

22 January – 11 February 2024

African countries urged to expand the use of Integrated Pest Management

Scientists have encouraged African countries to increase the use of Integrated Pest Management, which is a more sustainable, cost-effective, and environmentally friendly method of combating fall armyworms than the use of fertilizers, chemical pesticides, and mechanization.

- <https://news.scienceafrica.co.ke/fall-armyworms-african-countries-urged-to-upscale-integrated-pest-management/>

Expert: Swarms of butterflies not a bad omen, just mere migration

► Current migration triggered by prevailing weather conditions that are very suitable in some regions, says scientist.

► But some community elders believe sighting of the insects portend famine.

STANDARD TEAM

For the last few weeks, the skies have been beautified by swarms of butterflies. Some pause to savour the moment by taking pictures and videos.

However, while experts have said that it's a normal migration, some people believe it is a bad omen.

Bad omen or not, Kenyans have been wondering what could be the cause of the migration.

Njoroge Ndung'u, entomologist and curator of invertebrates at the National Museums of Kenya, says the ongoing migration is not of all butterflies but of a specific species.

"The particular species is known as the Caper white or Brown-veined white. This species is largely white with a little black hence the noticeable white colour," says Njoroge.

He says the current migration has been triggered by the prevailing weather conditions that are very suitable in some regions.

Greener pastures

"So in essence, the butterflies are moving for greener pastures i.e. for food and egg laying. They lay eggs in areas where they are assured of food for their young ones. So the areas currently receiving rains since December and January are now rich with flowers and food plants for caterpillars," he says.

However, Njuri Ncheke elders say that the sign of insects in January is a bad omen.

Julius Mbogori, an elder who runs a Njuri traditional court at Nchiru in Tigania West in Meru, says things will not be good in terms of food production, with the coming of the insects.

"When you see a lot of insects all over our vegetation, it means hunger will follow and it is advisable to plan for it. In the past when we witnessed this, hunger always followed and this won't be different unless there are measures taken to ensure food security. This is surely a bad omen. From March there will be less rainfall," says Mbogori.

Jennifer Mutwiri, a retired teacher,

echoes Mbogori's sentiments saying that, in the past, the sighting of the insects brought famine, so residents should be worried and perhaps stock up on food.

"I cannot remember which seasons but whenever they came, famine followed because we had less rainfall and less food in the granaries," says Mutwiri.

However, Njuri Ncheke Supreme Council of Ameru Elders Secretary General Josphat Murangiri believes butterflies in January is a sign of climate change.

"Traditionally we do not see butterflies around this month. We normally see them in May, after the March-April rains. People should not be worried that hunger will follow. If there is sufficient vegetation, the butterflies mean there is plenty of food," says Murangiri.

Dr Simon Gichuru, the chairperson of the elders in Murang'a County, says the butterflies are announcing an impending disaster. "In the past, they have led to hunger and this time it will be worse as we might lack drugs to combat the larvae," says Gichuru.

Isaac Litai, an elder from the Butso community in Western, says January is always hot but this year they have experienced a lot of rain that has brought butterflies and caterpillars.

He says the onset of butterflies signifies the abundance of food in the community as the insects appear during a harvesting season that occurs immediately after the rains.

"We normally see butterflies in plenty after we have harvested, especially beans. This signifies celebration of the efforts that farmers have put into producing food during the planting season," he says.

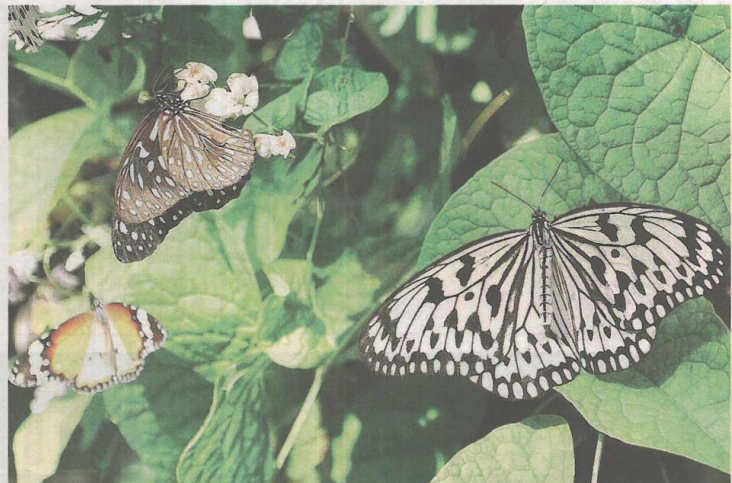
However, he says that while butterflies signify happiness, too many of them may raise an alarm of tragedy happening in the community.

Some parts of the country like the North Rift have not reported the migration. Most farmers in the area are preparing their farms for planting.

According to the Nandi community's cultural beliefs, the sighting of butterflies symbolises the beginning of a dry spell and that the warm temperature is conducive for the adult butterflies to start migrating from West to East.

Benjamin Kitur, chair of the Kaburwo Council of Elders, believes there is a dry spell in the offing. However, there is hope as the season will likely be followed by heavy rains.

Kitur says the farmers should use



What experts say is the normal migration of butterflies, some Kenyans believe it is a bad omen. [File, Standard]

“Important habitats are fast disappearing as they are turned into farmland and human settlements. Other equally significant threats include pesticide use and climate change. Butterflies being flower visitors often come into contact with residual pesticides sprayed on crops.”

Dr Njoroge Ndung'u, entomologist and curator of invertebrates at the National Museums of Kenya

the opportunity to prepare their farm for planting before the rains start.

Entomologist Njoroge says the general direction of migration is from North to South.

The Southern and Southwestern parts of the country as well as neighbouring countries of Tanzania, Rwanda, Burundi, DR Congo and Malawi, have been and are still receiving heavy rains.

"We have reports from contacts in Western Kenya, Rift Valley. Central parts of Kenya as well as far as Isiolo. So a big swathe of the country is experiencing the spectacular migration," he says.

The biggest threat to these colourful insects is habitat loss.

"Important habitats are fast disappearing as they are turned into farmland and human settlements. Other equally significant threats include pesticide use and climate change. Butterflies being flower visitors often come into contact with residual pesticides sprayed on crops," says Dr Njoroge. But he says farmers should not be worried.

"The caterpillar stages of the butterflies are extremely specific on what they feed on. They feed on the leaves of a few plant species in a family of plants called Capparaceae (Caper family, hence their common name). It comprises various wild shrubs and small trees. Unlike us who sometimes want to change from ugali to pizza, most of these species stick to a very strict diet."

Entomologist Daniel Ochieng' Gamba says some of the white butterflies are migratory and belong to the family Pieridae. The small all-white butterflies are the so-called cabbage butterflies, specifically *Pieris rapae*, while the small white with tinges of black at the edges of the wings is referred to as the pioneer white or the African cape (*Belenois aurota*).

"This species has been reported in South Africa to migrate for hundreds of miles up to the island of Mada-

gascar. The butterfly's migration in Kenya has not received adequate research to determine how far and where they migrate. Some observations have placed them crossing to Serengeti. But these are anecdotal evidence. Other butterflies are localised in specific areas where they are useful in pollination of plants," he says.

Gamba adds that the causes of the migration of insects are attributed to several factors. Key to this is the innate ability to detect weather variability and react to them if they are not favourable to the insect.

"The insects usually migrate to increase the chances of successful reproduction in the new area that they are migrating, foraging for new sources of food and mating or search for mates," he says.

Climate change

According to Dr Subramanian Sevgan, a principal scientist from the International Centre of Insect Physiology and Ecology, the unusual weather patterns, which are linked to climate change, are responsible for this phenomenon.

"Currently most parts of the country have been recording an unexpectedly high amount of rainfall from November to January. This is unusual. Increased rainfall and temperature variations during this time of the year may have triggered a favourable environment for the growth of vegetation which are breeding sites for butterflies and moths," he says.

He adds that this is a strange occurrence whose developments need to be studied further to understand and monitor potential patterns and impact on the local ecosystem.

"It is strange to us since butterflies are rarely seen in January. This triggers the need for further investigations to see if this is going to be a trend," says Dr Sevgan. [Reports by Rosa Agutu, Phares Mutembei, Mary Imeniza and Edward Kosut]

The Standard (Kenya), published 6 February 2024

Social Media

OACPS Research & Innovation
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Dans notre nouvelle série d'interviews dédiés aux bénéficiaires du programme OACPS R&I, aujourd'hui la parole est donnée à Stanislas KOUSSAHOUE de Africa Green Corporation SA, qui coordonne le projet tiers BoMeF, supporté par #AGrIDI (@icipe).

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Translated from French by Google

In our new series of interviews dedicated to beneficiaries of the OACPS R&I program, today the floor is given to Stanislas KOUSSAHOUE from Africa Green Corporation SA, who coordinates the third-party BoMeF project, supported by #AGrIDI (@icipe).

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youtube.com
OACPS R&I Programme- KOUSSAHOUE Stanislas

11:01 AM · Jan 29, 2024 · 308 Views

NemaChap
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Exploring the future of Banana Fiber Technology at Eldoret! #Stakeholders gathered for a 3-day meeting, featuring a visit to Biocorn - a potential Banana Paper manufacturer. Thanks to @BioInnovate, the project promises sustainable innovation in action. @icipe @IITA



Solveig Haukeland and 4 others

1:41 PM · Feb 2, 2024 · 1,774 Views

WCIP Glasgow
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2:58 PM · Feb 6, 2024 · 1,374 Views

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CGIAR and 5 others

3:18 PM · Jan 31, 2024 · 427 Views

Shepard Ndlela
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With Minister/CEC Agriculture Narok County Government discussing tomato production, post-harvest handling, aggregation, markets and processing under the project ISPO In Kenya funded by @FutureForAll. @icipe @NarokCountyGovt @kirinyagacounty @kalromkulima



2:21 PM · Feb 1, 2024 · 66 Views

Science Africa
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Fall Armyworms: African Countries Urged to Upscale Integrated #Pest Management

Scientists have urged African countries to upscale Integrated Pest Management (IPM) in Fall Armyworms (FAW).

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9:52 AM · Feb 1, 2024 · 45 Views

preLights @preLights · Feb 6

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Getahun & team @icipe develop effective traps to control and monitor disease vectors based on their study on Stomoxys flies. #preprint

Check out this first preLight from Maitri Manjunath! **

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We had the honour of hosting a distinguished delegation from the @CarnegieCorp, led by Prof. Dame Louise, President of The Corporation, right here at @icipe! The fruitful discussion explored progress, shared interests, and exciting opportunities for future #collaborations 🍌
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Deana Arsenian

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3:29 PM · Feb 7, 2024 · 55 Views

IAS Kenya
@IAS_Kenya

@IAS_Kenya attended training at @icipe and gained insights on maggots harvesting and its benefits. @IAS_Kenya will integrate this knowledge into its programs to empower women groups, farmers managing demo farms and local communities pursuing poultry ventures
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1:41 PM · Feb 8, 2024 · 78 Views

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Our resident taxonomist blogs about Glossina fuscipes, a riverine tsetse fly species found throughout central Africa and as far east as western Kenya 🍌🍌🍌 icipe.org/news/blog/inse...
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Insect Week

9:35 AM · Feb 7, 2024 · 418 Views

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Today, we kick off our campaign for International Day of Women and Girls in Science #IDWGIS we celebrate @MenaFishcos

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Menaga Meenakshisundaram (India)
Postdoctoral Fellow, Insects for Food, Feed and Other Uses

Research area
Insect based animal protein for fish feeds and metagenomics and next-generation sequencing

Awards
Mgt. Dr. Jan D. F. Heine Memorial Award 2019, by the International Tilapia Foundation

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Aquaculture NA and 9 others

3:30 PM · Feb 7, 2024 · 1,176 Views

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What's with all the white butterflies in Kenya?

Read this fascinating blog by @icipe entomologist Sevgan Subramanian
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Kimuri Kia Mwangi and 4 others

10:04 AM · Feb 9, 2024 · 961 Views

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