

**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. 09. 06
<b>Affiliation/Position</b>	Wildlife Research Center/M2
<b>Name</b>	Sota Inoue

<b>1. Country/location of visit</b>
Porutgal, Serra D’Arga
<b>2. Research project</b>
Study of spatial positioning and social behavior in feral horses. Joining behavior 2017 at Estoril
<b>3. Date (departing from/returning to Japan)</b>
2017/5/11-2017/8/9
<b>4. Main host researcher and affiliation</b>
Prof. Satoshi Hirata, 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>I observed feral horses in Serra D’Arga in North Portugal from May to end of July. Some PWS students came to this research site to observe horses and learn utilization of drones as students organized field course that I organized end of July. “Behaviour 2017” being held on at Estoril in Portugal, we joined it and gave presentations from 30<sup>th</sup> July to 4<sup>th</sup> August.</p> <p>My research subject is understanding of spatial positioning of individuals in feral horses. I took a lot of movies of all individuals in some groups using drones. Main purpose of this trip was collecting data to estimate differences of spatial positioning among groups. I followed 4 groups, but horses started dispersing from July because of reducing resources. That why I did not be able to follow 2 groups. The number of movies I collected were half of my expecting. The research in Serra D’Arga in July was the first time for our team. Therefore, we did not know the situation in summer.</p> <p>Birth rate of foals was lower than that last year. One possibility could be the fire last summer. The fire influenced huge area and burned about 70% of plants in this area. We can imagen easily that horses could not get food enough to keep their fitness. Previous study reported when body conditions of adults are bud, sex ratio of foals is biased forward female. We will check it in Serra D’Arga. Mortality rate of foals was very high. Although we do not have certain percentage, it was sure. Wolves live in this area was estimated as 1 family, but wolves researcher said that wolves live in other areas seem to come this area to hunt horses.</p> <p>One of biggest succeeding in this trip was collecting fecal samples of horses. We cooperated to collect samples including some volunteers. DNA analysis will reveal their kinship that is important to consider their society. DNA analysis will be conducted with wolves researchers in Porto university.</p> <p>After horse study, we moved to Estoril to attend a conference, “Behaviour 2017”. There were 415 poster presentations and a lot of oral presentations. Subjects of presentations ranged wide various fields. I gave a poster presentation. Discussion motivated me to study and find new things surprising people all over the world. I will attend next conference, Chicago2019.</p>

Drone and horses

Japanese horse research team at horse meeting

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**6. Others**

I am very grateful to supports from PWS and villagers in Montaria.