Rare biological phenomenon in dragonflies sighted at Kole wetlands

- When Renjith R.V and Vivek Chandran spotted a peculiar dragonfly, the **Scarlet Skimmer** (*Crocothemis servilia*), in the Puzhakkal area of the **Kole wetlands in Thrissur** last year, little did they know that they were documenting a very rare biological phenomenon.
- The **male dragonflies** typically have prominent **blood red colouration** in almost all their body parts, including the **head, thorax, abdomen and legs**, and the **female** is a **pale yellow in colour with a dark brown thorax and legs**.
- But the one they spotted on July 14 as part of the Kole Odonata Survey 2019, was “part red and part yellow”.
- Later, while compiling data, they were thrilled to find that they had recorded **gynandromorphism** — a very rare biological phenomenon.

‘Genetic aberration’

- **Gynandromorphs** are **chimeric individuals** having both male and female tissues, and are viewed by the scientific community as a **genetic aberration**.
- Even though common in some arthropod taxa such as **Crustacea and Arachnida**, the paper says it is very rare in **Odonates** and only 30 individuals from seven families have been reported with the condition worldwide.
- The spotted individual showed **bilateral gynandromorphism** of only the thorax, half of which showed blood red colouration as in males, and the other half had the pale yellow characteristic of females.
- The individual had a mix of male and female external characters, ranging from almost entirely female to about equally divided.

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**Odonate:**

- They are predaceous insects comprising the dragonflies and damselflies.

**Arthropod:**

- An arthropod is an invertebrate animal having an exoskeleton, a segmented body, and paired jointed appendages. Arthropods form the phylum **Euarthropoda**, which includes **insects, arachnids, myriapods, and crustaceans**.

**Gynandromorph:**

- A gynandromorph is an organism that contains both male and female characteristics.