



Locust Swarms

[Source: TH](#)

A new study reveals that **locust swarms** are guided by a **cognitive decision-making** model, not random behavior. Locusts use multiple visual cues for movement, leading to coordinated swarms through decentralized decision-making. This model helps predict swarm behavior and improve early intervention strategies.

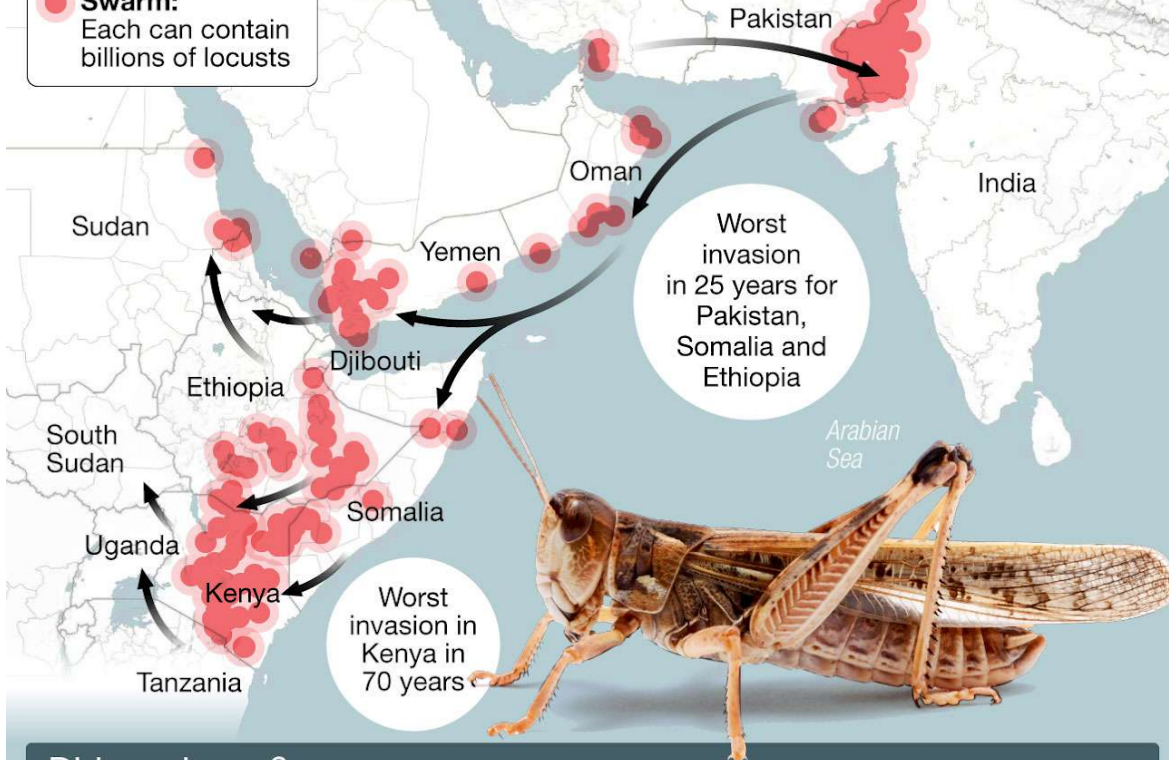
Locusts

Locusts are a type of grasshopper belonging to the family **Acrididae**. The Desert Locust (***Schistocerca gregaria***) is considered the most destructive migratory pest.

- Locusts are solitary insects until they undergo a transformation called **gregarisation**, where they become more social and congregate in large swarms.
 - A small swarm (1 km²) can contain **80 million locusts**, consuming as much food as 35,000 people in one day, while a large swarm **can eat up to 1.8 million metric tons of vegetation**.
- Locusts are migratory pests capable of flying hundreds of kilometers in swarms. They are a trans-border pest that travels between Africa, the Middle East, and South Asia.
- India's Scheduled Desert Area, encompassing the states of Rajasthan, Gujarat, and Haryana, covering over 2 lakh square kilometers, is particularly vulnerable to locust invasions, which often originate from regions such as Africa and the Gulf.
 - **Desert Locust** (*Schistocerca gregaria*), **Migratory Locust** (*Locusta migratoria*), **Bombay Locust** (*Nomadacris succincta*), and **Tree Locust** (*Anacridium* sp.) are reported in India.
 - India's **Locust Warning Organization**, along with 10 Locust Circle Offices in Rajasthan and Gujarat, monitors, surveys, and controls desert locusts in coordination with state governments in the Scheduled Desert Area.

Locust plague devastation

Swarm:
Each can contain
billions of locusts



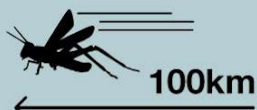
Did you know?



Locusts can eat their own bodyweight in food each day



A swarm can be made up of more than 50 billion individual insects



A swarm can travel up to 100km in a day - eating everything in its path



Without intervention, a plague can last years



Weather plays a major role in plagues:

locusts gather in one place during dry spells. When the rain returns, an increase in food and breeding results in numbers exploding



Read more: [Swarm of Desert Locust](https://www.drishtiias.com/printpdf/locust-swarms)