

P.56 - Preliminary study on mating system in a South Italian population of *Xylocopa violacea* (L.) (Hymenoptera: Apidae: Xylocopini).

**First ISE-ISEB
Congress &
II Meeting
of Italian
Evolutionary
Biologists**

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Xylocopa violacea mating system was studied; in particular, the female-searching tactics used by males, male mating choice, male-male interactions and homosexual attempts at mating in males. Males searching for females, as in other *Xylocopa* species, was: random patrolling in flight and two types of territoriality. Interception of females occurs in the air; they appear to be identified first visually and then chemically. Matings mostly occur in March (83.3%) and between 11.01-13.00 h (70.1%), at an average temperature of 17.6 °C. The mating period lasts from February until the end of April, but search for females starts in January and finishes in May-June. Both males and females mates several times during the reproductive period. Females feed on cultivated species of *Prunus*, *Wisteria sinensis*, *Vicia faba* and *Coronilla emerus*. *X. violacea* male shows a behaviour like a mating choice. Random patrolling flight is the most female searching tactic by males. Local ecology and physiological constraints are invoked to explain the prevalence of this tactic on territoriality, the most widely distributed one in the *Xylocopa* species (see below). In wrong attempts at homosexual mating (14 cases; 6.7% of all catches performed by males) a patroller male catches a second male and the homosexual couple alighted on a perch; the patrolling males attempts copulation rubbing his hind legs against the metasomal sides, and his foretarsi against the head apex of caught male, buzzing continuously; moreover the catcher male try to bring into contact the two metasomal apex. Some males catches heterosexual couple in flight (7.6% of all catches performed by males).

Key of male mating systems in *Xylocopa* and *Proxycopa* species. Territoriality at Nest/Winter Shelter Sites = TNS; Territoriality at Females Feeding Sites = TFS; Territoriality at Resourceless Sites (Scattered Lek) = TSLeK; Not Specified Territoriality Types = TUK; Random Patrolling in Flyght = RP; Patroller at Nest Sites = PNS.

[Vicidomini S., 1997 - Biology of *Xylocopa* (*Xylocopa*) *violacea* (Linnè, 1758) (Hymenoptera: Apidae): male sexual behaviours II. - Atti Mus. Civ. Sto. Nat. Morbegno, 8: 95-113.].

P. olivieri (Lepelletier) – PNS. *P. rufa* (Friese) – PNS. *X. aruana* Ritsema – TSLeK. *X. caffra* (L.) – TSLeK. *X. californica arizonensis* Cresson - TNS; RP. *X. californica californica* Cresson – TNS. *X. capitata* Smith - TFS; TSLeK. *X. carbonaria* Smith – TSLeK. *X. darwinii* Cockerell – TFS. *X. erythrina* Gribodo – TSLeK. *X. fimbriata* Fabricius – TSLeK. *X. flavorufa* (DeGeer) - TFS; TSLeK; RP. *X. frontalis* (Olivier) – TSLeK. *X. gualanensis* Cockerell – TSLeK. *X. guatemalensis* Cockerell – TSLeK. *X. hirsutissima* Maidl – TSLeK. *X. inconstans* Smith – TSLeK. *X. latipes* Drury – TFS. *X. micans* Lepelletier - TFS; TSLeK. *X. mordax* Smith – TUK. *X. muscarina* (Fabricius) – TUK. *X. nigrita* (Fabricius) – TSLeK. *X. nigrocincta* Smith – TSLeK. *X. perversa coracina* Wiedemann – TSLeK. *X. perversa perversa* Wiedemann – TSLeK. *X. pubescens* Spinola – TSLeK. *X. sulcatipes* Maa - TNS; TFS; RP. *X. tabaniformis illota* Cockerell – TFS. *X. tabaniformis melanosoma* O'Brien and Hurd – TFS. *X. tabaniformis orpifex* Smith – TFS. *X. tabaniformis rufina* Maidl – RP. *X. tenuiscapa* Westwood – TFS. *X. torrida* (Westwood) – TFS. *X. varipuncta* Patton – TSLeK. *X. violacea* (L.) - TFS; TSLeK; RP. *X. virginica virginica* (L.) - TNS; TFS; TSLeK; RP.