

FOREST NOTES AND OBSERVATION

Note on Roadside Accidents and Killing by Humans of White-tailed Deer (*Odocoileus virginianus*) in Central New Jersey (USA)

Sighting White-tailed Deer, *Odocoileus virginianus*, in Kendall Park, Franklin Park, Montgomery and other areas of Central New Jersey is rather a common feature. The White-tailed Deer is medium size, male measuring 1 meter and weighing about 70 kg, while females is smaller and weighs up to 45 kg. Under the tail of adults there is conspicuous white patch that is more prominently displayed or flagged when the animal is excited or alarmed. Fawns are brownish and spotted, often looking like Spotted Deer, *Axis axis*. In summer males are reddish brown whereas in winter they appear grayish-brown. They are sexually matured at the age of two and most breeding takes place between September and January. Their active foraging time is dawn and dusk. During day hours they keep resting/hiding in forest patches, in late afternoon often visit neighbourhood lawns (Fig. 1).

I often observe individual or small family foraging in our neighborhood or crossing the roads. Despite careful driving, several times I personally have had "real miss" situations while driving early morning and late evening/nights. Although there are frequent sign-posts at roadsides warning drivers for deer crossings, the deer are often hit and killed or seriously injured. Surprisingly I did not find any agency clearing the corpse from road. As given by Brook (2013), between July 2010 and June 2011, 1 Million deer related collisions were recorded in the USA, and between 2011-2012 more than 31,192 deer-vehicle collisions occurred in New Jersey alone. In the absence of any natural predator this could be an indirect population control. But due to these accidents the cars are damaged and sometime the riders are also injured, occasionally fatally. Such accidents can be



Fig. 1: Female White-tailed deer in Kendall Park neighborhood.

avoided by slow speed and careful driving in deer prone areas (Deer Xings). I use high beam and sometime honk to ward off them if they are about to cross the road. But in the scenario of development of large scale residential complexes, factories and other anthropogenic activities resulting fragmentation of deer habitats, such accidents are inevitable. The deer always show watchful behavior on the approach of vehicle but often get confused while crossing the road and thus colloid. Fawns are more vulnerable.

There is also considerable damage to agriculture by them and deer ticks often cause Lyme disease or certain flues to human, creating a sort of man-animal conflict. As given in a report wildlife damage to US agriculture is \$4.5 billion of crops annually, while deer are responsible for 79% of wildlife-related agriculture damage in New Jersey ensuing a loss of \$5-10 million per year. Another major man-animal conflict wildlife species in this area is Black Bear.

Considering their high density it is legal to hunt deer in certain months, and of certain age, in New Jersey legally. Interestingly in addition to gun shoots people are also allowed to hunt the deer by bow and arrow. Even young boys are allowed to hunt them by bow. I was intrigue to read a report in a local Newsletter – The Monthly Montgomery News, June 2018 – about a discussion in a Municipal Board Meeting that whether the age of youth allowed to shoot the deer should be lower down from 17 to 13 years!

Often considered as 'Ecosystem Engineer species', the population of White-tailed deer was not always abundant in this area. In 1800 their population came down alarmingly low due to over hunting but by following strict game regulations their population bounced back subsequently. However, like any wildlife species their population has been fluctuating. Around 1996 it was estimated over 200,000, while in 2013 it came down to about 100,000 in New Jersey. The estimated population in 2017 was 100,400. In 2017-2018 harvest season

48,545 deer were hunted in different areas of NJ, while in 1972 this figure was 11021 (New Jersey Deer Population and Management Archive). As announced in Franklin Park Township Times (Vol 13 Issue 6, 2018; www.franklintownnj.org/hunting) White-tailed hunting season for Fall 2018 begins from September 8 and ends February 2019. Firearms and bows are allowed at various locations.

(For more information refer New Jersey Deer Harvest Data).

Based on land use, geography, habitat type and other biotic factors New Jersey Division of US Fish & Wildlife has designated 61 Management Zones in the state to conserve and manage the White-tailed Deer Population. There are also 15 different Special Management areas.

The management of deer population is undertaken by various methods. Shooting is considered most efficient and cost effective. Use of fertility control contraceptives to individual females is also in practice. Trapping and relocations are applied too; while physical barriers and fencing of different types are effective tools in human habitation areas. In certain circumstances odor-based repellents are also effective, particularly for lawn grasses and small vegetable farms.

Control of wildlife species is a ticklish issue and animals quickly get 'used to' to devices and methods of control. It also has to be species specific and area specific. However, to resolve growing man-animal conflicts at most places, including India, some of the above measures could be effectively used.

References

Brook Maslo (2013). An Overview of White-tailed Deer Status and Management in New Jersey. *Rutgers Cooperative extension fact sheet, FS 2013*.

www.deerfriendlynews.com/nj

www.nj.gov/dep/fgw/deer/htm;

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Received September, 2018
Accepted October, 2018