



SUAKCREM REPORT

June, July, August, and September 2024

1. Philippine International Research Experience for Undergraduate Students (PhIRES) Year 3 and SU Molecular Biology Laboratory

PhIRES Year 3 field and lab work started on June 17, 2024 to July 30, 2024 with 10 undergraduate students, where five came from US colleges and five from Silliman University BS Biology majors. The project is led by Dr. Nadia P. Abesamis of the SU Biology Department (under the sub-project: DNA barcoding of Blue Swimming Crab) and assisted by four SU faculty researchers: Dr. Robert S. Guino-o (DNA barcoding of Aquatic Insects), Asst. Prof. Persie Q. Sienes (Development of Genetic Markers for the Philippine Spotted Deer), Asst. Prof. Michael R. Alcala (DNA barcoding of Lizards), and Assoc. Prof. Roy Olsen D. De Leon (Carbon sequestration of *Nypa*). PhIRES is significant to the University’s genetic research capability by upgrading the skills of faculty and student researchers in Molecular Biology through collaboration with the Texas A&M University Corpus Christi and Old Dominion University. PhIRES is an offshoot of PIRE project under Dr. Kent Carpenter and the late Dr. Angel C. Alcala.

Representative Macroinvertebrates from Malaunay River, Valencia, Negros Oriental (Tentative Family Identification/Confirmed Order Identification): June – July 2024 (credits: Lhear Elloren & Aidan Pflieger)

Family Baetidae, Order Ephemeroptera	Family Caenidae, Order Ephemeroptera	Family Baetidae, Order Ephemeroptera
Family Elmidae, Order Coleoptera	Family Tricorythidae, Order Ephemeroptera	Family Tricorythidae, Order Ephemeroptera
Family Naucoridae, Order Hemiptera	Family Heptageniidae, Order Ephemeroptera	Order Odonata
Family Telagonidae, Order Ephemeroptera	Family Formicidae, Order Hymenoptera	Family Ephemerellidae, Order Ephemeroptera



Aidan Pflieger and Lhear Elloren worked on DNA barcoding of Aquatic Insects of Valencia, Negros Oriental, Philippines, with Dr. Robert S. Guino-o II of SUAKCREM as project mentor, and Asst. Prof. Persie Q. Sienes of as Spotted Deer project mentor.

Follow-up Needed: The SU Molecular Biology Lab which PhIRES used since June 17, 2024 is undergoing renovation through an SU-DOST Philippine Spotted Deer Genetics Project. The Buildings and Grounds still has to **elevate the locations of the electrical outlets from 0.3 meters from the ground to 1.2 meters**. It also has **provide two exhaust fans for the autoclave and biosafety cabinet areas**. The work were scheduled last August 8-11, 2024, but has not been attended to by the service contractor. It is recommended to keep the contractor’s retention fee until the work is completed.



2. June 25-27, 2024- National Protected Areas Conference (NPAC) at Crowne Manila Plaza Galleria representing the Balinsasayao Twin Lakes Nature Park , Negros Island and Academe along with other PA management board members



Silliman University is an active Protected Area Management Board (PAMB) member of the Balinsasayao Twin Lakes Natural Park (BTLNP) and serves as the Biodiversity Chair of the BTLNP PAMB since its creation in November 2000. Dr. Guino-o represented the BTLNP PAMB along with the other PAMB board members. The recent BTLNP development this year is the inclusion of Balinsasayao Twin Lakes as an ASEAN Heritage Park, which will be announced during the ASEAN ministerial meeting in December 2024. The implication of this award/recognition means the BTLNP PAMB will receive a yearly P 3M fund to cover for maintenance and improvement of the BTLNP. BTLNP programs, projects,

and activities are approved. Silliman University is also a PAMB member of the Apo Island Protected Landscape through SU IEMS and Seascope (AIPLS) and Tañon Strait Protected Seascope (TSPS) through SU Biology Department. During the conference, there was an inquiry by the Provincial ENRD head Mr. Manric Barillo of the absence of SU in the AIPLS PAMB for 2023 and 2024 meetings.

Follow up Needed: For SU IEMS to **be reminded to participate in the AIPLS Protected Area Management Board quarterly meetings** under DENR Protected Area Supervisor (PASu) Viernov Grefalde and Assistant PASu Alvin Bangaysiso. The undersigned will coordinate with the VPAAR for appropriate action on this issue.

3. Dr RS Guino-o Assists SU DOST Biology student scholars in Field work with the Talarak Foundation for the DOST Philippine Spotted Deer Genetics Project Year 1

On July 8-10, 2024, Dr RS Guino-o accompanied SU DOST Biology student scholars at Talarak Foundation Park in Kabankalan City, and at Negros Forest Park at the Capitol Area of Bacolod City, Negros Occidental to collect tissues samples using DanInject dart gun. Mr. Loujean Cerial, CenTrop animal caretaker, Dr. Monica Atienza of Negros Forest Park, Mr. Gerald Marco, DOST Project Staff assisted Dr. Guino-o and students in the tissue collection. An estimated 100 Philippine spotted deer tissues were collected across the three captive breeding facilities at Silliman CenTrop, Talarak Foundation, Negros Forest Park, and Mari-it Conservation Park. This field work provides the tissues needed for the SU-DOST project on Philippine Spotted Deer Genetics Project. The importance of this activity shows that SU is able to deliver 100% of its DOST goal for Year 1, which is to produce 300 DNA barcodes comprising of CO1, Cytochrome B, and D-loop gene markers by October 1, 2024. Having met this goal, this will strengthen Silliman University-DOST collaboration. The year 2 project on inbreeding frequency determination will commence from October 2024 – October 2025.



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Follow-up needed: The SU DOST project on PSD Genetics is linked with the SU DOST PSD Genetics Project, which has a DOST-funded Institutional Development fund of PhP 5M for laboratory tables and equipment under Dr. Nadia P. Abesamis as project lead. The support needed from Business and Finance is to **expedite the bidding process for the laboratory tables and chairs** to complement the SU DOST PSD Genetics Project under Dr. Robert S. Guino-o II. The target date for the purchase order is mid November 2024.



Dr. RS Guino-o joining his students in the field visiting the Talarak Foundation’s Park in Kabankalan City and Negros Forest Park in Bacolod City, Negros Occidental for tissue collection on July 8-10, 2024.



Tissue sample of the Philippine Spotted Deer measuring 1 cm long x 0.2 cm wide using DanInject dart gun (left photo); SU CenTrop staff, Loujean Cerial, DOST Project Staff, Gerald Marco, SU DOST scholars: Jazz Catubig, Lhear Elloren, Francis Albina, and SUAKCREM Director Dr. Robert S. Guino-o



4. Biodiversity Conservation and Monitoring Program (BCMP) of the EDC Valencia Watershed on July 19-20, 2024 and July 26-30, 2024.

The Freshwater BCMP team led by Dr. Robert S. Guino-o II conducted its yearly monitoring of 11 rivers and streams within the Valencia subwatershed. The BCMP is collaborating with the CBA Extension group of Dr. Ofelia Ragpa and Asst. Prof. Mylah R. Bomediano for the formulation of the Barangay Conservation and Monitoring Plan as a strategy to address issues, environmental threats, and problems at the barangay level. This program has other component teams: Forest Birds, and Mammals and headed by faculty researchers at the Biology Department, namely, Assoc Prof. Renee B. Paalan, Asst. Prof. Leandro Cabrera, and Asst. Prof. Michael Alcala, respectively. This program contributes to the vision of Silliman University as a leading Christian University committed to total human development for the well-being of society and environment.

5. DNA Barcoding Training on August 5-8, 2024 at the SU Molecular Biology Lab

One of the five deliverables for Year 1 of the SU-DOST PSD Genetics Project is DNA barcoding and phylogenetics training for 15 faculty researchers of Silliman University, NORISU, SPUD, and Marinduque State University. This training aims to bring genomics to universities outside Metro Manila, with Silliman as the training hub. The training will be a yearly event until 2026 with faculty and staff within and outside Silliman University.



Dr. RS Guino-o, Dr. Aye Mee Bartocillo, Dr. Nadia Abesamis, and Asst. Prof. Persie Siens served as trainers during the DNA barcoding training at the upgraded SU Molecular Biology Laboratory.



6. Visit of Naoki Mayuzumi, an SU Alumnus, and his students from Moteki Preparatory School at Apo Island Protected Landscape and Seascape

SU Biology alumnus Naoki Mayuzumi and 12 students from his Moteki Preparatory School in Japan visited Silliman University and Apo Island for their Summer Study Tour last August 20-22, 2024. Dr. RS Guino-o gave a short orientation/lecture on Philippine Biodiversity at one of the classrooms of the Marquis Hall of the College of Nursing, then visited Apo Island on August 22, with SUAKCREM staff Emily A. Layos, Geraldine O. Lopez.



Mr. Naoki Mayuzumi with students from his Moteki Preparatory School in Japan listened to Dr. RSGuino-o's short lecture on Philippine Biodiversity on August 21, 2024; and then proceeded to visit Apo Island, on August 22, 2024



7. Visit to Apo Island for the installation of the ACA Marine Protected Area marker

On August 22, 2024, Dr. RS Guino-o and SUAKCREM staff visited Apo Island to check on the status of the installation of the marker for the Apo Island Marine Reserve. The marker highlighted the role that former SUAKCREM Director A.C. Alcala in the establishment of the Apo island Marine Reserve. On an earlier schedule, SUAKCREM staff Jasper Leif Maypa conducted a reconnaissance trip for the marker installation in coordination with local community leaders. A write up on the ACA MPA marker will be arranged with the Dr. Warly Caturay, OIP Director and will be featured at the SU website.



(L-R) Dr. RS Guino-o and SUAKCREM Staff coordinating with Ms. Analie Candido at Apo Island for the installation of the ACA marker for the Apo Island Marine Reserve

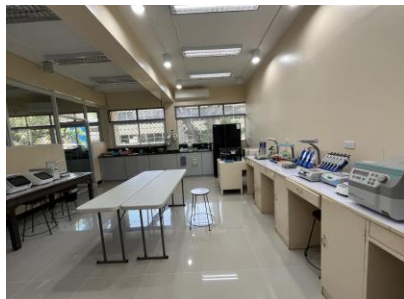
8. Soft Opening of the SU Molecular Biology Laboratory and Lunch Fellowship

On August 27, 2024 the Biology Department hosted the soft opening of the SU Molecular Biology Laboratory with a short ceremony led by Dr. Robert S. Guino-o II as the SU-DOST PSD Project leader, and the DOST Provincial Director Atty. Gilbert R. Arbon. In attendance were representatives from the SU PreMed Class 1967 led by Dr. Erlinda Lim-Juan, Dr. Alma Magsipoc-Bonifacio and Ms. Flor Hamoy Liok. The SU Pre-Med Class of 1967 gave the seed fund for the establishment of the SU Molecular Biology Lab in 2015 through Dr. Enrico and Dr. Esther Sobong. Others who led in the opening were Silliman Church Pastors Rev. Jonathan Pia, Rev. Mark Augusto, SU Asst. VPAA Mae Brigitt Villordon, Biology faculty and staff, SUAKCREM staff, guests and former faculty of the Biology Department.



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(Counterclockwise from Top Right): Dr. RS Guino-o welcoming the guests; two views of the Molecular laboratory; and representatives from SU PreMed Class 1967 cutting the ribbon.

9. Updates during the Protected Area Management Board (PAMB) meeting of the Balinsasayao Twin Lakes Natural Park (BTLNP)

On August 30, 2024, Mr Jasper Lief Maypa represented Dr. RSGuino-o in the BTLNP PAMB Meeting held at the Bethel Guesthouse. Major points of discussion during the meeting were the presentation of the results of the Biodiversity Monitoring System and the study on Zingiber plants in the area. The meeting tackled the PAMB clearance for the installation of an automated weather station and updates for BTLNP as nominee of the ASEAN Heritage Park and UNESCO World Heritage Site. Other points discussed were the upcoming visit to the park by attendees of the 2024 Philippine Symposium for Freshwater Biodiversity and Ecosystem on November 13-16, 2024 at Silliman University. Other items discussed included on facilities maintenance and improvement at BTLNP.



Jasper L. Maypa with the members of the BTLNP PAMB in a meeting at the Bethel Guesthouse, August 30, 2024



10. Creation of the Office of Research, Publication, and Innovation under the University Academic Affairs and Research Division

Starting this school year, Dr. Robert S. Guino-o II was appointed Interim Executive Director for Research, Publication and Innovation. Dr. Guino-o's role will be to harmonized the programs, projects, and activities of the University Research Development Center, the office of Publication and the office of Technology Business Innovation. SUAKCREM will remain as a vital center for marine and terrestrial research in the University.

11. DOST-SU PSD Project Year 2 Project Renewal Application Update

Last September 3, 2024, the DOST PCAARD Division Council approved the Year 2 Renewal of the SU-DOST PSD Genetics Project. Dr. Guino-o presented the renewal application through a video presentation. The final approval from the DOST General Council is scheduled on October 3, 2024. The support needed will be the consolidation of financial reports from the assigned Business and Finance accountant Mr. Ariel Tag for the period October 1, 2023 – September 2024.

12. Launching of the Silliman University-Energy Development Corporation (SU-EDC) Binhi Arboretum Project

On September 4, 2024, the SU-EDC Binhi Arboretum Project was launched at the CENTROP Facilities in Palinpinon, Valencia, Negros Oriental. The activities included treeplanting of native and endemic species, nature walk and unveiling of the SU-EDC Arboretum Marker. In attendance were EDC Binhi project leader, Mr. Ariel H. Dela Cruz, Ms. Aubrey Bangaysiso, EDC's Watershed Management Officer, Ms. Maria Nancy P. Ibuna, Head of EDC's Corporate Relations and Communications Division and Ms. Myrissa I. Tabao as EDC Community Social Responsibility Manager. Representing Silliman University was President Betty C. McCann, with VPAAR Dr. Margaret Alvarez and AVPAA Dr. Mae Brigitt Villordon and Asst. Prof. Leandro C. Cabrera, CENTROP Coordinator. Others who attended were CENTROP and Biology faculty and staff, SUAKCREM staff, and Junior and Senior BS Biology students.





(Counterclockwise from Top Right) Jasper Maypa, Emily Layos and Dr RS Guino-o at the unveiling of the markers for the SU-EDC Binhi Arboretum; SUAKCREM and SU Biology staff at the CENTROP facility in Palinpinon, Valencia, Negros Oriental during the unveiling event; SU President Dr Betty McCann and EDC representative unveiling the marker.

13. SUAKCREM supports Pew Fellow Dr. Rene Abesamis’ project

Continuing Silliman University’s commitment to the promotion of Marine Protected Areas, SUAKCREM participated in the inception meeting of the project of Dr. Rene Abesamis (Pew Marine Fellow) entitled *Enhancing Local Capacity to Identify and Protect Climate-Resilient Coral Reefs in MPA Networks in Central Philippines* on September 18, 2024, at SU Biology Conference Room. MPAs are home to marine life and provide fisheries and biodiversity conservation benefits pioneered by Dr. Angel C. Alcala.

Follow up needed: Provide support to IEMS faculty researchers to play an active role in coral reef research. SUAKCREM will continue to support the annual fish and coral survey of Apo Island Protected Landscape and Seascape, which Dr. Alcala started 41 years ago.



Inception meeting for the Enhancing Local Capacity to Identify and Protect Climate-Resilient Coral Reefs in MPA Networks in Central Philippines project of Dr. Rene Abesamis on September 18, 2024



14. SUAKCREM joins the Marine Protected Areas Support Network (MSN) in-person meeting in Quezon City after the CoVID pandemic of 2020-2021 on September 19, 2024

SUAKCREM renews its commitment to the MSN by joining the first in-person meeting in Quezon City on September 19, 2024. An MOU signing is planned by December 2024 to sustain the milestones of the MPA movement pioneered by the late Dr. Angel C. Alcala.



Marine Protected Areas Support Network in-person meeting after the CoVID pandemic in Quezon City on September 19, 2024

15. SUAKCREM collaborates with CMU Research Group of Dr. Victor Amoroso

Last September 30, 2024, SUAKCREM conducted a research planning with the Central Mindanao University research group led by 2007 outstanding Sillimanian awardee Dr. Vic Amoroso, Dr. Jing Toledo-Bruno, Fulgent Palmitos Coritico, and Nick Briones on R&D projects for 2025 at Balinsasayao Twin Lakes Nature Park, Negros Oriental. The BTLNP PAMB has approved the proposal of Dr. RS Guinoo entitled “Assesment of Water Profile, Plankton, Macroinvertebrates, and Fish Assemblage of BTLNP” during its second quarter meeting.

Follow up needed: Human resource complement of at least three personnel; SUAKCREM staff will serve as Research Assistants.



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Dr. RS Guino-o met with CMU faculty researchers led by Dr. Victor last September 30, 2024 at the BTLNP, Negros Oriental Amoroso

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October 22, 2024