

## Faunistics and phenology of *Platypalpus* species in central Mediterranean Spain - reversed phenology

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The only taxonomic studies available on Spanish *Platypalpus* (STROBL, 1899, 1906; CHVÁLA, 1981; GROOTAERT & CHVÁLA, 1992) result from very limited collecting periods. So we have no idea about phenology nor species composition and community structure in particular biotopes in Spain.

From the limited collections made all over the Mediterranean region, it was concluded that *Platypalpus* appears in general near the end of the winter (February, March) and early spring, depending on the latitude and altitude. Near the end of the spring they become very scarce and almost none are found during the summer period. Most probably the drought and heath during the summer inhibit the activity of the adults. The results of the present study, based on an annual cycle with a Malaise trap placed in a garrigue in the province of Alicante, show that most species appear already in September and are present throughout the winter. Some species have even two peaks of activity: one in the autumn and one in the winter.

### Material and methods

Material was collected by Dr. R. WAHIS at Moraira (Fig. 1; altitude: 90 m; prov. Alicante) by means of a Malaise trap placed in a garrigue where *Rosmarinus officinalis* and *Pinus halepensis* were the dominant plants. All material is conserved in alcohol in the collections of the Koninklijk Belgisch Instituut voor Natuurwetenschappen in Brussels.



Fig. 1. Map of Spain with the indication of the position of Moraira in the province Alicante.

### Observations

Eleven species of *Platypalpus* were found, their numbers are given in decreasing order in table I. With the exception of three species, *P. niveiseta*, *P. vividus* and *P. pragensis* which have a wide distribution, all the other species are actually only known from the Mediterranean region. *P. niveiseta*, which is by far the dominant species has a very wide distribution all over Europe but is usually rather rare. Its abundance here suggests that its ecological preferenda are probably Mediterranean.

Table I. Numbers of *Platypalpus* recorded in a garrigue at Moraira in the Alicante province (E: wide European distribution; M: Mediterranean)

	♂♂/♀♀	total	distribution
<i>P. niveiseta</i>	84/115	199	E (M?)
<i>P. incertoides</i>	29/46	75	M
<i>P. ostiorum</i>	7/60	67	M
<i>P. novakii</i>	6/26	32	M
<i>P. anomalitarsis</i>	7/19	26	M
<i>P. morgei</i>	3/25	28	M
<i>P. bequaerti</i>	6/9	15	M
<i>P. verbekei</i>	-/4	4	M
<i>P. chrysonotus</i>	-/1	1	M
<i>P. pragensis</i>	-/1	1	E
<i>P. vividus</i>	-/1	1	E

Total: 11 species

### Comments on the species

#### *Platypalpus niveiseta* (ZETTERSTEDT, 1842)

Phenology: see fig. 2.

Comments: *P. niveiseta* is distinctly the most abundant species here. It belongs to the *albiseta* - group which representatives are generally found in humid biotopes. This is not the case here. *P. niveiseta* has a very wide distribution throughout Europe but is quite rare. Its abundance here would suggest that it is a Mediterranean species.

#### *Platypalpus incertoides* GROOTAERT & CHVÁLA, 1992

Phenology: see fig. 2.

Comments: *P. incertoides* has two distinct peaks of activity: one in autumn, one in spring. It was described from this site and was found also in Pina de Ebro (BLASCO-ZUMETA, *in litt.*).

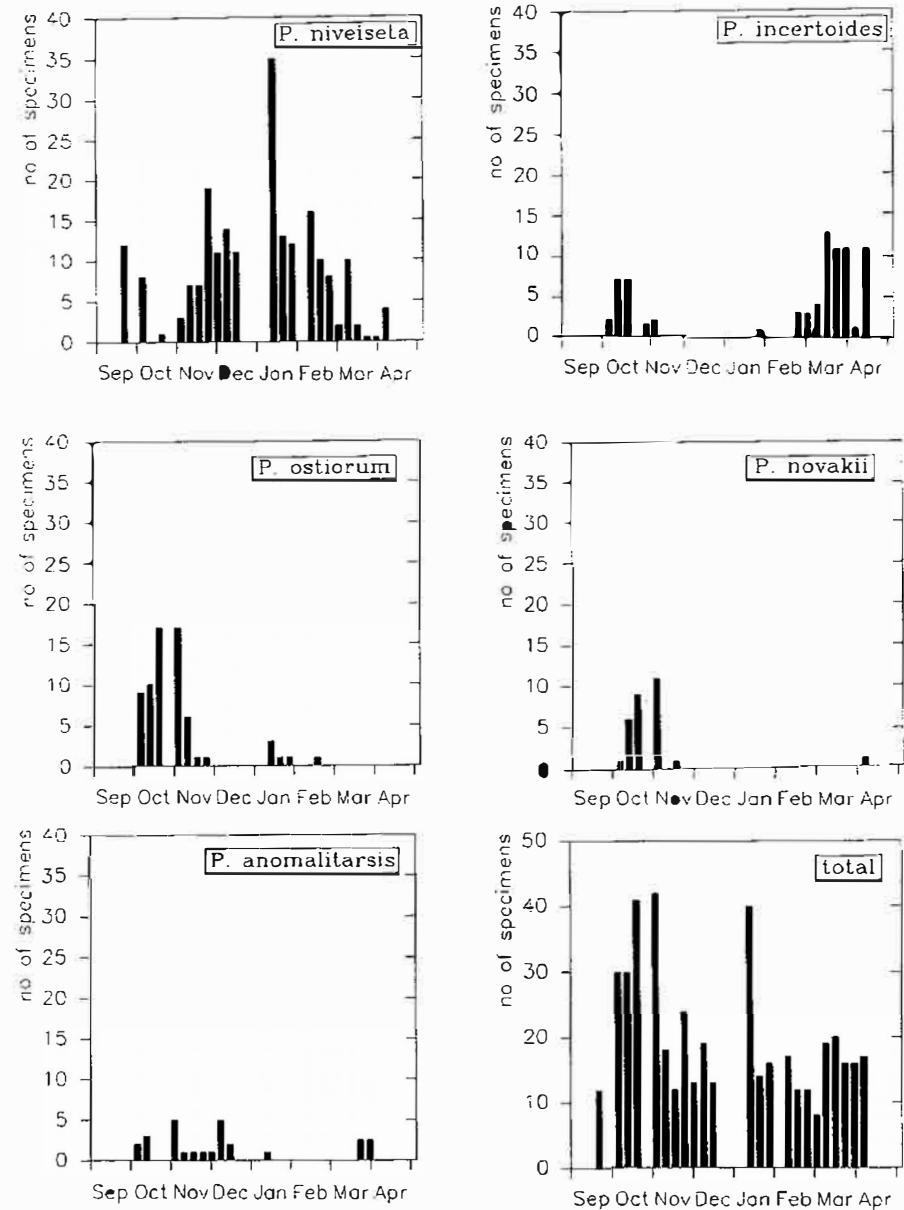


Fig. 2. Phenology of the genus *Platypalpus* in Moraira.

***Platypalpus ostiorum* (BECKER, 1902)**

Phenology: see fig. 2. The autumn peak is here much more important than the "peak" in January and February.

Comments: *P. ostiorum* is a common species with a very wide Mediterranean distribution. It is reported from Spain, Corsica, Italy, Malta, Morocco, Algeria, Tunisia and Egypt.

***Platypalpus novakii* (STROBL, 1893)**

Phenology: see fig. 2.

Comments: A small species with a wide Mediterranean distribution. Actually known from Spain, Yugoslavia, Greece and Algeria.

***Platypalpus anomalitarsis* CHVÁLA & KOVALEV, 1974**

Phenology: see fig. 2.

Comments: Probably not an uncommon species with a Mediterranean distribution. Actually it is known from North Africa and two localities in Spain (GROOTAERT & CHVÁLA, 1992).

***Platypalpus morgei* CHVÁLA, 1981**

Phenology: 14-20.X.1989, 3 ♀♀; 21-27.X.1989, 3 ♀♀; 27.X-3.XI.1989, 2 ♀♀; 4-10.XI.1989, 1 ♂; 1-7.I.1990, 1 ♀; 22-28.I.1990, 1 ♂, 1 ♀; 12-18.II.1990, 1 ♀; 26.II-5.III.1990, 2 ♀♀; 6-11.III.1990, 4 ♀♀; 12-20.III.1990, 4 ♀♀; 21.III-1.IV.1990, 3 ♀♀; 2-13.IV.1990, 1 ♀.

Comments: Only known from Spain. CHVÁLA described it from the Granada and Alicante provinces. It is also present in Pina de Ebro (BLASCO-ZUMETA, *in litt.*).

***Platypalpus bequaerti* GROOTAERT & CHVÁLA, 1992**

Phenology: 2-7.X.1989, 1 ♀; 8-13.X. 1989, 1 ♂, 1 ♀; 14-20.X.1989, 3 ♀♀; 27.X-3.XI.1989, 1 ♀; 11-19.XI.1989, 1 ♂; 20-27.XI.1989, 1 ♀; 5-11.II.1990, 1 ♀; 19-25.II.1990, 1 ♂; 26.II-5.III.1990, 1 ♂; 6-11.III.1990, 1 ♂; 12-20.III.1990, 1 ♀; 21.III-1.IV.1990, 1 ♂.

Comments: *P. bequaerti* is known from Mallorca, Barcelona and now also from Alicante. A male was collected by L. DE BRUYN in Orbetello (Italy) on 6.IV.1990. So it has probably a wide Mediterranean distribution.

***Platypalpus verbekei* GROOTAERT & CHVÁLA, 1992**

Phenology: 2-7.X.1989, 1 ♀; 8-13.X.1989, 1 ♀; 14-20.X.1989, 1 ♀; 21-27.X.1989, 1 ♀; 4-10.XI.1989, 1 ♀.

Comments: The species was described from the South of France (Var) and later found in large numbers in the Camargue (GROOTAERT, *in litt.*). In

Spain it is known from the province of Barcelona and now also from Alicante. This species is probably also widespread in the Mediterranean region.

***Platypalpus chrysonotus* (STROBL, 1899)**

Phenology: 27.X-3.XI.1989, 1 ♀.

Comments: A robust species with a wide Mediterranean distribution. Known from Spain (prov. Alicante, Granada, Andalusia and Zaragoza), France (GROOTAERT, *in litt.*), Algeria and Tunisia.

***Platypalpus pragensis* CHVÁLA, 1989**

Phenology: 2-13.IV.1990, 1 ♀.

Comments: *P. pragensis* has been described on two males and four females from Prague in Czechoslovakia. CHVÁLA (1989) stated that it is probably a rare species of lowlands. More than hundred specimens have been recorded from Pina de Ebro (BLASCO-ZUMETA, *in litt.*). They have been compared with the type series and apart from differences in the intensity of the coloration of the tarsi, they seem conspecific (GROOTAERT & CHVÁLA, 1992). *P. pragensis* is probably a true Mediterranean species with an erratic distribution in central Europe.

***Platypalpus vividus* (MEIGEN, 1838)**

Phenology: 8-13.X.1989, 1 ♀.

Comments: *P. vividus* is perhaps better known under its junior synonym name *P. albisetoides* CHVÁLA. CHVÁLA (1989) states that it is only known with certainty from southern Sweden and Finland and from Bavaria (Germany). It is a very rare species with an erratic distribution in western Europe. Its ecological preferenda are unknown.

**General discussion**

Only eleven species are found here at Moraira in the garrigue during this study. Compared to observations at certain sites in Belgium (GROOTAERT, 1985) where easily 30 species are found to occur together, this is a low figure. In temperate regions, *Platypalpus* species appear in spring (end of April) and disappear with the first night frost (end of October, early November). Here in Moraira, they are active throughout the autumn, the winter and early spring. Studies of annual cycles at different latitudes and altitudes throughout Europe should be performed to find the factors (photoperiod, temperature, humidity) determining the activity of adult *Platypalpus* species.

**Acknowledgements**

The author wishes to thank Ir. R. WAHIS for collecting the samples and Mr. G. HAGHEBAERT for sorting the samples.

**References**

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**Recension/Recensie**

- D. STUDEMANN, P. LANDOLT, M. SARTORI, D. HEFTI, I. TOMKA, 1992. - *Insecta Helvetica, Fauna, 9. Ephemeroptera* (version française). Volume broché, 175 pages, 394 figures, 32 photographies en couleurs (hors texte). Edition de la Société entomologique suisse, D. Burckhardt, Musée d'Histoire, Case postale 284, CH-1211 Genève 6. 48 sFr.

La Société entomologique suisse vient d'accroître la série "Insecta Helvetica" d'un volume consacré aux Ephéméroptères. Ce neuvième tome de la partie "Fauna" existe en deux versions, française et allemande. On se réjouira particulièrement de cette initiative des éditeurs, dictée par deux faits importants.

On sait la position centrale qu'occupent les larves d'Ephémères dans les écosystèmes aquatiques ainsi que la valeur bio-indicatrice de beaucoup d'entre elles. Le besoin d'un ouvrage auquel pourraient se référer des personnes s'intéressant à l'écologie des milieux aquatiques sans être forcément entomologistes est donc réel. C'est donc à cette demande que les auteurs ont souhaité répondre.

Les entomologistes n'en sont pas délaissés pour autant. Tout d'abord, la partie strictement systématique est précédée d'une série de chapitres passant successivement en revue la morphologie et la biologie des adultes et des stades ailés, les méthodes de récoltes, d'étude et de conservation du matériel.

Ensuite, les différentes clés d'identification des larves et des stades ailés sont très compréhensibles, grâce aux multiples renvois à l'iconographie. En outre, les figures correspondant aux dichotomies les plus importantes, portent des indications mettant clairement en évidence ce qui doit être comparé. Sans doute la technique n'est-elle pas tout à fait neuve, mais elle est exploitée ici de manière très élégante.

Un tableau synoptique précise les potentialités écologiques principales de chacune des

90 espèces dont la présence est certifiée ou jugée tout à fait vraisemblable dans le territoire envisagé par les auteurs.

Enfin, les limites géographiques de cette faune débordent assez largement le seul territoire suisse puisqu'elles englobent aussi le Jura français, le nord de la Savoie, le versant Sud des Alpes centrales, le Vorarlberg, la partie occidentale de la Bavière, le Württemberg et le Südbaden.

32 photographies en couleurs accompagnent les 394 dessins au trait. La belle facture de l'illustration n'est certes pas étrangère à l'attrait d'un travail qui contribuera certainement à une meilleure connaissance de ces insectes, par trop délaissés.

Noël MAGIS

**Assemblée mensuelle du 3 mars 1993**

**Maandelijkse vergadering van 3 maart 1993**

**Admissions / Toelatingen :**

M. Didier PAUWELS, rue Eugène Toussaint 30, 1090 Bruxelles, est présenté par MM. G. COULON et H. BRUGE en tant que membre associé et s'intéresse aux Hyménoptères et Lépidoptères.

**Démission / Ontslag :**

Le Professeur Marco BOLOGNA donne sa démission de membre correspondant.

**Communications / Mededelingen :**

1. Monsieur N. LELEUP nous fait part de sa décision de léguer à la Société la somme de un million de francs, destinée à la création d'un Prix quinquennal Narcisse LELEUP-Gabrielle BANSART.

A sa demande, M. G. COULON donne lecture de la donation testamentaire déposée en l'étude de Maître B. MICHAX, Notaire à Etterbeek. Le prix, alimenté toutes les cinq années par les intérêts du capital, sera destiné à couronner d'importantes oeuvres taxinomiques consacrées prioritairement aux Coléoptères de la faune africaine (y compris l'Afrique du Sud) ou d'autres régions tropicales. Le lauréat se verra remettre la moitié du montant du prix, l'autre moitié étant destinée à couvrir, partiellement ou totalement, les frais de publication de son oeuvre.

Notre Président, M. BRUGE, remercie chaleureusement M. LELEUP pour sa généreuse décision, tout en lui souhaitant de vivre encore de longues années.

2. M. G. TOMASOVIC présente la communication suivante.