zuigend waargenomen, alhoewel het bekend is, dat ze ook pollen eet (MÜLLER, 1883)", en verder: "*Rhingia campestris* neemt in haar dieet meer dan 95% nectar op", alsook: "Klaarblijkelijk is het dieet van Syrphidae ingewikkelder, dan vroeger beseft werd."

Bij (wijfjes)-zweefvliegen onderzocht GILBERT l.c. de betrekking tussen de relatieve proboscislengte enerzijds, en de verhouding nectar-pollen in het dieet, anderzijds. Hij stelt vast, dat de nectar-opname belangrijker wordt naarmate de proboscis van de dieren langer is. Mede door het feit, dat deze auteur *Rhingia campestris* steeds nectar-zuigend aantrof, vermeldt hij, dat ze minder dan 5% pollen opneemt in haar dieet.

Niettemin, voor de synthese van de grotere biomaterie van gameten, benodigt ook dit dier veel essentiële aminozuren. Nectar bevat weinig aminozuren, zodat de vlieg aangewezen is op pollen. Dit verklaart, waarom *Rhingia campestris*, zeker op sommige tijdstippen, overvloedig stuifmeel eet.

Belangwekkend is, dat pollen van *Iris*, op de relatief korte tijd dat het in de tractus verblijft, volledig verteerd wordt en dus buitengewoon voedzaam is. Slechts de exines, die door geen enkel spijsverteringsenzym afgebroken worden, blijven over in de faeces.

De structuur van de *Iris*-bloem is dusdanig, dat onder de *Diptera* louter *Rhingia* aangepast blijkt te zijn. Slechts één andere zweefvlieg werd er eveneens op waargenomen, met name *Tropidia scita* HARRIS (VERLINDEN l.c.).

Ik dank Drs. V. S. VAN DER GOOT en de Heer L. VERLINDEN, die mij monografieën bezorgden.

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10. Dhr. L. DE BRUYN bespreekt aan de hand van dia's zijn onderzoek over Diptera Chloropidae en doet de volgende mededeling.

The use of polyacrylamide gel electrophoresis and isoelectric focusing in the taxonomy and systematics of the genus **Lipara** (Diptera, Chloropidae)

by L. DE BRUYN[o]

Lipara species are monophageous parasites on *Phragmites australis* (CAV.) TRIN. ex STEUD., on which they induce typical cigar or spike like galls.

At present the genus comprises nine described and at least one undescribed species (KANMIYA, 1984). All these species are restricted to the Palaearctic region: four of them occur in the East Asiatic subregion (KANMIYA, 1982), one has a pan-Palaearctic distribution (BESCHOVSKI, 1984) and the remaining four are confined to the western half of the Palaearctic (CHVÁLA et al., 1974; BESCHOVSKI, 1984). Three species of the latter group are known to occur in Belgium, viz. *L. lucens* MEIGEN, *L. pullitarsis* DOSKOCIL & CHVÁLA, and *L. rufitarsis* (LOEW) (DE BRUYN, 1985).

Recently, a systematic and population genetic study of this genus was started whereby we evaluated the possible use of electrophoretic methods such as vertical polyacrylamide gel electrophoresis (PAGE) and isoelectric focusing (IEF).

Before electrophoresis, adult flies or larvae were completely homogenised in a 20% (w/v) aqueous sucrose solution. Per 100 μl of diluted sample, 5 μl of a 0.1% saturated phenylthiourea/ethanol mixture in distilled water was added in order to prevent oxidative tyrosinase activity. After homogenisation, samples were centrifuged at 15000 r.p.m. for 40 min at 4°C. The resulting clear supernatans was then stored at -20°C until being analysed by means of electrophoresis.

PAGE was performed in homogeneous, vertically suspended gels (gel strength 6%). 3-6 μl supernatans of each sample was applied in individual wells on top of the gel.

Two types of PAGE experiments were carried out: discontinuous PAGE with Tris/HCl(gel) - Tris/Glycine(electrode), (pH 9.0), and continuous PAGE with a Tris/Citric Acid buffer (pH 8.0) or a Tris/EDTA/Boric Acid buffer (pH 8.9). After electrophoresis, gels were stained for enzymes or general proteins.

IEF was carried out in horizontal 1% agarose gels with a 4-6.5 pH gradient. Per sample 6 μl supernatans was applied in individual wells nearly half-way between both electrodes. Afterwards, gels were stained for general proteins (Coomassie Brilliant Blue R-250).

Until now, 25 enzyme systems have been investigated with PAGE, 18 of which gave scorable results. By means of both techniques, the intra- and interspecific variation of both the general protein composition and the different enzyme systems are studied. Possible changes in general proteins and enzymes during the development from larvae to adult were also investigated.

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Admissions / Toelatingen :

Dhr. Henk J. G. MEUFFELS, Meesweg 16, NL-6325 BG Vilt wordt voorgesteld als correspondent lid door Dhr. P. GROOTAERT en J. VAN STALLE. Dhr. MEUFFELS bestudeert Diptera Dolichopodidae van de gehele wereld.
M. Jean-Claude KERSMAEKERS, rue Fleurbeek 30 Bte 7, 1620 Drogenbos, est proposé comme membre associé par M. M. KERSMAEKERS et M. M. RANSY. M. KERSMAEKERS s'occupe principalement de Crustacés.

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