

Checklist of the Mosquitoes of British Columbia (2006)

By

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Introduction

This checklist is based on the 46 species listed in the 1983 Provincial Museum Handbook #41, *The Mosquitoes of British Columbia* (available on-line at: http://www.env.gov.bc.ca/wld/documents/techpub/rbcm_hb41/index.html). When that was written, many of our species had already changed their scientific names, some because they were misidentified and others because systematists had grouped them together in different ways, changing their genus. When a species is re-assigned to a different genus, the name of the author following the scientific name of the insect is put in parentheses. The history of most of these changes and a list of the older names are both in the Handbook.

In 1987 Ronderos and Bachmann proposed a change of genus that would rename Canada's only species in the genus, *Mansonia perturbans*, to *Coquillettidia perturbans*. The names of most of the genera of North American mosquitoes had been stable for about 50 years and Wood, Dang and Ellis (1979) argued persuasively that they should be retained, particularly if the characters used to separate the new genera needed microscopic examination. If nonspecialists were confused by this name change, it was nothing compared with the confusion caused by the proposal of Reinert (2000) to change the generic name of most North American *Aedes* to *Ochlerotatus*, using a character that could only be seen in adult females by dissection and microscopic examination. Many authors and editors accepted this change until, four years later, Reinert proposed further divisions of the old genus *Aedes*. At this point, a consortium of the editors of 10 journals dealing with mosquitoes encouraged "authors dealing with aedine mosquitoes to maintain usage of the traditional names" (summarized in ProMED-mail 2005). The subject is still controversial because changes to such well-used names, even if they do represent true differences between groups of species, entail changing many references in the literature and labels on specimens and have already caused a great deal of confusion for practical entomologists simply interested in identifying and controlling mosquitoes. I unashamedly support retaining the generic names used in Wood, Dang and Ellis' authoritative work on the mosquitoes of Canada, and use them in the following checklist.

I follow Darsie and Ward (2005) in considering *Aedes idahoensis* and *Aedes nipponii* as subspecies, and for those who wish to see Reinert's generic names, they are used in Darsie and Ward's comprehensive book.

Species in BC

Aedes aboriginis Dyar

Aedes aloponotum Dyar

Aedes campestris Dyar & Knab

Aedes canadensis (Theobald)

Aedes cataphylla Dyar

Aedes cinereus Meigen

Aedes communis (Degeer)

Aedes diantaeus Howard, Dyar & Knab

Aedes dorsalis (Meigen)
Aedes euedes Howard, Dyar & Knab
Aedes excrucians (Walker)
Aedes fitchii (Felt & Young)
Aedes flavescens (Mueller)
Aedes hendersoni Cockerell
Aedes hexodontus Dyar
Aedes impiger (Walker)
Aedes implicatus Vockeroth
Aedes increpitus Dyar
Aedes intrudens Dyar
Aedes mercurator Dyar
Aedes melanimon Dyar
Aedes nevadensis Chapman & Barr
Aedes nigripes (Zetterstedt)
Aedes pionips Dyar
Aedes provocans Walker
Aedes pullatus (Coquillett)
Aedes punctor (Kirby)
Aedes riparius Dyar & Knab
Aedes sierrensis (Ludlow)
Aedes spencerii spencerii (Theobald)
Aedes spencerii idahoensis (Theobald)
Aedes sticticus (Meigen)
Aedes togoi (Theobald)
Aedes vexans vexans (Meigen)
Aedes vexans nipponii (Theobald)

Anopheles earlei Vargas
Anopheles freeborni Aitken
Anopheles punctipennis (Say)

Culex pipiens L.
Culex tarsalis Coquillett
Culex territans Walker

Culiseta alaskaensis (Ludlow)
Culiseta impatiens (Walker)
Culiseta incidens (Thomson)
Culiseta inornata (Williston)
Culiseta minnesotae Barr
Culiseta morsitans (Theobald)

Mansonia perturbans (Walker)

Adjacent species to look for:

[Presumed nearest locality]

Aedes albopictus (Skuse)

[Imported tires, Seattle]

Aedes churchillensis Ellis & Brust
 [Alberta border, Peace R.]
Aedes japonicus japonicus (Theobald)
 [Snohomish, King and Pacific counties, WA]
Aedes nigromaculis (Ludlow)
 [Alberta border & central WA]
Aedes punctodes Dyar
 [Coastal salt marsh, AK]
Aedes schizopinax Dyar
 [Alberta border]
Aedes ventrovittis Dyar
 [High Cascade Mtns, WA]
Anopheles occidentalis Dyar & Knab
 [Whatcom, Benton, Franklin, Okanogan & Snohomish counties WA]
Culex apicalis Adams
 [Snohomish, Grays Harbor. & recently Cowlitz counties WA]
Culex boharti Brookman & Reeves
 [Lincoln & recently Cowlitz & Skamania counties WA]
Culex restuans Theobald
 [possibly Island County WA and N. Idaho]
Culex stigmatosoma Dyar {previously *peus* Speiser}
 [Southern WA]
Culex salinarius Coquillett
 [Pierce county WA]
Culiseta particeps (Adams)
 [Eastern WA]

References

- Belton, P. 1983. *The Mosquitoes of British Columbia*. British Columbia C Provincial Museum Handbook 41, 189pp. Queen's Printer, Victoria, BC.
- Darsie R.F. and R.A. Ward 2005. *Identification and distribution of the mosquitoes of North America north of Mexico* 384pp. University Press of Florida, Gainesville, FL.
- ProMED-mail . *Aedes aegypti and other mosquitoes: name changes (02)*. ProMED-mail 2005; 3 May:20050503.1226. <http://www.promedmail.org> . Accessed 30 March 2007
- Reinert, J.F. 2000 New classification for the complex genus *Aedes* (Diptera: Culicidae: Aedini), elevation of subgenus *Ochlerotatus* to generic rank, reclassification of the other subgenera, and notes on certain subgenera and species. *Journal of the American Mosquito Control Association* 16: 175-188.
- Wood, D.M. Dang, P.T. and Ellis, R.A. 1979, *The Mosquitoes of Canada Diptera: Culicidae*. 390pp. Agriculture Canada Publication 1686, Hull, PQ.