

Supplementary Table S1. Volatile compounds of sexually mature *A. ludens* males from two larval diets.

| Diet | Volatile Compound | Retention time (min) | Average abundance (counts/1 million) | Reproducibility |
|---------------------|--|----------------------|--------------------------------------|-----------------|
| Artificial diet | (Z)-3-Nonen-1-ol | 11.168 | 0.857 | 16/16 |
| | (Z,Z)-3,6-Nonadien-1-ol | 11.2 | 1.790 | 16/16 |
| | α -Bergamotene | 14.042 | 0.758 | 16/16 |
| | 1-Cyclopentanecarboxylic acid, 4-isopropylidene-2-vinyl-, methyl ester | 14.393 | 0.412 | 16/16 |
| | (Z,E)- α -Farnesene | 14.458 | 0.104 | 16/16 |
| | 4-methylene-2,8,8-trimethyl-2-vinyl-bicyclo[5.2.0]nonane | 14.5 | 0.194 | 14/16 |
| | (E,E)- α -Farnesene | 14.587 | 4.186 | 16/16 |
| | Suspensolide | 14.63 | 0.217 | 16/16 |
| | β -Bisabolene | 14.672 | 0.218 | 16/16 |
| | trans-Sesquisabinene hydrate | 14.721 | 0.085 | 14/16 |
| | 1,4-dimethyl-3-(2-methyl-1-propene-1-yl)-4-vinyl-1-Cycloheptene | 14.843 | 0.106 | 13/16 |
| | Anastrephin | 15.4 | 1.532 | 16/16 |
| | Epianastrephin | 15.506 | 4.039 | 16/16 |
| Orange bagasse diet | (Z)-3-Nonen-1-ol | 11.168 | 0.746 | 16/16 |
| | (Z,Z)-3,6-Nonadien-1-ol | 11.2 | 2.047 | 16/16 |
| | α -Bergamotene | 14.042 | 1.000 | 16/16 |
| | β -Sesquiphellandrene | 14.099 | 0.107 | 16/16 |
| | β -Santalene | 14.294 | 0.141 | 16/16 |
| | 1-Cyclopentanecarboxylic acid, 4-isopropylidene-2-vinyl-, methyl ester | 14.393 | 0.545 | 16/16 |
| | (Z,E)- α -Farnesene | 14.458 | 0.146 | 16/16 |
| | 4-methylene-2,8,8-trimethyl-2-vinyl-bicyclo[5.2.0]nonane | 14.5 | 0.224 | 16/16 |
| | (E,E)- α -Farnesene | 14.587 | 5.205 | 16/16 |
| | Suspensolide | 14.63 | 0.260 | 16/16 |
| | β -Bisabolene | 14.672 | 0.292 | 16/16 |
| | trans-Sesquisabinene hydrate | 14.721 | 0.108 | 16/16 |
| | 1,4-dimethyl-3-(2-methyl-1-propene-1-yl)-4-vinyl-1-Cycloheptene | 14.843 | 0.109 | 16/16 |
| | 4-Cyclohexylidenebutyraldehyde | 14.864 | 0.137 | 16/16 |
| | (Z)- α -Bisabolene | 14.926 | 0.071 | 13/16 |
| | 3,6-diethyl-3,6-dimethyl-, trans-tricyclo[3.1.0.0(2,4)]hexane | 15.324 | 0.099 | 16/16 |
| | Anastrephin | 15.4 | 1.852 | 16/16 |
| | Anastrephin derivative | 15.466 | 0.044 | 15/16 |
| | Epianastrephin | 15.506 | 4.669 | 16/16 |
| | Santalol isomer | 15.957 | 0.171 | 15/16 |
| | Isolongifolol | 16.062 | 0.118 | 15/16 |