



Population Density Of *Trigoniulus Coralline* Worm At Pandharpur, Dist. Solapur (MS)

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CC License CC-BY-NC-SA 4.0	Abstract Rusty millipedes (<i>Trigoniulus coralline</i> worm) are widely distributed species of millipede. They inhabit compost during monsoon season. Population density of <i>Trigoniulus coralline</i> worm was observed and calculated in the present study. The population density is (Dp) 02. Keywords: Rusty millipedes, Population density, Monsoon season
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Introduction:

Trigoniulus Coralline worm belong to class Diplopoda. They are commonly called rusty millipedes or common Asian millipede. It is a species of millipede widely distributed in the indo-malayan region including India, Bangladesh, Srilanka, China, Taiwan, Phillipines, Myanmar, Thailand, Vietnam, Malaysia, Singapore, Nepal, and much of Indonesia. It is also reported from Fiji and Tanzania and found in south Asia and the Caribbean as an introduced species. Body is elongated, sub-cylindrical and divisible into 5 segmented head, 4-segmented thorax and 11 to 100 segmented trunk. Legs 2 pairs on each trunk segments (Diplopoda). Mandibles and maxillae 1 pair each (Dignatha) Kotpal (2011). These inhabit moist areas especially rotten wood (It has decayed and can no longer be used) and compost during monsoon season. As number of individuals per unit area or per unit volume of environment is considered as population density. VK Agarwal (2017). So, it is necessary to calculate population density of rusty millipedes. Population ecology of *Trigoniulus Coralline* was studied by Bhakat S (2020). Banerjee (1974) who reported annual fluctuation in population and correlated population density with rainfall in north east india. Mukherjee (1962) recorded its variation in segment number from west Bengal. As the millipede is a tropical species there are several reports on its occurrence in other states of India (Chezhian and prabhakaran 2016, Choudhari et.al. 2014; Shukla and Tripathi, 1974).

Material and Methodology:

The site which inhabited by *Trigoniulus Coralline* worm from Pandharpur was surveyed in monsoon season between June 2024 to August 2024. For the calculation of population density 4 quadrat method was used. The juveniles from selected quadrat were handpicked and counted. After counting it was released in its habitat. Average number of individuals in the 4 quadrat was recorded and mean density was measured.

Results and Discussion:

Different Colonies of *Trigoniulus Coralline* were observed in monsoon season (June 2024 to August 2024) at study area (Pandharpur). The total area inhabited by *Trigoniulus Coralline* worm was measured. They were spread in area of 72 cm² in study area. Rectangular shaped quadrat of 2 x 2 cm was prepared for the study i.e. 16 cm². The juveniles from each quadrat was handpicked and measured. Their number is as follows.

Plate: 1**a. Colony of Trigoniulus****b. Single Trigoniulus****Table: 1**

Sr. No.	Quadrant	No. of individuals in quadrant (Trigoniulus)
1	Quadrant A	09
2	Quadrant B	10
3	Quadrant C	06
4	Quadrant D	07

No. of Individuals in all quadrant = 32

$D_p = N/A$

D_p : Density of Population

N = Number of Individuals in the population

A = Area

$D_p = 32/16 \text{ cm}^2$

$D_p = 02$

Population density of a particular species of millipedes depends on various factors like size of individual, stadia and other environmental factors i.e. availability of food, moisture and temperature. Population density may also vary depending on elevation as observed by Alagesan and Ramanathan (2013).

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