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Review

Animals: A natural messenger for disasters

Richa Tiwari*; Sudhanshu Tiwari

*Corresponding author

ABSTRACT

Natural disasters are one of most destructive phenomenon which cause immense harm to mankind and environment both. Before disasters nature must give some clue for warn to man. Among them, animals gave marked visible clue by changing their normal behaviors. By marking their altered behavior, we can judge natural disasters.

Keywords: Natural disasters; Altered: Animal behaviors.

INTRODUCTION

Most destructive phenomena of nature are natural disasters which include earthquake; tsunami; etc. These are caused by the abrupt release of earth strain that has accumulated over a long time. For hundreds of millions of years, the forces of plate tectonics have shaped the Earth as the huge plates that form the Earth's surface slowly move over, under, and past each other. Sometimes plates are locked together, unable to release the accumulating energy. When the accumulated energy grows stronger, the plates break free and as a results earthquake; tsunami, etc. If they occur in a populated area, it may cause many deaths and injuries and extensive property damage.

Today we are challenging the assumption that natural disasters uncontrollable and unpredictable hazard to life and property. Scientists have tried to estimate their locations. Before any disasters nature must give their signals through their messenger i.e. animals, plants, wind, climates etc. and thus alarm mankind. Among these messengers, animals gave marked visible signals by changing their normal behaviors. But unfortunately men are unable to understand final results of theses singles.

On December 26, 2004, an earthquake along the floor of the Indian Ocean was responsible for a tsunami that claimed the lives of thousands of people. Sri Lanka's Yala National Park has reported no mass animal deaths. Yala National Park is a wildlife reserve populated by hundreds of wild animals including elephants, leopards, and monkeys. Researchers believe that these animals were able to sense the danger long before humans. Indigenous people on the Andaman and Nicobar islands are thought to have escaped the 26 December tsunami thanks to traditional warning systems that interpret bird and marine animal both (Central Chronicle, 2005). According to the director of the Anthropological Survey of India, V. R. Rao, no casualties have been reported among five tribes-the Jarwas, Onges, Shompens, Sentenelese and Great Andamanese. He believes, this is because the tribal people fled for safety at the first indications-such as changes in bird calls that "something was wrong".

According to BBC Online news story, wildlife officials in Sri Lanka reported that despite the large loss of human life, there were no reported animal deaths. Because animals moved to safer ground having sensed vibrations or changes in air pressure in advance of the waves' arrival.

Animals and birds can predict and analyzed natural disaster more easily and accurately. Snakes have information of earthquake before four day, during this they became restless, beat their head and try to hide in holes. They can analyze earthquake up to distance of 120 Km.

Birds are also good indicator of rain, sudden when they return their nest in day time there must be rain and when they did not return it means less possibility of rain although it is cloudy. Birds are also analyzed drought and earthquake.

Before earthquake all the frogs of that particular area suddenly become disappeared/underground and they returned when condition became favorable after earthquake.

Among domestic animals, reports of hens not laying eggs, cows not giving milk, or bees abandoning hives days, hours and even minutes before hurricanes, earthquakes and tsunamis. The most consistent abnormal behavior reportedly comes from dogs. Animal sensitivity to geological vibrations and to electromagnetic changes, as well as to shifts in atmospheric pressure, is scientific fact; but validation of whether this sensitivity is the cause of abnormal animal behavior before natural disasters occur still eludes the science world in 2010. Cats and dogs react to natural disasters with anti social behavior. Among findings, Brown reports cats hide, and dogs howl and even bite owners before an earth temblor strikes. Morris also suggests that because dogs olfactory senses are 10,000 to 100,000 times stronger than humans possess, this may give them the ability to smell a change in the air before storms and earthquakes (Catalina Bixler-Harris). Cats reportedly move litters of kittens before the onset of storms and earthquakes. Observations report that sharks move to deeper water before a hurricane. Scientists at Mote Marine Laboratory of Sarasota, Florida, documented 14 electronically tagged black tip sharks bolting into deeper waters 12 hours before the 2004 Hurricane Charley pounded Florida's Gulf Coast. According to Turner Network News report after the 2005 tsunami that destroyed much of the Indian Ocean's coastline and killed more than 200,000 people, working elephants trumpeted, broke their chains and ran to higher ground just ahead of the tsunami slamming the coast of Thailand. Flocks of birds may abandon nests prior to natural disasters. Whether it's a hurricane, earthquake or volcanic eruption, bird reaction prior to the event is to fly away. Horses display agitation and restlessness before a natural disaster (Catalina Bixler-Harris).

There are two theories as to how animals may be able to detect earthquakes. One theory is that animals sense the earth's vibrations. Another is that they can detect changes in the air or gases released by the earth. There has been no conclusive evidence as to how animals may be able to sense earthquakes (Regina Bailey).

The U.S. Geological Survey (USGS) officially states, "Changes in animal behavior cannot be used to predict earthquakes". Even though there have been documented cases of unusual animal behavior prior to earthquakes, a reproducible connection between a specific behavior and the occurrence of an earthquake has not been made. Because of their finely tuned senses, animals can often feel the earthquake at its earliest stages before the humans around it can. This feeds the myth that the animal knew the earthquake was coming. But animals also change their behavior for many reasons, and given that an earthquake can shake millions of people, it is likely that a few of their pets will, by chance, be acting strangely before an earthquake (Regina Bailey).

Yet scientists say animal behavior cannot be used to predict earthquakes and natural disasters, but it is possible for animals to sense changes in the environment before humans.

CONCLUSION

Thus only by elaborating our knowledge about animal behavior and their careful observations, we can judge sudden change in our natural environment. And by this, we can predict location of disasters at some extent. Thus we can safe or reduce harm of our community and resources both.

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