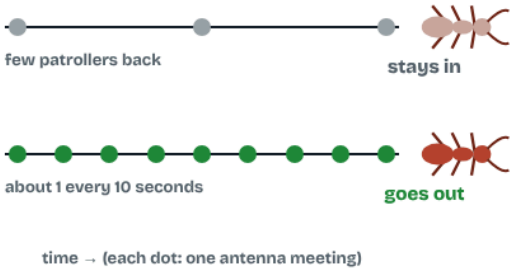
That is why

How do ants work together like one brain?

Each ant follows a simple threshold rule about the nestmates it meets; together, those rules make colony decisions.

A Go out or stay in?

A forager counts meetings, not orders



The glass-bead test (Stanford)

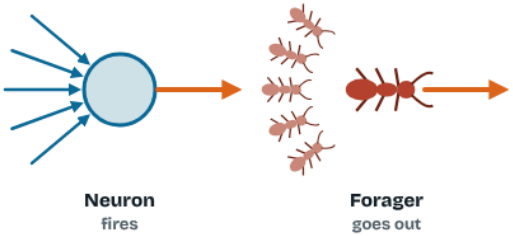
Beads 3 mm wide, dropped into the nest



Ants read cuticular hydrocarbons: each job smells slightly different on the skin.

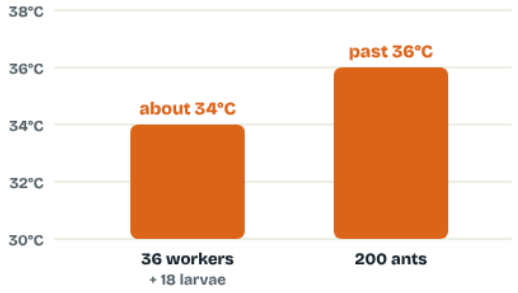
B A threshold, like a neuron

Enough signals in, then fire



The hot-nest test (Rockefeller)

temperature at which the colony moves out



Bigger colony, higher trigger: no ant knows the size.

C Many ants beat one

Choosing a new nest (ASU)

half of the nests unsuitable



Sharing the comparing keeps any one ant from overload.

Same rule, other places



A stadium wave starts with 25 to 35 people, then rolls about 20 seats a second. The same math describes forest fires and heart tissue.

No ant is in charge: the decision lives in the meetings.

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