

Re-introduction of Elephant's Infant into Wild Group: First Attempt and Case Study from North-West India

Ritesh Joshi

Doon Institute of Engineering and Technology,
Shyampur, Rishikesh, Dehradun, 249 204, Uttarakhand, India
E-mail: ritesh_joshi2325@yahoo.com

Abstract: Elephant's infant is considered extremely difficult to re-introduce into the wild. On 21st of November 2009, an eight day old elephant's infant was found strayed from its group at Shyampur forest of the Haridwar forest division. For the first time in the history of Uttarakhand, attempts had been made by forest officials to re-introduce the orphaned baby elephant into the wild. It is noteworthy that during the introduction attempts, group of seven elephants had taken the baby within group, but left her behind after a while. They had responded from all directions to the cries of the baby elephant but the attempts were in vain. Radha – the domesticated elephant at Chilla forest of the Rajaji National Park nurtured the infant for 10 days before infant's death and Radha's behaviour always illuminated something new about elephant's life. It was the first attempt to re-introduce the infant to wild in north-west India in which some lessons came forward and could be helpful in management of elephants and in documentation of conservation-oriented action plan. Additionally, studies on the behaviour of wild elephants are highly required and recommended so that we can ensure the future survival of this endangered species.

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Introduction

Elephants live in a matriarchal society where the oldest female is the leader. Allomothering in sub-adult and adult females is one of the important factor to survival of elephant's calves, which also decreases the mortality among newly-born calves. In elephant societies, groups have well established home ranges within which all members live in a coordinated manner besides, elephants have strict social bonds, sometimes association among different groups occurring specially during their migration. Elephants are always known for their strong memory, close relationship and cooperativeness. Here, I report a case study of elephant's infant re-introduction / translocation to wild group and on the failure of conservation operation. Such reports are largely absent from the wildlife literature despite their importance in illustrating success and failures of such operations.

On 19th of November 2009, merely 7-8 days old female elephant was found strayed from group at Papri Paraw forest of the Shyampur forest of the Haridwar forest division. She was grasped in a nullah (narrow patch of torrential rivulet, natural trench) and was trying to come out from there. After receiving the message from a Gujjar residing near the spot, forest officials started rescue operation and after rescuing her

successfully they shifted orphaned baby to Chilla forest range of the Rajaji National Park, where several other domesticated elephants are kept under the care of mahawats. The calf was healthy and was not suffering from any severe disease or infection. Park officials gave her all the required treatment and facilities along with routine checkups from veterinary officers (Wildlife Institute of India, State Govt. & experts from Delhi). Under the treatment she was fed with lactogen, calcium, coconut oil, olive oil and ORS liquid. In practical it was really a challenge to protect her in artificial environment and under human care.

Re-introduction of calf into the group

After a day on 20th of November 2009, I along with forest officer of Chilla range planned to re-introduce the calf into the group as this was only the appropriate method for her survival. Initials were taken on the morning of 21st of November. Forest staff had made an in-depth survey of the area from where the calf had been rescued. At the same duration I collected information about the area and elephant's movement from locals and from Gujjars. As per information collected and field investigation it came to our notice that a group of 07 elephants (02 adult females, 03 sub-adult females, 01 juvenile male and 01 calf) were

moving within the range and during the past two nights (19th & 20th November) elephant's roaring/vocalization was perceived by Gujjars living near to spot. Only 08 days old infant was on an attempt to go back into the wild. For the first time in the history of Uttarakhand, attempts were been made by forest officials to re-introduce the orphaned baby elephant into the wild.



Figure 1. Forest officials at the site, where re-introduction attempts were made.

At sharp 03 pm after locating the group inside dense forest, we moved to the site where elephant group was moving (07 kilometers faraway) along with the infant. We selected evening hours for the operation because evening hours are the best timings as far elephant's sighting is concerned and during the same hours elephants are known to emerge out from the forest to open areas and near to water sources. When we reached the spot suddenly elephants that were spread randomly started incessant audible communication, besides rumbling sounds were also observed at short interval. At that moment all elephants collected together and tried to approach us speedily. I with a fellow rapidly brought the infant towards group and at the same moment the group started approaching us slowly with very antagonistic behaviour. I realized a very serious threat regarding to our life but a key-view of saving infant's life made us courageous. When barely 20 meters distance remained between us and the elephant's group, I pushed the baby towards them and quickly returned back with other fellows watching the incidence from a distance.

Suddenly and surprisingly group approached the infant, smelled it and after few seconds returned back inside the forest and left the baby alone. A threat was clearly visible among all of them, which might be of human touching or our presence and stench. After few minutes we again made an effort to re-introduce the infant into the group and keeping the view I again

brought up the infant towards the older cow, which was standing to some distance along with two sub-adult cows. When I just came nearer to the cows, I left the spot quickly and watched the incidence from a distance hiding myself behind the tree. I was shocked to see that the same behaviour was repeated by the elephants. They again approached the infant and after giving her greetings returned back speedily inside the forest. But this encouraged the infant and she walked slowly towards the group and joined them but again the group sprinted away. Baby tried to enter within the group several times and this moved her about a kilometer further but the group didn't accept the infant. It is noteworthy that during the introduction attempts, group of seven elephants had taken the baby within the group, but left her behind after a while. They had responded from all directions to the cries of the baby elephant but finally the attempt got unsuccessful.



Figure 2. Constructive efforts: officials brought the infant towards the wild group while re-introducing the infant into the group at Papri paraw area, Haridwar forest division.

All this happened in about three hours and after a while day light became mild and slowly it became too hard for us to see easily with naked eyes but efforts carried out by infant were continued to join the group; it might be she identified her elder ones. Miserably we reallocated the baby into the vehicle and moved away from the spot and infant was again shifted to Chilla forest for care. In that way our attempt to re-introduce the calf with the group had failed, which if had got successful would have become the first ever historical conservation effort in north-west India and could have acted as a milestone in Asian elephant's management and conservation.

Love of Radha

But for the failed effort there was a shining light among the clouds, which was the bond of love between Radha and baby elephant. Radha is a domesticated elephant at Chilla and was brought from Delhi zoo during 2007-2008. She entirely adopted the baby after three days and her behaviour was surprisingly changed. I have kept my observations on both of them as part of my long-term study on Asian elephant's behaviour. Radha nurtured the infant for about 10 days before infant's death and was very serious about it. She always (24 hours) remained close with the baby and doesn't let anyone to move near to the infant. Interestingly she even didn't depart to drink water alone. Unfortunately on 29th of November the biased chain, which was in Radha's hind feet, injured the baby while searching the baby and due to this infant felled down in a small trench. After the day baby got distressed and her movements became restricted. Very unfortunately on 2nd of December 2009 infant died during night hours.



Figure 3. Bond of Love: Radha with infant at Chilla forest range of Rajaji National Park

Changes in the behaviour of Radha

Surprisingly and notably the behaviour of Radha was changed just after the death of infant. She was feeling alone and searching for the infant again and again. The baby died near to her forefeet and during early morning when mahawat reached to her to feed the

baby and knew about infant's death, they faced problem in shifting the infant due to abnormal behaviour of Radha. For 2-3 days drastic changes were observed in the behaviour of Radha, which also include the unusualness in feeding.

Current scenario of rescue operations

After two years, young elephants can begin to look after themselves, but this doesn't bode well for newly-born babies. Infant survival after the rescue is too much controversial. I personally observed that saving a rescued baby elephant is a tough task as wild animals are nature-born and need sensitive parental care besides; the chances of infection during human care are quite large. During September 2005 and May 2008 a 02 years female and a 01 month male baby elephants were rescued from Dehradun (Doiwala forest) and Haridwar (Chiriapur forest) forest divisions and shifted to Chilla forest for care. Unfortunately, both of them died during care.



Figure 4. Infant feeding on lactogen milk from bottle fixed pipe under care of Radha and mahawat

Mentioned is the third case of such type where we are unable to save the infant. Additionally against to this we have two examples in which elephant's infant had been successfully rescued and shifted to Chilla forest range for care. During 1997 a male elephant (Raja) was separated from group at Haridwar – Dehradun railway track (Motichur – Kansrao rail section) while three members of his group died due to collision with speeding train. Unfortunately after successful capturing he was brought to Chilla forest of the Rajaji National Park. Another such case happened during 2000, when a male baby elephant (Yogi) was shifted to Chilla forest after being rescued from Rishikesh – Dehradun national highway while he strayed from his group.

On the other hand our rescue operations need drastic changes, which include action oriented research on elephant's behaviour. Despite shifting, infant can be re-introduced to possible group on on-spot introduction basis. Additionally, extensive research studies are required on such elephant groups to know more about their behaviour and on the basis of which some recommendations could be given. During June 2000 and January 2001, two elephant's calves died due to collision with train in Haridwar – Dehradun railway track, which is passing in between Rajaji National Park and surprisingly fellows were continuously observed near to their dead bodies for about a day (24 hours), which creates a big problem for forest officials. During May 2007 and March 2008 at Shyampur forest, March 2009 at Chilla forest and October 2009 near to Doiwala forest such type of incidences occurred in which strayed and rescued elephant infants were accepted and brought back by their group members.

Recommendations

1. It was observed during previous year cases that whenever an infant was rescued and shifted to some other place, group was always found wandering near to spot for about two to three days while searching for baby elephant and screaming sounds were always perceived by locals. During 2008 when a one month old male infant was drift down in Rawasan river (Chiriapur forest, Haridwar forest division) and separated from group, forest staff brought the baby to Chilla forest with the view to save him. At that time elephant's movements and vocalizations were continuously observed at Pili forest, just two kilometers away from the spot from where the calf was rescued.

Therefore, based on some previous practical cases and observations it is recommended that during any such case, a small eco-friendly (small wooden pieces, twigs with leaves, fodder species and if possible dung piles may be spread) rough circular fencing of about 20-30 meter (depending upon available space and requirement) should be made and infant should be released inside it. All this will need on-spot operation; for example after releasing the infant, for feeding and care, mahawats, veterinary doctors and wildlife biologists should be deputed for providing extensive care. And during whole of the process a departmental team should be appointed to look after the incidence for example threat from other animals. This can allow the group to bring their baby

safely and is only the method to re-introduce the infant into the group. As elephants are highly social in nature even they were observed to mourn for fellows, besides, their memories are quite strong and therefore, it could save the life of infant.

2. One possibility during the operation is that the selected group may be wrong one wrong, secondly that baby was not rescued before the eyes of her mother and the elephants could smell a lot of human touch, which scared them. Therefore, strong patrolling to search exact group after observing their activities, baby should be touched and feed by only one or two allocated person (mahawats). Even with human touch possibilities of infection may be enhanced.
3. A detailed research is needed to understand the behaviour of elephants in the wild.
4. Despite carnivores several cases of elephants are in front of us and we have learned a lot, therefore, a research oriented action plan is required to be made, which should be entirely practical and could be implemented in field conditions.
5. If not re-introduced and shifted to some other protected area, proper care should be given and precautions should be taken as per the environmental / field conditions.

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Correspondence to:

Dr. Ritesh Joshi
Doon Institute of Engineering and Technology,
Shyampur, Rishikesh, Dehradun, 249 204,
Uttarakhand, India
E-mail: ritesh_joshi2325@yahoo.com

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