

## SUPPLEMENTARY TABLES FOR

“A general approach for postmortem interval based on uniformly distributed and interconnected qualitative indicators”

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Table 1. Definitive insect species for the rural (open and forest) habitats of Central Europe

| Order                                     | Family        | Species   |
|---|---------------|---|
| Diptera                                   | Calliphoridae | <i>Calliphora vomitoria</i> Linnaeus, 1758                |
|   |               | <i>Calliphora vicina</i> Robineau-Desvoidy 1830           |
|   |               | <i>Lucilia caesar</i> (Linnaeus, 1758)                    |
|   |               | <i>Lucilia sericata</i> (Meigen, 1826)                    |
|   |               | <i>Phormia regina</i> (Meigen, 1826)                      |
|   |               | <i>Protophormia terraenovae</i> (Robineau-Desvoidy, 1830) |
|   | Fanniidae     | <i>Fannia canicularis</i> (Linnaeus, 1761)                |
|   |               | <i>Fannia manicata</i> (Meigen, 1826)                     |
|   |               | <i>Fannia leucosticta</i> (Meigen, 1838)                  |
|   | Muscidae      | <i>Hydrotaea dentipes</i> (Fabricius, 1805)               |
|   |               | <i>Hydrotaea ignava</i> (Harris, 1780)                    |
|   |               | <i>Hydrotaea pilipes</i> Stein, 1903                      |
|   |               | <i>Hydrotaea similis</i> Meade, 1887                      |
|   | Piophilidae   | <i>Stearibia nigriceps</i> (Meigen, 1826)                 |
|   | Sarcophagidae | <i>Sarcophaga caerulescens</i> (Zetterstedt, 1838)        |
|   |               | <i>Sarcophaga similis</i> Meade, 1876                     |
|   | Coleoptera    | Cleridae  |
| <i>Necrobia violacea</i> (Linnaeus, 1758) |               |   |
| Dermestidae                               |               | <i>Dermestes frischii</i> Kugelann, 1792                  |
|   |               | <i>Dermestes undulatus</i> Brahm 1790                     |
| Histeridae                                |               | <i>Margarinotus brunneus</i> (Fabricius, 1775)            |
|   |               | <i>Saprinus semistriatus</i> (Scriba, 1790)               |
| Nitidulidae                               |               | <i>Omosita colon</i> (Linnaeus, 1758)                     |
| Silphidae                                 |               | <i>Necrodes littoralis</i> (Linnaeus, 1758)               |
|   |               | <i>Oiceoptoma thoracicum</i> Linnaeus 1758                |
|   |               | <i>Thanatophilus rugosus</i> (Linnaeus, 1758)             |
|   |               | <i>Thanatophilus sinuatus</i> (Fabricius, 1775)           |
| Staphylinidae                             |               | <i>Creophilus maxillosus</i> (Linnaeus, 1758)             |
|   |               | <i>Omalium rivulare</i> (Paykull, 1789)                   |
| Hymenoptera                               | Pteromalidae  | <i>Nasonia vitripennis</i> (Walker, 1836)                 |

Table 2. Temperature models for the pre-appearance interval (PAI) of developmental stages included in the analyses

| Species                       | Stage               | Model*  | $r^2$ |
|-------------------------------|---------------------|---|-------|
| <i>Lucilia caesar</i>         | Eggs                | PAI = $(-0.114238) + e^{[(10.2233)+(-0.604897)\times\text{Temperature}]}$ | 0.38  |
|                               | 1st instar larvae   | PAI = $(2.03038) + e^{[(91.2821)+(-6.72235)\times\text{Temperature}]}$    | 0.49  |
|                               | 2nd instar larvae   | PAI = $(2.11191) + e^{[(10.3004)+(-0.617561)\times\text{Temperature}]}$   | 0.61  |
|                               | 3rd instar larvae   | PAI = $(3.12195) + e^{[(8.7601)+(-0.476809)\times\text{Temperature}]}$    | 0.78  |
|                               | Post-feeding larvae | PAI = $(5.83693) + e^{[(8.97272)+(-0.476234)\times\text{Temperature}]}$   | 0.80  |
| <i>Thanatophilus sinuatus</i> | 1st instar larvae   | PAI = $(5.09098) + e^{[(5.76744)+(-0.23)\times\text{Temperature}]}$       | 0.71  |
|                               | 2nd instar larvae   | PAI = $(8.81507) + e^{[(6.89735)+(-0.30304)\times\text{Temperature}]}$    | 0.73  |
|                               | 3rd instar larvae   | PAI = $(9.70135) + e^{[(6.8821)+(-0.27611)\times\text{Temperature}]}$     | 0.79  |
| <i>Necrodes littoralis</i>    | 1st instar larvae   | PAI = $(10.3811) + e^{[(8.9028)+(-0.43531)\times\text{Temperature}]}$     | 0.86  |
|                               | 2nd instar larvae   | PAI = $(11.5608) + e^{[(8.18248)+(-0.36313)\times\text{Temperature}]}$    | 0.87  |
|                               | 3rd instar larvae   | PAI = $(12.3114) + e^{[(8.0968)+(-0.33734)\times\text{Temperature}]}$     | 0.85  |

\* PAI =  $c + e^{(b_0+b_1\times\text{Temperature})}$ , Temperature – ground level temperature averaged for the duration of PAI

Table 3. Average monthly pre-appearance interval (days) of the selected life stages of *Lucilia caesar*

| Stage             | Month |     |     |      |     |
|-------------------|-------|-----|-----|------|-----|
|                   | IV    | VI  | VII | VIII | IX  |
| Eggs              | 11.6  | 0.2 | 0.3 | 0.3  | 0.3 |
| 1st instar larvae | 14.3  | 1.0 | 1.2 | 0.8  | 2.2 |