

# ACTION INDONESIA

NEWSLETTER

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IUCN/SSC Wild Pig Specialist Group



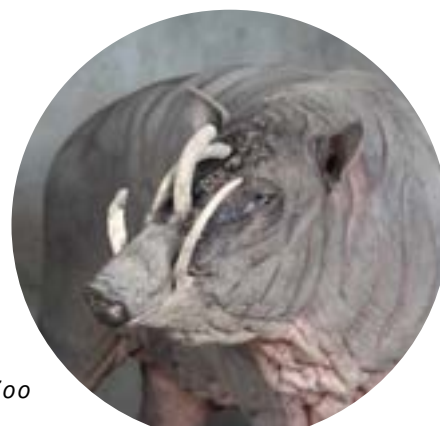
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*Babirusa at Surabaya Zoo  
Credit: Jamie Jackson*



## Editor's Note

*By Corinne Bailey  
Programme Officer, IUCN SSC AWCSG*

Welcome to the eleventh issue of the Action Indonesia GSMP newsletter! This issue follows activities in Indonesia to share skills on husbandry, collection planning and education and awareness raising for anoa, banteng, babirusa and Sumatran tiger. We also update here on exciting new activities to monitor populations of banteng, anoa and babirusa *in situ*, through camera trapping and biopsy sampling.

This issue follows another successful Action Indonesia Day on August 13th! Find out how zoos from the US, Indonesia and the UK got involved in this issue, and see all the pictures from the day by following the #ActionIndonesiaDay hashtag on social media.

Following the completion of the Action Indonesia GSMP 2023-2025 Masterplan, we are delighted to announce that the Masterplan has now been approved by the WAZA Committee for Population Management (CPM). Read more in our [Executive Summary here](#). We are also happy to introduce JT Svoke from Zoo Miami as the new Banteng Co-convener and Marcel Alaze from AllwetterZoo as the new Anoa Convener for the GSMPs.

The work and continued capacity building in Indonesia is only possible with your support. Please get in touch to find out how you can help and get involved. For more information about the Action Indonesia partnership, including joining and contributing, please contact me: [c.bailey@chesterzoo.org](mailto:c.bailey@chesterzoo.org). We hope you enjoy this issue and look forward to hearing from you!





# Birth & Transfer following Recommendations

By Sufraha Islamia, PKBSI



Beta in Solo Zoo (Credit: Solo Zoo)

In collaboration with the Ministry of Environment and Forestry of the Republic of Indonesia, PKBSI and GSMP are currently implementing a cooperative breeding program in ex-situ through breeding recommendations and transfers of anoa, babirusa, banteng, and Sumatran tiger. This program is entering its 2023-2024 phase which lasts for 1.5 years from January 2023 – July 2024. In this phase, the implementation of breeding and transfer recommendations is attended by 18 zoos and one breeding center.

During the 6 months of implementation, all parties involved were active in helping the success of this recommendation program. As of June 2023, a recommendation has been made to move a female banteng (Beta, 3 years old) from TSI Prigen to Solo Zoo. The transfer of the banteng was carried out in January 2023. The

transfer of the animal went smoothly and the female Banteng is in good condition and is able to adapt to the new exhibit places at Solo Zoo.

As for breeding recommendations, the babirusa pair Rizal and Rose from Batu Secret Zoo succeeded in producing two piglets (1.1) with the names Yana and Yanu. Both were born in January 2023 and currently in good health. It took about two months to find out the sex of the two piglets since the mother was very protective, making it difficult for keepers and vets to identify the sex. In addition, information regarding the breeding success of two pairs of banteng Tejo & Candy and Bejo & Sengon at TSI Prigen were reported to be successful and currently in pregnancy. Let's wish all these females well to give birth safely and have healthy babies!

# Tiger Visits & Skill Sharing

By Karen Goodrowe, Point Defiance Zoo & Aquarium

As of July 2022, there were 86 Sumatran tigers in 17 PKBSI zoos. Breeding success for these animals is very important to maintain a sustainable population and the genetic diversity of global ex situ population as they include a high number of founders (wild caught tigers).

Within AZA and EAZA, initiatives to address Tiger husbandry and reproduction have been formed to provide advice and mentorship for breeding at all facilities, using both virtual webinars and on-site visits to assist with reproductive challenges.

As part of a collaborative effort between the Action Indonesia Global Species Management Plan Husbandry Working Group and the PKBSI Education Division, in March 2023, tiger experts from PKBSI, EAZA and AZA (Ligaya Tumbelaka, PKBSI; Kate Sanders, Zoological Society of London, EAZA; Karen Goodrowe, Point Defiance Zoo & Aquarium, AZA) visited four Indonesian zoos to provide advice and guidance to enhance tiger breeding efforts towards meeting the current Masterplan goals. At each facility (Ragunan Zoo, Taman Safari

Indonesia Bogor, Taman Safari Indonesia Prigen and Bukittinggi Zoo), the team met with veterinary, curatorial and keeper staff to discuss specific reproductive and behavioral challenges. The team evaluated holdings and exhibits, diets, body condition scoring, enrichment, records of behaviors and breeding. The team also provided advice on relationship building with the individual animals and shared protocols, advice and experiences with respect to breeding introductions. At each zoo a detailed list of suggestions to enhance care and breeding tailored to the specific facility and individual animals was provided.

The tiger team also used this experience to help inform a general tiger husbandry training workshop in Indonesia in October this year.



Left: PKBSI-GSMP team together with staff from Bukittinggi Zoo. Credit: PKBSI  
Right: Kate and Ligaya presenting to staff at Ragunan Zoo. Credit: PKBSI





# Train the Trainer & zoo visits

By Corinne Bailey, AWCSG

In May, Charlotte Smith and Amy Humphreys (Chester Zoo) and Sam Viner (ZSL Whipsnade) travelled to Java. During this visit, they delivered a Train the Trainer course to zoo professionals, visited and shared experiences with four Indonesian zoos holding GSMP species and meet with in situ partners Alas Purwo National Park, a priority area for banteng conservation. All of these activities were conducted together with PKBSI.

The Train the Trainer course, co-led by Dr Ligaya, took place over four days at the PKBSI office in Ragunan. During this course, 20 Indonesian zoo professionals focused on models of training and developed their skills as trainers. The course was incredibly well received, with all participants delivering their own training and sharing positive feedback on the last day.

All participants reported increased confidence and knowledge in delivering future

training, with 93% of participants reporting an increase in their skill set. Working together with zoo professionals in Indonesia and around the world is an excellent opportunity to collaborate and grow together for the conservation of the species in the future.

Education, husbandry and population management activities were discussed during visits to Surabaya Zoo, Ragunan Zoo, Batu Secret, and Solo Zoo. These visits enable zoo professionals to share skills and understand the context of ex situ conservation for the GSMP species, as well as deliver bespoke advice to zoos on implementing the breeding and transfer recommendations successfully. We thank each zoo very much for their warm welcome.

In Alas Purwo National Park, the team worked together with the park staff to plan the camera trapping activity for 2023 and discussed how Action Indonesia and Chester Zoo can help them protect the endangered banteng and endemic, threatened songbirds through working together with communities in the future.



Above: Participants presenting group to Charlotte. Credit: Corinne Bailey

Below: Amy and Sam working with groups as they discuss training methodology. Credit: PKBSI



Top: Amy and Yonathan meeting discussing banteng body condition scoring with Ibu Novita Kusuma Wardani, Head of Alas Purwo National Park and her team. Credit: PKBSI

Above: The PKBSI and GSMP team with staff at Surabaya Zoo. During their visit, they shared experiences on education and communication, collection planning and husbandry. Credit: PKBSI



Right: Banteng at Ragunan Zoo. Credit: Corinne Bailey



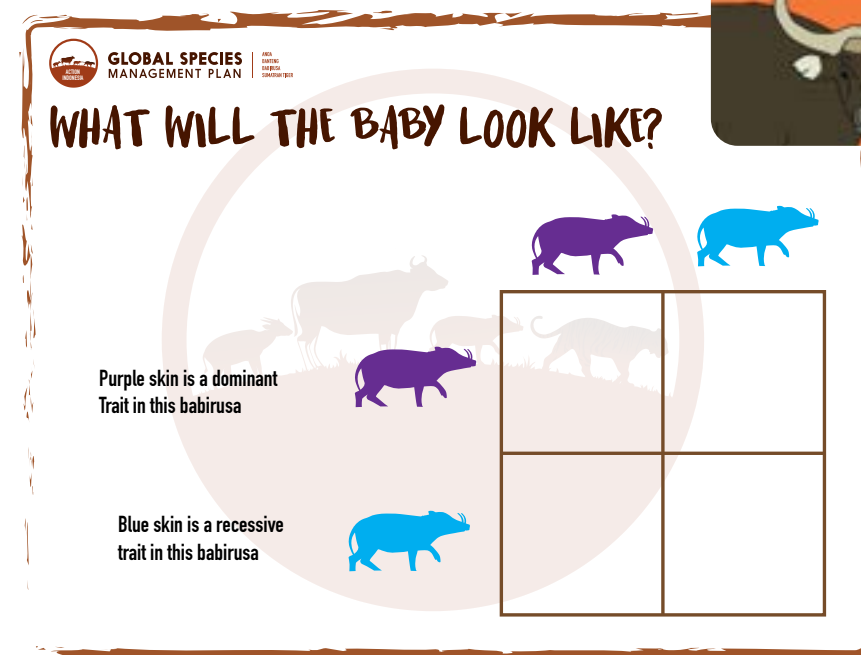


# New Genetics Resources

By Corinne Bailey and the Education Working Group

The latest Action Indonesia Webinar: "The importance of genetic diversity for saving species" was held on the 27<sup>th</sup> July. The webinar was hosted by Merel Zimmerman from the EAZA Executive Office, with an expert panel including Dr James Burton, Amy Humphreys, Ligaya Tumbelaka, Dr Christina Hvilsom and Dr John Andrews. Each speaker discussed their role in conserving the GSMP species with a focus on genetic diversity and ensuring diversity in practice. 80 people attended the live webinar, which can be watched on [Youtube here](#). Thank you very much to all our speakers and our host for this lively and informative discussion!

The Education Working group have been working hard to develop content and resources around the importance of genetic diversity to species conservation. This subject is essential to communicate clearly as it underpins much of Action Indonesia's work in situ and ex situ. Below are some infographics that they have already developed, see more [amazing resources](#)



Above and Left: Infographics and games developed by the Education Working Group on the importance of genetic diversity to populations and how it works. These and more games resources can be downloaded from the [Action Indonesia web-site here](#).

# Action Indonesia Day 2023!

By Corinne Bailey and the Education WG

On Sunday 13th August, zoos around the world celebrated and raised awareness for banteng, anoa, babirusa and Sumatran tiger. We were proud that over 40 zoos once again celebrated by posting online and sharing about the species on social media, as well as connecting with their visitors through games, keeper talks, touch tables and more. Social media posts using the #ActionIndonesia and #ActionIndonesiaday hashtags reached over 500,000 users over multiple platforms, and our website resources were downloaded more than 55 times to help with educating zoo visitors.

We wish a huge thank you to everybody that got involved, shared their love for these amazing species and donated to Action Indonesia's activities!

Here are just some of the images from the day, please send us your pictures to share on our website!



Above: Tiger enrichment at Zoo Miami  
Right: Keeper talk at the babirusa enclosure in London Zoo

Top: Exhibition at TSI Prigen Zoo Centre: School outreach activities at TSI Bogor  
Bottom: Taman Impian Jaya Ancol colouring activity



# Faruhumpenai Camera Trapping

By Corinne Bailey, AWCSG

This year, we have worked together with our partners in the Faculty of Forestry, Universitas Hasanuddin and the Department of Forestry (BKSDA), South Sulawesi, to carry out a camera trap survey of Faruhumpenai Nature Reserve for anoa and babirusa. Following a ten-day pilot study in May, where the field team learned more about the terrain, 27 camera traps were deployed in the south-east of the reserve during two weeks in June and July. Each team faced challenges with very difficult terrain, closed habitat and

limited water availability. We thank all involved for their hard work and great observation skills for anoa and possible babirusa signs!

Camera traps will be collected following 70 days, and the survey will be repeated in the west of the park in 2024 to build a clear idea of the density of anoa and babirusa in the reserve. The number of anoa and babirusa left in the wild is unknown, so this will be a promising step forward in future monitoring and conservation of both species.

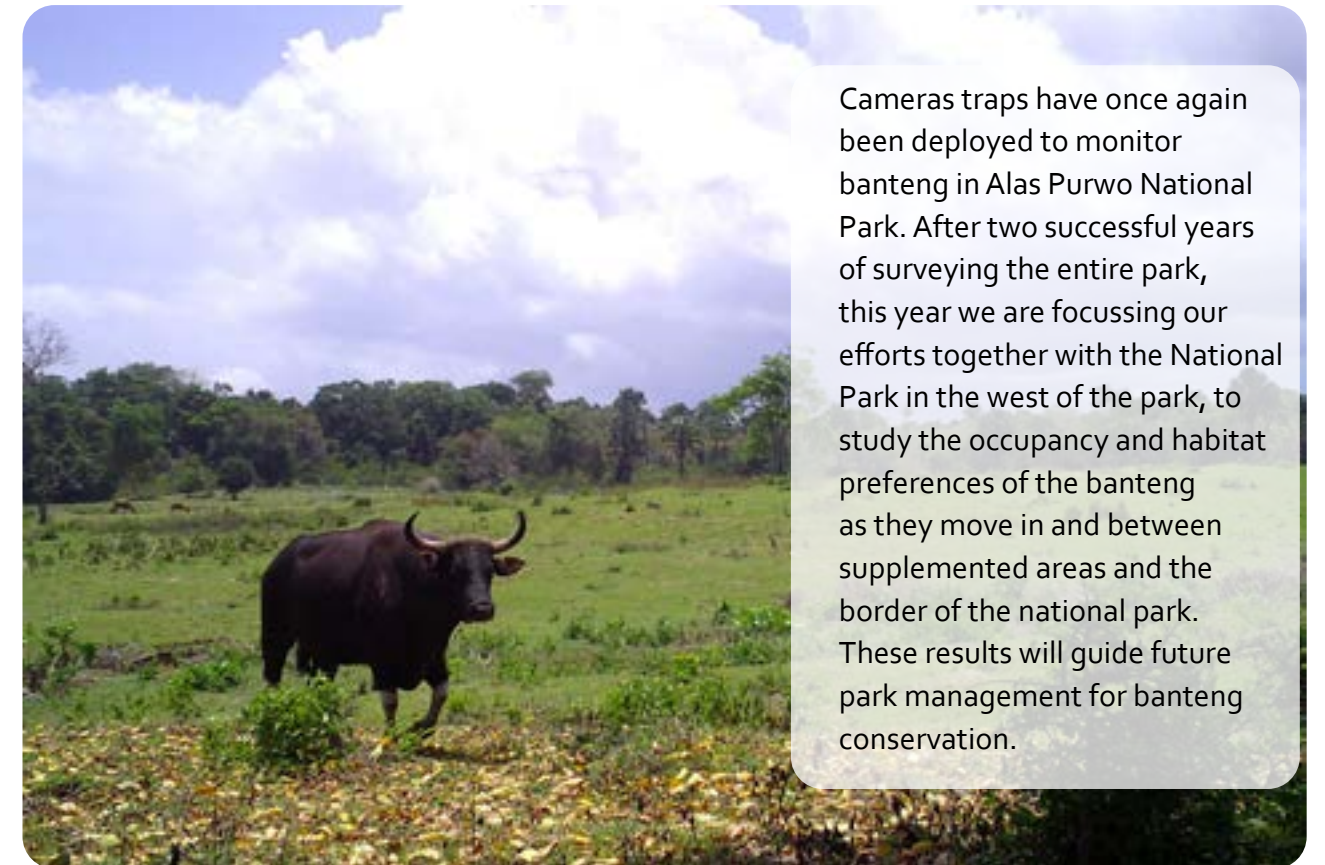


Above: Camera trap placement, Credit: UNHAS  
Right: Possible anoa track. Credit: UNHAS



# Alas Purwo Camera Trapping

By Corinne Bailey, AWCSG



Camera traps have once again been deployed to monitor banteng in Alas Purwo National Park. After two successful years of surveying the entire park, this year we are focussing our efforts together with the National Park in the west of the park, to study the occupancy and habitat preferences of the banteng as they move in and between supplemented areas and the border of the national park. These results will guide future park management for banteng conservation.



Top and bottom image credit: Alas Purwo National Park





# Banteng Biopsy Sampling

By Sufraha Islamia, PKBSI

The Ministry of Forestry and Environment and PKBSI with GSMP have developed a work plan for the management of Banteng Jawa metapopulation in four national parks: Baluran, Alas Purwo, Meru Betiri and Ujung Kulon. The long-term target is for managing banteng in Java as a single population that allows for translocation of banteng between sub-populations in order to maintain genetic quality within the population. To achieve this target, it is necessary to provide population and genetic information for each subpopulation to become the basis for policy making. It is hoped that the biopsy sampling on banteng in 4 national parks will provide basic information regarding the genetic quality and composition of each subpopulation.

The biopsy sampling activities for banteng Jawa in four national parks are planned to be held for one year (May 2023- May 2024), including the training for park staff and sampling activities in each national park.

On January 16th 2023, a banteng *in-situ* management workshop was held and led by the Ministry Forestry and Environmental as a first step in starting the banteng biopsy sampling. This activity was attended by the representatives from four national parks, PKBSI, GSMP, BRIN, and Copenhagen Zoo to discuss and agree on the biopsy sampling timeline. Furthermore, on 23-26th May 2023 technical training was held in Baluran National Park, attended by each national park team consisting of four people from each national park who would be taking the samples in the field.

The topics presented by the speakers from Copenhagen Zoo and BRIN consisted of training on genetic sample preservation from skulls, tissue sample preservation, hide introduction, practice on using biopsy dart, practice on using dart gun, shooting practice, and discussion of sample transport schemes.

The training ran smoothly and the participants were enthusiastic in following the course. Hariyawan Agung Wahyudi, a key trainer from Copenhagen Zoo, said that technical guidance is really good for skills and to update conservation knowledge for all the participants. He also highlighted the benefit of sharing knowledge between *ex situ* and *in situ* organisations to increase and update technical skills such as animal handling, disease surveillance, animal welfare, and more.

In the latest update, Alas Purwo NP has been the first national park to start this project and has now completed biopsy sampling of 20 banteng individuals. The biopsy sampling activity will now be continued by a team from Meru Betiri National Park before moving to Baluran National Park, and finally to Ujung Kulon National Park. Hopefully all sampling activities will run smoothly and the sample targets obtained in each NP can be achieved, and all the field teams will not experience significant obstacles.



Top: Participants preparing the biopsy dart  
Right: National park staff practicing using the dart gun



Banteng biopsy sampling team and participants at Baluran NP. Credit PKBSI



Skull sampling training. Credit PKBSI





# Anoa Enrichment in Surabaya Zoo

By Surabaya Zoo



Enrichment is needed to provide a physical and social environment that promotes optimal mental and physical well-being of species. Environmental infrastructure addition for enrichment can contribute to optimal conditions that can encourage the experiences for animals to explore and interact with their environment. Enrichment is carried out specifically for certain species based on their suitability and needs. Most enrichments need to be adjusted regularly to create choices for the animals and prevent boredom and frustration. KBS is one of the zoos that has made several enrichment variations for anoa. Some of the enrichments provided are; tying the leaves to the wood that is used as anoa food such as jackfruit leaves, putting the sweet potatoes in pipes, adding a water pool, and putting straw in sacks.

Adding enrichment to anoa has a different purpose. Feed tied to wood and put in pipes aims to maintain the instinct of the anoa to find food, the water pool is used as a place to wallow, and the use of sacks filled with straw aims to provide space for the anoa to sharpen and rub its horns safely. The addition of several enrichments was made after receiving suggestions from the visit of the GSMP team to the KBS a few years ago. As a result, anoa shows active behaviour and makes good use of the enrichment. Based on the keeper's observations, the level of boredom in anoa is very low. This has a positive impact on the visitor experience as the animals show more natural behaviour and are much more active than before. Take a look at these enrichment tools in action [here](#).

## Yonathan at Chester Zoo

By Yonathan

Yonathan, the PKBSI-GSMP program officer based in Jakarta, had a chance to visit some UK zoos for learning about animal welfare assessment. He was in the UK between February – April 2023 with most time spent in Chester Zoo working with Dr. Lisa Holmes (Lead Conservation Scientist – Behaviour & Welfare, Chester Zoo) and Dr. James Waterman (Conservation Scientist, Chester Zoo). He also spent a few days at Paignton Zoo, ZSL Whipsnade Zoo and ZSL London Zoo, to learn about the animal welfare management and welfare assessment process in each facility. This is a part of his preparation for capacity building through the ResM Biological Science course starting in September 2023, which he will focus on research about animal welfare assessment development for zoos in Indonesia.

Through this opportunity, he will be able to contribute for animal welfare improvement for Indonesian zoos as part of his responsibility working in Indonesian Zoos and Aquariums Association (PKBSI).





## CONTACTS

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