

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.)

2017. 03. 22	
Affiliation/Position	Kyoto University Primate Research Institute/D2
Name	Duncan Wilson

1. Country/location of visit
Kyoto University Kumamoto Sanctuary, Japan
2. Research project
Animal Welfare course
3. Date (departing from/returning to Japan)
2017. 03. 15 - 2017. 03. 17 (3 days)
4. Main host researcher and affiliation
Prof. Satoshi Hirata and Associate Prof. Naruki Morimura (Kyoto University Wildlife Research Center)
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.
Day 1 (15th): Orientation, sanctuary tour, and enrichment device planning.
Day 2 (16th): Enrichment device construction, introduction to chimpanzees and time recording, chimpanzee cognitive experiment demonstration and evening feeding observation.
Day 3 (17th): Enrichment device construction, introduction to bonobos and time recording.
This was the second time for me to join the Animal Welfare course at the Kyoto University Kumamoto Sanctuary. The first time was in November, 2015. As I have a keen interest in animal welfare (my Masters Degree was in Applied Animal Behaviour and Animal Welfare) I decided to join the course as a leader to help PWS students Aya Yokotsuka (Kyoto University Graduate School of Asian and African Area Studies) and Anna Kawakita (Kyoto University Wildlife Research Center). In addition, Ms. Natasha Tworoski (San Francisco Zoo, USA) and Dr. David Butler (Kyoto University Graduate School of Education) joined us.
The course involved designing, creating and implementing environmental enrichment devices for chimpanzees and bonobos at the sanctuary, with the aim of occupying as much of their time as possible. Based on my previous experience of making a ‘honey dipper’ enrichment device (see previous report), which was moderately successful, I advised students on the best kind of designs to occupy the apes and helped them to construct the devices. We made two types of devices for chimpanzees and one device for bonobos. The devices for chimpanzees consisted of two bales of hay with holes drilled in them which were filled with peanut cream (nicknamed ‘Hey Peanuts’) and blackcurrant juice with peanuts floating on the surface (nicknamed ‘San Fran Special’). The latter enrichment idea was contributed by Natasha from San Francisco Zoo. The bonobos were also given one San Fran Special device. Both devices were very successful; for chimpanzees, the total usage time was 121 mins 20 secs, or approx. 67% of the observation time (60 mins for each of the three devices - 180 mins), the second best time on record, and for bonobos 56 mins 28 secs, or approx. 93% of the observation time (60 mins), one of the best times on record. Although we were concerned that Hey Peanuts could easily be torn apart, the compacted hay held together by string proved very durable. A possible improvement for San Fran Special would be to use strong plastic containers instead of Styrofoam to prevent the juice from leaking so soon.
In addition, we had the exciting opportunity to fly a small drone over the chimpanzees’ outdoor enclosure to film them using our enrichment devices close up. Whilst most of the chimpanzees largely ignored the presence of the drone, one chimpanzee ‘Chiko’ threw sticks at it several times. Eventually, she managed to knock it out of the sky with a stick! I imagine from a chimpanzee’s perspective the drone must resemble a giant insect. This behaviour was very similar to the famous incident which took place on 10 April, 2015, at the Royal Burgers Zoo in Holland, and published in the journal ‘Primates’, in which a chimpanzee used a stick to take down a drone. Fortunately, we were able to recover the footage, which can be viewed on the Kumamoto Sanctuary website.
I sincerely thank Prof. Hirata and Prof. Tomonaga for giving me the opportunity to participate in the course as a leader, and Associate Prof. Morimura and Assistant Prof. Yamanashi for their warm hospitality.

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2. Others



‘Hey peanuts’ device: drilling holes into the hay bales



Sucking peanut cream into a syringe



Injecting peanut cream into the holes



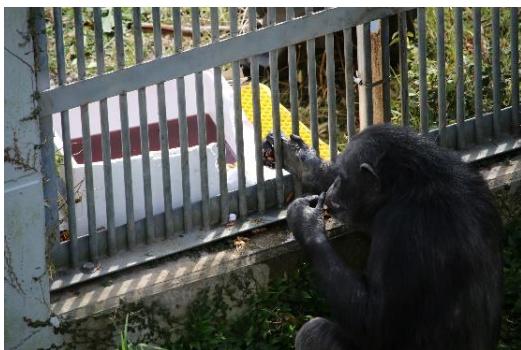
Finishing touches



‘San Fran Special’ device: juice with peanuts



Peanuts floating on blackcurrant juice



A chimpanzee eating peanuts and drinking the juice



The aftermath!

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Chimpanzee using her finger to explore the holes



Chimpanzee licking the peanut cream



Drone observing the chimpanzees (left)



Nacky throwing a stick at the drone (top)



Gotcha! Chiko holding the drone



Chiko inspecting her prize



Recovered drone (left) and new drone (right)



Host researchers, Natasha, myself and students

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The moment just before Chiko throws a stick to knock the drone out of the sky!

VIDEO: <http://www.wrc.kyoto-u.ac.jp/kumasan/en/news/1703/Chimpanzee-Bringing-Down-a-Drone.html>