



Republic of the Philippines
Department of Environment and Natural Resources
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JUL 14 2023

MEMORANDUM

FOR : **The Regional Executive Director**
DENR MIMAROPA
1515 DENR by the Bay Bldg., Roxas Blvd., Ermita, Manila

FROM : **The Director**
In concurrent capacity as Assistant Secretary for Policy, Planning
and Foreign-Assisted and Special Projects

SUBJECT : **RESULTS OF INSPECTION AND MONITORING OF**
BUTTERFLY FARMS IN MARINDUQUE

We are providing you herewith a copy of the Travel Report on the inspection and monitoring of butterfly farms in Marinduque last April 25-27, 2023. The said inspection was conducted by a joint team from the Bureau and personnel from DENR MIMAROPA, particularly from the Enforcement and Licenses, Patents and Deeds Divisions and PENRO Marinduque.

For information and consideration, and further action, please.


MARCIAL C. AMARO, JR.



Republic of the Philippines
Department of Environment and Natural Resources
BIODIVERSITY MANAGEMENT BUREAU



BMB202303478



UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030

TRAVEL REPORT

I. PURPOSE OF TRAVEL

To conduct inspection and monitoring of wildlife facilities engaged in the commercial breeding of CITES-listed butterflies in MIMAROPA Region in accordance with the Bureau's OPCR.

II. DATE OF INSPECTION/MONITORING

April 25-27, 2023

III. MEMBERS OF THE TEAM

BMB

1. Dr. Esteven U. Toledo, Veterinarian III, Wildlife Resources Division
2. Ms. Mary Grace B. Ulatan, Ecosystems Management Specialist II, Wildlife Resources Division
3. Ms. Danica G. Darlucio, Ecosystems Management Specialist II, Wildlife Resources Division

DENR MIMAROPA

1. Ms. Maria Gloria Galima, Ecosystems Management Specialist II, Licenses, Patents and Deeds Division
2. Ms. Ma. Jeriza Viray, Development Management Officer II, Enforcement Division

PENRO Marinduque

1. Engr. Cynthia Lozano, Development Management Officer V/Chief, Technical Services Division
2. Ms. Jelomy Mahayag, Forester I, Wildlife Resource Permitting Unit
3. Ms. Menchita Radovan, Forest Ranger, Wildlife Resource Permitting Unit

IV. HIGHLIGHTS OF THE TRAVEL

BRIEF BACKGROUND:

Coined as the butterfly capital of the Philippines, Marinduque is home to numerous species of butterfly with butterfly farming as one of the major livelihoods in the province. Since 2002, the Philippines has been exporting various CITES¹ and non-CITES butterfly species such as *Troides rhadamantus*, *Hypolimnas bolina*, *Idea leuconoe*, *Cethosia biblis*, *Papilio rumanzovia*, among others. Based on the CITES Annual Trade Database for CY 2021, 36% of the CITES permits issued by BMB are for the exportation of *T. rhadamantus*. Currently, there are 14 Wildlife Farm Permit (WFP) holders under the jurisdiction of DENR MIMAROPA that are engaged in the commercial breeding of *T. rhadamantus*, 10 of which are engaged in the exportation of said species.

The Golden Birdwing (*Troides rhadamantus*)

Troides rhadamantus, the golden birdwing, is an endemic butterfly species found in the Philippines. It is currently listed under CITES Appendix II. The forewings of the butterfly are black with white streaks while the hindwings are bright yellow with black veins. Its life cycle lasts for 30-40 days.

OBSERVATIONS/FINDINGS:

1. On 25 April 2023, the BMB Team paid separate courtesy calls with Engr. Cynthia Lozano, Chief of Technical Services Division, and Mr. Simeon Diaz, Chief of Regulation and Permitting Section. Both meetings were joined by Ms. Maria Gloria Galima and Ms. Ma. Jeriza Viray of DENR MIMAROPA Regional Office, and Ms. Menchita Radovan and Ms. Jelomy Mahayag of PENRO Marinduque-Wildlife Resource Permitting Unit. The Team briefly discussed the purpose of inspection and monitoring of butterfly farms in Marinduque which was then followed by planning the itinerary for the three-day activity. Ms. Mahayag clarified that based on the list of butterfly farms provided by BMB, 13 out of 14 farms are currently active in butterfly farming. Yet, there is one (1) newly-registered farm that can also be included in the list. The Team also proposed to include the monitoring of the facilities of sub-breeders of Wildlife Farm Permit holders, particularly those engaged in the breeding of *T. rhadamantus*.

Thereafter, the composite team of BMB, DENR MIMAROPA and PENRO Marinduque proceeded with the monitoring activity which ran from April 25-27, 2023. The list of farms monitored is attached as Annex A.

2. During the three-day inspection and monitoring of butterfly farms, the Team noted general observations common among all farms monitored:

- A wide variety of host and nectar plants such as Basket-basket (*Aristolochia spp.*) for *T. rhadamantus*, and Lagaylay (*Parsonsia helicandra*) for *Idea leuconoe* are observed to be present within the vicinities of the butterfly farms. A good practice noted by the Team was the installation of name tags/labels on the host plants, including the common names, scientific names, and sometimes the butterfly species it hosts, for proper identification and monitoring purposes;
- Based on the interview with the butterfly breeders, eggs of *T. rhadamantus* are harvested every day to evade the ants preying on the eggs. Most farms harvest eggs from the host plants and transfer them to smaller cages until they hatched into larvae. An increase in egg production of female butterflies will lessen their life span. Thus, some breeders regulate the egg production by reducing the host plants in the cage which will then discourage the butterflies to lay eggs;
- Aside from the host and nectar plants, the butterfly breeders also provide fruits, sugar water or water with gumamela flowers for additional nourishment of butterflies. Freshly cut host plants are regularly placed inside the enclosures for consumption of larvae;
- The butterfly pupae mimic the color of the object it attaches to during its pupal stage. It could be in green color if the pupae attached to leaves and brown if it attached to a wood or branch of a tree. Once emerged from pupa, adult individuals are then transferred to flight cages. Summer is the optimal breeding season for *T. rhadamantus* which results to 80% success rate of egg hatching. However, extreme heat may cause the underdevelopment of pupae and deformation of the butterfly wings;
- To sustain the butterfly stocks collected from the wild, the permittees continuously breed butterflies in their respective facilities while simultaneously supplying stocks to their sub-breeders by providing butterfly eggs, larvae, pupae and/or adult individuals. These sub-breeders are either relatives of the permittees, neighbors or other locals that are willing to undergo training program of the Technical Education

program includes lectures on butterfly species identification, care and breeding, pest and disease, exportation and importation of butterfly species, background on CITES and butterfly releases. One of the permittees, Mr. Joseph Malangis of J.L.M. Butterfly and Insect Culture, serves as resource person to the said training. The Lumawig Learning Institute, Inc. in Cawit, Boac, Marinduque owned by Ms. Elizabeth Heitzmann also offers the same training.

Once the training is complete, the aspirant butterfly sub-breeder will establish a mini-facility to house and breed the butterfly stocks provided by their chosen WFP holder. The pupae produced by the sub-breeders will be bought by their respective WFP holder/s for export and local trade purposes. Each pupae costs from Php 10.00 to Php40.00 depending on the species. In case of oversupply of butterfly pupae, permittees trade their stock with other registered breeders in Marinduque.

- Based on the interview, the butterfly breeders often receive requests from the LGU for butterfly stocks to be released during events, i.e. *Putong* – a ceremony occasionally performed in the Province of Marinduque to welcome and honor guests/visitors. Said activity will be considered as part of the breeders' environmental commitment to release 10% of the total production of captive-bred individuals to replenish the wild populations of butterflies.
- Some of the butterfly breeders are engaged in the exportation of butterflies to Russia, Netherlands, and U.S.A. Most of their clients are importing butterfly pupae for personal purposes such as release in their own garden/backyard.
- Others are also engaged in the manufacturing and selling of products using butterfly deadstock or preserved specimens such as wall clocks and framed butterflies.
- Lastly, the Team also noted another good practice done by the butterfly breeders. Each WFP holder has installed a signage in front of their facility bearing the business name, permit number of the approved WFP and WCP and the expiration dates of the said permits thereby informing the public on the legality of the operation of the said facility.

Further, the Team also noted the following specific observations per butterfly farm:

No.	WFP holder	Observations
1	Audrey Lumawig Heitzmann (ALH Enterprise)	<ul style="list-style-type: none"> - WFP was renewed in 2022. However, there has been no local and international trade of butterflies since the renewal. - Previously, the farm has 7 cages but all were destroyed during the storm. Only 1 flight cage is currently available and a separate rearing area for the eggs to grow into pupae. - The butterfly farm has a mini-gallery called Lumawig Hall which showcases the various species of butterflies, moths, and other insects. It also displays the different products with deadstock specimens of butterflies such as wall clocks and other framed materials/artwork. - ALH also provides training on butterfly breeding. The latest training schedule was held in May 2023.
2	Anthony Dela Peña (La Anton Insect and	<ul style="list-style-type: none"> - The butterfly farm is located within 1,800 sq. meter lot. The facility is spacious and well-

	<p>Sub-breeder: Maria Theresa Layron</p>	<p>an information material on the life cycle of butterfly welcomes the guests/visitors.</p> <ul style="list-style-type: none"> - During the inspection, Mr. dela Pena mentioned that they are currently collecting butterflies as requested by the LGU to be used during the “Putong” ceremony - The farm is also engaged in local sales of butterflies which are commonly used in celebrations and events. - According to Mr. dela Pena, the butterfly pupae of <i>T. rhadamantus</i> are bought from sub-breeders at PhP 10.00 per piece. - Mr. Dela Peña often provides educational tours for schools.
3	<p>Mary Jean Merencillo-Espiritu (<i>M-Dreams Butterfly Garden</i>)</p>	<ul style="list-style-type: none"> - Presence of <i>T. rhadamantus</i> is observed. - As of 2022, M-Dreams has been exporting <i>T. rhadamantus</i> to Canada. - Currently, the farm has no sub-breeders. The farm is being managed by the WFP holder’s mother, Ms. Ma. Corona Merencillo.
4	<p>Mark Alvin M. Faballena (<i>JMC Butterfly Farm</i>)</p> <p>Sub-breeder: Robert Lundag</p>	<ul style="list-style-type: none"> - The farm is located within a 4.5 has. land on the mountainside. Due to favorable conditions, butterflies produced are bigger and often without deformities as compared to butterflies bred by other farms. - A total of 4 maintenance staff support the farm operations. - An extension facility for the preparation of orders is located in Dawis, Gasan, Marinduque.
5	<p>Joylie B. Morales (<i>Nature Arc Butterfly Farm</i>)</p> <p>Sub-breeder: Ariel Loto</p>	<ul style="list-style-type: none"> - Adult individuals of <i>T. rhadamantus</i> are maintained at the facility of the sub-breeders. - During the monitoring, Mr. Hector delos Reyes, the caretaker of the farm, showed the butterfly pupae of <i>T. rhadamantus</i> collected and bought from their sub-breeders. He informed that since the butterfly farm has not exported for a long time, the facility trades the pupae to other WFP holders. - The farm buys <i>T. rhadamantus</i> pupae for PhP15.00 per piece.
6	<p>Marites M. Mascareñas (<i>Tropical Papilionidae Butterfly Farm</i>)</p> <p>Sub-breeder: Mhayen Malangis</p>	<ul style="list-style-type: none"> - Butterfly farm is neatly organized. - The facility which housed the cages for larvae/caterpillars of the butterflies is currently under maintenance. - The butterfly pupae of <i>T. rhadamantus</i> costs PhP 15.00 per piece when bought from the sub-breeders. - Currently, one sub-breeder temporarily breeds butterflies in the same facility of Ms. Mascareñas.
7	<p>Eric L. Oria (<i>Insects Haven Butterfly & Insect Culture</i>)</p>	<ul style="list-style-type: none"> - The butterfly farm is spacious with additional flight cages currently being constructed. - According to Mr. Oria, cages are frequently sprayed with water to regulate the temperature caused by extreme heat during summer. - The butterfly farm regularly applies for CITES

		<ul style="list-style-type: none"> - Per Mr. Oria, <i>T. rhadamatus</i> pupae costs PhP 25.00 each when bought from the sub-breeders. - Mr. Oria is also a holder of Certificate of Wildlife Registration (CWR). Registered wildlife species monitored in the facility include Burmese python (<i>Python bivittatus</i>), Sugar glider (<i>Petaurus breviceps</i>), Bearded dragon (<i>Pogona vitticeps</i>), among others.
8	Marilyn Malangis Sartillo (<i>Lyra-Ysabelle Butterfly Farm</i>)	<ul style="list-style-type: none"> - The facility is located within a 400 sq. m. lot. The farm is well-maintained and neatly organized. - Adult individuals and butterfly pupae were observed in the farm. - According to Ms. Sartillo, the shipment of <i>T. rhadamantus</i> pupae to Russia was cancelled by her client. Hence, the BMB Team mentioned to surrender the unused CITES Permit to the Bureau.
9	Marion Abundo (<i>Tropical Insects Enterprises</i>) Sub-breeder: Niculas Serano	<ul style="list-style-type: none"> - The butterfly farm is located within a one (1) hectare lot. - Mr. Nick Serrano, caretaker of the farm, informed the group that he manages the facility while his wife prepares the orders of butterfly pupae for export to other countries. - Adult individuals of <i>T. rhadamantus</i> are observed in the farm.
10	Grelando Layron, Jr. (<i>Island Butterflies Farm</i>)	<ul style="list-style-type: none"> - The farm is comprised of 1,800 sq. m. land. - Cages for pupae are temporarily transferred due to presence of snake in the area. - Mr. Layron has not exported <i>T. rhadamantus</i> in the last 5 years. - <i>T. rhadamantus</i> are currently not being bred by the sub-breeders due to lack of orders but the WFP holder breeds the species for sustainability.
11	Joseph L. Malangis (<i>JLM Butterfly & Insect Culture Farm</i>) Sub-breeder: Rey Historillo	<ul style="list-style-type: none"> - <i>T. rhadamantus</i> butterflies are present in the farm. - A new flying cage was recently built for the adult individuals which is still for further improvement by the owner. - Mr. Malangis also serves as a resource person in TESDA training on butterfly breeding. - The farm bought <i>T. rhadamantus</i> pupae for PhP15.00 per piece. - Based on BMB records, some breeders occasionally export <i>Troides magellanus</i>, an CITES Appendix II butterfly species. According to Mr. Malangis, this species prefers to breed near bodies of water, specifically saltwater. Its host plant is <i>Aristolochia philippensis</i>. Considering its high maintenance in care and breeding, breeders rarely apply for the exportation of this species.
12	Imogene Rillo (<i>Class Insecta</i>) Sub-breeder: Pepito Layron	<ul style="list-style-type: none"> - <i>T. rhadamantus</i> is not listed in the WCP as there are no buyers of the said species. - The farm is located within the 1,500 ha. land
13	Leodegario Layron	<ul style="list-style-type: none"> - The farm has a butterfly sanctuary open to

	Sub-breeder: Denmark Jose	<ul style="list-style-type: none"> - Mr. Layron is also engaged in the production of wall clocks and frames decorated with butterfly deadstock. He has a butterfly shop where they can display the said products for sale. - According to Mrs. Layron, butterfly pupae costs PhP 5.00-10.00 each from the sub-breeders. - Currently, there are 100 sub-breeders listed under the said farm.
14	Ma. Corona Merencillo (<i>Ma. Corona B. Merencillo Butterfly Culture</i>)	<ul style="list-style-type: none"> - <i>T. rhadamantus</i> is not included in the WCP and WFP. - A total of 24 sub-breeders are listed under the farm. - Butterfly cages are located within the 800 sq. m. land of Ms. Merencillo.

OTHER ISSUES AND CONCERNS:

1. According to Mr. Joseph Malangis, there has been attempts to introduce genetically-engineered corn from U.S.A. for propagation. However, these were not approved due to the detrimental effects of this plant to butterflies. He claimed that the GMO corn causes mortality to butterflies once consumed.
2. Reports received by PENRO Marinduque that a butterfly breeder without proper permits is selling wall clocks and framed butterflies with specimens collected from the wild. Allegedly, it is owned by the Barangay Captain in Bagtingon, Buenavista, Marinduque. According to Ms. Radovan, they have advised the Barangay Captain to apply for a Wildlife Farm Permit and was already provided with an application form and a list of other documentary requirements. But to date, PENRO Marinduque has not received any application from the said individual.
3. Mr. Simeon Diaz inquired about the Wildlife Traffic Monitoring Units (WTMU). Ideally, WTMUs must be stationed at each port such as Balanacan Port in Mogpog, Cawit Port in Boac, Buyabod Port in Santa Cruz and Marinduque Airport to monitor the movement of wildlife. However, there are rental fees required at ports before installing a designated post/station for WTMUs. At present, the WTMUs conduct quarterly monitoring activities of the said ports. BMB suggested to forge a possible Memorandum of Agreement with the Philippines Ports Authority regarding the installment of DENR post at the said ports without necessary fees.

RECOMMENDATIONS:

1. The Region and PENRO-Marinduque is advised to require the WFP holders to submit the updated list of sub-breeders for monitoring purposes;
2. Ensure that no butterfly stocks shall be collected from the wild by the sub-breeders;
3. Activities pertaining to the 10% release of butterfly stock should be documented by each WFP holder for monitoring purposes; and,
4. Conduct investigation on the alleged selling of products made of butterfly specimens illegally collected from the wild and initiate wildlife law enforcement operation, if warranted.

The results of the inspection and monitoring conducted on butterfly farms, including the

observed in the butterfly facilities such as the labels/name tags of the host plants and the signages of the butterfly farms bearing the company name, permit numbers of the approved WFP and WCP, and the validity of the permits issued by the DENR, thereby indicating the legality of their operation. The exit conference was also attended by the staff from the Regional Office and PENRO Marinduque.

Lastly, the BMB team brought CEPA materials to be distributed to PENRO Marinduque in support to the implementation of activities relative to the conservation and protection of wildlife resources. CEPA materials provided include Wildlife Law Enforcement Manual of Operations, Wildlife Law Enforcement Action Plan (WildLEAP), Philippine Red List of Threatened Wild Fauna, and CITES booklets.

Photo-documentation of the inspection and monitoring activity is attached as Annex B.

PREPARED AND SUBMITTED BY:


DR. ESTEVEN U. TOLEDO
Veterinarian III

(on official travel)
MARY GRACE B. ULATAN
EMS II


DANICA G. DARLUCIO
EMS II

Monitoring of Wildlife Farm Permit (WFP) holders in Marinduque
April 25-27, 2023

No.	Name of Permittee	Name of Farm/Facility	Farm Location	Wildlife Farm Permit		Sub-breeder
				Permit No.	Date issued	
1	Audrey Lumawig Heitzmann	ALH Enterprise	Cawit, Boac, Marinduque	MIMAROPA-2022-04 (Renewal)	August 25, 2016	-
2	Anthony Dela Peña	La Anton Insect and Butterfly Farm	Cawit, Boac, Marinduque	MIMAROPA-2017-0003 (Renewal)	September 27, 2017	Maria Theresa Layron
3	Mary Jean Merencillo-Espiritu	M-Dreams Butterfly Garden	Cawit, Boac, Marinduque	MIMAROPA-2017-0004 (Renewal)	September 27, 2017	-
4	Mark Alvin M. Faballena	JMC Butterfly Farm	Caigangan, Buenavista, Marinduque	MIMAROPA-2019-0003 (New)	September 17, 2019	Robert Lundag
5	Joylie B. Morales	Nature Arc Butterfly Farm	Cawit, Boac, Marinduque	MIMAROPA-2018-0002 (Renewal)	July 30, 2018	Ariel Loto
6	Marites M. Mascareñas	Tropical Papilionidae Butterfly Farm	Cawit, Boac, Marinduque	MIMAROPA-2018-0003 (Renewal)	July 30, 2018	Mhayen Malangis
7	Eric L. Oria	Insects Haven Butterfly & Insect Culture	Cawit, Boac, Marinduque	MIMAROPA-2019-0001 (Renewal)	August 29, 2019	-
8	Marilyn Malangis Sartillo	Lyra-Ysabelle Butterfly Farm	Cawit, Boac, Marinduque	MIMAROPA-2019-0002 (New)	September 16, 2019	-
9	Marion Abundo	Tropical Insects Enterprises	Cawit, Boac, Marinduque	MIMAROPA-2020-01 Renewal)	September 29, 2020	Niculas Serano
10	Grelando Layron Jr.	Island Butterflies Farm	Cawit, Boac, Marinduque	MIMAROPA-2020-02 Renewal)	September 29, 2020	-
11	Joseph L. Malangis	JLM Butterfly & Insect Culture Farm	Cawit, Boac, Marinduque	MIMAROPA-2020-03 Renewal)	November 20, 2020	Rey Historillo
12	Imogene Rillo	Class Insecta	Cawit, Boac, Marinduque	MIMAROPA-2020-04 Renewal)	November 20, 2020	Pepito Layron
13	Leodegario Layron	Marl Insect and Butterfly Culture	Amoingon, Boac, Marinduque	MIMAROPA-2020-05 Renewal)	November 20, 2020	Denmark Jose
14	Ma. Corona Merencillo	Ma. Corona B. Merencillo Butterfly Culture	Cawit, Boac, Marinduque	MIMAROPA-2020-06 Renewal)	November 20, 2020	-

PHOTO-DOCUMENTATION



Courtesy calls with Engr. Cynthia Lozano, Chief of Technical Services Division, and Mr. Simeon Diaz, Chief of Regulation and Permitting Section.

1. ALH Enterprise c/o Audrey Lumawig Heitzmann



Flight cage for adult individuals of butterflies



Breeding cages

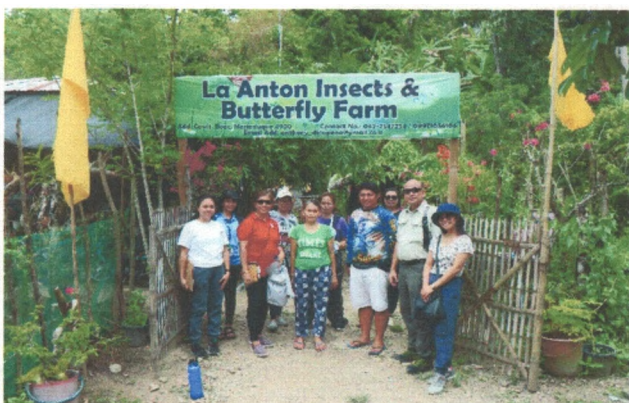


Training facility



Products with butterfly specimens

2. La Anton Insect and Butterfly Farm c/o Anthony Dela Peña



Mr. Dela Peña explaining the process of breeding butterflies



Various butterfly pupae

3. M-Dreams Butterfly Garden c/o Mary Jean Merencillo-Espiritu



One spacious cage for breeding butterflies

4. JMC Butterfly Farm c/o Mark Alvin M. Faballena



Signage at the entrance of the farm with the details of the WFP holder



Breeding cages



Ms. Elsa Zulueta, the caretaker of the farm, with the Monitoring Team



• Sub-breeder: Robert Lundag



Gumamela flowers in water as additional nourishment for the butterflies

5. Nature Arc Butterfly Farm c/o Joylie B. Morales



Basket-basket (*Aristolochia* spp.), the host plant for *T. rhadamantus*

• Sub-breeder: Ariel Loto



Adult *T. rhadamantus*



T. rhadamantus larvae

6. Tropical Papilionidae Butterfly Farm c/o Marites M. Mascareñas



T. rhadamantus pupae

7. Insects Haven Butterfly & Insect Culture c/o Eric L. Oria



Troides rhadamantus



Idea leuconoe



Papilio memnon



Breeding cage



Green Iguana (*Iguana iguana*)



Bearded Dragon (*Pogona vitticeps*)



Burmese Python (*Python bivittatus*)



Sugar Glider (*Petaurus breviceps*)

8. Lyra-Ysabelle Butterfly Farm c/o Marilyn Malangis Sartillo



Danaus chrysippus



Papilio polytes



Interview with Ms. Marilyn Sartillo

9. Tropical Insects Enterprises c/o Marion Abundo



Host plants for various species of butterflies: *Lagaylay* for *Idea leuconoe*; citrus plants for *Papilio rumanzovia*; and, *Aristolochia* for *Pachliopta kotzebuea*

- **Sub-breeder: Niculas Serano**



T. rhadamantus larvae



Rearing cages

10. Island Butterflies Farm c/o Grelando Layron Jr.



11. JLM Butterfly & Insect Culture Farm c/o Joseph L. Malangis



Flying and breeding cage



Rearing area

- Sub-breeder: Rey Historillo



12. Class Insecta c/o Imogene Rillo



13. Marl Insect and Butterfly Culture c/o Leodegario Layron



Mrs. Layron showing how to pack butterfly pupae for international shipping

Display area showcasing products with dried butterfly specimens

- **Sub-breeder: Denmark Jose**



14. Ma. Corona B. Merencillo Butterfly Culture c/o Ma. Corona Merencillo



Exit conference of the Monitoring Team with OIC PENRO Imelda Diaz on April 27, 2023