
Is Your Integrated Pest Management Going to Pot?

DAVID BAKEWELL, REZA AZMI

Wild Asia, Upper Penthouse, Wisma RKT, No 2, Jalan Raja Abdullah, 50300 Kuala Lumpur, Malaysia

AND

CHRIS SHEPHERD

TRAFFIC Southeast Asia - Regional Office, Unit 3-2, 1st Floor, Jalan SS23/11, Taman SEA, Petaling Jaya, Selangor Darul Ehsan, Malaysia

FIRST THE GOOD NEWS

Barn owls, *Tyto alba*, have been a key aspect of Integrated Pest Management (IPM) in oil palm plantations in West Malaysia since the 1980s, after initial research indicated that a pair of barn owls and their offspring could consume up to 2 000 rats a year, and that 98 per cent of their diet consists of rats (Duckett, 1980). Barn owls are encouraged to populate many estates in Peninsular Malaysia by the siting of wooden or plastic nest-boxes on poles, at a density of one per 10 ha.

Studies of rat damage to palms in Golden Hope Plantations showed that rat damage decreased markedly within three years of the introduction of barn owls, to within the baiting standard of 5 per cent, rendering baiting unnecessary (Ho & Teh, 1997).

The use of owls in oil palm, and barn owls in particular, is often cited as an example of environmentally-friendly pest control. Barn owls, it could be said, are a symbol of the oil palm industry's commitment to combine the



*A barn owl in its nest box in a plantation
(Photograph by courtesy of David Bakewell)*

best agricultural practices with environment-friendly resource management.

NOW THE BAD NEWS

In June 2009, a shocking report was published in an international ornithological journal, *BirdingASIA*, detailing a horrific tale of

Note:

This article was produced under *Biodiversity for Busy Managers*, an initiative by Wild Asia and the Malaysian Palm Oil Council to develop useful and practical resources for those on the front line of land development. The idea is to inspire, share and guide managers and planners about the key biodiversity issues that apply to land development, and to look at opportunities for inspiring change. More information on Biodiversity for Busy Managers is available at: http://www.wildasia.org/main.cfm/b4bm/Biodiversity_for_Busy_Managers

hundreds of barn owls in Peninsular Malaysia being trapped, slaughtered, skinned, and exported to be served as a delicacy in restaurants in China (Shepherd & Shepherd, 2009). The article reported that 1 236 owls, most of them barn owls, had been seized in two raids by PERHILITAN on warehouses in Johor and Pahang in November 2008 and January 2009.

Shocked by what he read, and determined to find out more about these events, David Bakewell (DB) arranged an interview with one of the authors of the paper, Chris Shepherd. Excerpts from the interview are reproduced below.

Interview

DB: First of all Chris (C R Shepherd), what is your official job title?

CS: Deputy Regional Director of TRAFFIC South-east Asia

DB: Can you tell me a bit about the work of TRAFFIC?

CS: We are an NGO that monitors wildlife trade at domestic and international levels in South-East Asia. We're not trying to stop all wildlife trade, we're working towards stopping **illegal** wildlife trade and ensuring that trade that does take place is not a threat to conservation of any species.

DB: Last year (2009) you published an article in BirdingASIA about 100s of owls and other wildlife being trapped and killed in Peninsular Malaysia for illegal export to China. Can you summarise the main points of that article for us?

CS: I do not remember the numbers of each species, but they were largely barn owls. I think there were five species of owls in those two seizures. The shipments that were seized also contained a few other species such as Crested



Part of a PERHILITAN seizure of deep frozen owls. (Photograph by courtesy of Chris Shepherd)

Serpent-Eagle, a couple of bears and a few pangolins. There were also large numbers of Clouded Monitor Lizards. These were from Johor and were going to be exported presumably to China for meat for restaurants. I followed up on this in a number of other countries in South-East Asia and found that owls were being shipped out of Myanmar, and domestic consumption of owls was also happening in Myanmar, Laos and Vietnam as well.

DB: Is there any update on that story - were there any successful prosecutions? Have any similar seizures been made since?

CS: Since those two seizures there have been a few smaller seizures by PERHILITAN - a couple of hundred owls in each shipment, in Johor as well. There have been no prosecutions yet as far as we know; the cases are still under investigation.

DB: Most people reading the article would have been shocked to find that owls are being traded for consumption. Do we know how widespread this taste for owls is and how long it has been going on?

CS: Well, we know it has been happening in some countries, especially in countries closer to China, for quite some time, and we know that the trade in pet owls has been on the increase, especially since various movies have come out with characters keeping owls for pets - that has driven the demand for pet owls up. I actually surveyed the owls in the bird markets in Jakarta, Indonesia last week and found 35 owls in one day at the pet market. There are also large numbers of owls sold as pets in Japan as well, but, as far as Malaysia goes, this seizure was the first we had ever heard of, of owls in Malaysia being killed for consumption. Prior

to this we had never heard of it here.

DB: Over 1,000 owls is a huge number. Have you any idea where and how they were caught?

CS: They apparently were all caught in Johor. Judging from the species, I am guessing they were caught on plantation edge habitat probably. I think 700+ of them were barn owls. We think they were all caught with mistnets, from what we have heard so far. There was a smaller shipment seized after that one, after we published that paper, and apparently, the guy said that they were caught with nets.

DB: I was thinking that it would be very simple to just go up to all the barn owl nestboxes in a plantation and stick a net over the door and then just knock the pole.

CS: Yes, I was thinking the same thing, and finding nests of a few of the other ones. The owls were plucked of all their feathers except for the head and on the legs...I only looked at thirty or forty of them. None of them were juveniles as far as I could tell. So nets around the nest boxes or just big nets across clearings in the forest were used.

DB: From our surveys of plantations I would think that there is probably a higher population of barn owls in plantations than there is in natural forest.

CS: Yes, I think so too.

DB: Plantation companies are investing quite a lot of money in encouraging owls to nest in their plantations, and I think most of them are completely unaware that this (trapping and capture of owls) might be going on right in their estates, and possibly even carried out by their own workers.



Gruesome find: Owls plucked and ready for the pot. (Photograph by courtesy of Chris Shepherd)

CS: This is something that should be looked into - we have heard that owls are being harvested all over the place; we just do not have anything really solid on that. Owl trade is very likely not a major priority for enforcement agencies.

DB: But on the other hand, it probably is a priority for the palm oil companies, and I am just wondering, would you have any suggestions or perhaps any good examples of how they could go about safeguarding their own owls?

CS: Well, policing the people that are working in these places - i.e. the employees working in the plantations, would be one step forward I guess. You have the same issues working everywhere - how do you keep people from

poaching everything, in the Parks, in the forest reserves? We need better monitoring, and more serious penalties for those caught involved in this illegal trade - no one has been penalised for these owl issues as yet. A new Wildlife Act has just been passed and that is going to take effect very soon, and the penalties are much, much higher than previously. We need to see higher deterrents.

DB: So would it be worth plantation companies applying pressure in that regard?

CS: Definitely. Pressure and support from the industry is always good.

DB: I am assuming that in Malaysia, the major threat is trapping for food rather than for pets or do you think not

necessarily?

CS: No, given the scale of these seizures, I would say trapping for food is definitely the main threat. There is an ongoing pet trade in owls but it is small.

DB: The seizures so far have only been in Johor and Pahang. Do you think the same problem is occurring elsewhere?

CS: I do. Freshwater turtles and pangolins are being harvested across the board in Malaysia, and if there is a demand for owls, I cannot see it being any different.

BARN OWLS IN PERIL

The inescapable conclusion to be drawn from the evidence of the PERHILITAN seizures is that the poaching of barn owls, as well as much other native wildlife, appears to be rampant and widespread in plantation landscapes around West Malaysia. It seems inevitable that this will have a knock-on effect on plantations' ability to control rats, and will therefore push pest control costs up.

It also seems clear that, compared to the poaching of tigers and other threatened wildlife, the illegal owl trade will not come very high up the 'pecking order' in terms of the priorities of law enforcement agencies.

So the question arises - who will fight for the owls? And answer is surely the oil palm industry itself. Some measures that can be taken to detect and fight the illegal trade in owls include:

- Investigating evidence of trapping on the estate (presence of mistnets, etc.),
- Screening workforce for illegal trapping or hunting activities,
- Implementing and informing the workforce of strict penalties for

anyone found to be involved in illegal wildlife trade,

- Providing incentives to workforce to come forward with information about illegal wildlife hunting on the estate,
- Marking of young barn owls (e.g. inserting microchips) to trace their origin should they be found in seizures,
- Provision of information to and cooperation with local PERHILITAN staff, and
- Applying pressure for effective deterrent penalties to be meted out in the courts.

BARN OWLS AND RSPO

Criterion 5.2 of the RSPO P & C states: *The status of rare, threatened or endangered species and high conservation value habitats, if any, that exist in the plantation or that could be affected by plantation or mill management, shall be identified and their conservation taken into account in management plans and operations.*

As a Totally Protected species under the Malaysian Protection of Wild Life Act 1972, the Barn Owl is an HCV species according to the WWF HCVF Toolkit for Malaysia, which defines HCV species as "any species of flora and/or fauna categorised by IUCN as CR, EN or VU, CITES Appendix 1 or any species protected under Malaysian legislation."

As such, conservation of barn owls on plantations needs to take into account the potential threat of illegal trapping and hunting. Most estates have signboards prominently displayed which warn that hunting of wildlife on estate property is prohibited. But is such signage alone an effective deterrent?

Some plantation companies, which have identified illegal hunting as a significant threat



The barn owl - oil palm growers' "partner" in rat control. (Photograph by courtesy of David Bakewell)

on their properties, have taken further steps to prevent illegal hunting on their property by providing their security staff with training in anti-poaching activities. For example, Kulim Plantations (M) Bhd collaborated with the Wildlife Conservation Society (WCS) Malaysia in initiating the Wildlife Defender Project, to train security personnel as Wildlife Wardens. They increased security patrols to prevent hunters entering the estates, and staff and workers were made aware of wildlife protection requirements during muster briefings. This taking of proactive measures to minimise likely threats is a good example of the kind of

steps which can be taken to cut the supply chain of illegally traded owls at source.

CONCLUSION

Barn owls have been symbol of IPM in oil palm plantations for over twenty years. Now, action is needed to keep them in plantations, where they can continue to provide a valuable service, rather than on a plate in a restaurant. Barn owls belong in plantations, not in a pot!

REFERENCES

- DUCKETT, J E. 1980. Barn owls (*Tyto alba*) a proven natural predator of rats in oil palm. In: *The Oil Palm in Agriculture in the Eighties. Vol. II* (E Pushparajah and Chew Poh Soon, eds.). The Incorporated Society of Planters, Kuala Lumpur. 461-473.
- HO, C T and TEH, C L. 1997. Integrated pest management in plantation crops in Malaysia: Challenges and realities. In: *Plantation Management for the 21st Century. Vol. I* (E Pushparajah, ed.). The Incorporated Society of Planters, Kuala Lumpur. 125-149.
- ROSS, C. 2008. Public Summary Report, Initial RSPO Certification Assessment, Kulim (Malaysia) Berhad. http://www.rspo.org/files/resource_centre/Kulim%20RSPO%20Public%20Summary%20Report%20120109.pdf. Accessed on 28 June 2010.
- SHEPHERD, C R and SHEPHERD, L A. 2009. An emerging Asian taste for owls? Enforcement agency seized 1,236 owls and other wildlife in Malaysia. *BirdingASIA*, 11 (June 2009):85-86.

Note:

Chris Shepherd is available to provide further information and advice on preventing the illegal trapping and trade of wildlife in plantations, and can be contacted at: cstsea@po.jaring.my