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Sceliphron caementarium (Drury) supersedes *S. spirifex* Linnaeus in the Provence, France (Hymenoptera: Sphecidae)

by

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ABSTRACT. — The number of *S. caementarium* collected in July 1985 in the Provence, France, exceeded by far *S. spirifex*, indicating a supersedure of the latter species by the former during the last eight years. The colour pattern of *S. caementarium* found in the Provence was not significantly different from that found earlier in the Languedoc.

The thread-waisted sphecid wasp *Sceliphron spirifex* is very common in the south of France. This mud-dauber wasp, called "la mouche maçonne" by local people, was a regular guest in houses, where mud cells were constructed against walls and under roofs. Equally to *S. destillatorum* (Illiger) and *S. madraspatanum* (Fabricius) (= *S. tubifex* Latreille), this wasp has a yellow petiole. Although the author did not identify all yellow-waisted *Sceliphron*, which he has seen in the preceding eight years, the vast majority of these wasps collected in the Provence certainly belonged to *spirifex*.

In the last fifteen years a different *Sceliphron* species has appeared in the south of France: the American mud-dauber wasp *S. caementarium* (fig. 1) (Leclercq, 1976; Leclercq & Claparède, 1978; Piek, 1985). The local people in the Provence, still watching their "mouches maçonnes" may not have noticed the change in colour of the petiole, which is yellow in the original French species, and black in the French *S. caementarium*. The colour pattern of the French *S. caementarium* is intermediate between those of the most northern and southern forms found in the USA. In the most northern area of the USA, *S. caementarium* is mainly black, the southern wasps are more yellow: markings on the thorax, the propodeum and the gastral petiole and the first gastral tergite are yellow.

The author collected *Sceliphron* wasps in July 1985, in the vicinity of Salins d' Hyères, at the rivers le Maravanne and le Pansard, where these wasps were gathering pellets of mud for constructing their nests. About 5 percent of the wasps was *S. spirifex* and 95 percent *S. caementari-*

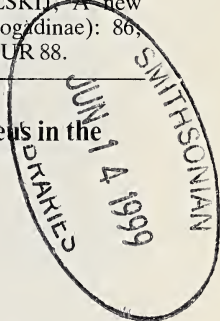




Fig. 1. Female *Sceliphron caementarium* during flight.

um. Yellow-waisted *Sceliphron* seems to be less common than ten years ago. *S. caementarium* may have superseded *S. spirifex*, the original species in this area. Leclercq & Claparède (1978) and Piek (1985) studied the colour patterns of *S. caementarium* collected in the Mediterranean areas Hérault (Languedoc) and Provence. They have used the scoring system by Van der Vecht & Van Breugel (1968), developed for the description of the variation in the colour patterns of American *S. caementarium* (see also Piek, 1985). Based on limited material, mainly collected from Hérault, Leclercq & Claparède (1978) concluded that in this part of France the colour patterns were similar to those of the wasps collected between Boston and Washington in the USA. Also based on limited material of a pioneer population in the vicinity of Salins d'Hyères, Piek (1985) observed a small difference in colour pattern between the wasps from Hérault and Provence. In July 1985 more wasps were collected, although not as many as possible because of the danger of extermination of the young population. The analysis of the colour pattern is summarized in Table 1, together with the analysis of data collected by Leclercq & Claparède (1978). It can be concluded now that no significant differences exist between the colour patterns of both populations in Hérault and Provence.

Table 1. Colour patterns of *S. caementarium* collected in the South of France. Evaluation according to the scoring system by Van der Vecht and Van Breugel (1968). See also Piek (1985).

T = thorax, P = propodeum, GP = gastral petiole, GT = first gastral tergite.

	♀				♂			
	T	P	GP	GT	T	P	GP	GT
Provence								
(Salins d'Hyères)								
mean	1.906	0.859	0.031	0.625	1.778	0.833	0.0	0.889
SEM	0.042	0.088	0.031	0.100	0.121	0.083	0.0	0.073
n	32	32	32	32	9	9	9	9
Provence*								
(Ciotat, Bagnol)								
mean	2.0	1.0	0.0	1.00	0.2	1.0	0.0	1.00
SEM	0.0	0.0	0.0	0.577	0.0	0.0	0.0	0.577
n	3	3	3	3	3	3	3	3
Hérault*								
mean	1.667	0.958	0.0	1.000	1.667	0.833	0.083	1.375
SEM	0.142	0.042	0.0	0.213	0.188	0.094	0.083	0.109
n	12	12	12	12	12	12	12	12

* calculated from Leclercq & Claparède (1978)

It would be interesting to investigate, whether a possible distribution of the French populations in northern direction is linked to a change in colour pattern, comparable to that observed in the USA.

REFERENCES

- Leclercq, J., 1976. *Sceliphron caementarium* (Drury) s' établit en Europe (Hymenoptera Sphecidae). — *Bull. Rech. agron. Gembloux* 10: 371.
- Leclercq, J. & L. Claparède, 1978. *Sceliphron caementarium* (Drury) (Hymenoptera Sphecidae) s'installe en Europe meridionale. — *Entomops* (Nice) 47: 245-252.
- Piek, T., 1985. Expansion of the *Sceliphron caementarium* (Drury) population east of Toulon (Hymenoptera: Sphecidae). — *Ent. Ber., Amst.* 45: 33-37.
- Vecht, J. van der & F. M.A. van Breugel, 1968. Revision of the nominate subgenus *Sceliphron* Latreille (Hym., Sphecidae) (Studies on the *Sceliphronini*, part. 1). — *Tijdschr. Ent.* 111: 185-255.

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