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CHRYSIDIDAE AND MUTILLIDAE (HYMENOPTERA) COLLECTED IN AQUITAINE, SOUTHWESTERN FRANCE AND AN ADDITION TO THE LIST OF SPHECIDAE

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ABSTRACT

The authors have listed the Chrysididae and Mutillidae (Hymenoptera) which they have collected in Aquitaine (southwestern France) from 1965 through 1973. Some additions to the list of Sphecidae (Simon Thomas, 1972) are mentioned.

From 1965 through 1973 large numbers of *Philanthus triangulum* (Fabricius) Hymenoptera, Sphecidae, were collected in the south of France during the summer (Simon Thomas, 1972). Much time was spent in areas where these bee hunting wasps were abundant or could be expected to occur, particularly in Aquitaine ("départements" Landes, Gironde, and the west of Lot-et-Garonne). Apart from *P. triangulum* many specimens of Chrysididae and Mutillidae (Hymenoptera) could be collected in these areas. The present paper gives a list of species collected at various places. Some additions to the list of Sphecidae (Simon Thomas, 1972) based on the collections made in 1972 and 1973, are included.

The Chrysididae are identified by the second author, who also compared the specimens with the collection of P.M.F. Verhoeff. The latter collec-

tion was for the greater part identified by W. Linsermaier. In all 22 species were found.

The Mutillidae (11 species) were identified using the publication of Giner Marí, 1944.

Most specimens mentioned in the present paper have been deposited in the collections of the Institute of Taxonomic Zoology (Zoölogisch Museum) of the University of Amsterdam.

SYSTEMATIC LIST OF SPECIES COLLECTED

Chrysididae, Cleptinae

Cleptes consimilis Buysson
LANDES: Lévigacq 1 ♂, Linxe 1 ♂.

Chrysidinae

Omalus (O.) auratus (Linnaeus)
LANDES: Linxe 1 ♂.

Omalus (O.) punctulatus Dahlbom
LANDES: Lévigacq 1 ♂, Linxe 4 ♂.

Omalus (O.) biaccinctus Buysson
GIRONDE: Andernos-les-Bains 1 ♀.

Holopyga ovata Dahlbom
LANDES: Linxe 1 ♂.

Hedychrum nobile (Scopoli)

GIRONDE: Andernos-les-Bains 19 ♂, 11 ♀, Arès 2 ♂, 4 ♀, Escaudes 1 ♀, St-Jean-d'Illac 2 ♀, Villandraut 1 ♀, Lège 1 ♀, LANDES: Arengosse 1 ♂, Castets 1 ♀, Escourse 2 ♂, Lévigacq 4 ♂, 2 ♀, Linxe 8 ♂, 8 ♀, Onesse 9 ♂, 26 ♀. LOT-ET-GARONNE: Durance 4 ♀.

Hedychrum aureicolle niemelaei Linsenmaier

GIRONDE: Arès 1 ♀. LANDES: Linxe 1 ♂, Onesse 1 ♀.

Hedychrum intermedium Dahlbom

GIRONDE: Andernos-les-Bains 10 ♂, 41 ♀, Arès 11 ♂, 50 ♀, Blagon 1 ♂, 1 ♀, Marcheprime 1 ♀, Naujac 1 ♀, St-Jean-d'Illac 1 ♀, Villandraut 8 ♂, 17 ♀. LANDES: Arengosse 17 ♂, 9 ♀, Arjuzanx 3 ♂, 2 ♀, Castets 5 ♂, 4 ♀, Escourse 7 ♂, 43 ♀, Lалуque 3 ♂, 20 ♀, Lesgor 1 ♀, Lespéron 22 ♂, 11 ♀, Lévigacq 86 ♂, 313 ♀, Linxe 100 ♂, 183 ♀, Onesse 45 ♂, 109 ♀, St-Jean-en-Born 1 ♀, Trensacq 6 ♂, 30 ♀. LOT-ET-GARONNE: Bousses 1 ♂, 1 ♀, Durance 96 ♂, 84 ♀.

Of the various parasites of *Philanthus triangulum* (Fabricius) known, only *Hedychrum intermedium* is a serious threat. This Cuckoo Wasp is monophagous. During the mass collecting of *P. triangulum*, *H. intermedium* was also caught in large numbers (cf. Simon Thomas, 1972). In table I the numbers collected of both species are shown. When a population of *P. triangulum* grows, an increase of the population of *H. intermedium* follows. If *H. intermedium* is found in considerable numbers at a site in one year hardly any *P. triangulum* occurs in the next year. It takes several years before the population of *P. triangulum* recovers.

Hedychridium (*H.*) *jucundum* Mocsary

GIRONDE: Bourideys 1 ♀, Villandraut 1 ♀. LANDES: Arengosse 1 ♂, Castets 2 ♀, Linxe 1 ♀.

Hedychridium (*H.*) *monochroum* Buysson

GIRONDE: Andernos-les-Bains 1 ♀.

Hedychridium (*H.*) *roseum* (Rossi)

GIRONDE: Andernos-les-Bains 2 ♀, Arès 1 ♀. LANDES: Arengosse 1 ♀, Lévigacq 8 ♀, Linxe 4 ♀.

Hedychridium (*H.*) *lampadum* Linsenmaier

LANDES: Lévigacq 4 ♀, Linxe 1 ♀.

Hedychridium (*H.*) *chloropygum* Buysson

GIRONDE: Arès 1 ♀.

Hedychridium (*H.*) *scutellare* Tournier

LANDES: Linxe 2 ♂.

Hedychridium (*H.*) *mediocre* Linsenmaier

LANDES: Lévigacq 4 ♂, Linxe 22 ♂, 3 ♀, Onesse 1 ♂.

Chrysis (*Chrysogona*) *rufiventris* Dahlbom

LANDES: Linxe 1 ♀.

Chrysis (*C.*) *subsiniuata* Marquet

LANDES: Linxe 1 ♀.

Chrysis (*C.*) *chryso-cutella* Linsenmaier

GIRONDE: Andernos-les-Bains 1 ♂. LANDES: Linxe 1 ♂.

Chrysis (*C.*) *bicolor* Lapeletier

GIRONDE: Arès 1 ♀, Villandraut 2 ♀. LANDES: Arengosse 4 ♀, Escourse 1 ♂, Lévigacq 4 ♀, Linxe 1 ♂, 5 ♀, Onesse 1 ♀, Trensacq 1 ♀.

Chrysis (*C.*) *mediata* Linsenmaier

LANDES: Linxe 1 ♀.

Chrysis (*C.*) *scutellaris* Fabricius

GIRONDE: Andernos-les-Bains 1 ♂, 1 ♀.

Chrysis (*C.*) *ignita* Linnaeus

LANDES: Lалуque 1 ♀, Linxe 2 ♀, Lit-et-Mixe 1 ♂.

Parnopinae

Parnopes (*P.*) *grandior* (Pallas)

GIRONDE: Arès 1 ♂, 1 ♀, Lacanau-Océan 1 ♂, Villandraut 2 ♂, 3 ♀. LANDES: Arengosse 4 ♂, 4 ♀, Lévigacq 1 ♂, 1 ♀, Linxe 3 ♂, 5 ♀, Onesse 2 ♂, 2 ♀. LOT-ET-GARONNE: Durance 5 ♂, 1 ♀.

Mutillidae, Myrmosinae

Myrmosa melanocephala Fabricius

LANDES: Linxe 1 ♂, 1 ♀.

Myrmosa brunnipes Lapeletier

GIRONDE: Andernos-les-Bains 1 ♀, Arès 2 ♀. LANDES: Arengosse 1 ♀, Linxe 1 ♂, LOT-ET-GARONNE: Durance 2 ♀.

Mutillinae

Myrmilla erythrocephala Latreille

GIRONDE: Arès 2 ♂.

Myrmilla calva Villiers

LANDES: Castets 1 ♀. LOT-ET-GARONNE: Durance 1 ♀.

Mutilla europaea Linnaeus

LANDES: Escourse 1 ♀, Linxe 2 ♀.

Smicromyrme viduata (Pallas)

LOT-ET-GARONNE: Durance 2 ♂.

Smicromyrme partita Klug

LOT-ET-GARONNE: Bousses 1 ♂, Durance 2 ♂.

Smicromyrme ligustica Invrea

GIRONDE: Beliet 1 ♂, Villandraut 1 ♂. LANDES: Linxe 1 ♂, Onesse 1 ♂. LOT-ET-GARONNE: Durance 3 ♂.

Smicromyrme rufipes Fabricius

GIRONDE: Andernos-les-Bains 7 ♀, Arès 3 ♀, St-Magne-de-Belin 2 ♀, Villandraut 1 ♀. LANDES: Castets 1 ♀, Escourse 3 ♀, Lévigacq 13 ♀, Linxe 11 ♀, Onesse 14 ♀. LOT-ET-GARONNE: Durance 11 ♀.

Dasylabris maura (Linnaeus)

GIRONDE: Andernos-les-Bains 2 ♀, Arès 7 ♀. LANDES: Castets 3 ♂, 3 ♀, Escourse 3 ♀, Lespéron 1 ♀, Lévigacq 1 ♀, Linxe 4 ♂, 7 ♀, Onesse 4 ♂, 15 ♀, Rion-des-Landes 1 ♀, Taller 1 ♀. LOT-ET-GARONNE: Bousses 1 ♂, Durance 7 ♂, 12 ♀.

TABLE I

Numbers of specimens of *Phylanthus triangulum* (Fabricius) collected at several sites in Aquitaine during nine successive years. In parentheses *Hedychrum intermedium* Dahlbom.

Collecting sites	1965		1966		1967		1968		1969		1970		1971		1972		1973			
	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀		
GIRONDE																				
Arès/ Andernos-les-Bains	16 (6)	550 (33)	0	99	4	116 (10)	8 (3)	126 (5)	0	2	1	0 (2)	3 (5)	63 (4)	9 (0)	1740 (13)	37 (5)	748 (36)	4 (5)	3 (5)
Villandraut																				1
LANDES																				
Escourse	0	2	0	7	1	0 (2)	0	7	0	0	0 (1)	3 (4)	0	3 (4)	15 (1)	320 (19)	7 (5)	56 (18)		
Laluque	0	63 (3)	24 (1)	14 (17)	4	0 (0)	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Lespéron	1	2	15 (3)	64 (10)	0	4	0	4	0	4	0	4	0	4	0	0	0	0	0	0
Lévigacq	1	0	14 (5)	411 (11)	7 (16)	693 (32)	5 (54)	42 (247)	4	36 (13)	8	160 (10)	0	0	0	0	0	0	0	0
Linxe	87 (1)	1420 (24)	79 (95)	682 (141)	1	281 (9)	13	29 (8)	0	2	3	0	0	0	0	0	0	0	0	0
Onesse	33 (0)	375 (17)	42 (15)	883 (24)	5 (15)	523 (25)	1	48 (10)	2	20 (3)	7	154 (13)	6	46 (3)	0	4 (14)	0	4	0	4
Trensacq	0	2	9 (1)	96 (5)	4 (1)	276 (18)	1	0 (0)	0	0	0	0	0	0	0	0	0	0	0	0
LOT-ET-GARONNE																				
Durance	122 (6)	467 (12)	6 (0)	283 (67)	2 (0)	0 (1)	0 (5)	0	3	5 (0)	0	0	0	0	0	0	0	0	0	6 (0)

*) Since 1972 the biotope has changed and it was not acceptable any more for *P. triangulum*.

Dasylabris iberica Giner Marí

GIRONDE: Andernos-les-Bains 1 ♀, Arès 4 ♀, Montalivet-les-Bains 1 ♀, Vendays-Montalivet 1 ♀. LOT-ET-GARONNE: Durance 2 ♂, 14 ♀.

Tachysphex lativalvis subsp. *gibba* Kohl

The male collected in Onesse (Simon Thomas, 1972) was misidentified. It actually was a specimen of *T. panzeri* Van der Linden. So the species was only found in Lot-et-Garonne.

ADDITIONS TO AND NOTES ON THE SYSTEMATIC
LIST OF SPHECIDAE (SIMON THOMAS, 1972)

Cerceris sabulosa (Panzer)

Inclusion in the previous list of Sphecidae (Simon Thomas, 1972) is based on misidentifications. This species has not been found in Aquitaine, although it is abundant in the Périgord Noir (Steiner, 1954) and in the high Pyrenees (Nouvel & Ribaut, 1953).

Gorytes (G.) quadrifasciatus (Fabricius)

GIRONDE: Andernos-les-Bains 1 ♀. Only one female was collected in Gironde. The species was collected only twice in the Périgord Noir. It was rare in the Pyrenees.

Gorytes (Dienoplus) formosus (Jurine)

LANDES: Escourse 1 ♀. One female was collected in Landes. The species was also found in the east of the Pyrenees. It was not mentioned from the Périgord Noir.

Mellinus arvensis (Linnaeus)

GIRONDE: Andernos-les-Bains 5 ♀. LANDES: Escourse 2 ♀, Onesse 1 ♀, Pissos 1 ♀, Trensacq 2 ♀. Previously only one female was collected in Gironde (Simon Thomas, 1972). Now many more specimens were found in Gironde as well as in Landes.

Larra anathema (Rossi)

GIRONDE: Andernos-les-Bains 1 ♀. Only one female was found in Gironde. The species is also rare in the Périgord Noir.

Ectemnius (Hypocrabro) rubicola
(Dufour & Perris)

GIRONDE: Andernos-les-Bains 1 ♂. One male was found in Gironde. The species was not mentioned from the Périgord Noir. It is common locally in the Pyrenees.

Entomognathus brevis (Van der Linden)

LANDES: Escourse 1 ♀. Only one female was found in Landes. The specimens are very small and easily overlooked while collecting. This species is mentioned only a few times from the Périgord Noir. The species was abundant in the valley of the Garonne up to a height of 1000 m.

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