



Eretmoptera Murphyi

Why in News?

According to a study by the British Antarctic Survey (BAS), a tiny flightless Midge (small insect) called *Eretmoptera murphyi* is changing the soil composition of [Antarctica's](#) Signy Island.

- It is an **invasive species** on Antarctic Signy Island.



What is Eretmoptera Murphyi?

▪ About:

- It is a native of South Georgia, a **sub-Antarctic Island**, and was accidentally introduced to Signy **in the 1960s during a botany experiment**. Its proliferation became apparent in the 1980s.
- Eretmoptera murphyi feasts on **dead organic matter and has led to faster plant decomposition**, thus increasing the **soil nitrate levels by three-five times compared to places on the island where the midge** (small insects which bite) **is absent** and only native invertebrate species live.
 - High levels of nitrate **can be toxic for other plant species**, and it can also contaminate groundwater. High levels of nitrate in water can lead to **excessive algae growth**, which can **deplete oxygen levels and harm aquatic life**.

▪ Cause for the Spread:

- Experts believe that the spread of this midge, murphyi in Antarctica may have been **caused by humans who carried insects on their shoes**.

▪ Concerns:

- The midge can also survive in water, which raises concerns that it could spread to other

islands.

- It has become **a big problem as the tiny insect has spread to a much larger area** with multiplying populations.
- Antarctica has a unique ecosystem that is vulnerable to invasive species, and the midge **invasion highlights that even harsh conditions can no longer protect it.**
- The activity of the midges, along with climate change, may also create conditions for other invasive species to become established and accelerate the effects of climate change.

Source: DTE

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