Territorial Defence by Male Wool Carder bees, Anthidium septemdentatum (Hymenoptera: Megachilidae), Directed towards Giant Carpenter bees, Xylocopa violacea (Hymenoptera: Megachilidae)

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Male Wool Carder bees, Anthidium septemdentatum Lepeletier 1841, were videographed as they patrolled their territories of several square meters in the Mediterranean macchia to record their reactions when the much larger Xylocopa violacea Fabricius 1775 entered these. They feigned attacks by flying very close to X violacea at speeds of up to 1 m s⁻¹, even in a maze of twigs; they flew slowly, circling the intruder; they made single or multiple advances which sometimes led to direct touching of the body or wings of the intruder. Impact speed was nearly 1 m s⁻¹; typical impact impulse, impact force and impact pressure against the two abdominal sides were 0.00012 Ns, 0.024N (16 times body weight) and 24 kPa respectively. Carpenter bees never appeared to be hurt.

Key words: Anthidium septemdentatum Lepeletier 1841 - Xylocopa violacea Fabricius 1775 - flight behaviour - territorial defence -