### 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.)

		2025. 11, 25
Affiliation/Position	Wildlife Research Center/M1	
Name	Liu Liu	

# 1. Country/location of visit

Chubu University Training Center

# 2. Research project

Basic Skills for Field Work

# **3.** Date (departing from/returning to Japan)

2024. 11. 06 - 2024. 11. 08 (3 days)

# 4. Main host researcher and affiliation

Professor Ikki Matsuda and Dr. Satoru Sugita

## 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:

On the first day of the course, we traveled to the Chubu University Training Center in Ena City, Gifu. Each of us brought our own helmet to ensure safety during the later drone flying practice. Training commenced immediately with a critical safety session that emphasized precautions for outdoor work and drone operation. The session covered fundamental drone technology, research applications, and key legal regulations under Japan's Aviation Act. We learned the specific definitions of drones under Japanese law. A key point highlighted was that the weight of the drone is a crucial criterion for evaluation.



After the safety training, we attended an orientation for the next day's hands-on drone training. This included an

Figure 1 Overall view of the site by drone

introduction to Agisoft Metashape, a software used for processing drone imagery. We installed the software on our laptops and received a brief overview of its functionality, preparing us for practical application.

Day 2:

The training began at 9 AM with a session focused on manual drone operation and flight simulator practice. We worked in pairs, with one person controlling the drone and the other providing support, fostering a sense of teamwork and mutual learning. The constant emphasis on safety underscored the responsibility required in drone operation.

After practicing on iPad-based simulators, we transitioned to flying micro-drones indoors, which was both exciting and slightly nerve-wracking as we adjusted to real-world conditions. Finally, stepping outdoors to manually fly the drones provided a thrilling yet challenging experience. The simulator practice proved invaluable in building confidence, and there was a shared sense of accomplishment as we

successfully navigated our first outdoor flights. The hands-on

\* WYREE



training was not only enjoyable but also instilled a deeper appreciation for the technical and practical aspects of drone operation.

### **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.)

## Day 3:

The training focused on data analysis using multispectral cameras and an introduction to alternative aerial technologies beyond drones. These technologies, with applications such as landslide inspections, are particularly beneficial for disaster-prone areas and offer diverse societal advantages. For those of us interested in environmental research, the

session on multispectral cameras was especially relevant, as they allow for data collection across different wavelengths, aiding in vegetation monitoring, water quality analysis, and more.

The course concluded with а presentation of our outcomes, where we shared insights and received feedback from both instructors and peers. This reflective session was an excellent opportunity to consolidate our learning and exchange ideas.

Overall, the drone research training was an invaluable experience. I gained practical knowledge in drone operation, data analysis, and flight planning-skills

84 (EP56::4326) 35\*16'33.72" N 137\*00'19.57" E 116.874 m

Figure 3 point cloud processed by "Agisoft Metashape"

that will undoubtedly enhance my future projects. After the course, I purchased my own small drone immediately.

#### Others 6.

I would like to express my sincerely thanks to Sugita-sensei in Chubu University and Matsuda-sensei.

Also, it was a very happy memory for making a new friend-Rie-san, student of Sugita-sensei. I wish her the best future and a good research journey.

A sincere thank to everyone.

