



Olfactory sensitivity of spider monkeys (*Ateles geoffroyi*) for six structurally related aromatic aldehydes

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Objective

- Determine detection thresholds for aromatic aldehydes
- Investigate impact of small changes in molecular structure on sensitivity
- Aromatic aldehydes vs. other classes of odorants

Method

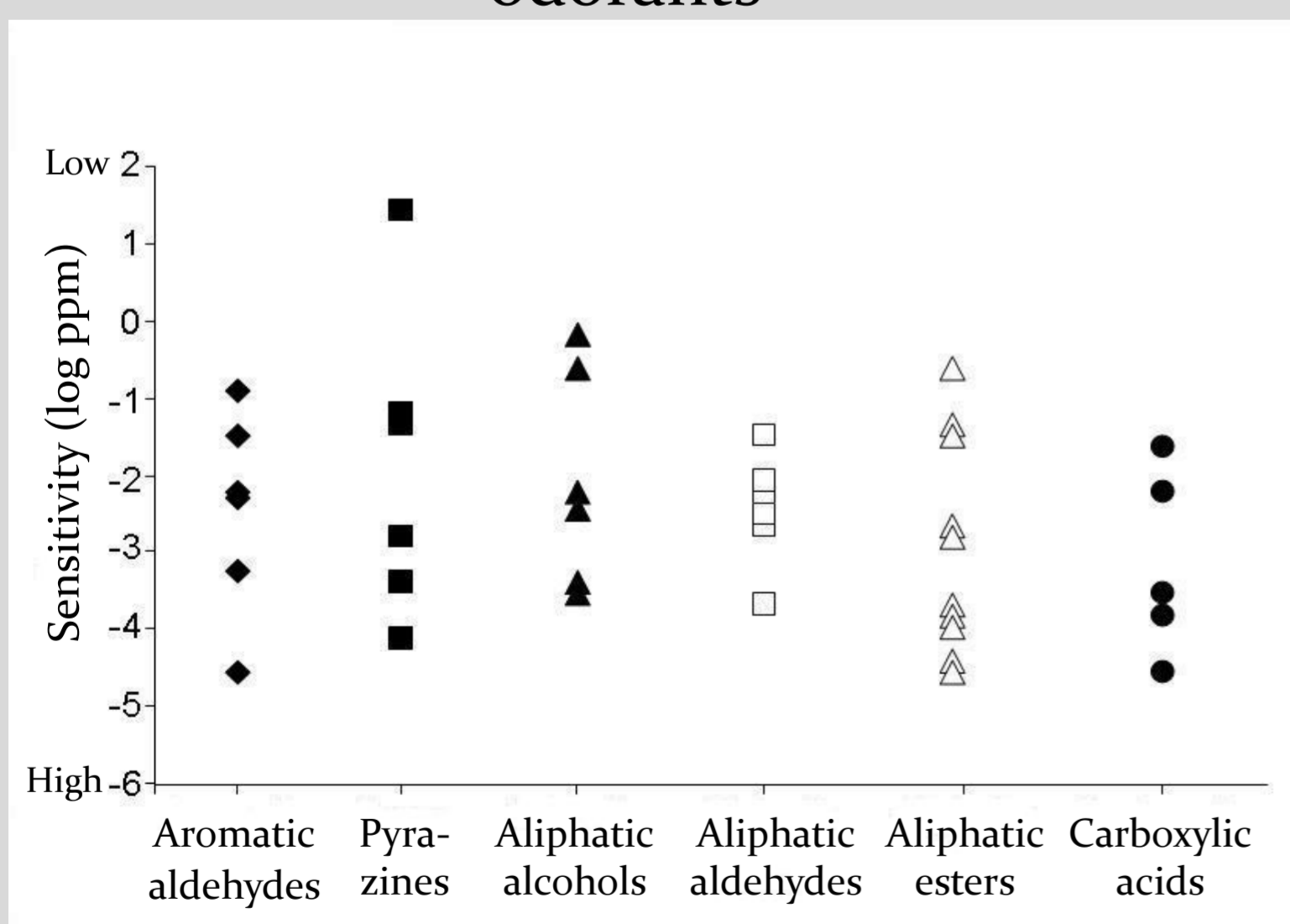
- two-choice instrumental conditioning paradigm
- 30 trials /concentration
- 21 correct choices to pass

Conclusion

- Spider monkeys are sensitive to several aromatic aldehydes
- Small changes in structure greatly affect sensitivity
- Sensitivity for aromatic aldehydes is in the range of other classes of odorants

Results

• Aromatic aldehydes vs. other classes of odorants



Comparison of olfactory detection thresholds for spider monkeys (expressed as vapor phase concentrations).

• Sensitivity varied with structure

↑ Lowest

- Helional
- Canthoxal
- Cyclamal
- Lilial
- 3-PPA (3-phenyl propionic aldehyde)
- Bourgeonal

↓ Highest

