



Talks by rising stars of neuroscience

Investigating the sun compass in monarch butterflies

(Danaus plexippus)

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Every autumn, monarch butterflies migrate from North America to their overwintering sites in Central Mexico. To maintain their southward direction, these butterflies rely on celestial cues as orientation references. The position of the sun combined with additional skylight cues are integrated in the central complex, a region in the butterfly's brain that acts as an internal compass. However, the central complex does not solely guide the butterflies on their migration but also helps monarchs in their non-migratory form manoeuvre on foraging trips through their habitat. By comparing the activity of input neurons of the central complex between migratory and non-migratory butterflies, we investigated how a different lifestyle affects the coding of orientation information in the brain.

Event link:

<https://www.crowdcast.io/e/wwneurise/>