

P.58 - Copulatory behaviour in a South Italian population of *Xylocopa violacea* (L.) (Hymenoptera: Apidae: Xylocopini) .

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Copulation in *Xylocopa violacea* is described. A total of 659 male-female interactions in *X. violacea* were observed, of which 147 resulted in matings. Matings mostly occur in March (83.3%) and between 11.01-13.00 h (70.1%), at an average temperature of 17.4-17.6 °C (see table below of mating divided by months and hours). The catching of females takes place in the air (86%); they are located by sight and perhaps, at close quarters, also chemically. Copulation happens on a perch and lasts 19 s. Male lays on the female back at an angle of 30°- 45°; leg position are as follows: forelegs are motionless behind female eyes; midlegs surround the mesosoma behind female wing bases; hindlegs surround female metasoma.

The male, during copulation stimulates the females tactically and acoustically showing the following coordinated behaviours, at intermittence of about 1 s: wing flapping (buzzing); antennae flagella flexion on the female antennae base; metasoma pumping; female metasoma squeezing by hindlegs. At the same male intermittence, the female moves her hindlegs forward. Average times of the intermittent buzzing (= intermittent wing flapping) is 17.6.

Comparison of the copulatory behaviour among Xylocopini species reveal the following shared characteristics: female and (rare) male precopulatory choice (on unknown bases); cryptic female choice; copulatory male courtship; sperm competition.

DAY DIVIDED IN HOUR GROUPS	MONTH DIVIDED PER DECADE									TOTALS	%	
	FEBRUARY			MARCH			APRIL					
	I	II	III	I	II	III	I	II	III			
< 9:00	0	0	0	0	0	0	0	0	0	0	0.0	
9:01 - 10:00	0	0	0	0	0	0	0	1	0	1	0.7	
10:01 - 11:00	0	0	1	3	3	6	4	2	0	19	12.9	
11:01 - 12:00	0	3	2	15	7	21	0	4	0	52	35.4	
12:01 - 13:00	0	0	2	17	10	20	1	0	1	51	34.7	
13:01 - 14:00	0	0	2	5	8	2	0	1	0	18	12.4	
14:01 - 15:00	0	1	0	1	4	0	0	0	0	6	4.1	
> 15:01	0	0	0	0	0	0	0	0	0	0	0.0	
Totals for decades	0	4	7	41	32	49	5	8	1	147	100.0	
% for decade	0.0	2.7	4.8	27.9	21.8	33.3	3.4	5.4	0.7	100.0	100.0	
Totals for month		11			122			14			147	100.0
% for Month (T. °C)		7.5 (14.18)			83.0 (17.44)			9.5 (21.36)			100.0	100.0