

The background of the entire page is a photograph of two forest rangers walking away from the camera on a narrow, rocky trail in a dense forest. The ranger in the foreground is wearing an orange jacket, dark pants, and a black cap, and is carrying a large green backpack with a yellow rain cover. The second ranger is slightly behind and to the left, wearing a camouflage uniform and carrying a large white backpack. The forest is lush with green foliage and tall trees, with sunlight filtering through the canopy.

# **SMART PATROLING REPORT**

in Chu Yang Sin National Park





## ABOUT WILDACT

**WildAct** is to protect endangered species and fragile ecosystems by empowering communities through education, sustainable practices and innovative conservation efforts. We strive to safeguard existing forest and wildlife, fostering a sustainable future for our planet.

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# EXECUTIVE SUMMARY

Chu Yang Sin National Park (CYSNP) is one of the high priority areas for endemic mammals in Vietnam. However, the endemic and endangered species and ecosystem of the park is threatened by the snares crisis. Conservation efforts on the ground were dampened by the dangerous encounters with aggressive poachers, lack of equipment and lack of capacity. The park itself covered almost 60,000 ha of forest, however, there are only 100 rangers to protect this largest block of forest in the Southern Annamite range.

In May 2023, in partnering with Chu Yang Sin National Park, we established a Community Conservation Team (CCT), aiming to provide support to the park's patrolling team. The

team adopted SMART Conservation Software to plan and manage their patrol. Results in this report present their effort from May23 – May 24. Our data shows that 3,365 traps and 165 illegal camps were found and removed by CCT.





# INTRODUCTION

Chu Yang Sin National Park (CYSNP) is one of the largest forest blocks in the Annamite ecoregion. It is a high priority for endemic mammals and one of a few places in all of Vietnam with the Critically Endangered Large-antlered Muntjac (*Muntiacus vuquangensis* – CR), the Endangered Owston's Civet (*Chrotogale owstoni* – EN) and the Annamite Striped Rabbit (*Nesolagus timminsi* – EN), also the Annamite Crested Argus (*Rheinardia ocellata* – CR).

In 2022, our threat survey revealed a high density of snares (6.32 snares/km<sup>2</sup>) found in CYSNP, together with photographs in BDNB suggest that snaring is also a major threat in the Langbiang Plateau. This highlights the urgent need in reducing hunting pressure to ensure the survival of the mentioned species.

This project is the first step of WildAct's long-term commitment to Chu Yang Sin National Park to strengthening law enforcement efforts. This report aims to:

## Applied SMART Conservation Software

to Chu Yang Sin National Park for a better, more efficient and effective conservation management



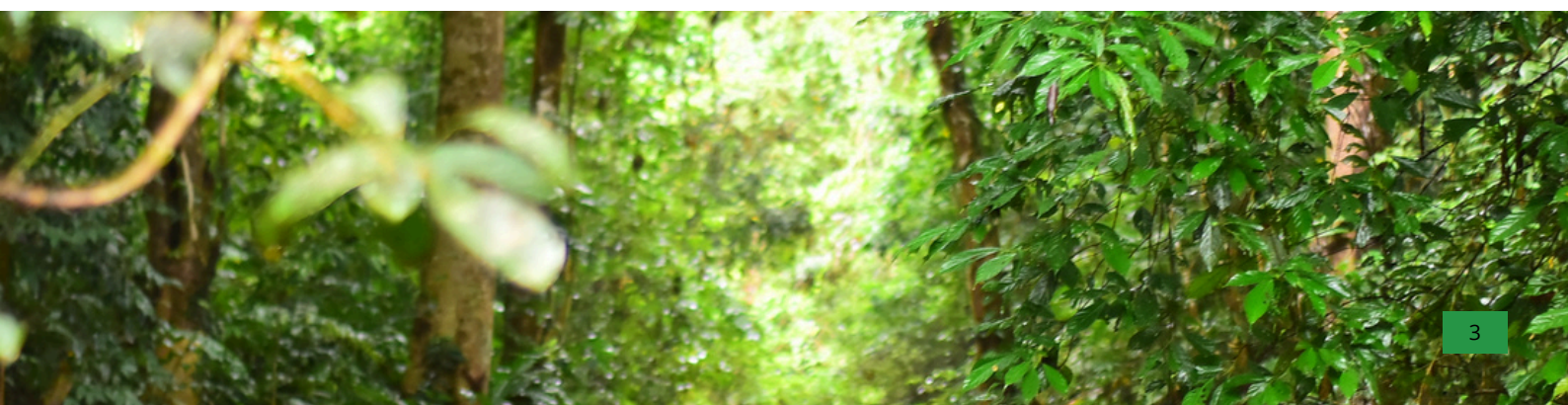
## Identify hunting hotspot

and combining with biodiversity data to identify critical areas to create anti-poaching zones within the park.



## Share learning

to relevant stakeholders to support and inform enforcement and future conservation activities.

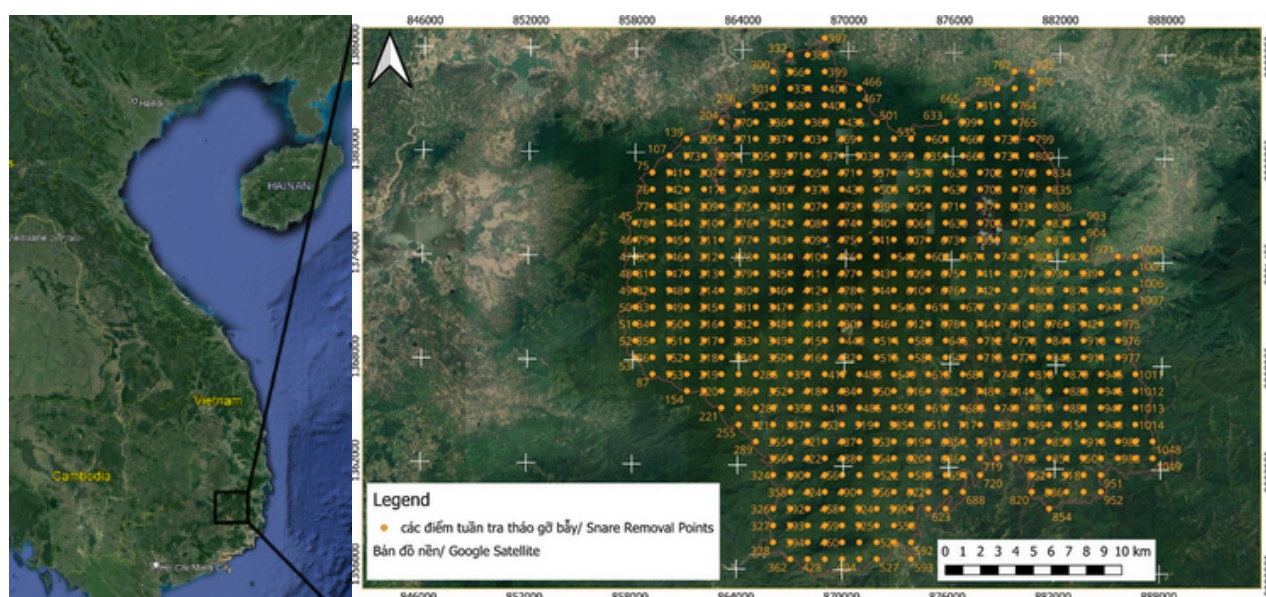


# METHODOLOGY

## Dates and locations

The patrol took place from 1st May 2023 to 31st May 2024. The Annamites ecoregion of Vietnam and Laos is a global biodiversity hotspot with one of the highest levels of species endemism found anywhere in a continental setting. The remarkable species of the Annamites are global biodiversity treasures and an important part of the region's biocultural heritage – especially in Vietnam, which prides itself on its unique biodiversity.

Chu Yang Sin National Park (CYSNP) located in Dak Lak Province in the Central Highlands, is one of the places with the highest biodiversity density and a priority area for conservation in Vietnam. The park is also considered as the centre of the ecosystem of the area that occupies most of the Langbiang Plateau, adjacent to Bidoup Nui Ba National Park and two other nature reserves. This place is evaluated by scientists as one of the four main biodiversity centres of Vietnam.



**Figure 1:** Map of Chu Yang Sin National park, with 664 target points, spaced within 1km<sup>2</sup> quadrat

## The Patrol

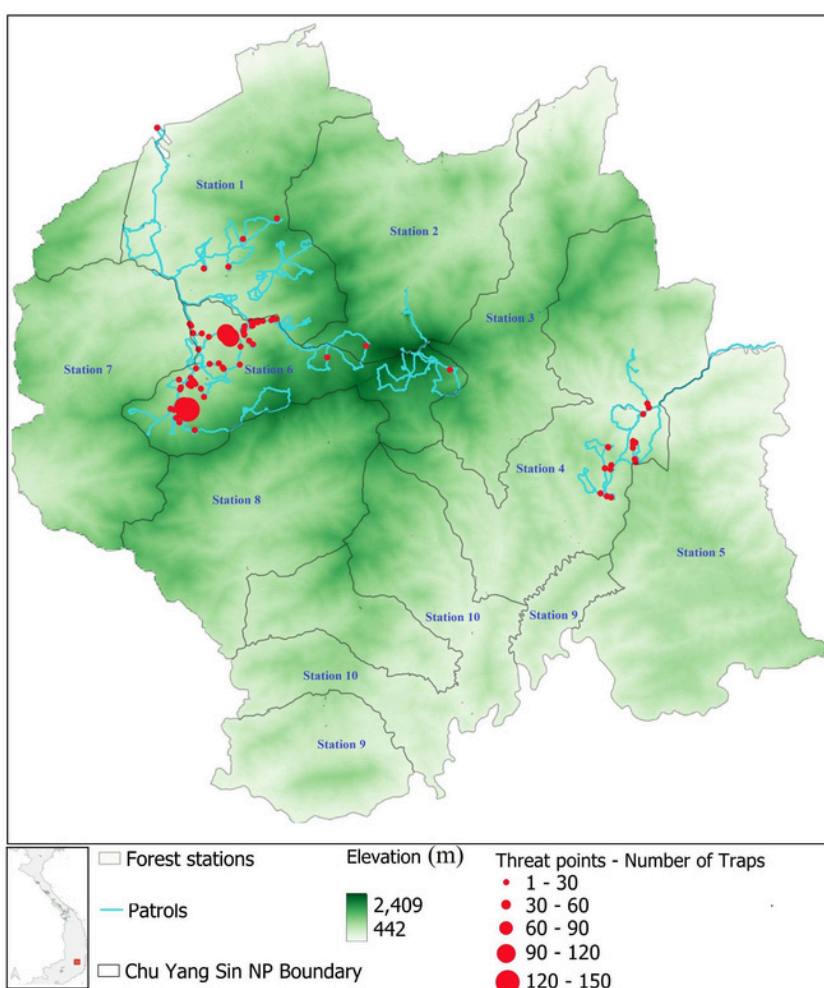
We divided the approximately 60,000 ha of CYSNP into 1km<sup>2</sup> quadrat. Every month, CCT makes plan and patrolled at least 3 – 5 quadrats within 12 days, depending on the terrance difficulty and weather conditions. CCT are equiped with a handheld GPS and SMART Mobiles.

The centra point of the quadrat is our targeting points. Once CCT arrived at the targeting point, they will intensively looking for traps and camp sites within the 150m. Once found, the team will record coordinates, pictures, identify the type of traps/camps found, its number .ect directly on SMART Mobile.

It is also importance to note that the team also record animal tracks, such as their footprint, dropping, remaining ect. if found.

There are two type of data recorded: i) Traps and camp found on the way to the targeting points and ii) Traps and camp found at the targeting points.

If encounter with poachers, the team will request for support from the park management board. None of CCT members are armed, including the two rangers.



**Figure 2:** Map of Chu Yang Sin National Park, showing density of traps and patrolling routes



# ILLEGAL CAMP & TRAPS

A total of 818.1 km forest trail were covered in 4,540.3 hours effort, from 1st May 23 – 31st May 24.

A total of 165 illegal camps were found and removed, in which 73 (44.2%) camps were found on the way to the target points; 92

(55.8%) were found at the target points.

The majority of traps were found near human settlements, in and around Yang Mao area, and near the East Truong Son construction road (Figure 4)

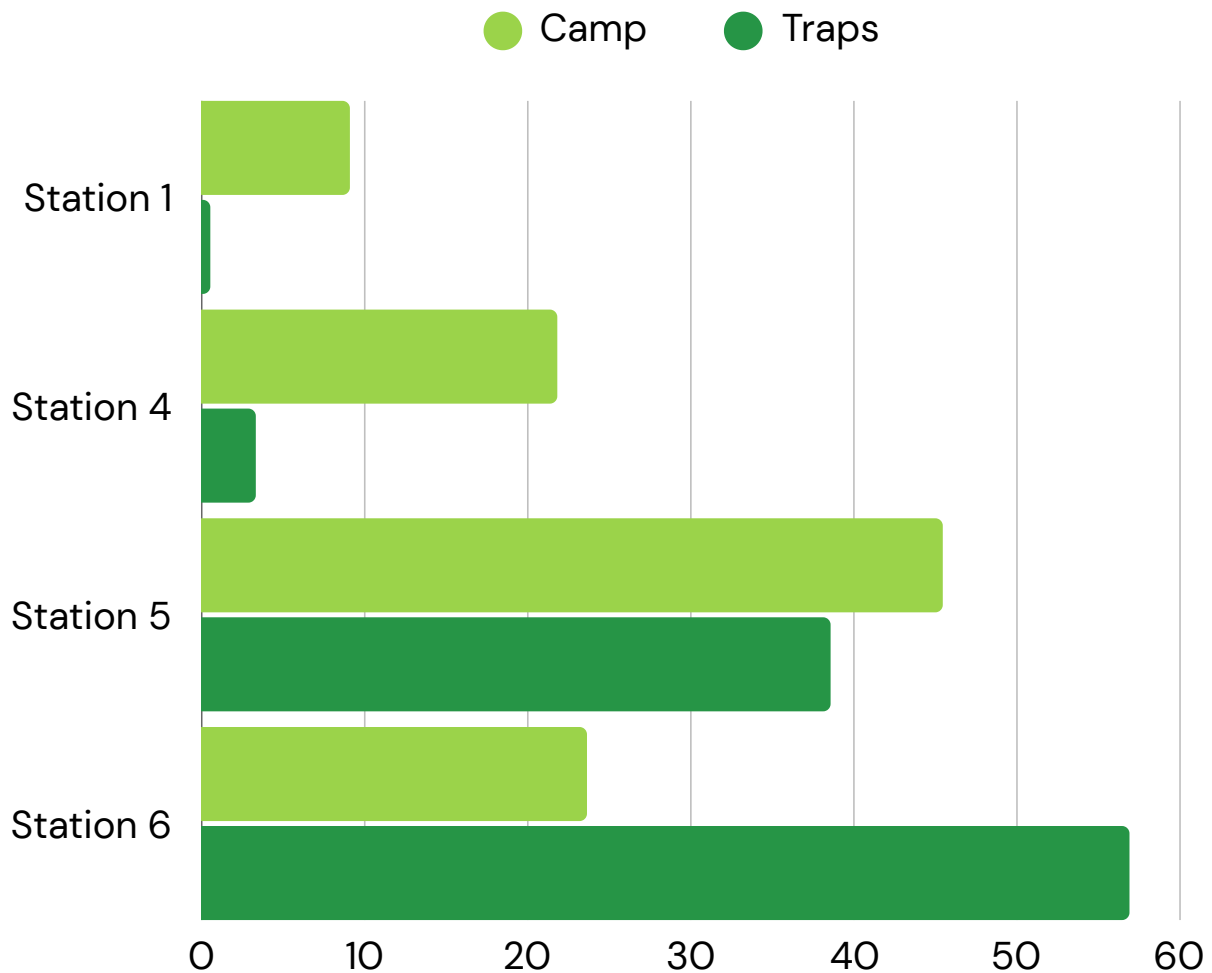


**Figure 3:** Pictures from the site. (a): A black shanked douc (*Pygathrix nigripes*) were caught in a deadly snares. (b): CCT found an illegal camp erected by poachers. (c): Snares removed from the forest. (d): Snares and other hunting equipments found at poacher's camp.

### Distribution

Over the last 12 months, CCT patrolled areas under management of 4 ranger stations, namely station 1, 4, 5 and 6. The number of illegal camp found were highest in area belong to station 5 management (45.45%, n=75/165), followed by station 6 (23.63%, n=39/165), station 4 (21.81%, n=36/165) and station 1 (9.09%, n=15/165).

Regarding traps, areas within management of station 6 has the highest density of trap found (56.93%, n=1916/3365), followed by station 5 (38.57%, n=1298/3365), station 4 (3.32%, n=112/3365) and 1 (0.53%, n=18/3365).



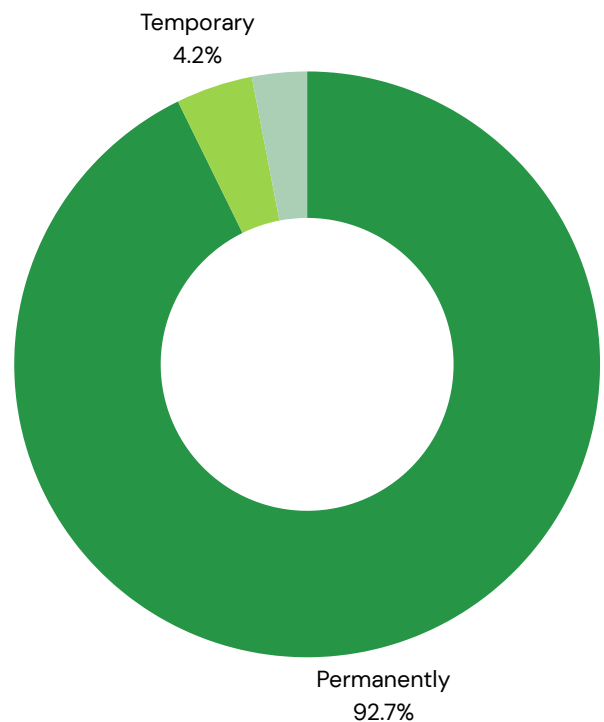
**Table 1:** Distribution of traps and illegal camps found across 4 partrolled ranger stations in Chu Yang Sin National Park



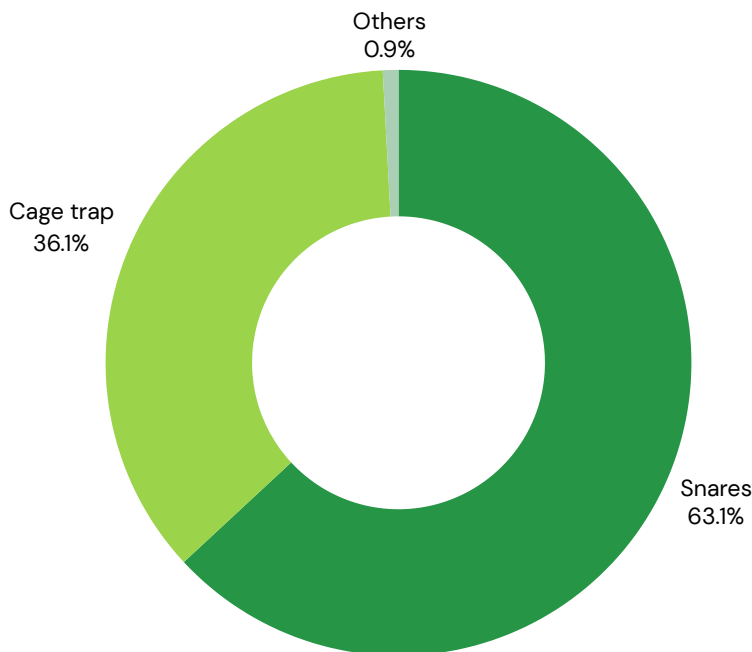
### Type of camps

A majority of illegal camps found in patrolled area by CCT were permanent camps (92.72%, n=153/165), followed by temporary camps (4.24, n=7). Others, such as small platform built upon large tree trunk were also found (3.03, n=5).

Permanent camps were identified by the size, materials and sometimes, facility of the camp (i.e wooden frame, proper roof ect), whereas temporary camps were mostly simple poles with plastic cover on top).



**Figure 4:** Different type of camps found across patrolled sites.



**Figure 5:** Different type of traps found across patrolled sites.

### Type of traps

There were 5 different types of animal traps found in Chu Yang Sin National Park. Snare (63.09, n=2123/3365) were the most frequently used traps, mostly made from bicycle break and other type of cable. Cage trap were the second most popular type of trap used (36.05%, n=1213/3365), then rat trap (0.54, n= 18/3365), fenn trap (0.02, n=7/3365) and gin trap (0.02, n=4/3365)

# CONCLUSION & RECOMMENDATION

Deforestation and commercial hunting have been identified as primary threats to many species' survival (Scotson et al., 2017; Crudge et al., 2019). The World Wide Fund for Nature in a report in 2020 estimated over 12 million snares across protected areas in Vietnam, Laos and Cambodia, calling it a "snare crisis".

The intensive use of snares is undoubtedly not only threatening critically endangered species in the areas, but many others sharing the same habitat.

The high number of illegal, permanent camps erected by poachers showed a worrying reality, that poachers are currently spending a long period of time hunting within the park and rarely being interrupted by enforcement.

The high number of traps and illegal campsites within our first 12 month of patrolling shows an immense pressure on the park's endangered species and fragile ecosystem.

Based on the results of this study, we provide the following recommendations:

- Increase enforcement effort, especially patrolling during peak hunting periods (i.e the rain season);
- Apply new technology in conservation, at the minimum apply SMART Conservation Software for effective management;
- Empowering local people, and forest guardians in forest patrol;
- Increase awareness of the local community in wildlife laws and enforcement;
- Sharing news, especially prosecution cases, with the local community as a tool to prevent crime;
- Collaborate with research institutions to identify important biodiversity areas within the park to create an anti-poaching zones;
- Provide education activities for children and youth in the provinces to actively involved in nature conservation.



# REFERENCES

Crudge, B., Lees, C., Hunt, M., Steinmetz, R., Fredriksson, G., & Garshelis, D. (Eds.). 2019. Sun bears: Global status review & conservation action plan, 2019–2028. IUCN SSC Bear Specialist Group / IUCN SSC Conservation Planning Specialist Group / Free the Bears / TRAFFIC

Scotson, L., Fredriksson, G., Ngoprasert, D., Wong, W-M., Fieberg, J. 2017. Projecting range-wide sun bear population trends using tree cover and camera-trap bycatch data. PLOS ONE

Gray, T,H,E., Hughes, A., Laurance, W.F et al. 2018. The wildlife snaring crisis: an insidious and pervasive threat to biodiversity in Southeast Asia. Biodiversity and Conservation 27(160498)

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