

Fate of animals on road in Bangladesh

Abstract

Out of 23 animals the domestic animals were 10 (43.48%) and wild animals 13 (56.52%). Among these amphibians were 2 (8.70%), reptilian 5 (21.74%), avian 5 (21.74%) and mammalian 11 (47.83%). Lowest fate report was found in garden lizard (*Calotes versicolor*), house crow (*Corvus splendens*) and common mongoose (*Herpestes edwardsi*) and the highest were in domestic dog. In second highest the worst report was in house shrew (*Suncus murinus*). This study was observed among the highway or main road of Dhaka, Tetulia, Panchagarh, Nilphamari, Dinajpur, Saidpur, Rangpur, Naogaon, Bheramara and Kushtia of Bangladesh in the year 2013-2016. Nocturnal animals were killed on road during night and in day time domestic animals are available mainly in rural or adjacent areas of town.

Keywords: animal-vehicle collision, road-side animals, road safety

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Introduction

During the time of journey from Saidpur-Tangail-Dhaka by night coach some animal-vehicle crashes were happened. The speed of these vehicles is not suitable. Moreover the drivers are not conscious on animals. They always kill various animals. Some snakes mainly tree snake, stripped keel back and some boys thrown the dead water snakes on the road. During the time of long route journey in Bangladesh for various visits this incidents are very common. Road-side residences, markets beside the broad road, road-side commercial animal farming are the causes of these accidents. Drivers' education, warning sign, roadside reflectors, deer repellents, lower speed limit and deer whistling all are useful for reducing animal accidents on road. Fences combined with underpass and overpass is good for preventing animal-vehicle collision but this is expensive.¹ For these disasters vehicle repair costs at least \$1000.² Carelessness of driving was found (8.3%), asleep (8.3%) and poor road were only 2.2% in US (US Highway Accidents Involving Farm Animals, A Farm Sanctuary Report 2006).

Materials and methods

Peoples are not conscious on animals' accident when they are performing driving. Road-side residences are not allowed. They free or release their animals early in the morning. In day there some precautions but at night mainly wild animals most they are died. During the time of journey in various places this type of animal accident is very common scenario on road. Most animals are on road and sometimes people thrown dead animals on road. At night some animals are crossed road and when the driver put light on the animals eye they can't see anything and collision happened. This study was observed among Dhaka, Tetulia, Panchagarh, Nilphamari, Dinajpur, Saidpur, Rangpur, Naogaon, Bheramara and Kushtia of Bangladesh.

Results

Out of 23 animals either this is wild or domestic maximum bad incidents were found in dog and then house shrew. Whereas, mongoose, house crow and garden lizard were in less. All animals were shown least concern except the monitor lizard and wild cat.

These two animals are considered as near threatened (NT) by IUCN.³⁻⁵ Within total animals maximum dead animals were observed 17 (out of 23) on road during journey. Some peoples throw dead animals on road (13) and injured animals were found only 6 (Table 1). Figure 1 is prepared by using Table 1:

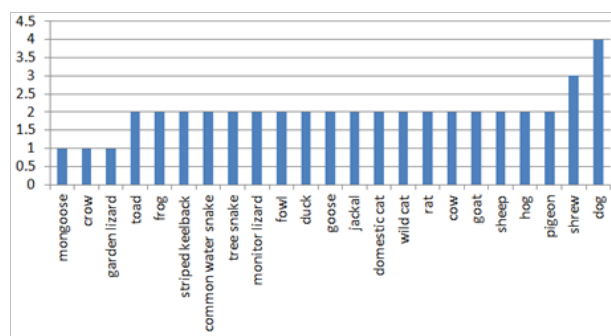


Figure 1 Fate report of animals in Bangladesh during journey.

- i. **Toad and Frog:** When these animals are jumped on road crashes happened. Road-side ponds or any water resources are the source of these amphibians availability.
- ii. **Snake/Garden lizard:** Can see their dead bodies on road. This is very rare that when snakes or garden lizard is crossed road then clashes.
- iii. **Yellow monitor:** In rainy season beside the crop field available yellow lizards are found in Bangladesh. Due to its very slow walking its collision is common on road.
- iv. **Pigeon:** This is very swift flying bird. Available group feeding of pigeons on road is common. Sometimes during flying in front of vehicle may clashes. Very few accidents were recorded in this case.
- v. **Fowl:** Human residences near the road this accident may happen. Its rapid flying sometimes helps for escaping from the road.
- vi. **Duck/Goose:** This is very common in village road. Rickshaw and van pullers are suffered in driving for its abundance. Its

line walking is dangerous for protecting them. If first-one is crossed automatically other comes gradually. It is better to stop the vehicle until crossing the road.

- vii. **Crow:** Though this bird is mostly common on road for taking carcasses but not in clashes, dead body of crow on road is common.
- viii. **Bovoid animals:** Cow, goat and sheep are common domestic and commercial breed of Bangladesh. Most of the villagers are reared these animals for their livelihood. So, people are completely conscious about it but some free-range animals are common beside the road. Rickshaw pullers claimed that for narrow and bushy road are the causes for dying those animals. Sometimes when these animals cross the road and when it see the car get back from the road, which is safe for it. Due to long time domestication this behavior is very common for them.
- ix. **Pig:** This is very dangerous on road. In sweeper community they use this animal for meat. If this animal are on road very wise to slow or stop the vehicle for few minutes.
- x. **Dog:** In Bangladesh domestic dogs are very common all over our areas. Villages or urban in both areas dogs are available. All day and night dogs are gathered on the road. Its collision is very common with vehicles on road.
- xi. **Jackal:** Near the graveyard and fruit field some jackals are killed by vehicles.
- xii. **Cat:** During playing of domestic cat beside the road they die. Residences adjacent the road this type of incident is very common in Bangladesh. In case of wild cats it happens while crossing the road of forest at night.
- xiii. **Mongoose:** Mongoose is not common on road. Need to take special care at road-side bushes where mongooses are available.
- xiv. **Rat:** Some rats are killed by vehicle at road-side crop field especially paddy and wheat field. Its short step running is walking. So, clashes happen.
- xv. **Shrew:** This animal is very poor in sight and its running with very short steps it caught in death.

Table 1 Animal-Vehicle collisions on road in some parts of Bangladesh

Name of animals	Bangladesh status (2015)	Available	Die	Injury	dead body thrown on road	Total ✓ points
Duttaphrynus melanostictus (common Indian toad)	LC	×	✓	×	✓	2
Hoplobatrachus tigerinus (Indian bull frog)	LC	×	✓	×	✓	2
Xenochrophis piscator (checkered keelback)	LC	×	✓	×	✓	2
Amphiesma stolata (striped keelback)	LC	×	✓	×	✓	2
Ptyas mucosa (common ratsnake)	LC	×	✓	×	✓	2
Varanus flavescens (yellow monitor)	NT	×	✓	×	✓	2
Calotes versicolor (garden lizard)	LC	×	×	×	✓	1
Columba livia domestica (domestic pigeon)	-	✓	✓	×	×	2
Gallus domestica (domestic fowl)	-	✓	✓	×	×	2
Domestic duck	-	✓	✓	×	×	2
Domestic goose	-	✓	✓	×	×	2
Corvus splendens (house crow)	LC	×	×	×	✓	1
Bos indicus (domestic cow)	-	✓	×	✓	×	2
Capra indicus (domestic goat)	-	✓	×	✓	×	2
Ovis aries (domestic sheep)	-	✓	×	✓	×	2
Domestic pig	-	✓	×	✓	×	2
Domestic dog	-	✓	✓	✓	✓	4
Canis aureus (golden jackal)	LC	×	✓	×	✓	2
Domestic cat	-	×	✓	✓	×	2
Felis chaus (wild cat)	NT	×	✓	×	✓	2
Herpestes edwardsi (common mongoose)	LC	×	✓	×	×	1
Bandicota bengalensis (lesser bandicoot rat)	LC	×	✓	×	✓	2
Suncus murinus (house shrew)	LC	✓	✓	×	✓	3

Discussion

44.8% Kangaroo and Wallaby crashed by 51.7% motorcyclist in Australia.⁶ Major Incidents happened in rural areas.⁷ Kangaroo, Wallaby, Emu and Wombat in Australia are road-kill victims. Report suggested that 94 fatal and 1392 hospitalizations crashed from 1990 to 1997 where 80% occurred in rural areas, and 71% in large animal like horse.⁷ In the state of Victoria a total 632 casualty recorded 5-year period 2001-2005.⁸ 66% animal-vehicle occurred in dawn and dusk/night. State of Queensland 3197 crashes for the 5-year 2001-2005 where social cost of \$524000.⁹ Lack of driver visibility and curved road increase the crashes of many wildlife species.¹⁰ In US (1995-2004) found that 89.5% occurred on rural roads, 64.8% in darkness, 91.1% in dry weather.¹¹ A large number of deer crashed in US.^{12,13} As camels are huge in Saudi Arabia so its collision with vehicle are available.^{14,15} Synthetic predator scent is another effective method for saving wildlife.¹⁶ In US Elk (*Cervus elephus*), Mule Deer (*Odocoileus hemionus*), White-tailed Deer (*O. virginianus*) and Moose (*Alces alces*) represented 81.9% mortality rate. Out of 233 incidents 2700 animals were killed in US. Relatively few incidents involved in turkey on sheep, goat, bison or horse. Statistically collisions happened in cattle/calves (50.6%), in hogs (25.8%), chicken (15%), turkey and sheep both (3.4%) and in goat and horse each (1.3%).

Recommendations

- i. Don't establish human residences near the road/jungle
- ii. Need to control vehicle speed mainly at night
- iii. Need to know animal behaviour
- iv. Rear farm-based animals
- v. If ferocious animal come in public places immediately catch them by the help of concerned authority and release them in jungle

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Conflicts of interest

Author declares there is no conflict of interest.

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