



**BATANGAS STATE UNIVERSITY**  
**The National Engineering University**

## **BATSTATEU RESEARCHER PUBLISHED STUDIES ON BIODIVERSITY**

### **Survival Amidst COVID-19 Pandemic: Contributions of the Forest to the Lives of the Filipinos**

John Louie M Bona, Kim Vincent M. Timbal, Jaypee D Bangate,  
Michelle A. Resueño, Ericson Esquibel Coracero and RB Juarez Gallego

School of Forestry and Environmental Sciences, Aurora State College of Technology, Baler, Aurora Philippines, 3200  
School of Graduate Studies, Aurora State College of Technology, Baler, Aurora, Philippines 3200  
College of Agriculture and Forestry, Batangas State University- The National Engineering University Lobo Campus, Lobo Batangas Philippines 4299  
Indonesian Journal of Forestry Research Vol 10 No.1 April 2023, 105-112  
DOI: <https://doi.org/10.59465/ijfr.2023.10.1.105-112>

COVID 19 has brought significant damages to the lives of the people due to extremely long lockdowns and unemployment. Thus, leaving no choice to the residents but to depend their survival on what is available in the environment.

This study was conducted to assess the contribution of the forests to the lives of the locals in Aurora through a survey on 161 respondents. Data were analyzed through descriptive statistics like frequency, mean, rank, and percentage. Results showed that 100% of the respondents depends on the forests for their food which includes fruits and vegetables in the wild and in their farms situated in the along and in the forest. Meanwhile, 116 individuals (72%) obtained livelihood from the forest in times of the pandemic in the form of labor, farming, selling of forest goods, charcoal making, and furniture making. Generally, the individual income obtained from forest livelihood ranged from Php500.00 to Php25,000.00 and an overall mean individual monthly income of Php4,084.19. Each type of livelihood activities provided a mean monthly income ranging from Php 4350 to Php 9021 per person.

However, the respondents faced challenges such as loss of products due to theft, competition among those with the same livelihood due to limited number of consumers, and struggles concerning the health of the workers especially the elders, disabled, and other high-risk individuals to COVID-19. The government must consider providing needs (financial, technical, knowledge) to the locals in obtaining products and services from the forest for a sustainable utilization of the resources.

Source: Bona, J. L. M., Timbal, K. V. M., Bangate, J. D., Resueño, M. A., Coracero, E. E., & Juarez Gallego, R. (2023). SURVIVAL AMIDST COVID-19 PANDEMIC: CONTRIBUTIONS OF THE FOREST TO THE LIVES OF THE FILIPINOS. Indonesian Journal of Forestry Research, 10(1), 105-112. <https://doi.org/10.59465/ijfr.2023.10.1.105-112>



**BATANGAS STATE UNIVERSITY**  
**The National Engineering University**

## **BATSTATEU RESEARCHER PUBLISHED STUDIES ON BIODIVERSITY**

### **Survival Amidst COVID-19 Pandemic: Contributions of the Forest to the Lives of the Filipinos**

John Louie M Bona, Kim Vincent M. Timbal, Jaypee D Bangate,  
Michelle A. Resueño, Ericson Esquibel Coracero and RB Juarez Gallego

School of Forestry and Environmental Sciences, Aurora State College of Technology, Baler, Aurora Philippines, 3200  
School of Graduate Studies, Aurora State College of Technology, Baler, Aurora, Philippines 3200  
College of Agriculture and Forestry, Batangas State University- The National Engineering University Lobo Campus, Lobo Batangas Philippines 4299  
Indonesian Journal of Forestry Research Vol 10 No.1 April 2023, 105-112  
DOI: <https://doi.org/10.59465/ijfr.2023.10.1.105-112>

COVID 19 has brought significant damages to the lives of the people due to extremely long lockdowns and unemployment. Thus, leaving no choice to the residents but to depend their survival on what is available in the environment.

This study was conducted to assess the contribution of the forests to the lives of the locals in Aurora through a survey on 161 respondents. Data were analyzed through descriptive statistics like frequency, mean, rank, and percentage. Results showed that 100% of the respondents depends on the forests for their food which includes fruits and vegetables in the wild and in their farms situated in the along and in the forest. Meanwhile, 116 individuals (72%) obtained livelihood from the forest in times of the pandemic in the form of labor, farming, selling of forest goods, charcoal making, and furniture making. Generally, the individual income obtained from forest livelihood ranged from Php500.00 to Php25,000.00 and an overall mean individual monthly income of Php4,084.19. Each type of livelihood activities provided a mean monthly income ranging from Php 4350 to Php 9021 per person.

However, the respondents faced challenges such as loss of products due to theft, competition among those with the same livelihood due to limited number of consumers, and struggles concerning the health of the workers especially the elders, disabled, and other high-risk individuals to COVID-19. The government must consider providing needs (financial, technical, knowledge) to the locals in obtaining products and services from the forest for a sustainable utilization of the resources.

Bona, J. L. M., Timbal, K. V. M., Bangate, J. D., Resueño, M. A., Coracero, E. E., & Juarez Gallego, R. (2023). SURVIVAL AMIDST COVID-19 PANDEMIC: CONTRIBUTIONS OF THE FOREST TO THE LIVES OF THE FILIPINOS. *Indonesian Journal of Forestry Research*, 10(1), 105-112.  
<https://doi.org/10.59465/ijfr.2023.10.1.105-112>



**BATANGAS STATE UNIVERSITY**  
**The National Engineering University**

## **BATSTATEU RESEARCHER PUBLISHED STUDIES ON BIODIVERSITY**

### **Vertebrate faunal diversity in Mt. Calavite Wildlife Sanctuary, Occidental Mindoro, Philippines: An Assessment using the Biodiversity Assessment and Monitoring System (BAMS)**

Phillip A. Alviola, Nelson M. Pampolina, Ericson E. Coracero, Jestine Crhistia V. Gatdula, Dexter Cabahug, Robert Duquil, Manuel Luis N. Vida, Paul Xavier C. Medallon, Jomari Christian D.C. Baggay, Mark John A. Suniega

*Vol. 7 No. 3 (2023): Journal of Wildlife and Biodiversity*  
*DOI: <https://doi.org/10.59465/ijfr.2023.10.1.105-112>*

Rich biodiversity is one of the Philippines' greatest assets. The population and diversity of flora and fauna continue to face threats due to anthropogenic interventions. This study in Mt. Calavite Wildlife Sanctuary (MCWS) is one of the pioneering research on vertebrate fauna in a permanent biodiversity monitoring plot which followed a nationally accepted system of biodiversity assessment and monitoring for species and habitat conservation.

The study established a 2-ha Permanent Biodiversity Monitoring Area (PBMA) following the procedures in the Biodiversity Assessment and Monitoring System crafted by the Department of Environment and Natural Resources – Biodiversity Management Bureau. Results showed that MCWS was home to different kinds of vertebrate fauna including 23 bird species from 17 families, 7 mammalian species from 6 families, and 8 herpetofaunal species from 7 families. The habitat association assessment revealed that the majority of species were forest-dependent and some were associated with grassland, agricultural areas, and forest streams. The computed diversity values in MCWS were generally higher than in other areas in the Philippines. Lastly, a high percentage of ecologically important species were recorded including the native, endemic, and threatened species.

The study revealed the presence of essential species that shall be prioritized for conservation. The product of this study can act as baseline information for the continuous monitoring of the area and can further be used in crafting more appropriate and comprehensive conservation and management plans for the area.

Alviola, P. A. ., Pampolina, N. M. ., Coracero, E. E., Crhistia V. Gatdula, J. ., Cabahug, D. ., Duquil, R. ., Luis N. Vida, M. ., Medallon, P. X. C. ., D.C. Baggay, J. C. ., & Suniega, M. J. A. . (2022). Vertebrate faunal diversity in Mt. Calavite Wildlife Sanctuary, Occidental Mindoro, Philippines: An assessment using the Biodiversity Assessment and Monitoring System (BAMS). *Journal of Wildlife and Biodiversity*, 7(3), 24–39. <https://doi.org/10.5281/zenodo.7041773>





**BATANGAS STATE UNIVERSITY**  
**The National Engineering University**

## **BATSTATEU RESEARCHER PUBLISHED STUDIES ON BIODIVERSITY**

### **Distribution and Management of the Invasive *Swietenia macrophylla* King (Meliaceae) at the Foot of a Protected Area in Luzon Island Philippines**

Ericson Esquibel Coracero

*Journal of Zoology and Botany Garden*, 4(3), 637-647

Invasive alien plant species (IAPS) pose one of the most significant threats to native biodiversity. *Swietenia macrophylla*, or big leaf mahogany, is among the most threatening invasive plants in the Philippines. This article aimed to formally document the presence of *S. macrophylla* along the edges of Mt. Banahaw de Nagcarlan, a protected area on Luzon Island, Philippines. The study also sought to identify the management strategies being implemented by various government institutions to address big leaf mahogany and other invasive plants. A total of 1591 individuals of *S. macrophylla* were documented in mixed land-use areas and roadsides. These were found to have been introduced by the Department of Environment and Natural Resources in 1991 as a reforestation species. Fortunately, no individuals were observed beyond the buffer zone towards the protected area. The identification of management strategies for big leaf mahogany and other IAPS revealed that there is no established approach specifically addressing the presence of *S. macrophylla* at the site. However, some institutions advocate for the conservation of native plants through tree planting activities and educational campaigns. Furthermore, no collaborative efforts were observed among stakeholders and institutions. The results of this study highlight the urgent need to manage the *S. macrophylla* population. Planning and enforcement of strategies require collaborative efforts among stakeholders to prevent its entry into the protected area and ensure the preservation of native biodiversity.

Coracero, E. E. (2023). Distribution and management of the invasive *Swietenia macrophylla* King (Meliaceae) at the foot of a protected area in Luzon Island, Philippines. *Journal of Zoology and Botany Garden*, 4(3), 637-647.

**Forester Ericson Corcero, a faculty of College of Agriculture and Forestry from BatStateU-Lobo, conducted collaborative studies on the biodiversity of plants and animals from Luzon Island. These studies were published in peer-reviewed journals indexed in Scopus and Web-of-Science.**



## **BARAKO PROJECT**

### **Bringing back the glory days of Kapeng Barako in Batangas**

*LEA B. CALMADA*

Coffee is life for most Filipinos. Their days are not complete without a cup or two, and a half - which is true to 80% of Filipinos, according to Taclo (2018). Kapeng Barako (Liberica) is one of Filipinos' favorite blends of coffee. According to the study by the Batangas State University, the coffee bean was brought to the Philippines in 1740 by Spanish can monks in the town of Lipa, Batangas. The high altitude and fertile soil of the town made the Liberica variety of coffee grow well. In 1740, Lipa reigned as the center for coffee production in the country and kapeng barako was commanding five times the price of other Asian coffee varieties during the colonial era. However, the glory days of the Philippine coffee industry lasted only until 1889 when it was the Philippines' turn to be afflicted by the coffee rust disease coupled by insect infestation, which destroyed virtually all the coffee trees in Batangas.

This prompted the BatsU to embark on the BARAKO: Batangas Actions towards Revitalization and Acceleration of Kapeng Barako Industry project which aims to bring back the glory of Kapeng Barako and promote the welfare of the farmers in the province of Batangas. Completed in May 2023, the project developed a technology for an optimized method of sexual and asexual propagation of kapeng barako seedlings. In addition, a smart-demo farm was established to develop and test technologies such as remote sensing and environmental monitoring systems to improve kapeng barako farming. Strain identification of different mother trees from different localities in the province was done with De La Salle University-Manila. Technology will later be extended to kapeng barako farmers through training and capability building. In terms of results in numbers, more than 20,000 seedlings were dispersed to six coffee-producing municipalities of Batangas. In terms of seedlings dispersed, this equates to an increase of at least 32 hectares of area devoted to coffee in the province. More than a hundred farmers have been directly engaged under the project. Fifty-two farmers also received kapeng barako seedlings.

The BARAKO project was done in collaboration with the DA-CALABARZON Batangas Forum, Coalition for Agriculture Modernization of the Philippines, Pueblo Farms II, represented by Crisanto S. Gualberto, Merlo Agricultural Corporation represented by Joe Mercado, Philippine Chamber of Commerce and Industries-Lipa represented by Faustino G. Caedo, and De La Salle University. Moreover, the Office of the Provincial Agriculture of Batangas City and Municipal Agriculture Offices of Lipa City, San Jose, Malvar, Cuenca, Padre Garcia, and Rosario have signified their commitment to revitalize and accelerate kapeng barako industry in the province of Batangas. To ensure the sustainability of this project, the above-cited partners and stakeholders signed five memoranda of agreement and understanding.

**For more Information:**

**Dr. Romel U. Briones Batangas State University [romel.briones@g.batstate-u.edu.p](mailto:romel.briones@g.batstate-u.edu.p)**



Originally *Published in the Official Facebook Page of Department of Agriculture-Bureau of Agricultural Research*