DISTRIBUTION AND AGRICULTURAL DAMAGE ASSESSMENT CAUSED BY WILD BOAR (SUS SCROFA)
IN DISTRICT HARIPUR KHYBER PAKHTUNKHWA PAKISTAN

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Abstract

The wild boar (Sus scrofa) is rapidly increasing its distribution across the globe and becoming responsible for socio-economic impacts. The wild boar population in the district Haripur is increasing with the passage of time, which is directly, and indirectly disturbing agricultural crops and other resources of local community. A total of five cases of the wild boar infestation were seen in study area including Sahabary, Ghaaran, Gharm Thoon, and Mang. The questionnaire response estimated economic losses of around 20 lacs. Damage events mostly related to pea, wheat and maize fields highly damaged crops were maize (53 %), Wheat (34 %) and Pea (13 %) by the wild boars in disturbed fields. The wild boar damages were recorded in the resources of local community. This study introduced categorization of damages including crops (70 %), livestock (15 %), fodders (8 %), pastures (4 %), personal injuries (2 %) and wildlife resources (1 %). Damaged fields were characterized by an increased cultivation of crops throughout the year, a decrease of woodlands, maquis and urban areas, and a reduced distance from shelter areas. Management practices are being used by farmers and local community including, hunting, chemicals, sound, electricity and use of catch dogs. Local people mostly use catch dogs (47 %) because it is cheap method while 22 % of the locals use nothing to control the wild boars and 21 % use sound production by diverse ways including cracker blasts, personal loud calls and by drum beats.
Electric wires were used by 7 % locals during night-time only in low human interference areas while 5 % people suggested the use of diverse types of chemicals to avoid the wild boars. Wildlife department and local community were not found properly aligned. Wildlife department allows foreigners to hunt the wild boars as a part of their management strategies.

Introduction:

Wild boar (Sus scrofa) belongs to class Mammalia, order Cetartiodactyla, and family Suidae characterized by 16 or 17 sub- species (IUCN 2008). The wild boar has 112-114 days of gestation period and 21 days of estrus cycle (Masters *et al*., 1979; Irfan, 2013). Wild boar have 5-7 piglets in one litter but in conducive conditions can be reach to 10 piglets (Irfan, 2013). The wild boar has the largest distribution in comparison with any wild ungulate worldwide. Wild boar is considered to indigenous species of European region and can live freely in huge number within a large track of habitat and spread to Asia (Ashraf *et al*.2012).

Objectives

The aims and objectives of this study are;
I. To find the distribution and abundance of wild boar in study area.
II. To estimate the damage caused by wild boar in diferent parts of study area.
III. To give recommendation for damage control in study area
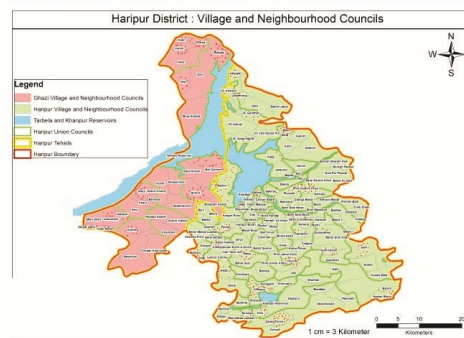
MATERIALS AND METHODS

Distribution:

To determine the distribution of Wild boar in district Haripur, census wasconducted from May 2017 to May 2018. Frequently field visits are carried out during study time. Preliminary survey was conducted in which the distribution of wild boar was discussed with authorized authority that is Dfo including attached personnel and local farmers. boar, which were noticed easily to draw data more accurately.
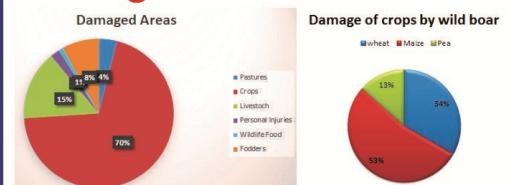
Damage Assessment and Questionnaire survey:

Damage assessment was calculated during surveys by using inch tape. These areas were visited according to the guidelines interviewers. The selected areas were visited during the summer season and winter season (May 2017 to May 2018). The areas were visited in guidance of wildlife watchers facilitated by wildlife department. We recorded about 5-6 damage sites in study area and can measure with help of farmer of that field. We also took photographs and GPS quadrant of that place. Random areas were visited to find out damage caused by wild boar. The area was divided into sub types that is: I. Game reserves. II. Open areas.

Results and Discussion:
Distribution and Abundance:

Haripur District : Village and Neighbourhood Councils

Legend
Ghazi Village and Neighbourhood Councils
Haripur Village and Neighbourhood Councils
Tarbela and Khanpur Reservoirs
Haripur Union Councils
Haripur Tehsils
Haripur Boundary

1 cm = 3 Kilometer

Damage Assessment:

Damaged Areas
Pastures
Crops
Livestock
Personal Injuries
WildlifeFood
Fodders
70% 15% 11% 8% 4%

Damage of crops by wild boar
wheat Maize Pea
34% 53% 13%

Methods for Wild boar Control by Farmers:

Management Strategies
No Measures
Catch Dogs
Electricity
Sound
Chemical
Hunting

Conclusion /Recommendation:

This work has aimed to suggest a first analysis of the population size, density and distribution of the wild boar in study area. Increasing population densities of wild boar have led to growing damage rates of agricultural crops. we suggest that management strategies that hunting alone is not successful at controlling feral boar or even reducing population size in many areas More realistic control options include ground-trapping, coordinated harvest by trained teams, hunting with dogs, aerial hunting with airplanes and helicopters, use of Judas pigs, and fencing. To be actual, these approaches must be coordinated and focused across all areas, especially those at highest risk. An essential element of important management will be profitable up to date and reliable mapping of feral boar distribution and abundance and the coordination of Wildlife and other concerned department with local community.

Pug Mark

Pug Mark

Damaged Field

Damaged Field

Use of Electricity

Hunted Wild Boar