

'Thousand Leggers'

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Millipedes, otherwise known as 'Thousand Leggers', are striking in appearance and they occupy a unique position among organisms that live on soil substrates. These arthropods are generally long in relation to its width, cylindrical animals with two pairs of legs in each body segment and they have fewer than a hundred pairs of legs. Usually they are seen on damp floors and they feed on rotten plant materials or detritus. Millipedes do not have poison claws as Centipedes. When prod, they curl up.

There are about 12,000 such kinds known to science around the world. It is predicted the total number of millipedes in the world could be around 80,000. That means majority of millipede species are yet to be described. These creatures are reported to have evolved on our planet about 400 million years.

Millipedes play very important role in the ecosystem. They perform many functions such as soil turnover, aeration, conversion of nitrogen and phosphorus and incorporation of organic matter into the soil. They create a type of humus on the topsoil. The health and survival of deciduous forest depends on them since they are one of the primary mechanical decomposers of dead wood and leaf litter – detritivorus. They feed on decaying vegetable matters and mineral soils. Some of the other detritivorus species includes Isopods (woodlice), Collembola (springtails) mollusca (snails and slugs), Scarabaeidae (dung beetles) and Silphidae (burying beetles).

These arthropods inhabits forest floor and it is also found to have established in plains, cultivated lands and gardens. They are seen on the soil surface during monsoon in singles or small numbers crawling on the walls, rocky edges, open fields and plain lands and also found in large aggregates. They are also found laying spirally coiled under litter, dead wood, stones and inside rotten trunks. Millipedes in general are very slow in their movements and hence dispersal is limited. This has resulted in high degree of endemism as evidenced by the number of endemic species reported from India (Attems 1936).

According to Shelley (2003) class Diplopoda has 16 Orders and 146 families with about 12,000 millipede species globally. In India these are commonly found but studies on this group are scanty. Bano (1999, 2005) based on studies and from literature states that there could be as many as 500 species of millipedes in India. However the actual numbers are not known. Attems (1936) in his book 'Memories of the Indian Museum' reports 290 species and subspecies of Diplopoda. He also states that majority of these species are endemic to this region. Nearly 70% of the genera reported by Attems are endemic to this region, however, Indian territory, in those days, had a wider region including Sri Lanka, Myanmar, Indo-Gangetic alluvial plain in the north and portions of China. Hence more studies are needed to ascertain the endemic status of these species.

Studies by Ashwini and Sridhar (2002), Prabhas *et al.* (2011) Karthikeyan and Alagesan (2011) reveals the potential use of this group to make 'millicompost' which gives better nutritional supplies than the compost produced by conventional methods, in terms of nutritional quality and also their effect on growth of the vegetable plant tested.



Large brown millipede. Photo: Preston Ahimz



A species from Sivakasi found throughout the year. Photo: Isai Arasu



Blue-legged millipede from Chittoor District, AP. Photo: Kedar



Pill millipede from rainforest of Agumbe. Photo: Binu Arthor

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