

## LISTS OF SPECIES

### Diptera, Drosophilidae: historical occurrence in Brazil

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#### Abstract:

This study presents a literature review of Drosophilidae (Diptera) species occurrence in Brazil. The number of species recorded is 304, with *Drosophila* being the genus with the greatest number of species, followed by *Zygothrica*, *Hirtodrosophila* and *Diathoneura*, which belong to the Drosophilinae subfamily. *Drosophila* was shown to be the most investigated taxon in the family, with the best resolved species distribution. The low number of records of species from other genera indicates the paucity of studies specifically designed to investigate these species. Records of species for some regions of the country like the north and northeast, as well as for some biomes like Caatinga, Pantanal and the Pampas, are likewise rare. Apart from the banana bait, different collection methods may be necessary, like the collection at other oviposition resources, the use of baits other than fermenting fruit, and the adoption of sampling approaches that do not use baits.

#### Introduction

Drosophilidae species have been described since 1787, when Fabricius characterized *Musca funebris*, which later was repositioned in a new genus and became *Drosophila funebris*, the type-species of the family. Today, Drosophilidae encompass 3,952 species distributed in 73 genera belonging to two subfamilies (Bächli 2007), Steganinae and Drosophilinae. Two monotypical genera, *Apacrochaeta* Duda 1927 and *Sphyrnoceps* de Meijere 1916, have not been included in any subfamily.

Drosophilinae is the most diversified subfamily, with 3,240 species distributed across 44 genera (Bächli 2007), among which *Drosophila* Fallén 1823 is the largest, with 1,149 species recorded. When compared to the data obtained by Ashburner (1989), the number of *Drosophila* species is smaller, because some of the subgenera it originally contained were raised to genus level, such as *Scaptodrosophila* (Duda 1923), *Hirtodrosophila* (Duda 1923) and *Lordiphosa* (Basden 1961) (Grimaldi 1990a). Moreover, several Hawaiian species and the *Antopocerus* genus (Kaneshiro 1976) were incorporated into the genus *Idiomya* Grimshaw 1901, while the subgenus *Engiscaptomyza* (Kaneshiro 1969), also

native to Hawaii, was relocated to *Scaptomyza* Hardy 1849 (Grimaldi 1990a; O'Grady et al. 2003).

The subfamily Steganinae, which conserves several primitive characteristics of the family, nowadays comprises 702 species that belong to 29 genera (Bächli 2007). The Drosophilidae genera and respective number of species are listed in Table 1.

Sturtevant (1921) studied the distribution of Drosophilidae species known in the different biogeographic zones, and originally found 82 species distributed across 13 genera in Neotropical region. Yet, nowadays these numbers are downsized to 70 and 10, respectively, as the genera *Curtonotum* (Macquart 1843), *Blaesochaetophora* (Czerny 1904) and *Aulacigaster* (Macquart 1835), which contained 12 of the species listed by Sturtevant, have been relocated into other families.

More specifically, Sturtevant (1921) reports the presence of six genera and 23 species of the family in South America. With the increase in the number of studies on the Neotropical

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fauna, some species lists were prepared in certain countries, specially for the *Drosophila* genus, like Mexico (Patterson and Mainland 1944), El Salvador (Heed 1957), Colombia (Hunter 1969), Venezuela (Hunter 1970) and Chile (Brncic 1987). These lists include the one prepared for Brazil by Mourão et al. (1965).

Thus, the lists and nomenclature studies were somehow common for *Drosophila* in the past (apart from those already mentioned, there are the studies by Patterson and Wheeler (1949),

Patterson and Stone (1952) and Wheeler (1959). Yet, the survey made by Val et al. (1981) has so far been the largest compilation of data on Neotropical drosophilids, addressing relevant knowledge of species distribution and ecology. Considering the recent taxonomy studies, specially those by G. Bächli, D. Grimaldi and C.R. Vilela, as well as the species and ecology surveys conducted, mainly those by F.M. Sene, R. Tidon, F.C. Val and V.L.S. Valente and coworkers, the panorama of Drosophilidae species distribution and diversity in Brazil has indeed been enlarged.

**Table 1.** Genera of the Drosophilidae family (based on Bächli 2007), listed in alphabetical order. Number of species described for the taxon in brackets.

| <b>Drosophilidae</b> Rondani 1856 (3952 spp.)          | (Continued Drosophilinae)                   |
|--------------------------------------------------------|---------------------------------------------|
| <b>Drosophilinae</b> Rondani 1856 (3235 spp.)          | <i>Styloptera</i> Duda 1924 (10 spp.)       |
| <i>Baeodrosophila</i> Wheeler and Takada 1964 (5 spp.) | <i>Tambourella</i> Wheeler 1957 (3 spp.)    |
| <i>Balara</i> Bock 1982 (1 sp.)                        | <i>Zaprionus</i> Coquillett 1901 (56 spp.)  |
| <i>Bialba</i> Bock 1989 (1 sp.)                        | <i>Zapriothrica</i> Wheeler 1956 (5 spp.)   |
| <i>Celidosoma</i> Hardy 1965 (1 sp.)                   | <i>Zaropunis</i> Tsacas 1990 (1 sp.)        |
| <i>Chymomyza</i> Czerny 1903 (56 spp.)                 | <i>Zygothrica</i> Wiedemann 1830 (124 spp.) |
| <i>Cladochaeta</i> Coquillett 1900 (124 spp.)          | <b>Steganinae</b> Hendel 1917 (712 spp.)    |
| <i>Collessia</i> Bock 1982 (5 spp.)                    | <i>Acletoxenus</i> McAlpine 1968 (4 spp.)   |
| <i>Colocasiomyia</i> de Meijere 1914 (26 spp.)         | <i>Allopygaea</i> Tsacas 2000 (3 spp.)      |
| <i>Dettopsomyia</i> Lamb 1914 (13 spp.)                | <i>Amiota</i> Loew 1862 (116 spp.)          |
| <i>Diathoneura</i> Duda 1924 (39 spp.)                 | <i>Apenthecia</i> Tsacas 1983 (12 spp.)     |
| <i>Dichaetophora</i> Duda 1940 (61 spp.)               | <i>Apsiphortica</i> Okada 1971 (2 spp.)     |
| <i>Dicladochaeta</i> Malloch 1932 (1 sp.)              | <i>Cacoxenus</i> Loew 1858 (36 spp.)        |
| <i>Drosophila</i> Fallen 1823 (1149 spp.)              | <i>Crincosia</i> Bock 1982 (3 spp.)         |
| <i>Hirtodrosophila</i> (Duda 1923) (158 spp.)          | <i>Electrophortica</i> Hennig 1965 (1 sp.)  |
| <i>Hypselothyrea</i> de Meijere 1906 (30 spp.)         | <i>Eostegana</i> Hendel 1913 (13 spp.)      |
| <i>Idiomyia</i> Grimshaw 1901 (380 spp.)               | <i>Erima</i> Kertész 1899 (1 sp.)           |
| <i>Jeannelopsis</i> Seguy 1938 (3 spp.)                | <i>Gitona</i> Meigen 1830 (15 spp.)         |
| <i>Laccodrosophila</i> Duda 1927 (5 spp.)              | <i>Hyalistata</i> Wheeler 1960 (6 spp.)     |
| <i>Liodrosophila</i> Duda 1922 (64 spp.)               | <i>Leucophenga</i> Mik 1886 (205 spp.)      |

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|                                                                    |                                                |
|--------------------------------------------------------------------|------------------------------------------------|
| <i>Lissocephala</i> Malloch 1929 (32 spp.)                         | <i>Luzonimyia</i> Malloch 1926 (4 spp.)        |
| <i>Lordiphosa</i> (Basden 1961) (58 spp.)                          | <i>Mayagueza</i> Wheeler 1960 (1 sp.)          |
| <i>Marquesia</i> Malloch 1932 (2 spp.)                             | <i>Neorhinoleucophenga</i> Duda 1924 (2 spp.)  |
| <i>Microdrosophila</i> Malloch 1921 (77 spp.)                      | <i>Paraleucophenga</i> Hendel 1914 (8 spp.)    |
| <i>Miomyia</i> Grimaldi 1987 (1 sp.)                               | <i>Paraphortica</i> Duda 1934 (1 sp.)          |
| <i>Mulgravea</i> Bock 1982 (14 spp.)                               | <i>Pararhinoleucophenga</i> Duda 1924 (2 spp.) |
| <i>Mycodrosophila</i> Oldenberg 1914 (118 spp.)                    | <i>Parastegana</i> Okada 1971 (3 spp.)         |
| <i>Neotanygastrella</i> Duda 1925 (18 spp.)                        | <i>Phortica</i> Schiner 1862 (97 spp.)         |
| <i>Palmomyia</i> Grimaldi in Grimaldi <i>et al.</i> 2003 (1 sp.)   | <i>Pseudiasata</i> Coquillett 1908 (6 spp.)    |
| <i>Palmophila</i> Grimaldi in Grimaldi <i>et al.</i> 2003 (2 spp.) | <i>Pseudocacoxenus</i> Duda 1925 (1 sp.)       |
| <i>Paraliodrosophila</i> Duda 1925 (4 spp.)                        | <i>Pseudostegana</i> Okada 1978 (33 spp.)      |
| <i>Paramycodrosophila</i> Duda 1924 (16 spp.)                      | <i>Pyrgometopa</i> Kertész 1901 (1 sp.)        |
| <i>Phorticella</i> Duda 1923 (11 spp.)                             | <i>Rhinoleucophenga</i> Hendel 1917 (18 spp.)  |
| <i>Poliocephala</i> Bock 1989 (1 sp.)                              | <i>Soederbomia</i> Hendel 1938 (1 sp.)         |
| <i>Protochymomyza</i> Grimaldi 1987 (1 sp.)                        | <i>Stegana</i> Meigen 1830 (116 spp.)          |
| <i>Samoia</i> Malloch 1934 (7 spp.)                                | <i>Trachyleucophenga</i> Hendel 1917 (1 sp.)   |
| <i>Scaptodrosophila</i> (Duda 1923) (279 spp.)                     | <b>Incertae sedis</b> (2 spp.)                 |
| <i>Scaptomyza</i> Hardy 1849 (262 spp.)                            | <i>Apacrochaeta</i> Duda 1927 (1 sp.)          |
| <i>Sphaerogastrella</i> Duda 1922 (10 spp.)                        | <i>Sphyrnoceps</i> de Meijere 1916 (1 sp.)     |

**Material and Methods**

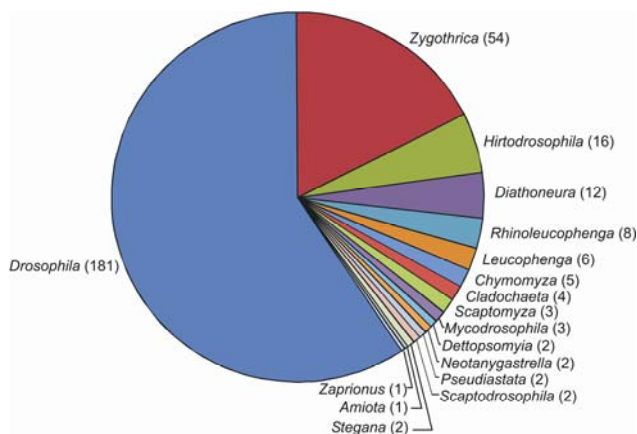
This study is a compilation of data obtained from a wide-ranging literature review of the records of Drosophilidae species in Brazil. The authors are aware that some of the extant records may not have been recovered in the survey process. The information retrieved was not necessarily wholly generated in studies on Drosophilidae taxonomy or ecology, since the studies consulted include those focused on evolution, population genetics, descriptive and comparative biology of the genus, for which several records were made over collections directed to find certain species. Only the Brazilian states where each species was recorded are indicated in the geographic distribution information.

**Results and Discussion**

The present literature review found 304 Drosophilidae species distributed in 18 genera in Brazil (Table 2, Appendix I). Among the genera recorded, *Chymomyza* Czerny 1903, *Cladochaeta* Coquillett 1900, *Dettopsomyia* Lamb 1914, *Diathoneura* Duda 1924, *Drosophila*, *Hirtodrosophila*, *Microdrosophila* Malloch 1921, *Mycodrosophila* Oldenberg 1914, *Neotanygastrella* Duda 1925, *Scaptodrosophila*, *Scaptomyza*, *Zaprionus* Coquillett 1901 and *Zygothrica* Wiedemann 1830 belong to the Drosophilinae subfamily; in turn, *Amiota* Loew 1862, *Leucophenga* Mik 1886, *Pseudiasata* Coquillett 1908, *Rhinoleucophenga* Hendel 1917 and *Stegana* Meigen 1830 rank under the Steganinae subfamily. Figure 1 shows the number

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of species recorded for each genus, revealing two prominent genera: *Drosophila* and *Zygothrica*. Ashburner (1989) mentions the probability that the American species of the *Gitona* genus in fact belong to *Rhinoleucophenga*. This classification has been accepted by Bächli (2007) and we followed suit. The genus *Microdrosophila* was collected by Val and Kaneshiro (1988) in the state of São Paulo, though no species was determined in that study. The authors point to these species as likely non-described species, and therefore they are not shown in Figure 1.



**Figure 1.** Proportion of recorded species in Brazil for each Drosophilidae genera. Number of species recorded is shown in brackets. The genus *Microdrosophila* is not shown in the figure though Val and Kaneshiro (1988) point that its species were probably non-described species in Brazil.

Thirteen species recorded are exotic - *Dettopsomyia formosa* Lamb 1914, *D. nigrovittata* Malloch 1924, *Drosophila ananassae* Doleschall 1858, *D. busckii* Coquillett 1901, *D. immigrans* Sturtevant 1921, *D. kikkawai* Burla 1954, *D. malerkotliana* Parshad and Paika 1964, *D. melanogaster* Meigen 1830, *D. simulans* Sturtevant 1919, *D. virilis* Sturtevant 1916, *Scaptodrosophila latifasciaeformis* Duda 1940, *S. lebanonensis* Wheeler 1949 and *Zaprionus indianus* Gupta 1970 - though the majority of the total number is endemic to the

New World (Malogolowkin 1946; Hardy 1959; Wheeler 1981; Grimaldi and Nguyen 1999). Yet, only *Cladochaeta*, *Diathoneura*, *Pseudiastata* and *Rhinoleucophenga* are genera for which all species are endemic to the New World (Malogolowkin 1946; Hardy 1959; Wheeler 1981; Grimaldi and Nguyen 1999). All other genera have species also in other biogeographic regions, such as *Zygothrica*, which up to the 1980's was considered an exclusive Neotropical genus (Burla, 1956) and for which some species from Africa and Samoa were only recently described (Grimaldi 1990b; Prigent and Toda 2006).

*Drosophila* was the genus with most species and the most comprehensively studied in Brazil, which is reflected in the largest size and abundance of *Drosophila* and *Sophophora* subgenera. This should come as no surprise, as *Drosophila* is widely employed in genetic, evolutionary and behavioral studies worldwide (Powell 1997). Apart from being a model organism in several fields of genetics and evolutionary biology, *Drosophila* has gained the same status in ecology and conservation investigations (Martins, 2001; Tidon et al. 2005). In the light of the fact that *Drosophila* is strongly attracted by baits prepared with fermented fruit, a considerable number of researchers have chosen the approach to collect specimens for their studies.

This feeding preference of drosophilids has made this collection methodology quite popular among researchers on the area, which explains why most studies resort to this kind of bait (Pavan 1959; Sene et al. 1980; Tidon 2006; De Toni et al. 2007; among others). This bait attracts mainly the frugivorous species, such as most drosophilid species recorded in Brazil, while species that are only seldom attracted include fungivorous, florivorous, cactophilic and leaf-mining species, and/or species that feed on decomposing wood or that show parasitic/predatory behavior.

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**Table 2.** Genera, subgenera, groups and number of species of Drosophilidae recorded in Brazil, in alphabetical order (complete data in Appendix I).

| Subfamily     | Genus                                         | Subgenus            | Group                             | Number of Species                                       |    |
|---------------|-----------------------------------------------|---------------------|-----------------------------------|---------------------------------------------------------|----|
| Drosophilinae | <i>Chymomyza</i>                              |                     | <i>aldrichii</i> Okada 1976       | 3                                                       |    |
|               |                                               |                     | <i>procnemis</i> Okada 1976       | 2                                                       |    |
|               | <i>Cladochaeta</i>                            |                     |                                   | <i>armata</i> Grimaldi and Nguyen 1999                  | 1  |
|               |                                               |                     |                                   | <i>bomplandi</i> Grimaldi and Nguyen 1999               | 1  |
|               |                                               |                     |                                   | Not assigned to group                                   | 2  |
|               |                                               | <i>Dettopsomyia</i> |                                   |                                                         | 2  |
|               |                                               | <i>Diathoneura</i>  | <i>Diathoneura</i> Duda 1924      |                                                         | 12 |
|               | <i>Drosophila</i>                             |                     | <i>Dorsilopha</i> Sturtevant 1942 | <i>busckii</i> Sperlich 1980                            | 1  |
|               |                                               |                     | <i>Drosophila</i> Fällén 1823     | <i>annulimana</i> Pavan and Cunha 1947                  | 9  |
|               |                                               |                     |                                   | <i>antioquia</i> Vilela and Bächli 2000                 | 1  |
|               |                                               |                     |                                   | <i>aureata</i> Wasserman 1982                           | 1  |
|               |                                               |                     |                                   | <i>bromeliae</i> Patterson and Stone 1952               | 4  |
|               |                                               |                     |                                   | <i>calloptera</i> Freire-Maia and Pavan 1950            | 4  |
|               |                                               |                     |                                   | <i>canalina</i> Wheeler 1957                            | 6  |
|               |                                               |                     |                                   | <i>caponei</i> Ratcov and Vilela 2007                   | 1  |
|               |                                               |                     |                                   | <i>cardini</i> Sturtevant 1942                          | 6  |
|               |                                               |                     |                                   | <i>coffeata</i> Vilela and Bächli 1990                  | 3  |
|               |                                               |                     |                                   | <i>dreyfusi</i> Patterson and Stone 1952                | 6  |
|               |                                               |                     |                                   | <i>flavopilosa</i> Wheeler et al. 1962                  | 6  |
|               |                                               |                     |                                   | <i>guarani</i> Dobzhansky and Pavan 1943                | 6  |
|               |                                               |                     |                                   | <i>immigrans</i> Sturtevant 1942                        | 1  |
|               |                                               |                     |                                   | <i>mesophragmatica</i> Brncic and Koref-Santibanez 1957 | 2  |
|               |                                               |                     |                                   | <i>morelia</i> Vilela and Bächli 2004                   | 2  |
|               | <i>onycophora</i> Vilela and Bächli 1990      | 2                   |                                   |                                                         |    |
|               | <i>pallidipennis</i> Patterson and Stone 1952 | 1                   |                                   |                                                         |    |
|               | <i>peruensis</i> Ratcov and Vilela 2007       | 3                   |                                   |                                                         |    |
|               | <i>peruviana</i> Throckmorton 1974            | 1                   |                                   |                                                         |    |
|               | <i>polychaeta</i> Sturtevant 1942             | 1                   |                                   |                                                         |    |
|               | <i>repleta</i> Sturtevant 1942                | 33                  |                                   |                                                         |    |
|               | <i>sticta</i> Clayton and Wheeler 1975        | 1                   |                                   |                                                         |    |

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| Subfamily  | Genus                   | Subgenus                                      | Group                                      | Number of Species |
|------------|-------------------------|-----------------------------------------------|--------------------------------------------|-------------------|
|            |                         |                                               | <i>tripunctata</i> Sturtevant 1942         | 42                |
|            |                         |                                               | <i>virilis</i> Patterson 1941              | 1                 |
|            |                         |                                               | Not assigned to group                      | 2                 |
|            |                         | <i>Phloridosa</i> Sturtevant 1942             |                                            | 2                 |
|            |                         | <i>Siphlodora</i> Patterson and Mainland 1944 |                                            | 1                 |
|            |                         | <i>Sophophora</i> Sturtevant 1939             | <i>melanogaster</i> Sturtevant 1927        | 5                 |
|            |                         |                                               | <i>saltans</i> Sturtevant 1940             | 12                |
|            |                         |                                               | <i>willistoni</i> Sturtevant 1940          | 13                |
|            |                         | Not assigned to subgenera                     |                                            | 2                 |
|            | <i>Hirtodrosophila</i>  |                                               | <i>hirticornis</i> (Burla 1956)            | 4                 |
|            |                         |                                               | <i>magnarcus</i> (Frota-Pessoa 1951)       | 4                 |
|            |                         |                                               | <i>thoracis</i> (Grimaldi 1987)            | 2                 |
|            |                         |                                               | Not assigned to group                      | 6                 |
|            | <i>Mycodrosophila</i>   |                                               |                                            | 3                 |
|            | <i>Neotanygastrella</i> |                                               |                                            | 2                 |
|            | <i>Scaptodrosophila</i> |                                               | <i>latifasciaeformis</i> (Burla 1954)      | 1                 |
|            |                         |                                               | <i>rufifrons</i> (Papp et al. 1999)        | 1                 |
|            | <i>Scaptomyza</i>       | <i>Mesoscaptomyza</i> Hackman 1959            | <i>vittata</i> Wheeler 1952                | 2                 |
|            |                         |                                               | Not assigned to group                      | 1                 |
|            | <i>Zaprionus</i>        | <i>Zaprionus</i> Coquillett 1901              | <i>armatus</i> Chassagnard and Tsacas 1993 | 1                 |
|            | <i>Zygothrica</i>       |                                               | <i>atriangula</i> Burla 1956               | 6                 |
|            |                         |                                               | <i>bilineata</i> Grimaldi 1987             | 1                 |
|            |                         |                                               | <i>candens</i> Burla 1956                  | 1                 |
|            |                         |                                               | <i>dispar</i> Burla 1956                   | 15                |
|            |                         |                                               | <i>fuscina</i> Grimaldi 1987               | 2                 |
|            |                         |                                               | <i>hypandriata</i> Grimaldi 1987           | 3                 |
|            |                         |                                               | <i>orbitalis</i> Grimaldi 1987             | 1                 |
|            |                         |                                               | <i>virgatalba</i> Grimaldi 1987            | 1                 |
|            |                         |                                               | <i>vittatifrons</i> Burla 1956             | 6                 |
|            |                         |                                               | <i>vittamaculosa</i> Grimaldi 1987         | 2                 |
|            |                         |                                               | Not assigned to group                      | 16                |
| Steganinae | <i>Amiota</i>           | <i>Amiota</i> Loew 1862                       |                                            | 1                 |
|            | <i>Leucophenga</i>      | <i>Leucophenga</i> Mik 1886                   |                                            | 6                 |
|            | <i>Pseudiasata</i>      | <i>Pseudiasata</i> Coquillett 1908            |                                            | 2                 |
|            | <i>Rhinoleucophenga</i> |                                               |                                            | 8                 |
|            | <i>Stegana</i>          | <i>Ceratostylus</i> Enderlein 1922            |                                            | 1                 |
|            |                         | <i>Steganina</i> Wheeler 1960                 |                                            | 1                 |

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This large volume of information on one same taxon is highly relevant for the knowledge on the dynamics of the Neotropical fauna, as it is only based on model organisms or taxa that researchers may clarify issues related to biodiversity, species interaction, metapopulation dynamics, endemism areas and others.

In spite of the several studies on *Drosophila* conducted in Brazil as a whole, these studies do not evenly cover all the country's territory (Table 3, Figure 2). Most species have been recorded in southeastern Brazil, where the research on *Drosophila* actually started with some studies conducted at specific collection sites. Some surveys have lately been carried out in southern Brazil, specially on the coast of the State of Santa Catarina, where recent species surveys are being conducted by

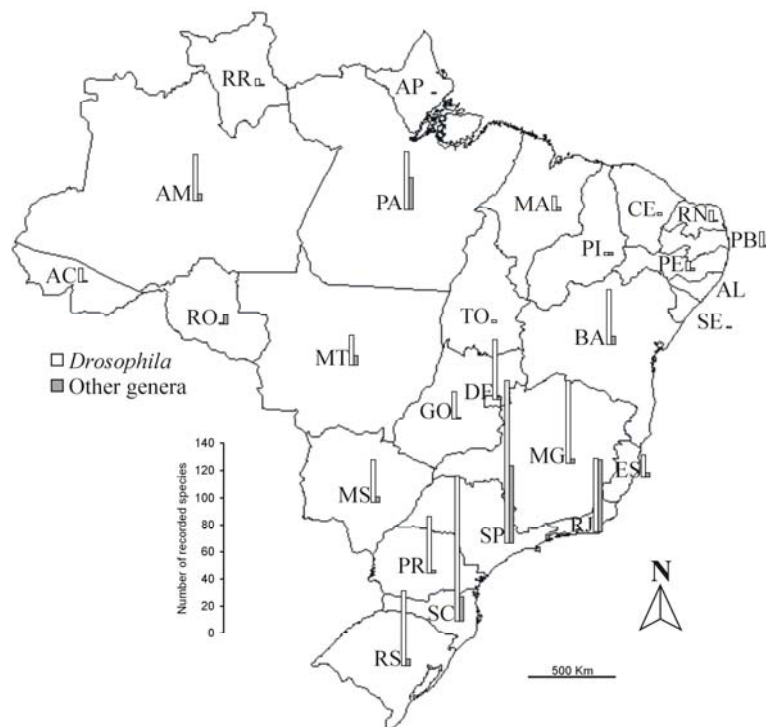
research groups of P.R.P. Hofmann and V.L.S. Valente.

Generally speaking, the northeastern region of the country has produced a relatively small number of records (with the exception of the state of Bahia). Northern Brazil likewise remains little explored, as the number of species expected for the region should be at least similar to that for southeastern and southern Brazil, due to the Amazon biome. If the endemism rates are similar across the different Brazilian biomes, then the Amazon should have the highest species richness, as the area the biome covers exceeds that of the Atlantic Forest biome. The main records for species from the north were generated in ground-breaking papers, such as those by Duda (1925; 1927), and some more recent investigations (Martins 2001; Silva and Martins 2004; De Toni et al. 2005).

**Table 3.** Number of *Drosophila* species and other genera recorded in each Brazilian state.

| Region      | Brazilian states    |    | <i>Drosophila</i> | Other genera |
|-------------|---------------------|----|-------------------|--------------|
| North       | Acre                | AC | 10                | 1            |
|             | Amapá               | AP | 0                 | 1            |
|             | Amazonas            | AM | 34                | 5            |
|             | Pará                | PA | 42                | 24           |
|             | Rondônia            | RO | 1                 | 7            |
|             | Roraima             | RR | 5                 | 1            |
|             | Tocantins           | TO | 2                 | 0            |
| Northeast   | Alagoas             | AL | 0                 | 0            |
|             | Bahia               | BA | 41                | 6            |
|             | Ceará               | CE | 2                 | 0            |
|             | Maranhão            | MA | 11                | 3            |
|             | Paraíba             | PB | 11                | 1            |
|             | Pernambuco          | PE | 7                 | 2            |
|             | Piauí               | PI | 2                 | 2            |
|             | Rio Grande do Norte | RN | 8                 | 1            |
|             | Sergipe             | SE | 1                 | 0            |
|             | Distrito Federal    | DF | 44                | 2            |
| Center-West | Goiás               | GO | 20                | 1            |
|             | Mato Grosso         | MT | 23                | 7            |
|             | Mato Grosso do Sul  | MS | 31                | 4            |
| Southeast   | Espirito Santo      | ES | 16                | 3            |
|             | Minas Gerais        | MG | 61                | 3            |
|             | Rio de Janeiro      | RJ | 54                | 53           |
|             | São Paulo           | SP | 120               | 57           |
| South       | Paraná              | PR | 42                | 2            |
|             | Rio Grande do Sul   | RS | 56                | 5            |
|             | Santa Catarina      | SC | 107               | 18           |

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**Figure 2.** Number of *Drosophila* species and other genera recorded in each Brazilian state. The code for each state is presented in Table 3.

Another relevant aspect on is the lack of information on other genera, apart from *Drosophila*, as all species records are for the states of São Paulo and Rio de Janeiro. These records are sporadic, and the number of studies conducted to investigate these groups in Brazil is very small, when compared to the number of studies on *Drosophila*. For example, most records for *Rhinoleucophenga* are from one study only (Malogolowkin 1946). Records absence may be associated to the need for a taxonomic review for some genera, like *Amiota*, *Leucophenga*, *Microdrosophila*, *Mycodrosophila*, *Pseudiastata*, *Rhinoleucophenga*, *Scaptomyza* and *Stegana*. Most species from these genera were described before the 1970's, and the characteristics adopted in the descriptions are unsatisfactory for an ideal characterization of the collected material, since detailed descriptions of male genitalia are required to properly identify collected specimens.

Apart from this, 95 out of the 304 Drosophilidae species in Brazil have one single record. From

these 95 single-record, 43 belong to *Drosophila* and the other 52 belong to genera *Chymomyza* (four species), *Cladochaeta* (two species), *Diathoneura* (eight species), *Hirtodrosophila* (nine species), *Leucophenga* (three species), *Mycodrosophila* (one species), *Neotanygastrella* (one species), *Rhinoleucophenga* (five species), *Scaptodrosophila* (one species), *Scaptomyza* (one species) and *Stegana* (one species) (Appendix I).

Val et al. (1981) mention that a large number of Drosophilidae has not been given the deserved attention by researchers. Such scenario has not changed since 1981. Grimaldi (1987) and Grimaldi and Nguyen (1999) report the paucity of information on the genera *Zygothrica* and *Cladochaeta* in South America, specially in Brazil, where only four from 124 *Cladochaeta* described species have been collected.

Yet another aspect that points to the workload expected for researchers on drosophilids is that a considerable number of our species has few



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records, and in many cases only type locality is known (Val et al. 1981). *Zygothrica* records for the state of São Paulo, for instance, were virtually all listed by Val and Kaneshiro (1988).

This scenario is common for most Neotropical Diptera families (Brown 2005). Many Diptera species have not even been formally described. Wheeler (1986) estimated that roughly 30% of *Drosophila* species still remained to be described. Such number was very likely a underestimation, as after 20 years the number of *Drosophila* species of that time increased by 27%, and even so there is little doubt that all *Drosophila* species have been described. In 1988, Val and Kaneshiro stated that nearly 50% of the *Drosophila* species captured in the “Estação Biológica de Boracéia” in the state of São Paulo (the Brazilian state most thoroughly sampled) had never been described. The same was observed for the recent collections conducted by Medeiros and Klaczko (2004). Similar situation was seen in the State of Santa Catarina, where roughly 60 Drosophilidae species collected are yet to be described.

In order to assemble a comprehensive databank for ecological and environmental studies, it is important to complete the roll call of *Drosophila*

species with banana baits across the remaining Brazilian territory. Such importance is explained by the great value drosophilids have as model organisms, even as bioindicators, for a variety of studies (Parsons 1991; Martins 2001; Tidon 2006). At the same time, it is crucial to describe any new species being collected in the territory.

Moreover, as a considerable part of drosophilid material deposited in zoological collections remains uncharacterized, a review of some genera - as said before - and of that material gains relevance to the assessment of Brazilian biodiversity. Also, collection strategies that resort to fruits other than banana are needed, such as the (1) collection at resources onto which Drosophilidae species lay their eggs - as native fruits, fungi, flowers and decomposing leaves, (2) collection using baits with other fermenting fruits, and (3) sampling approaches that do not utilize baits. With this in mind, Malaise baits, which have proved their efficiency to capture Diptera (Brown 2005), could be used. Also, these sample collections should include the different Brazilian biomes — the Atlantic Forest, the Amazon, the Cerrado, the Caatinga, Pantanal and Pampas (IBGE 2006), as the last three are mostly unexplored for the occurrence of the Drosophilid fauna.

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**Appendix I.** List of Drosophilidae species occurring in Brazil. The municipality of the type locality is informed, when available. Numbers after each Brazilian state in the geographical distribution show the studies in which records are made. The code for each state is presented in Table 3.

### Drosophilidae family

#### Drosophilinae subfamily

#### Chymomyza genus

##### aldrichii group

##### 1. *Chymomyza bicoloripes* (Malloch)

*Drosophila bicoloripes* Malloch 1926:31.

*Chymomyza maculipennis* Hendel 1936:97.

Type locality: Higuito, San Mateo, Costa Rica.

Geographical distribution: PA<sup>1</sup>.

##### 2. *Chymomyza laevilimbata* Duda

*Chymomyza laevilimbata* Duda 1927:65.

Type locality: Pichis, Peru.

Geographical distribution: [localities not mentioned]<sup>2,3</sup>.

##### 3. *Chymomyza mesopecta* Wheeler

*Chymomyza mesopecta* Wheeler 1968:435.

Type locality: Lima, Peru.

Geographical distribution: SC<sup>4</sup>.

##### procnemis group

##### 4. *Chymomyza pectinifemur* Duda

*Chymomyza pectinifemur* Duda 1927:66.

Type locality: Petrópolis, Rio de Janeiro, Brazil.

Geographical distribution: RJ<sup>5</sup>.

##### 5. *Chymomyza procnemis* (Williston)

*Drosophila procnemis* Williston 1896:412.

Type locality: Saint Vicente, West Indians.

Geographical distribution: MT<sup>6</sup>.

#### Cladochaeta genus

##### armata group

##### 6. *Cladochaeta armata* (Frota-Pessoa)

*Clastopterymyia armata* Frota-Pessoa 1947:195.

Type locality: Campos de Jordão, São Paulo, Brazil.

Geographical distribution: SP<sup>7,8</sup>; RJ<sup>7</sup>; SC<sup>8</sup>.

##### bomplandi group

##### 7. *Cladochaeta bomplandi* (Malloch)

*Diathoneura bomplandi* Malloch 1934:438.

Type locality: Bonpland, Misiones, Argentina.

Geographical distribution: SP<sup>7,8</sup>; SC<sup>8,9</sup>.

Not assigned to group

##### 8. *Cladochaeta minuta* (Duda)

*Diathoneura minuta* Duda 1925:182.

Type locality: Buenaventura, Colombia.

Geographical distribution: RJ<sup>5,7</sup>.

##### 9. *Cladochaeta travassosi* (Frota-Pessoa)

*Clastopterymyia travassosi* Frota-Pessoa 1947:214.

Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.

Geographical distribution: RJ<sup>7,8</sup>.

#### Dettopsomyia genus

##### 10. *Dettopsomyia formosa* Lamb

*Dettopsomyia formosa* Lamb 1914:350.

Type locality: Mahe, Seychelles.

Geographical distribution: [localities not mentioned]<sup>3</sup>.

##### 11. *Dettopsomyia nigrovittata* (Malloch)

*Drosophila nigrovittata* Malloch 1924:352.

*Dettopsomyia argentifrons* Okada 1956:55.

Type locality: Sydney, Australia.

Geographical distribution: [localities not mentioned]<sup>3</sup>.

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*Diathoneura* genus

*Diathoneura* subgenus

12. *Diathoneura albinota* (Wheeler)  
*Clastopterymyia albinota* Wheeler, 1957:108.  
Type locality: Cerro la Campana, Panama.  
Geographical distribution: [localities not mentioned]<sup>10</sup>.
13. *Diathoneura bicolor* (Frota-Pessoa)  
*Clastopterymyia bicolor* Frota-Pessoa 1947:211.  
Type locality: Campos de Jordão, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>7</sup>.
14. *Diathoneura borgmeieri* Duda  
*Diathoneura borgmeieri* Duda 1927:92.  
Type locality: Petrópolis, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>5,7,11</sup>.
15. *Diathoneura brasiliensis* Duda  
*Diathoneura brasiliensis* Duda 1927:93.  
Type locality: Petrópolis, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>5,7,11</sup>; **SC**<sup>9,12</sup>.
16. *Diathoneura carrerai* (Frota-Pessoa)  
*Clastopterymyia carrerai* Frota-Pessoa 1947:200.  
Type locality: Cantareira, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>7,13,14</sup>.
17. *Diathoneura cavalcantii* (Frota-Pessoa)  
*Clastopterymyia cavalcantii* Frota-Pessoa 1947:204.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>7</sup>.
18. *Diathoneura iheringi* (Frota-Pessoa)  
*Clastopterymyia iheringi* Frota-Pessoa 1947:206.  
Type locality: Petrópolis, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>7</sup>.
19. *Diathoneura lopesi* (Frota-Pessoa)  
*Clastopterymyia lopesi* Frota-Pessoa 1947:213.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>7</sup>; **BA**<sup>15</sup>.
20. *Diathoneura opaca* (Williston)  
*Drosophila opaca* Williston 1896:411.  
Type locality: Saint Vicente, West Indians.  
Geographical distribution: **RJ**<sup>7</sup>.
21. *Diathoneura montei* (Frota-Pessoa)  
*Clastopterymyia montei* Frota-Pessoa 1947:210.  
Type locality: Petrópolis, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>7,13</sup>.
22. *Diathoneura pilifrons* (Frota-Pessoa)  
*Clastopterymyia pilifrons* Frota-Pessoa 1947:208.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>7</sup>.
23. *Diathoneura splendida* (Williston)  
*Drosophila splendida* Williston 1896:412.  
Type locality: Saint Vicente, West Indians.  
Geographical distribution: **RJ**<sup>7</sup>.

*Drosophila* genus

*Drosophila* subgenus

*busckii* group

24. *Drosophila busckii* Coquillett  
*Drosophila busckii* Coquillett 1901:18 (as *busckii* lapsus).  
*Drosophila rubrostriata* Becker 1908:155.  
*Drosophila plurilineata* Villeneuve 1911:83.  
Type locality: Washington, USA.  
Geographical distribution: **BA**<sup>16</sup>; **DF**<sup>17,18,19,20,21</sup>; **GO**<sup>22</sup>; **MG**<sup>16,23,24</sup>; **MS**<sup>17</sup>; **PR**<sup>25</sup>; **RJ**<sup>5,17</sup>; **RS**<sup>26,27,28,29,30,31</sup>; **SC**<sup>9,12,17,32</sup>; **SP**<sup>14,17,33,34</sup>.

*Drosophila* subgenus

*annulimana* group

25. *Drosophila annulimana* Duda  
*Drosophila annulimana* Duda 1927:117  
Type locality: Mapiri, Bolivia.  
Geographical distribution: **AM**<sup>35</sup>; **MG**<sup>24</sup>; **SC**<sup>9,12,32,36</sup>; **SP**<sup>14,17,22,25,37,38,39</sup>.

26. *Drosophila aragua* Vilela and Pereira  
*Drosophila aragua* Vilela and Pereira 1982:237.  
Type locality: Santa Maria da Serra, São Paulo, Brazil.  
Geographical distribution: **DF**<sup>20,21</sup>; **SP**<sup>33,38,39</sup>.

27. *Drosophila araicas* Pavan and Nacur  
*Drosophila araicas* Pavan and Nacur 1950:264.  
Type locality: Pirassununga, São Paulo, Brazil.  
Geographical distribution: **AM**<sup>35</sup>; **PA**<sup>13</sup>; **SP**<sup>40</sup>.

28. *Drosophila arapuan* Cunha and Pavan  
*Drosophila arapuan* Cunha and Pavan, in Pavan and Cunha 1947:36.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **RJ**<sup>41</sup>; **SC**<sup>9</sup>; **SP**<sup>13,38,39</sup>.

29. *Drosophila ararama* Pavan and Cunha  
*Drosophila ararama* Pavan and Cunha 1947:28.  
Type locality: Bertioga, São Paulo, Brazil.  
Geographical distribution: **BA**<sup>15,17</sup>; **DF**<sup>20,21</sup>; **MG**<sup>24</sup>; **MS**<sup>17</sup>; **PA**<sup>38</sup>; **SC**<sup>12,36</sup>; **SP**<sup>13,17,34,39,41,42</sup>.

30. *Drosophila arassari* Cunha and Frota-Pessoa  
*Drosophila arassari* Cunha and Frota-Pessoa, in Pavan and Cunha 1947:32.  
Type locality: Campos de Jordão, São Paulo, Brazil.  
Geographical distribution: **MG**<sup>17</sup>; **SC**<sup>9,12,32,36</sup>; **SP**<sup>13,38,41</sup>.

31. *Drosophila arauana* Pavan and Nacur  
*Drosophila arauana* Pavan and Nacur 1950:268.  
Type locality: Pirassununga, São Paulo, Brazil.  
Geographical distribution: **DF**<sup>20,21</sup>; **SP**<sup>13,38,40</sup>.

32. *Drosophila schineri* Pereira and Vilela  
*Drosophila schineri* Pereira and Vilela 1987:15.  
Type locality: Peruibe, São Paulo, Brazil.  
Geographical distribution: **RS**<sup>43</sup>; **SC**<sup>9,12,32</sup>; **SP**<sup>38,44</sup>.

33. *Drosophila tarsata* Schiner  
*Drosophila tarsata* Schiner 1868:240.  
Type locality: Venezuela.  
Geographical distribution: **SC**<sup>9,45</sup>.
- antioquia* group

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34. *Drosophila freiremaiai* Vilela and Bächli  
*Drosophila freiremaiai* Vilela and Bächli 2000:58.  
Type locality: Marko, Amazonas, Brazil.  
Geographical distribution: AM<sup>46</sup>.

*aureata* group

35. *Drosophila aureata* Wheeler  
*Drosophila aureata* Wheeler 1957:83.  
Type locality: San Jose, Costa Rica.  
Geographical distribution: MG<sup>24</sup>.

*bromeliae* group

36. *Drosophila aguape* Val and Marques  
*Drosophila aguape* Val and Marques 1996:224.  
Type locality: Taiamã, Mato Grosso, Brazil.  
Geographical distribution: MT<sup>47</sup>.

37. *Drosophila bromeliae* Sturtevant  
*Drosophila bromeliae* Sturtevant 1921:72.  
Type locality: Havana, Cuba.  
Geographical distribution: SP<sup>48</sup>.

38. *Drosophila bromelioides* Pavan and Cunha  
*Drosophila bromelioides* Pavan and Cunha 1947:7.  
Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: BA<sup>15</sup>, MG<sup>24</sup>, RJ<sup>49</sup>, RS<sup>26, 50</sup>, SC<sup>9</sup>,  
12, 32, 50, SP<sup>41</sup>.

39. *Drosophila speciosa* Silva and Martins  
*Drosophila speciosa* Silva and Martins 2004:435.  
Type locality: Belém, Pará, Brazil.  
Geographical distribution: PA<sup>51</sup>.

*calloptera* group

40. *Drosophila atrata* Burla and Pavan  
*Drosophila atrata* Burla and Pavan 1953:307.  
Type locality: Pirassununga, São Paulo, Brazil.  
Geographical distribution: BA<sup>52</sup>, DF<sup>20, 21</sup>, MG<sup>52</sup>, PA<sup>52</sup>, RJ<sup>17, 52</sup>,  
RS<sup>26</sup>, SC<sup>9, 12, 32, 45, 53</sup>, SP<sup>13, 14, 17, 39, 52, 54</sup>.

41. *Drosophila calloptera* Schiner  
*Drosophila calloptera* Schiner 1868:239.  
*Paramycodrosophila tephritoptera* Hendel 1936:95.  
Type locality: Venezuela.  
Geographical distribution: AC<sup>52</sup>, AM<sup>52</sup>, PA<sup>1, 52</sup>, PE<sup>52</sup>, RJ<sup>5</sup>,  
52, SC<sup>9</sup>, SP<sup>52, 55, 56</sup>.

42. *Drosophila quadrum* (Wiedemann)  
*Trypeta quadrum* Wiedemann 1830:507.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: SC<sup>9, 12, 32, 36</sup>, SP<sup>14, 17, 39, 52</sup>, RS<sup>26</sup>,  
52.

43. *Drosophila schildi* Malloch  
*Drosophila schildi* Malloch 1924:10.  
*Paramycodrosophila poeciloptera* Duda 1925:226.  
*Drosophila poecila* Burla and Pavan 1953:311.  
Type locality: Higuito, San Mateo, Costa Rica.  
Geographical distribution: DF<sup>20, 21</sup>, RJ<sup>5</sup>, SC<sup>9</sup>, SP<sup>39, 52</sup>.

*canalinae* group

44. *Drosophila albomarginata* Duda

*Drosophila albomarginata* Duda 1927:173.  
Type locality: Mapiri, Bolivia.  
Geographical distribution: SP<sup>39</sup>.

45. *Drosophila canalinea* Patterson and Mainland  
*Drosophila canalinea* Patterson and Mainland 1944:50.  
Type locality: San Juan, Veracruz, Mexico.  
Geographical distribution: AM<sup>35</sup>, CE<sup>57</sup>, GO<sup>58</sup>, PA<sup>58</sup>, SP<sup>34</sup>,  
39, 58.

46. *Drosophila davidgrimaldii* Vilela and Bächli  
*Drosophila davidgrimaldii* Vilela and Bächli 1990:58.  
Type locality: Suiza, Turrialba, Costa Rica.  
Geographical distribution: PA<sup>11</sup>.

47. *Drosophila hendeli* Vilela and Bächli  
*Drosophila hendeli* Vilela and Bächli 1990:59.  
Type locality: Santarém, Pará, Brazil.  
Geographical distribution: PA<sup>11</sup>.

48. *Drosophila piratininga* Ratcov and Vilela  
*Drosophila piratininga* Ratcov and Vilela 2007:337.  
Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: PR<sup>59</sup>, SP<sup>59</sup>.

49. *Drosophila sampa* Ratcov and Vilela  
*Drosophila sampa* Ratcov and Vilela 2007:339.  
Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: SP<sup>59</sup>.

*caponei* group

50. *Drosophila caponei* Pavan and Cunha  
*Drosophila caponei* Pavan and Cunha 1947:4.  
Type locality: Mongaguá, São Paulo, Brazil.  
Geographical distribution: MG<sup>23, 24</sup>, SC<sup>9, 12, 32</sup>, SP<sup>13, 22, 39, 41</sup>,  
60.

*cardini* group

*cardini* subgroup

51. *Drosophila cardini* Sturtevant  
*Drosophila cardini* Sturtevant 1916:336.  
Type locality: Havana, Cuba.  
Geographical distribution: AM<sup>35, 61, 62</sup>, BA<sup>16, 63</sup>, DF<sup>18, 19, 20, 21</sup>,  
63, MG<sup>16, 24, 23, 63</sup>, MS<sup>63</sup>, PA<sup>64</sup>, PB<sup>63</sup>, PR<sup>25, 63</sup>, RJ<sup>43, 63, 64</sup>,  
RN<sup>63</sup>, RS<sup>28, 63</sup>, SC<sup>12, 32, 63</sup>, SP<sup>14, 25, 39, 63, 64</sup>.

52. *Drosophila cardinoides* Dobzhansky and Pavan  
*Drosophila cardinoides* Dobzhansky and Pavan 1943:21.  
Type locality: Iporanga, São Paulo, Brazil.  
Geographical distribution: AC<sup>22</sup>, AM<sup>22, 35, 48, 64</sup>, BA<sup>22, 63</sup>, DF<sup>19, 20, 21, 63</sup>,  
ES<sup>63</sup>, GO<sup>22</sup>, MA<sup>22</sup>, MG<sup>23, 24, 56</sup>, MS<sup>63</sup>, PA<sup>22, 58</sup>,  
64, 65, PR<sup>22, 63</sup>, RJ<sup>37, 63</sup>, RO<sup>22</sup>, RR<sup>22</sup>, RS<sup>22, 26, 27, 28, 29, 30, 31, 43</sup>,  
63, 65, 66, 67, SC<sup>9, 12, 32, 36, 45, 63</sup>, SP<sup>13, 14, 22, 37, 58, 63, 64, 68</sup>.

53. *Drosophila neocardini* Streisinger  
*Drosophila neocardini* Streisinger 1946:111.  
Type locality: Teffé, Amazonas, Brazil.  
Geographical distribution: AC<sup>22</sup>, AM<sup>13, 22, 57, 69</sup>, BA<sup>22, 63</sup>, DF<sup>20, 21</sup>,  
MG<sup>23, 24, 56</sup>, MS<sup>63</sup>, PR<sup>63</sup>, RJ<sup>64, 65</sup>, RS<sup>30, 31, 63</sup>, SC<sup>9, 12</sup>,  
32, 36, 45, 53, 63, SP<sup>14, 22, 39, 63, 64, 70</sup>.

54. *Drosophila neomorpha* Heed and Wheeler

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*Drosophila neomorpha* Heed and Wheeler 1957:33.  
Type locality: Arima Valley, Trinidad.  
Geographical distribution: **MT**<sup>53</sup>, **PA**<sup>53</sup>, **SC**<sup>53</sup>.

55. *Drosophila parthenogenetica* Stalker  
*Drosophila parthenogenetica* Stalker 1953:347.  
Type locality: Atlixco, Puebla, Mexico.  
Geographical distribution: **AM**<sup>53</sup>, **MT**<sup>53</sup>, **PA**<sup>53</sup>, **SC**<sup>53</sup>.

56. *Drosophila polymorpha* Dobzhansky and Pavan  
*Drosophila polymorpha* Dobzhansky and Pavan 1943:19.  
Type locality: Bertioiga, São Paulo, Brazil.  
Geographical distribution: **AC**<sup>22</sup>, **AM**<sup>35</sup>, **BA**<sup>15, 22, 63</sup>, **DF**<sup>18, 19, 20, 21, 63</sup>, **ES**<sup>63</sup>, **GO**<sup>71</sup>, **MA**<sup>22, 58</sup>, **MG**<sup>16, 24, 37, 56, 63</sup>, **MS**<sup>63</sup>, **MT**<sup>22</sup>, **PA**<sup>22, 56, 58</sup>, **PR**<sup>22, 25, 58, 63</sup>, **RJ**<sup>22, 37, 63</sup>, **RR**<sup>22</sup>, **RS**<sup>22, 26, 27, 28, 29, 30, 31, 37, 43, 63, 65, 67, 72</sup>, **SC**<sup>9, 12, 32, 36, 45, 53, 63, 73</sup>, **SP**<sup>13, 14, 22, 25, 33, 34, 37, 39, 55, 56, 58, 60, 63</sup>.

*coffeata* group

57. *Drosophila coffeata* Williston  
*Drosophila coffeata* Williston 1896:409.  
*Drosophila flavolineata* Duda 1927:157.  
*Drosophila umbripennis* Hendel 1936:99.  
Type locality: Saint Vicente, West Indians.  
Geographical distribution: **PA**<sup>1, 11, 74</sup>, **SC**<sup>32</sup>, **SP**<sup>57</sup>.

58. *Drosophila fuscolineata* Duda  
*Drosophila fuscolineata* Duda 1925:213.  
*Drosophila castanea* Patterson and Mainland 1944:51.  
*Drosophila fumosa* Pavan and Cunha 1947:31.  
Type locality: Suiza, Turrialba, Costa Rica.  
Geographical distribution: **DF**<sup>20, 21</sup>, **GO**<sup>58</sup>, **MG**<sup>23, 24</sup>, **PA**<sup>58</sup>, **SC**<sup>9, 12, 32</sup>, **SP**<sup>22, 34, 39, 41, 58</sup>.

59. *Drosophila pagliolii* Cordeiro  
*Drosophila pagliolii* Cordeiro 1963:401.  
Type locality: Santa Maria, Rio Grande do Sul, Brazil.  
Geographical distribution: **DF**<sup>75</sup>, **RS**<sup>75</sup>.

*dreyfusi* group

60. *Drosophila briegei* Pavan and Breuer  
*Drosophila briegei* Pavan and Breuer 1954:459.  
Type locality: Mongaguá, São Paulo, Brazil.  
Geographical distribution: **BA**<sup>76</sup>, **SC**<sup>9, 12</sup>, **SP**<sup>13, 39, 77, 78</sup>.

61. *Drosophila camargoi* Dobzhansky and Pavan  
*Drosophila camargoi* Dobzhansky and Pavan, in Pavan 1950:6.  
Type locality: Belém, Pará, Brazil.  
Geographical distribution: **AC**<sup>22, 74</sup>, **AM**<sup>35, 74</sup>, **MA**<sup>74</sup>, **PA**<sup>13, 22, 56, 58, 74, 77</sup>.

62. *Drosophila decemseriata* Hendel  
*Drosophila decemseriata* Hendel 1936:98.  
Type locality: Santarém, Pará, Brazil.  
Geographical distribution: **PA**<sup>1, 11</sup>.

63. *Drosophila dreyfusi* Dobzhansky and Pavan  
*Drosophila dreyfusi* Dobzhansky and Pavan 1943:61.  
Type locality: Mogi das Cruzes, São Paulo, Brazil.  
Geographical distribution: **MG**<sup>24</sup>, **SC**<sup>9, 12, 36</sup>, **SP**<sup>13, 14, 17, 37, 39,</sup>

48, 77.

64. *Drosophila krugi* Pavan and Breuer  
*Drosophila krugi* Pavan and Breuer 1954:462.  
Type locality: Cantareira, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>13, 14, 39, 77, 78</sup>.

65. *Drosophila wingei* Cordeiro  
*Drosophila wingei* Cordeiro 1964:1.  
Type locality: Torres, Rio Grande do Sul, Brazil.  
Geographical distribution: **RS**<sup>76</sup>.

*flavopilosa* group

66. *Drosophila cestri* Brncic  
*Drosophila cestri* Brncic 1978:651.  
Type locality: Sapucaia, Rio Grande do Sul, Brazil.  
Geographical distribution: **RS**<sup>13, 43, 79, 80</sup>, **SP**<sup>81, 82, 83</sup>.

67. *Drosophila corderoi* Brncic  
*Drosophila corderoi* Brncic 1978:649.  
Type locality: Porto Alegre, Rio Grande do Sul, Brazil.  
Geographical distribution: **RS**<sup>13, 79</sup>, **SP**<sup>81, 82, 83</sup>.

*flavopilosa* subgroup

68. *Drosophila flavopilosa* Frey  
*Drosophila flavopilosa* Frey 1919:14.  
*Drosophila dentata* Duda 1927:201 (pre-occupied).  
Type locality: Valparaiso, Chile.  
Geographical distribution: **RS**<sup>79</sup>.

69. *Drosophila hollisae* Vilela and Pereira  
*Drosophila hollisae* Vilela and Pereira 1992:478.  
Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>82, 83</sup>.

*nesiota* subgroup

70. *Drosophila incompta* Wheeler and Takada  
*Drosophila incompta* Wheeler and Takada, in Wheeler et al. 1962:408.  
Type locality: Almirante, Bocas del Toro, Panama.  
Geographical distribution: **RS**<sup>13, 43, 79, 80, 84</sup>, **SP**<sup>81, 82, 83</sup>.

71. *Drosophila mariaehelenae* Vilela  
*Drosophila mariaehelenae* Vilela 1984:64.  
Type locality: Santa Izabel, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>81, 82, 83</sup>.

*guarani* group

72. *Drosophila alexandrei* Cordeiro  
*Drosophila alexandrei* Cordeiro 1951:1.  
Type locality: Emboaba, Rio Grande do Sul, Brazil.  
Geographical distribution: **RS**<sup>85</sup>.

*guarani* subgroup

73. *Drosophila guaru* Dobzhansky and Pavan  
*Drosophila guaru* Dobzhansky and Pavan 1943:37.  
Type locality: Amalia, São Paulo, Brazil.  
Geographical distribution: **DF**<sup>20, 21</sup>, **SC**<sup>9</sup>, **SP**<sup>11, 13, 25, 34, 37, 39</sup>.

74. *Drosophila ornatifrons* Duda  
*Drosophila ornatifrons* Duda 1927:162.

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*Drosophila guarani* Dobzhansky and Pavan 1943:36.

Type locality: Petrópolis, Rio de Janeiro, Brazil.

Geographical distribution: **AM**<sup>35</sup>, **BA**<sup>16</sup>, **DF**<sup>18, 20, 21</sup>, **MG**<sup>23</sup>,  
**PR**<sup>25</sup>, **RJ**<sup>5, 11, 37</sup>, **RS**<sup>26, 28, 29, 72</sup>, **SC**<sup>9, 12, 32, 36</sup>, **SP**<sup>11, 13, 14, 17,</sup>  
<sup>25, 37, 39, 42, 55, 70</sup>.

*guaramunu* subgroup

75. *Drosophila griseolineata* Duda

*Drosophila griseolineata* Duda 1927:161.

Type locality: Mapiri, Bolivia.

Geographical distribution: **BA**<sup>17</sup>, **ES**<sup>17</sup>, **MG**<sup>16, 24, 56</sup>, **PR**<sup>17, 22</sup>,  
**RJ**<sup>11, 13, 17, 37</sup>, **RS**<sup>17, 26, 27, 28, 29, 30, 31, 43, 66, 72</sup>, **SC**<sup>9, 12, 17, 36, 45, 53</sup>,  
**SP**<sup>14, 17, 22, 37, 39, 55, 58, 70</sup>.

76. *Drosophila guaraja* King

*Drosophila guaraja* King 1947:48.

*Drosophila pulla* Pavan and Cunha 1947:10.

Type locality: Campos de Jordão, São Paulo, Brazil.

Geographical distribution: **MG**<sup>17, 23, 24</sup>, **PR**<sup>25</sup>, **SC**<sup>9, 12, 32</sup>, **SP**<sup>11, 13, 14, 41, 86</sup>.

77. *Drosophila maculifrons* Duda

*Drosophila maculifrons* Duda 1927:122.

*Drosophila guaramunu* Dobzhansky and Pavan 1943:39.

Type locality: Rosalina, Peru.

Geographical distribution: **DF**<sup>17, 18, 20, 21</sup>, **ES**<sup>17</sup>, **MG**<sup>23, 24</sup>, **MT**<sup>22, 58</sup>,  
**MS**<sup>17</sup>, **PR**<sup>17, 22, 25, 58</sup>, **RJ**<sup>37</sup>, **RS**<sup>17, 22, 26, 27, 28, 29, 43, 66, 67, 72</sup>,  
**SC**<sup>9, 12, 32, 36</sup>, **SP**<sup>11, 13, 14, 17, 22, 25, 37, 39, 55, 56, 58, 60</sup>.

*immigrans* group

*immigrans* subgroup

78. *Drosophila immigrans* Sturtevant

*Drosophila immigrans* Sturtevant 1921:83.

*Drosophila brouni* Hutton 1901:91.

*Drosophila cilifemur* Villeneuve 1923:28.

*Drosophila flexipilosa* Pipkin 1964:238.

Type locality: New York, New York, USA.

Geographical distribution: **BA**<sup>16</sup>, **DF**<sup>17, 19, 20</sup>, **MG**<sup>23, 24</sup>, **MT**<sup>58</sup>,  
**MS**<sup>17</sup>, **PE**<sup>17, 22</sup>, **PR**<sup>25</sup>, **RJ**<sup>17</sup>, **RS**<sup>26, 27, 28, 29, 31, 43, 67, 72</sup>, **SC**<sup>9</sup>,  
<sup>12, 32, 36, 45</sup>, **SP**<sup>14, 17, 22, 25, 34, 39, 58, 60</sup>.

*mesophragmatica* group

79. *Drosophila gaucha* Jaeger and Salzano

*Drosophila gaucha* Jaeger and Salzano 1953:205.

Type locality: Muitos Capões, Rio Grande do Sul, Brazil.

Geographical distribution: **RS**<sup>26, 27, 28, 29, 43, 87, 88, 89</sup>, **SC**<sup>12</sup>, **SP**<sup>88, 89</sup>.

80. *Drosophila mesophragmatica* Duda

*Drosophila mesophragmatica* Duda 1927:205.

*Drosophila andina* Dobzhansky and Pavan 1943:59.

Type locality: Cuzco, Peru.

Geographical distribution: **SC**<sup>9</sup>, **SP**<sup>41</sup>.

*morelia* group

81. *Drosophila carioca* Vilela and Bächli

*Drosophila carioca* Vilela and Bächli 2004:48.

Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.

Geographical distribution: **RJ**<sup>90</sup>.

82. *Drosophila fluminensis* Vilela and Bächli

*Drosophila fluminensis* Vilela and Bächli 2004:54.

Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.

Geographical distribution: **RJ**<sup>90</sup>.

*onychophora* group

83. *Drosophila colmenares* Hunter

*Drosophila colmenares* Hunter 1988:305.

Type locality: Bogotá, Colombia.

Geographical distribution: **SC**<sup>9</sup>.

84. *Drosophila freilejoni* Hunter

*Drosophila freilejoni* Hunter 1979:373.

Type locality: Bogotá, Colombia.

Geographical distribution: **SC**<sup>9</sup>.

*pallidipennis* group

85. *Drosophila pallidipennis* Dobzhansky and Pavan

*Drosophila pallidipennis* Dobzhansky and Pavan 1943:32.

Type locality: Iporanga, São Paulo, Brazil.

Geographical distribution: **BA**<sup>16, 17</sup>, **DF**<sup>20, 21</sup>, **MG**<sup>16, 23, 24</sup>, **MT**<sup>58</sup>,  
**MS**<sup>17</sup>, **PA**<sup>58</sup>, **PR**<sup>17, 25</sup>, **RJ**<sup>17, 91</sup>, **RS**<sup>17, 30, 31, 92</sup>, **SC**<sup>9, 12, 17, 32,</sup>  
<sup>36, 45</sup>, **SP**<sup>11, 13, 14, 17, 22, 25, 34, 37, 39, 42, 48, 58, 68</sup>.

*peruensis* group

86. *Drosophila atalaia* Vilela and Sene

*Drosophila atalaia* Vilela and Sene 1982:343.

Type locality: Arraial do Cabo, Rio de Janeiro, Brazil.

Geographical distribution: **ES**<sup>93</sup>, **MS**<sup>93</sup>, **RJ**<sup>93</sup>.

87. *Drosophila boraceia* Vilela and Val

*Drosophila boraceia* Vilela and Val 2004:46.

Type locality: Salesópolis, São Paulo, Brazil.

Geographical distribution: **SP**<sup>94</sup>.

88. *Drosophila pauliceia* Ratcov & Vilela

*Drosophila pauliceia* Ratcov & Vilela 2007:305.

Type locality: São Paulo, São Paulo, Brazil.

Geographical distribution: **SC**<sup>12</sup>, **SP**<sup>95</sup>.

*peruviana* group

89. *Drosophila peruviana* Duda

*Drosophila peruviana* Duda 1927:204.

Type locality: Urubamba, Peru.

Geographical distribution: **PA**<sup>22, 58, 74</sup>.

*polychaeta* group

90. *Drosophila polychaeta* Patterson and Wheeler

*Drosophila polychaeta* Patterson and Wheeler 1942:102.

*Drosophila pattersoni* Hardy 1952:470.

*Drosophila baole* Burla 1954:187.

*Drosophila asper* Lin and Tseng 1971:69.

Type locality: Galveston, Texas, USA.

Geographical distribution: [localities not mentioned]<sup>22</sup>.

*repleta* group

*fasciola* subgroup

91. *Drosophila carolinae* Vilela

*Drosophila carolinae* Vilela 1983:5.

Type locality: Salesópolis, São Paulo, Brazil.

Geographical distribution: **PR**<sup>25, 96, 97</sup>, **SC**<sup>12, 98</sup>, **SP**<sup>14, 96, 99</sup>.

92. *Drosophila coroica* Wasserman

*Drosophila coroica* Wasserman 1962:125.

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Type locality: Coroico, La Paz, Bolivia.  
Geographical distribution: **MS**<sup>99</sup>, **PR**<sup>25, 97, 99</sup>, **SP**<sup>25, 33, 34, 97, 100</sup>.

93. *Drosophila ellisoni* Vilela  
*Drosophila ellisoni* Vilela 1983:7.  
Type locality: Belém, Pará, Brazil.  
Geographical distribution: **AM**<sup>34, 96</sup>, **PA**<sup>96</sup>, **SC**<sup>96, 98</sup>, **SP**<sup>97, 100</sup>.

94. *Drosophila fascioloides* Dobzhansky and Pavan  
*Drosophila fascioloides* Dobzhansky and Pavan 1943:42.  
Type locality: Bertioiga, São Paulo, Brazil.  
Geographical distribution: **PA**<sup>101</sup>, **PR**<sup>25, 96</sup>, **RJ**<sup>97, 100</sup>, **SC**<sup>9, 12, 96, 98</sup>, **SP**<sup>14, 22, 25, 37, 39, 96, 97, 99</sup>.

95. *Drosophila ivai* Vilela  
*Drosophila ivai* Vilela 1983:14.  
Type locality: Juçara, Paraná, Brazil.  
Geographical distribution: **MS**<sup>96</sup>, **PR**<sup>96</sup>, **SP**<sup>39</sup>.

96. *Drosophila mapiriensis* Vilela and Bächli  
*Drosophila mapiriensis* Vilela and Bächli 1990:93.  
Type locality: Mapiri, Bolivia.  
Geographical distribution: **SC**<sup>12, 98</sup>.

97. *Drosophila moju* Pavan  
*Drosophila moju* Pavan 1950:19.  
Type locality: Belém, Pará, Brazil.  
Geographical distribution: **AM**<sup>35</sup>, **PA**<sup>22, 74, 101</sup>, **SC**<sup>9</sup>.

98. *Drosophila mojuoides* Wasserman  
*Drosophila mojuoides* Wasserman 1962:121.  
Type locality: Arima Valley, Trinidad.  
Geographical distribution: **PA**<sup>96</sup>.

99. *Drosophila onca* Dobzhansky and Pavan  
*Drosophila onca* Dobzhansky and Pavan 1943:40.  
Type locality: Iporanga, São Paulo, Brazil.  
Geographical distribution: **DF**<sup>20, 21</sup>, **ES**<sup>99</sup>, **MG**<sup>24</sup>, **PR**<sup>25, 96, 97, 99, 100</sup>, **RS**<sup>97</sup>, **SC**<sup>9, 12, 32, 45, 96, 98</sup>, **RJ**<sup>99</sup>, **SP**<sup>37, 39, 60, 96, 99, 102</sup>.

100. *Drosophila papei* Bächli and Vilela  
*Drosophila papei* Bächli and Vilela 2002:235.  
Type locality: Aragua, Venezuela.  
Geographical distribution: **SC**<sup>12, 98</sup>.

101. *Drosophila pictilis* Wasserman  
*Drosophila pictilis* Wasserman 1962:125.  
Type locality: La Libertad, El Salvador.  
Geographical distribution: **SC**<sup>32</sup>, **SP**<sup>39</sup>.

102. *Drosophila pictura* Wasserman  
*Drosophila pictura* Wasserman 1962:121.  
Type locality: Saint George, Trinidad.  
Geographical distribution: **SC**<sup>98</sup>, **SP**<sup>39</sup>.

103. *Drosophila querubimae* Vilela  
*Drosophila querubimae* Vilela 1983:24.  
Type locality: Guaratuba, São Paulo, Brazil.  
Geographical distribution: **SC**<sup>12, 98</sup>, **SP**<sup>39, 96, 99</sup>.

104. *Drosophila rosinae* Vilela  
*Drosophila rosinae* Vilela 1983:25.

Type locality: Peruíbe, São Paulo, Brazil.  
Geographical distribution: **BA**<sup>16, 96, 97, 99, 100</sup>, **ES**<sup>96</sup>, **MG**<sup>24</sup>, **RJ**<sup>96</sup>, **RN**<sup>57</sup>, **SP**<sup>96, 99</sup>.

105. *Drosophila senei* Vilela  
*Drosophila senei* Vilela 1983:27.  
Type locality: Ibiúna, São Paulo, Brazil.  
Geographical distribution: **SC**<sup>9</sup>, **SP**<sup>39, 96</sup>.

*hydei* subgroup  
106. *Drosophila hydei* Sturtevant  
*Drosophila hydei* Sturtevant 1921:101.  
*Drosophila marmorata* Hutton 1901:91 (suppressed).  
*Drosophila setosa* Dobzhansky and Pavan 1943:46.  
Type locality: Lakeland, Florida, USA.  
Geographical distribution: **BA**<sup>15, 16, 96, 99</sup>, **DF**<sup>18, 19, 20, 21</sup>, **ES**<sup>96</sup>, **MG**<sup>16, 23, 24, 96, 99</sup>, **MS**<sup>96, 99</sup>, **PB**<sup>96, 99</sup>, **RS**<sup>30, 31, 43</sup>, **SC**<sup>9, 12, 32, 45, 98</sup>, **SP**<sup>34, 37, 96, 99</sup>.

*mercatorum* subgroup  
107. *Drosophila mercatorum* Patterson and Wheeler  
*Drosophila mercatorum* Patterson and Wheeler 1942:93.  
*Drosophila carinata* Grimshaw 1901:70 (suppressed).  
Type locality: Santa Barbara, California, USA.  
Geographical distribution: **AM**<sup>35</sup>, **BA**<sup>16, 96, 99</sup>, **DF**<sup>18, 19, 20, 21, 96, 99</sup>, **ES**<sup>96, 99</sup>, **GO**<sup>96</sup>, **MG**<sup>16, 23, 24, 96, 99</sup>, **MS**<sup>47, 96, 99</sup>, **PB**<sup>96, 99</sup>, **PR**<sup>25, 96, 99</sup>, **RJ**<sup>57, 96, 99, 103</sup>, **RS**<sup>27, 28, 29, 30, 31, 43, 67, 72, 92, 99, 102</sup>, **SC**<sup>9, 12, 32, 36, 45, 96, 98, 99</sup>, **SP**<sup>14, 22, 25, 33, 34, 39, 96, 99, 100</sup>.

108. *Drosophila paranaensis* Barros  
*Drosophila paranaensis* Barros 1950:266.  
*Drosophila pseudomercatorum* Magalhães and Malogolowkin-Cohen 1974:363.  
*Drosophila paramercatorum* Magalhães and Malogolowkin-Cohen 1974:365.  
Type locality: Porto Capitão Heitor, Paraná, Brazil.  
Geographical distribution: **AM**<sup>96</sup>, **BA**<sup>96, 99</sup>, **DF**<sup>19, 20, 21, 96, 99</sup>, **GO**<sup>96</sup>, **MG**<sup>23, 24</sup>, **MS**<sup>96, 99, 104</sup>, **MT**<sup>96</sup>, **PR**<sup>25, 96, 99</sup>, **SC**<sup>96</sup>, **SP**<sup>25, 33, 34, 39, 96, 99</sup>.

*mulleri* subgroup  
109. *Drosophila aldrichi* Patterson  
*Drosophila aldrichi* Patterson, in Patterson and Crow 1940:251.  
Type locality: Austin, Texas, USA.  
Geographical distribution: **AM**<sup>96</sup>, **MS**<sup>96</sup>, **PR**<sup>96, 99</sup>.

110. *Drosophila antonietae* Tidon-Sklorz and Sene  
*Drosophila antonietae* Tidon-Sklorz and Sene 2001:142.  
Type locality: Jundiá, São Paulo, Brazil.  
Geographical distribution: **MS**<sup>105</sup>, **PR**<sup>25, 105, 106</sup>, **RS**<sup>105, 106</sup>, **SP**<sup>25, 34, 105, 106, 107</sup>.

111. *Drosophila borborema* Vilela and Sene  
*Drosophila borborema* Vilela and Sene 1977:296.  
Type locality: Milagres, Bahia, Brazil.  
Geographical distribution: **BA**<sup>16, 96, 99, 102, 107, 108, 109</sup>, **MG**<sup>16</sup>, **PE**<sup>96</sup>, **PB**<sup>96, 99</sup>, **RN**<sup>96, 99</sup>.

112. *Drosophila buzzatii* Patterson and Wheeler  
*Drosophila buzzatii* Patterson and Wheeler 1942:97.  
*Drosophila tigrina* Buzzati-Traverso 1943:44.



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*Drosophila versicolor* Mather 1955:573.

Type locality: Cordoba, Argentina.

Geographical distribution: **BA**<sup>16, 96, 99, 102</sup>, **MG**<sup>16, 23, 24, 96, 102, 109</sup>, **MS**<sup>57, 96, 99</sup>, **PB**<sup>96, 99</sup>, **PE**<sup>96</sup>, **PR**<sup>25, 96, 99</sup>, **RS**<sup>27, 28, 29, 66, 96, 99, 102</sup>, **SC**<sup>96</sup>, **SP**<sup>25, 34, 38, 107, 109</sup>.

113. *Drosophila gouveai* Tidon-Sklorz and Sene

*Drosophila gouveai* Tidon-Sklorz and Sene 2001:144.

Type locality: Altinópolis, São Paulo, Brazil.

Geographical distribution: **BA**<sup>105, 107</sup>, **DF**<sup>20</sup>, **GO**<sup>105</sup>, **MG**<sup>105</sup>, **MS**<sup>105</sup>, **PE**<sup>105</sup>, **SP**<sup>105</sup>.

114. *Drosophila meridionalis* Wasserman

*Drosophila meridionalis* Wasserman 1962:88.

Type locality: Angra dos Reis, Rio de Janeiro, Brazil.

Geographical distribution: **BA**<sup>96, 99</sup>, **ES**<sup>96</sup>, **MG**<sup>23, 96</sup>, **MS**<sup>96, 99</sup>, **PB**<sup>96, 99</sup>, **PR**<sup>25, 96, 99</sup>, **RJ**<sup>96, 99, 110</sup>, **RS**<sup>96, 99, 102, 111</sup>, **SC**<sup>9, 12, 96, 98, 99, 102</sup>, **SP**<sup>25, 96, 99, 102, 111</sup>.

115. *Drosophila nigricruria* Patterson and Mainland

*Drosophila nigricruria* Patterson and Mainland, in Patterson 1943:136.

*Drosophila hoeckeri* Brncic 1957:76.

Type locality: El Mediñena, Jalisco, Mexico.

Geographical distribution: **BA**<sup>22, 96</sup>, **DF**<sup>20, 21</sup>, **GO**<sup>22</sup>, **MG**<sup>16, 23, 24, 96</sup>, **MS**<sup>58</sup>, **PR**<sup>25</sup>, **SC**<sup>12, 98</sup>, **SP**<sup>22, 33, 34, 39, 58, 96</sup>.

116. *Drosophila serido* Vilela and Sene

*Drosophila serido* Vilela and Sene 1977:295.

Type locality: Milagres, Bahia, Brazil.

Geographical distribution: Due to the complex taxonomic history of the species, and as it initially was mistakenly considered to be *D. antonietae*, *D. gouveai* or *D. seriema*, its geographic distribution was restricted to that mentioned in the review of the cluster *buzzatti* by Manfrin and Sene<sup>112</sup>, which includes the states of **BA**; **CE**; **ES**; **MG**; **PB**; **PE**; **PR**; **RJ**; **RN**; **SC**; **SE**; **SP**.

117. *Drosophila seriema* Tidon-Sklorz and Sene

*Drosophila seriema* Tidon-Sklorz and Sene 1995:139.

Type locality: Grão Mogol, Minas Gerais, Brazil.

Geographical distribution: **BA**<sup>107, 109, 113, 114</sup>, **MG**<sup>16, 24, 109, 113, 114</sup>.

*repleta* subgroup

118. *Drosophila eleonorae* Tosi, Martins, Vilela and Pereira

*Drosophila eleonorae* Tosi, Martins, Vilela and Pereira 1990:21.

Type locality: Altamira, Pará, Brazil.

Geographical distribution: **GO**<sup>115</sup>, **MT**<sup>115</sup>, **PA**<sup>115</sup>, **SP**<sup>115</sup>.

119. *Drosophila fulvimacula* Patterson and Mainland

*Drosophila fulvimacula* Patterson and Mainland 1944:42.

Type locality: Jalapa, Veracruz, Mexico.

Geographical distribution: **AM**<sup>35, 56</sup>, **PA**<sup>116</sup>.

120. *Drosophila limensis* Pavan and Patterson

*Drosophila limensis* Pavan and Patterson, in Pavan and Cunha 1947:26.

Type locality: Lima, Lima, Peru.

Geographical distribution: **SC**<sup>12, 98</sup>.

121. *Drosophila pseudorepleta* Vilela and Bächli

*Drosophila pseudorepleta* Vilela and Bächli 1990:95.

Type locality: Hohenau, Paraguay.

Geographical distribution: **MG**<sup>23, 24</sup>.

122. *Drosophila repleta* Wollaston

*Drosophila repleta* Wollaston 1858:117.

*Drosophila pygmaea* Duda 1927:125 (pre-occupied, as *repleta* var. *pygmaea*).

*Drosophila punctulata* Loew 1862:232.

*Drosophila punctata* Johnson 1913:202 (lapsus).

*Drosophila nigropunctata* van der Wulp, 1892:216.

*Drosophila melanopalpa* Patterson and Wheeler 1942:77.

*Drosophila maculiventris* van der Wulp 1897:142.

*Drosophila brunneipalpa* Dobzhansky and Pavan 1943:53.

*Drosophila betari* Dobzhansky and Pavan 1943:48.

*Drosophila austrorepleta* Dobzhansky and Pavan 1943:50.

*Drosophila adspersa* Mik 1886:328.

Type locality: Funchal, Madeira Island.

Geographical distribution: **AM**<sup>35</sup>, **BA**<sup>96, 99</sup>, **DF**<sup>20, 99</sup>, **GO**<sup>96</sup>, **MG**<sup>24</sup>, **MS**<sup>96, 99</sup>, **MT**<sup>47, 96</sup>, **PR**<sup>99</sup>, **RJ**<sup>96</sup>, **SC**<sup>9, 12, 32, 96, 98</sup>, **SP**<sup>37, 39, 96</sup>.

123. *Drosophila zottii* Vilela

*Drosophila zottii* Vilela 1983:92.

Type locality: Santa Izabel, São Paulo, Brazil.

Geographical distribution: **MG**<sup>24</sup>, **RS**<sup>28, 29, 30, 31, 43, 96</sup>, **SC**<sup>9, 32, 45, 98</sup>, **SP**<sup>96</sup>.

*sticta* group

124. *Drosophila sticta* Wheeler

*Drosophila sticta* Wheeler 1957:96.

Type locality: Lancetilla, Honduras.

Geographical distribution: **SP**<sup>39, 83</sup>.

*tripunctata* group

*i* subgroup

125. *Drosophila mediocris* Frota-Pessoa

*Drosophila mediocris* Frota-Pessoa 1954:275.

Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.

Geographical distribution: **RJ**<sup>117</sup>, **SP**<sup>117</sup>.

126. *Drosophila nappae* Vilela, Valente and Basso-da-Silva

*Drosophila nappae* Vilela, Valente and Basso-da-Silva 2004:233.

Type locality: Porto Alegre, Rio Grande do Sul, Brazil.

Geographical distribution: **MG**<sup>53</sup>, **RJ**<sup>53, 117</sup>, **RS**<sup>27, 28, 29, 30, 31, 43, 53, 72</sup>, **SC**<sup>9, 12, 36, 53, 118</sup>, **SP**<sup>14, 22, 39, 53, 70, 117</sup>.

127. *Drosophila neoguaramunu* Frydenberg

*Drosophila neoguaramunu* Frydenberg 1956:57.

Type locality: Tingo Maria, Peru.

Geographical distribution: **DF**<sup>20</sup>, **SC**<sup>9</sup> (mentioned as *D. angustibucca*), **SP**<sup>39</sup>.

128. *Drosophila platitarsus* Frota-Pessoa

*Drosophila platitarsus* Frota-Pessoa 1954:276.

Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.

Geographical distribution: **RJ**<sup>13, 117</sup>, **SC**<sup>9, 45</sup>, **SP**<sup>13, 117</sup>.

129. *Drosophila setula* Heed and Wheeler

*Drosophila setula* Heed and Wheeler 1957:18.

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Type locality: Fusagasuga, Colombia.

Geographical distribution: **SC**<sup>9, 12, 98, 118</sup>, **SP**<sup>14, 39</sup>.

*ii* subgroup

130. *Drosophila bodemanae* Pipkin and Heed  
*Drosophila bodemanae* Pipkin and Heed 1964:257.

Type locality: Cerro Campana, Panama, Panama.

Geographical distribution: **SC**<sup>9</sup>.

131. *Drosophila cuaso* Bächli, Vilela and Ratcov  
*Drosophila cuaso* Bächli, Vilela and Ratcov 2000:80.

Type locality: São Paulo, São Paulo, Brazil.

Geographical distribution: **SC**<sup>12, 32, 118</sup>, **SP**<sup>39, 70, 119</sup>.

132. *Drosophila medioimpressa* Frota-Pessoa  
*Drosophila medioimpressa* Frota-Pessoa 1954:300.

Type locality: Montes Claros, Minas Gerais, Brazil.

Geographical distribution: **DF**<sup>20</sup>, **MG**<sup>13, 24, 117</sup>, **SC**<sup>9, 12, 118</sup>, **SP**<sup>14, 39</sup>.

133. *Drosophila mediopunctata* Dobzhansky and Pavan  
*Drosophila mediopunctata* Dobzhansky and Pavan 1943:26.

Type locality: Itanhaém, São Paulo, Brazil.

Geographical distribution: **BA**<sup>15, 16</sup>, **DF**<sup>20, 21</sup>, **MG**<sup>23, 24, 120, 121</sup>, **PR**<sup>25, 117, 123</sup>, **RJ**<sup>120, 122, 124</sup>, **RS**<sup>28, 29, 30, 31, 43, 66, 67, 72, 117, 120, 121, 124</sup>, **SC**<sup>9, 12, 32, 36, 45, 118</sup>, **SP**<sup>13, 14, 25, 34, 37, 39, 57, 68, 70, 117, 120, 124, 125, 126</sup>.

134. *Drosophila mediosignata* Dobzhansky and Pavan  
*Drosophila mediosignata* Dobzhansky and Pavan 1943:24.

Type locality: Iporanga, São Paulo, Brazil.

Geographical distribution: **RJ**<sup>37</sup>, **RS**<sup>30, 31, 43, 72</sup>, **SC**<sup>9</sup>, **SP**<sup>11, 13, 37, 39, 55, 119</sup>.

135. *Drosophila morena* Frota-Pessoa  
*Drosophila morena* Frota-Pessoa 1954:283.

Type locality: Feliz, Rio Grande do Sul, Brazil.

Geographical distribution: **RS**<sup>117</sup>.

136. *Drosophila paraguayensis* Duda  
*Drosophila paraguayensis* Duda 1927:185.

*Drosophila medionotata* Frota-Pessoa 1954:288.

Type locality: Mongaguá, São Paulo, Brazil.

Geographical distribution: **DF**<sup>20, 21</sup>, **MG**<sup>13, 24, 117, 119</sup>, **RJ**<sup>5, 11, 13, 117, 119</sup>, **RS**<sup>29, 30, 31</sup>, **SC**<sup>9, 12, 32, 36, 45, 118</sup>, **SP**<sup>11, 13, 14, 70, 117, 119</sup>.

137. *Drosophila prosimilis* Duda  
*Drosophila prosimilis* Duda 1927:194 (*nomen dubium* sensu Bächli et al. 2000).

Type locality: Pichis, Peru.

Geographical distribution: **RJ**<sup>37, 117</sup>, **SP**<sup>37</sup>.

138. *Drosophila roehrae* Pipkin and Heed  
*Drosophila roehrae* Pipkin and Heed 1964:270.

Type locality: Cerro Campana, Panama.

Geographical distribution: **SC**<sup>9, 12, 32, 118</sup>, **SP**<sup>39</sup>.

139. *Drosophila unipunctata* Patterson and Mainland  
*Drosophila unipunctata* Patterson and Mainland, in Patterson 1943:182.

Type locality: Tamazunchale, San Luis Potosi, Mexico.

Geographical distribution: **MG**<sup>24</sup>, **SC**<sup>9, 118</sup>.

*iii* subgroup

140. *Drosophila addisoni* Pavan

*Drosophila addisoni* Pavan 1950:4.

Type locality: Belém, Pará, Brazil.

Geographical distribution: **AM**<sup>22</sup>, **PA**<sup>13, 22, 74</sup>.

141. *Drosophila bandeirantium* Dobzhansky and Pavan  
*Drosophila bandeirantium* Dobzhansky and Pavan 1943:30.

Type locality: Mogi das Cruzes, São Paulo, Brazil.

Geographical distribution: **BA**<sup>17</sup>, **DF**<sup>17, 20, 21</sup>, **MG**<sup>23, 24</sup>, **PR**<sup>17, 22, 25</sup>, **RJ**<sup>17</sup>, **RS**<sup>22, 27, 28, 29, 30, 31, 72, 92</sup>, **SC**<sup>9, 12, 32, 36, 45, 118</sup>, **SP**<sup>13, 14, 17, 22, 25, 37, 39, 48, 55, 58, 70</sup>.

142. *Drosophila bifilum* Frota-Pessoa

*Drosophila bifilum* Frota-Pessoa 1954:284.

Type locality: Mongaguá, São Paulo, Brazil.

Geographical distribution: **DF**<sup>20</sup>, **MG**<sup>13, 24, 117</sup>, **SC**<sup>118</sup>, **SP**<sup>13, 39, 117</sup>.

143. *Drosophila bipunctata* Patterson and Mainland  
*Drosophila bipunctata* Patterson and Mainland, in Patterson 1943:194.

Type locality: Michoacan, Mexico.

Geographical distribution: **SC**<sup>118</sup>.

144. *Drosophila curvapex* Frota-Pessoa

*Drosophila curvapex* Frota-Pessoa 1954:296.

Type locality: Feliz, Rio Grande do Sul, Brazil.

Geographical distribution: **RS**<sup>13, 117</sup>, **SP**<sup>127</sup>.

145. *Drosophila divisa* Duda  
*Drosophila divisa* Duda 1927:187.

*Drosophila diversa* Patterson and Wheeler 1949:220 (*lapsus*).

Type locality: Mapiri, Bolivia.

Geographical distribution: **SC**<sup>9</sup>.

146. *Drosophila fairchildi* Pipkin and Heed  
*Drosophila fairchildi* Pipkin and Heed 1964:269.

Type locality: El Volcan, Chiriqui, Panama.

Geographical distribution: **SC**<sup>9</sup>.

147. *Drosophila fragilis* Wheeler  
*Drosophila fragilis* Wheeler 1949:191.

Type locality: Atlixco, Puebla, Mexico.

Geographical distribution: **SC**<sup>9, 45</sup>, **SP**<sup>83</sup>.

148. *Drosophila frotapessoai* Vilela and Bächli  
*Drosophila frotapessoai* Vilela and Bächli 1990:99.

Type locality: Umahuankilia, Peru.

Geographical distribution: **SP**<sup>39</sup>.

149. *Drosophila mediopicta* Frota-Pessoa  
*Drosophila mediopicta* Frota-Pessoa 1954:290.

Type locality: Mogi das Cruzes, São Paulo, Brazil.

Geographical distribution: **MG**<sup>24</sup>, **RJ**<sup>117</sup>, **RS**<sup>29, 30, 31, 43, 72</sup>, **SC**<sup>9, 12, 32, 36, 118</sup>, **SP**<sup>13, 14, 39, 70, 117</sup>.

150. *Drosophila mediopictoides* Heed and Wheeler  
*Drosophila mediopictoides* Heed and Wheeler 1957:24.

Type locality: Turrialba, Costa Rica.

Geographical distribution: **SC**<sup>9</sup>.

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151. *Drosophila mediotriata* Duda  
*Drosophila mediotriata* Duda 1925:223.  
*Drosophila crocina* Patterson and Mainland 1944:34.  
*Drosophila campestris* Burla, in Pavan 1950:9.  
Type locality: Suiza, Turrialba, Costa Rica.  
Geographical distribution: **AC**<sup>22</sup>, **AM**<sup>22</sup>, **BA**<sup>17, 22, 74</sup>, **DF**<sup>18, 20, 21</sup>, **GO**<sup>74</sup>, **MA**<sup>22</sup>, **MG**<sup>23, 24</sup>, **MT**<sup>22, 58</sup>, **PR**<sup>25</sup>, **RJ**<sup>5</sup>, **RR**<sup>22</sup>, **RS**<sup>30, 31, 43</sup>, **SC**<sup>9, 12, 32, 45, 118</sup>, **SP**<sup>14, 17, 22, 25, 39, 55, 58, 68, 70, 74, 128</sup>, **TO**<sup>22</sup>.
152. *Drosophila mesostigma* Frota-Pessoa  
*Drosophila mesostigma* Frota-Pessoa 1954:269.  
Type locality: Belém, Pará, Brazil.  
Geographical distribution: **DF**<sup>21</sup>, **MG**<sup>23</sup>, **PA**<sup>13, 117</sup>, **PI**<sup>13, 117</sup>, **SC**<sup>9</sup>, **SP**<sup>39</sup>.
153. *Drosophila nigricincta* Frota-Pessoa  
*Drosophila nigricincta* Frota-Pessoa 1954:289.  
Type locality: Cantareira, São Paulo, Brazil  
Geographical distribution: **SP**<sup>13, 39, 117</sup>.
154. *Drosophila paramediotriata* Townsend and Wheeler  
*Drosophila paramediotriata* Townsend and Wheeler 1955:62.  
Type locality: Porto Rico.  
Geographical distribution: **DF**<sup>20, 21</sup>, **SC**<sup>12, 118</sup>, **SP**<sup>34, 38, 70</sup>.
155. *Drosophila trapeza* Heed and Wheeler  
*Drosophila trapeza* Heed and Wheeler 1957:25.  
*Drosophila mirassolensis* Mourão and Gallo 1967:118.  
Type locality: La Lola, Costa Rica.  
Geographical distribution: **MG**<sup>24</sup>, **SC**<sup>32, 118</sup>, **SP**<sup>39, 68, 122</sup>.
156. *Drosophila triangula* Wheeler  
*Drosophila triangula* Wheeler 1949:192.  
Type locality: Morelia, Michoacán, Mexico.  
Geographical distribution: **SC**<sup>9</sup>.
157. *Drosophila trifilum* Frota-Pessoa  
*Drosophila trifilum* Frota-Pessoa 1954:292.  
Type locality: Mogi das Cruzes, São Paulo, Brazil.  
Geographical distribution: **RJ**<sup>117</sup>, **SC**<sup>12, 118</sup>, **SP**<sup>13, 39, 117</sup>.
- iv* subgroup
158. *Drosophila albescens* Frota-Pessoa  
*Drosophila albescens* Frota-Pessoa 1954:281.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>13, 117</sup>.
159. *Drosophila albicans* Frota-Pessoa  
*Drosophila albicans* Frota-Pessoa 1954:282.  
Type locality: Pirassununga, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>13, 117</sup>.
160. *Drosophila albirostris* Sturtevant  
*Drosophila albirostris* Sturtevant 1921:78.  
Type locality: Panamas.  
Geographical distribution: **MG**<sup>23</sup>, **SP**<sup>83</sup>.
161. *Drosophila mediovitata* Frota-Pessoa  
*Drosophila mediovitata* Frota-Pessoa 1954:280.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.
- Geographical distribution: **RJ**<sup>13, 117</sup>.
162. *Drosophila metzii* Sturtevant  
*Drosophila metzii* Sturtevant 1921:78.  
Type locality: Herradura, Cuba.  
Geographical distribution: **SP**<sup>39</sup>.
163. *Drosophila pruinifacies* Frota-Pessoa  
*Drosophila pruinifacies* Frota-Pessoa 1954:292.  
Type locality: Mogi das Cruzes, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>117</sup>.
164. *Drosophila spinatermina* Heed and Wheeler  
*Drosophila spinatermina* Heed and Wheeler 1957:30.  
Type locality: Port of Spain, Trinidad.  
Geographical distribution: **SP**<sup>39</sup>.
165. *Drosophila tripunctata* Loew  
*Drosophila tripunctata* Loew 1862:231.  
*Drosophila modesta* Sturtevant 1916:338.  
Type locality: Columbia, USA.  
Geographical distribution: **SC**<sup>9, 118</sup>.
166. *Drosophila tristriata* Heed and Wheeler  
*Drosophila tristriata* Heed and Wheeler 1957:31.  
Type locality: Port of Spain, Trinidad.  
Geographical distribution: **SC**<sup>9</sup>.
- virilis* group  
*virilis* subgroup
167. *Drosophila virilis* Sturtevant, 1916  
*Drosophila virilis* Sturtevant 1916:330.  
Type locality: New York, New York, USA.  
Geographical distribution: **MG**<sup>23</sup>, **SC**<sup>12, 32</sup>.
- Not assigned to group
168. *Drosophila impudica* Duda  
*Drosophila impudica* Duda 1927:196.  
*Drosophila para* Pavan and Burla, in Pavan 1950:22.  
Type locality: Urubamba, Peru.  
Geographical distribution: **BA**<sup>16, 17</sup>, **DF**<sup>20</sup>, **MS**<sup>17</sup>, **PA**<sup>11, 13, 22, 56, 74</sup>, **SP**<sup>17</sup>.
169. *Drosophila tuchaua* Pavan  
*Drosophila tuchaua* Pavan 1950:26.  
Type locality: Belém, Pará, Brazil.  
Geographical distribution: **AM**<sup>35</sup>, **PA**<sup>13, 74</sup>.
- Phloridosa* subgenus
170. *Drosophila denieri* Blanchard  
*Drosophila denieri* Blanchard 1938:362.  
Type locality: Isla de Oro, Formosa, Argentina.  
Geographical distribution: **RJ**<sup>128, 129</sup>, **RS**<sup>50</sup>, **SC**<sup>50</sup>.
171. *Drosophila lutzii* Sturtevant  
*Drosophila lutzii* Sturtevant 1916:340.  
*Drosophila floricola* Sturtevant 1942:42.  
Type locality: Havana, Cuba.  
Geographical distribution: **RS**<sup>50</sup>, **SC**<sup>50</sup>.
- Siphlodora* subgenus
172. *Drosophila flexa* Loew

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*Drosophila flexa* Loew 1866:182.

*Drosophila subsigmoides* Patterson and Mainland 1944:26.

Type locality: Gunglach, Cuba.

Geographical distribution: **GO**<sup>130</sup>, **RJ**<sup>130</sup>, **RN**<sup>130</sup>, **SC**<sup>12, 32, 131</sup>, **SP**<sup>39, 130</sup>.

*Sophophora* subgenus

*melanogaster* group

*ananassae* subgroup

173. *Drosophila ananassae* Doleschall

*Drosophila ananassae* Doleschall 1858:128.

*Drosophila imparata* Walker 1859:126.

*Drosophila similis* Lamb 1914:347 (pre-occupied).

*Drosophila caribea* Sturtevant 1916:335.

*Drosophila errans* Malloch 1933:21.

Type locality: Ambon Island, Indonesia.

Geographical distribution: **AM**<sup>35</sup>, **BA**<sup>15, 17</sup>, **MG**<sup>23</sup>, **PR**<sup>22</sup>, **RJ**<sup>49, 132</sup>, **RS**<sup>28, 29</sup>, **SC**<sup>12, 32, 133</sup>, **SP**<sup>22, 34, 68</sup>.

174. *Drosophila malerkotliana* Parshad and Paika

*Drosophila malerkotliana* Parshad and Paika 1964:235.

Type locality: India.

Geographical distribution: **AM**<sup>35, 61, 62</sup>, **BA**<sup>16, 17</sup>, **DF**<sup>17, 19, 20, 21</sup>, **MG**<sup>16, 17, 23, 24</sup>, **MS**<sup>17</sup>, **MT**<sup>47, 53</sup>, **PA**<sup>35, 53</sup>, **PB**<sup>17</sup>, **PR**<sup>17, 25</sup>, **RJ**<sup>17</sup>, **RN**<sup>17</sup>, **RS**<sup>134</sup>, **SC**<sup>9, 12, 32, 36, 45, 53</sup>, **SP**<sup>17, 25, 33, 34, 39, 42</sup>.

*melanogaster* subgroup

175. *Drosophila melanogaster* Meigen

*Drosophila melanogaster* Meigen 1830:85.

*Drosophila fasciata* Meigen 1830:84.

*Drosophila nigriventris* Macquart 1843:259(=416).

*Drosophila approximata* Zetterstedt 1847:2557.

*Drosophila immatura* Walker 1849:1108.

*Drosophila ampelophila* Loew 1862:231.

*Drosophila uvarum* Rondani 1875:145.

*Drosophila ampelophaga* Howard 1900:604 (lapsus).

*Drosophila pilosula* Becker 1908:156.

*Drosophila emulata* Ray-Chaudhuri and Mukherjee 1941:216.

*Drosophila melanocephala* de Meijere 1946:16 (lapsus).

Type locality: Germany and Austria.

Geographical distribution: **BA**<sup>15</sup>, **DF**<sup>17, 19, 20, 21</sup>, **MA**<sup>135</sup>, **MG**<sup>17, 23, 43, 135</sup>, **PI**<sup>135</sup>, **PR**<sup>17, 135</sup>, **RJ**<sup>17</sup>, **RS**<sup>28, 43, 135</sup>, **SC**<sup>9, 12, 32, 135</sup>, **SP**<sup>14, 17, 34, 39, 43, 135</sup>.

176. *Drosophila simulans* Sturtevant

*Drosophila simulans* Sturtevant 1919:153.

Type locality: Lakeland, Florida, USA.

Geographical distribution: **AM**<sup>35, 62</sup>, **BA**<sup>15, 16, 17</sup>, **DF**<sup>17, 18, 19, 20, 21</sup>, **ES**<sup>17</sup>, **MG**<sup>16, 17, 23, 24, 56</sup>, **MT**<sup>47, 53, 58</sup>, **MS**<sup>17, 47</sup>, **PA**<sup>53, 58</sup>, **PB**<sup>17</sup>, **PR**<sup>17, 25</sup>, **RJ**<sup>17</sup>, **RN**<sup>17</sup>, **RS**<sup>17, 27, 28, 29, 43, 66, 67, 72, 92</sup>, **SC**<sup>9, 12, 17, 32, 36, 45, 53</sup>, **SP**<sup>14, 17, 25, 33, 34, 39, 43, 55, 58, 60, 68</sup>.

*montium* subgroup

177. *Drosophila kikkawai* Burla

*Drosophila kikkawai* Burla 1954:47.

*Drosophila montium* de Meijere 1916:205 sensu Freire-Maia and Pavan 1949 (key).

Type locality: Brazil.

Geographical distribution: **DF**<sup>17, 20</sup>, **MS**<sup>17</sup>, **PR**<sup>22, 41</sup>, **RJ**<sup>41</sup>, **RS**<sup>30, 31, 43, 67, 136</sup>, **SC**<sup>9, 12, 32, 45, 137</sup>, **SP**<sup>22, 41, 68</sup>.

*saltans* group

*cordata* subgroup

178. *Drosophila neocordata* Magalhães

*Drosophila neocordata* Magalhães 1956:275.

Type locality: Montes Claros, Minas Gerais, Brazil.

Geographical distribution: **BA**<sup>17</sup>, **ES**<sup>17</sup>, **MG**<sup>13, 138, 139</sup>, **MS**<sup>17</sup>, **PR**<sup>17</sup>, **RJ**<sup>17</sup>, **SP**<sup>17</sup>.

*elliptica* subgroup

179. *Drosophila neoelliptica* Pavan and Magalhães

*Drosophila neoelliptica* Pavan and Magalhães, in Pavan 1950:13.

Type locality: Jaguariaiva, Paraná, Brazil.

Geographical distribution: **GO**<sup>13, 74, 139</sup>, **PR**<sup>74, 139</sup>, **RJ**<sup>139</sup>, **SC**<sup>9, 12, 36</sup>, **SP**<sup>14, 39, 139</sup>.

180. *Drosophila neosaltans* Pavan and Magalhães

*Drosophila neosaltans* Pavan and Magalhães, in Pavan 1950:16.

Type locality: Mogi das Cruzes, São Paulo, Brazil.

Geographical distribution: **SC**<sup>9, 12, 32, 133</sup>, **SP**<sup>13, 14, 17, 39, 74, 139</sup>.

*parasaltans* subgroup

181. *Drosophila parasaltans* Magalhães

*Drosophila parasaltans* Magalhães 1956:276.

Type locality: Rio Negro, Amazonas, Brazil.

Geographical distribution: **AM**<sup>138, 139</sup>.

182. *Drosophila subsaltans* Magalhães

*Drosophila subsaltans* Magalhães 1956:277.

Type locality: Belém, Pará, Brazil.

Geographical distribution: **PA**<sup>138, 139</sup>.

*saltans* subgroup

183. *Drosophila austrosaltans* Spassky

*Drosophila austrosaltans* Spassky 1957:57.

Type locality: Pirassununga, São Paulo, Brazil.

Geographical distribution: **DF**<sup>20, 21</sup>, **MA**<sup>139</sup>, **MG**<sup>24</sup>, **MS**<sup>17</sup>, **SP**<sup>34, 39, 42, 139, 140</sup>.

184. *Drosophila prosaltans* Duda

*Drosophila prosaltans* Duda 1927:164.

Type locality: Hohenau, Paraguay.

Geographical distribution: **AM**<sup>35, 139</sup>, **BA**<sup>16, 17, 22, 139</sup>, **MA**<sup>22, 139</sup>, **MG**<sup>17, 24</sup>, **MS**<sup>17</sup>, **PA**<sup>22, 139</sup>, **PR**<sup>25</sup>, **RJ**<sup>139</sup>, **RS**<sup>17, 30, 31, 43, 139</sup>, **SC**<sup>9, 12, 17, 32</sup>, **SP**<sup>14, 17, 22, 25, 34, 42, 39, 55, 139</sup>, **TO**<sup>139</sup>.

185. *Drosophila pseudosaltans* Magalhães

*Drosophila pseudosaltans* Magalhães 1956:273.

Type locality: Cantareira, São Paulo, Brazil.

Geographical distribution: **SP**<sup>138, 139</sup>.

186. *Drosophila saltans* Sturtevant

*Drosophila saltans* Sturtevant 1916:328.

*Drosophila sellata* Sturtevant 1942:39.

Type locality: Guantanamo, Cuba.

Geographical distribution: **MT**<sup>53</sup>, **PA**<sup>53</sup>, **SC**<sup>9, 12, 45, 53</sup>, **SE**<sup>43</sup>.

*sturtevanti* subgroup

187. *Drosophila magalhaesi* Mourão and Bicudo

*Drosophila magalhaesi* Mourão and Bicudo 1967:127.

Type locality: Rio Grande do Sul, Brazil.

Geographical distribution: **RS**<sup>141</sup>.

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188. *Drosophila pulchella* Sturtevant  
*Drosophila pulchella* Sturtevant 1916:327.  
*Drosophila bellula* Williston 1896:410 (pre-occupied).  
Type locality: Saint Vicente, West Indians.  
Geographical distribution: **RS**<sup>30, 31</sup>, **SC**<sup>133</sup>.

189. *Drosophila sturtevantii* Duda  
*Drosophila sturtevantii* Duda 1927:167.  
*Drosophila earlei* Sturtevant 1916:329.  
*Drosophila pilifacies* Malloch 1926:29.  
*Drosophila biopaca* Sturtevant 1942:37.  
Type locality: Mapiiri, Bolivia.  
Geographical distribution: **AC**<sup>22, 139</sup>, **AM**<sup>22, 35, 56, 139</sup>, **BA**<sup>15, 16, 17, 22, 139</sup>, **DF**<sup>17, 18, 19, 20, 21</sup>, **ES**<sup>17</sup>, **GO**<sup>22, 139</sup>, **MA**<sup>22, 139</sup>, **MG**<sup>16, 17, 23, 24, 56, 142</sup>, **MT**<sup>22, 47, 53, 58</sup>, **MS**<sup>17</sup>, **PA**<sup>22, 53, 56, 58, 139, 143</sup>, **PB**<sup>17</sup>, **PR**<sup>17, 25</sup>, **RJ**<sup>17, 22, 37, 139, 143</sup>, **RN**<sup>17</sup>, **RR**<sup>22</sup>, **RS**<sup>17, 43, 142</sup>, **SC**<sup>9, 12, 17, 32, 36, 45, 53</sup>, **SP**<sup>14, 17, 22, 25, 33, 34, 37, 39, 42, 58, 60, 68, 139, 141, 142, 143</sup>.

*willistoni* group

*alagitans* subgroup

190. *Drosophila alagitans* Patterson and Mainland  
*Drosophila alagitans* Patterson and Mainland, in Patterson 1943:194.  
Type locality: Laguna Pátzcuaro, Michoacan, Mexico.  
Geographical distribution: **SC**<sup>9</sup>.

*bocainensis* subgroup

191. *Drosophila bocainensis* Pavan and Cunha  
*Drosophila bocainensis* Pavan and Cunha 1947:18.  
Type locality: Campos de Bocaina, São Paulo, Brazil.  
Geographical distribution: **DF**<sup>20, 21</sup>, **MT**<sup>58</sup>, **PR**<sup>41, 144</sup>, **RS**<sup>29, 28, 30, 31, 72</sup>, **SC**<sup>9, 12, 133</sup>, **SP**<sup>13, 14, 39, 41, 55, 58, 144</sup>.

192. *Drosophila bocainoides* Carson  
*Drosophila bocainoides* Carson 1954:150.  
Type locality: Mongaguá, São Paulo, Brazil.  
Geographical distribution: **MG**<sup>24</sup>, **RJ**<sup>145</sup>, **SC**<sup>9, 12, 133</sup>, **SP**<sup>13, 14, 39, 145</sup>.

193. *Drosophila capricorni* Dobzhansky and Pavan  
*Drosophila capricorni* Dobzhansky and Pavan 1943:14.  
Type locality: Mongaguá, São Paulo, Brazil.  
Geographical distribution: **BA**<sup>16, 22</sup>, **ES**<sup>17</sup>, **MA**<sup>22</sup>, **MG**<sup>17, 23, 24</sup>, **MT**<sup>22, 58</sup>, **PA**<sup>58</sup>, **PR**<sup>43</sup>, **RJ**<sup>17, 22</sup>, **RS**<sup>17, 26, 28, 43</sup>, **SC**<sup>9, 12, 32, 36, 45</sup>, **SP**<sup>13, 14, 17, 22, 37, 39, 55, 56, 58, 144</sup>.

194. *Drosophila changuinolae* Wheeler and Magalhães  
*Drosophila changuinolae* Wheeler and Magalhães 1962:169.  
Type locality: Changuinola, Panama.  
Geographical distribution: **SP**<sup>39</sup>.

195. *Drosophila fumipennis* Duda  
*Drosophila fumipennis* Duda 1925:220.  
Type locality: Suiza, Turrialba, Costa Rica.  
Geographical distribution: **AC**<sup>22</sup>, **AM**<sup>22, 35</sup>, **BA**<sup>15, 22</sup>, **DF**<sup>17, 20</sup>, **ES**<sup>17</sup>, **MA**<sup>22</sup>, **MG**<sup>23</sup>, **MT**<sup>22, 58</sup>, **PA**<sup>22, 56, 58</sup>, **PR**<sup>22</sup>, **RJ**<sup>5, 22, 37</sup>, **RS**<sup>27, 28, 30, 31</sup>, **SC**<sup>9, 12, 32, 36, 45</sup>, **SP**<sup>14, 17, 22, 25, 37, 39, 48, 55, 58, 144</sup>.

196. *Drosophila mangabeirai* Malogolowkin  
*Drosophila mangabeirai* Malogolowkin 1951:432.  
Type locality: Campina, Bahia, Brazil.  
Geographical distribution: **BA**<sup>15</sup>.

197. *Drosophila nebulosa* Sturtevant  
*Drosophila nebulosa* Sturtevant 1916:327.  
*Drosophila limbata* Williston 1896:414 (pre-occupied).  
Type locality: Saint Vicente, West Indians.  
Geographical distribution: **AC**<sup>22</sup>, **AM**<sup>17, 22, 35, 61, 62</sup>, **BA**<sup>15, 16, 17, 22</sup>, **DF**<sup>17, 18, 19, 20, 21, 43</sup>, **ES**<sup>17</sup>, **GO**<sup>22, 71</sup>, **MA**<sup>22</sup>, **MG**<sup>16, 17, 23, 24, 56</sup>, **MT**<sup>22, 47, 58</sup>, **MS**<sup>17, 47</sup>, **PA**<sup>22, 58</sup>, **PB**<sup>17</sup>, **PR**<sup>17, 22, 58</sup>, **RJ**<sup>17, 22</sup>, **RN**<sup>17</sup>, **RO**<sup>22</sup>, **RR**<sup>22</sup>, **RS**<sup>17, 22, 26, 27, 28, 29, 30, 31, 43, 72</sup>, **SC**<sup>9, 12, 32, 36, 45</sup>, **SP**<sup>14, 17, 22, 33, 34, 39, 42, 43, 56, 58, 68, 144</sup>, **TO**<sup>22</sup>.

198. *Drosophila parabocainensis* Carson  
*Drosophila parabocainensis* Carson 1954:149.  
Type locality: Feliz, Rio Grande do Sul, Brazil.  
Geographical distribution: **MG**<sup>23, 24, 145</sup>, **RS**<sup>13, 145, 146</sup>, **SP**<sup>14, 145</sup>.

*willistoni* subgroup

199. *Drosophila equinoxialis* Dobzhansky  
*Drosophila equinoxialis* Dobzhansky 1946:209.  
Type locality: Teffê, Amazonas, Brazil.  
Geographical distribution: **AM**<sup>13, 48, 61, 144, 147</sup>, **GO**<sup>43</sup>, **MT**<sup>53</sup>, **PA**<sup>53</sup>.

200. *Drosophila paulistorum* Dobzhansky and Pavan  
*Drosophila paulistorum* Dobzhansky and Pavan, in Burla et al. 1949:301.  
Type locality: Mogi das Cruzes, São Paulo, Brazil.

Geographical distribution: **AM**<sup>61, 147, 148, 149, 150</sup>, **BA**<sup>149, 151</sup>, **CE**<sup>149, 151</sup>, **GO**<sup>43, 149</sup>, **MA**<sup>149</sup>, **MG**<sup>24, 148, 149, 150</sup>, **MT**<sup>53</sup>, **PA**<sup>43, 53, 147, 149, 150, 151</sup>, **PE**<sup>149</sup>, **RJ**<sup>148, 149, 150</sup>, **RS**<sup>43, 147, 152, 153</sup>, **SC**<sup>12, 32, 147</sup>, **SP**<sup>14, 37, 39, 55, 144, 147, 148, 149</sup>.

201. *Drosophila tropicalis* Burla and Cunha  
*Drosophila tropicalis* Burla and Cunha, in Burla et al. 1949:302.  
Type locality: Palmas, Tocantins, Brazil.

Geographical distribution: **AC**<sup>144</sup>, **AM**<sup>61</sup>, **GO**<sup>20</sup>, **MT**<sup>53</sup>, **PA**<sup>43, 53</sup>.

202. *Drosophila willistoni* Sturtevant  
*Drosophila willistoni* Sturtevant 1916:327.  
*Drosophila pallida* Williston 1896:415 (pre-occupied).  
*Drosophila paulista* Dobzhansky and Pavan 1943:10.

Type locality: Saint Vicente, West Indians.  
Geographical distribution: **AM**<sup>61, 154, 155, 156</sup>, **BA**<sup>15, 144, 147, 155, 156</sup>, **DF**<sup>20</sup>, **MG**<sup>24, 147, 155</sup>, **MT**<sup>53</sup>, **PA**<sup>53, 147, 154, 155</sup>, **PR**<sup>58, 144, 147, 155</sup>, **RJ**<sup>37, 154, 157, 158, 159, 160, 161</sup>, **RS**<sup>26, 27, 28, 29, 43, 66, 67, 72, 92, 147, 152, 153, 155, 156, 161, 162, 163, 164</sup>, **SC**<sup>12, 32, 36, 53, 147, 155, 165</sup>, **SP**<sup>14, 37, 39, 55, 60, 144, 147, 154, 155, 161, 166</sup>.

Not assigned to subgenera

203. *Drosophila atra* Walker  
*Drosophila atra* Walker 1853:412.  
Type locality: Brazil.  
Geographical distribution: [localities not mentioned]<sup>3, 167</sup>.

204. *Drosophila tarsalis* Walker  
*Drosophila tarsalis* Walker 1853:412.  
Type locality: Brazil.  
Geographical distribution: [localities not mentioned]<sup>167</sup>.

*Hirtodrosophila* genus

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*hirticornis* group

205. *Hirtodrosophila gilva* (Burla)  
*Drosophila gilva* Burla 1956:263.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>.

206. *Hirtodrosophila mendeli* (Mourão, Gallo and Bicudo)  
*Drosophila mendeli* Mourão, Gallo and Bicudo 1965:578.  
Type locality: Mirassol, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>169</sup>.

207. *Hirtodrosophila morgani* (Mourão, Gallo and Bicudo)  
*Drosophila morgani* Mourão, Gallo and Bicudo 1967:160.  
Type locality: Mirassol, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>169, 170</sup>.

208. *Hirtodrosophila subgilva* (Burla)  
*Drosophila subgilva* Burla 1956:263.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>.

*thoracis* group

209. *Hirtodrosophila clypitata* (Grimaldi)  
*Drosophila clypitata* Grimaldi 1987:149.  
*Zygothrica clypeata* Burla 1956:251.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>.

210. *Hirtodrosophila pleurostrigata* (Burla)  
*Zygothrica pleurostrigata* Burla 1956:250.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>, **SP**<sup>168</sup>.

211. *Hirtodrosophila thoracis* (Williston)  
*Drosophila thoracis* Williston 1896:411.  
Type locality: not found  
Geographical distribution: **RJ**<sup>168</sup>.

212. *Hirtodrosophila strigocula* (Burla)  
*Zygothrica strigocula* Burla 1956:250.  
Type locality: Bahia, Brazil.  
Geographical distribution: **BA**<sup>168</sup>.

*magnarcus* group

213. *Hirtodrosophila levigata* (Burla)  
*Drosophila levigata* Burla 1956:261.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **RJ**<sup>170</sup>, **SP**<sup>168, 170</sup>.

214. *Hirtodrosophila magnarcus* (Frota-Pessoa)  
*Drosophila magnarcus* Frota-Pessoa 1951:407.  
*Drosophila caxienseis* Cordeiro 1952:304.  
*Drosophila paralevigata* Burla 1956:261.  
Type locality: Mogi das Cruzes, São Paulo, Brazil.  
Geographical distribution: **RJ**<sup>170</sup>, **RS**<sup>170, 171</sup>, **SP**<sup>168, 170, 172</sup>.

Not assigned to group

215. *Hirtodrosophila gavea* Vilela and Bächli  
*Hirtodrosophila gavea* Vilela and Bächli 2005:150.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>170</sup>.

216. *Hirtodrosophila jordanensis* (Frota-Pessoa)  
*Drosophila jordanensis* Frota-Pessoa 1945:473.  
Type locality: Campos de Jordão, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>170, 173</sup>.

217. *Hirtodrosophila minuscula* Vilela and Bächli  
*Hirtodrosophila minuscula* Vilela and Bächli 2005:154.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>170</sup>.

218. *Hirtodrosophila pictiventris* (Duda)  
*Drosophila pictiventris* Duda 1925:211.  
*Drosophila pictiventria* Patterson and Wheeler 1949:225  
(lapsus).  
Type locality: Costa Rica.  
Geographical distribution: **PA**<sup>170</sup>.

219. *Hirtodrosophila ramulosa* (Burla)  
*Drosophila ramulosa* Burla 1956:266.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168, 170</sup>.

220. *Hirtodrosophila subflavohalterata* (Burla)  
*Drosophila subflavohalterata* Burla 1956:264.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168, 170</sup>.

*Mycodrosophila* genus

221. *Mycodrosophila brunnescens* Wheeler and Takada  
*Mycodrosophila brunnescens* Wheeler and Takada 1963:399.  
Type locality: Belém, Pará, Brazil.  
Geographical distribution: **PA**<sup>174</sup>.

222. *Mycodrosophila elegans* Wheeler and Takada  
*Mycodrosophila elegans* Wheeler and Takada 1963:398.  
Type locality: Canal Zone, Panama.  
Geographical distribution: **PA**<sup>174</sup>.

223. *Mycodrosophila projectans* (Sturtevant)  
*Drosophila projectans* Sturtevant 1916:342.  
Type locality: Saint Domingos, West Indians.  
Geographical distribution: [localities not mentioned]<sup>2, 3, 174</sup>.

*Neotanygastrella* genus

224. *Neotanygastrella chymomyzoides* Duda  
*Neotanygastrella chymomyzoides* Duda 1927:71.  
Type locality: Mapiiri, Bolivia.  
Geographical distribution: **PA**<sup>1</sup>.

225. *Neotanygastrella tricoloripes* Duda  
*Neotanygastrella tricoloripes* Duda 1925:224.  
*Bunostoma brazilienseis* Frota-Pessoa 1946:176.  
Type locality: Suiza, Turrialba, Costa Rica.  
Geographical distribution: **PA**<sup>1</sup>, **RJ**<sup>175</sup>.

*Scaptodrosophila* genus

*latifasciaeformis* group

226. *Scaptodrosophila latifasciaeformis* (Duda)  
*Drosophila latifasciaeformis* Duda 1940:22.  
*Drosophila finitima gracilipes* Duda 1940:39.  
*Drosophila mirim* Dobzhansky and Pavan 1943:62.  
*Drosophila baeomyia* Wheeler 1949:145.

LISTS OF SPECIES

Type locality: Katona, Uganda.

Geographical distribution: **AC**<sup>22</sup>, **AM**<sup>22, 35, 61, 62</sup>, **BA**<sup>15, 16, 17, 22</sup>, **DF**<sup>17, 18, 19, 20, 21</sup>, **GO**<sup>22, 71</sup>, **MA**<sup>22</sup>, **MG**<sup>16, 17, 23</sup>, **MS**<sup>17</sup>, **MT**<sup>22, 47, 58</sup>, **PA**<sup>22, 56, 58</sup>, **PB**<sup>17</sup>, **PR**<sup>17</sup>, **RJ**<sup>17, 22</sup>, **RN**<sup>17</sup>, **RO**<sup>22</sup>, **SC**<sup>9, 12, 17, 32, 45</sup>, **SP**<sup>13, 14, 17, 22, 25, 37, 42, 58, 68</sup>.

*rufifrons* group

227. *Scaptodrosophila lebanonensis* (Wheeler)

*Drosophila lebanonensis* Wheeler 1949:143.

*Drosophila pattersoni* Pipkin 1956:251.

*Drosophila stonei* Pipkin 1956:254.

*Drosophila galloi* Lourenço and Mourão 1992:575.

Type locality: Beirut, Lebanon.

Geographical distribution: **RS**<sup>176, 177</sup>.

*Scaptomyza* genus

*Mesoscaptomyza* subgenus

*vittata* group

228. *Scaptomyza fuscinervis* Malloch

*Scaptomyza fuscinervis* Malloch 1924:11.

Type locality: Alto Itatiaia, São Paulo, Brazil.

Geographical distribution: **RJ**<sup>7</sup>, **SP**<sup>178</sup>.

229. *Scaptomyza nigripalpis* Malloch

*Scaptomyza nigripalpis* Malloch 1924:11.

Type locality: Alto Itatiaia, São Paulo, Brazil.

Geographical distribution: **MG**<sup>7</sup>, **RJ**<sup>7</sup>, **SP**<sup>178</sup>.

Not assigned to group

230. *Scaptomyza pleurolineata* Wheeler and Takada

*Scaptomyza pleurolineata* Wheeler and Takada 1966:70.

Type locality: Popayan, Colombia.

Geographical distribution: **SP**<sup>7, 179</sup>.

*Zaprionus* genus

*Zaprionus* subgenus

*armatus* group

*vittiger* subgroup

231. *Zaprionus indianus* Gupta

*Zaprionus indianus* Gupta 1970:63 (como *Z. indiana* – lapsus).

*Zaprionus inermis* Seguy 1938:343 (preoccupied).

*Zaprionus paravittiger* Godbole and Vaidya 1972:135.

*Zaprionus collarti* Tsacas 1980:147.

Type locality: India.

Geographical distribution: **BA**<sup>180</sup>, **DF**<sup>18, 19, 20, 21, 181</sup>, **MA**<sup>181</sup>, **MG**<sup>182</sup>, **MT**<sup>180</sup>, **PA**<sup>53, 180, 181</sup>, **RJ**<sup>180</sup>, **RO**<sup>181</sup>, **RS**<sup>30, 31, 67</sup>, **SC**<sup>9, 12, 32, 45, 53</sup>, **SP**<sup>181, 183</sup>.

*Zygothrica* genus

*atriangula* group

232. *Zygothrica atriangula* Duda

*Zygothrica atriangula* Duda, 1927:57.

Type locality: Pichis Peru.

Geographical distribution: **PA**<sup>1, 168</sup>, **RJ**<sup>168</sup>, **SP**<sup>14, 168</sup>.

233. *Zygothrica parapoeyi* Burla

*Zygothrica parapoeyi* Burla 1956:242.

Type locality: São Paulo, São Paulo, Brazil.

Geographical distribution: **SP**<sup>14, 168</sup>.

234. *Zygothrica paraptillialis* Burla

*Zygothrica paraptillialis* Burla 1956:246.

Type locality: Itatiaia, São Paulo, Brazil.

Geographical distribution: **SP**<sup>168</sup>.

235. *Zygothrica poeyi* (Sturtevant)

*Drosophila poeyi* Sturtevant 1921:76.

Type locality: Havana, Cuba.

Geographical distribution: **RJ**<sup>168</sup>, **SC**<sup>184</sup>.

236. *Zygothrica subcandens* Burla

*Zygothrica subcandens* Burla 1956:245.

Type locality: Itatiaia, São Paulo, Brazil.

Geographical distribution: **SP**<sup>14, 168</sup>.

237. *Zygothrica virgatinigra* Burla

*Zygothrica virgatinigra* Burla 1956:252.

Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.

Geographical distribution: **RJ**<sup>168</sup>, **SP**<sup>14</sup>.

*bilineata* group

238. *Zygothrica bilineata* (Williston)

*Drosophila bilineata* Williston 1896:409.

*Zygothrica gemma* Burla 1956:249.

Type locality: Saint Vicente, West Indians.

Geographical distribution: **MT**<sup>185</sup>, **PA**<sup>185</sup>, **PR**<sup>185</sup>, **RJ**<sup>168, 185</sup>, **RO**<sup>185</sup>, **RS**<sup>185</sup>, **SC**<sup>12, 184</sup>, **SP**<sup>14</sup>.

*candens* group

239. *Zygothrica candens* Burla

*Zygothrica candens* Burla 1956:244.

Type locality: Itatiaia, São Paulo, Brazil.

Geographical distribution: **SP**<sup>14, 168</sup>.

*dispar* group

*aldrichi* subgroup

240. *Zygothrica aldrichi* Sturtevant

*Zygothrica aldrichi* Sturtevant 1920:157.

Type locality: Panama.

Geographical distribution: **PA**<sup>1</sup>.

241. *Zygothrica joeyesco* Grimaldi

*Zygothrica joeyesco* Grimaldi 1987:234.

Type locality: Raleigh, Suriname.

Geographical distribution: **RO**<sup>186</sup>.

242. *Zygothrica mediovitta* Grimaldi

*Zygothrica mediovitta* Grimaldi 1987:238.

Type locality: Mizaruni-Potaro, English Guiana.

Geographical distribution: **PA**<sup>186</sup>.

243. *Zygothrica microeristes* Grimaldi

*Zygothrica microeristes* Grimaldi 1987:218.

Type locality: Belém, Pará, Brazil.

Geographical distribution: **AM**<sup>186</sup>, **ES**<sup>186</sup>, **PA**<sup>186</sup>, **MT**<sup>186</sup>, **RO**<sup>186</sup>.

244. *Zygothrica neoaldrichi* Burla

*Zygothrica neoaldrichi* Burla 1956:222.

Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.

Geographical distribution: **RJ**<sup>168, 186</sup>, **SP**<sup>14</sup>.

245. *Zygothrica nigropleura* Grimaldi

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*Zygothrica nigropleura* Grimaldi 1987:230.  
Type locality: Salesópolis, São Paulo, Brazil.  
Geographical distribution: **SC**<sup>184</sup>, **SP**<sup>186</sup>.

246. *Zygothrica paraldrichi* Burla  
*Zygothrica paraldrichi* Burla 1956:223.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **AM**<sup>186</sup>, **PA**<sup>186</sup>, **RJ**<sup>168, 186</sup>, **RO**<sup>186</sup>, **SP**<sup>14</sup>.

247. *Zygothrica pilipes* Hendel  
*Zygothrica pilipes* Hendel 1936:93.  
Type locality: Santarém, Pará, Brazil.  
Geographical distribution: **AM**<sup>186</sup>, **AP**<sup>186</sup>, **PA**<sup>1, 186</sup>, **RO**<sup>186</sup>.

248. *Zygothrica radialis* Grimaldi  
*Zygothrica radialis* Grimaldi 1987:240.  
Type locality: Mizaruni-Potaro, English Guiana.  
Geographical distribution: **PA**<sup>186</sup>.

249. *Zygothrica somatia* Grimaldi  
*Zygothrica somatia* Grimaldi 1987:236.  
Type locality: Monte Dourado, Pará, Brazil.  
Geographical distribution: **PA**<sup>186</sup>.

250. *Zygothrica zygia* Grimaldi  
*Zygothrica zygia* Grimaldi 1987:209.  
Type locality: Tabaquite, Trinidad.  
Geographical distribution: **AM**<sup>186</sup>, **PA**<sup>186</sup>, **RO**<sup>186</sup>.

### *caudata* subgroup

251. *Zygothrica caudata* (Hendel)  
*Drosophilura caudata* Hendel 1913:389.  
Type locality: Santarém, Pará, Brazil.  
Geographical distribution: **PA**<sup>1, 186</sup>, **SP**<sup>14, 168, 186</sup>.

252. *Zygothrica laticeps* Burla  
*Zygothrica laticeps* Burla 1954:246.  
Type locality: Cantareira, São Paulo, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>, **SP**<sup>168, 186</sup>.

### *dispar* subgroup

253. *Zygothrica dispar* (Wiedemann)  
*Achias dispar* Wiedemann 1830:556.  
Type locality: Brazil.  
Geographical distribution: **ES**<sup>186</sup>, **PA**<sup>1</sup>, **PI**<sup>186</sup>, **RJ**<sup>49, 144, 168, 186, 187</sup>, **SC**<sup>12, 32, 184</sup>, **SP**<sup>14, 48, 83, 168, 186</sup>.

254. *Zygothrica prodispar* Duda  
*Zygothrica prodispar* Duda 1925:189.  
Type locality: Pinipini, Peru.  
Geographical distribution: **BA**<sup>186</sup>, **MT**<sup>186</sup>, **PA**<sup>186</sup>, **PI**<sup>186</sup>, **RJ**<sup>49, 168, 186</sup>, **SC**<sup>12, 32, 184, 186</sup>, **SP**<sup>14, 168, 186</sup>.

### *fuscina* group

255. *Zygothrica fuscina* Burla  
*Zygothrica fuscina* Burla 1956:257.  
Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14, 168</sup>.

256. *Zygothrica venustipoeyi* Burla  
*Zygothrica venustipoeyi* Burla 1956:238.

Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>168</sup>.

### *hypandriata* group

257. *Zygothrica hypandriata* Burla  
*Zygothrica hypandriata* Burla 1956:246.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>, **SC**<sup>184</sup>, **SP**<sup>14, 168</sup>.

258. *Zygothrica lanceolata* Burla  
*Zygothrica lanceolata* Burla 1956:246.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SC**<sup>184</sup>, **SP**<sup>14, 168</sup>.

259. *Zygothrica spiculirostris* Burla  
*Zygothrica spiculirostris* Burla 1956:255.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14, 168</sup>.

### *orbitalis* group

260. *Zygothrica orbitalis* (Sturtevant)  
*Drosophila orbitalis* Sturtevant 1916:336.  
*Zygothrica nitidifrons* Duda 1927:55.  
*Drosophila ochracea* Hendel 1936:98.  
*Zygothrica parilis* Burla 1956:220.  
Type locality: Ilha Taboga, Panama.  
Geographical distribution: **PA**<sup>1</sup>, **RJ**<sup>168</sup>, **SC**<sup>12, 32, 184</sup>, **SP**<sup>14, 168</sup>.

### *virgatalba* group

261. *Zygothrica virgatalba* Burla  
*Zygothrica virgatalba* Burla 1956:252.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>, **SP**<sup>14</sup>.

### *vittimaculosa* group

262. *Zygothrica sectipoeyi* Burla  
*Zygothrica sectipoeyi* Burla 1956:236.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>, **SP**<sup>14</sup>.

263. *Zygothrica vitticlara* Burla  
*Zygothrica vitticlara* Burla 1956:226.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>.

264. *Zygothrica vittimaculosa* Burla  
*Zygothrica vittimaculosa* Burla 1956:227.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **RS**<sup>43</sup>, **SC**<sup>12, 184</sup>, **SP**<sup>14, 168</sup>.

265. *Zygothrica vittinubila* Burla  
*Zygothrica vittinubila* Burla 1956:225.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>, **SP**<sup>14, 83, 168</sup>.

266. *Zygothrica vittipunctata* Burla  
*Zygothrica vittipunctata* Burla 1956:230.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14, 168</sup>.

267. *Zygothrica zygopoeyi* Burla  
*Zygothrica zygopoeyi* Burla 1956:236.



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Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>; **SP**<sup>14</sup>.

### *vittatifrons* group

268. *Zygothrica vittatifrons* (Williston)  
*Drosophila vittatifrons* Williston 1896:408.  
Type locality: not found  
Geographical distribution: [localities not mentioned]<sup>2</sup>.

269. *Zygothrica vittimarginata* Burla  
*Zygothrica vittimarginata* Burla 1956:229.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>168</sup>.

### Not assigned to group

270. *Zygothrica apopoeyi* Burla  
*Zygothrica apopoeyi* Burla 1956:240.  
Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: **SC**<sup>184</sup>; **SP**<sup>14,168</sup>.

271. *Zygothrica clavipoeyi* Burla  
*Zygothrica clavipoeyi* Burla 1956:238.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>168</sup>.

272. *Zygothrica festiva* Burla  
*Zygothrica festiva* Burla 1956:256.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>; **SP**<sup>14</sup>.

273. *Zygothrica gracilipoeyi* Burla  
*Zygothrica gracilipoeyi* Burla 1956:240.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14</sup>.

274. *Zygothrica laevifrons* Duda  
*Zygothrica laevifrons* Duda 1927:56.  
Type locality: Pichis, Peru.  
Geographical distribution: **PA**<sup>1</sup>.

275. *Zygothrica laeiventris* Duda  
*Zygothrica laeiventris* Duda 1927:62.  
Type locality: P. Novo, Brazil.  
Geographical distribution: [localities not mentioned]<sup>3,5</sup>.

276. *Zygothrica mesopoeyi* Burla  
*Zygothrica mesopoeyi* Burla 1956:241.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14</sup>.

277. *Zygothrica pallidipoeyi* Burla  
*Zygothrica pallidipoeyi* Burla 1956:237.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>168</sup>; **SP**<sup>14</sup>.

278. *Zygothrica palpipoeyi* Burla  
*Zygothrica palpipoeyi* Burla 1956:243.  
Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>168</sup>.

279. *Zygothrica parvipoeyi* Burla  
*Zygothrica parvipoeyi* Burla 1956:239.

Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14,168</sup>.

280. *Zygothrica ptillialis* Burla  
*Zygothrica ptillialis* Burla 1956:245.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14,168</sup>.

281. *Zygothrica vittimarmorata* Burla  
*Zygothrica vittimarmorata* Burla 1956:232.  
Type locality: São Paulo, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>168</sup>.

282. *Zygothrica vittinotialis* Burla  
*Zygothrica vittinotialis* Burla 1956:230.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14,168</sup>.

283. *Zygothrica vittipoecila* Burla  
*Zygothrica vittipoecila* Burla 1956:231.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>168</sup>.

284. *Zygothrica vittisecta* Burla  
*Zygothrica vittisecta* Burla 1956:232.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14,168</sup>.

285. *Zygothrica vittivirgata* Burla  
*Zygothrica vittivirgata* Burla 1956:228.  
Type locality: Itatiaia, São Paulo, Brazil.  
Geographical distribution: **SP**<sup>14,168</sup>.

### Steganinae subfamily

#### *Amiota* genus

#### *Amiota* subgenus

286. *Amiota steganoptera* Malloch  
*Amiota steganoptera* Malloch 1926:31.  
Type locality: Higuito, San Mateo, Costa Rica.  
Geographical distribution: [localities not mentioned]<sup>2,188</sup>.

#### *Leucophenga* genus

#### *Leucophenga* subgenus

287. *Leucophenga argenteofasciata* Kahl  
*Leucophenga argenteofasciata* Kahl 1917:371 (as *argenteofasciata*).  
Type locality: Santarém, Pará, Brazil.  
Geographical distribution: **PA**<sup>5,6</sup>.

288. *Leucophenga brazilensis* Malloch  
*Leucophenga brazilensis* Malloch 1924:9.  
Type locality: Petrópolis, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>178</sup>.

289. *Leucophenga frontalis* (Williston)  
*Drosophila frontalis* Williston 1896:413.  
Type locality: Saint Vicente, West Indians.  
Geographical distribution: [localities not mentioned]<sup>3</sup>.

290. *Leucophenga hasemani* Kahl  
*Leucophenga hasemani* Kahl 1917:375.  
Type locality: Munez Freire, Espírito Santo, Brazil.

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Geographical distribution: **ES**<sup>6</sup>.

291. *Leucophenga maculosa* (Coquillett)  
*Drosophila maculosa* Coquillett, in Johnson 1895:317.  
Type locality: Florida, USA.  
Geographical distribution: [localities not mentioned]<sup>2,3</sup>.

292. *Leucophenga obscuripennis* (Loew)  
*Drosophila obscuripennis* Loew 1866:183.  
Type locality: Cuba.  
Geographical distribution: [localities not mentioned]<sup>3</sup>.

*Pseudiasata* genus

*Pseudiasata* subgenus

293. *Pseudiasata brasiliensis* Lima  
*Pseudiasata brasiliensis* Lima 1937:179.  
Type locality: São Gonçalo, Rio de Janeiro, Brazil.  
Geographical distribution: **PE**<sup>189</sup>, **RJ**<sup>190,191</sup>.

294. *Pseudiasata pseudococcivora* Sabrosky  
*Pseudiasata pseudococcivora* Sabrosky 1951:624.  
Type locality: Canal Zone, Panama.  
Geographical distribution: **BA**<sup>189</sup>, **PE**<sup>189</sup>.

*Rhinoleucophenga* genus

295. *Rhinoleucophenga angustifrons* Malogolowkin  
*Rhinoleucophenga angustifrons* Malogolowkin 1946:425.  
Type locality: Angra dos Reis, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>192</sup>.

296. *Rhinoleucophenga brasiliensis* (Lima)  
*Gitona brasiliensis* Lima 1950:251.  
Type locality: Brazil.  
Geographical distribution: [localities not mentioned]<sup>2,3</sup>.

297. *Rhinoleucophenga fluminensis* (Lima)  
*Gitona fluminensis* Lima 1950:249.  
Type locality: Brazil.  
Geographical distribution: [localities not mentioned]<sup>2,3</sup>.

298. *Rhinoleucophenga lopesi* Malogolowkin  
*Rhinoleucophenga lopesi* Malogolowkin 1946:424.  
Type locality: Rio de Janeiro, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>192</sup>.

299. *Rhinoleucophenga matogrossensis* Malogolowkin  
*Rhinoleucophenga matogrossensis* Malogolowkin 1946:420.  
Type locality: Salobra, Mato Grosso do Sul, Brazil.  
Geographical distribution: **MS**<sup>192</sup>.

300. *Rhinoleucophenga nigrescens* Malogolowkin  
*Rhinoleucophenga nigrescens* Malogolowkin 1946:421.  
Type locality: Salobra, Mato Grosso do Sul, Brazil.  
Geographical distribution: **MS**<sup>192</sup>.

301. *Rhinoleucophenga obesa* (Loew)  
*Drosophila obesa* Loew 1872:102.  
*Phortica hirtifrons* Johnson 1913:88.  
Type locality: Texas, USA.  
Geographical distribution: **MT**<sup>192</sup>; **RJ**<sup>192</sup>; **SC**<sup>12</sup>; **SP**<sup>192</sup>.

302. *Rhinoleucophenga personata* Malogolowkin  
*Rhinoleucophenga personata* Malogolowkin 1946:422.  
Type locality: Salobra, Mato Grosso do Sul, Brazil.  
Geographical distribution: **MS**<sup>192</sup>.

*Stegana* genus

*Ceratostylus* subgenus

303. *Stegana fumipennis* (Enderlein)  
*Ceratostylus fumipennis* Enderlein 1922:296.  
Type locality: Santa Catarina, Brazil.  
Geographical distribution: **SC**<sup>193</sup>.

*Steganina* subgenus

304. *Stegana brasiliensis* (Duda)  
*Protostegana brasiliensis* Duda 1927:27.  
Type locality: Petrópolis, Rio de Janeiro, Brazil.  
Geographical distribution: **RJ**<sup>5</sup>.

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