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DO YOU REMEMBER WHEN? EFFECT OF PAST EXPERIENCES IN FUTURE DECISIONS IN A NOCTUID MOTH

par

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- 📌 During their lifetime most insects are exposed to a multitude of environmental cues in more than one context, many of which represent noise that is not relevant for future decisions.
- 📌 The selection of suitable cues by herbivorous insects is a complex task, particularly so in polyphagous species, since most environments are dynamic and exhibit large spatial and temporal variation in plant resources, in plant availability or in the presence of natural enemies. To overcome potential information processing limitations, polyphagous species may rely more on behavioural phenotypic plasticity during host selection.
- 📌 In the highly polyphagous moth, *Spodoptera littoralis*, individuals have an innate host plant preference hierarchy during plant choice. Nevertheless, such host plant preference can be modulated by sensory feedback triggered by single or multiple rewarding experiences throughout their lifetime (from larvae to adulthood).
- 📌 Thus, experiences acquired at different stages of an individual's life could represent a valuable source of information about the current state of the environment, facilitating decision making in complex choice situations.