

**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.)

2016.07.08

<b>Affiliation/Position</b>	Primate Research Institute/D2
<b>Name</b>	Liesbeth FRIAS

<b>1. Country/location of visit</b>
Japan/ Rausu
<b>2. Research project</b>
Killer Whale Research Trip
<b>3. Date (departing from/returning to Japan)</b>
2016.06.29-2016.07.04 (6 days)
<b>4. Main host researcher and affiliation</b>
Yukiko Yamamoto (WRC)
<b>5. Progress and results of your research/activity</b> (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.
<p>On June 29<sup>th</sup> we headed towards Rausu, a small town in the southern part of the Shiretoko Peninsula, facing the Nemuro Strait; for the next four days we would be observing the famous killer whales.</p> <p>The first morning was very foggy. We spotted the first whales around noon and observed them for a couple of hours. Since some individuals had been tagged, it was possible to follow some groups. On the second day we were luckier and encountered them one hour after we left the jetty. The day was clear and sunny, and we didn't have difficulties finding new groups. At the end of the day we had seen more than 100 individuals!</p> <p>Killer whales have a very broad distribution; in Japan, they range from Hokkaido to Okinawa. Up until a few years ago, people thought that killer whales in Shiretoko were a rare finding, but boat surveys have shown that there are around 200 individuals in Rausu and that population is rapidly increasing. Much research has been done in the eastern North Pacific Ocean; there, three forms of sympatric killer whales have been described and referred to as “residents”, “transients”, and “offshores”. However, information for the western North Pacific Ocean and Japan Sea is still very limited, which means that there is much to be discovered.</p> <p>During our trips we were able to observe some of the surfacing behaviors. Spy hopping happens when the killer whale comes out of the water to expose its head (Fig. 1). We saw this several times when whale-watching boats were around. During pectoral and lob tailing, killer whales lift a flipper/fluke out of the water and slap it onto the surface to make a loud noise. Logging (as the word suggests) is when whales stay in a resting position for several seconds, exposing their upper half. Finally, breaching happens when they leap out of the water (we only observed half-breaching, Fig. 2).</p> <p>On the third day we encountered one of the groups we saw on the very first day. Despite being very foggy for most of the day, we still saw a couple of other whale-watching boats. Whales didn't seem to be bothered by them. On the last day we started quite late, because of the poor weather, and didn't manage to find whales at all. This was also a good experience to realize how challenging this kind of research can be.</p>

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This project in Shiretoko has been going on since 2010. In 20 days of observations a year, researchers try to survey the whale population in the area, documenting what constitutes a group and how many different groups are moving around. Two master students from Hokkaido are taking part of this research; one of them is recording whale vocalizations, trying to associate them to particular behaviors, while the other one is assessing the effects of whale-watching boats on whale behavior.

Overall this was an incredible experience. Not only we had the chance to go all the way to Hokkaido, but we could also see the wonderful killer whales. This research trip introduced us to the challenges of studying marine mammals, but also helped to partially fund this research, so I hope this initiative can continue in the future.



Fig. 1. Killer whales and Shiretoko National Park in the back (top). Spy hopping behavior (bottom).  
Photo credit: Liesbeth Frias.

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Fig. 2. Pectoral and lob tailing (top). Logging and half-breaching (middle). Some of the groups didn't mind to be followed by whale-watching boats (bottom). Photo credit: Liesbeth Frias.

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Fig. 3. Mysterious outbreak of spontaneous sleep, where students were falling asleep in random places. Strongly correlated with waking up at 4:00 AM every day, taking seasickness medicine and the soothing movement of the boat. It seems everyone is okay now. Photo credit: Liesbeth Frias.

### **Acknowledgments**

I would like to express my gratitude to PWS and Prof. Matsuzawa for supporting this valuable research trip. I would also like to thank Yamamoto-san for organizing the trip and showing us how this research is being carried in Rausu, and members of the Hamanasu crew for letting us take part of the surveys.