

# KARL VON FRISCH

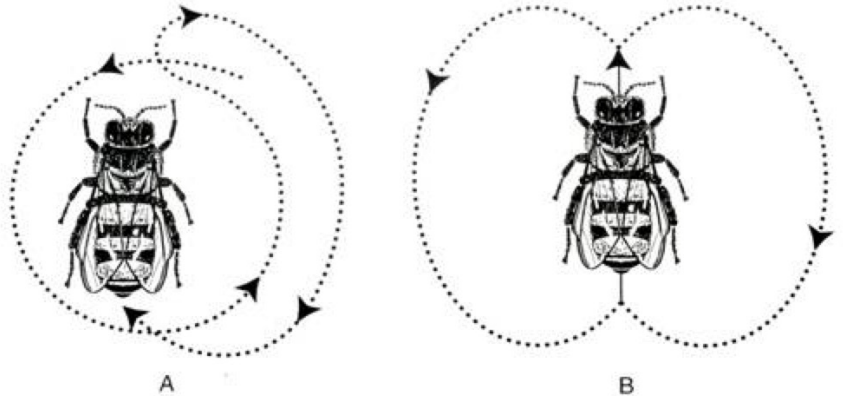
(1886 - 1982)

**Field:** Ethology

**Subject:** Honey bees

**Nationality:** Austrian

Entomologist  
of the  
Month



The round dance (left) indicates resources that are a short distance from the hive, while the waggle dance (right) communicates longer distances. Credit: [Oliver Feldwick](#)

**Karl von Frisch is most famous for his discovery and interpretation of the honey bee dance language**, for which he and his colleagues were awarded the Nobel Prize in 1973.

His experiments relied on training paint-marked bees to feeders at known locations relative to their hive. Then, through careful observation, von Frisch discovered that honey bees perform a 'waggle dance' to communicate the distance and direction of food resources to other foragers. von Frisch is less well known for many other important contributions that he made to the study of honey bees, which included investigations into honey bee vision and the study of a microsporidian parasite of honey bee colonies called *Nosema apis*. Being of Jewish descent, von Frisch struggled to perform his research under the Nazi regime during World War II. However, due to the economic importance of crop pollination in maintaining the German food supply, (which was instrumental towards fueling the war effort), he was allowed to continue his research on honey bees.

## References:

- Munz, Tania. 2016. *The Dancing Bees: Karl von Frisch and the Discovery of the Honeybee Language*. University of Chicago Press, Chicago, IL
- Winston, M. 2016. Ethology: Intrepid translator of the hive. *Nature* 533:32-33
- This factsheet was produced by Natalie Boyle, Penn State Insect Biodiversity Center program coordinator

April 2021



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