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AN ANNOTATED LIST OF THE DIPTERA (FLIES) OF ALBERTA  
ADDITIONS AND CORRECTIONS<sup>1</sup>

By E. H. STRICKLAND<sup>2</sup>

Abstract

In 1938 a list of 1348 species of Diptera that, at that time, were known to occur in Alberta was published in the *Canadian Journal of Research*. Upon its appearance, specialists in several different groups in this order offered to re-examine all of the material in the University of Alberta collection that belonged to the families in which they were interested.

This re-examination necessitates the replacement of 50 of the names that were recorded in 1938 and the addition of about 300 new records. These, together with the information generously provided by members of the Dominion Division of Entomology regarding unpublished records of species that are not represented in the University collection, brings the total Albertan records of flies to nearly 1900 species. A capture of unusual interest is the 'eye gnat' (*Hippelates pusio* Lw.), the distribution of which, on this continent, was, supposedly, confined to "the southern United States where the winters are mild".

The list of Diptera of Alberta that was published in 1938\* contained 1348 names of species or varieties that were, at that time, known to occur in this province. Of these, some 1000 were represented in the collection of the University of Alberta.

Owing to war conditions, little further collecting has been possible here since that date. During this period, however, several specialists have examined the material on hand in certain groups. This necessitates the replacement of about 50 names that were employed in the original list and the addition of about 300 new records.

Dr. R. W. Salt, of the Dominion Entomological Laboratory at Lethbridge, has generously made available to us a record of the captures made by him in his survey of insects associated with alfalfa. Most of the species here recorded as unrepresented in the University collection and with their determination credited either to Mr. A. R. Brooks or to Mr. G. E. Shewell refer to this material. This, together with our own determinations of specimens that have accumulated in the University collection since 1938, with records from recent literature, brings the total additional Albertan records to approximately five hundred and thirty.

<sup>1</sup> Manuscript received June 12, 1946.

<sup>2</sup> Contribution from the Department of Entomology, University of Alberta, Edmonton, Alta.

<sup>3</sup> Professor of Entomology.

\* *Can. J. Research, D*, 16: 175-219. 1938.

Strickland 1946

In several families, generic and specific concepts have undergone considerable revision since the list was published. Little would be gained by recording these published modifications in so far as they affect species already recorded as occurring in Alberta. New records are, however, placed according to recent generic interpretations.

Following the procedure adopted in 1938, records are presented by ecological areas and an asterisk indicates that the species listed is represented in the University collection. Many of the species that were included in the original list are now known to occur in ecological areas other than those that were, there, recorded. Others that, at that time, were not represented in the University collection, have now been obtained for it. Since the insertion of such additional data would double the length of the following list, it is not considered that their inclusion is warranted at the present time.

#### Acknowledgments

In addition to the specialists whose assistance in the preparation of the original list was acknowledged in 1938, and whose initials appeared after each determination credited to them, others have now examined material in various groups. Their help is, herewith, gratefully acknowledged. The method of recording their assistance by a system of initials is employed as heretofore. The full names to which these new initials refer are as follows:--

A.B.	A. R. Brooks, Division of Entomology, Ottawa, Ont.
E.C.	E. T. Cresson, Academy of Natural Sciences, Philadelphia, Pa.
E.F.	E. G. Fisher, Academy of Natural Sciences, Philadelphia, Pa.
D.G.H.	D. G. Hall, Bureau of Entomology, Washington, D.C.
F.H.	F. C. Harmston, State College, Logan, Utah.
M.J.	M. T. James, State College, Fort Collins, Colo.
A.M.	A. L. Melander, Riverside, Cal.
G.S.	G. Steyskal, Detroit, Mich.
G.E.S.	G. E. Shewell, Division of Entomology, Ottawa, Ont.
H.T.	H. S. Telford, State College, St. Paul, Minn.
H.K.T.	H. K. Townes, Takoma Park, Md.

Additional records, taken from recent literature, are given without data other than locality and date of capture.

#### Additions and Corrections to the 1938 List

##### TIPULIDAE

Add:  
\* *Tipula (Oreomyza) banffiana* Alex. 19. VII.

##### SIMULIDAE

Add:  
\* *Simulium griseum* Coq. (G. Staines) 2. VIII.

#### CHIRONOMIDAE (TENDIPEDIDAE)

A recent revision of the tribe Tendipedini by Townes\* so greatly modifies the generic and specific concepts of the majority of species recorded in our 1938 list that it is considered advisable to cancel this in its entirety and to replace it with the following, for which we are indebted to Dr. R. B. Miller, University of Alberta. All of the earlier determinations, credited to other authorities, have been confirmed by Dr. Townes and the species are arranged in accordance with his revision.

- \* *Crictopus brunnicans* Wly. (R.M.) 10. V.
- \* *flavibasis* Mall. (R.M.) 8, 10. VII.
- \* *sylvestris* Fab. (G.E.S.) 2. VII.
- \* *tremulus* L. (R.M.) 10. V.
- \* *trifasciatus* Panz. (G.E.S.) 2. VII.
- \* *bicinctus* Mg. (R.M.) 12. VI.
- \* *Orthocladus lasiops* Mall.? (G.E.S.) 2. VII.
- \* *Tanypus monilis* L. (C.C.) 3. VII.
- \* *illinoensis* Mall. (C.C.) 10. VIII.
- \* *Calospectra fatigans* Joh. ? (R.M.) 8, 10. VI-VIII.
- \* *Microtendipes pedellus pedellus* DeG. (H.K.T.) 10. VI.
- \* *Polypedilum (Polypedilum) laetum* Mg. (H.K.T.) 10. VI.
- \* *Tanytarsus (Endochironomus) nigricans* Joh. (R.M.) 8, 10. VI-VIII.
- \* *subtendens* Tow. (H.K.T.) 3, 10, 14. V-VIII.
- \* (*Tribelos*) *jucundus, dimorphus* Mall. (R.M.) 8. VI.
- \* (*Tanytarsus*) *coracinus* Zett. (R.M.) 10, 18. IV.
- \* *albescens* Tow. 19.
- \* *Stenochironomus colei* Mall. (H.K.T.) 10. VI.
- \* *Xenochironomus scopula* Tow. 2. VI.
- \* *Cryptochironomus psittacinus* Mg. (H.K.T.) 3, 10, 17. VI-VIII.
- \* *Tendipes (Limnochironomus) modestus* Say (C.C.) 3, 8, 10. VII.
- \* *leucoscelis* Tow. (H.K.T.) 10. VII.
- \* *nervosus* Staeg. (H.K.T.) 8, 10. V-VII.
- \* (*Einfeldia*) *brunneipennis* Joh. (R.M.) 10. VII.
- \* (*Tendipes*) *decorus* Joh. (H.K.T.) 10, 12, 18. VI-VIII.
- \* *atrella* Tow. (H.K.T.) 2, 3, 10, 20. VI-IX.
- \* *utahensis* Mall. (R.M.) 10, 12. VI-VII.
- \* *riparius* Mg. (R.M.) 3, 5, 10, 19, 20. VII-VIII.
- \* *pilicornis* Fab. 18. VI.
- \* *hyperboreus* Staeg. (R.M.) 12. VI.
- \* *tuberculatus* Tow. (H.K.T.) 12. VI.
- \* *anthracinus* Zett. (R.M.) 12. VII.
- \* *plumosus* L. (R.M.) 3, 6, 10, 12, 14. V-VIII.
- \* *tentans* Fab. (C.C.) 3, 17. V.
- \* *Glyptotendipes (Demeljerea) atrimanus* Coq. (H.K.T.) 10. VII.
- \* (*Phytotendipes*) *barbipes* Staeg. (C.C.) 2, 3, 8, 10. V-VIII.
- \* *paripes* Edw. (R.M.) 1, 3, 10. V-VIII.
- \* *lobiferus* Say (R.M.) 10. VII-VIII.

#### CERATOPOGONIDAE

Add:  
*Forcipomyia simulata* Mg.? (G.E.S.) 2. VII.  
*specularis* Coq. (G.E.S.) 2. VII.  
*Dasyhelea cincta* Coq. (G.E.S.) 2. VII.

#### PSYCHODIDAE

Add:  
*Psychoda phalaemoides* L. "Alta".

#### DIXIDAE

Add:  
\* *Dixa cornuta* Joh. ? (E.S.) 10. Bred IX.  
Rearred from larvae in water in an old excavation for a basement.

\* Townes, H. K. The nearctic species of *Tendipedini* [Diptera, *Tendipedidae* (= *Chironomidae*)]. *Am. Midland Naturalist*, 34: 1-206. 1945.

## TRUPANEIDAE

## Add:

- Trupanea jonesi* Curr. (A.B.) 3. IX.
- radifera* Coq. 2.
- Eutreta facialis* Curr. (G.E.S.) 2. VII.
- sparsa* Weid. (E.S.) 4, 7. VIII.
- Ensina picciola* Big. (G.E.S.) 2, 3. VII.

## PALLOPTERIDAE

## Add:

- Palloptera jucunda* Lw. (G.S.) 18. VIII.
- similis* Joh. (G.S.) 10. IX.

## TANYPEZIDAE

## Replace:

- Tanypeza picticornis* C. & S. with *T. luteipennis* K. & S. (G.S.)

## CALOBATIDAE

## Add:

- Cnodacophora nasoni* Cr. 3, 19. VI-VIII.
- Paraclobata pallipes* Say (A.B.) 3. VI.

## SEPSIDAE

## Add:

- Pandora scutellaris ruficoxa* Mg. (A.B.) 3. VI.

## LAUXANIIDAE

## Replace:

- Camptoprosopella vulgaris* Fit. with *C. borealis* Shew. (G.E.S.)

## Add:

- Homoneura armata* Shew. 10. VI.
- praeapicalis* Shew. 3. VI.
- Sapromyza* nr. *hemingfordensis* Shew. (G.E.S.) 10. VI.
- rotundicornis* Lw. (A.B.) 15. VII.

## DROSOPHILIDAE

## Add:

- Scaptomyza graminum* Fall. (G.E.S.) 3. Bred XI.
- Drosophila quinaria* Lw. (G.S.) 10. VIII.

## OPOMYZIDAE

## Add:

- Anthomyza gracilis* Zett. (G.S.) 21. VI.
- tenuis* Lw. (E.S.) 10. VI-VIII.
- varigata* Lw. (G.E.S.) 15. VII.

## AGROMYZIDAE

## Add:

- Napomyza* nr. *lateralis* Fall. (E.S.) 10. VI.
- Cerodontha femoralis* Mg. (A.B.) 3. X.
- Agromyza jucunda* Wlp. (A.B.) 8. VII.
- marginata* Lw. (G.E.S.) 2. VII.
- melampyga* Lw. var. (F.M.) 10. V.
- flavonigra* Coq. (F.M.) 10. V.
- parvicornis* Lw. (A.B.) 15. VI.
- platyptera coronata* Lw. (G.E.S.) 2. VII.
- nr. *perpusilla* Mg. (E.S.) 10. VI.
- pusilla* Mg. (A.B.) 3. VIII.
- reptans* Fall. (E.S.) 10. V.
- riparia* Mall. (A.B.) 21. VII.
- scutellata variegata* Mg. (E.S.) 10. VI.
- Phytomyza acuticornis* Lw. (G.E.S.) 2. VII.
- obscurilla* Fall. (E.S.) 10. V-VI.

## PHYLLOMYZIDAE

## Add:

- Meoneura vagans* Fall. (A.B.) 15. VII.
- Desmomyza confusca* Curr. (A.B.) 3, 7, 10. VII-VIII.

## CHLOROPIDAE

## Add:

- Elliponeura diplotoxoides* Beck. (G.E.S.) 2. VII.
- Meromyza saltatrix punctifer* Beck. (E.S.) 10. VI.
- Diptoxa messoria* Fall. (G.E.S.) 2. VII.
- microcera* Lw. (E.S.) 10. V.
- recurva* Adam (G.E.S.) 2. VII.
- versicolor* Lw. (G.E.S.) 2. VII.
- Chlorops certima* Adam (A.B.) 8. VII.
- obscuricornis* Lw. (A.B.) 3. V.
- rubicunda* Adam (G.E.S.) 2. VII.
- Hippelates pusio* Lw. (G.S.) 10. VI.

On two separate occasions, at Cooking Lake, 1937, and Edmonton, 1945, we have taken specimens of what appeared to us to be this eye-infesting gnat of the southern United States. Dr. Steyskal has kindly confirmed this determination. There has been no suggestion of these flies causing any trouble in connection with the eyes of livestock or man in Alberta, but its presence here greatly increases its known range.

- Crassisetia costata* Lw. (E.S.) 3, 8, 10. III-IV.
- Dicraeus incongruus* Ald. (G.E.S.) 2. VII.
- Madiza neglecta* Beck. (G.E.S.) 2. VII.
- provocans* Beck. (E.S.) 2, 10. VII-VIII.
- punctifrons* Beck. (A.B.) 8. VII.
- Oscinella bispina* Mall. 15. VII.
- conicola* Gr. ?(E.S.) 9. VI.
- frit nitidissima* Mg. (E.S.) 2, 10. VII.
- inserta* Beck. (G.E.S.) 2. VII.
- nudiuscula* Lw. (A.B.) 8. VII.
- scabra* Ald. (E.S.) 10. VI.
- Bred from *Artemisia* root that was mined by mordellid larvae.
- soror* Macq. (E.S.) 4. VI.
- umbrosa* Lw. (A.B.) 15. VI.
- virgata* Coq. (E.S.) 20. VII.

## EPHYDRIDAE

## Add:

- Paralimna multipunctata* Will. (A.B.) 15. VII.
- Ditricophora tacoma* Cr. (E.C.) 10. VI.
- Discocerina argyrostoma* Cr. (E.C.) 10. VI.
- Psilopa gaudens* Cr. (A.B.) 15. V-VII.
- Hydrellia conformis* Lw. ?(A.B.) 15. VII. (probably n. sp.)
- hypoleuca* Lw. (G.E.S.) 2. VII.
- obscuripes* Lw. (G.E.S.) 2. VII.
- Parydra nitida* Cr. (E.C.) 10. IV and IX.
- Scatella stagnalis* Fall. (G.E.S.) 2. VII.
- Notiphila caudata* Fall. (E.C.) 10. VIII.
- loewi* Cr. (E.S.) 10. VII.

## BORBORIDAE

## Add:

- Sphaerocera pusilla* Fall. (A.B.) 3. IV-VI.
- Borborus marmoratus* Beck. (A.B.) 15. VII.

## CHAMAEMYIDAE

## Add:

- Pseudodinia pruinosa* Mel. (G.E.S.) 2. VII.
- Chamaemyia polystigma* Mg. (A.B.) 8, 15. VI-VII.