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List of the Hoverflies of Bouches-du-Rhône (Diptera : Syrphidae)

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Material and Methods

The Maps of the departmental distribution of syrphid species in France (Speight et al. 2018) only gives 49 species as present in the Bouches-du-Rhône department, with some common species obviously missing, such as *Episyrphus balteatus*.



Louis Bigot (1927-2021)



Jean Timon-David (1902-1968)

To revise the department list, we reidentified all the hoverflies from Bouches-du-Rhône present in the Marseille Natural History Museum: collections of Jean Timon-David (326 specimens from 1926 to 1954) and Louis Bigot (41 specimens from 1955 to 1992).

The authors have also gathered data on hoverfly distribution over the last ten years. The main areas surveyed are the Camargue (Hilaire, unpublished; Lauriaut, unpublished), the Crête (Solère et al., 2022), Calanques National Park (Ropars et al., 2020) and Aubagne area (Nède, unpublished). All together, we have data on over 10,000 specimens.

Results

The list of confirmed identifications amounts to 140 species. We treat *Chrysotoxum intermedium* A (?-aggr. Chr. lessonae) et B (?-aggr. Chr. intermedium) as distinct species (Speight & Lebard 2022), and *Paragus bicolor* and *P. romanicus* as synonyms (Tot et al.: see poster 29).



Bret
23.08.51
X. Lair

Merodon legionensis was overlooked by Timon-David, and identified in 2020 in his collection, from a specimen collected at Bret, near Aix-en-Provence, on 23 September 1951.

While most of the species recorded in the Bouches-du-Rhône are widely distributed in France, three of them were known only in the northern half of France or less, and thus were not expected to occur in the Bouches-du-Rhône: *Eristalis abusiva*, *Neosacia interrupta* and *Lejops vittatus*, although the latter species occurs in Italy. All three species are locally rare, with less than 5 specimens known from Bouches-du-Rhône.

15 species are rare in France, with 5 departments or less where their presence is known: *Callicera macquarti*, *Ceriana vespiformis*, *Eristalinus megacephalus*, *Eumerus barbarus*, *Eumerus nudus*, *Ferdinandeia fumipennis*, *Lejops vittatus*, *Merodon legionensis*, *Paragus oltenicus*, *Paragus strigatus*, *Paragus vandergooti*, *Parhelophilus crococoronatus*, *Pelecocera garrigae*, *Sphaerophoria loewi*, *Syritta flaviventris*.

22 species are known only from Mediterranean departments: *Ceriana vespiformis*, *Cheilosia brunnipennis*, *Clausenia hispanica*, *Eristalinus megacephalus*, *Eristalinus taeniops*, *Eumerus barbarus*, *Eumerus nudus*, *Eudeoidea nuba*, *Ferdinandeia aurea*, *Ferdinandeia fumipennis*, *Merodon confusus*, *Merodon elegans*, *Merodon geniculatus*, *Merodon legionensis*, *Milesia semiluctuosa*, *Paragus oltenicus*, *Paragus strigatus*, *Paragus vandergooti*, *Parhelophilus crococoronatus*, *Pelecocera garrigae*, *Spiloglypta digitata*, *Syritta flaviventris*.

Expected species

Nearly all the specialist Mediterranean species of the French Syrphidae fauna have now been recorded from the Bouches-du-Rhône. The species from this group still expected to occur in the Bouches-du-Rhône are: *Chrysotoxum parmense*, *Eumerus ergyptius*, *Merodon flavicornis*, *Merodon funestus*, *Merodon teruelensis*, *Pelecocera pruinosa*. Recently published keys (Speight et al., 2021; Speight & Langlois, 2020; Lair et al., 2022) on these genera should help in the search for these species. As several habitats present in the department have hardly been studied, such as the old-grown forests of the north of the department, where additional species, such as *Mallota dusmeti* and *Psilota atra* might be found.



Eristalinus megacephalus occurs at a few marshland sites where imagines are found mainly in October.



Parhelophilus crococoronatus is known from only one site in Bouches-du-Rhône department, where it is regularly recorded since 2010.



Pelecocera garrigae Lair & Nède, 2022 was recently described (Lair et al. 2022)

Confirmed species

N°	Species	Museum Specimens <1992	Modern Specimens >2000	N°	Species	Museum Specimens <1992	Modern Specimens >2000	N°	Species	Museum Specimens <1992	Modern Specimens >2000
1	<i>Anasimyia contracta</i>	0	16	47	<i>Eristalis similis</i> *	0	23	94	<i>Neosacia interrupta</i>	0	4
2	<i>Baccha elongata</i>	1	0	48	<i>Eristalis tenax</i> *	8	79	95	<i>Neosacia podagraria</i> *	5	27
3	<i>Brachypoda scutellaris</i>	0	1	49	<i>Eumerus amoenum</i>	1	1	96	<i>Neosacia tenur</i>	0	1
4	<i>Brachypalpus lensus</i>	1	0	50	<i>Eumerus barbarus</i>	1	0	97	<i>Neocnemon brevidens</i> *	0	0
5	<i>Brachypalpus valgus</i>	0	7	51	<i>Eumerus grandis</i> *	0	1	98	<i>Paragus albifrons</i>	0	8
6	<i>Calypodina speciosa</i>	1	0	52	<i>Eumerus hungaricus</i>	1	0	99	<i>Paragus bicolor</i> *	2	28
7	<i>Callicera macquarti</i>	1	0	53	<i>Eumerus nudus</i>	2	0	100	<i>Paragus haemorrhous</i> *	1	80
8	<i>Callicera spinolae</i>	1	0	54	<i>Eumerus ornatus</i>	1	0	101	<i>Paragus oltenicus</i>	0	1
9	<i>Ceriana conopoides</i>	1	1	55	<i>Eumerus soggianus</i>	0	30	102	<i>Paragus peccioi</i> *	0	9
10	<i>Ceriana vespiformis</i>	1	2	56	<i>Eumerus tricolor</i>	1	0	103	<i>Paragus quadrifasciatus</i> *	1	13
11	<i>Chalcosyrphus nemorum</i>	0	54	57	<i>Eudeoidea bucculatus</i>	1	0	104	<i>Paragus striatus</i>	0	3
12	<i>Cheilosia albipila</i>	1	0	58	<i>Eudeoidea corolla</i>	8	3458	105	<i>Paragus ibialis</i> *	1	56
13	<i>Cheilosia albirtis</i>	1	0	59	<i>Eudeoidea lafasciatus</i>	1	66	106	<i>Paragus vandergooti</i> *	0	0
14	<i>Cheilosia brunnpennis</i>	1	4	60	<i>Eudeoidea lucasi</i>	0	6	107	<i>Parhelophilus versicolor</i>	0	114
15	<i>Cheilosia grossa</i> *	0	2	61	<i>Eudeoidea luniger</i>	0	33	108	<i>Parhelophilus crococoronatus</i>	0	37
16	<i>Cheilosia impressa</i> *	1	0	62	<i>Eudeoidea nuba</i>	0	10	109	<i>Pelecocera garrigae</i>	0	5
17	<i>Cheilosia latifrons</i>	1	15	63	<i>Ferdinandeia aurea</i>	1	0	110	<i>Pipiza festiva</i>	10	2
18	<i>Cheilosia mutabilis</i>	0	1	64	<i>Ferdinandeia cuprea</i>	5	1	111	<i>Pipizella maculipennis</i> *	0	0
19	<i>Cheilosia pagana</i> *	1	0	65	<i>Ferdinandeia fumipennis</i>	0	2	112	<i>Pipizella vidua</i>	6	0
20	<i>Cheilosia proxima</i> *	0	1	66	<i>Helophilus pendulus</i>	2	149	113	<i>Platycheirus albimanus</i>	0	1
21	<i>Cheilosia ranunculi</i>	8	1	67	<i>Helophilus trivittatus</i> *	9	292	114	<i>Platycheirus ambiguus</i>	1	0
22	<i>Cheilosia scutellata</i>	2	49	68	<i>Heringia heringi</i> *	5	7	115	<i>Platycheirus fulviventris</i> *	0	25
23	<i>Cheilosia soror</i> *	6	5	69	<i>Lapposyrphus lapponicus</i>	0	2	116	<i>Platycheirus occultus</i>	0	1
24	<i>Cheilosia urbana</i> *	1	2	70	<i>Lejops tardata</i>	0	9	117	<i>Platycheirus scutatus</i>	1	0
25	<i>Chrysotoxum bicinctum</i>	2	0	71	<i>Lejops vittatus</i>	0	1	118	<i>Riponnensia splendens</i>	0	9
26	<i>Chrysotoxum caustum</i> *	4	33	72	<i>Melangyna umbellatarum</i>	0	2	119	<i>Scaeva dignota</i>	3	4
27	<i>Chrysotoxum elegans</i>	0	2	73	<i>Melanogaster nuda</i>	0	4	120	<i>Scaeva pyrastris</i> *	4	39
-	<i>Chrysotoxum intermedium</i>	0	5	74	<i>Melanostoma mellinum</i>	9	560	121	<i>Scaeva selenetica</i>	0	1
28	<i>Chrysotoxum intermedium</i> A	0	8	75	<i>Melanostoma scalare</i>	5	57	122	<i>Sphaerophoria loewi</i> *	0	14
29	<i>Chrysotoxum intermedium</i> B	21	21	76	<i>Meliscaeva auricollis</i> *	9	72	123	<i>Sphaerophoria rueppelli</i> *	1	136
30	<i>Chrysotoxum verna</i>	0	3	77	<i>Meliscaeva cinctella</i>	0	8	124	<i>Sphaerophoria scripta</i> *	7	1785
31	<i>Claussenia hispanica</i> *	0	2	78	<i>Merodon albifrons</i>	12	2	125	<i>Spiloglypta digitata</i>	8	0
32	<i>Criorhina floccosa</i>	2	0	79	<i>Merodon avidus</i>	11	15	126	<i>Spiloglypta saltuum</i>	1	0
33	<i>Criorhina ranunculi</i>	0	1	80	<i>Merodon clavipes</i> *	23	3	127	<i>Syrphita flaviventris</i> *	0	6
34	<i>Dasyphrys albostriatus</i> *	3	6	81	<i>Merodon confusus</i>	0	3	128	<i>Syritta pipiens</i>	5	38
35	<i>Didea fasciata</i>	0	1	82	<i>Merodon equestris</i> *	3	1	129	<i>Syrphus ribesii</i>	5	11
36	<i>Epistrophe eligans</i>	10	28	83	<i>Merodon femoratus</i> *	1	0	130	<i>Syrphus vitripennis</i>	6	9
37	<i>Epistrophe nitidicollis</i>	3	17	84	<i>Merodon geniculatus</i>	0	1	131	<i>Tropidia fasciata</i>	0	2
38	<i>Episyrphus balteatus</i>	11	492	85	<i>Merodon legionensis</i>	1	0	132	<i>Tropidia scita</i>	1	38
39	<i>Eristalinus aeueus</i> *	13	87	86	<i>Merodon nigritarsis</i>	1	1	133	<i>Volucella inanis</i>	2	2
40	<i>Eristalinus megacephalus</i> *	0	15	87	<i>Merodon trochantericus</i>	0	1	134	<i>Volucella inflata</i> *	0	1
41	<i>Eristalinus seupulchralis</i> *	6	247	88	<i>Mesembria peregrinus</i> *	0	949	135	<i>Volucella zonaria</i>	7	7
42	<i>Eristalinus taeniops</i>	7	8	89	<i>Microdon devius</i>	0	1	136	<i>Xanthandrus contus</i>	0	7
43	<i>Eristalis abusiva</i>	0	2	90	<i>Microdon myrmicæ</i>	0	4	137	<i>Xanthogramma citrofasciatum</i>	1	4
44	<i>Eristalis arbustorum</i> *	7	48	91	<i>Milesia crabroniformis</i>	9	1	138	<i>Xanthogramma dives</i>	6	29
45	<i>Eristalis intricaria</i>	1	16	92	<i>Milesia semiluctuosa</i> *	19	0	139	<i>Xanthogramma pedissequum</i>	2	12
46	<i>Eristalis pertinax</i>	0	8	93	<i>Myathropa florea</i>	6	43	140	<i>Xylota segnis</i>	3	3

Comments

Merodon myrmicæ was identified at a site where its host ant *Myrmica rugosodis* is present, and *Formica lemani*, the host ant of *M. myrmicæ*, is absent (Solère et al., 2022).

Neocnemon brevidens: 1 male [1991, det Doczkal] (Speight, 1994)

Paragus vandergooti [det. C. Claussen] and *Pipizella maculipennis* were mentioned only by Bausenwein (1993)

* : Species mapped in Bouches-du-Rhône by Speight et al. 2018

Unconfirmed or dubious records

Species	Comments
<i>Cheilosia nigripes</i> *	Dubious data : «Marseille» (Séguy, 1961)
<i>Cheilosia vulpina</i> *	Dubious data : «Marseille (Abeille de Perrin)» (Séguy, 1961)
<i>Eristalis horticola</i> *	Erroneous data (Solère et al. 2022)
<i>Eumerus excisus</i> *	Speight et al. 1998 ; dubious taxon status, not in recent lists
<i>Mallota cimbiciformis</i> *	Unconfirmed data : «Marseille (Abeille de Perrin)» (Séguy, 1961)
<i>Microdon analis</i> *	Data in Speight et al. (2018) not traced
<i>Paragus cinctus</i> *	Unconfirmed data : «Marseille» (Séguy, 1961)
<i>Tenomystoma bombylans</i> *	Data in Speight et al. (2018) not traced

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