

Additional file 1: Attachmentpoints of the thorax musculature of *Sympetrum vulgatum*

Abbreviation	Name	Origin	Insertion
Prothorax			
Dorsal longitudinal muscles			
Idlm1	Musculus prophragma-occipitalis	Apex of tergal apophysis 2	Median at the postocciput
Idlm3	M. prophragma-cervicalis	Tergal apophysis 1	Base of tergal apophysis 2
Idlm4	M. cervico-occipitalis dorsalis	Tergal apophysis 1	Median at postocciput
Dorsoventral muscles			
Idvm10	M. profurca-phragmalis	Apex of profurca	Apex of tergal apophysis 2
Idvm15	M. propleuro-coxalis superior	Anterolateral portion of tergite 1	Anterior procoxal rim
Idvm18	M. pronto-coxalis lateralis	Postero-lateral portion of tergite 1	Procoxal disk
Pleuro-coxal muscles			
Ipcm8	M. propleuro-trochanteralis	Episternum 1	Tendon of protrochanter
Ipcm9	M. protergro-trochanteralis	Lateral portion of tergite 1, close to the pleura.	Tendon of protrochanter
Sterno-coxal muscles			
Iscm2	M. profurca-coxalis posterior	External side of the base of profurca	Posterior procoxal rim
Iscm6	M. profurca-trochanteralis	External side of the base of profurca	Tendon of protrochanter
Sterno-pleural muscles			
Ispm1	M. profurca-apodemalis	Apex of profurca	Apodem of propleura
Tergo-pleural muscles			

ltpm3	M. pronoto-pleuralis anterior	Lateral side of tergite 1	Episternum 1
ltpm7	M. protergo-cervicalis posterior	Lateral part of tergite 1	Lateral of cervix membrane
ltpm8	M. protergo-cervicalis anterior	Most antero-lateral part of tergite 1	Lateral of cervix membrane
ltpm9	M. protergo-preepisternalis	Tergite 1, lateral of tergal apophysis 2	Base of preepisternalapodem 1
ltpm10	M. prosterna-coxalis dextra	Apex of right preepisternalapodem 1	Anterior of left procoxal rim
ltpm11	M. prosterna-coxalis sinister	Apex of left preepisternalapodem 1	Anterior of right procoxal rim
Ventral longitudinal muscles			
ivlm3	M. profurca-tentorialis	Apex of profurca	Cranial tentorial bar
ivlm7	M. profurca-mesofurcalis	Furca-branch 2	Furca 1
Mesothorax			
Dorsal longitudinal muscles			
lldlm1	M. prophragma-mesophragmalis	Tergal apophysis 3	Tergal apophysis 4
Dorsoventral muscles			
lldvm1	M. mesonoto-sternalis	Base of Mesofurca	Postero-lateral edge of mesowing bud
lldvm3	M. mesonoto-trochantinalis posterior	Base of Mesofurca	Antero-lateral edge of mesowing bud
lldvm4	M. mesonoto-coxalis anterior	Antero-lateral edge of mesocoxa	Antero-lateral edge of mesowing bud
lldvm5	M. mesonoto-coxalis posterior	Mesocoxaldisk	Antero-lateral edge of mesowing bud

lldvm6	M. mesocoxa-subalaris	Lateral part of tergite 2	Postero-lateral apodem of mesocoxa
Pleuro-coxal muscles			
llpcm1	M. mesanepisterno-trochantinalis	Preepisternum 2	Lateral of the tergal apophysis 2 at tergite 2
llpcm2	M. mesobasalare-trochantinalis	Base of preepisternal apodem 2	Lateral of the tergal apophysis 2 at tergite 2
llpcm4	M. mesanepisterno-coxalis posterior	Interpleuralridge 2	Antero-external part of mesocoxa
llpcm6	M. mesopleura-trochanteralis	Dorsal part of Katepisternum 2	Tendon of mesotrochanter
Sterno-coxal muscles			
llscm1	M. mesofurca-coxalis anterior	Lateral base of Mesofurca	Antero-external ridge of mesocoxa
llscm2	M. mesofurca-coxalis posterior	Lowermost part of mesofurca	Postero-lateral apodem of mesocoxa
llscm3	M. mesofurca-coxalis medialis	Lateral base of mesofurca	Postero-lateral apodem of mesocoxa
llscm6	M. mesofurca-trochanteralis	Latero-external side of mesofurca	Tendon of mesotrochanter
llscm7	M. mesospina-metacoxalis	Preepisternal apodem	Anterolateral edge of metacoxa
Sterno-pleural muscles			
llspm2	M. mesofurca-pleuralis	Apex of mesofurca	Interpleural ridge 2
Tergo-pleural muscles			
lltpm3	M. mesonoto-basalaris	Dorsal side of mesowing bud, anterior to the origin of lltpm4	Ventral side of mesowing bud, anterior to origin of lltpm4
lltpm4	M. mesonoto-pleuralis anterior	Dorsal side of mesowing bud, posterior to the origin of lltpm3	Ventral side of mesowing bud, posterior to the origin of lltpm3

IItpm6	M. mesonoto-pleuralis posterior	Upper portion of interpleural ridge 2	Antero-dorsal edge of mesowing bud
IItpm7	M. mesanepisterno-axillaris	Ventral part of epimeron 2	Lateral edge of mesowing bud
IItpm8	M. mesepimero-axillaris secundus	Ventral part of epimeron 2	Lateral edge of mesowing bud
IItpm9	M. mesepimero-axillaris tertius	Dorsal part of epimeron 2	Inner side of ventral portion of mesowing bud
IItpm10	M. mesepimero-subalaris	Interpleural ridge 2	Lateral edge of mesowing bud
Ventral longitudinal muscles			
IIvlm6	M. mesospina-abdominosternalis	Posterior part of preepisternalapodem 3	Antecostal apodem
IIvlm7	M. mesofurca-abdominosternalis	Mesofurca	Within the Abdomen
Metathorax			
Dorsal longitudinal muscles			
IIIdlm1	M. mesophragma-metaphragmalis	Tergal apophys 4	Transversal ridge between abdomen and thorax
IIIdlm2	M. metanoto-phragmalis	Tergal apophysis 4	Transversal ridge between abdomen and thorax
Dorsoventral muscles			
IIIdvm1	M. mesonoto-sternalis	Base of Metafurca	Postero-lateral edge of metawing bud
IIIdvm3	M. metanoto-trochantinalis	Base of Metafurca	Antero-lateral edge of metawing bud
IIIdvm4	M. metanoto-coxalis anterior	Anterio-lateral edge of metaocoxa	Antero-lateral edge of metawing bud
IIIdvm5	M. metanoto-coxalis posterior	Metacoxaldisk	Antero-lateral edge of metawing bud

IIldvm6	M. metacoxa-subalaris	Lateral part of tergite 3	Postero-lateral part of metacoxa
IIIldvm8	M. metanoto-phragmalis	Dorsal portion of the posterior ridge of epimeron 3	Posterior end of metafurca
Pleuro-coxal muscles			
IIIpcm1	M. metanepisterno-trochantinalis	Preepisternum 3	Lateral of the tergal apophysis 3 at tergite 3
IIIpcm2	M. metabasalare-trochantinalis	Base of Preepisternal apodem 3	Lateral of the tergal apophysis 3 at tergite 3
IIIpcm4	M. metanepisterno-coxalis posterior	Interpleuralridge 3	Antero-external part of metacoxa
IIIpcm6	M. mesopleura-trochanteralis	Dorsal part of Katepisternum 3	Tendon of metatrochanter
Sterno-coxal muscles			
IIIscm1	M. metafurca-coxalis anterior	Lateral base of Metafurca	Antero-external ridge of metacoxa
IIIscm2	M. metafurca-coxalis posterior	Lowermost part of metafurca	Postero-lateral apodem of metacoxa
IIIscm3	M. metafurca-coxalis medialis	Lateral base of metafurca	Postero-lateral apodem of metacoxa
IIIscm4	M. metafurca-coxalis lateralis	Apex of metafurca	Lateral base of metacoxa, at the border of pleurite
IIIscm6	M. metafurca-trochanteralis	Latero-external side of metafurca	Tendon of metatrochanter
Sterno-pleural muscles			
IIIspm2	M. metafurca-pleuralis	Apex of metafurca	Interpleural ridge 3
Tergo-pleural muscles			
IIItpm3	M. metanoto-basalaris	Dorsal side of metawing bud, anterior to the origin of IIItpm4	Ventral side of metawing bud, anterior to origin of IIItpm4

IIItpm4	M. metanoto-pleuralis anterior	side of metawing bud, posterior to the origin of IIItpm3	Ventral side of metawing bud, posterior to the origin of IIItpm3
IIItpm6	M. metanoto-pleuralis posterior	Upper portion of interpleural ridge 3	Antero-dorsal edge of metawing bud
IIItpm7	M. metanepisterno-axillaris	Ventral part of epimeron 3	Lateral edge of metawing bud
IIItpm8	M. metapimero-axillaris secundus	Ventral part of epimeron 3	Lateral edge of metawing bud
IIItpm9	M. metapimero-axillaris tertius	Dorsal part of epimeron 3	Inner side of ventral portion of metawing bud
IIItpm10	M. metapimero-subalaris	Interpleural ridge 3	Lateral edge of metawing bud
Ventral longitudinal muscles			
IIIvlm2	M. mesofurca-abdominosternalis	part of Metafurca (close to the prefurca invagination)	Within the abdomen (second abdominal sternite)
IIIvlm3	M. metaspina-abdominosternalis	Poststernum 3	the abdomen (second abdominal sternite)