

# Saola Working Group 2018 Annual Report



## Introduction

Twenty-five years after its spectacular discovery, the Critically Endangered Saola (*Pseudoryx nghetinhensis*) is dangerously close to extinction. We estimate that fewer than 100 survive, scattered in the Annamite Mountains of Laos and Vietnam. Despite investments and some improvements in forest and wildlife protection in

Laos and Vietnam in recent years, due to the region's overwhelming commercial poaching pressure, no area within the Saola's range is yet sufficiently safe, and the species is certainly still in decline. In fact, it may be that now no area holds a viable Saola sub-population. This means that even if all poaching could be eliminated today, Saola would still face a significant risk of extinction.

In response, the Saola Working Group has embraced the IUCN One Plan approach. The One Plan is the integration into a single program a captive breeding program for an endangered species, with improved protection of the animal's wild habitat. This integration allows stabilization and recovery of a species' population in captivity, while wild areas are made sufficiently safe to allow eventual reintroductions. In addition to Saola, the SWG is providing support to application of the One Plan to another Critically Endangered Annamites endemic, Large-antlered Muntjac.

Successful application of the One Plan to Saola, a species about which so little is known, is a significant, even daunting, challenge - technically, financially, politically. But we know what success will look like: Assembling the right people, to do the right actions, with sufficient support. In 2018, the SWG had its most productive year yet, and made substantial progress across all three areas.



## People

Good people are essential to the success of any endeavor, and the SWG is blessed to have expanded our team in significant ways in 2018. In addition to our core of 35 mostly volunteer SWG members, to cope with the expansion of our work we completed the addition of some outstanding paid personnel in 2018.

### Senior program personnel

**Dr. Olivia Petre**, SWG Head of Operations. Olivia brings conservation work experience in Borneo, Madagascar, Cameroon, and DR Congo. Olivia is based for the SWG in Vientiane, Laos, and has responsibility for day-to-day management of the SWG.

**Rob Timmins** has been conducting wildlife surveys in Laos and Vietnam for more than a quarter century, and was involved in the discovery of another focal species for the SWG, Large-antlered Muntjac (in addition, the scientific name of Annamite Striped Rabbit, *Nesolagus timminsi*, was chosen to honor Rob, the discoverer of that species as well). Rob serves as technical supervisor and scientific mentor for all SWG field work in Laos.

**Dr. Lorraine Scotson** is responsible for organizing all field logistics related to captures of Saola and Large-antlered Muntjac for the conservation breeding program. She is initially focusing much of her work in Vietnam. Lorraine brings extensive experience in Laos and Vietnam, and did her PhD on bears in Indochina.

In each of Laos and Vietnam, we have assembled technical excellent teams to implement the SWG's work on the ground.

### Vietnam team

SWG member **Dr. Cao Tien Trung** of Vinh University leads most of the SWG's fieldwork in Vietnam. Additional members of 'Team Trung' assembled in 2018 are:

**Cao Tien Dung** and **Do Van Thoai**: Full-time field technicians, who specialize in setting and managing camera-traps, and also assisting with village interviews.

**Nguyen Duc Tu**: A field man, who has taken over SWG data management in Vietnam while his broken leg heals(!).

**Dang Thi Hong Nhung** and **Huynh Thuong Thuong**: Conduct research on records of Saola presence (and behavior) in Vietnam.

### Laos team

**Chanthasone Pommachanh** (a.k.a., "Olay") leads the Lao field team. Olay did his master's degree research on assessment of Saola status in Bolikhamxay Province, and is now one of the most experienced field biologists in the country – particularly in the Annamite

Mountains.

**Bounthavy Phommachanh** has been working with some members of the SWG for more than twenty years. He works 50% time to help with program administration and government liaison in Laos.

**Phonesouk Chanthavong** ("Hamnoy"), graduated in 2015 with a degree in Environmental Science from the National University of Laos (NUOL). His primary responsibility is data manager for field activities (such camera-trapping).

**Daovy Xaypanya** has a university degree in Forestry. He is the main field assistant to Olay. He also brings considerable experience in wildlife protection and patrolling.

**Vilayvone Sengmany** ("Lei") is from one of the most important provinces for Saola, Bolikhamxay. He assists with both data management and fieldwork, and is responsible for the care of all field equipment in Laos.



*Minh, with friend; Idaho, January 2018.*

## Mentoring

Helping to develop the new generation of conservation leaders in Vietnam and Laos is an important aspect of the SWG's work. One way we do this is through support to scholarships and grants.

In 2018, the SWG's own Women For Annamites Conservation Fund made its first grant, of \$5000, to Nguyen Thi Anh Minh of Vietnam. The grant will support her project, "Ranging behavior and ecological characteristics of Large-antlered Muntjac under snaring impact". Congratulations, Minh! Her project was chosen from eight applications received by the SWG's new fund in its first round.

We also successfully nominated Minh for a scholarship from the Wildlife Conservation Network (WCN), to pursue her PhD degree. Nomination was the first hurdle, and Minh will soon hear the result of her full application to WCN.

In January 2018, the SWG provided support for Minh to travel from the warmth of her home in southern Vietnam to the depths of winter in Idaho, where she helped the Idaho Fish and Game Department capture and collar Mule Deer. The purpose was to give Minh hands-on experience in the safe capture of wild ungulates – something that will both help her own research on Large-antlered Muntjac, and strengthen her skills to assist the SWG in capturing Saola and Large-antlered Muntjacs for the conservation breeding program. We are indebted to Professor Mark Hebblewhite of the University of Montana for arranging Minh's participation in the Idaho expedition.

SWG members also successfully nominated Nguyen The Truong An for a WCN scholarship. With WCN support, in 2018 An began studies for his PhD in Berlin, Germany at the Leibniz Institute for Zoo and Wildlife Research and Freie Universität. His research will focus on camera-trap surveys of Annamite endemic species.

## ACTIONS

The first step in taking effective action is planning. In June 2018, members of the SWG's technical teams met for three days of face-to-face strategic and annual planning in Lowestoft, England. This planning workshop was generously hosted by the Zoological Society of East Anglia, and SWG member Terry Hornsey took the lead in organizing the meeting.

The gathering highlighted the collaborative strength of the SWG, with several organizations, and diverse expertise (such as field research, and captive breeding), gathered together for brainstorming in one room. The team drafted the SWG's most ambitious annual plan yet (for the fiscal year 1 July 2018 – 30 June 2019).

The highest immediate priority of the One Plan is to establish the conservation breeding program for Saola, while there is still time. With completion of selection of the site for the conservation breeding center (Vietnam's Bach Ma National Park) and design of the facility, an essential parallel program is field research to locate surviving Saolas, and research on effective and safe capture methods. It was on these that SWG focused much of its attention and actions in 2018.

The aim of Saola detection research is to identify where to send capture teams when that phase of the project is ready, and in the interim to know where to focus protection measures (such as ranger patrols). It is a considerable challenge to find what are probably fewer than 100 animals dispersed through the large expanse of the densely forested Annamite Mountains; we need to find a very small number of cryptic needles in a very large haystack.



*Some SWG members at the annual planning meeting in Lowestoft, England; June 2018.*

Finding Saola is an effort that requires significant resources, determination and, absent a huge dose of luck, time. The SWG's main tool currently is camera-trapping, supported by information provided by local people. However, the effective range of camera-traps in the steep, dense cover of the Annamite Mountains is small. In addition, signs of Saola (such as tracks, dung and feeding sign) are too poorly known to confidently distinguish them from those of some other ungulates that share the Saola's range. Therefore, as resources allowed, in 2018 across both range countries we supplemented camera-trapping with other detection methods, such as starting to collect likely Saola dung for genetic analysis, and searching for Saola DNA in stream water.

## Vietnam

In 2018, in Vietnam's Pu Huong Nature Reserve, SWG members Dr. Cao Tien Trung (of Vinh University, Vietnam) and Dr. Nicholas Wilkinson, with a team from Vinh University, interviewed local hunter informants. Two expert hunters, who in the past have taken numerous Saolas (>20 between them), were enlisted to assist with research in nearby Pu Mat National Park (which has higher potential to still hold Saola).

In Pu Mat NP, the SWG and Vinh University team continued to gather information from



*SWG and Vinh University field team in Pu Mat National Park (standing from left, Cao Tien Dung, SWG member Dr. Nicholas Wilkinson and SWG consultant Jeremy Holden).*

local people on the presence of saola in this large area. They collected several reported sightings within the past two years and also a few reported past killings or captures (of animals that were then consumed).

As part of this research, 92 cameras were set at two locations in Pu Mat in early 2018. Various setting methods were trialed. One included training villagers to set camera-traps independently, and another the involvement of two international experts in surveys for elusive mammals, Jeremy Holden and Vladimir Dinets. In addition, the expert hunters from Pu Huong joined some of the surveys and conducted intensive searches for Saola sign around the area where camera traps were set. By the end of the year, the SWG and Vinh University team had positioned a total of 165 camera-traps at three locations in Pu Mat.

Also in 2018, Vinh University completed the establishment of special laboratory for genetic analysis, with a priority being analysis of samples that may be from a Saola (such as dung). Geneticist Dr. H.J. Kim of Washington State University completed a quality control assessment of the new facility in 2018.



*SWG consultant Jeremy Holden setting a camera-trap in Pu Mat National Park.*

## Laos

In 2018, in the most important provinces for Saola, the SWG team in Laos continued to build great working relationships with the Lao government's Provincial Agriculture and Forestry Offices (PAFOs). A close partnership with these PAFOs is essential for our work, and the Lao team has done a great job in collaborating with them.

Detection research efforts focused on four areas of the country in 2018: Bolikhamxay Province, Xe Kong Province and, in Khammouane Province, Nakai-Nam Theun (NNT) National Protected Area and Khoun Xe Nong Ma (KXNM) Provincial Protected Area. By the end of 2018, the Lao team had deployed 146 camera-traps in Xe Kong, 29 in NNT and 161 in KXNM. In addition, three potential Saola dung samples were collected, and 29 water samples from 15 stream locations.

The survey results from KXNM have been particularly encouraging. For example, a high frequency of photo encounters of the Critically Endangered Large-antlered Muntjac give good hope that, in general, KXNM's populations of large, ground-dwelling wildlife (which are highly susceptible to snaring) are still sufficiently robust to also hold Saola.



*The Laos team in the field: Olay far left; Daovy 3<sup>rd</sup> from left; Hamnoy far right.*



*Camera-trap image of IUCN Red List Critically Endangered Large-antlered Muntjac; Khoun Xe Nong Ma Provincial Protected Area.*

The Lao team's results and extensive field experiences were shared with management authorities of the areas where the research was conducted. This resulted in the deployment of special teams that removed more than one thousand wire snares from priority areas in Xe Kong, and nearly 1,200 in KXNM. The Lao team also provided data to support a recommendation to the Lao government that KXNM be elevated to the status of a national protected area.

In NNT, research under the direction of SWG members Andrew Tilker and Dr. Camille Coudrat trialed methods to lure Large-antlered Muntjacs to specific forest locations, as an aid to eventual capture for the conservation breeding program. In these

trials, salt proved an effective attractant (confirmed by camera-trapping), while commercial deer scent from the United States did not. This field research was completed in partnership with Project Anoulak, to which the SWG is very grateful.

In a previously unsurveyed area of Bolikhamxay Province, the Lao team completed the first phase of a detection program: interviews with local villagers to determine the likely status of Saola in the area, and to decide if camera-traps should be deployed there. The interview results were promising, with recent reports of Saola sightings in two locations. A priority for 2019 is deployment of camera-traps and dung collection efforts in these two areas.

Also in Bolikhamxay, the Lao team trained rangers at Phou Si Thone (PST) Endangered Species Conservation Area in methods of dung collection. As part of their work in PST, the team also engaged local residents in ten villages around the protected area in Saola conservation awareness.

Finding remaining Saolas is one challenge. Safely capturing them will be another. In 2018 in and around Nakai-Nam Theun National Protected Area, Dr. Hannah O'Kelly and Dr. Lorraine Scotson conducted SWG field research that led to the development of a strategy for training local dogs and local dog handlers to assist in the safe capture of Saola. This follows similar research Hannah previously led for the SWG in Vietnam. The goal is a protocol that gives us the best chance to capture Saolas effectively and safely.



*SWG consultants Dr. Hannah O'Kelly (left) and Dr. Lorraine Scotson (with collaborator, far left) in field camp, Nakai-Nam Theun National Protected Area.*

## Support

Collaboration is essential for saving Saola from extinction, and two types of support are particularly important: political and financial.

Key progress in political support was made when, in October 2018, Vietnam's Ministry of Agriculture and Rural Development (MARD) signed a Memorandum of Understanding (MoU) with IUCN (acting on behalf of the Saola Working Group) for full implementation of the Saola One Plan program in Vietnam. MARD has been a vital and enthusiastic supporter during development of the SWG's One Plan in Vietnam. Crucially, we continue to have similar committed support from MARD's 'sister' agency in Laos, the Lao Ministry of Agriculture and Forestry.

Implementation of the One Plan to save Saola requires significant funding, and the SWG is deeply grateful to our 2018 donors. Our many accomplishments in 2018 are also theirs, and it is their faith and their support that gives us a chance to save this beautiful animal.

### 2018 Institutional Donors:

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**Saola Working Group 2018 Calendar Year Financial Report****Ordinary income**

Individual donations	\$16,924.19
Institutional unrestricted donations	\$376,977.01
Restricted grants	\$87,035.37
<b>Total income</b>	<b>\$480,936.57</b>

**Ordinary expenses**

Contracted services	\$251,505.17
Facilities and equipment	\$27,927.50
Operations	\$14,677.14
Payroll expenses	\$71,448.06
Travel and meetings	\$36,409.04
Subgrants	\$51,007.00
<b>Total expenses</b>	<b>\$452,973.91</b>

**Net income** **\$27,943.40**

In addition, the following individuals supported the SWG with their time, passion and talents in various ways in 2018: George Allez, Tuan Bendixen, Dietmar Bräutigam, Jake Brunner, Johanna Chworowsky, Erin Flynn, François Guegan, Mark Hebblewhite, Yin Hang, Julia Hanuliakova, Nguyen Manh Hiep, Andy Holman, Ann-Marie Holmes, Eric Losh and Phoutsakhone Ounchith.

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