Table S1.

Records of the 64 ant species (Hymenoptera: Formicidae), collected at 24 sampling sites at three different time scales related to fire (short-term, medium-term, and long-term), and different elevations (118, 119, 120, 121, and 122 meters) in Pantanal of Poconé, Mato Grosso do Sul, Brazil. Given numbers for each species correspond to their frequency (number of sampling points in which they were present) in each treatment. Note also that the number of sampling points varied among treatments due to logistical constraints (see Methods and Figure 2).

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Formicidae** | **short-term** | | **mid-term** | | **long-term** | | **Elevation (meters)** | | | | |
| **No Fire** | **Fire** | **No Fire** | **Fire** | **No Fire** | **Fire** | **118** | **119** | **120** | **121** | **122** |
| DOLICHODERINAE |  |  |  |  |  |  |  |  |  |  |  |
| Tribe Tapinomini |  |  |  |  |  |  |  |  |  |  |  |
| *Tapinoma melanocephalum* (Fabricius, 1793) | 0 | 0 | 3 | 0 | 1 | 3 |  | x | x | x | x |
| Tribe Leptomyrmecini |  |  |  |  |  |  |  |  |  |  |  |
| *Azteca* sp. 2 | 0 | 0 | 0 | 0 | 0 | 1 |  |  |  | x |  |
| *Linepithema* sp. 1 | 2 | 0 | 2 | 4 | 2 | 4 |  | x | x | x | x |
| Tribe Dolichoderini |  |  |  |  |  |  |  |  |  |  |  |
| *Dolichoderus bispinosus* (Olivier, 1792) | 2 | 3 | 2 | 0 | 0 | 4 |  | x | x | x | x |
| *Dolichoderus lujae* Santschi, 1923 | 0 | 0 | 0 | 0 | 0 | 2 |  |  | x | x |  |
| *Dolichoderus diversus* Emery, 1894 | 0 | 0 | 0 | 0 | 0 | 1 |  |  | x |  |  |
| DORYLINAE |  |  |  |  |  |  |  |  |  |  |  |
| Tribe Ecitonini |  |  |  |  |  |  |  |  |  |  |  |
| *Eciton vagans* (Olivier, 1792) | 1 | 1 | 0 | 0 | 0 | 0 |  |  | x |  | x |
| *Neivamyrmex gibbatus* Borgmeier, 1953 | 4 | 2 | 1 | 4 | 3 | 6 | x | x | x | x | x |
| *Neivamyrmex pilosus* (Smith, 1858) | 0 | 0 | 1 | 3 | 0 | 0 | x | x |  | x |  |
| *Neivamyrmex* sp. 2 | 0 | 0 | 1 | 1 | 0 | 0 |  |  | x |  | x |
| ECTATOMMINAE |  |  |  |  |  |  |  |  |  |  |  |
| Tribe Ectatommini |  |  |  |  |  |  |  |  |  |  |  |
| *Ectatomma brunneum* Smith, 1858 | 5 | 4 | 7 | 11 | 6 | 10 |  | x | x | x | x |
| *Ectatomma* sp. 2 | 0 | 0 | 0 | 0 | 1 | 1 |  |  | x | x |  |
| *Gnamptogenys moelleri* (Forel, 1912) | 0 | 3 | 1 | 2 | 1 | 3 | x | x | x | x | x |
| *Gnamptogenys sulcata* (Smith, 1858) | 0 | 1 | 0 | 0 | 0 | 0 |  |  | x |  |  |
| FORMICINAE |  |  |  |  |  |  |  |  |  |  |  |
| Tribe Camponotini |  |  |  |  |  |  |  |  |  |  |  |
| *Camponotus leydigi* Forel, 1886 | 1 | 5 | 6 | 8 | 4 | 5 | x | x | x | x | x |
| *Camponotus crassus* Mayr, 1862 | 3 | 5 | 7 | 8 | 7 | 10 |  | x | x | x | x |
| *Camponotus melanoticus*  Emery, 1894 | 4 | 4 | 9 | 12 | 5 | 10 | x | x | x | x | x |
| *Camponotus rufipes* (Fabricius, 1775) | 3 | 4 | 7 | 9 | 6 | 11 | x | x | x | x | x |
| *Camponotus sexguttatus* (Fabricius, 1793) | 1 | 4 | 6 | 3 | 5 | 7 |  | x | x | x | x |
| *Camponotus* sp. 2 | 0 | 2 | 4 | 5 | 3 | 5 | x | x | x | x | x |
| *Camponotus* sp. 3 | 0 | 0 | 4 | 3 | 1 | 4 |  | x | x | x | x |
| Tribo Myrmelachistini |  |  |  |  |  |  |  |  |  |  |  |
| *Myrmelachista* sp. 1 | 0 | 0 | 0 | 1 | 1 | 2 |  | x | x | x |  |
| *Brachymyrmex* sp. 1 | 0 | 3 | 5 | 9 | 2 | 9 |  | x | x | x | x |
| Tribe Lasiini |  |  |  |  |  |  |  |  |  |  |  |
| *Nylanderia fulva* (Mayr, 1862) | 3 | 4 | 7 | 12 | 5 | 16 | x | x | x | x | x |
| *Nylanderia* sp. 1 | 5 | 5 | 4 | 6 | 3 | 13 | x | x | x | x | x |
| *Nylanderia* sp. 2 | 0 | 0 | 0 | 1 | 0 | 0 |  |  |  | x |  |
| *Nylanderia* sp. 3 | 1 | 1 | 2 | 1 | 0 | 0 |  |  | x | x | x |
| MYMICINAE |  |  |  |  |  |  |  |  |  |  |  |
| Tribe Attini |  |  |  |  |  |  |  |  |  |  |  |
| *Acromyrmex* sp. 1 | 2 | 4 | 0 | 6 | 2 | 6 | x | x | x | x | x |
| *Acromyrmex* sp. 2 | 0 | 0 | 0 | 0 | 1 | 0 |  |  |  | x |  |
| *Cyphomyrmex* sp. 1 | 0 | 0 | 0 | 0 | 5 | 5 | x | x | x | x | x |
| *Cyphomyrmex* sp. 2 | 2 | 4 | 2 | 4 | 0 | 0 |  | x | x | x | x |
| *Cyphomyrmex* (gr.rimosus) sp. 3 | 0 | 0 | 0 | 0 | 0 | 1 |  |  | x | x |  |
| *Pheidole transversostriata* Mayr, 1887 | 3 | 4 | 8 | 9 | 7 | 12 |  | x | x | x | x |
| *Pheidole fimbriata* Roger, 1863 | 0 | 0 | 0 | 1 | 0 | 1 |  |  | x |  | x |
| *Pheidole radoszkowskii* Mayr, 1884 | 4 | 5 | 10 | 10 | 7 | 16 | x | x | x | x | x |
| *Pheidole* sp. 1 | 5 | 2 | 4 | 4 | 2 | 7 |  | x | x | x | x |
| *Pheidole* sp. 3 | 2 | 3 | 0 | 0 | 0 | 0 |  |  | x | x | x |
| *Pheidole* sp. 4 | 0 | 0 | 2 | 6 | 1 | 6 |  | x | x | x | x |
| *Trachymyrmex* sp. 1 | 0 | 0 | 0 | 1 | 0 | 0 |  |  |  | x |  |
| *Trachymyrmex* sp. 2 | 0 | 0 | 0 | 0 | 1 | 0 |  |  |  | x |  |
| *Blepharidatta brasiliensis* Wheeler, 1915 | 0 | 0 | 0 | 0 | 1 | 0 |  |  |  | x |  |
| *Wasmannia auropunctata* (Roger, 1863) | 5 | 4 | 7 | 9 | 7 | 14 | x | x | x | x | x |
| *Cephalotes pusillus*  (Klug, 1824) | 4 | 4 | 6 | 8 | 6 | 13 |  | x | x | x | x |
| *Cephalotes atratus* (Linnaeus, 1758) | 1 | 1 | 0 | 1 | 0 | 0 |  |  | x | x |  |
| *Cephalotes minutus* (Fabricius, 1804) | 0 | 1 | 1 | 0 | 0 | 0 |  |  |  | x | x |
| *Procryptocerus* sp. 1 | 0 | 0 | 0 | 1 | 0 | 0 |  | x |  |  |  |
| Tribe Crematogastrini |  |  |  |  |  |  |  |  |  |  |  |
| *Crematogaster distans* Mayr, 1870 | 2 | 3 | 9 | 12 | 4 | 9 | x | x | x | x | x |
| *Crematogaster obscurata* Emery, 1895 | 4 | 5 | 5 | 5 | 4 | 5 |  | x | x | x | x |
| *Crematogaster* sp. 3 | 0 | 0 | 0 | 0 | 0 | 2 |  | x | x |  | x |
| *Crematogaster* sp. 4 | 3 | 0 | 0 | 2 | 1 | 1 |  | x | x | x |  |
| Tribe Solenopsidini |  |  |  |  |  |  |  |  |  |  |  |
| *Solenopsis* sp. 1 | 3 | 3 | 0 | 9 | 1 | 5 | x | x | x | x | x |
| *Solenopsis* sp. 2 | 4 | 5 | 10 | 14 | 6 | 16 | x | x | x | x | x |
| *Solenopsis* sp. 3 | 0 | 1 | 0 | 1 | 0 | 0 |  | x |  |  | x |
| PONERINAE |  |  |  |  |  |  |  |  |  |  |  |
| Tribe Ponerini |  |  |  |  |  |  |  |  |  |  |  |
| *Hypoponera* sp. 1 | 1 | 3 | 0 | 1 | 0 | 0 |  | x | x | x |  |
| *Hypoponera* sp. 2 | 0 | 0 | 0 | 6 | 0 | 0 |  | x | x | x |  |
| *Leptogenys* sp. 1 | 0 | 2 | 1 | 1 | 1 | 1 |  | x |  | x |  |
| *Odontomachus* sp. 1 | 3 | 3 | 10 | 7 | 6 | 13 |  | x | x | x | x |
| *Odontomachus* sp. 2 | 0 | 0 | 0 | 0 | 2 | 0 |  |  | x | x |  |
| *Odontomachus* sp. 3 | 0 | 0 | 0 | 0 | 0 | 1 |  | x |  |  |  |
| *Pachycondyla harpax* (Fabricius, 1804) | 0 | 1 | 6 | 2 | 2 | 5 |  |  | x | x | x |
| PSEUDOMYMECINAE | 0 | 1 | 2 | 5 | 5 | 3 |  |  |  |  |  |
| Tribe Pseudomyrmini |  |  |  |  |  |  |  |  |  |  |  |
| *Pseudomyrmex termitarius* (Smith, 1855) | 3 | 4 | 8 | 8 | 5 | 6 |  | x | x | x | x |
| *Pseudomyrmex* aff. *flavidulus* (Smith, 1858) | 0 | 1 | 0 | 2 | 1 | 2 | x | x | x | x | x |
| *Pseudomyrmex gracilis* (Fabricius, 1804) | 1 | 1 | 3 | 3 | 0 | 2 |  |  | x | x | x |
| *Pseudomyrmex pallidus* (Smith, 1855) | 0 | 0 | 0 | 1 | 0 | 0 |  | x |  |  |  |