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- ACKNOWLEDGEMENTS. P.S. thanks the University Grants Commission, New Delhi for financial support. We thank the Central Marine Fisheries Research Institute, Kochi for providing infrastructural facilities.

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Wild boars: is elimination the way forward?

The wild boar (*Sus scrofa*) is suddenly the 'most popular mammal' in Kerala. The latest decision of the Kerala Government to permit the shooting down of crop-raiding wild boars has sharply divided the state's ecologists and environmentalists. Whether to 'shoot it down' or just 'shoo it away' is now hotly debated.

In the tropics, human population growth¹, habitat encroachment², changes in land-use patterns³ and problems in the implementation of nature conservation measures⁴ are some reasons for man-wildlife conflicts. Encountered in all continents, except Antarctica^{5,6}, the wild boar has a high reproductive rate, potentially breeding year round⁷. Man-wild boar conflict continues to be debated because of the inadequacy or ineffectiveness of any single strategy to stop it⁸.

Opportunistic omnivores, the wild boars have a marked preference for plant food⁹. Their foraging patterns are strongly influenced by availability¹⁰. Crop type^{11,12}, distance of the crops to forest¹¹, crop ripening period¹³, population density¹⁴ and availability of natural forest foods¹¹ and season of the year also influence crop raiding. Are various abiotic stresses like wild fire, over harvesting by herbal medicine suppliers and drought reducing the wild food base of wild boars? Wild boar is also a crucial link in the forest food chain, as it is an important prey species for larger carnivores. They also 'till the land' exposing the 'soil seed banks' and aid plant ger-

mination. They also devour insects, mice and other detrimental organisms¹⁵.

In a forest setting, food 'hunting' by wild animals is a normal survival behaviour. Field crops raised close to the foraging domain of the wild ungulate are easy prey for them. Given an opportunity, they will raid and harvest crops. We still have no evidence of 'habitual offenders' from the world of wild animals, who prefer agricultural crops to wild food. Crop raiding by wild boars is an adaptation behaviour in the wake of both the loss of its natural habitat and progressive decline of its natural wild food base. Easy access to more energy-rich food resources may also have triggered a behavioural (abnormal?) pattern. Interestingly, wild boars also raid crop lands for habitat requirements, like 'wallowing'. But like 'man-eating tigers', 'crop-raiding' wild boars also needs to be managed. Logically, we will have to keep these 'raiders' away from the crop fields on a permanent basis. Use of force has limited options in a crop-raiding scenario involving bigger mammals. Permission to wield guns will only open a Pandora's box, not only for the State Forest Department but also for the police, the peoples' representatives and the judiciary as well.

As the foraging behaviour is strongly influenced by the potential escape cover¹⁶, one viable strategy will be to keep the farm boundaries clear of palatable vegetation. Designing open space

buffer zones between croplands and forests can considerably reduce damages^{17,18}. In Kerala, crops such as mango ginger (*Curcuma amada* Roxb.), which wild boars detest, have been profitably planted in fields bordering forests. Kerala farmers have a variety of time-tested wild-boar snares which can be good deterrents. Wild boar-proof fences are another option (http://www.wild-boar.org.uk/pdf/WildBoar_fencing.pdf). Electrical (solar-powered too) fencing is another successful deterrent^{19,20}. In the West, trained dogs are effective deterrents. In the rubber plantations of central Kerala, white-coloured plastic sheet fences create panic in the herd (Figure 1). 'Field patrolling' by farmer groups on a regular rotation basis can also be a successful crop protection strategy.

Compatible crop combinations are fundamental for the success of any farming activity. Likewise, cropping patterns should also consider the likely threat perceptions from possible biotic factors (e.g. the wild boars) of an area. Financial and technical support must be given to identify the high-risk croplands (which suffer from biotic stresses) of the state and design appropriate 'farm plans'. In a land-scarce state like Kerala, farm produces have tremendous social values and implications in food security. The Government must also consider introducing appropriate crop insurance schemes for these high-risk croplands to mop up the financial losses in the event of a crop raid.



Figure 1. White-coloured plastic sheet fences for rubber plantations in Central Kerala. Inset, wild boar.

After all, the state also has a social responsibility to stomach the negative externalities of wildlife conservation.

In the forest fringe areas, the tropical farmer must learn to co-exist with wildlife. Crop raiding will remain a perennial problem as long as the incessant demographic pressure on wildlife habitats remains. Let us try hard to restrict the wild boars in their natural habitats. Elimination is neither an answer, nor a solution.

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ACKNOWLEDGEMENTS. We thank our friends for the valuable and critical suggestions. We also thank Mr Akhil Balakrishnan for driving us around and explaining his wild boar deterrent strategies.

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