

BFC PEST & DISEASE WORKSHOP 2023

BY MATTHEW NGUI & ANASTASHA JUNIGO

For the first time as a Borneo Forestry Cooperative (BFC) member, Sapulut hosted the annual Pest and Disease Workshop on July 14, 2023, at the headquarters in Kota Kinabalu. The workshop primarily aimed to standardize pest and disease data collection for inventory programs. Dr Simon Lawson led the participants, comprising fellow colleagues from other member companies, Mr Paul Warburton, and representatives from the BASF company.

Collecting pest and disease data for inventory is the initial step toward establishing an economic threshold for various pests within our plantation area. This threshold is the population level of insects or the extent of tree damage at which the value of affected trees surpasses the cost of controlling the pests.

Standardizing the collected data allows us to correlate pest incidence and severity with financial metrics. When the economic threshold is reached, it becomes economically justifiable to implement control measures. Access to well-informed data enables us to eliminate the necessity for scheduled pesticide applications, opting instead to assess each plot on a case-by-case basis.

Over time, this approach will reduce chemical usage and contribute to sustainable productivity in ITP (Industrial Tree Plantation).

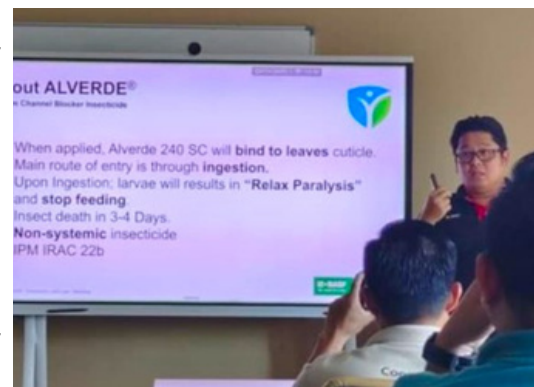
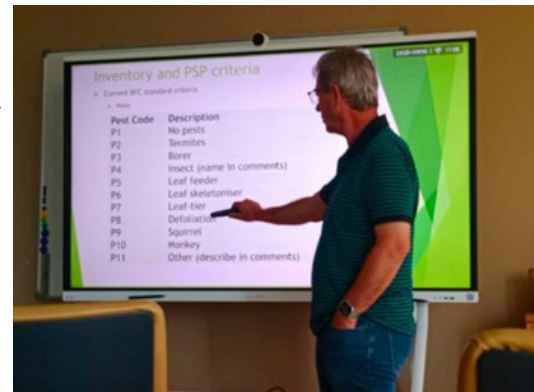
Therefore, ensuring that data collected by all member companies is as standardized as possible is vital, facilitating the pooling of information for more informed decision-making.

Furthermore, representatives from each company showcased their respective pest and disease situations and trials through presentation slides. During this session, members were apprised of notable tree health issues.

Dr. Simon introduced several smartphone apps, including MyPestGuide Trees and KoboToolbox. These tools are helpful for impromptu recording of pests and diseases in the field, featuring geotagging and image tagging capabilities.

BASF company representatives also presented research findings on the efficacy of the chemical Alverde® in controlling leaf tiers. They also introduced a new pesticide product named Inscalix®, potentially suitable for Helopeltis sp. control.

In summary, the workshop achieved remarkable success. All member companies agreed on the essential pest incidence and severity data. The collected data will contribute to understanding the economic damage posed by various pests within our region.



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Core Purpose

Bringing back the natural forest and managing it sustainably.

Sustainability of the natural forests depend on availability of alternate supply from forest plantation timber.

Availability of supply from forest plantation timber depends on the development of forest plantation timber.

Core Values

Do the right thing, even though no one is watching.

Love and respect for self, fellow man and nature.

Recognise and promote teamwork, and never let your team members down.

Continuous improvement of self and Sapulut through training and learning and practice "I see, I think and I do".

Discipline - discipline of self, disciplined thoughts and disciplined action.

Do ordinary things extraordinarily well.

Know the rules, and know how to break them properly.

Ideas are easy. Execution is everything. It takes a team to win.

HEART OF BORNEO CONFERENCE 2023

By Anastasha Junigo & Julius Miajim

“An ecosystem that provides” was this year’s Heart of Borneo (HoB) International conference theme, emphasizing the conservation of nature and humanity’s relationship with its resources. The HoB is an annual conference and exhibition event hosted by the Sabah Forestry Department, initiated by the countries of Brunei, Indonesia, and Malaysia. They aim to unite in promoting sustainable development and enhancing conservation and environmental protection efforts to benefit all Borneo inhabitants.

At first, the Sapulut team struggled to grasp the theme’s significance, particularly when determining the content and information to feature at the Sabah International Convention Center (SICC). With only two months until the event, one thing remained certain: the team was prepared to go the extra mile to stand out and leave a lasting impression this year.

Various departments collaborated in the days leading up to the event, with staff members braving dense vegetation and adverse weather conditions to collect samples for display. They gathered rare fruits, nuts, leaves, and captured captivating images of wildlife, plants, and water features.

Drones were deployed to capture bird’s-eye views of the rivers and limestone hills. In addition, our artisans at camp skillfully crafted desks and sculptures from salvaged hardwood and materials gathered from the woods. Staff members, including Universiti Malaysia Sabah (UMS) interns, ventured into the bushes and crawled through tight spaces to gather materials. Fortunately, these preparations coincided with the mass blooming of dipterocarp trees, allowing us to collect a variety of *Shorea* sp. seeds. Despite their camp duties, preparations were completed.



The day of the exhibition witnessed an impressive gathering of companies and organizations from various fields. Each booth had something captivating to offer, with decorations ranging from minimalist to incorporating as many live plants as possible.

The convention hall radiated the energy of a concert, with large screens hanging above the stage and cameras focused on speakers presenting their research findings on wildlife protection, community involvement in forestry, biodiversity conservation, ecotourism, sustainable agriculture, and climate change.

During the inauguration ceremony, the event was graced by the presence of the Deputy Chief Minister II of Sabah, YB Datuk Seri Panglima Dr. Jeffery G. Kitingan, and the Chief Conservator of Forests, Datuk Frederick Kugan.



Following the launch of the book “The Red List of Sabah Endemic Trees,” published by the IUCN Red List of Threatened Species, and the signing of the Memoranda of Understanding, the honoured guests toured each exhibition booth outside the convention hall.

Throughout the exhibition, it became evident that Sapulut’s booth’s most striking attraction was its vibrant display of insects. Visitors flocked to see the astonishing array of butterflies, beetles, and moths. One notable visitor was entomologist Dr. Arthur Chung, who was eager to meet the enthusiastic Joruni Ambus. Joruni greatly admired Dr. Arthur’s work, which had been tremendously helpful in identifying the collected insects. Dr. Arthur’s meeting with Joruni left both parties elated, and he even gifted two of his autographed books to Joruni.

The booth continued to attract esteemed visitors, including another entomologist, Dr. Stephen Bosuang, who had discovered the new beetle species in Sapulut, *Theodosia normanwongi*, named after our managing director.



Renowned wildlife guidebook author Quentin Phillpps and his wife, Honor Phillpps, also visited the booth and marvelled at the displays. As Honor Phillpps touched the sculptures and dipterocarp seeds, she commented, “It’s wonderful that you can preserve interesting displays that people can feel and touch.”

The team was pleasantly surprised when Quentin Phillpps noticed a framed newspaper article on vegetarian pitcher plants and exclaimed, “That’s my sister!” He was referring to the article’s author, Anthea Phillpps, who had visited Sapulut in 2016 and observed the *Nepenthes ampullaria* in one of our Kerangas Forests. The next day, Anthea Phillpps visited the booth and was thrilled to see her article displayed alongside actual samples of the pitcher plants. On the same day, Quentin Phillpps revisited the booth and generously gifted two of his books to Sapulut, greatly delighting the team.



We were honoured to welcome visitors from diverse backgrounds, states, and countries. Many expressed how their passion for nature’s diversity had been rekindled after seeing some insects and fruits for the first time.

The images of Batu Saap and the Samsiang River piqued their interest in visiting Sapulut, and they were pleased to discover that there are still unexplored parts of the heart of Borneo. The encouragement we received reinforced the importance of preserving Sapulut's ecosystems for future research and exploration.

The team also shared feelings of excitement and curiosity as they explored other booths. In addition to captivating displays, some booths offered engaging quiz games designed to educate visitors about their organization's mission, roles, and initiatives.

Being a part of the Heart of Borneo (HoB) conference has been an unforgettable experience, and our team successfully embraced this year's theme, conveying the message that ecosystems can be preserved while promoting sustainable forest development practices. Sapulut's ecosystems will continue to provide ecological, economic, social, and educational benefits to people now and in the future. Through our team's dedicated efforts in spotlighting Sapulut's ecosystems and showcasing tangible items sourced from our backyard, we aimed to instil in others one of Sapulut's core values: "love and respect for oneself, fellow humans, and nature."

We were deeply honoured to receive a HoB certificate as a token of appreciation from the Chief Conservator. The team thanks Mr. Norman, Mr Bryant, Mr Matthew Wong, and Mr Carlo Garces for visiting our booth with their family members. Our gratitude also goes out to all our friends and colleagues, both at the camp and Kota Kinabalu HQ, for your invaluable assistance and unwavering support. We eagerly anticipate the next HoB conference!



SAPULUT ANNUAL SPORT DAY 2023

By: Jumaini Middu



Every year, the Social Welfare Committee will organize the Sapulut Annual Sports Day as part of efforts to promote health and unity among workers. The Annual Sports Day provides relief from the hectic daily routine and fosters togetherness and shared spirit within the Company. This year, the Social Welfare committee were thrilled to organize the Sports Day which was held on 08 July 2023 and officiated by our FMU Executive Manager, Mr. Teddy Sius. He was pleased to be able to inaugurate the annual sports again this year. Before the start of the event, a Zumba exercise was performed for the warm-up carried out by new employees and interns.



Next, the sports opening event started with the employees' marathon. 9 teams competing are from the 9 departments where one team is the combination of the departments from FAD, HR, OSH, BCM, Purchasing, and Field Audit. In addition, the committee also provide various sports activities such as welcoming the ball, filling water in a bottle, and bottle slingshots for those who prefer relaxing activities. While for extreme sports such as Football, Badminton, Sepak Takraw, Ping Pong, E-game, Chess, and Volleyball were held on May 15, 2023. These sports not only allow employees to exercise but also foster competition health, and enthusiasm in the company.



The success of this annual sporting event could not have been achieved without the teamwork of dedicated committee members and the support of all staff members. The main purpose of this Annual Games is to strengthen the relationship between employees in a relaxed atmosphere and to recognize the importance of health and well-being for employees.



DRONE DEMO TRIAL FOR PRE-PLANT SPRAY

By: Stephen David

The drone demo trial was held from 6th – 8th September 2023 at Compartment 194, Plot 11. The demo was done due to the labor shortage that we are facing and it is recommended to use technology for pre-plant spray. Apart from that the purpose of this demo is to determine the suitability of the drone in the Sapulut area due to the undulating and hilly area. In addition, it is also to make a comparison between the cost and the manpower used. Before proceeding with the intention of using this technology, Sapulut hired a drone team from Sabah Softwoods Berhad (SSB) to conduct the demo at our area which consists of 2 people.



The mission was carried out for 3 days but was halted on 2nd day due to rain and strong wind. Before this mission is carried out, a pre-assessment needs to be conducted to determine the dominance of weeds. In this area, we use percentages to determine the rate of chemicals used i.e. 2 percent out of 16 liters per knapsack which is 320 ml per knapsack. Nevertheless, since the capacity of the tank we use is 18 liters, we decided to use 400 ml per tank. After that, the mission plan will be done e.g. the height from the ground, speed, and interval line spacing, all these parameters need to be looked into account to ensure we get the promising effectiveness.

During those 3 days, we learned a lot and learned from the SSB drone team. However, we have not yet come to a conclusion because we need to wait at least 2-3 weeks to monitor the effectiveness of the spray. Nevertheless, with this program, we have got a clear picture and idea.





The Importance of Insect Preservation by Joruni Ambus



Being a part of the Heart of Borneo (HoB) conference back in August has been an unforgettable experience for me, and it brought back precious memories of my university as a forestry student.

Mr. Julius has assigned me the responsibility of collecting insects, preserving them, and identifying them.

Throughout the process, aside from being eager and keen to pin and set the insect, I couldn't stop thinking about the importance of insect preservation because some insects have very short lifespans, for instance, the butterfly species has an average lifespan of two weeks or less. Although insects can be studied and fancied without killing them using observation and photographic methods, there are a number of reasons or benefits to procuring specimens:



- Identification of insects is a specialty within the study of insects (entomology) based on studies by taxonomists that describe species or groups of species (e.g., families, orders, genera, etc.). Through collection and preservation efforts, new species are found and described. Many undescribed insects remain in the world, let alone here in Sapulut's forest area.
- Properly preserved and stored insect specimens can be viewed and studied for hundreds of years. While most insects live only for a period of days to months before they die and decompose, research found that mayflies have the shortest lifespan, female mayflies usually live less than five minutes, while males can live a whopping two days.
- Names and identities of insects (and other organisms) change over time when new studies reveal the need for a name change. Others use them to describe new species, and many study the data associated with the insects. By looking at the specimen data, stretching back over 200 years, we can see how species distribution has changed over time.
- Collectors learn about relationships between insects and their environment, the importance of habitat, keys to species survival, and relationships between species groups such as hosts, predators, and parasites.
- The study of insects in collections provides knowledge that can lead to a better understanding and higher tolerance of this group of insects in our environment. Ignorance about insects and their relatives can lead to an irrational fear of insects, called entomophobia.
- Insects and their relatives are fascinating creatures like human beings. They share many features with humans and other animals. People of all ages can participate in the study of insects, and making an insect collection is an activity to be shared with others, providing enjoyment and exercise while being educational.
- Insect specimens make great souvenirs. Properly maintained, the specimens can last more than a person's lifetime.

Making insect collections, particularly bug hunting expeditions, is really fun! In a sense, it's like a real hunting trip experience, except you do not need guns or a hunting license to explore the diversity in Sapulut's forest. It's generally a lot cheaper, too! Going insect hunting as an adult can even make you feel like a kid again. "Love and respect for self, fellow man, and nature" is one of Sapulut's eight core values, the tree surrounding our forestry complex are undisturbed and as a result of that, some of the common insects, i.e., moths, praying mantises, and beetles voluntarily visited our quarters as if the insects know we were collecting them to exhibit in the HoB program, so it was no sweat to capture the insect.

Therefore, thanks to Sapulut giving me the opportunity to participate in this program, I met Dr. Arthur Chung, the entomologist based at the Forest Research Centre, Sandakan, which I admire, and we referred to his book to identify the insects collected. Massive appreciation to the University Malaysia Sabah (UMS) interns for their assistance and contribution in the process.