Times of India (28/Jan/2021), https:// timesofindia.indiatimes.com/city/cuttack/ mosquito-menace-back-to-haunt-cmc/ articleshow/80498577.cms

#### **NEW ZEALAND: INTERNET OUTAGE DUE TO** RATS

More than 1,000 broadband users in West Auckland lost connection for more than 24 hours in late January. It was found that a rodent had gnawed through a 144 fibre strand cable. Hundreds of power cuts occur annual from

animals chewing through cables, but these creatures end up with a shocking outcome, and it is usually their final act.

Source: DCD (28/Jan/2021), www. datacenterdynamics.com/en/news/westauckland-internet-outage-thought-be-due-cablechewing-rodent/

#### **AUSTRALIA: WARNINGS FOR ROSS RIVER VIRUS IN NEW SOUTH WALES**

Health officials in parts of New South Wales (NSW) are warning the public to take precautions against the mosquito-borne disease, Ross River virus (RRV). RRV causes fever, rashes, joint pain and arthritis, but is non-fatal. The disease can be guite lingering, lasting for many months. Cases have increased by around 250% compared to last year, within inland areas of NSW [SLD: with the La Nina, which is associated with higher amounts of rainfall, it was expected that an increase in mosquito-borne disease would occur.]

Source: Outbreak News Today (27/Jan/2021), http://outbreaknewstoday.com/ross-river-fevercases-up-in-area-of-nsw-69623/

#### **COOK ISLANDS: FEARS OF DENGUE OUTBREAK**

A number of people from the capital Rarotonga are reporting dengue-like symptoms, with fears that an outbreak is about to start. As a consequence, the Ministry of Health has begun to fog affected areas. However, confirmation of the people's illness has yet to happen. It was around this time last year when there was an outbreak of dengue virus.

Source: Cook Island News (27/Jan/2021), www. cookislandsnews.com/national/health/denguelike-symptoms-prompt-fears-of-mosquito-borneillness/

#### **INDIA: MOSQUITO NETS DISTRIBUTE AGAINST MALARIA**

In Visakhapatnam in coastal eastern India, bed nets are being distributed to residents in an effort to combat malaria. Some 770,000 bed nets are being given to almost 3,600 villages, via health centres. Training in the use of the nets will also be given.

Source: Times of India (26/Jan/2021), https:// timesofindia.indiatimes.com/city/visakhapatnam/ vizag-admin-starts-giving-out-mosquito-nets/ articleshow/80454791.cms

#### **NEW BED BUG LURE OUT OF THE UK**

A new bed bug detection device, BugScents™, was released by Vecotech, which is a commercial offshoot of the prestigious London School of Hygiene and Tropical Medicine. It is claimed that the device releases pheromones similar to the aggregation scent of bed bugs. It is claimed that the device will work for up to three months. An extraordinary claim is that the device will detect up to 100% of infestations within four hours. More information can be obtained from www. bugscents.com [SLD: pheromones will only attract bed bugs over a short distance, thus I am very sceptical about the detection claims, however note the careful wording as even 1% detection is still "up to 100%"! As always, independent verification of the claims of efficacy need to be confirmed.1

Source: Mirage (26/Jan/2021), www.miragenews. com/chemical-attraction-new-pheromone-basedbed-bug-lure-to-help-better-detect-infestations/

#### **INDIA: MANS CASH STORE EATEN BY TERMITES**

A man from Gujarat received a shock when his store of 2.2lakh (USD\$3,000) in paper money was destroyed by termites within a bank locker. Naturally the gentleman concerned demanded that the bank replace his money. The bank has claimed that they have instituted termite control in the premise, but there is no news yet if the man had his money replaced.

Source: DNA (25/Jan/2021), www.dnaindia.com/ india/report-gujarat-termites-eat-rs-22-lakh-cashkept-inside-bank-locker-2869829

## SINGAPORE: JURONG POINT RESTAURANT **CLOSED FOR TWO WEEKS OVER COCKROACHES**

Swensens restaurant in Jurong Point Shopping Centre has been forced to close for two weeks by the Singapore Food Agency, due to the accumulation of 12 demerit points in the one year. The 12 points were accumulated due to a "failure" to keep licensed premises free of cockroach infestation". All food handlers will have to retake and pass a basic food hygiene course before they

can return to work.

Source: Mothership (25/Jan/2021), https:// mothership.sg/2021/01/swensens-jurong-pointcockroaches/

#### SINGAPORE: NEA WARNS OF ONGOING **DENGUE RISK**

Amidst the COVID-19 pandemic in 2020, Singapore had the largest outbreak of dengue for the history of their island nation. Cases have now fallen, but not completely disappeared, with some 156 cases a week during mid-January. As a consequence, the National Environmental Agency (NEA) is warning people of the ongoing risk to remain vigilant in their anti-mosquito efforts as Aedes aegypti mosquitoes increased by some 8 percent during December 2020. During last year, there were some 35,315 cases of dengue with 29 deaths. This was well above the previous record of 22,170 cases in 2013.

**Source**: The Straits Times (25/Jan/2021), www. straitstimes.com/singapore/health/dengue-stilla-danger-as-aedes-mosquito-population-in-singapore-grows-even-as-cases

#### MALDIVES: AIM TO CREATE WORLD'S FIRST **MOSQUITO FREE ISLAND**

Dengue is a serious health threat through all the islands of Maldives as the main vector, Aedes aegypti, is well established. As a consequence, outbreaks of this viral disease are common. On the tourist island of Kunfunadhoo, there are attempts to eradicate mosquitoes using a nonchemical approach via trapping. Current control methods largely rely on the use of insecticide applications via fogging, which has an adverse effect on all invertebrates, not just mosquitoes. This in term effects all higher order predators. Furthermore, the mosquitoes are highly resistant to insecticides and thus adult control is becoming increasingly more difficult [SLD: note that Iceland has no mosquitoes, however if successful, Kunfunadhoo would be the first island ever to eliminate mosquitoes.]

Source: Intelligent Living (24/Jan/2021), www. intelligentliving.co/kunfunadhoo-maldivesworlds-first-mosquito-free-island/

#### **AUSTRALIA: RODENTS CUT MOBILE**

#### NETWORK

In the remote aboriginal community of Pukatja in South Australia, telecommunication services went down for five days meaning that people could not make calls, use internet, or use EFTPOS or ATM machines. It was believe that a rodent chewed through transmission lines. Residents had to travel 40 minutes in order to use the above services.

Source: ABC News (23/Jan/2021), www.abc.net. au/news/2021-01-23/call-for-better-remoteinternet-after-rats-cause-outage/13072896

#### CATS AND CATNIP – WHY THE LOVE?

Cats are known to love catnip, in fact they go mad for this plant. The cats will roll over on and rub their face on the plant. Interestingly this behaviour may have a genetic advantage. It turns out that catnip contains a chemical called nepetalactol, which has a mosquito repellent effect. Perhaps this learnt behaviour is a means by which cats protect themselves from mosquitoborne diseases.

Source: Cosmos (22/Jan/2021), https:// cosmosmagazine.com/nature/animals/catniprepellent/

#### **ASIAN MOSQUITO FOUND IN CUBA**

A mosquito normally found in Southeast Asia, Aedes vittatus, was recently found in Guantanamo Bay, Cuba. In this case, molecular evidence suggested that it arrived from the Indian subcontinent. The concern is that the mosquito can transmit viruses such as yellow fever and dengue. It is thought that the mosquito hitchhiked on some human made object such as tyres, and was probably brought in on military equipment.

Source: DownToEarth (22/Feb/2021), www. downtoearth.org.in/blog/health/lateral-thoughtsdon-t-blame-it-on-the-mosquito-75168

#### **FARTS – A NEW FORM OF TERMITE MANAGEMENT?**

The beaded lacewing, Lomanyia latipennis, is one of the few insects known to science in which its farts can be deadly. When the larvae of the species comes across termites, it raises its abdomen and releases a toxic vapour that stuns the termites. The larvae then feasts on the comatose termites. If the termites are downwind, then multiple individuals can be paralysed. What is amazing is that other insects are not affected by the lacewings farts, just the termites [SLD: not really sure if this could be used for termite control, perhaps try eating more beans! If you would like to read more about unusual fart stories in animal. then read Does It Fart? The Definitive Field Guide to Animal Flatulence by Nick Caruson and Dani Rabaiotti.1

Source: IFL Science (21/Jan/2021), www.iflscience. com/plants-and-animals/beaded-lacewings-cantake-down-six-termites-with-a-single-fart/amp. html

## **MALAYSIA: INSECTS USES ITS VICTIMS AS** ARMOUR

In Malaysia, an assassin bug, Acanthaspis petax, has been discovered that basically sticks the bodies of its prey onto its own back. This apparently macabre trophy actually provides a defence against other would be predators, as it confuses potential attackers. The assassin bug can accumulate up to 20 dead ants on its body.

Source: RojakDaily (18/Jan/2021), https:// rojakdaily.com/lifestyle/article/11485/thisassassin-insect-found-in-malaysian-jungles-usesits-victims-dead-bodies-as-an-armour

#### INDIA: ORDERS ISSUED TO BAN GLUE **BOARDS**

The Animal Welfare Board of India (AWBI) has issued orders to ban glue boards in the country. The AWBI has written to the Indian Pest Control Association stating that glue boards causes unnecessary suffering and flies against the Prevention of Cruelty to Animals Act. Apparently the AWBI issued a similar order some years back, but the order was not complied with at the time. Now the group is seeking punishments to those that continue to use the glue boards, with penalties including fines and imprisonment. Now glue boards are prohibited from being manufactured, sold, or used. There are also attempts to ban their importation.

Source: The Times of India (16/Jan/2021), <a href="https://">https://</a> timesofindia.indiatimes.com/city/nagpur/awbiissues-orders-to-ban-glue-trap-for-rodents/

#### articleshow/80293606.cms

#### **INDIA: MOSOUITO WORRY FOR** RANGARAJAPURAM RESIDENTS

Following heavy rains in the Chennai, residents of Rangarajapuram are concerned about blocked drains that have resulted in an increase in mosquitoes. Residents are stating that the local government authority are not clearing the silt out of storm water drains, ensuring that they become blocked during heavy rain. The subsequent stagnant water is leading to a huge increase in mosquito numbers.

**Source**: The New Indian Express (8/Jan/2021), www.newindianexpress.com/cities/ chennai/2021/jan/08/mosquito-menace-worriesrangarajapuram-2247033.html

#### **NEW ZEALAND: TRAPPING LEADS TO** REDUCTION IN RODENTS ON SUGAR LOAF **ISLANDS**

Following ongoing trapping on the Sugarloaf Islands on the west coast of the North Island, rats and other predators have reduced to almost zero. The islands are home to around 19 species and some 10,000 birds, including some endangered species. The island is accessible at low tides from the mainland meaning that rats pose an ongoing problem. This is another step towards New Zealand's aim of predator free 2050.

Source: Stuff (4/Jan/2021), www.stuff.co.nz/ national/300195436/rat-trapping-networkhelping-offshore-islands-endangered-seabirdsurvival

#### RATATOUILLE THE TIKTOK MUSICAL

You may remember the wonderful Disney movie called Ratatouille from 2007 staring the lovable rat Remy, who aspired to become a renowned French chef. Following crowd funding through TikTik that raised USD\$1.5million a musical based on the original film was created. Sadly, the production only ran over 1-4/January/2021, but hopefully once theatres open up again, we may see the play on stage.

Source: Elle (2/Jan/2021), www.elle.com/culture/ movies-tv/a35111027/tiktok-ratatouille-musicaltwitter-reaction/