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

(Please be sure to submit this report after the trip that supported by PWS.)

	2019. June, 5
Affiliation/Position	Primate Research Institute/M1
Name	Mikuho Yokoyama

1. Country/location of visit

Koshima Island, Miyazaki, Japan

2. Research project

Ecological Field Training

3. Date (departing from/returning to Japan)

2019. April. 21 – 2019. April. 27 (7 days)

4. Main host researcher and affiliation

Mr. Takafumi Suzumura, technical staff at Koshima field station

5. Progress and results of your research/activity (You can attach extra pages if needed)

Please insert one or more pictures (to be publicly released). Below each picture, please provide a brief description.

I attended field ecological training in Koshima intending to learn the fundamental methods in field primatology and experience the whole process of research. We set our own research theme targeting Japanese macaques, collected data and gave presentation about that.

Schedule:

- 4/21 Traveling (Inuyama-Koshima), Orientation at Koshima field station
- 4/22 Preliminary observation, Making research plan
- 4/23 Data collection, Data analysis
- 4/24 Data analysis
- 4/25 Observation of feral horses in Cape Toi
- 4/26 Presentation
- 4/27 Cleaning, Traveling (Koshima-Inuyama)

Since I have heard about interesting behaviors and complex society of Japanese macaques in Koshima, I have longed to visit Koshima. In this training, I really enjoyed observing them in the close distance. As soon as arriving at the beach in Koshima, a lot of monkeys got together. They seemed to discriminate Mr. Suzumura, who provides food and checks their health regularly. After that, they started to make food-call simultaneously. Because of nutritional consideration, he gave not sweet potato but wheat to them. Therefore, we could not observe potato washing behavior, but we found one of the females were eating agar jelly, which had been used for one of the experiments by students after washing it in the sea. I was surprised that they adapted their behavior even if the food was changed. Also, some fights happened during provisioning. During the fights, we found some individuals supporting losers or consoling losers by glooming. They seemed to have high sociality. After provisioning, most of them gloomed each other and they appeared very relaxed. By observation for a long time, we could find various behaviors and perceived their high cognitive ability and sociality.

During this training, I conducted an experiment about their foraging strategy. Japanese macaques in Koshima have two ways of eating, using their hands and mouth. I prepared wheat and cracked peanuts and investigated how difference in nutrition of food affected their eating methods. As a result, they changed their behavior adapting the change of food. They use hands more frequently when they ate cracked peanuts than when they ate wheat. This was not the fastest way of eating, but they used hands and increased the frequency of vigilance in case of competition with other individuals. They seemed to understand the value of peanuts and changed their eating methods. Because I choose the theme different from my major, comparative cognitive science, it was hard to design the experiment because of lack of knowledge. However, thanks to Mr. Suzumura, Dr. Tsuji and Dr. Tanaka, I finally completed my study. We could experience a series of events of study in this training, I think it was very helpful for us.

We also visited Cape Toi to observe feral horses named "Misaki Uma". We saw some horses on the road during driving, but they did not seem to fear us and walked road as usual. According to a curator of the visitor center, horses often behave prosocially and construct complex society. We actually saw the leadership of males. One of the males leaded their group members to keep away from another group. Since we visited there during the birth season, we fortunately encountered some mothers and babies less than a month old. We could closely observe them breastfeeding

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and walking abreast. I also heard that an association for conservation of Misaki Uma has been established and it has continued activities to conserve them. Once a year, an event named Umaoi is held. People chase horses to enclosure, feed a medicine for parasites and check their health. Moreover, their habitat is secured by fence and the members of association regularly maintain grass. They are semi-wild horses, but "wild" does not mean leaving them as they are. I learned that many people make efforts to conserve them.

I studied how to plan and conduct experience in this tour. I am going to conduct my experiment not in the field but in laboratory, but this experience will help me to do my study in the future. Also, I could get opportunities to consider the relationship between humans and wild animals. In either case Japanese macaques or Misaki horses, they are living in the wild, but it is indispensable to take care of them continuously to conserve them. I want to study more about wild animal conservation in the future.



Koshima Island seen from the mainland



My experiment
I observed which hands or
mouth they use when eating
peanuts or wheat



A monkey eating agar jelly after washing it in the sea



A monkey relaxed by glooming



An infant swinging on the branch
He seemed to play.



A parent and child looking at people taking picture of them



A baby sleeping lying on her side Only child sleeps in this posture



A mother and child breastfeeding



An oyster torn off by the rock on the beach It was well salty and creamy.

6. Others

Thanks to Mr. Suzumura, Dr. Tsuji, Dr. Tanaka and M1 students, I could enjoy this training. I also thank PWS.

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