# Supp. file 1. Additional information. <https://doi.org/10.5852/ejt.2022.862.2079.8685>

# Table S1. Information for the specimens used for the cladistic and phylogenetic analysis for the *Lasioglossum* (*Dialictus*) from Yucatan. The specimens in bold and with the abbreviation HT are the holotype for the respective taxa. Note that many species from outside Yucatán are under revision by JG and identifications are provisional and/or likely to change in the future.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Species* | Site | Genbank accession | Sequence page | BOLD BIN | | Specimen ID |
| *Lasioglossum sp. 8* | Yucatan | KU574996 |  | ACT0906 | | G8-76AlCa |
| *Lasioglossum sp. 8* | Homun, Yucatan | KU574997 |  | ADJ6353 | | G8-509d |
| *Lasioglossum sp. 8* | Nenela, Yucatan | KU574998 |  | ADJ8897 | | G8-15 |
| *Lasioglossum sp. 8* | San Pedro, Yucatan | KU574995 |  | ACT0906 | | G8-185 |
| *Lasioglossum sp. 8* | Nenela, Yucatan | KU575005 |  | ACT3066 | | G8-12 |
| *Lasioglossum sp. 8* | Tekal, Yucatan | KU575006 |  | ACT3066 | | G8-119 |
| *Lasioglossum sp. 8* | Yucatan | KU575001 |  | ACT1185 | | G8-93 |
| *Lasioglossum sp. 8* | Tixcaltuyub, Yucatan | KU574999 |  | ACT0905 | | G8-503a |
| *Lasioglossum sp. 8* | Tekal, Yucatan | KU575004 |  | ACT3065 | | G8-120 |
| *Lasioglossum sp. 8* | Nenela, Yucatan | KU575003 |  | ACT3065 | | G8-341 |
| *Lasioglossum sp. 8* | TahDiuz, Yucatan | KU575000 |  | ACT3064 | | G8-239a |
| *Lasioglossum sp. 8* | Timual, Yucatan | KU575007 |  | ACT3064 | | G8-294 |
| *Lasioglossum sp. 8* | Timual, Yucatan | KU575002 |  | ACT3065 | | G8-327a |
| *Lasioglossum sp. 8* | Xaya, Yucatan | KU574994 | LDSPS127-15 | ACT3067 | | G8-P616 |
| ***Lasioglossum (Dialictus) yucatanense*** | **Yucatan** | **KU574888** | **LDSPS009-15** | | **ACT3294** | **435.2 HT** |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574902 | LDSPS023-15 | ACT3294 | | 216 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574907 | LDSPS028-15 | ACT3294 | | 526 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574883 | LDSPS004-15 | ACT3294 | | 569d |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574893 | LDSPS014-15 | ACT3294 | | 77 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574886 | LDSPS007-15 | ACT3294 | | 65a |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574895 | LDSPS016-15 | ACT3294 | | 339 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574900 | LDSPS021-15 | ACT3294 | | 342 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574901 | LDSPS022-15 | ACT3294 | | 332 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574896 | LDSPS017-15 | ACT3294 | | 587 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574906 | LDSPS027-15 | ACT3294 | | 590 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574884 | LDSPS005-15 | ACT3294 | | 455 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574903 | LDSPS024-15 | ACT3294 | | 473 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574897 | LDSPS018-15 | ACT3294 | | 307 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574899 | LDSPS020-15 | ACT3294 | | 298c |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574885 | LDSPS006-15 | ACT3294 | | 433.2 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574892 | LDSPS013-15 | ACT3294 | | 433.1 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574898 | LDSPS019-15 | ACT3294 | | 249 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574904 | LDSPS025-15 | ACT3294 | | 433b |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574880 | LDSPS001-15 | ACT3294 | | 489 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574889 | LDSPS010-15 | ACT3294 | | 603a |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574891 | LDSPS012-15 | ACT3294 | | 153 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574882 | LDSPS003-15 | ACT3294 | | 213 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574890 | LDSPS011-15 | ACT3294 | | 192 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574894 | LDSPS015-15 | ACT3294 | | 173 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | ku574887 | LDSPS008-15 | ACT3294 | | 432.2 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574881 | LDSPS002-15 | ACT4788 | | 240 |
| *Lasioglossum (Dialictus) yucatanense* | Yucatan | KU574905 | LDSPS026-15 | ACT5279 | | 148 |
| *Lasioglossum (Dialictus) paxtoni* | Yucatan | KU574909 | LDSPS029-15 | AAE1080 | | 81 |
| *Lasioglossum (Dialictus) paxtoni* | Yucatan | KU574911 | LDSPS030-15 | AAE1080 | | 86 |
| *Lasioglossum (Dialictus) paxtoni* | Yucatan | KU574910 | LDSPS031-15 | AAE1080 | | 91 |
| *Lasioglossum (Dialictus) paxtoni* | Yucatan | KU574912 | LDSPS032-15 | AAE1080 | | 602C |
| *Lasioglossum (Dialictus) paxtoni* | Yucatan | KU574908 | LDSPS029-15 | AAE1080 | | 159 |
| *Lasioglossum (Dialictus) stictaspis species complex* | Yucatan | KU574917 | LDSPS036-15 | ABX4912 | | 626c |
| *Lasioglossum (Dialictus) stictaspis species complex* | Yucatan | KU574914 | LDSPS038-15 | ABX4912 | | 80 |
| *Lasioglossum (Dialictus) stictaspis species complex* | Yucatan | KU574918 | LDSPS037-15 | ABX4912 | | 434.1 |
| *Lasioglossum (Dialictus) stictaspis species complex* | Yucatan | KU574915 | LDSPS034-15 | ABX4912 | | 622d3 |
| *Lasioglossum (Dialictus) stictaspis species complex* | Yucatan | KU574913 | LDSPS039-15 | ABX4912 | | 154 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574921 | LDSPS046-15 | ADJ0188 | | 570 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574925 | LDSPS049-15 | ADM4231 | | 110 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574929 | LDSPS051-15 | ADM4232 | | 452b |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574923 | LDSPS048-15 | ADJ0187 | | 308 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574924 | LDSPS050-15 | ADM4232 | | 488b |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574933 | LDSPS043-15 | ADM4232 | | 410 |
|  |  |  |  |  | |  |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan |  | LDSPS097-15 | ACT3929 | | 571 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan |  | LDSPS096-15 | ACT3928 | | 512 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574931 | LDSPS041-15 | ADM4232 | | 614 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574930 | LDSPS040-15 | ADM4232 | | 143 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574932 | LDSPS042-15 | ACT2524 | | 194 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574927 | LDSPS101-15 | ACT3286 | | 277 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574926 | LDSPS102-15 | ACT3927 | | 581 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574919 | LDSPS044-15 | ADM4232 | | 116 |
| *Lasioglossum (Dialictus) nanotegula* | Yucatan | KU574920 | LDSPS045-15 | ADM4232 | | 550 |
| ***Lasioglossum (Dialictus) aureoviride*** | **Yucatan** | **KU574945** | **LDSPS065-15** | **ABY5206** | | **490d HT** |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574955 | LDSPS046-15 | ABY5206 | | 570d |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574937 | LDSPS074-15 | ABY5206 | | 553 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574935 | LDSPS076-15 | ABY5206 | | 622d1 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574956 | LDSPS055-15 | ABY5206 | | 342e |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574949 | LDSPS061-15 | ABY5206 | | 249 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574957 | LDSPS053-15 | ABY5206 | | 492c |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574954 | LDSPS056-15 | ABY5206 | | 491c |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574941 | LDSPS070-15 | ABY5206 | | 616 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574936 | LDSPS075-15 | ABY5206 | | 606 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574944 | LDSPS066-15 | ABY5206 | | 505 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574934 | LDSPS067-15 | ACS9355 | | 507 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574939 | LDSPS072-15 | ABY5206 | | 511 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574938 | LDSPS073-15 | ABY5206 | | 137 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574953 | LDSPS057-15 | ABY5206 | | 71 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574958 | LDSPS052-15 | ACS9636 | | 572 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574943 | LDSPS068-15 | ABY5206 | | 471 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574952 | LDSPS058-15 | ABY5206 | | 286 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574947 | LDSPS063-15 | ABY5206 | | 298c |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574946 | LDSPS064-15 | ABY5206 | | 293 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574950 | LDSPS060-15 | ABY5206 | | 251 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574948 | LDSPS062-15 | ABY5206 | | 356 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574951 | LDSPS059-15 | ABY5206 | | 195 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574940 | LDSPS071-15 | ABY5206 | | 219 |
| *Lasioglossum (Dialictus) aureoviride* | Yucatan | KU574942 | LDSPS069-15 | ACT1355 | | 346 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574928 | LDSPS100-15 | ACT3930 | | 238 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574962 | LDSPS082-15 | ACT1788 | | 503d |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574984 | LDSPS079-15 | ACE9632 | | 509 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574960 | LDSPS080-15 | ACE9632 | | 196 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574961 | LDSPS081-15 | ACE9632 | | 193 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574983 | LDSPS078-15 | ACE9632 | | 271 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574982 | LDSPS077-15 | ACE9632 | | 204 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574962 | LDSPS082-15 | ACT1788 | | 489 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574963 | LDSPS083-15 | ACT1788 | | 34 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574964 | LDSPS084-15 | ACT1789 | | 39 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574973 | LDSPS094-15 | AAW9940 | | 118 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574965 | LDSPS085-15 | AAW9940 | | 44 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574959 | LDSPS088-15 | AAW9940 | | 4 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574969 | LDSPS090-15 | AAW9940 | | 240a |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574970 | LDSPS091-15 | AAW9940 | | 280 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574968 | LDSPS089-15 | AAW9940 | | 259 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574972 | LDSPS093-15 | AAW9940 | | 117 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574966 | LDSPS086-15 | AAW9940 | | 31 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574967 | LDSPS087-15 | AAW9940 | | 63 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574971 | LDSPS092-15 | AAW9940 | | 70 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574981 | LDSPS109-15 | ADM4642 | | 23 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574974 | LDSPS095-15 | AAW9940 | | 279 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574978 | LDSPS106-15 | AAW9940 | | 312 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574980 | LDSPS108-15 | AAW9940 | | 305 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574975 | LDSPS099-15 | ADM4640 | | 244 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574979 | LDSPS107-15 | AAW9940 | | 243 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574977 | LDSPS105-15 | AAW9940 | | 493 |
| *Lasioglossum (Dialictus) milpa* | Yucatan | KU574976 | LDSPS104-15 | ADM4641 | | 347 |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574990 | LDSPS118-15 | AAJ1797 | | 493d |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574985 | LDSPS114-15 | ACT3875 | | 89 |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574988 | LDSPS116-15 | AAJ1797 | | 343 |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574993 | LDSPS113-15 | AAJ1797 | | 223 |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574991 | LDSPS111-15 | AAJ1797 | | 440 |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574986 | LDSPS115-15 | AAJ1797 | | 327c |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574990 | LDSPS118-15 | AAJ1797 | | 504 |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574992 | LDSPS112-15 | AAJ1797 | | 411 |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574989 | LDSPS117-15 | ACT2336 | | 403 |
| *Lasioglossum (Dialictus) ameshoferi* | Yucatan | KU574987 | LDSPS110-15 | AAJ1797 | | 142 |

# Table S2. Number of antennae sensillae for the seven species of *Lasioglossum* (*Dialictus*) presented in this study. Abbreviations: sensilla trichodea type A (stA), sensilla trichodea type B (stB), sensilla trichodea type C (stC), sensilla trichodea type D (stD), sensila placoidea (sPa), sensilla coeloconica (sCoe), sensilla ampullacea (sAmp), sensilla basiconica (sBa), sensilla coelocapitular (sCap).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *L.* (*D.*) *yucatanense* | | *L.* (*D.*) *paxtoni* | | *L.* (*D.*) *ameshoferi* | | *L.* (*D.*) *hirsutum* | | *L.*(*D.*) *aureoviride* | | *L.*(*D.*) *milpa* | | *L.* (*D.*) *nanotegula* | |
|  | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| stA | 130.5 | 1.5 | 75.5 | 7.5 | 43 | 18 | 67.5 | 7.5 | 67.5 | 7.5 | 42.5 | 1.5 | 63 | 0 |
| stB | 34 | 1 | 16.5 | 8.5 | 23.5 | 3.5 | 32 | 2 | 36 | 1 | 24.5 | 0.5 | 14.5 | 12.5 |
| stC | 19 | 1 | 40.5 | 10.5 | 24.5 | 0.5 | 54 | 1 | 41.5 | 6.5 | 23 | 1 | 36 | 4 |
| stD | 21 | 0 | 19.5 | 0.5 | 30 | 3 | 34 | 4 | 36.5 | 8.5 | 62.5 | 7.5 | 5 | 0 |
| sCoe | 2 | 0 | 2 | 0 | 2.5 | 0.5 | 4 | 3 | 1 | 0 | 3.5 | 0.5 | 0 | 0 |
| sAMP | 2.5 | 0.5 | 1.5 | 0.5 | 1.5 | 0.5 | 2 | 2 | 2.5 | 0.5 | 1 | 0 | 1 | 0 |
| sCap | 0.5 | 0.5 | 1.5 | 0.5 | 2.5 | 0.5 | 6 | 4 | 0.5 | 0.5 | 0 | 0 | 0 | 0 |
| Spla | 44.5 | 4.5 | 32 | 7 | 32.5 | 0.5 | 26 | 6 | 28 | 3 | 30 | 0 | 31.5 | 11.5 |
| sBa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| setae | 49 | 3 | 30 | 2 | 35 | 7 | 44.5 | 10.5 | 48.5 | 3.5 | 52.5 | 7.5 | 60 | 5 |