

## SUPPLEMENTARY MATERIAL

### Morphological phylogenetics of the Tenthredinidae (Insecta : Hymenoptera)

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**Table S1. Material examined**

| Taxon                        | Author            | Biogeographic region | Specimens |
|------------------------------|-------------------|----------------------|-----------|
| XYELIDAE                     |                   |                      |           |
| Macroxyelinae                |                   |                      |           |
| <i>Macroxyela ferruginea</i> | (Say, 1824)       | Nearctic             | 2♀♀       |
| Xyelinae                     |                   |                      |           |
| <i>Xyela julii</i>           | (Brébisson, 1818) | Palaeartic           | 2♀♀, 1♂   |
| PAMPILIIDAE                  |                   |                      |           |
| Pamphiliinae                 |                   |                      |           |
| <i>Onycholyda amplecta</i>   | (Fabricius, 1804) | Nearctic             | 2♀♀       |
| CEPHIDAE                     |                   |                      |           |
| Cephinae                     |                   |                      |           |
| <i>Cephus pygmeus</i>        | (Linné, 1767)     | Palaeartic           | 2♀♀       |

## SIRICIDAE

### Siricinae

*Urocerus gigas* (Linné, 1758) Palaeartic 3♀♀

## ARGIDAE

### Arginae

*Arge ustulata* (Linné, 1758) Palaeartic 2♀♀

### Sterictiphorinae

*Aproceros leucopoda* Takeuchi, 1939 Palaeartic 2♀♀

*Sterictiphora furcata* (Villers, 1789) Palaeartic 1♀, 1♂

## BLASTICOTOMIDAE

*Blasticotoma filiceti* Klug, 1834 Palaeartic 1♀

*Blasticotoma filiceti pacifica* Malaise, 1931 Palaeartic 1♀

*Runaria reducta* Malaise, 1931 Palaeartic 2♀♀

## CIMBICIDAE

### Abiinae

*Abia fasciata* (Linné, 1758) Palaeartic 1♀

### Cimbicinae

*Cimbex femoratus* (Linné, 1758) Palaeartic 1♀

### Coryninae

|                                  |                  |              |         |
|----------------------------------|------------------|--------------|---------|
| <i>Corynis crassicornis</i>      | (Rossi, 1790)    | Palearctic   | 1♀, 1♂  |
| Pachylostictinae                 |                  |              |         |
| <i>Pachylosticta albiventris</i> | Klug, 1824       | Neotropic    | 2♀♀     |
| DIPRIONIDAE                      |                  |              |         |
| Diprioninae                      |                  |              |         |
| <i>Diprion pini</i>              | (Linné, 1758)    | Palearctic   | 1♀, 1♂  |
| <i>Gilpinia polytoma</i>         | (Hartig, 1834)   | Palearctic   | 1♀      |
| <i>Neodiprion sertifer</i>       | (Geoffroy, 1785) | Palearctic   | 2♀♀     |
| Monocteninae                     |                  |              |         |
| <i>Monoctenus juniperi</i>       | (Linné, 1758)    | Palearctic   | 1♀, 2♂♂ |
| PERGIDAE                         |                  |              |         |
| Acordulecerinae                  |                  |              |         |
| <i>Acordulecera dorsalis</i>     | Say, 1836        | Nearctic     | 1♀      |
| Conocoxinae                      |                  |              |         |
| <i>Conocoxa</i> sp.              |                  | Neotropic    | 1♀, 1♂  |
| Perginae                         |                  |              |         |
| <i>Perga dorsalis</i>            | Leach, 1817      | Australasian | 1♀, 1♂  |
| Perreyinae                       |                  |              |         |
| <i>Heteroperreyia hubrichi</i>   | Malaise, 1955    | Neotropic    | 2♀♀     |

## Phylacteophaginae

|                                |            |              |     |
|--------------------------------|------------|--------------|-----|
| <i>Phylacteophaga frogatti</i> | Riek, 1955 | Australasian | 2♀♀ |
|--------------------------------|------------|--------------|-----|

## Pteryperginae

|                           |               |              |    |
|---------------------------|---------------|--------------|----|
| <i>Lophyrotoma analis</i> | (Costa, 1864) | Australasian | 1♂ |
|---------------------------|---------------|--------------|----|

## TENTHREDINIDAE

## Allantinae

|                           |             |           |        |
|---------------------------|-------------|-----------|--------|
| <i>Acidiophora gecera</i> | Smith, 1972 | Neotropic | 1♀, 1♂ |
|---------------------------|-------------|-----------|--------|

|                         |               |            |        |
|-------------------------|---------------|------------|--------|
| <i>Allantus cinctus</i> | (Linné, 1758) | Palaeartic | 1♀, 1♂ |
|-------------------------|---------------|------------|--------|

|                            |                 |            |     |
|----------------------------|-----------------|------------|-----|
| <i>Allantus viennensis</i> | (Schrank, 1781) | Palaeartic | 2♀♀ |
|----------------------------|-----------------|------------|-----|

|                     |  |            |     |
|---------------------|--|------------|-----|
| <i>Allantus</i> sp. |  | Palaeartic | 2♂♂ |
|---------------------|--|------------|-----|

|                             |                |            |    |
|-----------------------------|----------------|------------|----|
| <i>Ametastegia glabrata</i> | (Fallén, 1808) | Palaeartic | 1♀ |
|-----------------------------|----------------|------------|----|

|                             |                 |            |     |
|-----------------------------|-----------------|------------|-----|
| <i>Ametastegia pallipes</i> | (Spinola, 1808) | Palaeartic | 2♀♀ |
|-----------------------------|-----------------|------------|-----|

|                            |                |            |        |
|----------------------------|----------------|------------|--------|
| <i>Apethymus serotinus</i> | (Müller, 1776) | Palaeartic | 1♀, 1♂ |
|----------------------------|----------------|------------|--------|

|                      |               |            |     |
|----------------------|---------------|------------|-----|
| <i>Athalia rosae</i> | (Linné, 1758) | Palaeartic | 2♀♀ |
|----------------------|---------------|------------|-----|

|                               |                |          |        |
|-------------------------------|----------------|----------|--------|
| <i>Dimorphopteryx pinguis</i> | (Norton, 1860) | Nearctic | 1♀, 1♂ |
|-------------------------------|----------------|----------|--------|

|                   |  |            |     |
|-------------------|--|------------|-----|
| <i>Empria</i> sp. |  | Palaeartic | 2♀♀ |
|-------------------|--|------------|-----|

|                         |              |            |    |
|-------------------------|--------------|------------|----|
| <i>Eopsis beaumonti</i> | Benson, 1959 | Palaeartic | 1♂ |
|-------------------------|--------------|------------|----|

|                        |               |            |     |
|------------------------|---------------|------------|-----|
| <i>Eriocampa ovata</i> | (Linné, 1760) | Palaeartic | 2♀♀ |
|------------------------|---------------|------------|-----|

|                            |              |            |     |
|----------------------------|--------------|------------|-----|
| <i>Harpiphorus lepidus</i> | (Klug, 1818) | Palaeartic | 2♀♀ |
|----------------------------|--------------|------------|-----|

|                                  |                              |              |          |
|----------------------------------|------------------------------|--------------|----------|
| <i>Macremphytus testaceus</i>    | (Norton, 1861)               | Nearctic     | 1♀, 1♂   |
| <i>Monostegia abdominalis</i>    | (Fabricius, 1798)            | Palaeartic   | 1♀       |
| <i>Monsoma pulveratum</i>        | (Retzius, 1783)              | Palaeartic   | 1♀       |
| <i>Neacidiophora bellicornis</i> | (Konow, 1907)                | Afrotropical | 2♂♂      |
| <i>Pseudosiobla excavata</i>     | (Norton, 1862)               | Nearctic     | 1♀, 1♂   |
| <i>Taxonus agrorum</i>           | (Fallén, 1808)               | Palaeartic   | 2♀♀      |
| <i>Taxonus alboscuteclatus</i>   | Niezabitowski, 1899          | Palaeartic   | 1♀, 1♂   |
| <i>Xenapates braunsi</i>         | (Konow, 1896)                | Afrotropical | 1♀, 1♂   |
| <b>Blennocampinae</b>            |                              |              |          |
| <i>Ardis pallipes</i>            | (Serville, 1823)             | Palaeartic   | 1♀, 1♂   |
| <i>Blennocampa phyllocolpa</i>   | Viitasaari and Vikberg, 1985 | Palaeartic   | 2♀♀      |
| <i>Blennogeris spissipes</i>     | (Cresson, 1880)              | Nearctic     | 1♀, 1♂   |
| <i>Cladardis elongatula</i>      | (Klug, 1817)                 | Palaeartic   | 2♀♀, 2♂♂ |
| <i>Claremontia alternipes</i>    | (Klug, 1816)                 | Palaeartic   | 2♀♀, 2♂♂ |
| <i>Distega</i> sp.               |                              | Afrotropical | 2♂♂      |
| <i>Eutomostethus ephippium</i>   | (Panzer, 1798)               | Palaeartic   | 2♀♀      |
| <i>Halidamia affinis</i>         | (Fallén, 1807)               | Palaeartic   | 2♀♀      |
| <i>Monophadnus pallescens</i>    | (Gmelin, 1790)               | Palaeartic   | 2♀♀      |
| <i>Paracharactus rudis</i>       | (Norton, 1861)               | Nearctic     | 1♀, 1♂   |

|                                 |                  |            |         |
|---------------------------------|------------------|------------|---------|
| <i>Pareophora pruni</i>         | (Linné, 1758)    | Palearctic | 1♀, 1♂  |
| <i>Periclista albida</i>        | (Klug, 1816)     | Palearctic | 1♀, 1♂  |
| <i>Phymatocera aterrima</i>     | (Klug, 1816)     | Palearctic | 2♀♀, 1♂ |
| <i>Rhadinoceraea nodicornis</i> | Konow, 1886      | Palearctic | 2♀♀     |
| <i>Selandriopsis tenebrosa</i>  | (Benson, 1966)   | Palearctic | 2♀♀     |
| <i>Stethomostus fuliginosus</i> | (Schranck, 1781) | Palearctic | 2♀♀     |
| <i>Tethida barda</i>            | (Say, 1836)      | Nearctic   | 1♀, 1♂  |
| <i>Waldheimia carbonaria</i>    | (Cresson, 1880)  | Nearctic   | 1♀, 1♂  |
| <i>Waldheimia devotoi</i>       | Jørgensen, 1913  | Neotropic  | 1♀, 1♂  |
| <i>Waldheimia ochra</i>         | (Norton, 1867)   | Neotropic  | 1♀, 1♂  |
| <b>Heterarthrinae</b>           |                  |            |         |
| <i>Caliroa cerasi</i>           | (Linné, 1758)    | Palearctic | 1♀      |
| <i>Endelomyia aethiops</i>      | (Gmelin, 1790)   | Palearctic | 1♀, 1♂  |
| <i>Fenusa pumila</i>            | Leach, 1817      | Palearctic | 1♀      |
| <i>Heterarthrus vagans</i>      | (Fallén, 1808)   | Palearctic | 2♀♀, 1♂ |
| <i>Metallus pumilus</i>         | (Klug, 1816)     | Palearctic | 2♀♀     |
| <i>Nefusa ambigua</i>           | (Norton, 1867)   | Nearctic   | 1♀, 1♂  |
| <i>Notofenusa surosa</i>        | (Konow, 1905)    | Neotropic  | 2♂♂     |
| <i>Parna tenella</i>            | (Klug, 1816)     | Palearctic | 2♀♀     |

|                                  |                            |            |        |
|----------------------------------|----------------------------|------------|--------|
| <i>Profenusa pygmaea</i>         | (Klug, 1816)               | Palearctic | 2♀♀    |
| Nematinae                        |                            |            |        |
| <i>Amauronematus amplus</i>      | Konow, 1895                | Palearctic | 2♀♀    |
| <i>Cladius compressicornis</i>   | (Fabricius, 1804)          | Palearctic | 2♀♀    |
| <i>Cladius pectinicornis</i>     | (Geoffroy, 1785)           | Palearctic | 1♀, 1♂ |
| <i>Craesus septentrionalis</i>   | (Linné, 1758)              | Palearctic | 1♀     |
| <i>Craterocercus fraternalis</i> | (Norton, 1872)             | Nearctic   | 1♀, 1♂ |
| <i>Dineura pullior</i>           | Schmidt and Walter, 1995   | Palearctic | 2♀♀    |
| <i>Dineura virididorsata</i>     | (Retzius, 1783)            | Palearctic | 1♀     |
| <i>Fagineura crenativora</i>     | Vikberg and Zinovjev, 2000 | Palearctic | 1♀, 1♂ |
| <i>Hemichroa australis</i>       | (Serville, 1823)           | Palearctic | 2♀♀    |
| <i>Hoplocampa</i> sp.            |                            | Palearctic | 1♀     |
| <i>Nematinus steini</i>          | Blank, 1998                | Palearctic | 1♀     |
| <i>Nematus caeruleocarpus</i>    | Hartig, 1837               | Palearctic | 1♀     |
| <i>Neopareophora litura</i>      | (Klug, 1816)               | Nearctic   | 1♀, 1♂ |
| <i>Pachynematus clitellatus</i>  | (Serville, 1823)           | Palearctic | 1♀, 1♂ |
| <i>Pikonema alaskense</i>        | (Rohwer, 1911)             | Nearctic   | 1♀, 1♂ |
| <i>Pontania proxima</i>          | (Serville, 1823)           | Palearctic | 1♀, 1♂ |
| <i>Pristicampus incisus</i>      | (Lindqvist, 1970)          | Palearctic | 2♀♀    |

|                                      |                   |              |        |
|--------------------------------------|-------------------|--------------|--------|
| <i>Pristiphora angulata</i>          | Lindqvist, 1974   | Palearctic   | 1♀, 1♂ |
| <i>Pseudodineura fuscula</i>         | (Klug, 1816)      | Palearctic   | 2♀♀    |
| <i>Susana annulata</i>               | Smith, 1969       | Nearctic     | 1♀, 1♂ |
| Selandriinae                         |                   |              |        |
| <i>Adelesta nova</i>                 | (Norton, 1867)    | Nearctic     | 2♀♀    |
| <i>Adiaclema nigripectus</i>         | (Enderlein, 1920) | Neotropic    | 1♀, 1♂ |
| <i>Aneugmenus padi</i>               | (Linné, 1760)     | Palearctic   | 2♀♀    |
| <i>Canonias inopinus rufiventris</i> | Malaise, 1947     | Palearctic   | 1♀, 1♂ |
| <i>Dolerus nitens</i>                | Zaddach, 1859     | Palearctic   | 2♀♀    |
| <i>Dolerus pratensis</i>             | (Linné, 1758)     | Palearctic   | 2♀♀    |
| <i>Dulophanes</i> sp.                |                   | Afrotropical | 1♀, 1♂ |
| <i>Heptamelus dahlbomi</i>           | (Thomson, 1870)   | Palearctic   | 2♀♀    |
| <i>Heptamelus</i> sp.                |                   | Palearctic   | 1♀, 1♂ |
| <i>Nesoselandria morio</i>           | (Fabricius, 1781) | Palearctic   | 2♀♀    |
| <i>Plaumanniana aemula</i>           | (Konow, 1899)     | Neotropic    | 1♀, 1♂ |
| <i>Proselandria roseomaculata</i>    | (Enderlein, 1920) | Neotropic    | 1♀     |
| <i>Pseudoheptamelus runari</i>       | Conde, 1932       | Palearctic   | 1♀, 1♂ |
| <i>Rocalia japonica</i>              | Naito, 1988       | Palearctic   | 1♀, 1♂ |
| <i>Selandria serva</i>               | (Fabricius, 1793) | Palearctic   | 2♀♀    |



|                                      |                    |            |          |
|--------------------------------------|--------------------|------------|----------|
| <i>Stromboceridia nigricans</i>      | (Norton, 1868)     | Nearctic   | 1♀, 1♂   |
| <i>Strombocerus delicatulus</i>      | (Fallén, 1808)     | Palaeartic | 2♀♀      |
| <i>Strongylogaster multifasciata</i> | (Geoffroy, 1785)   | Palaeartic | 1♀, 1♂   |
| Tenthredininae                       |                    |            |          |
| <i>Aglaostigma fulvipes</i>          | (Scopoli, 1763)    | Palaeartic | 2♀♀      |
| <i>Corymbas koreana</i>              | Konow, 1903        | Palaeartic | 1♀, 1♂   |
| <i>Filacus albipes</i>               | (Provancher, 1895) | Nearctic   | 1♀, 1♂   |
| <i>Lagium atroviolaceum</i>          | (Norton, 1860)     | Nearctic   | 1♀, 1♂   |
| <i>Leucopelmonus annulicornis</i>    | (Harrington, 1893) | Nearctic   | 1♀, 1♂   |
| <i>Macrophya duodecimpunctata</i>    | (Linné, 1758)      | Palaeartic | 2♀♀      |
| <i>Pachyprotasis rapae</i>           | (Linné, 1767)      | Palaeartic | 2♀♀      |
| <i>Perineura rubi</i>                | (Panzer, 1803)     | Palaeartic | 1♀, 1♂   |
| <i>Rhogogaster punctulata</i>        | (Klug, 1817)       | Palaeartic | 2♀♀, 2♂♂ |
| <i>Rhogogaster viridis</i>           | (Linné, 1758)      | Palaeartic | 2♀♀      |
| <i>Sciapteryx consobrina</i>         | (Klug, 1816)       | Palaeartic | 1♀, 1♂   |
| <i>Siobla sturmi</i>                 | (Klug, 1817)       | Palaeartic | 1♀, 1♂   |
| <i>Tenthredo koehleri</i>            | Linné, 1758        | Palaeartic | 2♂♂      |
| <i>Tenthredo scrophulariae</i>       | Klug, 1817         | Palaeartic | 2♀♀, 1♂  |
| <i>Tenthredopsis ornata</i>          | (Serville, 1823)   | Palaeartic | 2♀♀      |

*Zaschizonyx montana*

(Cresson, 1865)

Nearctic

1♀, 1♂

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