Kin recognition in a subsocial treehopper (Hemiptera: Membracidae)

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 1. Insects exhibiting parental care usually can discriminate between kin and non-kin individuals, allowing parents to avoid investment in foreign offspring. 2. This study investigated the occurrence of kin recognition in the sap-feeding insect Alchisme grossa Fairmaire (Membracidae) through bioassays assessing median female distance to nymphs and degree of nymphal aggregation. Each bioassay involved groups consisting of a female and a cohort of kin or non-kin nymphs (mother and non-mother treatments, respectively). Furthermore, cuticular non-volatile compounds were extracted from nymphal cohorts, analysed by gas chromatography-mass spectrometry and compared between cohorts. 3. In both treatments, nymphs performed a ?rocking behaviour? which appears to be correlated with aggregation. Temporal patterns of degree of nymphal aggregation and median female?nymph distance differed between treatments, the former parameter being higher in the mother treatm