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.)

	2016.08.10
Affiliation/Position	Wildlife Research Center/M1
Name	Miho Tanaka

1. Country/location of visit

Rausu, Hokkaido, Japan

2. Research project

Killer whale field research in Rausu

3. Date (departing from/returning to Japan)

2016.06.29 – 2016.07.04 (6 days)

4. Main host researcher and affiliation

Yukiko Yamamoto (WRC), Uni-Horp

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.

We learned research methods of marine mammals. In killer whale research, we needed to find their black dorsal finsin the open sea. I learned killer whale research is hard and needs patience. This field research was conducted for 6 days. Oceanic condition was good during the study period, so we were able to go to sea every day.

6/29 moving day：Kyoto - Rausu
6/30-7/3　Killer whale field research
7/4 moving day：Rausu – Kyoto

We chartered a tourism ship "Hamanasu". This ship had a viewing deck. We needed to search dorsal fins of killer whales using binocular glasses. It was a very difficult work. Tajima-san and I recorded the data of oceanic condition as follows.

Recorded data

1) latitude and longitude 2) weather 3) force of wind 4) direction of wind 5) direction of sunlight
6) water temperature 7) air temperature 8) water depth 9) oceanic condition

6 / 30
It was very foggy in the morning. We could observe killer whale for the first time.
Observed marine animals: Pacific white-sided dolphin, Killer whale (2 pods)

In the first day, we could find a school of pacific white- sided dolphins soon after we left the port. These dolphins swam with our ship for a while riding the wave formed by the ship. After they swam away, I started searching dorsal fin of killer whales. I found birds, birds and birds through binocular.

In the afternoon, we could find a pod of killer whales. This pods was consist of two adult males and two mother-child pairs. We could observe their aerial behaviors including tale slaps.

We found the other pod of killer whales, soon after the first one left. One of the adult male in the pod was attached with a GPS-logger on its dorsal fin (picture1). Dr. Mitani succeeded to attach the GPS-logger on this killer whale's fin to get their information. It seemed that dorsal fins with notches and those with white scars were less frequent in killer whales than in indo-pacific bottlenose dolphins (picture2). Most killer whales had beautiful dorsal fin without notches and white scars. I think these white scars might be formed by the tooth of other killer whales and some large wounds found on other body parts seemed to be formed by accidents with a ship. The wounds seemed new.

7/1
It was no wind. We could observed a lot of killer whales.

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Observed marine animal : Doll's porpoise, Killer whale, Minke whale

Next morning, we could find killer whales soon. In the afternoon, we could observed their various aerial behaviors such as tale-slaps, side-slap, spy hop and jump. These killer whales have little scar marks, so researchers use shape and color of side patch as the marks for identification. It was very cold at the viewing deck. We could observe a lot of short-tailed shearwaters. I observed birds flocks of more than one hundreds for the first time. Doll's porpoise swam so fast, so I could see only splash by their breath. We could see splash and shadow of doll's porpoise at short distance.

7/2
It was very cold day. Because of strong wind and foggy condition, it was difficult to find killer whales.
Observed marine animal : Killer whale, Doll's porpoise, Short-tailed shearwater

7/3
Departure time was delayed because of very foggy condition. We could not observe killer whales.
Observed marine animal : Doll's porpoise

In the last day, we could not find killer whales. It was difficult for me to find out dorsal fin in the sea. Although the dorsal fin of killer whale is very big, I could not find out the fin using binocular glasses. I understood that the research observing marine mammals from a ship need training for skill,.

Picture1 : male adult with an attached GPS-logger

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picture２：white scar like tooth mark

Picture3：people observing killer whales

6. Others

I would like to express my gratitude to PWS. I would also like to thank Yamamoto-san for organizing the trip and showing us how the research is carried out in Rausu, and members of the Hamanasu crew for their support.

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