

Nagao Natural Environmental Foundation project

Species diversity of terrestrial vertebrates in the mountains of Indochina

PI: Masaharu Motokawa

Activity Report

Field survey in Kon Ka Kinh National Park, Gia Lai Province, Vietnam

October 18 – 27, 2025

Members

Nguyen Truong Son, Ninh Thi Hoa, Vu Kim Luong (Vietnam)

Masaharu Motokawa, Kanto Nishikawa, Yukio Ichioka, Kai Shimamura, Takuto Mizuno (Japan)

Local staff

Mr. Sâm, Mr. Êng, Mr. Blung (Local guide)

Mr. Manh, Mr. Hoang (Forest ranger)

Apply for the Permission

Regulations for biodiversity research teams in Vietnamese protected areas require full compliance with the Law on Biodiversity, all permitting and reporting procedures, the management rules of the protected area or national park, scientific research standards, and environmental protection principles. Teams must obtain the necessary permits, follow management regulations, protect ecosystems, and ensure research aligns with the Convention on Biological Diversity.

1. Compliance with Laws and Regulations

- Follow the Law on Biodiversity, especially provisions on endangered species and key ecosystems.
- Adhere to all rules issued by the Management Board of the protected area or national park.
- Ensure activities align with the Convention on Biological Diversity, including conservation and sustainable use of genetic resources.

2. Legal and Administrative Requirements

- Submit a complete research permit application with a detailed proposal to relevant authorities.
- Provide final reports after fieldwork, including scientific results and any environmental impacts.

3. Implementation Principles

Environmental Protection:

- Minimize disturbance to habitats and strictly avoid hunting, collecting, or harming species.
- Manage all waste properly to avoid pollution.

Scientific Standards:

- Apply sound scientific methods to ensure accurate and reliable data.
- Avoid any activity that may damage ecosystems, including improper use of chemicals.

Occupational Safety:

- Follow safety regulations, use protective equipment, and implement risk-prevention measures during fieldwork.

Prior to the survey, the Institute of Biology, VAST submitted Official Document No. 910/SH (September 8, 2025) to relevant Gia Lai provincial authorities, including the Provincial People's Committee, Provincial Police, Department of Foreign Affairs, Department of Agriculture and Environment, and Kon Ka Kinh National Park, requesting permission for the research team. The application included full details of all domestic and international experts.

After 15 days, Kon Ka Kinh National Park issued Official Document No. 96/VQG-KH&HTQT (September 17, 2025) approving the team's fieldwork. Based on this and the concurrences of other provincial agencies, the Gia Lai Provincial People's Committee issued Official Document No. 4158/UBND-KTTH (September 29, 2025), formally authorizing the survey.

After receiving the provincial permit, staff of IB (Assoc. Prof. Dr. Nguyen Truong Son) conducted a 5-day presurvey (October 10–15, 2025) to select survey sites and finalize requirements with Kon Ka Kinh National Park. From October 20, 2025, the team began implementing the plan agreed upon with the National Park.

The Institute of Biology submitted visa request documents to the immigration authority (September 4, 2025) and was approved on September 10. Japanese members applied and got visa on October 3, 2025 at the Embassy of Vietnam in Tokyo.

October 18, Saturday: Arriving Hanoi

- 3 members from Japan (Masaharu Motokawa, Yukio Ichioka and Kai Shimamura) arrived at Noi Bai International Airport, Hanoi, Vietnam VJ931 at 18:40.
- Met with Vu Kim Luong at the airport, moved by taxi to Institute of Biology, Vietnam Academy of Science and Technology (IB), and dropped luggage for survey in the laboratory room of Nguyen Truong Son. Started from the airport at 20:15 and arrived at IB almost 30 minutes later.
- Moved and check-in the hotel (Granda Legend Apartment) at 21:00.
- From 21:19 to 23:00, had dinner and checked the schedule at the restaurant close to the hotel (3 Japanese and Vu Kim Luong).

October 19, Sunday: Survey preparation

- At 9:05, Masaharu Motokawa, Yukio Ichioka and Kai Shimamura arrived at IB. Then, prepared and organized equipment for survey.
- At 12:10, Masaharu Motokawa, Yukio Ichioka, Kai Shimamura and Vu Kim Luong had lunch.
- At 12:30, Vu Kim Luong went to the Noi Bai International airport to pick up Kanto Nishikawa and Takuto Mizuno.
- At 13:45, Masaharu Motokawa, Yukio Ichioka and Kai Shimamura continued preparation for survey at IB. Ninh Thi Hoa joined the work.

- At 15:20, Kanto Nishikawa and Takuto Mizuno arrived at IB from Noibai International Airport (VN335) with Vu Kim Luong.
- All members continue the preparation of the survey.
- At 16:00, finished preparation.
- At 16:35, Masaharu Motokawa, Kanto Nishikawa, Yukio Ichioka, Kai Shimamura and Takuto Mizuno got to the hotel (Granda Legend Apartment) then prepared the personal equipment and took a rest.
- At 18:20, with a invitation of Nguyen Truong Son family, all Japanese members and Vu Kim Luong visited his house and had a dinner. During the dinner, members confirmed and discussed the schedule, location and methods of the survey.
- At 21:07, all Japanese members return back to the hotel by walk.

October 20, Monday: Hanoi–Pleiku–Kon Ka Kinh National Park

- At 4:38, all Japanese members check-out and gathered at basement of the hotel. Then, at 5:05, they moved by car with all the luggage, to IB.
- At 5:19, all survey equipment and luggage stored in IB had been set in the car additionally. All Japanese and Vietnamese members started to the airport.
- At 5:52, arrived at the Noi Bai International airport, domestic terminal.
- At 6:30, finished check-in Hanoi–Pleiku flight (VN1615) with depositing all the luggage and equipment.
- At 7:35, started to Pleiku, and at 8:55 arrived at the airport of Pleiku.
- At 9:30, started to the Kon Ka Kinh National Park by car.
- At 9:48, had breakfast at the restaurant on the way.
- At 11:28, arrived at the Headquarters of Kon Ka Kinh National Park. Dropped our luggage at the national park guesthouse at 11:54, and we had lunch.
- At 13:38, in the headquarters of the national park, held a meeting with the director Mr. Thang and with the Technical Department for the survey logistics until 14:40.
- At 15:03, repacked luggage at the guesthouse.
- At 17:00, had dinner and invited staff from the Kon Ka Kinh National Park to exchange information on wildlife and environment. It lasted to 22:00 or more.

October 21, Tuesday: Survey Day 1

- At 7:00, had breakfast at the headquarters canteen, then gathered information about the weather conditions.
- At 8:00, checked and confirmed all the carrying luggage, food, as well as ethanol for specimens.
- At 8:35, started moving to the camp station in the national park by car.
- At 8:45, got off the car and started walking. Local staff assisted with carrying luggage.
- On the way, Herpetology group got one dead snake as a specimen in the way.
- At 9:34, arrived at the camp station in the forest (N14.22030, E108.31708, 980 m in elevation), built by the German Frankfurt Zoological Society, including 3 separate rooms. Check the location and set up life, and prepare the survey.

- At 12:30, Survey members and some of staff had lunch together.
- At 14:10, all luggage and equipment arrived at the camp station.
- Thereafter, a survey was conducted in 3 groups separately, in reference to the difference in survey methods and the time of target animals.

Rodent group (Masaharu Motokawa, Kai Shimamura, Vu Kim Luong)

- At 15:00, set trapline 1 behind and around the camp station (N14.22042, E108.31709, 980 m in elevation).
Motokawa 10 XLF, 10 LFA, 2 mole traps, 6 pitfalls (N14.22042, E108.31709, 980m)
Shimamura 10 XLF, 10 LFA (14.22127, E108.31637, 1000m)
Luong 20 LFA, 2 mole traps (N14.22085, E108.3169, 999m)
Total: 70 traps (XLF 20, LFA 40, Mole traps 4, Pitfalls 6).
- At 18:00, had dinner and rest.

Bat group (Nguyen Truong Son)

- At 16:00, set 1 mist net (12 m) and 2 harp traps at bat trapping site 1.
- Checked traps from 18:15–19:45 and 22:00–22:30. No bat samples were collected.

Herpetology group (Kanto Nishikawa, Ninh Thi Hoa, Yukio Ichioka, Takuto Mizuno)

- At 15:12, members and 1 staff started setting 2 sets of a fence and funnel traps around the camp station.
Set 1; from N14.22023, E108.31712 to 14.22019, E108.31702, length of fence: 9m, No. of traps: 6
Set 2; from N14.22013, E108.31691 to 14.22020, E108.31688, length of fence: 8.5m, No. of traps: 6
- At 18:00, Kanto Nishikawa, Ninh Thi Hoa, Yukio Ichioka, Takuto Mizuno, and 2 staff started a nighttime survey (Walked trails around the camp station, with collecting animals on our way).
- Survey finished at 20:15, and collected 21 individuals.
- Additionally, 3 individuals were observed, but not collected.
- After the nighttime survey, the group had dinner.

October 22, Wednesday: Survey Day 2

A survey was conducted in 3 groups separately.

Rodent group

- At 6:00, woke up and had breakfast.
- At 7:00, started climbing to the top.
- At 7:50, set 4 mole traps in the camping open site close to stream (N14.21184, E108.31603, 920 m in elevation).
- At 8:30, set one XLF trap (close to trapline 2) beside the big tree (N14.20655, E108.31984, 1007m)
- At 8:55, set trapline 2 (N14.20614, E108.32009, 1040 m in elevation, forest).
Total: 29 traps (XLF 10, LFA 20).
- At 10:20, set trapline 3 (N14.20742, E108.32496, 1180 m in elevation, forest).
Total: 29 traps (LFA 29).

- At 11:45, set trapline 4 (approximately 1400 m in elevation at the peak).

Total: 48 traps (XLF:19, LFA:19, SFA:10).

- At 12:00, had lunch at the top.
- At 13:20, went return down and set 2 mole traps near the river and small waterfall (N14.20957, E108.31842, 933 m in elevation).
- At 15:30, checked trapline 1 and got 2 individuals (Motokawa-1185, 1186).
- At 18:30, had dinner and rest.

Bat group

- 4:45–6:00, checked the mist net and two harp traps at bat trapping site 1, but could not collect any samples.
- At 15:00, reopened the mist net at bat trapping site 1 and set up two additional harp traps at bat trapping site 2.
- From 18:15–19:45 and 21:30–22:00, checked the mist net and one harp trap at bat trapping site 1, and two harp traps at bat trapping site 2, but no samples were collected due to heavy rain.

Herpetology group

- At 7:00, members and one staff had breakfast.
- At 7:43, Kanto Nishikawa and Takuto Mizuno went to check the trap site. It was empty.
- From 8:10 to 11:02, took live photo, preserved DNA sample of collected animals, and fixed 21 specimens (KUHE-VN25-001 to 021).
- At 11:02, had lunch.
- After taking a rest, from 15:20, Kanto Nishikawa, Ninh Thi Hoa, Yukio Ichioka, Takuto Mizuno, and 2 staff started to the waterfall.
- At 16:59, arrived at the waterfall. At 17:20, after having a rest, the nighttime survey started. All members walked around a stream, then collected the herptiles they found.
- At 18:07, left the waterfall to the camp station.
- At 21:30, arrived at the camp station.
- In the survey, 20 individuals were collected. Additionally, 3 individuals were observed, but not collected. Checked collected animals until 22:17. Then, had dinner.

October 23, Thursday: Survey Day 3

A survey was conducted in 3 groups separately.

Rodent group

- At 6:00, woke up.
- At 6:45, had breakfast.
- At 7:30, went to the top and checked and re-bait three traplines (2, 3, 4) on the way.

Set pitfall traps at trapline 3 (N14.20614, E108.32009, 1090 m in elevation, forest): total 47 traps.

Set pitfall traps at trapline 4 (N14.20899, E108.33067, 1400 m in elevation, forest): total 4 traps.

- At 11:30, finished checking and re-bait traplines, had lunch at the peak.
- At 12:23, go down.
- At 13:35, arrived at the camp station and checked and re-bait trapline 1.
- At 15:00, finished and collected 9 individuals (Motokawa 1187–1195) and herpetology group provide one (1196).
- At 15:00, took photo, measured, preserved tissue, and fixed specimens (6 specimens Motokawa 1185–1190).
- At 18:45, had dinner and rest.

Bat group

- 5:00–6:00, checked and closed the mist net and one harp trap at bat trapping site 1, and the two harp traps at bat trapping site 2. No samples were collected.
- At 15:00, moved one harp trap from bat trapping site 1 and two harp traps from bat trapping site 2 to bat trapping site 3, then set up all harp traps there. Also set up two additional mist nets at bat trapping site 3.
- From 18:15–19:45 and 21:30–22:00, checked all traps and mist nets and collected two bats at bat trapping site 3.
- 22:15–23:15, analysis and photographic documentation of bat specimens.

Herpetology group

- At 8:40, the group checked traps. It was empty.
- From 8:54 to 11:57, took live photo, preserved DNA sample, and fixed 21 specimens (KUHE-VN25-022 to 042), including a snake caught in October 21.
- From 13:25, members and 2 staff started the camp station to the foot of mountain while digging the ground along the way.
- At 16:38, members started heading back, then arrived at the camp station at 17:42.
- During this survey, the group met a local man and he will assist the survey on the next day. 5 individuals were collected in the survey, and one lizard was provided from the rodent group.
- Till 18:00, the group checked collected animals. Had dinner from 18:43.

October 24 Friday: Survey Day 4

A survey was conducted in 3 groups separately.

Rodent group

- At 6:00, woke up.
- At 6:15, had breakfast.
- At 7:45, started to go to the top and checked and re-bait traplines (2, 3, 4).
- At 8:00, captured 2 moles by mole traps (Motokawa 1197–1198).
- At 10:30, arrived at the peak, and finished checking traplines at 10:45.
- At 10:55, went down.
- At 11:55, had lunch at the camping open site close to stream.

- Checked and re-bait the trap line 1.
- At 12:50, returned back to the camp station.
- Collected 7 individuals (Motokawa 1197–1203)
- At 15:30, took photo, measured, preserved tissue, and fixed specimens (13 specimens Motokawa 1191–1203).
- At 18:30, had dinner and rest.

Bat group

- 5:00–6:00, checked all traps at bat trapping site 3 but no samples were collected.
- At 6:00, closed two mist nets.
- At 15:00, moved the two mist nets and three harp traps to bat trapping site 4.
- 15:30–18:00, set up the two mist nets and three harp traps at bat trapping site 4.
- From 18:15–19:45 and 21:30–22:00, checked mist nets and harp traps at bat trapping site 4 and collected one fruit bat (mist net) and one insectivorous bat (harp trap).
- 22:15–23:45, analysis and photographic documentation of bat specimens.

Herpetology group

- At 6:30, the group checked traps. It was empty.
- At 7:20, started the camp station to the foot of mountain.
- At 8:09, the group met the local man met on 23 and went to his paddy field.
- Until 10:05, searched for animals by digging in the soil. 7 individuals were collected.
- At 10:54, arrived at the camp station, had a lunch at 12:20. After that, one lizard was provided by rodent group.
- From 14:00 to 16:16, took live photo, preserved DNA sample, and fixed 9 specimens (KUHE-VN25-044 to 047, 053 to 056).
- Around 19:00, had dinner.

October 25, Saturday: Survey Day 5

A survey was conducted in 3 groups separately.

Rodent group

- At 6:00, woke up and had breakfast.
- At 7:45, started going to the top. Finished and collected all traps at the traplines 2, 3, 4. Collected 2 individuals (Motokawa 1207, 1208).
- At 11:00, finished at the peak and went down to the campsite.
- At 12:00, had lunch.
- At 13:50, took photo, measured, preserved tissue, and fixed specimens (3 collected by local traps, Motokawa 1204–1206).
- At 15:00, checked trapline 1 and set new trapline 5. Collected 2 individuals (Motokawa 1209, 1210).

Trapline 5:

Location 1 (N14.22117, E108.31619, 1052 m in elevation): total 30 traps.

Location 2 (N14.22309, E108.31568, 1131 m in elevation): total 30 traps.

Location 3 (N14.20927, E108.31795, 955 m in elevation): total 29 traps.

Total for trapline 5: 89 traps.

- At 18:00, had dinner and rest.

Bat group

- 5:10–6:00, checked and closed the two mist nets, then checked the three harp traps at bat trapping site 4. Adjusted the bat traps and decided to keep all traps active for one more night.
- 16:00–18:00, reopened the two mist nets and rechecked the three harp traps.
- From 18:15–19:45 and 20:30–22:00, checked the mist nets and harp traps at bat trapping site 4 but did not collect any bats.

Herpetology group

- From 7:30 to 8:45, took live photo, measured, preserved DNA sample, and fixed 5 specimens (KUHE-VN25-048 to 052).
- From 9:00, Yukio Ichioka and Takuto Mizuno walked around the camp station 30 minutes but nothing was observed.
- At 10:55, had lunch.
- At 12:00, Kanto Nishikawa and Takuto Mizuno terminated the survey and left the camp station to Pleiku City. Stayed a night at Lucky Star Hotel. They fly to Hanoi on 26th (VN1614 at 9:40) and on 27th to Osaka (VN334) back to Kyoto. Ninh Thi Hoa and Yukio Ichioka kept staying at the camp station, and continued the work.
- Rodent group provide one lizard to the group.
- From 14:15 to 16:56, the group took live photo, preserved DNA sample, and fixed it (KUHE-VN25-057). After that, one snake was collected near the camp station.
- At 19:00, the group and 2 staff started the nighttime survey. Survey finished at 21:09, and collected 9 individuals (3 for this project, 6 for the national park). Additionally, 10 individuals were observed, but not collected.

October 26, Sunday: Survey Day 6

A survey was conducted in 3 groups separately.

Rodent group

- At 6:30, woke up.
- At 7:30, had breakfast.
- At 8:30, checked and re-bait trapline 5 and finished and collected trapline 1. Checked mole traps.
- At 10:45, finished checking traps. Collected 3 individuals (Motokawa 1211–1213), and local traps collected

4 individuals (Motokawa 1214–1217).

- At 12:00, had lunch.
- At 13:05, Washed traps.
- At 14:30, took photo, measured, preserved tissue, and fixed specimens (11 specimens Motokawa 1207–1217). Finished at 17:05.
- At 18:30, conducted night survey, downward from the camp station along the trail.
- At 20:30, return to camp station, had dinner and rest.

Bat group

- 5:10–6:00, checked two mist nets and three harp traps at bat trapping site 4, but no samples were collected.
- 15:30–18:00, moved the three harp traps to bat trapping site 5.
- From 18:15–19:45 and 21:00–21:30, checked the three harp traps at bat trapping site 5 and collected two insectivorous bats.
- 22:10–23:45, analysis and photographic documentation of bat specimens.

Herpetology group

- At 7:00, had breakfast.
- At 7:30, checked traps. It was empty.
- From 8:00 to 10:23, took a live photo of 4 specimens. After having lunch, preserved a DNA sample, and fixed 10 specimens (KUHE-VN25-058 to 061 and KKK.2025.05-10).
- After that, cleaned up traps, it had been finished at 16:09.
- From 18:35, the group and 2 staff started night survey around the camp station. Finished at 20:20, and collected 2 individuals. Additionally, 6 individuals were observed, but not collected. At the camp station, one gecko was provided from rodent group.
- Had dinner at around 21:00.

October 27, Monday: Survey Day 7 and Move to Pleiku

A survey was conducted in 3 groups separately in the morning and terminate. Then, all the members move together.

Rodent group

- At 5:30, woke up, closing tents and packing personal luggage and unused equipment.
- At 7:00, had breakfast
- At 7:30 finish and collect trapline 5. Collected 3 individuals (Motokawa 1218–1220).
- At 8:20, took photo, measured, preserved tissue, and fixed specimens (3 specimens Motokawa 1218–1220). Traps were cleaned and packed.

Bat group

- 5:45, closed and removed all bat traps. No bats were collected in the morning.

- 8:15–10:00, cleaned all bat traps (mist nets and harp traps). Assisted the rodent team in cleaning all rat traps.

Herpetology group

- Around 7:30, had breakfast
- Until 8:56, took live photo, preserve DNA sample, and fixed 3 specimens (KUHE-VN25-062 to 064).
- On the way went back to the head quarter, disposed formalin from the bottles containing specimens, wrapped specimens in a paper towel moistened with formalin, and placed it back into bottles.
- At 14:45, met the director of the national park.
- At 16:00, left for Pleiku City.
- At 11:19, all members started going down the mountain.
- At around 12:30 arrived at Nanga station.
- At 14:57, arrived at the headquarters of the national park and held a meeting with staffs and director to share the results and to acknowledge the support of the national park and staff.
- At 15:35, The meeting finished and started heading to Pleiku City.
- At 17:12, arrived at Pleiku City and check in Lucky Star Hotel, and take a rest.
- At 19:00, Son, Motokawa, Ninh, Ichioka and Luong went to dinner and check and conclude the survey results. Shimamura stayed rest in the hotel.

October 28, Tuesday: Pleiku–Hanoi, Manage Specimens, Samples and Equipment

- At 6:00, had a breakfast at hotel.
- At 7:30, check-out and moved to Pleiku Airport by car.
- At 7:55, arrived at the airport and check-in VN1614 (Pleiku to Hanoi, departing on 9:40).
- At 9:00, deposit all the check-in luggage and reached to boarding gate.,
- At 11:47, arrived at the Hanoi Noi Bai International Airport, picking up of luggage was finished.
- At 12:00, moved to IB by car from the Noi Bai airport.
- At 12:36, arrived at IB. Carried luggage to the laboratory of Nguyen Truong Son.
- At 13:00, Masaharu Motokawa, Ninh Thi Hoa, Yukio Ichioka, Vu Kim Luong and Kai Shimamura had lunch at restaurant near IB.
- At 13:30, clean and manage specimens, samples, and equipment.
- At 15:50, Masaharu Motokawa, Yukio Ichioka and Kai Shimamura moved and check-in Granda Legend Apartment, and then went to the Vietnam Museum of Ethnology. Especially learned about the human and nature in Gia Lai Province.
- At 18:39, Ninh Thi Hoa arranged and shared specimen list and photographs to herpetology group.
- At 19:00, Masaharu Motokawa, Yukio Ichioka, Vu Kim Luong and Kai Shimamura had dinner
- At 21:00, went back to Granda Legend Apartment by car.
- At 21:40, Kai Shimamura started to the Noi Bai International Airport, and fly to Osaka from Hanoi (VJ938), and returned back to Kyoto on October 29.

October 29, Wednesday: IB Day 1

- The members each had breakfast.
- Clean and dry the camping and personal equipment at hotel.
- At 10:30, Masaharu Motokawa and Yukio Ichioka arrived at IB. Working on specimen data, GPS coordinates, photographs, survey report, budget management, etc., in contact with the members returning to Kyoto.

October 30, Thursday: IB Day 2

- The members each had breakfast and working at hotel.
- At 11:00, Masaharu Motokawa and Yukio Ichioka arrived at IB. Continued working on data management and process the specimen preservation. Check and prepare the equipment deposited at IB for the November survey.

October 31, Friday: IB Day 3

- At 10:25, Masaharu Motokawa and Yukio Ichioka arrived at IB. Continued work on survey report, working on data, and arrange and repair the traps.
- At 19:00, Masaharu Motokawa, Yukio Ichioka and Vu Kim Luong had dinner together.
- At 21:00 Yukio Ichioka started to the Noi Bai International Airport by car, and fly to Osaka from Hanoi (VJ938), and returned to Kyoto on November 1.

November 1, Saturday–November 6, Thursday: IB Day 4–9

- Masaharu Motokawa continued to stay at IB for working data and report of this survey, as well as preparation and logistics of the next November survey in Sonla Province.
- At 21:20 Started to the Noi Bai International Airport by car, and fly to Osaka from Hanoi (VJ938), and returned back to Kyoto on November 7.