**Electronic Supplementary Material - Insectes Sociaux**

**Outnumbered: A new dominant ant species with genetically diverse supercolonies in Ethiopia (Hymenoptera: Formicidae: Formicinae: *Lepisiota*)**

D. M. Sorger1,2\*, W. Booth3, A. Wassie Eshete4, M. Lowman5, M. W. Moffett6\

1 Department of Applied Ecology, North Carolina State University, Raleigh, NC 27695, USA.

2 W.M. Keck Center for Behavioral Biology, North Carolina State University, Raleigh, NC 27695, USA.

3 Department of Biological Science, The University of Tulsa, Tulsa, OK 74104, USA.

4 College of Agriculture, Bahir Dar University, Bahir Dar, Ethiopia.

5 Institute for Biodiversity Science and Sustainability, California Academy of Sciences, CA, USA.

6 National Museum of Natural History, Smithsonian Institution, Washington, DC 20013, USA.

\* Corresponding author – email: dmsorger@ncsu.edu

**Table S1** Length, number of bait stations, date, start time and habitat notes for each bait transect

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Transect name** | **Transect length** | **Bait stations** | **Date** | **Start time** | **Habitat notes** |
| Zhara - Forest | 200 m | 20 | 6-Jan-12 | 12:00 | forest interior, several open areas and sunny patches |
| Zhara - Field | 150 m | 15 | 7-Jan-12 | 11:30 | 10 stations on open harvested field, 5 stations inside Eucalypus forest |
| Gelawdios - Forest | 100 m | 10 | 9-Jan-12 | 14:00 | forest interior |
| Gelawdios - Field | 100 m | 10 | 10-Jan-12 | 10:45 | open area with many rocks |
| Gelwadios - Edge | 100 m | 10 | 10-Jan-12 | 12:40 | along forest edge |
| Debresena - Forest | 100 m | 10 | 12-Jan-12 | 14:30 | forest interior |
| Debresena - Field | 100 m | 10 | 12-Jan-12 | 16:00 | 5 stations in harvested straw field, 5 stations in plowed fallow field |

**Table S2** Summary of aggression assays showing trial number, trial locations (see Table S3 for key to abbreviations), date, response and notes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Trial** | **Resident loc.** | **Test loc.** | **Date** | **Response** | **Notes** |
| 1 | GH | GF | 13-Jan-12 | aggression | fighting right away |
| 2 | GH | ZW | 13-Jan-12 | low-level alarm |   |
| 3 | ZS1 | ZW | 13-Jan-12 | no aggression | low number of ants transferred |
| 4 | ZS1-2 | ZW | 13-Jan-12 | aggression | first of two trials |
| 5 | ZS1-2 | ZW | 13-Jan-12 | aggression | second trial: overall weaker response |
| 6 | ZS2 | ZW | 13-Jan-12 | aggression | response clearer than in trials 4 & 5 |
| 7 | ZS2-3 | ZW | 13-Jan-12 | aggression |   |
| 8 | ZW | ZW | 13-Jan-12 | low-level alarm | transfer of ZW sample collected earlier in the day |
| 9 | ZL1 | ZL5 | 6-Jan-12 | no aggression |   |
| 10 | ZC | ZW | 7-Jan-12 | no aggression |   |
| 11 | DS5 | ZW | 13-Jan-12 | no aggression |   |
| 12 | ZW | ZS6 | 13-Jan-12 | aggression |   |
| 13 | ZW | D1 | 13-Jan-12 | aggression | high number of ants at ZW |
| 14 | D1 | ZW | 13-Jan-12 | aggression |   |
| 15 | ZS5 | ZS6 | 13-Jan-12 | no aggression |   |
| 16 | ZS6 | D1 | 13-Jan-12 | aggression | a lot of inspection before fighting |
| 17 | ZS5 | D1 | 13-Jan-12 | aggression |   |
| 18 | DS3 | D1 | 13-Jan-12 | no aggression |   |
| 19 | DS2 | D1 | 13-Jan-12 | low-level alarm | alarm response mostly with dead ants from vial |
| 20 | DE | D1 | 12-Jan-12 | no aggression |   |
| 21 | D1 | GF | 13-Jan-12 | aggression |   |
| 22 | D1 | GH | 13-Jan-12 | aggression |   |

**Table S3** List of *Lepisiota canescens* samplesin Ethiopia showing sample code, vial ID, number and caste of sequenced individuals, haplotype identity, collection date, locality information and notes

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Vial** | **mtDNA** | **Haplo-type** | **Date collected** | **Location** | **Alt. (m)** | **Lat** | **Long** | **Notes** |
| GH | ET016 | 1w | 9 | 8-Jan-12 | Ghion Hotel, Bahir Dar | 1780 | 11.596972 | 37.385582 | on ground at edge of concrete path |
| ZS01 | ET015 | 1w | 3 | 7-Jan-12 | near Bahir Dar, on way to Zhara | 1873 | 11.599377 | 37.438370 | on roadside |
| ZS1-2 | ET053 | 1w | 1 | 13-Jan-12 | between Debre Tabor and Bahir Dar | 1896 | 11.657675 | 37.465493 |   |
| ZS02 | ET040 | 1w, 1q | 5 | 11-Jan-12 | between Debre Tabor and Bahir Dar | 1818 | 11.717039 | 37.503864 | under rock and on plant with yellow flowers (Mimosa sp.) |
| ZS2-3 | ET050 | 1w | 2 | 13-Jan-12 | between Debre Tabor and Bahir Dar | 1901 | 11.758932 | 37.539395 |   |
| ZW | N/A | N/A | N/A | 6-Jan-12 | Zhara Church Forest, at wall | 1920 | 11.800063 | 37.567653 |   |
| ZL01 | ET009 | 1w | 1 | 6-Jan-12 | Zhara Church Forest | 1922 | 11.800054 | 37.568947 |   |
| ZL02 | ET010 | 1w, 10q | 5 | 6-Jan-12 | Zhara Church Forest | 1910 | 11.800054 | 37.568948 | nest under rock with alates and multiple queens |
| ZL03 | ET011 | 1w | 1 | 7-Jan-12 | Zhara Church Forest | 1910 | 11.801514 | 37.567554 |   |
| ZL04 | ET012 | 1w | 1 | 7-Jan-12 | Zhara Church Forest | 1908 | 11.801945 | 37.568003 |   |
| ZL05 | ET013 | 1w | 1 | 7-Jan-12 | Zhara Church Forest | 1911 | 11.802593 | 37.568267 | at wall |
| ZL06 | ET014 | 1w | 1 | 13-Jan-12 | Zhara Church Forest | 1911 | 11.799458 | 37.569032 | in open field, ca. 100m from forest wall |
| ZC | ET020 | 1w | 1 | 8-Jan-12 | outside Zhara Church Forest, across road | 1904 | 11.799123 | 37.570499 | Eucalyptus forest, in dry riverbed |
| ZE | ET036 | 1w | 1 | 8-Jan-12 | outside Zhara Church Forest, across road | 1910 | 11.798806 | 37.570346 | Eucalyptus forest |
| DS05 | ET033 | 1w | 9 | 13-Jan-12 | between Debre Tabor and Bahir Dar | 1792 | 11.839730 | 37.635725 |   |
| ZS03 | ET034 | 1w | 1 | 11-Jan-12 | between Debre Tabor and Bahir Dar | 1808 | 11.902334 | 37.684748 | with froghoppers on yellow-flower plant |
| ZS04 | ET049 | 1w | 8 | 11-Jan-12 | between Debre Tabor and Bahir Dar | 1811 | 11.902566 | 37.685182 | across street from ZS03, on yellow-flower plant |
| DS04 | ET045 | 1w | 8 | 13-Jan-12 | between Debre Tabor and Bahir Dar | 1838 | 11.938083 | 37.777999 |   |
| ZS05 | ET028 | 1w | 1 | 11-Jan-12 | between Debre Tabor and Bahir Dar | 1975 | 11.922832 | 37.858068 | on yellow-flower plant, no froghoppers, only a few ants present |
| ZS06\_01 | ET046 | 1w | 6 | 11-Jan-12 | between Debre Tabor and Bahir Dar | 2055 | 11.918482 | 37.912698 | in agricultural field, under rock, very dry area |
| ZS06\_02 | ET031 | 1w | 6 | 13-Jan-12 | between Debre Tabor and Bahir Dar | 2055 | 11.918482 | 37.912698 | same as ZS06\_01 (duplicate collection) |
| DS03 | ET041 | 1w | 1 | 13-Jan-12 | between Debre Tabor and Bahir Dar | 2255 | 11.925489 | 37.945463 | on yellow-flower plant, on roadside near secondary forest |
| DS02 | ET042 | 1w | 7 | 13-Jan-12 | between Debre Tabor and Bahir Dar | 2439 | 11.894392 | 37.973882 | on yellow-flower plant (different species than seen before) |
| DE | ET051 | 1w | 1 | 12-Jan-12 | Debresena Church Forest | 2651 | 11.852790 | 37.989962 | under rock |
| D01 | ET027 | 1w | 1 | 12-Jan-12 | Debresena Church Forest | 2681 | 11.852734 | 37.988680 | nest under rock |
| GF | ET019 | 1w | 1 | 9-Jan-12 | outside Geladwios Church Forest | 2430 | 11.642658 | 37.811672 | on open grassfield under rock |
| MA | ET058 | 1w | 4 | 17-Jan-12 | near Lalibela, Mt. Asheton | 2719 | 12.029738 | 39.057542 | on ground |
| GC | ET067 | 1w | 9 | 18-Jan-12 | Gondor Castle, inside royal enclosure | 2225 | 12.609290 | 37.470137 | on tree (bean family) |
| LC | ET066 | 1w | 9 | 16-Jan-12 | Lalibela churches | 2471 | 12.031239 | 39.045793 |   |