Research Activity Report
Supported by "Leading Graduate Program in Primatology and Wildlife Science"

	2025/10/15
Affiliation/Position	Wildlife Research Centre/M1
Name	Alexander Hendry

1. Country/location of visit

Takenami, Gifu, Japan

2. Research project

Basic Training for Fieldwork (Drones)

3. Date (departing from/returning to Japan)

2025. 10. 08 – 2025. 10. 10 (3 days)

4. Main host researcher and affiliation

Professor Ikki Matsuda (Wildlife Research Centre, Kyoto University), Dr. Satoru Sugita (Chubu University), Keiko Ioki (Musashino University)

5. Progress and results of your research/activity

Day 1 – Wednesday the 8th of October 2025

The Basic Training for Fieldwork course for 2025 began on the 8th of October 2025. Two other students and I travelled from Kyoto Station to Takenami station in Ena City, Gifu, by train. At Takenami we attended lectures and had practical experience flying drones at the Chubu University Training Centre. On the first we day we received lectures from Sugita-sensei about drone law in Japan. It was beneficial to learn about how to safely and legally fly drones in Japan so we are aware of how to properly use these technologies in the field. We also downloaded the Agisoft Metashape software in preparation for the final day.

Day 2 – Thursday the 9th of October 2025

The following day we received more lectures from Sugita-sensei. The first lecture consisted of understanding the difference between drones and radio-controlled aircraft, with the key difference being that drones do not necessarily need to be piloted. In other words, they can fly stably on their own and they require a micro-computer in order to do this. After a short break we learnt about the basic controls of a drone and flew some micro-drones around the lecture room to gain a better understanding of how to control drones. We also received a lecture from Inoue-sensei about the differences, advantages, disadvantages, and uses of fixed-wing and multirotor drones. There was also a discussion about autopilot boats.

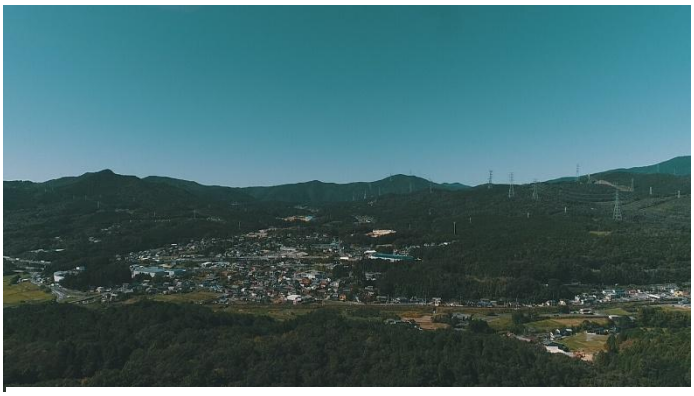

Figure 1: View of Takenami and the surrounding countryside, taken by a Phantom 4 Pro drone

It was during the second day of the course that we had the opportunity to fly drones outdoors. Along with fellow masters' student Isa Walker, I flew a Phantom 4 pro drone. Firstly we flow this drone over the soccer field at the Chubu University Training Centre to get a feel for the controls. We also recorded movies and took photos of the surrounding countryside (Figure 1). We then returned to the classroom to plot a course for our drone to fly autonomously as well as a grid to fly over and photograph. We then went back to the soccer field to execute these actions. During our drone flying experience Isa and I flew the drone 100 m above the ground and move than 500 m horizontally away from us (Figure 2).

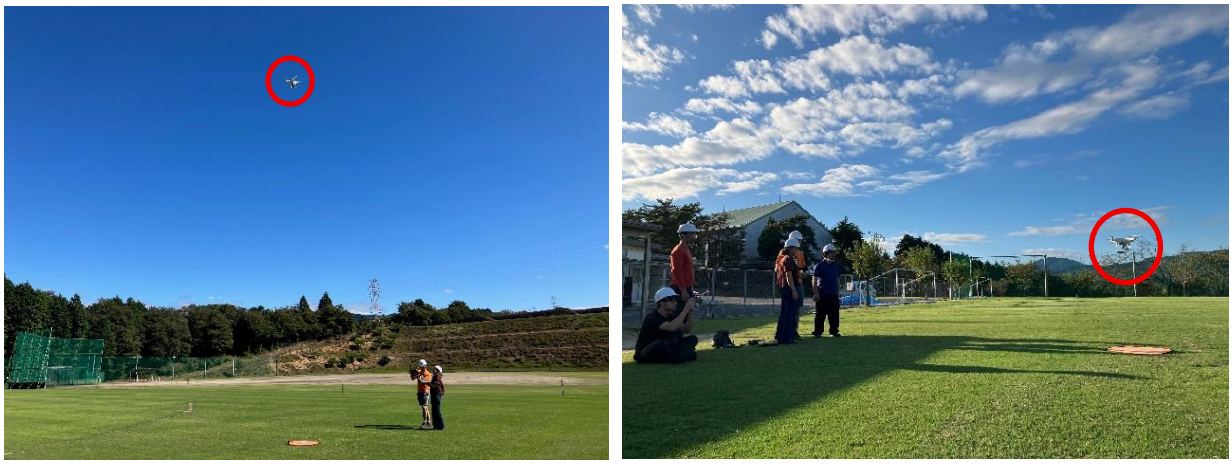

Figure 2: Fellow masters student Isa Walker and I flying a Phantom 4 Pro drone. The drone is circled in red.

Day 3 – Friday the 10th of October 2025

On the final day of this training course, we received a final lecture from Sugita-sensei regarding the photogrammetry program – Metashape. We used this program to generate a 3D map of the Chubu University campus using drone photographs that Sugita-sensei had taken earlier. When I returned to Kyoto, I generated an image using the photographs that Isa and I had captured during our grid flight at Takenami (Figure 4). Our final lecture of the course was given by Keiko Ioki of Musashino University (Figure 3). She discussed her research on ecological restoration in the Malaysian state of Sabah with a particular focus on the use of drones in forest monitoring. She also discussed the use of LiDAR (light detection and radar) to construct a 3D-model of the forest canopy. Overall, it was an interesting lecture which provided insight into the use of drones into ecological research. The course ended with a special surprise as it was actually my birthday on this day and I shared some sweet treats with the students and instructors of the course.

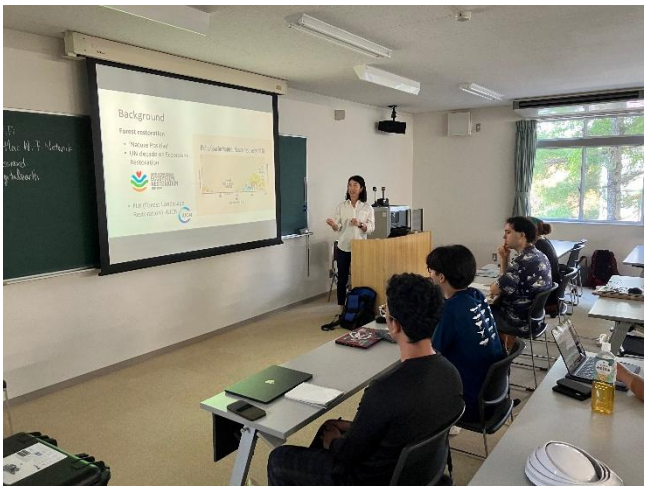

Figure 3: Students learning about the use of drones in forest monitoring from Ioki-sensei.

Reflection

I found this course very insightful and interesting. I valued the opportunity to not only fly drones, but also to process the images. Previously I had not considered using drones in my research, but now I have some basic experience in using drones, using this technology no longer seems difficult or daunting to use. Hopefully in the future I will have the opportunity to use drones in wildlife research.

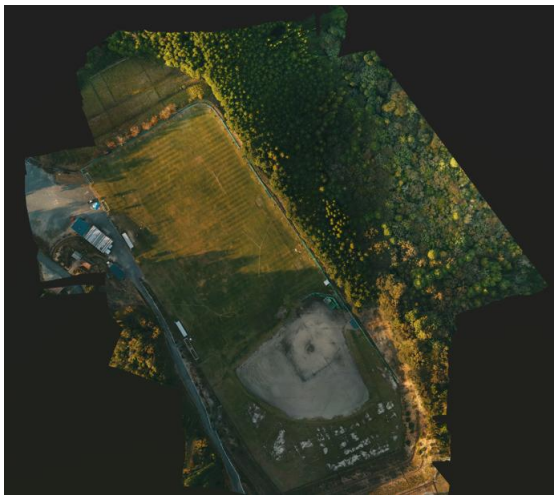

Figure 4: The photomosaic created by our grid mapping mission.

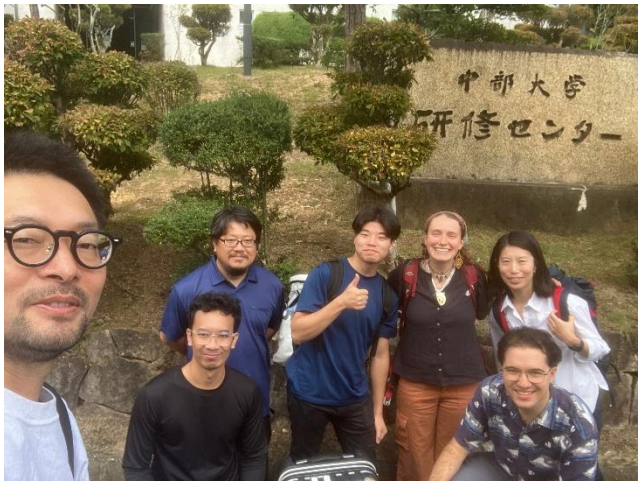

Figure 5: The instructors and students who participated on this course

6. Others

I would like to take this opportunity to thank the people involved in the running of this course:

- Professor Ikki Matsuda for organizing this course.
- Sugita-sensei, Inoue-sensei, and Ioki-sensei for their informative lectures
- The other students who attended this course, Eiichiro Ozasa, Isa Walker, and Abdullah Langgeng, for being excellent company
- The staff at the Chubu University Training Centre for preparing delicious and nutritious meals