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Title:	Visual detection thresholds in the Asian honeybee, <i>Apis cerana</i>
Authors:	Meena, Abhishek (/jspui/browse?type=author&value=Meena%2C+Abhishek) Kumar, Arya M. V. (/jspui/browse?type=author&value=Kumar%2C+Arya+M.+V.) Balamurali, G. S. (/jspui/browse?type=author&value=Balamurali%2C+G.+S.) Somanathan, Hema (/jspui/browse?type=author&value=Somanathan%2C+Hema)
Keywords:	Visual detection Asian honeybee <i>Apis cerana</i>
Issue Date:	2021
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Abstract:	To understand how insect pollinators find flowers against complex backgrounds in diverse natural habitats, it is required to accurately estimate the thresholds for target detection. Detection thresholds for single targets vary between bee species and have been estimated in the Western honeybee, a species of bumblebee and in a stingless bee species. We estimated the angular range of detection for coloured targets in the Asian honeybee <i>Apis cerana</i> . Using a Y-maze experimental set up, we show that targets that provided both chromatic and green receptor contrast were detected at a minimum visual angle of 7.7°, while targets with only chromatic contrast were detected at a minimum angle of 13.2°. Our results thus provide a robust foundation for future studies on the visual ecology of bees in a comparative interspecific framework.
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