# FINAL REPORT

## OBSERVATION AND PRIMATE SURVEY TRAINING ON SUNGAI WAIN PROTECTION FOREST

**May, 4 – 8 2004**

**Support by:**

## RUFFORD FOUNDATION

## UNIT PELAKSANA

**BADAN PENGELOLA HUTAN LINDUNG SUNGAI WAIN BALIKPAPAN**
**Kompleks Agrowisata Km. 23 Karang Joang**
**Balikpapan-Indonesia**

**2004**

## INTRODUCTION

Sungai Wain Protection Forest (SWPF) has at least 9 species of Primate which is life in 9.782 hectare of Borneo lowland dipterocarp rain forest. The species are Gibbon (*Hylobates muellerri*), Proboscis Monkey (*Nasalis larvatus*), Orangutan (*Pongo pygmaeus*), Red Leaf Monkey (*Presbytis rubicunda*), White Front Leaf Monkey (*Presbytis frontata*), slow lories (*Nyctecebus coucang*), Tarsius (*Tarsius bancanus*), Long Tail Macaque (*Macaca fascicularis*) and Pig Tail macaque (*Macaca nemestrina*). Four species among others are in the list of Appendix I CITES which is Proboscis Monkey, Orangutan, Gibbon and Slow Lories. It means that those animals are threatened extinction. Generally Primate is an arboreal animal that spent most of its life time above the ground.

There are 82 Orangutans was introduced in SWPF since 1992 – 1996 by Wanariset Orangutan Re-introduction Project. They were not a native animal in Sungai Wain. They came from other places in East Kalimantan such as Sebulu and Kutai National Park. Usually they were captured by human when people found them in their farming land. Orangutan went out from the forest caused forest fire in 1998. History existence of Orangutan in SWPF has never been known previously. Condition of population Orangutan after forest fire of year 1998 was decrease only remaining about 17. In line with forest condition that are going better, existence of this Orangutan also gradually goodness. It is known from the fact that some female Orangutan have delivered baby in Sungai Wain.

Because SWPF has specific function, it is the right step when Government of Balikpapan as institution that have authority to manage their own Protection Forest, commit to protect and preserve SWPF with established Sungai Wain Protection Forest Management Body (BP HLSW) and hold mutually all related and relevant parties together to save Sungai Wain. Support and cooperation from all parties are needed to reach the target of management as mentioned in Sungai Wain Strategic Plan. In line with that, socialization to society about the existence of SWPF has to be continuously strived. It will give strength morally that management of SWPF supported by all society components in Balikpapan.

There are many ways to increase people awareness about Sungai Wain forest. Activities such as counseling, community development and education of environment to schoolchildren represent one of the so many steps that have been conducted by Implementation Unit of Sungai Wain Protection Forest Management Body (UPHLSW). These activities do not always have to do in one direction like in the classroom (passive) but also can through by outdoor activities which dynamic in character and inspire directly through practice in the field or known as term learning by doing.

For this year, UP HLSW with supported by Rufford Foundation (an institution in English which is concern to conservation issue) as well as Natural Resources Management III East Kalimantan to perform an activity called "Training Course for Primate Survey and Observation in SWPF" for local youth conservation Group in Balikpapan and Samarinda, research institution, local NGO's and also to society around area of SWPF.

## PURPOSES AND OBJECTIVES.

The aim of this training is to introduce and show to the participant about the current condition of SWPF from ecologically aspect within research and observation activities directly on the field. This activity also mean for improve capacities and ability of field staff in Implementation Unit of SWPF Management Body to conducted survey and research about primate. For local conservationist group and local NGO's who involved as participant, it help them to know basic rules and technique about how to conducted research and observation of wildlife especially primate on the nature. Indirect outcome expected from this training is to increase awareness of the participant to the sustainability and importance value of Sungai Wain forest. The experience during training especially when they saw wild animal directly in the nature, will become interesting and unique experience and will continue to be remembered and we hope they will share those experience to their friends, their family, and people that closed to them. It will be effective campaign to people and their community.

### EXPECTED RESULT.

From this training, we expected that all participants will be able to execute survey and perception of Primate in nature and could make simply analyze from obtained data. Besides that reason, we also hope that capacities and skill of participants especially field technician from Implementation Unit of SWPF will increase and support their daily tasks in the forest.

### COMPOSITION OF THE PARTICIPANTS

Participants of this training generally can be divided become two grouped, first participants with technician level and participant with planner level or researcher. At least 26 participants that coming from Balikpapan, Samarinda and of Samboja, Kutai Kartanegara was invited to attending this training. They are delegation from various institutions namely:

- Local Conservation Group from Balikpapan (3 people)
- Friends of Sungai Wain (2 people)
- Mapflofa Fahutan UNMUL (Student Conservationist Group of Forestry Faculty University of Mulawarman Samarinda) (2 people)

- JPL Kaltim (East Kalimantan Environment Education Network) (1 people)
- YBML (Local NGO in Balikpapan) (1 people)
- YSTB (Local NGO in Balikpapan) (1 people)
- Borneo Orangutan Survival Foundation/ BOSF (Local NGO in Samboja) (1 people)
- Borneo Ecological and Biodiversity Conservation/BEBSIC (Local NGO in Samarinda) (1 people)
- Tropenbos Indonesia (1 people)
- Loka Litbang Satwa Primata (1 people)
- Local people around SWPF (4 people)
- UP HLSW (7 people)
- Tribun Kaltim (press) (1 people)

Almost all invited participant gave their confirmation and express to attending the training, except Tropenbos Indonesia. On the first day of training, participant that filled registration are 21 people. Participant from YSTB and JPL Kaltim were absent including three participants from local people. List of the participant can see on the table 1 below.

Table1. List of Participant

| No. | Name | Institution |
|---|---|---|
| 1 | Agoes Soeyitno | BEBSiC |
| 2 | Yusriansyah | BEBSiC |
| 3 | Sugiyanto | BOSF Wanariset |
| 4 | Misri Pribadi | BOSF Wanariset |
| 5 | Mulyono | BOSF Wanariset |
| 6 | Yaya Rayadin | Forestry Faculty University of Mulawarman |
| 7 | Dade Suarsono | Student from Padjajaran University Bandung |
| 8 | Iyus Sopian Umar | Student from Padjajaran University Bandung |
| 9 | Wawan Gunawan | Loka Litbang Satwa Primata |
| 10 | Fajriannur | MAPFLOFA Fahutan UNMUL |
| 11 | Adji Rachmad | MAPFLOFA Fahutan UNMUL |
| 12 | Sukardi | OPA Fankser (local conservationist group) |
| 13 | Ayu Wahyunie | POKJA / local people |
| 14 | Christiana Dwi Endarini | Tribun Kaltim (press) |
| 15 | Sutrisno | UP HLSW |
| 16 | Imansyah | UP HLSW |
| 17 | Priyantono | UP HLSW |
| 18 | Mulkani | UP HLSW |
| 19 | Agung Sari | UP HLSW |
| 20 | Supriadi (Demo) | UP HLSW |
| 21 | Arifuddin | YBML |

**TIME EXECUTION OF ACTIVITY.**

Training executed 5 days from 4 – 8 May 2004 in Sungai Wain Information Center Hall and Camp Djamaluddin, divided into 2 session which is 2 days in classroom ( 4 – 5 May 2004) and continued with practice in the field for 3 days ( 6 – 8 May 2004).

**TRAINING METHODOLOGY.**

Four-guest speaker gave a presentation to the participant. Informal class situation made so participant was not saturated. The chair was arrangement semicircle to made discussion more interactive. LCD Projector as well as flip chart provided to support the presentation of the speaker. Five speakers are:

1. **Dr. Chandradewana Boer**, lecturer of Forestry Faculty University of Mulawarman Samarinda, concerns on Conservation and Ecology of Wildlife. He is Director of Tropical Forest Research Center ( PPHT) University of Mulawarman as well.

2. **Fazrin Rahmadani, S.Hut**, Executive Director Institute of BEBSIC ( Borneo Ecological Biodiversity Conservation) in Samarinda.

3. **Gazali A**, Project Manager Orangutan Rehabilitation, Borneo Orangutan Survival Foundation ( BOSWAN) Samboja, Kutai Kartanegara.

4. **Dhany Sitaparasti**, Researcher in Orangutan Rehabilitation Project, Borneo Orangutan Survival Foundation (BOSWAN) Samboja, Kutai Kartanegara.

5. **Anton Nurcahyo**, biologist in Primate from Wildlife Conservation Society Indonesia Program ( WCS IP) Bogor.

The presentation conducted in two days (4 – 5 May 2004), continued with practice and simulation in the field / forest (Camp Djamaluddin) for 3 days ( 6 – 8 May 2004). Speakers have give survey theories, as basic knowledge for participants practice survey primate directly in nature.

**ACTIVITIES.**

**First Day, Tuesday, May 4, 2004.**

First day started with registration for all participant of training. Then Executive Director of Implementation Unit Sungai Wain Management Body, Mr. Dadang Imam Ghozali, opened the training officially.

**First Presentation.**

In the first day of training, Mr. Gazali A. gave giving the first presentation. He is a lot of spoke about conservation of Orangutan in Wanariset Samboja and talk about biology, ecology and behaviour of Orangutan as one of the endangered primate in Borneo. He also said that the condition of Orangutan progressively threatened day by day because deforestation. As a natural habitat of Orangutan, illegal logging, encroachment, and forest conversion threaten Borneo forest. In Wanariset (Orangutan rehabilitation center) there are still a hundreds of Orangutan rehabilitated before they returned to their new habitat in Meratus Forest reserve (about 200 km from Wanariset to west). However, Meratus area are not safe 100% from illegal activities such timber cutting and hunting. This is a main constrain face by BOSF in effort to conserve Orangutan in Borneo.

Ms. Dhany Sitaparasti also from BOSF Wanariset Samboja, explained about how to conducted nest survey of Orangutan in nature. Different with another species of primate, Orangutan always make nest everyday once or twice. The numbers of nest represent their population in the forest. From their nest we can counted or calculated and estimate the density of population of Orangutan in nature. However, we have to concerning to the age of nest it self because it will effect to the estimation. The age of Orangutan nest could be month. It is depending on several factors such as species of the trees that nest are built up. Nest age could classified to 4 class which is A for new nest (usually marked with many fresh green leaves), B (a little bit new but leaves already dry), C is old (it marked with there are still many branches) and D is the oldest one, which still can recognize from the structure of nest (broken branches). While we conducting Orangutan survey in the field, every nest that we found along transect should be recorded together with this following information:

- The distance from starting point in the line transect to the point that we sight the nest
- The distance from nest (trees) to transect line perpendicular, and
- Estimation age of nest (classified to A – D)

**Second Presentation**

Dr. Chandradewana Boer from Forestry  Faculty University of Mulawarman Samarinda) give the presentation more general about wildlife conservation especially on primate. It meant to open discourse and idea of participant regarding to the conservation effort and its activities. Wildlife conservation in their natural habitat became more important because so many threatened and destruction of forest as their habitat by human. The loss of forest in some area in Indonesia and East Kalimantan especially cause decreasing in the number of wildlife population. For example the extinction of Borneo Rhinoceros. This animal believed has ever lived in this island before. However, because uncontrolled hunting and deforestation, the population became decrease and now extinction.

However, some source of information mention that there is still evidence about existence of Borneo rhinoceros at present time, but the physical evidence does not find yet. Physical evidence like horn, bone, and other parts of the rhino body is very difficult to find because local people believed that all of it could be used as medical. Dr. Chandra said the last information about the existence of Borneo rhino was in Damai subdistrict in West Kutai District, upper river of Mahakam. He heard that some local people in there catch rhino. However, when he conducted field check, he gets no evidence.

Now it is important to start conservation on wildlife in its original habitat. Sungai Wain Protected Forest is suitable to carry out this mission, to saving wildlife by protecting its forest. Primate in HLSW can be made as bio indicator and parameter to assess the condition of forest.

**Third Presentation**

Fazrin Rahmadani, S.Hut from Borneo Ecological and Biodiversity Conservation Samarinda, as third speaker much speaks about bio-ecology of proboscis monkey and its conservation and how to conducted survey on Proboscis monkey. He and his institution have experiences in primate survey not only proboscis monkey but also Orangutan in Kutai National Park and District of Berau.

Proboscis monkey in Sungai Wain forest still could found in the southern part of the forest, which have mangrove forest along to Balikpapan bay. The proboscis monkey is very important to protect for their existence because they are an endemic primate of Borneo. Like Orangutan, proboscis monkey also threatened cause conversion of mangrove to shrimp or fishery pond. It means that conservation and protection to mangrove ecosystem as a natural habitat of proboscis monkey cannot wait any longer time

Habitat losses have significant correlation to decreasing of proboscis monkey population in nature. To estimate the number of its population, we need to conducted survey and observation directly in the field. . There are some techniques to conducted proboscis monkey survey in nature which principally relative similar to other primate survey commonly. The only difference is that we cannot make transect line in Mangrove. Therefore, the survey way is by fringing river with small canoe.

**Second day, Wednesday, May 5, 2004**

Second day of training, the presentation session is fully filled by Anton Nurcahyo, S.Hut, biologist frm Wildlife Conservation Society Indonesia Program (WCS IP) Bogor. His presentation divided into 6 chapters:

1. Ecology and Biology Conservation;
2. Primate Bio-ecology;
3. Designing Survey;
4. Technique of Wildlife Survey;
5. Data Analysis and;
6. Writing of Report.

WCS is conservation institute based in New York, United States. It founded in the year 1895 as New York Zoological Society. It was mean to education to public, research of zoology and protection of wildlife. At this time, WCS work on 400 projects in all over the world and have many field staff rather than other international conservation organization which base on United States.

WCS project in Indonesia started in 1965. In addition, in 1991 WCS Indonesia program officially begun. Using "muddy galoshes" method for the conservation, WCSIP staff tries to identify various critical problems, which menace wildlife, finding solution for it with base on science. At this time, the WCS IP main project is in Tangkoko Duasudara National Park in North Sulawesi and Bukit Barisan Selatan National Park in Lampung.

Generally the participant of this training could be classified two groups, first is participant with capacities as field technician and second one is participant with potency and ability as planner or researcher in their institution. Basic knowledge such as Ecology and biology conservation of wildlife was giving to them in the line with data analyze and reporting.

It is very difficult to count totally number of wildlife population in their nature directly. Therefore, we need to estimate the population through statistic calculation from sample. **Line Transect** and **Point Counts** methods are common use by researcher to estimate relative abundance of wildlife in the nature.

To see how far the participants understand about the presentation, we conducted evaluation at the end of training. From this evaluation, it seen that there is lame less basic knowledge among the participant. Some of participants, who have a high education background like university student or B.Sc level, have not difficulties to understand the presentation. We expected that this matter would not bring influence to goal of this training and so the target. Many question from participant asking about technical matters like how conduction of primate survey in nature, etc.

**Third Day, Thursday, May 6, 2004.**

On the Thursday morning (third day of the training), all participant went to Camp Djamaludin to start practice or simulation directly in the field. They will implement all the knowledge from the training on two previous days. We expected that participant would not find difficulties during in the field. Boot shoes and raincoat provided by UPHLSW to anticipate weather that still often rain. Schedule have been compiled in such a manner with day assumption [do] not rain.

Camp Djamaludin is located in “the heart” area of Sungai Wain. The distance is about 7 kilometers from Post Ulin, more or less 2, 5 hour walking through forest to north. The topography starts from flat and it is getting hilly in north side. The altitude is about 50 m ASL. Along way to Camp Djamal, we could see a various forest type. From swamp forest in the south to dry lowland forest in the north.

To reach Camp Djamal, we will pass two posts before. Orangutan Re-introduction Project built up the posts and Camp Djamal when they released Orangutan to Sungai Wain during 1992 -1996. First, Post namely Camp Sinaga is 2 kilometers from Post Ulin. Beside this post, there is 54 meters high fire tower made by ironwood. In this post, the participant gets “special greeting” because they meet with one of the most popular primate in Sungai Wain, Orangutan (named TUTI) holding 2 her babies (named GALAXI and BIONIC). For now, it has estimated that there are still more than 20 Orangutans living in Sungai Wain forest.

This unprepared ness greeting surely increase the curiosity and enthusiasm of the participant specially to whom that newly see the forest or first time see wild Orangutan in nature. Some of them perpetuate this moment with camera they brought. After satisfying to see Orangutan, journey continued.

About midday, participant arrived in Camp Djamaludin. After took a rest and get lunch, the activity start with distance estimation simulation. To calculate the density of wild life in nature, we need distance between observer and the object perpendicular to transect line. Practice to estimate the distance could increase

accuracy level of real distance. If we use manual roll meter to measure the distance is inefficient in time and will make a scene so that animal fear and go away. For predicting the distance, we can use Binocular Range Finder. A tool design to measure distance automatically by using light transmition to object and reflect back to the tool.

If the tools are not available, hence an observer of primate should have to earn to estimate distance accurately. To be able to estimate distance accurately, we need continuous practice. How the way we practice? In the forest, we choose one object (i.e. tree) and than the participant estimate the distance. After all, of participant write on the paper about their prediction number, we measure direct with roll meter or GPS. This practice should do repeatedly.

After dinner, we continue with discussion and evaluation of the activities and plan activities for next day. Participant divided into 5 group, where each group consist of 4 – 5 person who will practice or simulation with line transect method for tomorrow morning start at 06.00.

**Fourth Day, Friday, May 7, 2004.**

According to agreement at the night before, the practice or simulation of Primate Survey in field, start at 06.00 AM. Wild animal usually start their activities in the morning. The participant divided into 5 groups. Group get equipments such as binocular, map of transect, compass, Mammal of Borneo field book, data sheet and others. Time for walking agreed at 06.30, so every group has to reach starting point before that time. The participant have to walked 2000 meters long of transect line with speed about 100 meters per 8 minute. Animal perceived only at radius 50 meters on the left and right side of transect. Voice is also noted if can recognize in the field.

Survey and observation finished at 09.30, every group walked back to Camp. At the noon rain are coming down, we cannot made simulation on the afternoon. We filled this afternoon by analyze data that we have got at the morning.

| No. | Transect and distance from starting point | Time of sighting primate | Species | Distance between primate and observer (m) | Azimuth (°) | Angle from transect line (°) | X | Y |
|---|---|---|---|---|---|---|---|---|
| 1. | H 374 | 07.23 | Presbytis rubicunda | 50 | 162 | 72 | 15.45 | 39.40 |
| 2. | H 640 | 07.38 | Hylobates muelleri | 35 | 140 | 50 | 22.5 | 26.81 |
| 3. | H 1115 | 07.58 | Presbytis rubicunda | 50 | 153 | 63 | 22.69 | 44.55 |
| 4. | K 1129 | 07.41 | Presbytis rubicunda | 40 | 143 | 53 | 24.07 | 31.95 |
| ~~5.~~ | ~~G 778~~ | ~~07.52~~ | ~~Hylobates muelleri~~ | ~~150~~ | ~~150~~ | ~~60~~ | | |
| 6. | J | - | - | - | - | - | | |
| 7. | M | - | - | - | - | - | | |

From table data above, at least there are three groups of Presbytis rubicunda (Red leaf monkey) and one group of Hylobates muelleri (Owa-Owa). To calculate mean density of every species, first we have to be determined wide of area sample. From five transect that used for sample. The area covered 103 hectares. Therefore, for calculated population density red leaf Monkey is:

Three groups divided 103 hectare = 0,029 group per hectare,

If converted to SWPF area (10.000 hectares), population density of red leaf Monkey is 0,029 x 10.000 hectare = 290 group. However, the number does not directly express Red leaf Monkey population in SWPF because still need more intensive survey and cover entire area.

**Fifth Day, Saturday, May 8, 2004.**

At 06.30 participant leave to go to transect line, same with the previous day start walking at 07.00. For this day, the distance reduced from 2000 m to 1000 m because before midday all the participants have to go back to Pos Ulin. Closing ceremony is conducted at Pos Ulin at 14.00. Every participant was get certificate, hat and WCS-IP booklet.

## EVALUATION

Generally, participant has positive response of this training even there are few important notes:

- Class room session is too formal, more like school class room
- Time for practice in the field is too short. Perhaps it could be add from 3 days to 4 or 5 days
- Trainer should simplify many term in their presentation that not to familiar for participant

## CONSTRAINT.

Participant of this training have different background, so it is not effective because some of participant cannot receive explanation from trainers. Weather also has to consider in the planning for practice in the field. Discipline level of participant still less whereas time is important factor for the successful of primate survey.

## CONCLUSION

This training expected becomes annual agenda of UP BPHLSW. All of participant expected can propagate and application the knowledge of primate survey in their institution or fieldwork. Moreover, at the future time, they expected could be as trainer on this such as training.

**ACTIVITIES in PICTURES**

Opening session by Mr. Dadang Imam Ghozali.

Mr. Gazali A gave his presentation.

Ms. Dhany Sitaparasti gave her presentation.

Dr. Chandradewana Boer gave his presentation.

Mr. Fazrin Rahmadani gave his presentation.

Pemutaran film tentang Bekantan dan habitatnya.

Mr. Anton Nurcahyo gave his presentation on the second day of training.

The participant listening presentation from trainers.


Participant if training, took picture together before went to Camp Djamaludin.

Siti with two her babies Galaxi and Bionic climb on the trees and fire tower in Sinaga Camp.

(*This picture was taken in the way to Camp Djamaludin, May 6 2004*)

Discussion in the evening.

Participant walking in the transect line inn the early morning.

Participant try to calculate data from their survey.

Participant if training, took picture together before went back to Pos Ulin.

Every participant get certificate in closing ceremony in Pos Ulin.


**PARTICIPANT OF THE TRAINING**
**MAY, 4 - 8 2004**