

Exploiting nature to cut mosquito's life short

AP, Washington

Old mosquitoes usually spread disease, so Australian researchers figured out a way to make the pests die younger -- naturally, not poisoned.

Scientists have been racing to genetically engineer mosquitoes to become resistant to diseases like malaria and dengue fever that plague millions around the world, as an alternative to mass spraying of insecticides.

A new report yesterday suggested a potentially less complicated approach: Breeding mosquitoes to carry an insect parasite that causes earlier death.

Once a mosquito encounters dengue or malaria, it takes roughly two weeks of incubation before the insect can spread that pathogen by biting someone, meaning older mosquitoes are the more dangerous ones.

The Australian scientists knew that one type of fruit fly often is infected with a strain of bacterial parasite that cuts its lifespan in half.

So they infected the mosquito species that spreads dengue fever -- called *Aedes aegypti* -- with that fruit-fly parasite, breeding several generations in a tightly controlled laboratory.

Voilà: Mosquitoes born with the parasite lived only 21 days -- even in cozy lab conditions -- compared to 50 days for regular mosquitoes, University of Queensland biologist Scott O'Neill reported in the journal *Science*.

Mosquitoes tend to die sooner in the wild than in a lab. So if the parasite could spread widely enough among these mosquitoes, it "may provide an inexpensive approach to dengue control," O'Neill concluded.

Theoretically, it could spread: This bacterium, called *Wolbachia*, is quite common among arthropod species, including some mosquito types -- just not the specific types that spread dengue and malaria, the researchers noted. And *Wolbachia* strains are inherited only through infected mothers, with an evolutionary quirk that can help them quickly

gain a foothold in a new population.

Next month, O'Neill's team begins longer studies in special North Queensland mosquito facilities that better mimic natural conditions to see how well the *wMelPop* strain persists as more mosquitoes are born, and what happens when they're exposed to dengue. "By killing old mosquitoes, *wMelPop* could thus impact on dengue transmission," Pennsylvania State University specialists Andrew Read and Matthew Thomas concluded in an editorial accompanying the work, which they called "a major step."

It's possible that dengue viruses could evolve to incubate more rapidly if their mosquito hosts die younger, they noted, although that likely would be less of a problem than today's insecticide resistance.

Still, "determining whether it can remove enough infectious mosquitoes to be useful will be a challenge," the duo cautioned.



A large number of visitors throng Dhaka International Trade Fair at Sher-e-Bangla Nagar in the city yesterday, the first day of the week-end. The month-long fair began on Thursday.

Quake hits off Indonesia's Sumatra island

AFP, Jakarta

A 5.4-magnitude quake struck off the Indonesian island of Sumatra late Thursday, seismologists said, but there were no immediate reports of damage or injuries, and no tsunami alert was issued.

The tremor occurred at 11:57 pm (1657 GMT), 126 kilometres (78 miles) southwest of Bengkulu, in southern Sumatra, the US Geological Survey said.

The quake was at a depth of 42 kilometres (26 miles), USGS said, but the Pacific Tsunami Warning Center in Hawaii did not issue a warning.

Indonesia was the country worst hit by the earthquake-triggered tsunami in December 2004 that killed more than 200,000 people in 11 nations across Asia, including more than 168,000 people in Indonesia's Aceh province alone.



Prof Muzaffer Ahmad speaks at a conference on 'Climate change and Bangladesh development strategy: Domestic tasks and international strategy' at ICMB auditorium at Nilkhet in the city yesterday. Sitting on his left are Dr Abdul Matin and Prof Jamilur Reza Chowdhury. Bangladesh Paribesh Andolon and Bangladesh Environment Network jointly organised the conference. (Story on Page 2)

US steel industry in collapse, eyes govt aid

AFP, Washington

The US steel industry is in collapse and looking for a massive government investment program of up to one trillion dollars to stimulate demand for the key commodity, a report said yesterday.

Output of steel has plunged 50 percent since September after posting record profits as construction and auto production have fallen sharply amid a US recession and the global credit crunch, The New York Times reported.

Industry executives are pleading for a huge public infrastructure investment program -- of up to one trillion dollars over two years -- under president-elect Barack

Obama's proposed stimulus plan, the newspaper said.

"What we are asking," said Daniel DiMiccio, chairman and chief executive of the Nucor Corporation, a giant steel maker, "is that our government deal with the worst economic slowdown in our lifetime through a recovery program that has in every provision a 'buy America' clause," the newspaper quoted him as saying.

Economists in the Obama camp have said that the president-elect will propose to lawmakers a stimulus plan that will include significant infrastructure spending that draws on heavy industry.

The steel industry can spring back to life through construction of highways, bridges, elec-

Belgian parliament gives new PM vote of confidence

AFP, Brussels

The Belgian parliament yesterday gave the government of new Prime Minister Herman Van Rompuy a vote of confidence, as expected, after his predecessor was forced out amid a banking bailout scandal.

The lower house deputies approved the five-party coalition and Rompuy's nomination by King Albert II by 88 votes to 45 after a lengthy debate.

Rompuy has promised to carry on the main planks of the government of his Flemish Christian-Democrat party colleague Yves Leterme, which had the same five-party mix of Flemish Christian Democrats and Liberals; and French-speaking Christian Democrats, Liberals and Socialists from Brussels and the southern Wallonia region.

Leterme quit along with his government on December 19 amid allegations that his aides had sought to influence a court ruling related to the break-up of Fortis bank.



A doctor prescribes medicines for a patient at a daylong medical camp at Mohakhali Bus Terminal in the city yesterday. Association of Pabna Ex-Cadets set up the camp to provide free healthcare service for workers.

Final Ethiopian pullout from Somalia under way

AFP, Addis Ababa

Ethiopia said its military withdrawal from Somalia was under way and would last several more days, even as its forces were targeted in yet another deadly incident in Mogadishu yesterday.

The final phase of Ethiopia's troop pullout from neighbouring Somalia comes at a time of deep political confusion and in the dying stages of US President George W. Bush's administration, Addis Ababa's staunch ally.

"We have already started to implement our withdrawal plan. It will take some more days. It is a process and it will take some time," Bereket Simon, Ethiopian Prime Minister Meles Zenawi's spokesman, said.

Ethiopia invaded Somalia in 2006 to rescue an embattled transitional administration and oust the Islamic Courts Union (ICU), which had taken control of most of the country and started imposing a strict form of Sharia.

India unveils second economic stimulus plan

AFP, New Delhi

India yesterday eased foreign borrowing by domestic firms and permitted additional liquidity for the non-banking sector to boost flagging growth in Asia's third-largest economy.

The second economic stimulus package in less than a month came as India forecast growth of seven percent for the year to March 2009.

The package also allowed state administrations to borrow up to 300 billion rupees (6.2 billion dollars) to meet

additional expenditure and fund infrastructure projects.

The package raised the ceiling for foreign investments in India from six billion dollars to 15 billion dollars, national planning official Montek Singh Aluwalia said.

But he warned against expecting any immediate economic turnaround.

"The latest assessment we have is that we should be willing to see growth rates decline in the coming year and an average growth rate of seven percent would be quite a good performance," he said.

India's industrial output shrank for the first time in 15 years by 0.4 percent in October, after expanding by 12.2 percent in the same month a year earlier.

India's central bank meanwhile slashed its two key short-term interest rates.

The Reserve Bank of India reduced its repo rate -- the short-term rate at which it lends to commercial banks -- by 100 basis points to 5.5 percent.

It also slashed the reverse repo rate -- the rate at which it borrows overnight -- to four percent.

Coral decline warns of ocean changes: Scientists

AFP, Sydney

A sharp slowdown in coral growth on Australia's Great Barrier Reef since 1990 is a warning sign that precipitous changes in the world's oceans may be imminent, scientists said yesterday.

Strong evidence points to the cause being a combination of warmer seas and higher acidity from increased levels of atmospheric carbon dioxide, Australian Institute of Marine Science researchers reported.

"The data suggest that this severe and sudden decline in calcification is unprecedented in at least 400 years," said Glenn De'ath, principal author of a paper published Friday in the international journal *Science*.

The research shows that corals on the

reef have slowed their growth by more than 14 percent since the "tipping point" year of 1990 and on current trends the corals would stop growing altogether by 2050.

"It is cause for extreme concern that such changes are already evident, with the relatively modest climate changes observed to date, in the world's best protected and managed coral reef ecosystem," said co-author Janice Lough.

Coral skeletons form the backbone of reef ecosystems and provide the habitat for tens of thousands of plant and animal species and more acidic oceans will affect many sea creatures, not just coral, a statement on the report said.

"All calcifying organisms that are central to the function of marine ecosystems and food webs will be affected, and precipitous changes in the biodiversity

and productivity of the world's oceans may be imminent," it added.

The findings are based on analyses of annual growth bands -- like rings on trees -- extending back in time up to 400 years.

Rising sea temperatures are blamed on global warming caused by the build-up in the atmosphere of greenhouse gases such as carbon dioxide -- which is also blamed for higher acidity in seawater.

A UN report warned in 2007 that the Great Barrier Reef, described as the world's largest living organism, could be killed by climate change within decades.

The World Heritage site and major tourist attraction, stretching over more than 345,000 square kilometres (133,000 sq miles) off Australia's east coast, could become "functionally extinct", the report said.

Paulson blames global imbalances for financial crisis

AFP, London

Outgoing US Treasury Secretary Hank Paulson said that a failure to address the rise of emerging markets and resulting imbalances was partly to blame for the global financial crisis, according to an interview published yesterday.

Paulson told the Financial Times that imbalances between fast-growing nations, which save, such as China, and those who spent were at the root of the problem.

He said that in the years leading up to the crisis, savings from nations such as China and oil exporters -- at a time of low inflation and booming trade and capital flows -- exerted downward pressure on yields everywhere.

This pushed down interest rates and drove investors to riskier assets, sowing the seeds of a global credit bubble that extended beyond the US subprime or high-risk home loan market and eventually burst.

"Excesses ... built up for a long time, (with) investors looking for yield, mis-pricing risk," Paulson told the FT.

"It could take different forms. For some of the European banks it was eastern Europe. Spain and the UK were much more like the US with housing being the biggest bubble."

"With Japan it may be

banks continuing to invest in equities."

Paulson's argument suggests that the roots of the crisis do not lie only within the financial system and that avoiding a future breakdown will require not only better financial regulation and risk management but also global macroeconomic cooperation.

"A lot more needs to be learned about global imbalances," Paulson said.

He added that a strengthened role for the International Monetary Fund (IMF) -- which had sounded the alarm about the imbalances for many years -- was insufficient to deal with the problem alone.

"I am not one who says just reform the IMF and let them deal with imbalances," Paulson said. "You have to have sovereign nations... understand the system."

He said the G20, which includes both developed and emerging nations, was the appropriate international grouping to lead the global response to the crisis.

Paulson, who steps down on January 20 as US president-elect Barack Obama takes office, will be replaced by New York Federal Reserve president and former Treasury official Timothy Geithner.

Iran FM slams world inaction on Gaza

AFP, Tehran

Iranian Foreign Minister Manouchehr Mottaki hit out at the international community for not doing more in the face of Israel's deadly blitz on Gaza yesterday and demanded an immediate halt to the assault.

"We are calling for an immediate ceasefire, a halt to the attacks and aid for the population of Gaza as well as an end to the (Israeli) blockade of the Palestinian territory and the opening up of all the borders, particularly the ports," Mottaki said in a sermon at the main weekly Muslim prayers here.

Mottaki accused the Israeli navy of behaving like "a bunch of Somali pirates" after a patrol boat collided with an aid boat carrying medicines and international activists trying on Tuesday to break Israel's blockade of Gaza.

He said the Gazans were justified in their belief that some Arab countries had "betrayed" them.

After the prayers, several thousand worshippers marched through central Tehran to protest against the Israeli blitz, chanting "Death to Israel," "Death to America."

Similar protests were held in other Iranian cities, state television reported.

BRAC University

Postgraduate Admissions

SPRING 2009

MS IN APPLIED ECONOMICS
with concentrations in
PUBLIC POLICY, FINANCIAL ECONOMICS, ECONOMETRICS

Eligibility: At least an undergraduate degree in economics (or in any quantitative discipline with a background in economics) from a recognized university with no third division (CGPA below 2.5) at any level of education.

The program, with an internationally comparable curriculum, provides suitable preparation for careers in reputed national and international bodies. It also acts as a foundation for post-graduate study overseas.

MS IN BIOTECHNOLOGY

Eligibility: Applicants should have a B.Sc (Honours) degree in Biotechnology/ Biochemistry/ Microbiology/ Botany/ Zoology/ Fisheries/ Agriculture/ any relevant subject or an MBBS degree with at least GPA of 2.5 at every level of education. Candidates with 3rd Division/Class are not eligible to apply.

Special Features of the Program

- Emphasis on research in reputed laboratories
- Occasional field trips to different biotech industries
- Meeting eminent scientists recognized at home and abroad in their respective fields

MA IN ENGLISH
with concentrations in
LITERATURE and ELT & APPLIED LINGUISTICS

Eligibility: Applicants should have a BA in English. Students from other disciplines may apply but may require additional courses

The Literature stream brings you up to date with feminist, post-colonial and post-modern approaches to literature.

The ELT & Applied Linguistics concentration prepares you for a career in language teaching through a solid grounding in linguistics and practical training.

Application Deadline: 07 January 2009

Admission Test/Interviews: 09 January 2009

For Admission Form and further details contact the Admissions Office, BRAC University, 66 Mohakhali, Dhaka 1212 or visit our website at www.bracuniversity.net, Phones: 8824051-4 ext. 4003, Fax: 8810383, email: info@bracuniversity.net. Prospective candidates are strongly advised to visit the respective Departments in person before submitting the application form.

- All classes held in the afternoon or evening
- Financial Assistance on the basis of merit

- Rich library with free access to online journals
- 24 hrs free access to internet