**Table S1.** List of the study samples: sequence ID and specimen voucher (M-UAegean: collection of the Melissotheque of the Aegean located at the University of the Aegean, Greece; FSUNS: Faculty of Sciences at the Department of Biology and Ecology of the University of Novi Sad, Serbia; and MZH: Insect collection of the Zoology unit, Finnish Museum of Natural History, Helsinki, Finland) together with details on the specimen origin. GenBank accession numbers are also given (in boldface: newly generated sequences within this study).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sequence ID** | **Specimen voucher** | **Accession no** | **Genus** | **Species name** | **Country** | **Nearest\_Place** |
| EU10 | FSUNS:G1147 | **KT157845** | *Eumerus* | *alpinus* Rondani, 1857 | Italy | Toscana |
| EU100 | FSUNS:G0279 | **KT157904** | *Eumerus* | *ornatus* Meigen, 1822 | Montenegro | Boka Kotorska |
| EU101 | FSUNS:G2250 | **KT157875** | *Eumerus* | *sulcitibius* Rondani, 1868 | Greece | Lesvos |
| EU106 | FSUNS:G2208 | **KT157908** | *Eumerus* | *tarsatus* Lyneborg, in litt. | South Africa | KwaZulu-Natal |
| EU108 | FSUNS:05772 | **KT157907** | *Eumerus* | *argenticornis* Lyneborg, in litt. | South Africa | KwaZulu-Natal |
| EU109 | FSUNS:G2106 | **KT157905** | *Eumerus* | *paulae* Herve-Bazin, 1913 | South Africa | KwaZulu-Natal |
| EU11 | FSUNS:G3002 | **KT157871** | *Eumerus* | *sulcitibius* Rondani, 1868 | Greece | Andros |
| EU111 | FSUNS:G2117 | **KT157906** | *Eumerus* | *politus* Lyneborg, in litt. | South Africa | KwaZulu-Natal |
| EU115 | FSUNS:G2104 | **KT157915** | *Eumerus* | aff. *tarsatus* Lyneborg, in litt. | South Africa | KwaZulu-Natal |
| EU117 | FSUNS:G2101 | **KT157909** | *Eumerus* | aff. *rubiginosus* Lyneborg, in litt. | South Africa | KwaZulu-Natal |
| EU121 | FSUNS:Đ38 | **KT157876** | *Eumerus* | aff. *barbarus* Coquebert, 1804 | Morocco | Middle Atlas |
| EU125 | M-UAegean:G2735 | **KT157917** | *Eumerus* | *sinuatus* Loew, 1855 | Serbia | Fruska Gora |
| EU13 | FSUNS:G1919 | **KT157912** | *Eumerus* | *grandis* Meigen, 1822 | Serbia | Đerdap |
| EU14 | FSUNS:G1920 | **KT157899** | *Eumerus* | *hungaricus* Szilady, 1940 | Serbia | Đerdap |
| EU15 | FSUNS:G1917 | **KT157900** | *Eumerus* | *hungaricus* Szilady, 1940 | Serbia | Đerdap |
| EU16 | FSUNS:G0278 | **KT157869** | *Eumerus* | *minotaurus* Claussen et Lucas, 1988 | Greece | Olympus Mt |
| EU17 | FSUNS:UOTA\_MEL0746 | **KT157916** | *Eumerus* | *torsicus* Grković et Vujić, 2015 | Greece | Chios |
| EU18 | FSUNS:UOTA\_MEL0744 | **KT157896** | *Eumerus* | *torsicus* Grković et Vujić, 2015 | Greece | Chios |
| EU21 | FSUNS:0731 | **KT157877** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Chios |
| EU22 | FSUNS:1017 | **KT157888** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Dadia |
| EU24 | FSUNS:0900 | **KT157889** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Karpathos |
| EU25 | FSUNS:G2220 | **KT157887** | *Eumerus* | *amoenus* Loew, 1848 | Montenegro | Boka Kotorska |
| EU26 | FSUNS:G2258 | **KT157891** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Lesvos |
| EU27 | FSUNS:G2260 | **KT157879** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Lesvos |
| EU28 | FSUNS:G2262 | **KT157880** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Lesvos |
| EU3 | FSUNS:G1143 | **KT157844** | *Eumerus* | *alpinus* Rondani, 1857 | Italy | Toscana |
| EU31 | FSUNS:G2292 | **KT157872** | *Eumerus* | *sulcitibius* Rondani, 1868 | Greece | Lesvos |
| EU32 | FSUNS:G2288 | **KT157873** | *Eumerus* | *sulcitibius* Rondani, 1868 | Greece | Lesvos |
| EU33 | FSUNS:G1957 | **KT157897** | *Eumerus* | *clavatus* Becker, 1923 | Serbia | Đerdap |
| EU34 | FSUNS:G2261 | **KT157846** | *Eumerus* | *emarginatus* Loew, 1848 | Greece | Lesvos |
| EU35 | FSUNS:G2263 | **KT157847** | *Eumerus* | *emarginatus* Loew, 1848 | Greece | Lesvos |
| EU37 | FSUNS:G2286 | **KT157870** | *Eumerus* | *niehuisi* Doczkal, 1996 | Greece | Lesvos |
| EU4 | FSUNS:G0297 | **KT157910** | *Eumerus* | *tricolor* (Fabricius), 1798 | Serbia | Tara |
| EU46 | FSUNS:0753 | **KT157893** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Chios |
| EU48 | FSUNS:G2268 | **KT157878** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Samos |
| EU49 | FSUNS:G2218 | **KT157881** | *Eumerus* | *amoenus* Loew, 1848 | Montenegro | Boka Kotorska |
| EU5 | FSUNS:G0293 | **KT157911** | *Eumerus* | *grandis* Meigen, 1822 | Serbia | Đerdap |
| EU50 | FSUNS:G0996 | **KT157886** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Samos |
| EU51 | FSUNS:G0997 | **KT157885** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Samos |
| EU55 | FSUNS:0994 | **KT157902** | *Eumerus* | *argyropus* Loew, 1848 | Greece | Dadia |
| EU56 | FSUNS:G3003 | **KT157849** | *Eumerus* | *pulchellus* Loew, 1848 | Italy | Sardinia |
| EU57 | FSUNS:0742 | **KT157850** | *Eumerus* | *pulchellus* Loew, 1848 | Greece | Chios |
| EU58 | FSUNS:0797 | **KT157855** | *Eumerus* | *pulchellus* Loew, 1848 | Greece | Dadia |
| EU59 | FSUNS:G2248 | **KT157853** | *Eumerus* | *pulchellus* Loew, 1848 | Greece | Lesvos |
| EU6 | FSUNS:G0955 | **KT157913** | *Eumerus* | *niveitibia* Becker, 1921 | Bulgaria | Nessebar |
| EU60 | FSUNS:G0291 | **KT157901** | *Eumerus* | *hungaricus* Szilady, 1940 | Serbia | Đerdap |
| EU61 | FSUNS:0912 | **KT157856** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Karpathos |
| EU62 | FSUNS:0835 | **KT157858** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Karpathos |
| EU63 | FSUNS:0863 | **KT157859** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Chios |
| EU64 | FSUNS:0739 | **KT157863** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Chios |
| EU65 | FSUNS:0879 | **KT157860** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Naxos |
| EU66 | FSUNS:0861 | **KT157861** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Naxos |
| EU67 | FSUNS:G0999 | **KT157874** | *Eumerus* | sulcitibius Rondani, 1868 | Greece | Samos |
| EU68 | FSUNS:G1003 | **KT157892** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Samos |
| EU69 | FSUNS:G1004 | **KT157894** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Samos |
| EU7 | FSUNS:G1014 | **KT157914** | *Eumerus* | *armatus* Ricarte et Rotheray, 2012 | Greece | Samos |
| EU70 | FSUNS:G0282 | **KT157890** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Samos |
| EU71 | FSUNS:G0283 | **KT157848** | *Eumerus* | *emarginatus* Loew, 1848 | Greece | Samos |
| EU72 | FSUNS:G0288 | **KT157883** | *Eumerus* | *amoenus* Loew, 1848 | Greece | Samos |
| EU73 | FSUNS:G0292 | **KT157895** | *Eumerus* | *consimilis* Šimić et Vujić, 1996 | Serbia | Đerdap |
| EU75 | FSUNS:G0992 | **KT157867** | *Eumerus* | *basalis* Loew, 1848 | Greece | Ikaria |
| EU76 | FSUNS:G1178 | **KT157884** | *Eumerus* | *amoenus* Loew, 1848 | Italy | Toscana |
| EU77 | FSUNS:G1202 | **KT157882** | *Eumerus* | *amoenus* Loew, 1848 | Italy | Toscana |
| EU8 | FSUNS:G1001 | **KT157918** | *Eumerus* | *aurofinis* Grković, Vujić et Radenković, 2015 | Greece | Samos |
| EU82 | FSUNS:G3005 | **KT157851** | *Eumerus* | *pulchellus* Loew, 1848 | Greece | Rhodes |
| EU83 | FSUNS:G3006 | **KT157854** | *Eumerus* | *pulchellus* Loew, 1848 | Greece | Samos |
| EU86 | FSUNS:G3009 | **KT157862** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Crete |
| EU87 | FSUNS:G3010 | **KT157864** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Crete |
| EU88 | FSUNS:G3011 | **KT157865** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Athens |
| EU89 | FSUNS:G3012 | **KT157866** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Crete |
| EU90 | FSUNS:G3013 | **KT157857** | *Eumerus* | *pusillus* Loew, 1848 | Greece | Samos |
| EU91 | FSUNS:0836 | **KT157852** | *Eumerus* | *pulchellus* Loew, 1848 | Greece | Limnos |
| EU92 | FSUNS:G3014 | **KT157898** | *Eumerus* | *clavatus* Becker, 1923 | Serbia | Pčinja |
| EU94 | FSUNS:G2283 | **KT157868** | *Eumerus* | *basalis* Loew, 1848 | Greece | Lesvos |
| EU99 | FSUNS:G2219 | **KT157903** | *Eumerus* | *ornatus* Meigen, 1822 | Montenegro | Boka Kotorska |
| EU9 | FSUNS:G0998 | **KT157919** | *Merodon* | *erivanicus* Paramonov, 1925 | Greece | Samos |
| GUN2 | FSUNS:GUN2 | **KT157920** | *Megatrigon* | sp. Johnson, 1898 | South Africa |  |
| GUN5 | FSUNS:GUN5 | **KT157921** | *Megatrigon* | *tabanoides* Doczkal, Radenković, Lyneborg et Pape, 2015 | South Africa |  |
| Y1711E | MZH:Y1711 | KM224512 | *Platynochaetus* | *setosus* Fabricius, 1794 | France | Pyrenées-Orientales |