

# Protection of Nest Sites of Forest Owlet and Other Owls in Managed Forests in Khandwa Circle



## A Report on Workshop with Forest Officers and Frontline Staff at Awaliya

December 2015



R·R·C·F



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सत्यमेव जयते  
Department of Science and Technology  
Government of India

<b>Project Title</b>	<b>A Study of Occupancy, Demography and Ecology of Forest Owlet in Khandwa District, Madhya Pradesh</b>
<b>Project Supported By</b>	<b>Department of Science and Technology (DST), New Delhi &amp; Raptor Research and Conservation Foundation (RRCF) Mumbai</b>
<b>Project Implemented By</b>	<b>Wildlife Research and Conservation Society (WRCS), Pune</b>
<b>Field Collaboration</b>	<b>Madhya Pradesh Forest Department</b>
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<b>Cover Photo of Forest Owlet in Nest</b>	<b>Dr. Prachi Mehta</b>
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## *Acknowledgements*

“Protecting the Nest Sites of Forest Owlet in Khandwa Circle” was one of the unique workshops that witnessed active inputs from senior forest officers from Khandwa circle and frontline field staff from production divisions. This outcome of the workshop has proved to be useful in drawing management recommendations for the conservation of forest owlet, other sympatric owls and their nest sites in managed forests of Khandwa, Burhanpur and Betul districts.

This workshop was organised at the behest of Dr. Pankaj Srivasatava, CCF Khandwa. We are grateful to Dr. Srivastava for arranging this workshop as it helped in dissemination of scientific information on forest owlet to the field staff. Dr. Srivastava’s talk motivated the participants to suggest conservation measures for the forest owlets. We are grateful to Mr. S. S. Rawat, CF Khandwa for arranging the workshop at a short notice in Awaliya and printing the posters for owl conservation awareness. We thank Mr. B.S. Anigari, CCF Research and Extension (Khandwa) for participating and providing useful inputs during the workshop. We thank Mr. Praful Phuljade, DCF (Production), Khandwa for convening the workshop and building up their interest during the sessions.

We thank Mr. Varma ACF Khalwa, and all the Range Officers, Foresters and Forest Guards from East Kalibhit, West Kalibhit, Awaliya, Morgadi, Khalwa, Burhanpur and Betul for travelling long distance to attend the workshop and providing management inputs specific to their area. We are thankful to Mr. Sunil Suliya, RFO East Kalibhit, Mr. Suresh Bansode, RFO Khalwa, Mr. Narendra Yadav, Forester, Awaliya, Mr. Tirole, Forester, Mr. S.N. Yadav, Forest Guard, Awaliya for their help during the workshop.

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*Prachi Mehta & Jayant Kulkarni*

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## Background

Forest owl is a cavity-nesting species. It nests in tree cavities that are made by the woodpeckers or barbets. It also uses tree hollows for nesting, roosting or caching its prey. As a part of the study objectives, we have been monitoring the nesting and breeding biology of the forest owl in East Kalibhit Range.

We have located a few nests of the forest owl in the study area in the Reserved Forests of East Kalibhit in Khandwa division. In last two years we have located 11 nests of the forest owl. The same nest is used in consecutive years by same or different pairs of the forest owl. At times, different species such as the spotted owl, Indian roller, mynas, parakeets, doves and even flying squirrels use the same cavities for nesting and roosting. It is therefore very important to protect the cavity trees for ensuring survival of all the cavity-dependent species.

During the study, we have observed considerable biotic pressures on the habitat of the forest owl. These include removal of trees under forestry practices, illegal cutting of trees by local communities and use of rodenticides which may be contributing to lower breeding success in the forest owl.

The East Kalibhit Reserved Forests are being managed for timber harvesting under selection felling by the Madhya Pradesh Forest Department. As per the current working plan prescription, mature trees of *Tectona grandis*, *Terminalia tomentosa*, and a few other species of > 120 cm in girth are to be marked for felling. The dead and dying trees are also to be removed under improvement felling. For wildlife conservation, 5 trees per ha are to be retained in the area.

The local people indulge in lopping the trees for fuelwood and cutting large trees for domestic consumption. Among the cut trees, we have observed mature trees of *Tectona grandis*, *Embelica officinalis*, *Terminalia tomentosa*, *Bridelia retusa*, *Pterocarpus marsupium* that are being cut for various reasons including for the wood, harvesting of bee colonies, fruits and removing the eggs and chicks of parakeets. Use of rodenticides is quite common in the area and is another issue of concern since the owlets depend largely on rodents in their diet.

We have been discussing the above concerns with PCCF (WL), APCCF (WL) Bhopal, CCF (Territorial) Khandwa, and DCF Khandwa on a regular basis. On a recent visit to Khandwa, we met Dr. Pankaj Srivastava CCF Khandwa and discussed the likely consequences of such pressures on the forest owl ecology in the study area. Dr. Srivastava suggested organizing a workshop for the frontline staff of the concerned divisions where we could discuss the issue with the field staff and officers.

On 16<sup>th</sup> December 2015, a one day workshop was organised at Awaliya under the chairmanship of Dr. Pankaj Srivastava, CCF Khandwa, Mr. Anndurai CCF Research and Development, and Mr. Praful Phuljade, DCF Production, Khandwa. 125 frontline staff from Khandwa, Burhanpur and Betul Divisions attended the workshop. Ten students from college in Roshni also attended the workshop. From WRCS, Dr. Prachi Mehta, Mr. Akshay Anand, and Mr. Babu participated in the workshop.

## The list of participants

Sr.	Name	Designation
	Dr. Pankaj Srivastava	Chief Conservator of Forests (CCF), Khandwa
2	Mr. B.S.Anigari	Conservator of Forests (CF), Research, Khandwa
3	Mr. P. G. Phuljade	Deputy Conservator of Forests (DCF), Production, Khandwa
4	Dr. Prachi Mehta	Principal Investigator and Executive Director, WRCS
5	Mr. Akshay Anand	Research Biologist, WRCS

A complete list of all the participants in attached as appendix 1.

**Table 1: Workshop Program**

Time	Program
<b>9.30 am</b>	Inauguration ration of the workshop by Dr. Pankaj Srivastava, CCF Khandwa. Distribution of the booklet by WRCS about nests of owls “ Ullu ke Ghar” in Hindi to all the participants.
<b>9.45 to 10.45 am</b>	Introductory session on forest owlet ecology by Dr. Prachi Mehta, WRCS Importance of nesting trees and cavities by Mr. Akshay Anand, WRCS
<b>11 am to 12.15 pm</b>	Field Visit for showing the nest locations
<b>12.30 to 2.15 pm</b>	Needs for the Conservation of Forest Owlet in Khandwa division by Dr. Pankaj Srivastava Importance of birds in ecology by Mr. B.S.Anigari Prescriptions of marking rules by Mr. PG.Phuljade
<b>2.30 to 3.30 pm</b>	Lunch
<b>3.30 to 5.30 pm</b>	Protection of nest sites : Suggestions by the participants from Khandwa, Burhanpur and Betul divisions. Convened by Mr. PG Phuljade



### Participants of the Workshop at Awaliya Rest House



### Introductory Session

In this session, Dr. Mehta gave an outline of the forest owl ecology project and discussed the objectives, methodologies and findings of the work. The presentation included photos of all owls found in Khandwa, Burhanpur and Betul area, a description of their calls and their breeding requirements in terms of types of nest, incubation period and dispersal of the young. Mr. Akshay Anand discussed the importance of cavity trees and structure of the trees for nesting birds. He also screened the videos taken in the study area of birds using the nest trees and using access branches for entering or exiting from the nest.

### Dr. Prachi Mehta and Mr. Akshay discussing forest owl ecology



Following information was discussed during the presentations given by Dr. Mehta and Mr. Akshay.

- Importance of owls in ecology
- Owl diversity in Khandwa circle
- How to identify the owls from their appearance and calls

- Study Methodology
- Breeding Biology of owls
- Nest site selection by Forest Owlet in the study area
- Specifics of nesting cavities and tree structure

## Field Session

After the introductory session, all the participants were taken to a close-by location at Govindnala to show them the nests of forest owlet and spotted owlet. The participants could not see the forest owlet but saw the spotted owlets flying out from their nests. In the field the participants were taught to locate owl nest by looking for signs such as presence of regurgitated pellets and white droppings below the trees. The field visit was important as it helped in understanding the pressures faced by the owls on its habitat in terms of tree cutting, grazing and impact of tree removal on the nesting of the owlets.

**Workshop Participants observing the nest**





### **Forest Officers and Field Staff observing Nesting Signs**



### **Field Session in progress**





## Workshop Review Session

Dr. Pankaj Srivastava addressed the participants and discussed the objective of this workshop. He explained that while a lot has been done on tigers, there is also a need to look at other important species such as the owls. All species, small and big have a role to play in ecology. He also narrated the story of Dodo explaining how its extinction also resulted in suppressing the dispersal of Cicoa seeds. Dr. Srivastava explained the reasons for the international and national importance of forest owlet and a matter of honour and responsibility to protect the species. He also stressed on the importance of protecting the forests for forest owlet in Khandwa, Burhanpur and Betul forests and possibilities of its existence in surrounding areas of Harda, Hoshangabad and other areas. He urged the field staff of production divisions to be alert and look out for the species in their own area. In case of marking of a cavity tree, it is important to check for the signs of nesting birds as shown by the WRCS team prior to marking.

**Dr. Pankaj Srivastava CCF Khandwa addressing the workshop participants**



Dr. Srivastava emphasized on the following points

- Forest Owlet is a Schedule I species, just as important as a tiger. There is a need to move ahead of tiger centric conservation and think about the role of other species such as Lesser Florican, Bustards and even smaller species such as butterflies.
- The forest owlet is threatened by tree cutting and illegal and excessive tree felling and lopping. The current working plan of Khandwa circle by Mr. Sanjay Shukla has a few pages on the conservation importance of forest owlet in the working plan.
- While marking, if any nest trees have been marked by mistake, it can be exempted from felling. The tree marking production staff has to locate trees in their area, inform the DCF and that tree will not be felled. For this reason, the protection can be done at state level itself.
- Our knowledge on ecology is in its infancy as encyclopaedia of ignorance is greater than encyclopaedia of knowledge so we need to work on gaining understanding of the species.
- Owls (*Ullus*) are not as foolish (*ullu*) as we think them to be. There is a need to create awareness on importance of role of owls in ecology, with special reference to forest owlet, in the area.
- While WRCS is providing us data on research, it is the job of the forest department to implement the recommendations.
- Since this is a platform where the officers and field staff involved in tree marking and tree felling are present, it would be useful to come up with action points that are practical and implementable at the field site.
- Making of working groups and coming up with site-specific solutions to protect the nest sites should be the outcome of the workshop.

**Mr. B.S.Anigari, CCF (R & E) addressing the participants**



Mr. B.S.Anigari discussed about the role of recent android applications for downloading bird images and calls for field verification. He discussed about the importance of birds in ecology citing examples of Hornbills and their role in seed dispersal. He talked about importance of research as the aeroplane flights are designed after the flight of falcons. He ended his talk by stating that we need to emulate nature and protect the owls.

Mr. B.S.Anigari mentioned the following points:

- Globally there are 17 Critically Endangered Species. The Forest Owlet is one of them. It is matter of our responsibility to protect the species.
- The Forest Owlet is not found in any Protected Area in Madhya Pradesh. So it is or job to offer it protection.



**Mr. Praful Phuljade DCF (Production) Khandwa discussing the working plan**



Mr. Prafull Phuljade discussed the importance of forest owl and its endemic status. Owls are intelligent birds and they are important for ecological balance. For protecting the owls, it is important to protect the forests first. He discussed the importance of field staff and their role in protecting the forests and wildlife. Mr. Phuljade read out the provisions of current working plan of Khandwa circle and prescriptions of the trees to be marked for felling and for retaining.

Mr. Phuljade mentioned the following points in his talk

- All wildlife including owls are important for conservation.
- The presence of forest owl in Khandwa, Burhanpur and Betul indicates that our field staff is doing a good job of protecting the forests.
- There is a provision for making wildlife related exemptions in our working plan. We can use the provisions to safeguard the owl habitat.

- It is important for us to work as a team with the local villagers and understand their beliefs and rituals.
- It is essential to present the information to local villagers in a format that is most understood by them and applicable to their life.



## **Management Recommendations of the Working Groups**

Post-lunch, we formed three working groups based on the field staff's area of work. The working groups were a.

Mr. Phuljade convened this session wherein he instructed all the participants to discuss the inputs and information received during the workshop in the earlier half of the day to form management recommendations for protection of nest sites in their own area.

Three working groups were formed: East Kalibhit, West Kalibhit and Awaliya circles. After discussion within the group, one representative from each group came up and presented their points for conservation of owls. Given below are main points that were described by each group.



**Workshop in progress**







**Group 1 : East Kalibhit : Presented by Mr. Tirole, Forester, East Kalibhit Range**



- The nest trees near the crop field boundaries should be marked and the farmers of those field should be made responsible for protecting the trees. Offering incentives or penalty to farmers for protection of trees will help in preventing illegal tree cutting and girdding.
- Forest Protection Committees (FPC) should be involved in protection of forest owlet in each village.
- A concept of Forest Owlet Farms should be made popular wherein the villagers /farmers protect the forest owlet habitat. Through this girdding of trees and nest tree can be monitored.
- The superstitious beliefs associated with owls should be dispelled by scientific education and awareness in the villages and surrounding schools.
- Public awareness must be created by making posters for slow driving and installation of speed breakers to prevent road kills. Posters are important for spreading information on ill effects of pesticides in the farms.
- Street plays can be used to reach the message to the local people. *Khaddi Gammat* is another tool to educate the local people about the protection of forest owlet.

- Such workshops should be held frequently for the field staff so that information exchange takes place and field staff are motivated to contribute in conservation.

**Group 2: West Kalibhit Range. Presented by Mr. Bhuansingh Pachore, Forester**



- The Forest Owlet is protected under the Indian Wildlife Protection Act (1972) and is therefore an important species for us.
- On the days of Amavasya, and Poornima, the field staff should be alert and be ready to raid the houses and working places of local sorcerers (tantriks) so that they cannot carry on with their superstitious activities.
- We should form a local informer's group to locate traders and magicians who use owls and their body parts for gambling and for trade.
- Farmers should be motivated to practice zero budget farming in which they do not spend money on insecticides and rodenticides. Instead, they use vermicompost as fertilizer and for pest control. That way we will be able to decrease the use of rodenticide.
- Farmers should be involved in protecting the nest trees. Trees should be enumerated instead of marked. Field staff should patrol their beat regularly to control girdling.

- Artificial nesting of forest owlet may be attempted. Forest Department can help in making such nests.
- The Range Officer of West Kalibhit urged the participants to consider themselves the guardian of nature. In wake of climate change, increasing pollution, and forest degradation, it is important for the field staff to perform their duties well.

**Group 3: Awaliya Range: Presented by Mr. Suresh Barole, Range Forest Officer, Khalwa**



- It is important to identify causes of forest degradation and why the forest owlet is endangered.
- Three main causes are identified. They are superstitious beliefs, and traditions. Secondly, trade in owls and thirdly, habitat destruction.
- Owl bones are useful for gambling and hypnotism. Patel, Padiyar, tantrik etc should be explained with logic that such beliefs are not true and are unscientific. And they should not deal with animal parts for their business. If this does not work then the people should be arrested under the WPA.



- So far we have negative image of an owl as Ullu ka pattha- meaning a foolish person. We need to change the image of owl from a foolish bird to a wise bird. It should be made in to street plays and lokuktis to emphasize the role of owls as useful and a wise bird.
- Forest owl habitat should be marked with boundary stones as people are aware that such areas are not to be disturbed.
- The Forest Department should undertake some plantations neat the forest owl habitat and then mark it for protection. The local people will not disturb these areas.
- An alternative to rat poison should be made available to the farmers for controlling the rodents in the farms.

We found all management recommendations given by the three groups to be useful and innovative. Also they have been suggested by the field staff so they are practical and reflect largely on the field situation.

Based on our findings and the discussions at the workshop, we propose an action plan with suggested activities to be implemented by different stakeholders in the proposed duration.

**Table 2: Proposed Action Plan**

<b>Issues of Concern</b>	<b>Proposed Actions</b>	<b>Actions to be taken by</b>	<b>Duration</b>
<b>Protection of Cavity Trees</b>	Prior to marking cavity trees, the area around the tree and on the tree should be checked for nesting signs.	Marking field staff	October to May
	If any cavity trees are marked for felling, then the field staff checks for nesting status and should contact the WRCS team for confirmation.	CCF Khandwa CF Khandwa, DCF(Production) and Marking field staff.	October to May
<b>For Nest tree Protection</b>	If the tree cavity is being used by the owls then the CCF and DCF should be informed. Further action to be decided by	Production field staff and WRCS team  CCF Territorial, DFO	

	the CCF and DCF.  All known nest and roost trees will be marked for protection. numbered.	Production and WRCS team  WRCS team in collaboration with the Range Officer of the area and the beat guards of the location	
	The farmers and FPC members of the villages should be involved in protection of the trees. The forest department can provide incentives from VFC fund for this activity.	WRCS team, Range Officers, beat guards and Members of the VFCs.	October to March
<b>For Controlling the use of Rodenticides</b>	Awareness on use of vermicompost and use of owls to control mice in the farms through educational videos, posters and street plays in the villages and schools.	WRCS team along with beat guards	October to April
<b>Eradication of superstitious beliefs and traditions of trade in owl body parts</b>	Awareness programs with the help of street plays and education films in villages and schools.	WRCS team along with beat guards	January onwards
<b>Preventing Road Kills of wildlife in the area</b>	Installation of speed breakers The locations for speed breakers have been provided by WRCS to CCF and CF Khandwa	Action to be taken by Highway authorities.	December onwards
<b>Public awareness on driving slow</b>	Road signs and posters to be displayed at	CF Khandwa has printed the posters and they are being put	Ongoing.

<b>in the forest areas on road-kills and</b>	main locations	up on the road by WRCS team and Range officers	
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### **Public Awareness Posters for Owl Conservation:**

We have made public awareness posters on owl conservation. The concept of the posters were given by Dr. Prachi Mehta and the posters were designed by Mr, Akshay Anand and Mr. Jayant Kulkarni. The posters were printed by CF Khandwa. The posters will be displayed on roads, villages and schools in East Kalibhit, Morgadi and Awaliya.

The posters were on following themes:

- a. Not to capture owls and stop using them for black magic
- b. Protecting the nest and roost trees of owls
- c. Not to use Rodenticides in the farms as owls feed on rodents. Owls are natural pest controllers.
- d. Drive slowly and give way to wildlife
- e. Consider owls as Lakshmi Devi's symbol and not evil



Poster 1: Do not use owls in Black Magic.



**Poster 2: Do not Cut Cavity Trees as they are homes to owls**



Poster 4 ; Drive slowly





**Poster 3 : Owls are useful as Natural Pest Control**



## Appendix 1: List of 150 participants of the workshop

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