

**Supplementary Table 4: Information on sequenced Symphyta genomes**

Organism	Sequencing Technology used	Total length	Number of contigs	N50	Assembly completeness (BUSCO score, %)	Reference
<i>Sirex noctilio</i>	Illumina	185 Mb	6215	825 kb	95.4%	Current study
<i>Cephus cinctus</i>	Illumina	162 Mb	1976	622 kb	98%	(Robertson et al., 2018)
<i>Athalia rosae</i>	Illumina	164 Mb	522	1.37 Mb	96%	(Oeyen et al., 2020)
<i>Orussus abietinus</i>	Illumina	201 Mb	936	2.37 Mb	93%	(Oeyen et al., 2020)
<i>Euura lapo</i>	10X, Oxford Nanopore and Illumina	259 Mb	2503	209 kbp	93.5%	(Michell et al., 2021)
<i>Eupontania aestiva</i>	10X, Oxford Nanopore and Illumina	222 Mb	16952	49.7 kbp	90.2%	(Michell et al., 2021)