### GERHARD BÄCHLI (\*)

# A CATALOGUE OF THE TYPES IN THE COLLECTIONS OF MUSEO CIVICO DI STORIA NATURALE DI MILANO. IX. TYPES OF DIPTERA DROSOPHILIDAE

**Abstract.** — Fifty-three type specimens of 33 species of *Drosophilidae* are present in the Bezzi collection of the Natural History Museum of Milan. The species are alphabetically listed, with the data of the type specimens and some comments. *Stegana bakeri* Sturtevant is transferred to the genus *Leucophenga*.

Key words: Types, Drosophilidae, Museo Milano.

Riassunto. — Catalogo dei Tipi del Museo Civico di Storia Naturale di Milano. IX. I Tipi dei Diptera Drosophilidae.

Nella collezione Bezzi, conservata presso il Museo Civico di Storia Naturale di Milano, sono conservati 53 Tipi di *Drosophilidae* appartenenti a 33 specie. Le specie sono elencate in questo lavoro in ordine alfabetico, con i dati riguardanti gli esemplari tipici e alcuni commenti. *Stegana bakeri* Sturtevant è trasferita al genere *Leucophenga*.

#### Introduction.

The collection of Professor Mario Bezzi, one of the leading dipterists of the first half of this century, is now kept in the Natural History Museum of Milan. The Drosophilidae section contains the type material of 33 species, 3 of them described by Bezzi himself, 20 by Sturtevant and 10 by three other authors, based on Bezzis collection or sent to him as a gift. There are 12 holotypes, 1 neotype, 17 paratypes and 23 syntypes. The species originate mainly from the Philippines, from North America and from Africa. All specimens are in the original order as left by Bezzi.

<sup>(\*)</sup> Zoological Museum, University of Zürich-Irchel, Winterthurerstrasse 190, CH-8057 Zürich.

Of the following five species described by Bezzi or based on Bezzis collection no type specimens were found: *Drosophila megaspis* Bezzi, 1907; *Drosophila trilimbata* Bezzi, 1928; *Drosophila zebrina* Bezzi, 1928; *Amiota flavithorax* Duda, 1939; *Drosophila trichiaspis* Duda, 1940.

In the following list the genera and species are alphabetically arranged. For each species the original name, the type locality, the extant type specimens and the main part of the labels of these specimens are given. Comments are added where appropriate, including one new combination.

I wish to thank Dr. Carlo Leonardi of the Natural History Museum of Milan for the permission to work in the collection as well as for his help and cordial hospitality.

## List of species.

- 1. Amiota albodorsata Sturtevant, 1927, Philipp. J. Sci., 32:362. Loc. typ: Los Baños, Laguna Province, Luzon, Philippine Islands. Holotype  $\mathfrak P$ : Los Baños, P.I., Baker. The ovipositor shows a row of strong teeth, atypical for an Amiota species.
- 2. Amiota leucophengoides Sturtevant, 1927, Philipp. J. Sci., 32:363. Loc. typ.: Batbatan Island, Philippine Islands. Holotype &: Batbatan Isl., R. C. McGregor.
- 3. Drosophila (Paradrosophila) acuta Sturtevant, 1927, Philipp. J. Sci., 32:370. Loc. typ.: Mount Maquiling, Luzon, Philippine Islands.  $Holotype \ \$ : Mt. Makiling, Luzon, Baker.
- 4. Drosophila alfari Sturtevant, 1921, Carnegie Inst. Wash. Publ., 301:75. Loc. typ.: San José, Costa Rica. 1 paratype & : San José, Costa Rica, March 1915.
- 5. Drosophila (Spinulophila) balneorum Sturtevant, 1927, Philipp. J. Sci., 32:369. Loc. typ: Los Baños, Laguna Province, Luzon. 1 paratype  $\circ$ : Mt. Makiling, Luzon, Baker.
- 6. Drosophila bicolor var. punctipennis Duda, 1940, Annls hist.-nat. Mus. natn. hung., 33:29. Loc. typ.: Bartberton (sic!), 15.5.14, H. K. Munro. Holotype (?) 9: East London, 5.5.23, H. K. Munro. In spite of the different labelling I consider this specimen to be the one used by Duda as basis for the description. This species was considered to be a synonym of Lissocephala unipunctum Malloch, but, the specimen being a female, the specific identity is difficult to verify (personal communication of Dr. L. Tsacas).

- 7. Drosophila bilimbata Bezzi, 1928, Diptera Brachycera Anthericia Fiji Is., p. 159. Loc. typ.: Lautoka Mts., 11.iv.1920. 2 paratypes ( $\hat{s}$  and  $\hat{s}$ ): W. Greenwood, Mountains Lautoka, Fiji, 11/4/20. Considered as subspecies of D. sulfurigaster (Duda).
- 8. Drosophila cardini Sturtevant, 1916, Ann. ent. Soc. Am., 9:336. Loc. typ.: Havana, Cuba. 1 paratype & : Havana, Cuba, Jan. Feb. 1915.
- 9. Drosophila caribea Sturtevant, 1916, Ann. ent. Soc. Am., 9:335. Loc. typ.: Havana, Cuba. 1  $paratype \ \circ$ : Havana, Cuba, Jan. Feb. 1915. This is a synonym of D. ananassae Doleschall.
- 10. Drosophila elongata Sturtevant, 1927, Philipp. J. Sci., 32:372. Loc. typ.: Los Baños, Laguna Province, Luzon, Philippine Islands. Holotype &: Los Baños, P.I., Baker.
- 11. Drosophila finitima var. gracilipes Duda, 1940, Annls hist.-nat. Mus. natn. hung., 33:39. Loc. typ.: E. London and Rodriguez I. 1 syntype: E. London, Lightfoot, July 1914. Considered as a synonym of D. latifasciaeformis Duda.
- 12. Drosophila hirtiscutellata Sturtevant, 1927, Philipp. J. Sci., 32:372. Loc. typ.: Mount Maquiling, Luzon, Philippine Island. Holotype 3: Mt. Makiling, Luzon, Baker.
- 13. Drosophila hydei Sturtevant, 1921, Carnegie Inst. Wash. Publ., 301:101. Loc. typ.: Lakeland, Florida. 1 paratype  $\circ$ : Stock, Lakeland, Fla., 1919 / Gonotype.
- 14. Drosophila immigrans Sturtevant, 1921, Carnegie Inst. Wash. Publ., 301:83. Loc. typ.: White Plains, New York. 1 paratype  $\circ$ : Stock, White Plains, N.Y., 1919 / Gonotype.
- 15. Drosophila (Spinuophila) immigrans formosana Sturtevant, 1927, Philipp. J. Sci., 32:368. Loc. typ.: Taihoku, Formosa. 1 paratype &: Taihoku, Formosa, Mar. '24. This is a synonym of D. formosana Duda.
- 16. Drosophila melanica Sturtevant, 1916, Ann. ent. Soc. Am., 9:332. Loc. typ.: Kushla, Alabama. 1 paratype &: Kushla, Ala., Stock, &, A. H. Sturtevant / Gonotype.
- 17. Drosophila (Spinulophila) monochaeta Sturtevant, 1927, Philipp. J. Sci., 32:368. Loc. typ.: Mount Maquiling, Luzon, Philippine Islands. Holotype &: Mt. Makiling, Luzon, Baker.
- 18. Drosophila mulleri Sturtevant, 1921, Carnegie Inst. Wash. Publ., 301:101. Loc. typ.: Houston, Texas. 1 paratype &: Houston, Tex., 1915.

- 19. Drosophila plagiata Bezzi, 1908, Denkschr. med. Ges. Jena, 13:197. Loc. typ: ... aus der Ebene der Halbinsel des Kap der guten Hoffnung. 11 syntypes (2 & & and 9  $\circ$   $\circ$ ): Capo Africa. 3 syntypes & & : D. plagiata Bezzi &, Paratype.
- 20. Drosophila plurilineata Villeneuve, 1911, Wien. ent. Ztg., 30:83. Loc. typ.: Paris, Déc. 1910, Jan. 1911. 6 syntypes (3 & & and 3  $\circ$   $\circ$ ): Paris, I. 1911. This is a synonym of D. busckii Coquillett.
- 21. Drosophila quadrimaculata var. sexilineata Duda, 1940, Annls hist.-nat. Mus. natn. hung., 33:36. Loc. typ.: Ghinda Mochi, XII. 16, and Ac. E. L. 12 (Kapstadt). 1 syntype  $\hat{s}$ : Ac.-E.-L., 12. 1 syntype  $\hat{s}$ : Ghinda, Mochi. XII. 16. Considered as species.
- 22. Drosophila robusta Sturtevant, 1916, Ann. ent. Soc. Am., 9:331. Loc. typ.: Kushla, Alabama. 1 paratype &: Kushla, Ala., Stock, &, A. H. Sturtevant / Gonotype.
- 23. Drosophila (Spinulophila) rubra Sturtevant, 1927, Philipp. J. Sci., 32:369. Loc. typ.: Mount Maquiling, Luzon, Philippine Islands. Holotype &: Mt. Makiling, Luzon, Baker.
- 24. Drosophila simulans Sturtevant, 1919, Psyche (Boston), 26:153. Loc. typ.: Lakeland, Fla. 1 paratype 3: Lakeland, Fla., Stock / Gonotype.
- 25. Drosophila takahashii Sturtevant, 1927, Philipp. J. Sci., 32:371. Loc. typ.: Taihoku, Formosa. 1 paratype: Taihoku, Formosa / R. Takahashi, Mar. '24.
- 26. Drosophila virilis Sturtevant, 1916, Ann. ent. Soc. Am., 9:330. Loc. typ: New York, N.Y. 1 paratype  $\circ$ : New York, N.Y., Stock, A. H. Sturtevant,  $\circ$  / Gonotype.
- 27. Gitona distans Bezzi, 1924, Ann. Mag. nat. Hist., Ser. 9, 14:255. Loc. typ.: Cyprus. 1 paratype  $\circ:$  Cyprus, 11.IX.23, D.S. Wilkinson, from figs.
- 28. Leucophenga bezzii Sturtevant, 1927, Philipp. J. Sci., 32:364. Loc. typ.: Mount Maquiling, Luzon, Philippine Islands. Holotype  $\circ$ : Mt. Makiling, Luzon, Baker.
- 29. Leucophenga dudai Bächli, 1971, Exploration du Parc National de l'Upemba, Fasc. 71, p. 64. Loc. typ.: Congo belge: P.N.U., Lusinga (1760 m). 1 paratype & : Barberton, Worcester, 20.5.14, H. K. Munro.
- 30. Leucophenga munroi Duda, 1939, Annls hist.-nat. Mus. natn. hung., 32:45. Loc. typ.: Barberton, 27.5.13, H. K. Munro. Neotype  $\,\delta\,$ : Barberton, 2.5.13, H. K. Munro.

120 G. BÄCHLI

31. Stegana bakeri Sturtevant, 1927, Philipp. J. Sci., 32:363. Loc. typ.: Mount Maquiling, Luzon, Philippine Islands. Holotype &: Mt. Makiling, Luzon, Baker. This species was included by Sturtevant in Stegana mainly because of the bent down wings. I assume this to be an artifact. The specimen shows many characters found in Leucophenga albofasciata Macquart, particularly the narrow and bare third abdominal tergite. Therefore this species is here transferred to Leucophenga (NEW COMBINATION).

32. Zaprionus (Phorticella) bakeri Sturtevant, 1927, Philipp. J. Sci., 32:366. Loc. typ.: Mount Maquiling, Luzon, Philippine Islands. Holotype 3: Mt. Makiling, Luzon, Baker. The head is missing. This species is transferred to Phorticella.

33. Zaprionus multistriata Sturtevant, 1927, Philipp. J. Sci., 32:365. Loc. typ.: Mount Maquiling, Luzon, Philippine Islands.  $Holotype \ \$ : Mt. Makiling, Luzon, Baker. This species is transferred to Phorticella, but its systematic and nomenclatural status is not clear.

## Systematic Index.

The species are alphabetically arranged, with their actual generic combination and the number given in the list.

acuta Sturtevant, 1927 (Drosophila)	3	immigrans Sturtevant, 1921 (Drosophila)	14
albodorsata Sturtevant, 1927 (Amiota)	1	melanica Sturtevant, 1916 (Drosophila)	16
alfari Sturtevant, 1921 (Drosophila)	4	leucophengoides Sturtevant, 1927 (Amiota)	2
bakeri Sturtevant, 1927 (Leucophenga)	31	monochaeta Sturtevant, 1927 (Drosophila)	17
bakeri Sturtevant, 1927 (Phorticella)	32	mulleri Sturtevant, 1921 (Drosophila)	18
balneorum Sturtevant, 1927 (Drosophila)	5	multistriata Sturtevant, 1927 (Phorticella)	33
bezzii Sturtevant, 1927 (Leucophenga)	28	munroi Duda, 1939 (Leucophenga)	30
bilimbata Bezzi, 1928 (Drosophila)	7	plagiata Bezzi, 1908 (Drosophila)	19
cardini Sturtevant, 1916 (Drosophila)	8	plurilineata Villeneuve, 1911 (Drosophila)	20
caribea Sturtevant, 1916 (Drosophila)	9	punctipennis Duda, 1940 (Lissocephala)	6
distans Bezzi, 1924 (Gitona)	27	robusta Sturtevant, 1916 (Drosophila)	22
dudai Bächli, 1961 (Leucophenga)	29	rubra Sturtevant, 1927 (Drosophila)	23
elongata Sturtevant, 1927 (Drosophila)	10	sexilineata Duda, 1940 (Drosophila)	21
formosana Sturtevant, 1927 (Drosophila)	15	simulans Sturtevant, 1919 (Drosophila)	24
gracilipes Duda, 1940 (Drosophila)	11	takahashii Sturtevant, 1927 (Drosophila)	<b>2</b> 5
hirtiscutellata Surtevant, 1927 (Drosophila)	12	virilis Sturtevant, 1916 (Drosophila)	26
hydei Sturtevant, 1921 (Drosophila)	13		