

# Spiders as health indicators of eco-systems, says study

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MOST OF us would either squash it to pulp or scream in fear the moment we see a spider in our homes. Few are aware that these spindly invertebrates are being studied closely across the globe as they are very good indicators of the health of eco-systems that we inhabit.

While much research has been done to link animals like tigers and elephants to judge the condition of reserve forests and protected areas in India, a new study focuses on these arachnids with eight legs and how their presence or absence can help judge habitat conditions.

Conducted over a five-year period by scientist Dr V.P. Uniyal and senior researcher Upamanyu Hore of the Doon-based Wildlife Institute of India (WII) at Dudhwa National Park, the study was conducted to evaluate changes in forest areas in the Terai Conservation Area.

Results of the research published

best species, which can be used as bio-indicators for monitoring and management of various kinds of forest areas in Terai.

"As they are highly sensitive to minor changes in their environment, we found that prevalence or non-prevalence of different species of spiders as vital signs to indicate the health of an eco-system," said Dr Uniyal.

Apart from being predators, spiders are also an important food source and a valuable component of an eco-system. And since they react to changes in habitat structure, the study showed how spiders might be useful indicators of the effects of land management on local

Having arrived at that conclusion after studying thousands of spiders belonging to over 150 species, the WII team is now working on ways to extend the utility of field data for conservation and management of reserve forests and protected areas.

"If the findings of the study lead to more interaction between conservationists and researchers on spiders, the arachnids can be assessed for usefulness as conservation tools," said Dr Uniyal.

The team had conducted another study on the effect of forest management techniques like burning of trees in Terai and are now studying spiders and their role as bio-indicators in the high-altitude Nandadevi National Park in Chamoli district of Uttarakhand.

