

Supplementary material to: Castracani, C.; Spotti, F.A.; Schifani, E.; Giannetti, D.; Ghizzoni, M.; Grasso, D.A.; Mori, A. Citizen science provides first insights on Po Plain ant communities and reveals the ubiquity of the cryptic invader *Tetramorium immigrans* (Hymenoptera, Formicidae)

Table S1. List of the 12 parks of the A.R.E.A. Parchi network involved in the project. The last column shows the number of sampled sites.

| Park Name | Website address | Sites |
|-----------------------|---|--------------|
| Adda Nord | http://www.parcoaddanord.it/ | 1 |
| Basso Brembo | http://www.parcobassobrembo.it/ | 1 |
| Bosco Fontana | https://www.carabinieri.it/arma/oggi/organizzazione/organizzazione-per-la-tutela-forestale-ambientale-e-agroalimentare/utcb-e-le-130-riserve-naturali/utcb-di-verona/bosco-fontana | 1 |
| Campo dei Fiori | http://www.parcocampodeifiori.it/ | 1 |
| Groane | http://www.parcogroane.it/ | 1 |
| Monte Barro | http://www.parcobarro.lombardia.it/_parco/ | 2 |
| Monte Canto e Bedesco | http://www.comitatomontecanto.it/ | 1 |
| Nord Milano | https://parconord.milano.it/ | 1 |
| Oglio Sud - Le Bine | http://www.ogliosud.it/pagina.php?id=14 | 1 |
| Serio | https://www.parcodelserio.it/ | 1 |
| Valle Lambro | https://www.parcovallelambro.it/ | 2 |
| Valpredina-Misma | https://www.valpredina.eu/ | 1 |

Table S2. Species checklist according to sites. For each species, the % of baits in which they were found is expressed (StdDataset). A cross marks the species only present in the FDataset. Colors correspond to the clusters found in the NMDS analysis: orange = group 1, green = group 2 and red = group 3. Fiori Park is in white because it was excluded from StdDataset (see text for further details).

| Specie | Add | Gro | NMi | LaCa | Bre | Ser | LBin | CaBe | Fon | BCa | BEr | LaBr | VaM | Fiori |
|-------------------|-----|-----|-----|------|-----|-----|------|------|-----|-----|-----|------|-----|-------|
| <i>T. subb.</i> | | 2 | | | + | 2 | | 3 | 2 | | | | | |
| <i>C. fallax</i> | 2 | | | | | | | | 2 | | | | | |
| <i>C. later.</i> | | | | | | | | | | 2 | | | | |
| <i>C. lignip.</i> | | | | | | | | | | | 5 | | | |
| <i>F. clara</i> | | | | | | | 2 | | | | | | | |
| <i>F. cunic.</i> | 2 | 2 | | 6 | 2 | 2 | + | | 2 | 7 | | 2 | 2 | + |
| <i>F. gagat.</i> | | | | | | | | | | 7 | 2 | | | |
| <i>L. distin.</i> | | 4 | | | | | | | | | | | | |
| <i>L. emarg.</i> | 8 | 4 | 2 | | | | 4 | | | 15 | 10 | 10 | 2 | + |
| <i>L. fulig.</i> | | + | | | | | | | | | | | | |
| <i>L. niger</i> | 4 | 10 | 4 | 12 | 8 | + | | 3 | | 2 | 5 | | | + |
| <i>L. paral.</i> | | 4 | + | | | | | | | | | 2 | | |
| <i>P. pygm.</i> | | 4 | + | | 8 | | 2 | | | 2 | | | | + |
| <i>A. subter.</i> | | | | 3 | | | | | 2 | 12 | 7 | 2 | 6 | + |
| <i>C. scutel.</i> | | 2 | + | | + | | 4 | | | | | 2 | | |
| <i>M. iberic.</i> | | | | | | | | | 2 | | | | | |
| <i>M. mon.</i> | | | | | | | 12 | | 14 | | | | | |
| <i>M. hell.</i> | | + | + | | | | | | | | | | | 2 |
| <i>M. rubr.</i> | | | | | | 6 | | | | | | 2 | 4 | |
| <i>M. sabul.</i> | 2 | | | | + | 2 | 10 | 12 | 4 | 2 | | | | + |
| <i>M. spec.</i> | | | | 3 | + | | | | | 5 | 2 | | 2 | |
| <i>P. pallid.</i> | | | | | | | | | | 12 | | | 2 | |
| <i>S. fugax</i> | | | 6 | | | 2 | | 3 | 2 | | | | | |
| <i>T. flavic.</i> | | | | | | + | | | | | | | | |
| <i>T. licht.</i> | | | | | 2 | | | | | 2 | | | | + |
| <i>T. nylan.</i> | | | | | | | | | | | | | | 2 |
| <i>T. parvul.</i> | | | | | | | | | | | | 2 | | |
| <i>T. unifas.</i> | | 2 | | 3 | 2 | | 8 | | 2 | 2 | 7 | | 6 | |
| <i>T. caesp.</i> | 2 | | 2 | | | + | + | | | 2 | 2 | 7 | 4 | |
| <i>T. immig.</i> | 43 | 4 | 12 | 12 | 18 | 4 | 10 | 9 | 8 | 10 | 5 | 10 | 4 | + |

Table S3. Values of Sørensen-Dice similarity index for all the possible comparisons between parks (StdDataset). Colors correspond to the clusters found in the NMDS analysis: orange = group 1, green = group 2 and red = group 3.

| | Add | Gro | NMi | LaCa | Bre | Ser | LBin | CaBe | Fon | BCa | BEr | LaBr | VaM | Mean |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Add | - | 0.47 | 0.66 | 0.46 | 0.57 | 0.44 | 0.40 | 0.50 | 0.47 | 0.57 | 0.50 | 0.50 | 0.46 | 0.50 |
| Gro | 0.47 | - | 0.40 | 0.47 | 0.59 | 0.37 | 0.55 | 0.40 | 0.40 | 0.50 | 0.42 | 0.53 | 0.38 | 0.43 |
| NMi | 0.66 | 0.40 | - | 0.36 | 0.50 | 0.36 | 0.31 | 0.60 | 0.27 | 0.42 | 0.40 | 0.28 | 0.35 | 0.41 |
| LaCa | 0.46 | 0.47 | 0.36 | - | 0.46 | 0.33 | 0.28 | 0.36 | 0.50 | 0.60 | 0.67 | 0.40 | 0.55 | 0.45 |
| Bre | 0.57 | 0.59 | 0.50 | 0.46 | - | 0.31 | 0.40 | 0.33 | 0.35 | 0.66 | 0.50 | 0.37 | 0.44 | 0.46 |
| Ser | 0.44 | 0.37 | 0.36 | 0.33 | 0.31 | - | 0.28 | 0.73 | 0.67 | 0.30 | 0.13 | 0.40 | 0.33 | 0.39 |
| LBin | 0.40 | 0.55 | 0.31 | 0.28 | 0.40 | 0.28 | - | 0.15 | 0.44 | 0.45 | 0.35 | 0.35 | 0.31 | 0.35 |
| CaBe | 0.50 | 0.40 | 0.60 | 0.36 | 0.33 | 0.73 | 0.15 | - | 0.53 | 0.31 | 0.28 | 0.14 | 0.12 | 0.39 |
| Fon | 0.47 | 0.40 | 0.27 | 0.50 | 0.35 | 0.67 | 0.44 | 0.53 | - | 0.42 | 0.31 | 0.31 | 0.38 | 0.41 |
| BCa | 0.57 | 0.50 | 0.42 | 0.60 | 0.66 | 0.30 | 0.36 | 0.31 | 0.42 | - | 0.69 | 0.43 | 0.64 | 0.50 |
| BEr | 0.50 | 0.42 | 0.40 | 0.67 | 0.50 | 0.13 | 0.35 | 0.28 | 0.31 | 0.69 | - | 0.44 | 0.50 | 0.43 |
| LaBr | 0.50 | 0.53 | 0.28 | 0.40 | 0.37 | 0.40 | 0.35 | 0.14 | 0.31 | 0.43 | 0.44 | - | 0.50 | 0.47 |
| VaM | 0.46 | 0.38 | 0.35 | 0.55 | 0.44 | 0.33 | 0.31 | 0.12 | 0.38 | 0.64 | 0.50 | 0.50 | - | 0.41 |