# MIGRATING INDIAN BLUES

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## INTRODUCTION

Blue earthworm *(Perionyx excavates)* is a species of migratory worms also known as "Indian Blues". They were first discovered in the East Khasi Hills district of Meghalaya that is also considered as biodiversity hotspot. They are known species for making worm casting very quickly. Blue worms also became popular in the North America region for composting. For the first time scientist of Zoological Survey of India (ZSI) have made reports on two-way migration of Indian blues. They are suitable for vermicomposting in the tropical and subtropical regions. They play a major role in enhancing the soil fertility in the area. They also help the local farmers to initiate the first step towards organic farming.

## DIFFERENCES BETWEEN RED WRIGGLERS AND INDIAN BLUES

**1. Less prominent banding:** Red wrigglers have a distinct yellow banding pattern that ends at their tail tip giving a concentrated yellow color but on the other hand there is no such yellow banding pattern found in Indian blues.

**2. Clitellum:** One of the easiest ways to distinguish them is clitellum. The blue earthworms lack raised clitellum. Their clitellum is less prominent and closed to the body.

**3. Temperature:** Red wrigglers are tolerant toward wider range of temperature ranging from 55 F -90 F. But on the other side blue ones cannot tolerate such harsh temperatures.

**4. Movement:** Indian blues exhibit more activity than red wrigglers .they sometimes thrash around when light falls on them.

**5. Tendency to escape:** Blue earthworms have higher tendency to escape from an enclosed space than red wrigglers.

## SIMILARITIES BETWEEN RED WRIGGLERS AND INDIAN BLUES

**1. Composting ability:** Both Indian blues and red wrigglers are surface feeding worms, they process organic waste found in the soil profile.

**2. Same size:** There is no considerable differenceseen between the size of both the species. Both of them can grow up to a length of 3-4 inches. But with respect to thickness, the wrigglers are thicker than blues.

# MIGRATION PATTERNS

The 1.6 meters long blue earthworm migrates up and down the Khasi hills of Meghalaya in order to find suitable conditions for their survival. In the month of April, they start their uphill migration. And as the monsoon strikes they emerge out of the rivers and streams. Then they start moving downhill from September to October because the vegetation at the summits begins to dry and the temperature and humidity begins to fall.

# CONCERNS

There are some areas in the state where the unsustainable land-practices have drastically reduced the blue earthworm population. The damage has been mostly caused by stone quarry and heavy-earth cutting. The main factors responsible for migration of earthworms are erratic weather changes, predation, developmental activities, changes in sea water levels, climate changes etc.The species is steadily getting diminished so some measures need be taken to protect them.