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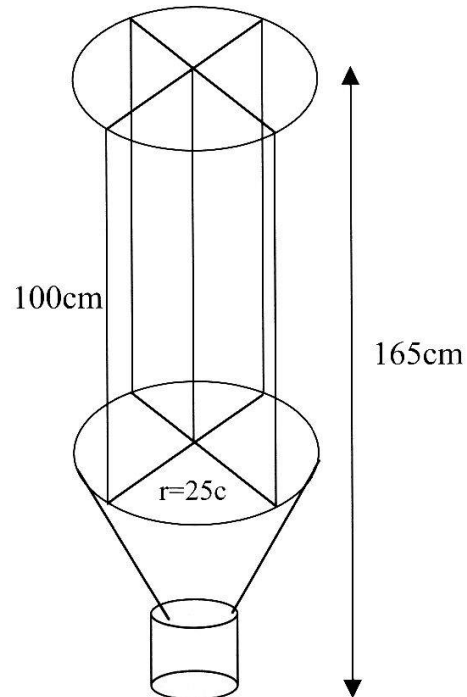
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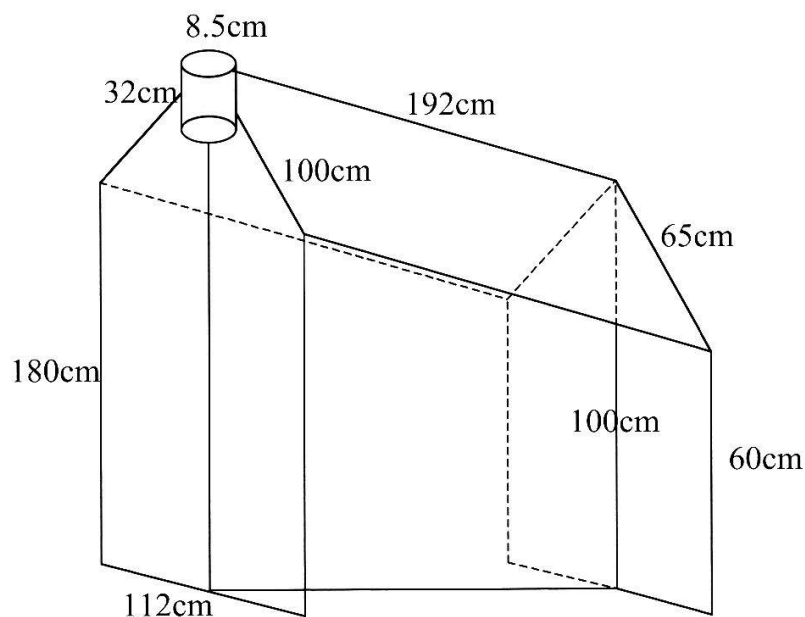
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ANNEXE 1

Piège fenêtre à quatre pans, ou piège Suzy. Les insectes qui butent sur les parois verticales en plexiglas transparent sont collectés via un entonnoir dans un réservoir rempli d'éthylène-glycol 15%.



Tente « malaise » de modèle conventionnel en nylon noir. Ce piège d'interception capture les insectes qui tentent de le contourner par le haut. Le récipient collecteur est rempli d'alcool méthylique.



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## ANNEXE 2

## LOCALISATION ET DESCRIPTION DES STATIONS D'ÉCHANTILLONNAGE

| Lieu-dit              | Coordonnées                        | Altitude | Type de végétation                                    | Malaises | Pièges Susy | Pièges bostryches | 1997 | 1998 | 1999 |
|-----------------------|------------------------------------|----------|---|----------|-------------|-------------------|------|------|------|
| Le Motta              | 518.679/163.134<br>518.622/163.212 | 830-40   | hêtraie à cardamine humide, source/mosaïque           | 2        | 1           | 2                 | +    | +    | +    |
| Roches Blanches       | 515.841/162.135<br>515.787/162.132 | 1375-90  | hêtraie-sapinière sèche (sol superficiel)             | 2        | 1           | 2                 | +    | +    | +    |
| Les Dailles           | 518.046/160.449<br>517.780/160.511 | 735-60   | hêtraie à cardamine tend. neutrophile, vieille futaie | 2        | 1           | 2                 |      | +    |      |
| Le Devens             | 518.169/162.599<br>518.197/162.685 | 860      | hêtraie à cardamine typique, futaie moyenne           | 2        | 1           | 2                 |      | +    |      |
| Petit Essert          | 518.864/163.371<br>518.951/163.381 | 820-30   | hêtraie à cardamine tend. neutrophile, vieille futaie | 2        | 1           | 2                 |      | +    |      |
| Combe aux Français    | 517.613/160.430                    | 830      | hêtraie à cardamine typique, recrû                    |          |             | 2                 |      | +    |      |
| Les Ages              | 517.949/161.891                    | 840      | hêtraie à cardamine tend. neutrophile, futaie moyenne |          |             | 2                 |      | +    |      |
| Grand Essert          | 518.988/163.778                    | 850      | hêtraie à millet, vieille futaie                      |          |             | 2                 |      | +    |      |
| Crête de la Verrière  | 517.255/162.515<br>517.249/162.563 | 1110-30  | hêtraie des crêtes à séslerie                         | 2        | 1           | 2                 |      |      | +    |
| Les Soupiats          | 515.196/161.026<br>515.323/160.979 | 1415-25  | hêtraie-sapinière typique + taches de hêt. à érable   | 2        | 1           | 2                 |      |      | +    |
| Chalet du Mont Tendre | 514.569/161.520<br>514.546/161.492 | 1580-85  | forêt parcourue ("pessière du Jura")                  | 2        | 1           | 2                 |      |      | +    |
| Combe de la Verrière  | 517.137/162.178                    | 930      | érablaie de ravin à lunaire (sol profond, frais)      |          |             | 2                 |      |      | +    |
| Grande Baume          | 514.911/160.600                    | 1375     | hêtraie-sapinière à myrtille (lapiaz)                 |          |             | 2                 |      |      | +    |

Doubles coordonnées: position des deux tentes malaises

1997 : Le Motta

| SCOLYTIDAE                        | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | Bière (1 ; 2 ; 3 & 4) | Coloré (1 ; 2 ; 3 & 4) | Total     |
|-----------------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|-----------------------|------------------------|-----------|
| <i>Cryphalus piceae</i>           | 1        | 0            | 0             | 0                 | 2         | 0          | 2              | 0                     | 0                      | 3         |
| <i>Dryocoetes autographus</i>     | 0        | 0            | 0             | 0                 | 0         | 0          | 0              | 0                     | 1                      | 1         |
| <i>Ernoporus fagi</i>             | 7        | 0            | 0             | 0                 | 0         | 0          | 0              | 1                     | 0                      | 8         |
| <i>Pityogenes chalcographus</i>   | 0        | 0            | 2             | 2                 | 3         | 0          | 3              | 0                     | 1                      | 6         |
| <i>Pityophthorus pityographus</i> | 1        | 0            | 0             | 0                 | 0         | 0          | 0              | 0                     | 1                      | 2         |
| <i>Taphrorychus bicolor</i>       | 2        | 0            | 0             | 0                 | 0         | 0          | 0              | 0                     | 0                      | 2         |
| <i>Taphrorychus villifrons</i>    | 0        | 1            | 0             | 1                 | 0         | 0          | 0              | 0                     | 0                      | 1         |
| <i>Trypodendron lineatum</i>      | 3        | 0            | 0             | 0                 | 0         | 6          | 6              | 0                     | 0                      | 9         |
| <i>Xyleborus dispar</i>           | 1        | 0            | 1             | 1                 | 1         | 0          | 1              | 0                     | 0                      | 3         |
| <i>Xyleborus germanus</i>         | 0        | 0            | 0             | 0                 | 1         | 0          | 1              | 0                     | 0                      | 1         |
| <i>Xyleborus saxeseni</i>         | 0        | 0            | 0             | 0                 | 1         | 0          | 1              | 0                     | 0                      | 1         |
| <i>Xylechinus pilosus</i>         | 0        | 0            | 0             | 0                 | 0         | 0          | 0              | 0                     | 1                      | 1         |
| <b>Total général</b>              |          |              |               |                   |           |            |                |                       |                        | <b>38</b> |

| CERAMBYCIDAE                         | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | Bière (1 ; 2 ; 3 & 4) | Coloré (1 ; 2 ; 3 & 4) | Total     |
|--------------------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|-----------------------|------------------------|-----------|
| <i>Agapanthia villosoviridescens</i> | 0        | 0            | 0             | 0                 | 1         | 0          | 1              | 0                     | 0                      | 1         |
| <i>Allosterna tabacicolor</i>        | 0        | 0            | 0             | 0                 | 2         | 0          | 2              | 0                     | 0                      | 2         |
| <i>Clytus arictis</i>                | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 0                     | 0                      | 1         |
| <i>Corymbia rubra</i>                | 3        | 0            | 0             | 0                 | 5         | 4          | 9              | 0                     | 1                      | 13        |
| <i>Leptura maculata</i>              | 0        | 0            | 0             | 0                 | 10        | 7          | 17             | 1                     | 0                      | 18        |
| <i>Obrium brunneum</i>               | 1        | 0            | 0             | 0                 | 0         | 0          | 0              | 0                     | 1                      | 2         |
| <i>Pachytodes cerambyciiformis</i>   | 0        | 0            | 0             | 0                 | 2         | 0          | 2              | 0                     | 0                      | 2         |
| <i>Rhagium bifasciatum</i>           | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 0                     | 0                      | 1         |
| <i>Stenurella melanura</i>           | 1        | 0            | 0             | 0                 | 15        | 8          | 23             | 0                     | 0                      | 24        |
| <b>Total général</b>                 |          |              |               |                   |           |            |                |                       |                        | <b>64</b> |

| LUCANIDAE                | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | Bière (1 ; 2 ; 3 & 4) | Coloré (1 ; 2 ; 3 & 4) | Total    |
|--------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|-----------------------|------------------------|----------|
| <i>Platycerus caprea</i> | 0        | 1            | 0             | 1                 | 0         | 0          | 0              | 0                     | 0                      | 1        |
| <b>Total général</b>     |          |              |               |                   |           |            |                |                       |                        | <b>1</b> |



## 1997 : Roches Blanches

| SCOLYTIDAE                  |              |               |               |           |            |                |               |              |       |            |
|-----------------------------|--------------|---------------|---------------|-----------|------------|----------------|---------------|--------------|-------|------------|
| Suspendu                    | Bostryches I | Bostryches II | Bostr. I + II | Malaise I | Malaise II | Malaise I + II | Piège à bière | Plat. coloré | Total |            |
| Cryphalus piceae            | 0            | 0             | 0             | 1         | 0          | 1              | 0             | 0            | 1     |            |
| Crypturgus cinereus         | 14           | 0             | 0             | 0         | 0          | 0              | 0             | 0            | 14    |            |
| Crypturgus pusillus         | 8            | 1             | 2             | 3         | 1          | 4              | 0             | 0            | 15    |            |
| Dryocoetes autographus      | 10           | 14            | 8             | 22        | 0          | 0              | 0             | 1            | 33    |            |
| Ernoporus fagi              | 2            | 0             | 0             | 0         | 0          | 0              | 0             | 0            | 2     |            |
| Hylastes attenuatus         | 0            | 0             | 1             | 1         | 1          | 2              | 0             | 0            | 3     |            |
| Hylastes cunicularius       | 23           | 9             | 20            | 29        | 32         | 39             | 0             | 8            | 99    |            |
| Ips amitinus                | 2            | 6             | 0             | 6         | 1          | 1              | 0             | 0            | 9     |            |
| Ips typographus             | 20           | 27            | 2             | 29        | 9          | 9              | 0             | 3            | 61    |            |
| Orthotomicus laricis        | 0            | 0             | 3             | 3         | 0          | 0              | 0             | 0            | 6     |            |
| Phthorophloeus spinulosus   | 1            | 1             | 0             | 1         | 0          | 1              | 0             | 0            | 3     |            |
| Pityogenes chalcographus    | 53           | 37            | 1             | 38        | 7          | 8              | 0             | 4            | 103   |            |
| Pityophthorus ptyographus   | 23           | 2             | 1             | 3         | 0          | 0              | 0             | 0            | 26    |            |
| Polygraphus poligraphus     | 0            | 1             | 0             | 1         | 0          | 0              | 0             | 0            | 1     |            |
| Trypodendron domesticum     | 0            | 0             | 0             | 0         | 0          | 1              | 0             | 0            | 1     |            |
| Trypodendron lineatum       | 67           | 79            | 20            | 99        | 6          | 9              | 0             | 43           | 218   |            |
| Xyleborus germanus          | 0            | 0             | 0             | 0         | 1          | 1              | 0             | 0            | 1     |            |
| <b>Total général</b>        |              |               |               |           |            |                |               |              |       | <b>596</b> |
| CERAMBYCIDAE                |              |               |               |           |            |                |               |              |       |            |
| Suspendu                    | Bostryches I | Bostryches II | Bostr. I + II | Malaise I | Malaise II | Malaise I + II | Piège à bière | Plat. coloré | Total |            |
| Anastrangalia dubia         | 0            | 0             | 0             | 0         | 1          | 1              | 0             | 0            | 1     |            |
| Anastrangalia sanguinolenta | 0            | 1             | 1             | 10        | 0          | 10             | 0             | 0            | 11    |            |
| Corymbia rubra              | 0            | 0             | 0             | 0         | 0          | 0              | 0             | 2            | 2     |            |
| Gaurotes virginea           | 0            | 0             | 0             | 0         | 1          | 1              | 0             | 0            | 1     |            |
| Oxymirus cursor             | 1            | 0             | 0             | 1         | 0          | 1              | 0             | 0            | 2     |            |
| Pidonia lurida              | 0            | 0             | 0             | 1         | 1          | 2              | 0             | 0            | 2     |            |
| Rhagium bifasciatum         | 0            | 0             | 0             | 1         | 0          | 1              | 0             | 0            | 1     |            |
| Rhagium inquisitor          | 0            | 0             | 1             | 1         | 0          | 0              | 0             | 0            | 1     |            |
| Stenurella melanura         | 0            | 0             | 0             | 10        | 1          | 11             | 0             | 0            | 11    |            |
| Tetropium castaneum         | 0            | 0             | 0             | 0         | 1          | 1              | 0             | 0            | 1     |            |
| Tetropium cf. fuscum        | 1            | 1             | 1             | 1         | 0          | 0              | 0             | 2            | 4     |            |
| <b>Total général</b>        |              |               |               |           |            |                |               |              |       | <b>37</b>  |
| BUPRESTIDAE                 |              |               |               |           |            |                |               |              |       |            |
| Suspendu                    | Bostryches I | Bostryches II | Bostr. I + II | Malaise I | Malaise II | Malaise I + II | Piège à bière | Plat. coloré | Total |            |
| Anthaxia helvetica          | 0            | 0             | 0             | 1         | 1          | 2              | 0             | 23           | 25    |            |
| Anthaxia quadripunctata     | 0            | 0             | 0             | 0         | 0          | 0              | 0             | 32           | 32    |            |
| <b>Total général</b>        |              |               |               |           |            |                |               |              |       | <b>57</b>  |

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## ANNEXE 4.1

## 1998 : Le Motta

| SCOLYTIDAE                      | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | TOTAL     |
|---------------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|-----------|
| <i>Cryphalus abietis</i>        | 0        | 1            | 0             | 1                 | 0         | 0          | 0              | 1         |
| <i>Cryphalus piceae</i>         | 1        | 0            | 1             | 1                 | 4         | 2          | 6              | 8         |
| <i>Dryocoetes autographus</i>   | 1        | 1            | 1             | 2                 | 0         | 0          | 0              | 3         |
| <i>Ernoporus fagi</i>           | 2        | 0            | 0             | 0                 | 0         | 0          | 0              | 2         |
| <i>Hylurgops palliatus</i>      | 0        | 13           | 0             | 13                | 0         | 0          | 0              | 13        |
| <i>Ips typographus</i>          | 0        | 0            | 0             | 0                 | 1         | 0          | 1              | 1         |
| <i>Leperisinus varius</i>       | 0        | 0            | 0             | 0                 | 0         | 3          | 3              | 3         |
| <i>Pityogenes chalcographus</i> | 1        | 9            | 2             | 11                | 1         | 0          | 1              | 13        |
| <i>Trypodendron domesticum</i>  | 1        | 0            | 0             | 0                 | 0         | 0          | 0              | 1         |
| <i>Trypodendron lineatum</i>    | 1        | 17           | 0             | 17                | 4         | 0          | 4              | 22        |
| <i>Xyleborus dispar</i>         | 0        | 1            | 1             | 2                 | 0         | 0          | 0              | 2         |
| <i>Xyleborus germanus</i>       | 0        | 1            | 0             | 1                 | 2         | 1          | 3              | 4         |
| <i>Xyleborus saxeseni</i>       | 1        | 0            | 0             | 0                 | 0         | 0          | 0              | 1         |
| <b>Total général</b>            |          |              |               |                   |           |            |                | <b>74</b> |

| CERAMBYCIDAE                         | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | TOTAL     |
|--------------------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|-----------|
| <i>Agapanthia villosiviridescens</i> | 0        | 0            | 0             | 0                 | 1         | 0          | 1              | 1         |
| <i>Alosterna tabacicolor</i>         | 0        | 0            | 0             | 0                 | 0         | 3          | 3              | 3         |
| <i>Anaglyptus mysticus</i>           | 0        | 0            | 0             | 0                 | 1         | 2          | 3              | 3         |
| <i>Clytus arietis</i>                | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 1         |
| <i>Corymbia rubra</i>                | 0        | 0            | 0             | 0                 | 1         | 4          | 5              | 5         |
| <i>Leptura maculata</i>              | 0        | 0            | 0             | 0                 | 0         | 2          | 2              | 2         |
| <i>Oberea pupillata</i>              | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 1         |
| <i>Pachytodes cerambyciformis</i>    | 0        | 0            | 0             | 0                 | 0         | 3          | 3              | 3         |
| <i>Pogonocherus hispidulus</i>       | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 1         |
| <i>Rhagium mordax</i>                | 0        | 0            | 0             | 0                 | 1         | 0          | 1              | 1         |
| <i>Stenurella melanura</i>           | 1        | 0            | 2             | 2                 | 1         | 32         | 33             | 36        |
| <b>Total général</b>                 |          |              |               |                   |           |            |                | <b>57</b> |

| LUCANIDAE                | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | TOTAL    |
|--------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|----------|
| <i>Platycerus caprea</i> | 0        | 4            | 1             | 5                 | 0         | 0          | 0              | 5        |
| <b>Total général</b>     |          |              |               |                   |           |            |                | <b>5</b> |



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## ANNEXE 4.3

## 1998 : Petit Essert

| SCOLYTIDAE                          | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | TOTAL |
|-------------------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|-------|
| <i>Cryphalus abietis</i>            | 8        | 1            | 0             | 1                 | 0         | 0          | 0              | 9     |
| <i>Cryphalus piceae</i>             | 14       | 4            | 5             | 9                 | 5         | 2          | 7              | 30    |
| <i>Crypturgus cinereus</i>          | 0        | 2            | 4             | 6                 | 0         | 0          | 0              | 6     |
| <i>Crypturgus pusillus</i>          | 0        | 10           | 2             | 12                | 2         | 0          | 2              | 14    |
| <i>Dryocoetes autographus</i>       | 2        | 0            | 1             | 1                 | 0         | 0          | 0              | 3     |
| <i>Enoporus fagi</i>                | 9        | 0            | 0             | 0                 | 0         | 0          | 0              | 9     |
| <i>Hylastes cunicularius</i>        | 1        | 1            | 0             | 1                 | 0         | 0          | 0              | 2     |
| <i>Hylastinus obscurus</i>          | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 1     |
| <i>Ips typographus</i>              | 1        | 0            | 0             | 0                 | 0         | 0          | 0              | 1     |
| <i>Leperisinus varius</i>           | 1        | 0            | 0             | 0                 | 2         | 0          | 2              | 3     |
| <i>Phloeophthorus rhododactylus</i> | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 1     |
| <i>Pityogenes chalcographus</i>     | 3        | 10           | 0             | 10                | 1         | 0          | 1              | 14    |
| <i>Pityokteines curvidens</i>       | 4        | 0            | 0             | 0                 | 0         | 0          | 0              | 4     |
| <i>Pityophthorus ptyographus</i>    | 26       | 8            | 1             | 9                 | 0         | 0          | 0              | 35    |
| <i>Taphronychus bicolor</i>         | 1        | 1            | 1             | 2                 | 1         | 0          | 1              | 4     |
| <i>Taphronychus villifrons</i>      | 12       | 0            | 3             | 3                 | 0         | 0          | 0              | 15    |
| <i>Trypodendron lineatum</i>        | 4        | 1            | 0             | 1                 | 0         | 0          | 0              | 5     |
| <i>Xyleborus dispar</i>             | 1        | 0            | 0             | 0                 | 0         | 1          | 1              | 2     |
| <i>Xyleborus saxeseni</i>           | 7        | 29           | 13            | 42                | 0         | 0          | 0              | 49    |
|                                     |          |              |               |                   |           |            |                | 207   |

| CERAMBYCIDAE                       | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | TOTAL |
|------------------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|-------|
| <i>Allosterna tabacicolor</i>      | 0        | 0            | 0             | 0                 | 2         | 2          | 4              | 4     |
| <i>Anastrangalia dubia</i>         | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 1     |
| <i>Anastrangalia sanguinolenta</i> | 0        | 1            | 0             | 1                 | 0         | 0          | 0              | 1     |
| <i>Clytus arletis</i>              | 0        | 4            | 0             | 4                 | 2         | 0          | 2              | 6     |
| <i>Corymbia rubra</i>              | 0        | 0            | 0             | 0                 | 1         | 0          | 1              | 1     |
| <i>Dinoptera collaris</i>          | 0        | 0            | 0             | 0                 | 1         | 0          | 1              | 1     |
| <i>Gaurotes virginea</i>           | 0        | 1            | 0             | 1                 | 0         | 0          | 0              | 1     |
| <i>Leptura maculata</i>            | 1        | 0            | 0             | 0                 | 4         | 2          | 6              | 7     |
| <i>Pachytodes cerambyciformis</i>  | 0        | 0            | 0             | 0                 | 3         | 2          | 5              | 5     |
| <i>Phyllopertha horticola</i>      | 0        | 0            | 0             | 0                 | 0         | 2          | 2              | 2     |
| <i>Rhagium inquisitor</i>          | 0        | 2            | 0             | 2                 | 0         | 0          | 0              | 2     |
| <i>Rhagium mordax</i>              | 0        | 0            | 0             | 0                 | 1         | 1          | 2              | 2     |
| <i>Serica brunnea</i>              | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 1     |
| <i>Stenocorus meridianus</i>       | 0        | 0            | 1             | 1                 | 0         | 1          | 1              | 2     |
| <i>Stenurella melanura</i>         | 1        | 0            | 1             | 1                 | 3         | 9          | 12             | 14    |
| <i>Tetropium castaneum</i>         | 2        | 0            | 0             | 0                 | 0         | 0          | 0              | 2     |
|                                    |          |              |               |                   |           |            |                | 52    |

| BUPRESTIDAE             | Suspendu | Bostryches I | Bostryches II | Bostryches I + II | Malaise I | Malaise II | Malaise I + II | TOTAL |
|-------------------------|----------|--------------|---------------|-------------------|-----------|------------|----------------|-------|
| <i>Anthaxia similis</i> | 0        | 0            | 0             | 0                 | 0         | 1          | 1              | 1     |
| <i>Agrilus viridis</i>  | 0        | 3            | 0             | 3                 | 0         | 0          | 0              | 3     |





## 1998 : Les Ages

| SCOLYTIDAE                   | Bostryches I | Bostryches II | TOTAL |
|------------------------------|--------------|---------------|-------|
| <i>Crypturgus pusillus</i>   | 0            | 1             | 1     |
| <i>Hylastes cunicularius</i> | 0            | 1             | 1     |
| <i>Trypodendron lineatum</i> | 0            | 1             | 1     |
| <i>Xyleborus germanus</i>    | 2            | 1             | 3     |
|                              |              |               | 6     |

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ANNEXE 4.6

## 1998 : Combe aux Français

| SCOLYTIDAE                        | Bostryches I | Bostryches II | TOTAL |
|-----------------------------------|--------------|---------------|-------|
| <i>Cryphalus piceae</i>           | 0            | 1             | 1     |
| <i>Crypturgus cinereus</i>        | 4            | 8             | 12    |
| <i>Crypturgus pusillus</i>        | 2            | 3             | 5     |
| <i>Dryocoetes autographus</i>     | 13           | 2             | 15    |
| <i>Dryocoetes hectographus</i>    | 2            | 1             | 3     |
| <i>Hylastes cunicularius</i>      | 11           | 3             | 14    |
| <i>Hylastinus fankhauseri</i>     | 0            | 1             | 1     |
| <i>Hylurgops palliatus</i>        | 1            | 0             | 1     |
| <i>Ips typographus</i>            | 1            | 0             | 1     |
| <i>Phthorophoeus spinulosus</i>   | 0            | 1             | 1     |
| <i>Pityogenes chalcographus</i>   | 17           | 17            | 34    |
| <i>Pityophthorus pityographus</i> | 8            | 52            | 60    |
| <i>Taphrotychus bicolor</i>       | 1            | 0             | 1     |
| <i>Trypodendron lineatum</i>      | 2            | 1             | 3     |
| <i>Xyleborus germanus</i>         | 48           | 80            | 128   |
| <i>Xyleborus saxeseni</i>         | 2            | 6             | 8     |
|                                   |              |               | 288   |

| CERAMBYCIDAE                   | Bostryches I | Bostryches II | TOTAL |
|--------------------------------|--------------|---------------|-------|
| <i>Clytus arietis</i>          | 1            | 0             | 1     |
| <i>Corymbia rubra</i>          | 2            | 0             | 2     |
| <i>Leptura aurulenta</i>       | 0            | 1             | 1     |
| <i>Sinodendron cylindricum</i> | 0            | 2             | 2     |
| <i>Stenurella melanura</i>     | 2            | 1             | 3     |
|                                |              |               | 9     |

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ANNEXE 4.7

## ANNEXE 4

## 1998 : Grand Essert

| SCOLYTIDAE                        | Bostryches I | Bostryches II | TOTAL |
|-----------------------------------|--------------|---------------|-------|
| <i>Cryphalus abietis</i>          | 1            | 0             | 1     |
| <i>Cryphalus piceae</i>           | 100          | 11            | 111   |
| <i>Crypturgus cinereus</i>        | 2            | 2             | 4     |
| <i>Crypturgus pusillus</i>        | 11           | 0             | 11    |
| <i>Dryocoetes autographus</i>     | 1            | 1             | 2     |
| <i>Ernoporus fagi</i>             | 0            | 1             | 1     |
| <i>Hylastes cunicularius</i>      | 3            | 1             | 4     |
| <i>Hylastinus fankhauseri</i>     | 0            | 1             | 1     |
| <i>Hylastinus obscurus</i>        | 1            | 0             | 1     |
| <i>Leperisinus varius</i>         | 1            | 1             | 2     |
| <i>Orthotomicus laevis</i>        | 1            | 0             | 1     |
| <i>Phthorophloeus spinulosus</i>  | 0            | 1             | 1     |
| <i>Pityogenes chalcographus</i>   | 3            | 2             | 5     |
| <i>Pityokteines curvidens</i>     | 1            | 4             | 5     |
| <i>Pityophthorus pityographus</i> | 6            | 3             | 9     |
| <i>Scolytus intricatus</i>        | 1            | 0             | 1     |
| <i>Taphrorychus bicolor</i>       | 0            | 1             | 1     |
| <i>Taphrorychus villifrons</i>    | 1            | 1             | 2     |
| <i>Trypodendron lineatum</i>      | 3            | 9             | 12    |
| <i>Trypodendron signatum</i>      | 0            | 1             | 1     |
| <i>Xyleborus dispar</i>           | 0            | 2             | 2     |
| <i>Xyleborus saxeseni</i>         | 1            | 9             | 10    |
|                                   |              |               | 188   |

| CERAMBYCIDAE                       | Bostryches I | Bostryches II | TOTAL |
|------------------------------------|--------------|---------------|-------|
| <i>Acmaeops septentrionis</i>      | 0            | 1             | 1     |
| <i>Anastrangalia dubia</i>         | 1            | 1             | 2     |
| <i>Anastrangalia sanguinolenta</i> | 0            | 1             | 1     |
| <i>Clytus arletis</i>              | 1            | 0             | 1     |
| <i>Pachytodes cerambyciformis</i>  | 0            | 1             | 1     |
| <i>Pyrrhidium sanguineum</i>       | 3            | 0             | 3     |
| <i>Rhagium bifasciatum</i>         | 0            | 2             | 2     |
|                                    |              |               | 11    |

| BUPRESIDAE                | Bostryches I | Bostryches II | TOTAL |
|---------------------------|--------------|---------------|-------|
| <i>Anthaxia helvetica</i> | 0            | 1             | 1     |
|                           |              |               | 1     |

| LUCANIDAE                | Bostryches I | Bostryches II | TOTAL |
|--------------------------|--------------|---------------|-------|
| <i>Platycerus caprea</i> | 1            | 2             | 3     |
|                          |              |               | 3     |













## ANNEXE 5

Abondance des espèces de Syrphidae échantillonnées par pièges Malaise lors de l'étude du site de Montricher. Les abondances par espèces sont des moyennes du nombre d'individus capturés dans deux pièges Malaise au cours d'une semaine de capture. Les espèces et les sites ont été ordonnés en fonction de leur position le long du premier axe (F1) de l'analyse factorielle des correspondances appliquée au tableau de données. Le tableau a été fractionné en trois parties pour des raisons de lisibilité. Les cortèges spécifiques propres à chaque station ont été entourés d'un trait gras. Les espèces contribuant le plus à la distinction des deux groupes de stations issus de la classification (groupes 1 et 2, figure 5) sont indiquées en grisé.



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## ANNEXE 5.2

| altitude (m)<br>groupe dans la classification | LDE98   |      | LMO98   |   | PES98   |      | LDA98 |   | LMO99   |   | CVE99     |   | LMO97   |   | LSO99   |   | RBI97     |   | RBI98     |   | CMI99     |   | RBI99 |   | FREQUENCE<br>(dans 179 semaines<br>de piégeage) |       | ABONDANCE<br>(nb. d'individus) |   |
|---|---------|------|---------|---|---------|------|-------|---|---------|---|-----------|---|---------|---|---------|---|-----------|---|-----------|---|-----------|---|-------|---|---|-------|--------------------------------|---|
|   | 800-900 | 1    | 800-900 | 1 | 800-900 | 2    | <800  | 1 | 800-900 | 1 | 1100-1200 | 1 | 800-900 | 1 | 800-900 | 1 | 1400-1500 | 2 | 1300-1400 | 2 | 1300-1400 | 2 | >1500 | 2 | 1300-1400                                       | 2     | 0.006                          | 1 |
| <i>Chelisia chloris</i>                       |         | 0.05 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Chelisia psilophthalma</i>                 |         | 0.09 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Chrysogaster virescens</i>                 |         | 0.05 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Crochima ramuculi</i>                      |         | 0.09 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Dasytyrphus bilaris</i>                    |         |      |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Didea fasciata</i>                         |         |      |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Meligramma triangulifera</i>               |         | 0.05 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Orthonevra nobilis</i>                     |         | 0.09 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Pipiza lateitarsis</i> /s/Verlin.          |         | 0.05 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Sphingina sphoginea</i>                    |         | 0.05 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.039 | 15                             |   |
| <i>Spilomyia manicata</i>                     |         | 0.05 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Trichopsomyia joracensis</i>               |         | 0.05 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Dasytyrphus venustus</i> /s/ Laska         | 0.09    | 0.55 |         |   |         | 0.18 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.022 | 5                              |   |
| <i>Parasyrphus madinellus</i>                 |         | 0.14 |         |   |         | 0.18 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Chelisia acer</i>                          |         | 0.05 |         |   |         | 0.09 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Chelisia impressa</i>                      |         | 0.05 |         |   |         | 0.09 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Chelisia albifla</i>                       |         |      |         |   |         | 0.09 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Chelisia lemis</i>                         |         |      |         |   |         | 0.09 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Chrysotoxum arcuatum</i>                   |         |      |         |   |         | 0.09 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Epistrophe diaphana</i>                    |         |      |         |   |         | 0.18 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Neosascia tenuis</i>                       |         |      |         |   |         | 0.18 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 2                              |   |
| <i>Paragus romanicus</i>                      |         | 0.68 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 2                              |   |
| <i>Syrphus nitidifrons</i>                    |         | 1.86 |         |   |         |      |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.017 | 16                             |   |
| <i>Platycheirus immaculatus</i>               |         |      |         |   |         | 0.36 | 0.20  |   | 0.10    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.061 | 54                             |   |
| <i>Sphaerophoria bankowskiae</i>              | 0.36    |      |         |   |         | 0.36 | 0.10  |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.017 | 5                              |   |
| <i>Sphaerophoria taeniata</i>                 |         | 0.05 |         |   |         | 5.55 | 0.90  |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.061 | 74                             |   |
| <i>Rhingia borealis</i>                       |         | 0.09 |         |   |         | 0.27 | 0.10  |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 3                              |   |
| <i>Xanthogramma pedissequum</i>               |         |      |         |   |         | 0.27 | 0.10  |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.022 | 5                              |   |
| <i>Xanthogramma laetum</i>                    |         | 0.05 |         |   |         | 0.27 | 0.10  |   | 0.14    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.034 | 7                              |   |
| <i>Epistrophe melanostoma</i>                 |         |      |         |   |         | 0.09 | 0.10  |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Sphingina montana</i>                      |         | 0.05 |         |   |         |      |       |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Paragus majoranae</i>                      |         |      |         |   |         | 0.73 | 0.70  |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.067 | 16                             |   |
| <i>Epistrophe euechroma</i>                   |         | 0.14 |         |   |         | 0.27 | 0.20  |   | 0.10    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.039 | 10                             |   |
| <i>Chelisia soror</i>                         |         | 0.05 |         |   |         | 0.09 | 0.10  |   | 0.10    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.022 | 4                              |   |
| <i>Meligramma singulata</i>                   | 0.27    | 3.45 |         |   |         | 0.20 |       |   | 0.06    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.061 | 94                             |   |
| <i>Neosascia podagrica</i>                    | 0.09    | 0.27 |         |   |         | 0.18 | 0.40  |   | 0.11    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.067 | 16                             |   |
| <i>Brachyopa scutellaris</i>                  |         |      |         |   |         | 0.10 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Chelisia vulpina</i>                       |         |      |         |   |         | 0.10 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Perdinandea cuprea</i>                     |         |      |         |   |         | 0.10 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Sphingina latifrons</i>                    |         | 0.09 |         |   |         |      |       |   | 0.06    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.017 | 3                              |   |
| <i>Temnostoma bombylans</i>                   | 0.09    | 0.14 |         |   |         | 0.27 | 0.10  |   | 0.14    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.056 | 12                             |   |
| <i>Platycheirus tarsalis</i>                  | 0.18    | 0.09 |         |   |         | 0.64 | 0.20  |   | 0.06    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.073 | 15                             |   |
| <i>Pipizella viduata</i>                      |         | 0.14 |         |   |         | 0.73 | 0.10  |   | 0.06    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.061 | 16                             |   |
| <i>Chelisia flavipes</i>                      |         |      |         |   |         | 0.55 |       |   |         |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.017 | 8                              |   |
| <i>Meligramma cineta</i>                      | 1.09    | 1.09 |         |   |         | 2.00 | 0.80  |   | 0.57    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.307 | 115                            |   |
| <i>Aretophila superbiens</i>                  |         |      |         |   |         |      |       |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Calliprobola speciosa</i>                  |         |      |         |   |         |      |       |   | 0.10    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.011 | 2                              |   |
| <i>Chelisia semifasciata</i>                  |         |      |         |   |         |      |       |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Microdon miki</i>                          |         |      |         |   |         |      |       |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Rhingia restrata</i>                       |         |      |         |   |         |      |       |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <b>Temnostoma apiforme</b>                    |         |      |         |   |         |      |       |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <b>Platycheirus europaeus</b>                 | 0.36    | 7.32 |         |   |         | 7.91 | 2.90  |   | 5.95    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.324 | 656                            |   |
| <i>Eupodes latifasciatus</i>                  |         | 0.09 |         |   |         | 0.64 | 0.30  |   | 0.10    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.089 | 18                             |   |
| <i>Chrysotoxum intermedium</i>                | 0.82    | 0.45 |         |   |         | 0.91 | 1.20  |   | 0.90    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.251 | 69                             |   |
| <i>Eumerus flavivaris</i>                     |         | 0.05 |         |   |         |      |       |   | 0.40    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.039 | 7                              |   |
| <i>Epistrophe nitidicollis</i>                |         | 0.05 |         |   |         | 0.82 | 0.10  |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.056 | 15                             |   |
| <i>Eupodes lapponicus</i>                     |         | 0.77 |         |   |         | 0.27 | 0.30  |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.134 | 50                             |   |
| <i>Chelisia chrysozona</i>                    | 0.73    |      |         |   |         |      |       |   | 0.05    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.006 | 1                              |   |
| <i>Eumerus tarsalis</i>                       |         | 0.05 |         |   |         | 0.09 |       |   | 0.10    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.017 | 3                              |   |
| <i>Chelisia nigripes</i>                      |         | 0.50 |         |   |         | 0.18 | 0.10  |   | 0.06    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.034 | 6                              |   |
| <i>Dasytyrphus albostratus</i>                | 0.27    |      |         |   |         | 0.18 | 0.10  |   | 0.06    |   |           |   |         |   |         |   |           |   |           |   |           |   |       |   |   | 0.067 | 24                             |   |







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## ANNEXE 6.1

**Annexe 6 : Catalogue des syrphides répertoriés du Jura suisse**

M = espèces répertoriées des forêts de Montricher (sans mention d'année = insectes capturés en chasse à vue, au filet entomologique)  
 97 = espèces répertoriées des forêts de Montricher en 1997  
 98 = espèces répertoriées des forêts de Montricher en 1998  
 99 = espèces répertoriées des forêts de Montricher en 1999  
 saproxylic = espèces saproxylophages  
 saproxylic\* = espèces saproxylophages non répertoriées de Montricher et associées à de vieux arbres vivants

|   |          |    |    |    |             |
|---|----------|----|----|----|-------------|
| Anasimyia lineata (Fabricius), 1787           |          |    |    |    |             |
| Arctophila bombiformis (Fallen), 1810         | <b>M</b> | 97 | 98 | 99 |             |
| Arctophila superbiens (Muller), 1776          | <b>M</b> |    |    | 99 |             |
| Baccha elongata (Fabricius), 1775             | <b>M</b> | 97 | 98 | 99 |             |
| Blera fallax (Linnaeus), 1758                 | <b>M</b> | 97 | 98 | 99 | saproxylic  |
| Brachyopa bicolor (Fallen), 1817              |          |    |    |    | saproxylic* |
| Brachyopa dorsata Zetterstedt, 1837           | <b>M</b> |    |    | 99 | saproxylic  |
| Brachyopa insensilis Collin, 1939             |          |    |    |    | saproxylic* |
| Brachyopa panzeri Goffe, 1945                 | <b>M</b> | 97 | 98 | 99 | saproxylic  |
| Brachyopa scutellaris Robineau-Desvoidy, 1843 | <b>M</b> |    | 98 |    | saproxylic  |
| Brachyopa testacea (Fallen), 1871             | <b>M</b> | 97 | 98 | 99 | saproxylic  |
| Brachyopa vittata Zetterstedt, 1843           | <b>M</b> | 97 | 98 | 99 | saproxylic  |
| Brachypalpoides lentus (Meigen), 1822         | <b>M</b> | 97 | 98 | 99 | saproxylic  |
| Brachypalpus chrysites Egger, 1859            | <b>M</b> |    |    |    | saproxylic  |
| Brachypalpus laphriformis (Fallen), 1816      | <b>M</b> |    | 98 | 99 | saproxylic  |
| Caliprobola speciosa (Rossi), 1790            | <b>M</b> |    |    | 99 | saproxylic  |
| Callicera aenea (Fabricius), 1777             | <b>M</b> |    |    |    | saproxylic  |
| Callicera aurata (Rossi), 1790                |          |    |    |    | saproxylic* |
| Chalcosyrphus nemorum (Fabricius), 1805       | <b>M</b> | 97 |    | 99 | saproxylic  |
| Cheilosia aerea Dufour, 1848                  | <b>M</b> |    | 98 |    |             |
| Cheilosia ahenea (von Roser), 1840            |          |    |    |    |             |
| Cheilosia albipila Meigen, 1838               | <b>M</b> |    | 98 |    |             |
| Cheilosia albitarsis (Meigen), 1822           | <b>M</b> | 97 | 98 | 99 |             |
| Cheilosia antiqua (Meigen), 1822              | <b>M</b> | 97 | 98 | 99 |             |
| Cheilosia barbata Loew, 1857                  | <b>M</b> | 97 | 98 | 99 |             |
| Cheilosia bergenstammi Becker, 1894           | <b>M</b> |    | 98 | 99 |             |
| Cheilosia caerulescens (Meigen), 1822         |          |    |    |    |             |
| Cheilosia canicularis (Panzer), 1801          | <b>M</b> | 97 | 98 | 99 |             |
| Cheilosia carbonaria Egger, 1860              |          |    |    |    |             |
| Cheilosia chloris (Meigen), 1822              | <b>M</b> |    | 98 |    |             |
| Cheilosia chrysocoma (Meigen), 1822           | <b>M</b> |    |    | 99 |             |
| Cheilosia cynocephala Loew, 1840              |          |    |    |    |             |
| Cheilosia derasa Loew, 1857                   | <b>M</b> | 97 | 98 | 99 |             |
| Cheilosia faucis Becker, 1894                 | <b>M</b> | 97 | 98 | 99 |             |
| Cheilosia flavipes (Panzer), 1798             | <b>M</b> | 97 | 98 | 99 |             |
| Cheilosia fraterna (Meigen), 1830             | <b>M</b> |    | 98 | 99 |             |
| Cheilosia frontalis Loew, 1857                | <b>M</b> |    | 98 | 99 |             |
| Cheilosia gagatea Loew, 1857                  |          |    |    |    |             |
| Cheilosia illustrata (Harris), 1780           | <b>M</b> |    |    |    |             |
| Cheilosia impressa Loew, 1840                 | <b>M</b> |    | 98 |    |             |
| Cheilosia impudens Becker, 1894               | <b>M</b> |    | 98 | 99 |             |
| Cheilosia insignis Loew, 1857                 |          |    |    |    |             |
| Cheilosia lasiopa Kowarz, 1885                | <b>M</b> |    | 98 |    |             |
| Cheilosia lenis Becker, 1894                  | <b>M</b> |    | 98 |    |             |

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## ANNEXE 6.2

|   |          |    |    |            |
|---|----------|----|----|------------|
| Cheilosia melanopa (Zetterstedt), 1843                  |          |    |    |            |
| Cheilosia melanura Becker, 1894                         | <b>M</b> | 98 | 99 |            |
| Cheilosia montana Egger, 1860                           |          |    |    |            |
| Cheilosia morio (Zetterstedt), 1838                     | <b>M</b> |    |    | saproxylic |
| Cheilosia mutabilis (Fallen), 1817                      | <b>M</b> | 97 | 98 | 99         |
| Cheilosia nebulosa (Verrall), 1871                      |          |    |    |            |
| Cheilosia nigripes (Meigen), 1822                       | <b>M</b> | 97 | 98 | 99         |
| Cheilosia pagana (Meigen), 1822                         | <b>M</b> | 97 | 98 | 99         |
| Cheilosia pedemontana Rondani, 1857                     |          |    |    |            |
| Cheilosia personata Loew, 1857                          | <b>M</b> | 97 | 98 | 99         |
| Cheilosia pictipennis Egger, 1860                       |          |    |    |            |
| Cheilosia proxima (Zetterstedt), 1843                   | <b>M</b> |    | 98 | 99         |
| Cheilosia psilophthalma Becker, 1894                    | <b>M</b> |    | 98 |            |
| Cheilosia pubera (Zetterstedt), 1838                    | <b>M</b> | 97 |    |            |
| Cheilosia rhynchops Egger, 1860                         | <b>M</b> | 97 | 98 | 99         |
| Cheilosia sahlbergi Becker, 1894                        |          |    |    |            |
| Cheilosia semifasciata Becker, 1894                     | <b>M</b> |    |    | 99         |
| Cheilosia sootryeni Nielsen, 1970                       |          |    |    |            |
| Cheilosia soror (Zetterstedt), 1843                     | <b>M</b> |    | 98 |            |
| Cheilosia subpictipennis Claussen, 1998                 | <b>M</b> |    |    |            |
| Cheilosia urbana (Meigen), 1822                         | <b>M</b> |    | 98 | 99         |
| Cheilosia vangaveri Timon-David, 1937                   |          |    |    |            |
| Cheilosia variabilis (Panzer), 1798                     | <b>M</b> | 97 | 98 | 99         |
| Cheilosia vernalis (Fallen), 1817                       | <b>M</b> |    | 98 |            |
| Cheilosia vicina (Zetterstedt), 1849                    | <b>M</b> |    | 98 |            |
| Cheilosia vulpina (Meigen), 1822                        | <b>M</b> |    | 98 |            |
| Chrysogaster basalis Loew, 1857                         |          |    |    |            |
| Chrysogaster solstitialis (Fallen), 1817                | <b>M</b> |    |    |            |
| Chrysogaster virescens Loew, 1854                       | <b>M</b> |    | 98 |            |
| Chrysotoxum arcuatum (L.), 1758                         | <b>M</b> |    | 98 |            |
| Chrysotoxum bicinctum (L.), 1758                        | <b>M</b> | 97 | 98 | 99         |
| Chrysotoxum elegans Loew, 1841                          | <b>M</b> | 97 | 98 | 99         |
| Chrysotoxum fasciatum (Muller), 1764                    | <b>M</b> | 97 | 98 | 99         |
| Chrysotoxum fasciolatum (de Geer), 1776                 | <b>M</b> | 97 | 98 | 99         |
| Chrysotoxum intermedium Meigen, 1822 (s. auct.)         | <b>M</b> | 97 | 98 | 99         |
| Chrysotoxum octomaculatum Curtis, 1837                  |          |    |    |            |
| Chrysotoxum vernale Loew, 1841                          | <b>M</b> | 97 |    |            |
| Criorhina asilica (Fallen), 1817                        | <b>M</b> |    | 98 | 99         |
| Criorhina berberina (Fabricius), 1805                   | <b>M</b> | 97 | 98 | 99         |
| Criorhina ranunculi (Panzer), 1804                      | <b>M</b> |    | 98 | saproxylic |
| Dasysyrphus albostrigatus (Fallen), 1817                | <b>M</b> | 97 | 98 | 99         |
| Dasysyrphus friuliensis (van der Goot), 1960            | <b>M</b> | 97 | 98 | 99         |
| Dasysyrphus hilaris (Zetterstedt), 1843                 | <b>M</b> |    | 98 |            |
| Dasysyrphus pinastri (DeGeer), 1776 sensu Doczkal, 1996 | <b>M</b> | 97 | 98 | 99         |
| Dasysyrphus tricinctus (Fallen), 1817                   | <b>M</b> | 97 | 98 | 99         |
| Dasysyrphus venustus (Meigen), 1822 sensu Doczkal       | <b>M</b> |    | 98 | 99         |
| Dasysyrphus venustus (Meigen), 1922 sensu Laska         | <b>M</b> |    | 98 |            |
| Didea alneti (Fallen), 1817                             |          |    |    |            |
| Didea fasciata Macquart, 1834                           | <b>M</b> |    | 98 |            |
| Didea intermedia Loew, 1854                             |          |    |    |            |
| Epistrophe diaphana (Zetterstedt), 1843                 | <b>M</b> |    | 98 |            |
| Epistrophe eligans (Harris), 1780                       | <b>M</b> |    | 98 | 99         |
| Epistrophe grossulariae (Meigen), 1822                  | <b>M</b> | 97 | 98 | 99         |
| Epistrophe melanostoma (Zetterstedt), 1843              | <b>M</b> |    | 98 |            |

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## ANNEXE 6.3

|   |          |    |    |           |
|---|----------|----|----|-----------|
| Epistrophe nitidicollis (Meigen), 1822                | <b>M</b> | 98 | 99 |           |
| Epistrophella euchroma (Kowarz), 1885                 | <b>M</b> | 97 | 98 | 99        |
| Episyrphus balteatus (DeGeer), 1776                   | <b>M</b> | 97 | 98 | 99        |
| Eriozona erratica (L.), 1758                          | <b>M</b> | 97 |    |           |
| Eriozona syrphoides (Fallen), 1817                    | <b>M</b> | 97 |    |           |
| Eristalinus sepulchralis (L.), 1758                   |          |    |    |           |
| Eristalis alpina (Panzer), 1798                       |          |    |    |           |
| Eristalis arbustorum (L.), 1758                       | <b>M</b> | 97 |    | 99        |
| Eristalis horticola (DeGeer), 1776                    |          |    |    |           |
| Eristalis interrupta (Poda), 1761                     | <b>M</b> | 97 | 98 |           |
| Eristalis intricaria (L.), 1758                       |          |    |    |           |
| Eristalis jugorum Egger, 1858                         | <b>M</b> | 97 | 98 | 99        |
| Eristalis pertinax (Scopoli), 1763                    | <b>M</b> | 97 | 98 | 99        |
| Eristalis picea (Fallen), 1817                        | <b>M</b> |    | 98 |           |
| Eristalis rupium Fabricius, 1805                      |          |    |    |           |
| Eristalis similis (Fallen), 1817                      | <b>M</b> | 97 | 98 | 99        |
| Eristalis tenax (L.), 1758                            | <b>M</b> | 97 | 98 | 99        |
| Eumerus flavitarsis Zetterstedt, 1843                 | <b>M</b> | 97 | 98 | 99        |
| Eumerus ornatus Meigen, 1822                          |          |    |    |           |
| Eumerus sabulonum (Fallen), 1817                      |          |    |    |           |
| Eumerus tarsalis Loew, 1848                           | <b>M</b> |    |    | 99        |
| Eupeodes bucculatus (Rondani), 1857                   | <b>M</b> | 97 |    |           |
| Eupeodes corollae (Fabricius), 1794                   | <b>M</b> | 97 | 98 | 99        |
| Eupeodes lapponicus (Zetterstedt), 1838               | <b>M</b> | 97 | 98 | 99        |
| Eupeodes latifasciatus (Macquart), 1829               | <b>M</b> | 97 | 98 |           |
| Eupeodes luniger (Meigen), 1822                       | <b>M</b> | 97 | 98 | 99        |
| Eupeodes nielseni (Dusek & Laska), 1976               | <b>M</b> | 97 |    | 99        |
| Eupeodes nitens (Zetterstedt), 1843                   | <b>M</b> | 97 | 98 | 99        |
| Ferdinanda cuprea (Scopoli), 1763                     | <b>M</b> |    | 98 | saproxylc |
| Helophilus pendulus (L.), 1758                        | <b>M</b> | 97 | 98 | 99        |
| Helophilus trivittatus (Fabricius), 1805              | <b>M</b> | 97 | 98 | 99        |
| Heringia heringi (Zetterstedt), 1843                  |          |    |    |           |
| Heringia latitarsis (Egger), 1865                     |          |    |    |           |
| Heringia pubescens (Delucchi & Pschorn-Walcher), 1955 | <b>M</b> |    | 98 | 99        |
| Heringia vitripennis (Meigen), 1822                   | <b>M</b> | 97 | 98 | 99        |
| Lejogaster metallina (Fabricius), 1781                |          |    |    |           |
| Lejota ruficornis (Zetterstedt), 1843                 |          |    |    | saproxylc |
| Leucozonia glaucia (L.), 1758                         | <b>M</b> | 97 | 98 |           |
| Leucozonia laternaria (Muller), 1776                  | <b>M</b> | 97 |    |           |
| Leucozonia lucorum (L.), 1758                         | <b>M</b> |    | 98 | 99        |
| Melangyna compositarum (Verrall), 1873                | <b>M</b> | 97 | 98 |           |
| Melangyna ericarum (Collin), 1946                     | <b>M</b> |    |    |           |
| Melangyna lasiophthalma (Zetterstedt), 1843           | <b>M</b> |    | 98 | 99        |
| Melangyna umbellatarum (Fabricius), 1794              | <b>M</b> | 97 | 98 |           |
| Melanogaster aerea (Loew), 1843                       |          |    |    |           |
| Melanogaster hirtella (Loew), 1843                    |          |    |    |           |
| Melanogaster nuda (Macquart), 1829                    |          |    |    |           |
| Melanostoma mellinum (L.), 1758                       | <b>M</b> | 97 | 98 | 99        |
| Melanostoma scalare (Fabricius), 1794                 | <b>M</b> | 97 | 98 | 99        |
| Meligramma cincta (Fallen), 1817                      | <b>M</b> | 97 | 98 | 99        |
| Meligramma cingulata (Egger), 1860                    | <b>M</b> | 97 | 98 | 99        |
| Meligramma triangulifera (Zetterstedt), 1843          | <b>M</b> |    | 98 |           |
| Meliscaeva auricollis (Meigen), 1822                  | <b>M</b> | 97 | 98 | 99        |
| Meliscaeva cinctella (Zetterstedt), 1843              | <b>M</b> | 97 | 98 | 99        |

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## ANNEXE 6.4

|  |          |    |    |    |             |
|--|----------|----|----|----|-------------|
| Merodon aeneus Meigen, 1822                              | <b>M</b> |    |    | 99 |             |
| Merodon cinereus (Fabricius), 1794                       | <b>M</b> | 97 | 98 | 99 |             |
| Merodon equestris (Fabricius), 1794                      | <b>M</b> | 97 |    |    |             |
| Merodon ruficornis Meigen, 1822                          |          |    |    |    |             |
| Merodon rufus Meigen, 1838                               |          |    |    |    |             |
| Microdon analis (Macquart), 1842                         | <b>M</b> |    | 98 |    |             |
| Microdon miki Doczkal & Schmid, 1999                     | <b>M</b> |    |    | 99 |             |
| Myathropa florea (L.), 1758                              | <b>M</b> | 97 | 98 | 99 |             |
| Myolepta vara (Panzer), 1798                             |          |    |    |    | saproxylic* |
| Neoascia annexa (Muller), 1776                           |          |    |    |    |             |
| Neoascia meticulosa (Scopoli), 1763                      |          |    |    |    |             |
| Neoascia obliqua Coe, 1940                               |          |    |    |    |             |
| Neoascia podagrica (Fabricius), 1775                     | <b>M</b> | 97 | 98 |    |             |
| Neoascia tenur (Harris), 1780                            | <b>M</b> |    | 98 |    |             |
| Neoascia unifasciata (Strobl), 1898                      |          |    |    |    |             |
| Orthonevra brevicornis Loew, 1843                        |          |    |    |    |             |
| Orthonevra nobilis (Fallen), 1817                        | <b>M</b> |    | 98 |    |             |
| Orthonevra onytes (Seguy), 1961                          |          |    |    |    |             |
| Paragus absidatus Goeldlin, 1971                         | <b>M</b> | 97 |    |    |             |
| Paragus haemorrhous Meigen, 1822                         | <b>M</b> |    | 98 |    |             |
| Paragus majoranae Rondani, 1857                          | <b>M</b> |    | 98 |    |             |
| Paragus punctulatus Zetterstedt, 1838                    | <b>M</b> |    |    | 99 |             |
| Paragus romanicus Stanescu, 1992                         | <b>M</b> |    | 98 |    |             |
| Paragus tibialis (Fallen), 1817                          | <b>M</b> |    |    |    |             |
| Parasyrphus annulatus (Zetterstedt), 1838                | <b>M</b> | 97 | 98 | 99 |             |
| Parasyrphus lineolus (Zetterstedt), 1843                 | <b>M</b> | 97 | 98 | 99 |             |
| Parasyrphus macularis (Zetterstedt), 1843                | <b>M</b> | 97 | 98 | 99 |             |
| Parasyrphus malinellus (Collin), 1952                    | <b>M</b> |    | 98 |    |             |
| Parasyrphus punctulatus (Verrall), 1873                  | <b>M</b> |    | 98 | 99 |             |
| Parasyrphus vittiger (Zetterstedt), 1843                 | <b>M</b> | 97 | 98 | 99 |             |
| Parhelophilus consimilis (Malm), 1863                    |          |    |    |    |             |
| Pipiza luteitarsis Zetterstedt, 1843                     | <b>M</b> |    | 98 |    |             |
| Pipiza quadrimaculata (Panzer), 1804                     | <b>M</b> | 97 | 98 | 99 |             |
| Pipizella divicoi (Goeldlin), 1974                       |          |    |    |    |             |
| Pipizella maculipennis (Meigen), 1822                    |          |    |    |    |             |
| Pipizella viduata (L.), 1758                             | <b>M</b> | 97 | 98 |    |             |
| Platycheirus abruzzensis (van der Goot), 1969            | <b>M</b> |    | 98 |    |             |
| Platycheirus albimanus (Fabricius), 1781                 | <b>M</b> | 97 | 98 | 99 |             |
| Platycheirus ambiguus (Fallen), 1817                     |          |    |    |    |             |
| Platycheirus angustatus (Zetterstedt), 1843              | <b>M</b> | 97 | 98 | 99 |             |
| Platycheirus angustipes Goeldlin, 1974                   |          |    |    |    |             |
| Platycheirus clypeatus (Meigen), 1822                    | <b>M</b> | 97 | 98 | 99 |             |
| Platycheirus europaeus Goeldlin, Maibach & Speight, 1990 | <b>M</b> | 97 | 98 | 99 |             |
| Platycheirus granditarsus (Forster), 1771                |          |    |    |    |             |
| Platycheirus immaculatus Ohara, 1980                     | <b>M</b> |    | 98 | 99 |             |
| Platycheirus jaerensis Nielsen, 1971                     |          |    |    |    |             |
| Platycheirus manicatus (Meigen), 1822                    | <b>M</b> |    | 98 | 99 |             |
| Platycheirus melanopsis Loew, 1856                       | <b>M</b> |    |    | 99 |             |
| Platycheirus nielseni Vockeroth, 1990                    | <b>M</b> | 97 | 98 | 99 |             |
| Platycheirus occultus Goeldlin, Maibach & Speight, 1990  |          |    |    |    |             |
| Platycheirus parmatus Rondani, 1857                      | <b>M</b> | 97 | 98 | 99 |             |
| Platycheirus peltatus (Meigen), 1822                     | <b>M</b> | 97 | 98 | 99 |             |
| Platycheirus perpallidus (Verrall), 1901                 |          |    |    |    |             |
| Platycheirus podagratus (Zetterstedt), 1838              |          |    |    |    |             |



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## ANNEXE 6.5

|  |          |    |    |               |
|--|----------|----|----|---------------|
| Platycheirus rosarum (Fabricius), 1787     |          |    |    |               |
| Platycheirus scambus (Staeger), 1843       |          |    |    |               |
| Platycheirus scutatus (Meigen), 1822       | <b>M</b> | 97 | 98 | 99            |
| Platycheirus splendidus Rotheray, 1998     | <b>M</b> |    |    | 99            |
| Platycheirus tarsalis (Schummel), 1836     | <b>M</b> | 97 | 98 | 99            |
| Psilota anthracina Meigen, 1822            | <b>M</b> | 97 |    | saproxylic    |
| Rhingia borealis Ringdahl, 1928            | <b>M</b> |    | 98 | 99            |
| Rhingia campestris Meigen, 1822            | <b>M</b> | 97 | 98 | 99            |
| Rhingia rostrata (L.), 1758                | <b>M</b> |    |    | 99            |
| Scaeva pyrastris (L.), 1758                | <b>M</b> | 97 | 98 | 99            |
| Scaeva selenitica (Meigen), 1822           | <b>M</b> | 97 | 98 | 99            |
| Sericomyia lappona (L.), 1758              |          |    |    |               |
| Sericomyia silentis (Harris), 1776         | <b>M</b> |    |    | 99            |
| Sphaerophoria bankowskiae Goeldlin, 1989   | <b>M</b> |    | 98 |               |
| Sphaerophoria fatarum Goeldlin, 1989       | <b>M</b> | 97 |    | 99            |
| Sphaerophoria infuscata Goeldlin, 1974     | <b>M</b> | 97 | 98 | 99            |
| Sphaerophoria interrupta (Fabricius), 1805 | <b>M</b> | 97 | 98 | 99            |
| Sphaerophoria philantha (Meigen), 1822     |          |    |    |               |
| Sphaerophoria scripta (L.), 1758           | <b>M</b> | 97 | 98 | 99            |
| Sphaerophoria taeniata (Meigen), 1822      | <b>M</b> | 97 | 98 |               |
| Sphaerophoria virgata Goeldlin, 1974       | <b>M</b> | 97 | 98 |               |
| Sphegina clunipes (Fallen), 1816           | <b>M</b> | 97 | 98 | 99 saproxylic |
| Sphegina elegans Schummel, 1843            | <b>M</b> |    |    | saproxylic    |
| Sphegina latifrons Egger, 1865             | <b>M</b> | 97 | 98 |               |
| Sphegina montana Becker, 1921              | <b>M</b> |    | 98 | 99            |
| Sphegina sibirica Stackelberg, 1953        | <b>M</b> |    |    |               |
| Sphegina sphegina (Zetterstedt), 1838      | <b>M</b> |    | 98 |               |
| Sphegina verecunda Collin, 1937            |          |    |    |               |
| Spilomyia manicata (Rondani), 1865         | <b>M</b> |    | 98 | saproxylic    |
| Syrpitta pipiens (L.), 1758                | <b>M</b> | 97 | 98 |               |
| Syrphus nitidifrons Becker, 1921           | <b>M</b> |    | 98 |               |
| Syrphus ribesii (L.), 1758                 | <b>M</b> | 97 | 98 | 99            |
| Syrphus torvus Osten-Sacken, 1875          | <b>M</b> | 97 | 98 | 99            |
| Syrphus vitripennis Meigen, 1822           | <b>M</b> | 97 | 98 | 99            |
| Temnostoma apiforme (Fabricius), 1794      | <b>M</b> |    |    | 99 saproxylic |
| Temnostoma bombylans (Fabricius), 1805     | <b>M</b> |    | 98 | 99 saproxylic |
| Temnostoma vespiforme (L.), 1758           | <b>M</b> | 97 | 98 | 99 saproxylic |
| Trichopsomyia joratensis Goeldlin, 1997    | <b>M</b> |    | 98 |               |
| Volucella bombylans (L.), 1758             | <b>M</b> | 97 |    | 99            |
| Volucella inanis (L.), 1758                | <b>M</b> | 97 | 98 |               |
| Volucella inflata (Fabricius), 1794        |          |    |    | saproxylic*   |
| Volucella pellucens (L.), 1758             | <b>M</b> | 97 | 98 | 99            |
| Xanthandrus comtus (Harris), 1780          | <b>M</b> | 97 | 98 | 99            |
| Xanthogramma festiva (L.), 1758            |          |    |    |               |
| Xanthogramma laetum (Fabricius), 1794      | <b>M</b> |    | 98 | 99            |
| Xanthogramma pedissequum (Harris), 1776    | <b>M</b> |    | 98 | 99            |
| Xylota coeruleiventris Zetterstedt, 1838   | <b>M</b> | 97 | 98 | 99 saproxylic |
| Xylota florum (Fabricius), 1805            | <b>M</b> |    | 98 | saproxylic    |
| Xylota ignava (Panzer), 1798               | <b>M</b> |    |    | saproxylic    |
| Xylota segnis (L.), 1758                   | <b>M</b> | 97 | 98 | 99 saproxylic |
| Xylota sylvarum (L.), 1758                 | <b>M</b> | 97 | 98 | 99 saproxylic |
| Xylota xanthocnema Collin, 1939            | <b>M</b> | 97 | 98 | saproxylic    |





















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| station                        | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| stationcode                    | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| semaine                        | 54  | 55  | 56  | 57  | 58  | 59  | 60  | 61  | 62  | 63  | 64  | 65  | 66  | 67  | 68  | 69  | 70  | 71  | 72  |     |
| année                          | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   |
| Parasyrphus vittiger           |     |     | 2   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Pipiza luteitarsis /s. Verlin. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Pipiza quadrimaculata          |     |     |     |     |     | 5   | 6   | 2   | 2   |     |     |     |     |     |     |     |     |     |     |     |
| Pipizella viduata              |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus abruzzensis       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus albimanus         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus angustatus        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus clypeatus         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus europaeus         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus immaculatus       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus manicatus         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus melanopsis        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus nielsenii         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus parvatus          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus peltatus          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus scutatus          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus splendidus        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Platycheirus tarsalis          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Psilota anthracina             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Rhingia borealis               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Rhingia campestris             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Rhingia rostrata               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Scaeva pyrastris               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Scaeva selenetica              |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sericomyia silentis            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphaerophoria bankowskiae      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphaerophoria fatarum          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphaerophoria infusata         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphaerophoria interrupta       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphaerophoria scripta          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphaerophoria taeniata         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphaerophoria virgata          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

| station                  | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL | RBL |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| stationcode              | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| semaine                  | 54  | 55  | 56  | 57  | 58  | 59  | 60  | 61  | 62  | 63  | 64  | 65  | 66  | 67  | 68  | 69  | 70  | 71  | 72  |     |
| année                    | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   |
| Sphegina clunipes        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphegina latifrons       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphegina montana         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Sphegina spheginea       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Spilomyia manicata       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Syrphia pipiens          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Syrphus nitidifrons      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Syrphus ribesii          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Syrphus torvus           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Syrphus vitripennis      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Temnostoma apiforme      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Temnostoma bombylans     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Temnostoma vespiforme    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Trichopsomyia joratensis |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Volucella bombylans      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Volucella inanis         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Volucella pellucens      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Xanthandrus comtus       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Xanthogramma laetum      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Xanthogramma pedissequum |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Xylota coeruleiventris   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Xylota florum            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Xylota segnis            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Xylota sylvorum          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Xylota xanthocnema       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| ABONDANCE                | 2   | 29  | 82  | 7   | 19  | 30  | 56  | 61  | 71  | 146 | 591 | 619 | 934 | 365 | 196 | 32  | 15  | 13  | 3   |     |
| RICHESSE                 | 2   | 13  | 18  | 6   | 14  | 17  | 31  | 30  | 23  | 29  | 27  | 31  | 26  | 22  | 20  | 11  | 6   | 6   | 2   |     |























































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|                                  | ABONDANCE | FREQUENCE   |                                     | ABONDANCE | FREQUENCE   |                               | ABONDANCE | FREQUENCE   |
|----------------------------------|-----------|-------------|-------------------------------------|-----------|-------------|-------------------------------|-----------|-------------|
| <i>Arctophila bombiformis</i>    | 38        | 0.150837989 | <i>Cheilosia proxima</i>            | 6         | 0.022346369 | <i>Episyrphus balteatus</i>   | 2589      | 0.636871508 |
| <i>Arctophila superbiens</i>     | 1         | 0.005586592 | <i>Cheilosia psilophthalma</i>      | 2         | 0.011173184 | <i>Eriozona erratica</i>      | 1         | 0.005586592 |
| <i>Baccha elongata</i>           | 94        | 0.262569832 | <i>Cheilosia pubera</i>             | 3         | 0.011173184 | <i>Eriozona syrphoides</i>    | 3         | 0.011173184 |
| <i>Blera fallax</i>              | 36        | 0.12849162  | <i>Cheilosia rhyncops</i>           | 74        | 0.134078212 | <i>Eristalis arbustorum</i>   | 6         | 0.022346369 |
| <i>Brachyopa dorsata</i>         | 6         | 0.022346369 | <i>Cheilosia semifasciata</i>       | 1         | 0.005586592 | <i>Eristalis interrupta</i>   | 11        | 0.027932961 |
| <i>Brachyopa panzeri</i>         | 3         | 0.016759777 | <i>Cheilosia soror</i>              | 4         | 0.022346369 | <i>Eristalis jugorum</i>      | 15        | 0.061452514 |
| <i>Brachyopa scutellaris</i>     | 1         | 0.005586592 | <i>Cheilosia urbana</i>             | 4         | 0.016759777 | <i>Eristalis pertinax</i>     | 1991      | 0.301675978 |
| <i>Brachyopa testacea</i>        | 22        | 0.083798883 | <i>Cheilosia variabilis</i>         | 5         | 0.027932961 | <i>Eristalis picea</i>        | 1         | 0.005586592 |
| <i>Brachyopa vittata</i>         | 7         | 0.027932961 | <i>Cheilosia vernalis</i>           | 6         | 0.027932961 | <i>Eristalis similis</i>      | 589       | 0.162011173 |
| <i>Brachypalpoidea lentus</i>    | 22        | 0.083798883 | <i>Cheilosia vicina</i>             | 2         | 0.011173184 | <i>Eristalis tenax</i>        | 47        | 0.150837989 |
| <i>Brachypalpus laphriformis</i> | 18        | 0.05027933  | <i>Cheilosia vulpina</i>            | 1         | 0.005586592 | <i>Eumerus flavitarsis</i>    | 7         | 0.039106145 |
| <i>Caliprobola speciosa</i>      | 2         | 0.011173184 | <i>Chrysogaster virescens</i>       | 1         | 0.005586592 | <i>Eumerus tarsalis</i>       | 3         | 0.016759777 |
| <i>Chalcosyrphus nemorum</i>     | 2         | 0.011173184 | <i>Chrysotoxum arcuatum</i>         | 1         | 0.005586592 | <i>Eupeodes bucculatus</i>    | 3         | 0.016759777 |
| <i>Cheilosia aerea</i>           | 2         | 0.011173184 | <i>Chrysotoxum bicinctum</i>        | 19        | 0.094972067 | <i>Eupeodes corollae</i>      | 329       | 0.318435754 |
| <i>Cheilosia albipila</i>        | 1         | 0.005586592 | <i>Chrysotoxum elegans</i>          | 4         | 0.022346369 | <i>Eupeodes lapponicus</i>    | 50        | 0.134078212 |
| <i>Cheilosia albitarsis</i>      | 37        | 0.106145251 | <i>Chrysotoxum fasciatum</i>        | 42        | 0.184335754 | <i>Eupeodes latifasciatus</i> | 18        | 0.089385475 |
| <i>Cheilosia antiqua</i>         | 24        | 0.100558659 | <i>Chrysotoxum fasciolatum</i>      | 15        | 0.078212291 | <i>Eupeodes lumiger</i>       | 39        | 0.134078212 |
| <i>Cheilosia barbata</i>         | 26        | 0.111731844 | <i>Chrysotoxum intermedium</i>      | 69        | 0.251396648 | <i>Eupeodes nielseni</i>      | 4         | 0.016759777 |
| <i>Cheilosia bergenstammi</i>    | 4         | 0.022346369 | <i>Chrysotoxum vernale</i>          | 1         | 0.005586592 | <i>Eupeodes nitens</i>        | 40        | 0.17877095  |
| <i>Cheilosia canicularis</i>     | 10        | 0.039106145 | <i>Criorhina asilica</i>            | 5         | 0.027932961 | <i>Ferdinandea cuprea</i>     | 1         | 0.005586592 |
| <i>Cheilosia chloris</i>         | 1         | 0.005586592 | <i>Criorhina barberina</i>          | 86        | 0.195530726 | <i>Helophilus pendulus</i>    | 174       | 0.262569832 |
| <i>Cheilosia chrysozona</i>      | 1         | 0.005586592 | <i>Criorhina ranunculi</i>          | 1         | 0.005586592 | <i>Helophilus trivittatus</i> | 33        | 0.089385475 |
| <i>Cheilosia derasa</i>          | 29        | 0.106145251 | <i>Dasysyrphus albostriatus</i>     | 24        | 0.067039106 | <i>Heringia pubescens</i>     | 28        | 0.055865922 |
| <i>Cheilosia faucis</i>          | 13        | 0.05027933  | <i>Dasysyrphus friuliensis</i>      | 3         | 0.016759777 | <i>Heringia vitripennis</i>   | 6         | 0.033519553 |
| <i>Cheilosia flavipes</i>        | 8         | 0.016759777 | <i>Dasysyrphus hilaris</i>          | 2         | 0.011173184 |                               |           |             |
| <i>Cheilosia fraternata</i>      | 5         | 0.016759777 | <i>Dasysyrphus pinastri</i>         | 31        | 0.111731844 |                               |           |             |
| <i>Cheilosia frontalis</i>       | 15        | 0.055865922 | <i>Dasysyrphus tricinctus</i>       | 5         | 0.027932961 |                               |           |             |
| <i>Cheilosia impressa</i>        | 2         | 0.011173184 | <i>Dasysyrphus venustus/s.Doczk</i> | 3         | 0.016759777 |                               |           |             |
| <i>Cheilosia impudens</i>        | 29        | 0.072625698 | <i>Dasysyrphus venustus/s.Laska</i> | 15        | 0.039106145 |                               |           |             |
| <i>Cheilosia lasiopa</i>         | 1         | 0.005586592 | <i>Dideu fasciata</i>               | 1         | 0.005586592 |                               |           |             |
| <i>Cheilosia lenis</i>           | 1         | 0.005586592 | <i>Epistrophe diaphana</i>          | 1         | 0.005586592 |                               |           |             |
| <i>Cheilosia melanura</i>        | 3         | 0.016759777 | <i>Epistrophe eligans</i>           | 6         | 0.027932961 |                               |           |             |
| <i>Cheilosia mutabilis</i>       | 23        | 0.083798883 | <i>Epistrophe grossulariae</i>      | 25        | 0.072625698 |                               |           |             |
| <i>Cheilosia nigripes</i>        | 6         | 0.033519553 | <i>Epistrophe melanostoma</i>       | 2         | 0.011173184 |                               |           |             |
| <i>Cheilosia pagana</i>          | 33        | 0.134078212 | <i>Epistrophe nitidicollis</i>      | 15        | 0.055865922 |                               |           |             |
| <i>Cheilosia personata</i>       | 7         | 0.039106145 | <i>Epistrophebella euchroma</i>     | 10        | 0.039106145 |                               |           |             |

|                                       | ABONDANCE | FREQUENCE   |                                  | ABONDANCE | FREQUENCE   |                                 | ABONDANCE | FREQUENCE   |
|---------------------------------------|-----------|-------------|----------------------------------|-----------|-------------|---------------------------------|-----------|-------------|
| <i>Leucozona glauca</i>               | 8         | 0.016759777 | <i>Platycheirus abbruzzensis</i> | 2         | 0.011173184 | <i>Syrphus torvus</i>           | 240       | 0.212290503 |
| <i>Leucozona lateraria</i>            | 3         | 0.011173184 | <i>Platycheirus albimanus</i>    | 904       | 0.547486034 | <i>Syrphus vitripennis</i>      | 77        | 0.173184358 |
| <i>Leucozona lucorum</i>              | 3         | 0.016759777 | <i>Platycheirus angustatus</i>   | 6         | 0.033519553 | <i>Temnostoma apiforme</i>      | 1         | 0.005586592 |
| <i>Melangyna compositarum</i>         | 4         | 0.022346369 | <i>Platycheirus clypeatus</i>    | 14        | 0.061452514 | <i>Temnostoma bombylans</i>     | 12        | 0.055865922 |
| <i>Melangyna lasiophthalma</i>        | 32        | 0.072625698 | <i>Platycheirus europaeus</i>    | 656       | 0.324022346 | <i>Temnostoma vespiforme</i>    | 10        | 0.05027933  |
| <i>Melangyna umbellatarum</i>         | 2         | 0.011173184 | <i>Platycheirus immaculatus</i>  | 54        | 0.061452514 | <i>Trichopsomyia joratensis</i> | 1         | 0.005586592 |
| <i>Melanostoma mellinum</i>           | 497       | 0.497206704 | <i>Platycheirus manicatus</i>    | 11        | 0.05027933  | <i>Volucella bombylans</i>      | 2         | 0.011173184 |
| <i>Melanostoma scalare</i>            | 543       | 0.61452514  | <i>Platycheirus melanopsis</i>   | 2         | 0.011173184 | <i>Volucella inanis</i>         | 2         | 0.011173184 |
| <i>Meligramma cincta</i>              | 115       | 0.30726257  | <i>Platycheirus nielsenii</i>    | 8         | 0.027932961 | <i>Volucella pellucens</i>      | 35        | 0.12849162  |
| <i>Meligramma cingulata</i>           | 94        | 0.061452514 | <i>Platycheirus parmatius</i>    | 10        | 0.05027933  | <i>Xanthandrus comitus</i>      | 7         | 0.039106145 |
| <i>Meligramma triangulifera</i>       | 1         | 0.005586592 | <i>Platycheirus peltatus</i>     | 37        | 0.117318436 | <i>Xanthogramma laetum</i>      | 7         | 0.033519553 |
| <i>Melissaeve auricollis</i>          | 181       | 0.340782123 | <i>Platycheirus scutatus</i>     | 70        | 0.240223464 | <i>Xanthogramma pedissequum</i> | 5         | 0.022346369 |
| <i>Melissaeve cinctella</i>           | 278       | 0.424581006 | <i>Platycheirus splendidus</i>   | 4         | 0.022346369 | <i>Xylota coeruleiventris</i>   | 133       | 0.217877095 |
| <i>Merodon aeneus</i>                 | 1         | 0.005586592 | <i>Platycheirus tarsalis</i>     | 15        | 0.072625698 | <i>Xylota florum</i>            | 1         | 0.005586592 |
| <i>Merodon cinereus</i>               | 12        | 0.05027933  | <i>Psilota anthracina</i>        | 2         | 0.011173184 | <i>Xylota segnis</i>            | 192       | 0.48603352  |
| <i>Merodon equestris</i>              | 1         | 0.005586592 | <i>Rhingia borealis</i>          | 3         | 0.011173184 | <i>Xylota sylvanum</i>          | 41        | 0.189944134 |
| <i>Microdon analis</i>                | 4         | 0.016759777 | <i>Rhingia campestris</i>        | 245       | 0.346368715 | <i>Xylota xanthocnema</i>       | 6         | 0.027932961 |
| <i>Microdon miki</i>                  | 1         | 0.005586592 | <i>Rhingia rostrata</i>          | 1         | 0.005586592 |                                 |           |             |
| <i>Myathropa florea</i>               | 21        | 0.111731844 | <i>Scaeva pyrastri</i>           | 34        | 0.134078212 |                                 |           |             |
| <i>Neoaesca podagrica</i>             | 16        | 0.067039106 | <i>Scaeva selenitica</i>         | 85        | 0.134078212 |                                 |           |             |
| <i>Neoaesca tenur</i>                 | 2         | 0.011173184 | <i>Sericomyia silentis</i>       | 1         | 0.005586592 |                                 |           |             |
| <i>Orthonevra nobilis</i>             | 2         | 0.011173184 | <i>Sphaerophoria bankowskiae</i> | 5         | 0.016759777 |                                 |           |             |
| <i>Paragus absidatus</i>              | 3         | 0.011173184 | <i>Sphaerophoria fatarum</i>     | 7         | 0.027932961 |                                 |           |             |
| <i>Paragus haemorrhous</i>            | 30        | 0.072625698 | <i>Sphaerophoria infuscata</i>   | 39        | 0.106145251 |                                 |           |             |
| <i>Paragus majoranae</i>              | 16        | 0.067039106 | <i>Sphaerophoria interrupta</i>  | 127       | 0.094972067 |                                 |           |             |
| <i>Paragus punctulatus</i>            | 1         | 0.005586592 | <i>Sphaerophoria scripta</i>     | 863       | 0.374301676 |                                 |           |             |
| <i>Paragus romanicus</i>              | 2         | 0.005586592 | <i>Sphaerophoria taeniata</i>    | 74        | 0.061452514 |                                 |           |             |
| <i>Parasyrphus annulatus</i>          | 18        | 0.05027933  | <i>Sphaerophoria virgata</i>     | 3         | 0.016759777 |                                 |           |             |
| <i>Parasyrphus lineolus</i>           | 11        | 0.055865922 | <i>Sphegina clunipes</i>         | 253       | 0.374301676 |                                 |           |             |
| <i>Parasyrphus macularis</i>          | 9         | 0.039106145 | <i>Sphegina latifrons</i>        | 3         | 0.016759777 |                                 |           |             |
| <i>Parasyrphus malinellus</i>         | 5         | 0.022346369 | <i>Sphegina montana</i>          | 2         | 0.011173184 |                                 |           |             |
| <i>Parasyrphus punctulatus</i>        | 256       | 0.184357542 | <i>Sphegina spheginea</i>        | 1         | 0.005586592 |                                 |           |             |
| <i>Parasyrphus vittiger</i>           | 19        | 0.094972067 | <i>Spilomyia manicata</i>        | 1         | 0.005586592 |                                 |           |             |
| <i>Pipiza luteitarsis</i> (s. Verlin. | 1         | 0.005586592 | <i>Syrirta pipiens</i>           | 6         | 0.027932961 |                                 |           |             |
| <i>Pipiza quadrimaculata</i>          | 33        | 0.083798883 | <i>Syrphus nitidifrons</i>       | 16        | 0.016759777 |                                 |           |             |
| <i>Pipizella viduata</i>              | 16        | 0.061452514 | <i>Syrphus ribesii</i>           | 83        | 0.217877095 |                                 |           |             |

