

This article was downloaded by: [Purdue University]

On: 13 March 2015, At: 15:18

Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954  
Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH,  
UK



## Annals and Magazine of Natural History: Series 1

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/tnah07>

### XXIV.—Remarks on the Generic Distribution of the British Hydromyzidæ (Diptera)

A. H. Haliday Esq., F.L.S.

Published online: 04 Dec 2009.

To cite this article: A. H. Haliday Esq., F.L.S. (1839) XXIV.—Remarks on the Generic Distribution of the British Hydromyzidæ (Diptera), *Annals and Magazine of Natural History: Series 1*, 3:17, 217-224, DOI: [10.1080/03745483909443225](https://doi.org/10.1080/03745483909443225)

To link to this article: <http://dx.doi.org/10.1080/03745483909443225>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan,

sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

## ANNALS OF NATURAL HISTORY.

---

XXIV.—*Remarks on the Generic Distribution of the British Hydromyzidæ (DIPTERA).* By A. H. HALIDAY.

THE multitude of genera and species contained in the family *Muscidæ* makes it convenient to employ some intermediate divisions between the family and the genera. At the same time their affinities are so multiplied and intricate that few of the divisions which have been proposed can be considered as generally recognised. This is more particularly the case with the subdivisions of the third grand section *Acalypteræ*. Meigen has omitted all such intermediate steps, but the order of succession in which his genera are disposed supplies in part the deficiency. Fallen, R. Desvoidy, Macquart and Latreille have each proposed a general arrangement, but their methods vary considerably, and especially in this section of the family. Of the groups instituted, Fallen's tribe of *Hydromyzidæ* may be considered as one of the most established, being adopted by Latreille with very little alteration. None of this tribe, except the singularly formed *Musca Mantis* of DeGeer, had been described before the appearance of Fallen's Essay in the Stockholm Transactions for the year 1813, in which the tribe first assumed a distinct character and definite limits. The author has here described nineteen genuine species, and characterized most of the genera ultimately admitted. The *Dolichopidæ* were included with this tribe in the first sketch of his arrangement of Diptera, published three years before. How great an advance was made in the interval is evident. Latreille adds to the tribe the exotic genus *Ropalomera*, and excludes from it the type of Fallen's genus *Hydromyza*, *Musca livens* of Fabricius, referred to the *Cordyluræ* in accordance with Meigen's arrangement. There seems no reason to doubt that such is the true affinity of this insect, and it is only unfortunate that the typical generic name was appropriated by Fallen to the only extraneous species which he has admitted.

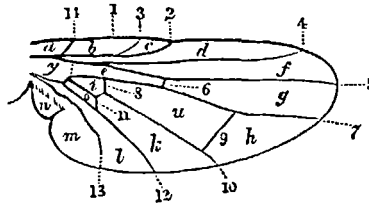
*Ann. Nat. Hist.* Vol. 3. No. 17. June 1839. R

It is remarkable, that R. Desvoidy, who was not likely to be influenced by too much deference for the authority of his predecessors, has also placed with his *Hydrellideæ* a group of *Cordyluræ* less aberrant (than *C. livens*) from the ordinary character; the type of his genus *Nupharia* being the *C. fraterna* of Meigen. In other respects his method to some extent corroborates the distinction of this tribe, as his seventh family *Napæellæ* comprises, in addition to Fallen's *Hydromyzidæ*, only the *Sphæroceridæ* and some osculant species allied to these last, and is again divided into two groups. It is true, that he has drawn the line of separation between these so as to include in the latter the genus *Ephydra* of Fallen, disjoined from its more natural affinities—the remainder of the *Hydromyzidæ* constituting his first tribe *Hydrellideæ*. The origin of this discrepancy is to be sought in the principles of Desvoidy's system, which give a preference to partial knowledge or conjecture concerning habits and economy, as the basis of arrangement, over the study of (at least external) structure; with the exception of this particular, and of his habitual disregard of the labours of previous writers, this portion of Desvoidy's Essay is executed with judgement and precision, and as a generic arrangement of this tribe is second only to Fallen's. Macquart, remanding *Hydromyza* and *Nupharia* to their proper place among the *Cordyluræ*, has further limited the *Hydromyzidæ*, by rejecting all the species which have not the arista pectinate. These he has placed in his family *Piophilidæ*, in conjunction with many genera of diversified character and remote affinity.

I here employ the tribe as defined by Fallen in his 'Diptera Sueciæ,' removing *Hydromyza* to the *Scatomyzidæ*, and rejecting the addition of *Ropalomera*. The tribe thus limited is one of the most remote from the Calyptrate section, and can scarcely be confounded with any other group, unless it be with certain species of the *Geomyzidæ*, which appear to offer the nearest affinity. Nevertheless from these the *Hydromyzidæ* may be distinguished, either by the form of the head and mouth, the characteristic imperfection of the cells of the wing, or the total concealment of the ovipositor. The greater number frequent the neighbourhood of waters, a destination indi-

cated by the satiny lustre of the minute scales which clothe the face and sides. I consider as the type of the group the *Ephydra riparia*, the feet of which are formed peculiarly for resting on the surface of pools. The larvæ of most *Ephydræ* live among the semi-fluid green matter, which mantles on the surface of stagnant waters, or in the mud at the bottom. Desvoidy assumes, that the other genera of the family in their larva state are nourished by the living tissue of phanerogamous plants; but this view rests on conjecture and a solitary fact observed regarding a species of *Notiphila*. The firm and homogeneous texture of the face indicates but little sensibility to smells, from which we may probably conclude that the larvæ are not eminently saprophagous.

Fam. MUSCIDÆ.



AREOLETS OR CELLS.

- a*, humeral.
- b*, subcostal.
- c*, mediastinal or ulnar.
- d*, radial.
- f*, cubital.
- g*, radical.
- e*, præbrachial.
- i*, pobrachial.
- o*, anal.
- u*, discoidal.
- g, h, k*, external.
- l, m*, axillary.
- n*, axillary lobe.

NERVES.

- 1° *Excurent or Main Nerves.*
  - 1, costal.
  - 2, subcostal.
  - 3, mediastinal.
  - 4, radial.
  - 5, cubital.
  - 7, præbrachial.
  - 10, pobrachial.
  - 12, anal.
  - 13, axillary.
- 2° *Recurrent or Cross Nerves.*
  - 14, humeral.
  - 6, præbrachial.
  - 8, pobrachial.
  - 9, discoidal.
  - 11, subanal.

Tribe HYDROMYZIDÆ, Fall.

*Calyptra auricula interiore quasi nulla\**. *Nervus mediastinus cum subcostali connatus, alæ ½ longitudinem vix perfringens.*

\* A little more apparent in *Ochthera*.

*Areolæ pobrachialis et analis perparvæ, modo non semper incompletæ\**.

*Antennæ breves, articulo 1<sup>mo</sup> inconspicuo.*

*Arista quasi exarticulata, non nisi dorso pectinata.*

*Facies convexa, absque foveolis membranaceis. Peristoma rotundatum. Mentum breve incrassatum. Tibiæ anticæ et posticæ setis lateralibus expertes. Ovidepositorium feminæ plane reconditum †.*

Fallen in his 'Diptera Sueciæ' has divided this tribe into four genera, exclusive of *Hydromyza*. This number has been greatly multiplied by authors. All the genera added by Meigen appear to represent natural groups, but others equally distinct remain confounded among the numerous *Notiphilæ* and *Ephydræ*. I have therefore retained the groups proposed by him as well as by Desvoidy, adding a few which seem to be denoted by characters of equal importance. I have not thought it necessary to give all these the rank of genera, but have reverted to the limited number employed by Fallen. One of his (*Psilopa*) has been degraded, as not materially differing from *Notiphila*. On the other hand, I have adopted the genus *Hydrellia* of Desvoidy, comprehending with it two allied groups unnoticed by him. I have not had occasion to refer much to Macquart; as his arrangement, where it departs from those before named, does not seem to be improved in consequence. It is rarely that this can be objected to any portion of his classical work. For the determination of the species, here as elsewhere, the Diptera of Europe by Meigen is the standard of reference. Macquart has added some to the number, and Desvoidy has described several *Notiphilæ*, *Hydrelliæ* and *Hydrynæ*, apparently unnoticed by either.

*Generum Synopsis.*

Femora antica.

{ ovata incrassata, ..... 1. Oclithera.  
{ subæqualia;

\* For an exception see *Ephydra nasica*. The imperfection of the same areolets is a character of the *Osciniulæ* also; but in that tribe they become incomplete after attaining their full development in the *Loxoceridæ*. This appears as well from the indication of their limit in the thickening of the nervures and the corresponding divarication of the radial and cubital nerves, as from the analogy of the last named tribe.

† There is a slight exception in the subgenera *Glenanthe* and *Teichomyza*.

Oculi	{	velutino-pilosi, .....	3. Hydrellia.
	{	glabri s. vage	
	{	pubescentes;	
	{	antennæ ar-	unguiculato, .....
	{	ticulo 2 <sup>do</sup> ...	2. Notiphila.
			exunguiculato, .....
			4. Ephyra.

Gen. 1. OCHTHERA, Latr.

Pedes antichi femoribus crassis ovatis, tibiis arcuatis acutis. Metatarsus posticus incrassatus. Areola prima exterior apice attenuata. Nervus discoidali-recurrens obliquatus. Corpus vix nisi nudum. Caput subtus attenuatum, subtrigonum: vertex impressus: oculi magni protuberantes: clypeus exertus, suborbiculatus. Palpi exerti dilatati. Arista dorso ciliis perpaucis pectinata. Abdomen deplanatum.

Sp. 1. *Mantis*, O: nigra submetallica, abdominis margine albo-punctato.

Latr. Hist. Nat. xiv. 391. Gen. Cr. Ins. iv. 347. tab. xv. fig. 10. Meig. D. Eur. vi. 78. tab. 58. fig. 18—21. Macq. S. à B. ii. 519. pl. xxi. fig. 7.—*Musca id.* DeGeer. Mém. vi. 143. pl. viii. fig. 15, 16.—*Musca manicata.* Fabr. Ent. Syst. iv. 334.—*Tephritis id.* Fabr. Antl. 323.—*Ochthera id.* Fallen Act. Holm. 1813. p. 244.—*Hydrom.* 2. Desv. Myod. 787.

In marshes, from Dorsetshire to the Isle of Skye, and westward to the wilds of Connemara.

Gen. 2. NOTIPHILA, Fall.

Caput oblatum. Oculi subglabri. Antennæ articulo 2<sup>o</sup> incrassato unguiculato; arista dorso pectinata. Mentum parum incrassatum. Alæ plerumque unguiculatæ.

*Subgenerum Synopsis.*

Nervus costalis

alæ apicem ambiens; alæ

planæ; proboscis

unigeniculata; abdomen

5-annulatum; antennæ articulo 3<sup>o</sup>

oblongo, ..... 5. Hygrella.

suborbiculato, ..... 6. Discocerina.

quasi 3-annulatum, ..... 4. Trimerina.

bigeniculata, ..... 7. Hecamede.

postice deflexæ, ..... 3. Discomyza.

in alæ apice desinens; abdomen

maris apice spinosum, ..... 2. Dichæta.

inermis, ..... 1. Notiphila.

Subg. 1. NOTIPHILA.

Nervus costalis in alæ apice evanescens. Tibiæ mediæ extrorsum spinosæ. Facies perpendicularis lateribus ciliata. Palpi dilatati. Abdomen depressum inerme.

Sp. 1. *cinerea*, N: thorace ferruginoso, abdomine cinereo nigro-maculato, facie fulvescente, palpis tibiis tarsisque ferrugineis.

Fallen Act. Holm. 1813. p. 250.—*Hydrom.* 8. Meig. Dipt. Eur. vi. 65. Macq. S. à B. ii. 521. pl. xxi. fig. 9.—*Keratocera palustris*, Desv. Myod. 88.—*K. trapa & fulvicornis*, Ibid. 78. 9.

Everywhere abundant in marshes. Desvoidy has observed that it deposits its eggs in the flowers of *Potamogeton*.

Sp. 2. *riparia*, N: thorace ferruginoso, abdomine cinereo nigro-maculato, facie cinerea, palpis tibiis tarsisque ferrugineis, tibiis annulo nigro.

Meig. Dipt. Eur. vi. 65. Macq. S. à B. ii. 522.

Found on the borders of the lake at Blarney Castle, county Cork.

Sp. 3. *uliginosa* (Curtis App.), N: thorace ferruginoso, abdomine cinereo nigro-maculato, facie fulvescente, palpis pedibus nigris, tarsis ferrugineis; *m. f.* 2 lin.

In a marsh between Glengariff and Adrighoule; banks of the Shannon at Tarbert; shores of Belfast Lough, much less common than the first species.

Antennæ and palpi black. Face tawny yellow. Frontals dull black. Vertex, orbits, and thorax rusty brown. Abdomen cinereous, with a blackish spot at the sides of each segment. Legs black, the tarsi (at least the two hinder pair) ferruginous. Halteres yellowish. Wings obscurely hyaline.

Subg. 2. DICHÆTA, Meig.

Abdomen maris convexum, apice bispinosum segmento penultimo margine pectinato. Characteres reliqui fere quales *Notiphilæ*.

Sp. 4. *caudata*, N: D: nigra obscura, facie fulvescente, tarsis ferrugineis.

Fallen Act. Holm. 1813. p. 249. *Hydrom.* 8.—*Dichata id.* Meig. Dipt. Eur. vi. 62. tab. 58. fig. 1—6. Macq. S. à B. ii. 521. pl. xxi. fig. 8.

Found in England. Communicated by F. Walker, Esq.

Subg. 3. DISCOMYZA, Meig.

Alæ abdomen non superantes, postice decurvæ. Tibiæ mediæ



nisi apice nudæ. Corpus depressum. Facies latissima rugosa. Abdomen 4-annulatum, orbiculatum, planum, subdeflexum.

Sp. 5. *incurva*, N: Discom: nigra tarsis posterioribus antennisque luteis.

*Psilopa id.* Fallen, Hydrom. 6.—*Discomyza id.* Meig. Dipt. Eur. vi. 76. tab. 58. fig. 14—17. Macq. S. à B. ii. 529. pl. xxi. fig. 13.

Found on the wooded cliffs about Isle-oronsay in Skye; September. Runs swiftly, but scarcely flies.

#### Subg. 4. TRIMERINA, Macq.

Tibiæ mediæ nisi apice inermes. Alæ planæ abdomen non superantes. Abdomen marginatum quasi 3-annulatum, *i.e.* segmentis 1<sup>o</sup> et 5<sup>o</sup> minimis, tribus intermediis magnis. Facies perpendicularis. Antennæ articulo 3<sup>o</sup> oblongo.

Sp. 6. *Madizans*, N: Tr: nigricans submetallica, antennis femoribus anticis pedibusque posterioribus rufis.

Fallen, Act. Holm. 1813. p. 252. Meig. Dipt. Eur. vi. 74. Ent. Mag. i. 178.—*Psilopa id.* Fallen, Hydrom. 7.—*Trimerina id.* Macq. S. à B. ii. 529.

Not uncommon on grassy banks, running actively and flying little.

#### Subg. 5. HYGRELLA.

Tibiæ mediæ nisi apice nudæ. Abdomen immarginatum segmentis 5 subæqualibus. Alæ abdomen superantes. Facies perpendicularis, lateribus ciliata. Antennæ articulo 3<sup>o</sup> oblongo deflexo.

Sp. 7. *nitidula*, N: H: obscure ænea, antennis tibiis tarsisque posterioribus ferrugineis, alis hyalinis.

Fallen, Act. Holm. 1813. p. 252. Meig. Dipt. Eur. vi. 75.—*Psilopa id.* Fallen, Hydrom. 7.—*Notiphila comta.* Meig. Dipt. Eur. vi. 68.—*Hydrellia id.* Macq. S. à B. ii. 524.—*Keratocera viridescens.* Desv. Myod. 790?

England; communicated by F. Walker.

Sp. 8. *leucostoma*, N: H: obscure ænea, antennis pedibusque ferrugineis, alis hyalinis nervo transverso fusco-cincto.

Meig. Dipt. Eur. vi. 68. tab. 58. fig. 12.—*Hydrellia id.* Macq. S. à B. ii. 524.

Common among aquatic plants.

#### Subg. 6. DISCOCERINA, Macq.

Tibiæ mediæ nisi apice nudæ. Alæ planæ. Facies medio convexa lateribus ciliata. Antennæ articulo 3<sup>o</sup> suborbiculato. Proboscis basi tantum geniculata.

*Clypeus subcertus brevissimus.*

Sp. 9. *obsurella*, N : Discoc : nigricans, fronte thoracque cinerascens, facie exalbida, tarsi ferrugineis.

*Notiphila nigrina*. Meig. Dipt. Eur. vi. 69.—*Hydrellia id.* Macq. S. à B. ii. 524.

*Var. β.* Antennis subtus et fronte antice ferrugineis.

*Notiphila obscurella?* Fallen, Act. Holm. 1813. p. 251. Hydrom. 10. Meig. Dipt. Eur. vi. 73.

*Var. γ.* Minor, thorace fusco, pedibus fere totis nigris.

Common in moist grassy places; *var. β.* rare.

Sp. 10. *calceata*, N : Discoc : nigra subnitida, tarsi basi flavis, scutelli disco subglabro.

Meig. Dipt. Eur. vi. 69.

Not rare about streams.

Sp. 11. *pulicaria*, N : Discoc : nigra, tarsi fuscis, scutello pubescente; nervo pobrachiali non abbreviato. 1 lin.

A minute species, with the wings scarcely exceeding the abdomen; the base of the costal nerve more bristly and the radial rather shorter than in the others: the pobrachial scarcely abbreviate. Arista with only four or five hairs. Thorax and scutellum pubescent. Extremity of the abdomen glossy. Club of the halteres white. Wings obscure hyaline. Not common; mostly found on windows.

•• *Clypeus certus inflexus subquadratus.*

Sp. 12. *glabra*, N : Discoc : nigra nitida, tarsi basi flavis, alis hyalinis, halteribus fuscis.

Meig. Dipt. Eur. vi. 69.—*Discocerina id.* Macq. S. à B. ii. 528. England. Communicated by F. Walker.

Subg. 7. HECAMEDE, *Curt. Guide, App.*

Tibiæ nisi apice nudæ. Facies tuberculata. Oculi a peristomate distantes. Proboscis bigeniculata. Antenna articulo 3<sup>o</sup> orbiculato. Abdomen planum subflexum 4-annulatum, ventre toto coriaceo haud insecto. Alæ abdomen non superantes.

Sp. 13. *albicans*, N : Hec : albida, facie puncto nigro antennis tibiis tarsisque flavis.

Meig. Dipt. Eur. vi. 65. Macq. S. à B. ii. 522.

On sandy coasts, especially on fresh marine rejectamenta; runs fast and does not fly readily.

[To be continued.]