

# Manchester Museum



## On the collection of British Diptera in the Manchester Museum

The Manchester Museum's collection of British Diptera numbers over 123,000 specimens of various kinds, namely: almost 100,000 dried specimens (both identified and undetermined), over 22,000 specimens preserved in spirit, and over 1,600 slide preparations. This Diptera collection contains 3347 species overall, with 48% species coverage of the British fauna (see Table). Some groups are particularly well-represented (e.g. Tipulidae and Limoniidae), others are clearly underrepresented, for instance, Cecidomyiidae (6% of the British fauna), Sciaridae (30%), Phoridae (13%) or Agromyzidae (21%). Only a few small families are as yet absent from the Museum's collection (see Table). The entire Diptera collection is fully labelled and contains lots of local material, particularly from Lancashire and Cheshire.

The Museum's collection of dry specimens of British Diptera was first assembled by John Hardy, the Assistant Keeper in Entomology (1889-1918), and by the end of his term of keepership should have consisted of about 500 species. Harry Britten (1919-1938), the successor of J. Hardy, collected and mounted thousands of Diptera specimens, mostly from Lancashire and Cheshire. He also arranged a number of valuable acquisitions, for instance, a collection of over 300 named species received from the BMNH in return for many rare specimens he presented to them. Harry Britten's extensive collection and the card-index of faunistic records based on his collecting in the north-west continue to be the important source of data for the Diptera of Cheshire and Lancashire (e.g. Kidd & Brindle 1959).

A further big step in the development of the British Diptera collection was undertaken by Alan Brindle, the Keeper in Entomology in 1962-1982. In 1967, he started a complete reorganization of the collection, which lasted several years and resulted in the present layout of the British Diptera collection. A large part of the present Diptera collection of dried specimens is the extensive collection of Cyril Henry Wallace Pugh, collected principally in his home district of Oswestry, Shropshire, which was acquired by the Museum in 1972-73. This collection consisted of nearly 60 store boxes and contained about 20,000 specimens of well over 2,000 species, and at that time "it was the finest collection of its kind existing in private ownership" (Report 1971-72: p. 10). In 1972-1974, the main part of the Pugh collection was incorporated into the Museum's Diptera general collection by Alan Brindle. Since

the late 1970s, the Diptera collection was largely augmented by Alan Brindle's own collecting during his survey on the Diptera and smaller aquatic orders of the north-west. This survey resulted in the assemblage of a large spirit collection of adults, mainly of the Tipulidae and other Nematocera families, and of Diptera larvae of all families (over 22,000 specimens of 540 species).

More detailed information about the development of the Manchester Museum's Diptera collection, as well as of other collections of British insects, has been provided by Logunov (2010).

The present Manchester Museum's Diptera collection of dried specimens (see Table) still remains in the same state as it was left by Alan Brindle after his retirement in 1982, and consequently the nomenclature of the entire collection is in need of updating and revision. It is my hope that the present brief report will encourage fellow-dipterologists to use the Manchester Museum's collection of the British Diptera. The collection is fully accessible and can be searched from the museum's website: <<http://www.museum.manchester.ac.uk/>>. Lists of species for individual Diptera families can be obtained from the Curator (contact details below).

Table: The extent of the British Diptera collection of dry specimens in the Manchester Museum, according to families

Family	British fauna	MM collection	%	Specimens
<b>Nematocera</b>				
Tipulidae	87	76	87	2536
Cylindrotomidae	4	4	100	115
Pediciidae	20	18	95	575
Limoniidae	215	154	72	4526
Bibionidae	18	16	90	568
Bolitophilidae	17	9	53	129
Diadocidiidae	3	2	67	16
Ditomyiidae	3	1	33	12
Keroplastidae	52	27	52	393
Mycetophilidae	471	218	45	2460
Sciaridae	266	46	18	1108
Cecidomyiidae	652	37	6	514
Psychodidae	99	43	43	610
Trichoceridae	10	10	100	243
Anisopodidae	4	4	100	173
Mycetobiidae	3	1	33	40
Scatopsidae	46	19	43	477
Ptychopteridae	7	7	100	219
Dixidae	15	14	93	473
Chaoboridae	6	4	67	97
Culicidae	34	19	55	577
Thaumaleidae	3	2	67	33
Simuliidae	35	18	52	374
Ceratopogonidae	170	69	40	824
Chironomidae	608	269	44	4031
<b>Brachycera</b>				
Xylophagidae	3	2	67	55
Athericidae	3	2	67	57
Rhagionidae	15	10	67	380

Tabanidae	30	25	<b>83</b>	806
Xylomyiidae	3	-		-
Stratiomyidae	48	47	<b>98</b>	1766
Acroceridae	3	3	<b>100</b>	80
Bombyliidae	9	9	<b>100</b>	216
Therevidae	14	7	<b>50</b>	182
Scenopinidae	2	2	<b>100</b>	45
Asilidae	29	21	<b>72</b>	726
Atelestidae	2	1	<b>50</b>	4
Hybotidae	178	87	<b>50</b>	1414
Empididae	212	150	<b>70</b>	4194
Dolichopodidae	296	174	<b>58</b>	3856
Opetiidae	1	1	<b>100</b>	13
Platypozidae	33	16	<b>48</b>	159
Phoridae	336	41	<b>12</b>	353
Lonchopteridae	7	5	<b>71</b>	249
Syrphidae	276	208	<b>75</b>	6621
Pipunculidae	95	39	<b>41</b>	622
Pseudopomyzidae	1	-		-
Micropezidae	10	9	<b>90</b>	258
Tanypozidae	1	-		-
Strongylophthalmyiidae	1	-		-
Megamerinidae	1	1	<b>100</b>	9
Psilidae	26	19	<b>71</b>	490
Conopidae	23	17	<b>73</b>	471
Lonchaeidae	46	14	<b>30</b>	187
Pallopteridae	13	7	<b>55</b>	381
Piophilidae	14	10	<b>74</b>	420
Ulidiidae	20	15	<b>75</b>	363
Platystomatidae	2	2	<b>100</b>	96
Tephritidae	76	59	<b>78</b>	1921
Lauxaniidae	56	36	<b>64</b>	1063
Chamaemyiidae	32	7	<b>22</b>	163
Coelopidae	2	2	<b>100</b>	72
Dryomyzidae	6	5	<b>83</b>	246
Phaeomyiidae	2	2	<b>100</b>	54
Sciomyzidae	70	51	<b>73</b>	1653
Sepsidae	29	21	<b>78</b>	719
Clusiidae	10	5	<b>50</b>	120
Acartophthalmidae	2	-		-
Odiniidae	9	1	<b>12</b>	1
Agromyzidae	392	78	<b>20</b>	1037
Opomyzidae	16	10	<b>63</b>	376
Anthomyzidae	20	11	<b>59</b>	98
Aulacigastridae	1	1	<b>100</b>	2
Stenomericidae	2	-		-
Perisclididae	3	-		-
Asteiidae	8	3	<b>40</b>	64
Milichiidae	18	1	<b>6</b>	9

Carnidae	13	5	<b>38</b>	85
Braulidae	2	1	<b>50</b>	32
Canacidae	11	1	<b>9</b>	7
Chloropidae	177	67	<b>38</b>	1300
Heleomyzidae	63	44	<b>71</b>	1108
Chyromyiidae	11	3	<b>29</b>	78
Sphaeroceridae	137	71	<b>52</b>	2524
Drosophilidae	62	32	<b>51</b>	564
Campichoetidae	2	2	<b>100</b>	37
Diastatidae	6	5	<b>83</b>	74
Camillidae	5	2	<b>40</b>	20
Ephyridae	151	69	<b>47</b>	1137
Hippoboscidae	14	8	<b>57</b>	296
Nycteribiidae	3	2	<b>67</b>	5
Scathophagidae	54	41	<b>80</b>	1166
Anthomyiidae	242	153	<b>63</b>	5418
Fanniidae	60	42	<b>70</b>	793
Muscidae	285	225	<b>80</b>	7576
Calliphoridae	38	36	<b>95</b>	1177
Rhinophoridae	8	7	<b>100</b>	87
Sarcophagidae	60	45	<b>75</b>	787
Tachinidae	261	155	<b>60</b>	2159
Oestridae	11	7	<b>64</b>	53
<i>Unidentified</i>				19841
<b>Total</b>	<b>7032</b>	<b>3347</b>	<b>48</b>	<b>99636</b>

In the Table the totals for the British Diptera list and for individual families are based on the figures given in the Dipterist's Handbook (in press); the family order and composition of Empididae, Coelopidae, Dryomyzidae and Heleomyzidae follow Chandler (1998). I wish to thank Peter Chandler for providing me with the most updated Diptera family totals and for editing the earlier draft.

## References

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