## **Research Activity Report** Supported by "Leading Graduate Program in Primatology and Wildlife Science"

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| Affiliation/Position | Wildlife Research Center/M1 |
| Name                 | Casey Mack                  |

### 1. Country/location of visit

Japan Monkey Centre, Inuyama Japan

### 2. Research project

JMC Zoo Science Course

### 3. Date (departing from/returning to Japan)

2025.06.20 - 2025.06.22

### 4. Main host researcher and affiliation

Shintaku-sensei, curator at Japan Monkey Centre and associate professor at WRC

### 5. Progress and results of your research/activity

### Reflections on the Japan Monkey Centre and the Role of Museums

During this course, we learned all about the Japan Monkey Centre (JMC) and gained a more comprehensive understanding of the broader role of museums. Museums typically serve four primary functions: (1) collection, (2) research, (3) exhibition, and (4) education. Our coursework highlighted how the JMC embodies and excels in each of these domains.

### History and Background of the Japan Monkey Centre

First, we learned the history of the JMC, starting from its founding in 1956. The beginning of JMC coincided with the birth of Japanese primatology, founded by a collaboration of three parties: the fathers of Japanese primatology intending to continue wild primate research, parties interested in breeding nonhuman primates for medical research, and a railway company looking to promote cultural tourism in the area. The JMC used to be affiliated with a monkey-themed amusement park across the street but now operates as its own entity. Previously focusing mainly on entertainment, now the JMC takes great pride in their role as a research and educational facility.

**Collection:** on the first day of this course, we toured the JMC from a visitor's perspective and learned about its extensive live animal collection. We explored how the animal enclosures must consider the comfort of the animals as well as the satisfaction of the visitors. Notably, the spider monkey and ring-tailed lemur exhibits feature open-air enclosures, allowing visitors to interact closely with the animals while providing the animals the option to avoid contact, ensuring their autonomy and comfort.

Part of caring for the living collection of primates at the JMC includes veterinary care. We observed a routine sedation of a baboon, followed by an X-ray and inspection of his broken arm. It was interesting to me that there are only 3 veterinarians that work at the JMC, to care for over 700 individuals (at this time). About 4 of the individual's keepers were assisting the vet. We learned that their role in the procedure is important to provide feedback and context of the animal's behavior to the vet to evaluate along with the X-rays and medical data, to provide a fuller picture of the recovery of the animal. Sedation was particularly interesting to me, as I had no experience with sedating an animal larger than a rhesus macaque. The veterinarian showed us how they use a blow-dart gun or tranquilizer gun to sedate the apes at the JMC, as they are too large to squeeze and will run away from injections, and some apes require the gun instead of blow-dart gun because of their thick skin, so there is not enough power for the injection to go inside if using a blow dart gun. We also visited the behind-the-scenes enclosures housing elderly, injured, or socially incompatible individuals, as well as slow lorises rescued from the illegal pet trade, underscoring the JMC's commitment to both welfare and ethical animal care.

Research: We also visited the behind-the-scenes enclosures housing elderly, injured, or socially incompatible

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We got to experience each part of the specimen preservation process, even sorting a skeleton and preparing it for proper storage. We inspected the skulls, which were often missing teeth. We learned that if there was a clear hole, the tooth came out post-mortem but if there was not a hole in the jaw, it was lost while the animal was alive. Shintaku-sensei explained the difference in skeleton collection that is affected by the animal size, which is not something that I considered. For example, huge animals like whales or sharks must be buried for a year or more before the bones can be collected. Other methods besides



Figure 1 organizing a gibbon skeleton for storage

burials include using insects, boiling, chemicals, or just sitting in water for a few months, which is what Shintakusensei does. Also, he explained that the JMC being one of the largest collections of primate specimens means many researchers come to use the samples for their own projects.

**Exhibition**: Next, we learned about the setup of the animal exhibits and saw the collection room for the museum artifacts. Shintaku-sensei showed us all the different types of specimens stored in the collection room including skeletons, tissue samples, whole-body specimens, taxidermy, cultural artifacts and literature all about the primates featured at the JMC and the animals that used to live there. He explained that he is in charge of creating some exhibitions in the visitor center with these artifacts. Sometimes, he brings the pelts to educational activities, where the



Figure 2 feeder enrichment for the Barbery's macaques

participants can see up close the fur of the animal. He showed us the difference in the ring patterns on the tails of the ring-tailed lemur and marmoset. While they look similar from afar, each hair of the marmoset is actually ringed with all the colors, while the lemur tail has alternating areas of black hair and white hair.

We also learned about the care of the living exhibits and helped the keeper of Barbary macaques and the gorilla to clean their enclosures and create feeders for them out of a fire hose as a form of enrichment. We also scattered fruits and vegetables for foraging, much like the animal welfare course in Kumamoto Sanctuary.

**Education**: On the final day, we observed and participated in an educational outreach program offered to the public at the JMC. This program was created for a group of elementary-aged children. First, the macaque keeper gave a short lecture on Japanese macaques, and explained that in the wild, they like to climb around

and forage that way. Then, we went outside, and the children put pieces of apple on large branches. The keepers then put these large branches into the enclosure in some support beams, so the monkeys could climb around and eat the remaining leaves after they finished all the apple pieces. It was nice for the kids to be able to immediately see the monkeys enjoying the enrichment they provided. A distinctive feature of the JMC is that every keeper has visited the wild habitats of Japanese macaques, enabling more informed and empathetic animal care.

Lastly, Takano-sensei gave a lecture summarizing the JMC's role as a museum and wrapping up our course by bringing all four aspects together. Here, we had an interesting discussion about curating the educational programs based on the age of the guests. This way, it will be both educational and enjoyable for the participants. For example, explaining how heavy a marmoset is in grams would not make sense to a small child, so we should make analogies like "a common marmoset weighs as much as 4 eggs." Further, the lecture portion in the beginning of the program would be more in depth for older participants. Takano-sensei also explained the advantage of zoo specimens, and the value in having both living animals and all the secondary data associated with them, from genealogical records, clinical records, photos, and videos throughout their years.

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Figure 3 assisting with an education outreach program at JMC

#### Conclusion

The Japan Monkey Centre exemplifies the integration of all four key museum functions. It not only maintains a vast and ethically managed live collection but also serves as a center for research, public education, and cultural heritage preservation. Through this course, we gained both theoretical knowledge and practical insight into how institutions like the JMC play a critical role in the conservation and understanding of primates.

## 6. Others

I would like to thank Shintaku-sensei, Matsuda-sensei, and Yamamoto-sensei for organizing this very informative and interesting course. Also, I am grateful to PWS for providing support for transportation and housing at EHUB. And of course, thank you to all the keepers and JMC staff who welcomed Xorlali and me and shared their invaluable insight with us.