

Salvage, relocation and in-nest behaviour of Barn Owl *Tyto alba* chicks

Satish Pande¹, Amit Pawashe¹, Umesh Karambelkar and Sandeep Shrotri

¹Ela Foundation, C-9, Bhosale Park, Sahakarnagar-2, Pune 411009, India. Email: satishpande@hotmail.com

Barn Owl *Tyto alba* (Scopoli, 1769) is a widely distributed, resident, nocturnal raptor in India and is closely associated with man and agriculture (Ali and Ripley 1969; Marti et al. 1979; Kahila et al. 1994 and Pande et al. 2003). Its nests are found in tree hollows, cliff crevices, un-used as well as used buildings, temples, barns, ruins, burrows, etc. (Nagrajan et al. 1998). Its diet consists chiefly of rodents but birds, reptiles and bats are also eaten (Ali and Ripley 1969).

On 4.xi.2003, we came across an active Barn Owl nest in the false ceiling of a newly constructed, un-occupied flat, on the third floor of a building in Satara, Maharashtra (17°41'N; 74°01'E). Due to the fowl smell from dead rats brought by the owls, the nest was found. The owners wanted the nest to be removed immediately and demolition of the false ceiling was undertaken. They however agreed to the option of salvaging the very noisy chicks, provided the procedure was done in two days, since the house-warming ceremony was due. We offered to help. Two of the seven chicks had died during the cleaning operation. We placed the remaining five chicks in a nest-box made of a corrugated carton. On the first night, the nest-box with chicks was placed on the landing of the staircase leading to the terrace above. The parents located the chicks in the nest-box and fed them. On the second night, the nest-box was moved to the terrace to a safe isolated corner. When the Barn Owl parents began feeding their young at this new site, we decided to study the behavior and other aspect of the nestlings. 50 hours of observations at night were planned from 18.xi.2003 to 6.xii.2003. Observations of the nest were made from a hide constructed on the terrace and a night-vision camera was used for better visibility.

Observations

Vocalisation: Five noisy chicks were present in the nest-box from 6.xi.2003. The age difference between the youngest and the oldest was ten days, since Barn Owls lay and hatch eggs asynchronously (Ali and Ripley 1969). The two chicks that had died earlier were the youngest that had just fledged, and the eldest, that had suffered a fall. The chicks screeched throughout the night with a frequency of one screech per

two seconds, from 18:30hrs to 06:00hrs. The duration of the screech was about two seconds. The calls of the parents and the chicks were different. The calling of the chicks became feverish and loud when parents approached the nest with or without food. Different calls with variable frequency, intensity and pitch were uttered for different occasions or situations: begging for food (this was the routine call, perhaps a continuous stimulus for parents to bring food); on sighting parents; when parents arrived with food; taking food from another chick - a rather infrequent incidence. When all five chicks called simultaneously the hissing was very irritating. This is the major reason for conflict of the nesting Barn Owls and man.

Activity: The chicks spent 90% of their time at one place in the nest and continuously screeching. The remaining time was spent either in preening or allopreening, especially the face and neck; dozing; changing position every 45 minutes; eating, when food was delivered. Chicks followed approaching parents with gyrations of the neck while extending and flexing the body. Yawning was noticed after they fed. A brief pause occurred in their screeching when they dozed. Wing flapping was noted after six weeks age.

Male parent (smaller of the two parents, this was confirmed by trapping and ringing the parents after morphometry) stayed at the nest only momentarily during the transfer of prey to one of the chicks, which did not appear to be random, but decided by the parent. Prey was never dropped in the nest. Interestingly, the chicks were not fed in the nest on the night of their fledging, probably to induce them to get prey by coming to another perch. Female stayed at the nest even after prey transfer for a period of up to 60 seconds. In the early stage of nesting, female spent considerable time on nest for feeding the chicks piecemeal. Later, after chicks started swallowing whole rats, this time was reduced. As soon as any one chick received the prey, one of the remaining deprived chicks attacked the parent noisily as if to force it to get new prey. Parents brought prey held in talons to the same perch on the terrace wall, transferred it to the beak and then flew to the nest. We recorded

rodents, bird (once), bat (once) and beetles as prey items. Rodents were the main food item. Chicks swallowed small rodents (average weight 20gm.) in 30 seconds, medium-sized rodents (average weight 45gm.) in 60 seconds and larger rodents (average weight 110 gm.) in 300 seconds. Rodents were always swallowed head-first. Very rarely was the prey eaten piecemeal. Large rodents were brought in a decapitated condition by the parents. The rodents were killed by tracheal compression without any visible external laceration except bruising on the neck and frothing at the mouth of the dead rodent. (A fact observed by us on several occasions). Smaller rodents were fed to smaller chicks. When swallowing larger rodents, which were as big as the chicks themselves, the chicks briefly paused for breath. A forced, laborious hissing was heard during expiration and swallowing was aided by jerks of the neck and jumping up and down. Pellets were regurgitated the following day around 16:00hrs to 18:00hrs. One pellet was ejected every 24 hours. Rarely was a pellet ejected after 36 to 48 hours. Rodent bones in fresh pellets were yellow-tinged due to bile stain and the pellets were covered with a slippery mucous coat. This prevents the corrosive action of the acidic pellet on the oesophageal mucosa and facilitates its expulsion (Duncan 2003).

Cannibalism: The youngest of the five salvaged chicks died on 9.xii.2003. It was eaten by two chicks from 23:00hrs till 17:30hrs. The skull, wings and legs were not eaten. Unsuccessful attempts of swallowing the large skull were made by the chicks. Feathers of the devoured chick were seen in their pellets. The two chicks ate approximately 200gm. of flesh of the dead Barn Owl chick. In December 2003, cannibalism was noted by us in Barn Owls in a nest at Wai, district Satara, Maharashtra, about 40km north of Satara town. It remains unclear whether the chick that was eaten died a natural death or if it was killed by the other chicks prior to eating. Aggressive interactions amongst Barn Owl chicks are rare. Food-snatching is rare and chicks are very tolerant of one another.

Fledging: Two chicks fledged on 10.xii.2003 and one of these returned to the nest-box at

dawn for a week, for roosting during the day. The third chick fledged on 24.xii.2003 and the last on 29.xii.2003. The fledging age was 45 to 47 days.

Conclusions

Threats to owls: Noisy behavior of the chicks is a cause of annoyance to persons in whose dwellings the nests are found. We are aware of three recent instances (2003) when people have harassed nesting Barn Owls. At Belgaum, Karnataka, people ruthlessly burned five live Barn Owl chicks to death. The reasons given were 'bad omen' and noise. At Pune, two Barn Owl nests were located in buildings in urban areas. The residents did not tolerate the noisy chicks that screeched at night. Crackers were exploded and kerosene bombs were hurled at one nest. This caused chicks to fall, leading to premature interruption of nesting activity. Transfer of such chicks to an orphanage is a popular method of rescue. However this deprives the chicks of parental care and they do not learn the art of survival in the wild. The alternative methods of *people education* and making them tolerant towards the nesting owls or *relocation of the chicks* to adjacent sites where the noise is minimized should always be tried, prior to the option of orphanage care.

Authors have succeeded in the past in both the options in respect of barn owls. Education: We persuaded a family at Kothrud, Pune, in whose building noisy Barn Owl chicks were found in 1999. They initially wanted the owls to be killed or shifted. They however tolerated the noise till the chicks fledged. They were then shown photographs of the nesting owls. People were not even aware that chicks and not adult owls call at night, and that it is their way of telling parents that they want food (Pande 2000).

Nest relocation: We would like to stress that nest relocation, a systematic and step-by-step transfer of chicks to another safer place using a nest-box, should be tried before taking them to an orphanage. This ensures continued parental care to the growing chicks. It gives them an opportunity to learn from the parents and later survive in the wild. If people remain un-cooperative and deny any of the above rescue alternatives to the nesting Barn Owls, the provisions of the Indian Wildlife (Protection) Act, 1972, should be utilized, with the active participation the Forest Department, to make them see reason. Owls face another danger, from superstition. Man-made alternative of an orphanage should be exploited as a last resort, only when parents of the truly orphaned birds are not traceable. It should not be used in the presence of live, active parents, just to quickly overcome a man-made contingency. Nothing is more worthwhile than giving the chance of complete freedom to a bird in jeopardy than merely allowing it to survive in confinement. Though difficult to implement, alternatives do exist.

Acknowledgements

We thank the Khatavkar family and Mr Patil of Satara for helping the Barn Owls on their terrace and paving a way of tolerant co-existence with owls. We thank the Dole family of Kothrud, Pune that had helped the owls in 1999 by tolerating the presence of noisy chicks till they fledged. Anand Abhyankar of Soft Lab, Pune and Prashant Deshpande, both of ELA Foundation, deserve grateful mention for editing video footage and for providing video camera with night vision facility, respectively. We thank Dr Chandrakant Shete, Banda Pednekar, Avinash Nagare, Dr Anil Mahabal and Dr Radhesham Sharma, the latter two of the

Zoological Survey of India, for active help and participation in the project. SAP and AP, two of the authors made night visits to Satara from Pune, a to-and-fro journey of 240km on several occasions. Mr Prashant Deshpande and Avinash Nagare assisted them. They received local hospitality from several friends in Satara, especially Dr Chandrakant Shete and Mr Suryakant Shirke.

References

- Ali, Salim and S. Dillon Ripley. 1969. *Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka*. Vol. 3. New Delhi: Oxford University Press.
- Duncan, James. 2003. *Owls of the world*. Canada: Key Porter Books.
- Kahila, G., S. Aviel and E. Tchernov. 1994. Reproductive cycle of the Barn Owls (*Tyto alba*) in nesting boxes. *Israel J. Zool.* 40: 100.
- Marti, C. D., P. W. Wagner and K. W. Denne. 1979. Nest-boxes for the management of Barn Owls. *Wildlife. Soc. Bull.* 7: 145-148.
- Pande, S. 2000. *Pakshihi Susware* (in Marathi). Pune: Padmagandha Prakashan.
- Pande, S., S. Tambe, C. Francis and N. Sant. 2003. *Birds of Western Ghats, Kokan and Malabar, including Birds of Goa*. Mumbai: Oxford University Press and Bombay Natural History Society.
- Nagarajan, R., P. Neelanarayanan, and R. Kanakasabai. 1998. Breeding biology of Barn Owl *Tyto alba stertens* in Nagapattinam, Quaid-e-Milleth District, Tamil Nadu. Chap. 23. In: *Birds in agricultural ecosystem*. (Editors: Dhindsa, M. S., P. Syamsunder Rao, and B. M. Parasharya) Society for Applied Ornithology, Hyderabad. Pp. 149-152.

Stoliczka's Bushchat *Saxicola macrorhyncha* in Hissar District, Haryana

Suresh C. Sharma¹ and P. S. Sangwan²

¹Gokul Nagar, Rohtak Road, Sonipat 131001, Haryana, India. Email: sureshcsharma@rediffmail.com

²Sangwan Hospital, Uklana, Hissar, Haryana, India. Email: pssangwan@rediffmail.com

Introduction

Stoliczka's Bushchat *Saxicola macrorhyncha* has been recorded from Haryana at Ambala, November 1866 (Whistler 1915, specimen in BMNH); Rori in Sirsa (erstwhile Hissar, then in Punjab), March 1915 (Whistler 1915, specimen in

BMNH); Sahuwala (=Sohuwala) in Sirsa (erstwhile Hissar), winter 1914 (Whistler 1915); 4) Bhutto (=Bhattu), December 1867 (specimen in BMNH); Sirsa c1850 and 1878 (Hume 1878, specimen in BMNH); Lumbee (=Lumba), Sirsa, November 1876 (specimen in BMNH); Raniya in Sirsa (erstwhile

Hissar), November 1914 (Whistler 1915, specimen in BMNH); Hansi, Hissar, c1878 (Hume 1878a); Sultanpur National Park, Gurgaon, 5.ii.2001-2.iv.2001 (Harvey).

We saw two of the mysterious Stoliczka's Bushchats near Berwala in the Hissar area on 25.i.2003. 500ha of un-