# IN MEMORIAM

## ROGER WARD CROSSKEY (1930-2017)

#### by James E. O'Hara

Canadian National Collection of Insects, Agriculture and Agri-Food Canada, 960 Carling Avenue, Ottawa, Ontario, K1A 0C6, Canada. E-mail: james.ohara@agr:gc.ca

**Roger Crosskey** passed away in London on 4 September 2017 in his 87th year. On a personal level I barely knew Roger, in large part because he was winding down his work on Tachinidae just as I was getting started on them as a graduate student in the 1980s. Roger was by then returning to his real passion, the Simuliidae. He did in fact achieve international fame and adulation for his work on both tachinids and black flies (and other groups as well), which is an odd combination (shared by our mutual friend Monty Wood) given that they are at opposite ends of the Diptera with little in common either biologically or taxonomically.

I reviewed Roger's major contributions to tachinidology just a few years ago in an article entitled "History of tachinid classification" (O'Hara 2013). Here I quote a passage from that article that sums up the greatest of Roger's achievements, most of which were published in the brief span of 12 years between 1973 and 1984:

"Roger Ward Crosskey became the next dipterist with the Commonwealth Institute of Entomology after the death of van Emden. His would be a remarkable tenure, singlehandedly producing a revision of the Rutiliini (a tribe of Dexiinae confined to the Oriental and Australasian regions, Crosskey 1973a), conspecti on the Tachinidae of Australia (Crosskey 1973b) and the Oriental Region (Crosskey 1976), a catalogue of the Afrotropical Tachinidae (Crosskey 1980b), and keys to the tachinid genera of tropical and southern Africa (Crosskey 1984). Additionally, Crosskey later assisted with the preparation of a catalogue of the Tachinidae of the Australasian and Oceanian regions (Cantrell and Crosskey 1989). These resources offered a wealth of information on the names, classification, identification and hosts of Old World non-Palaearctic Tachinidae." (O'Hara 2013: 17–18).

What I would like to do here is reminisce a little about the influence Roger has had on me and my work. I met him briefly when he visited the University of Alberta in Edmonton on black fly business in the early 1980s and got to know him slightly better when I visited the Natural History Museum (then the British Museum of Natural History) in London in the fall of 1985 to study siphonine types. It is fair to say that what I learned most from Roger came from his publications. He created order from chaos for most of the Old World tachinids, treating the faunas region by region and sparing only the Palaearctic tachinids that were then the domain of Louis Mesnil and Benno Herting. By the mid-1980s Roger had completed his most significant works on the Old World Tachinidae. This was just in time, from my perspective, because these works brought together the names I would need to re-evaluate for my systematic revision of the world Siphonini. They were also my introduction to Roger's approach to the subdisciplines of nomenclature and cataloguing.

Zoological nomenclature is that dark corner of systematics that many researchers venture into only when they have to. Roger took a more straightforward approach, metaphorically shining a bright light into these dark corners and dealing with what he found there. He even began one paper—a detailed examination of the identities of "long-neglected" name-bearing types of Walker and Stephens—with the astute observation: "It is a fact of taxonomic life that to ignore names does not make them go away…" (Crosskey 1974: 269). Roger seemed to recognize that nomenclatural issues are much like legal ones and can be stripped down to their essentials and sorted out without a lot of fuss by knowing and applying the rules of the *International Code of Zoological Nomenclature*. I have found Roger to be a great role model for my own forays into the *Code*.

Roger has also influenced me in the science and art of cataloguing. Those of us who get into cataloguing mostly do so because our research is hampered by the scattered state of the literature and we want to see all the names, types, distributions and references brought together to make our lives easier. At least, this is how it started for me. Yet all catalogues are not created equal and Roger developed a style that I admired early on. There are certain intricacies to be found in a good catalogue, such as consistency in applying the *Code*, treatment of types, priority of names, dating of references, recording of geographic distributions, and explanatory notes. This is the "science" side of it. Then there

is the "art" side: how best to set apart genera, when to use uppercase, bold and italics, and where to insert indents and hanging indents. The goal with these aesthetic variables is to create a flow through the valid names and their synonyms that can be quickly comprehended by the reader. Taking all of these criteria into consideration, Roger was a great cataloguer!

I wrote Roger for the last time in August 2009, shortly after publication of a catalogue of the Tachinidae of China (O'Hara *et al.* 2009). My e-mail began as follows:

"I have not written you in many years, but I hear about you from time to time from Monty. I have just published a catalogue of the Tachinidae of China with Hiroshi Shima and Chuntian Zhang. A copy is attached. I would just like to tell you that your conspectus of the Tachinidae of the Oriental Region was a great help to us during the preparation of our catalogue. I have always admired your careful and authoritative works."

I was delighted to receive back from Roger the letter (yes, not an e-mail) that is reproduced here as Fig. 1. You can tell from his remarks that he had an appreciation for the science and art aspects of cataloguing I referred to above. That he could conjure up in his mind many tachinid genera after "25-40+ years" was truly remarkable, though I was a little taken aback that he found black flies so much more demanding than tachinids. Tachinids are sufficiently demanding for most of us.

31 August 2009 Dear Jim, I have spent a happy time looking through your opus with Shima and Zhang on the tachinids of China. Phew! What a major effort. A delight to the eye for those of us who are or have been into cataloguing in a fairly big way. I like your lay-out very much. What has surprised me is that as I turned the pages yes, I eyeballed them all to some degree - I found that I still retain after 25-40+ years or so a pretty clear image of what many of the genera look like. Now I'm wondering why I ever gave up tachinids! Certainly it would have to have been a definite choice, simuliids are so demanding by comparison! But I'm glad I had the chance to describe some really nice beasts - a Torocca and a Mycteromyiella for instance, not to mention some wonderful rutiliines. I am very pleased to see the way in which you resolved the lectotypification problems. I still don't much like the latest Code's way of handling matters but as a good follower of the rules I go along with Article 74.5/74.6 now that ICZN has ruled definitively. In these cases you've credited me with fixation of the primary type (lectotype as holotype) and that seems fine - even if it has led you into extra 'explanatory keyboarding' for the notes! Jim, I enclose a list of my 35 publications on tachinids. I've never put one together previously - so you see you have spurred me into action. You probably have most if not all of the items but anyway somebody might find a use for the list if only to check some reference detail. (My favourite publication, by the way, is number 32, I've always felt pleased with that one!) I go into the 'B.M.' rather infrequently now (running down as I'm eighty in January) but it is nonetheless a useful base. The e-mail is rwc@nhm.ac.uk (or r.crosskey@nhm.ac.uk. (And my home address is as above.) With best regards Figure 1. Last letter received from Roger Roger touched on the topic of lectotypifications in his letter. I was faced with a problem when reconciling the provisions of the current *Code* (ICZN 1999) with Roger's treatment of name-bearing types written in compliance with an earlier version of the *Code* (ICNZ 1964). Roger had used the term "holotype" in his works for a single type specimen if he had reasonable grounds to believe that no other syntypes had ever existed. This was fine under the 1964 *Code* but was contrary to Recommendation 73F of the 1999 *Code* concerning "Avoidance of assumption of holotype", which states:

"Where no holotype or syntype was fixed for a nominal species-group taxon established before 2000, and when it is possible that the nominal species-group taxon was based on more than one specimen, an author should proceed as though syntypes may exist and, where appropriate, should designate a lectotype rather than assume a holotype (see also Article 74.6)".

I was not too concerned about Recommendation 73F at the time of my first catalogue with Monty Wood (O'Hara & Wood 2004) but by the time the Tachinidae of China was underway I had sharpened my thinking on nomenclatural matters and had to deal with the presumed "holotypes" of Roger and others. It would be a pity to discard them all and start over with possible syntypes. The *Code* is not crystal clear on the available options in this situation but implicit in the section on lectotypifications is the possibility to accept presumed holotypes as lectotype fixations (see discussion in O'Hara *et al.* 2009: 10). So, this was the approach taken in the Tachinidae of China and I was both happy and relieved to receive Roger's endorsement of it in his last letter to me.

Accompanying Roger's letter was a list of his 35 publications on tachinids, arranged in chronological order and including dates of publication. This list is reproduced below in the same style as used by Roger. We can be thankful that Roger spent the better part of three decades studying Tachinidae amidst his long and illustrious career as an entomologist and dipterist.

### References

- Crosskey, R.W. (1974) The British Tachinidae of Walker and Stephens (Diptera). Bulletin of the British Museum (Natural History). Entomology, 30, 267–308.
- International Commission on Zoological Nomenclature (1964) International Code of Zoological Nomenclature. Second edition adopted by the XV International Congress of Zoology. International Trust for Zoological Nomenclature, London. xix + 176 pp.
- International Commission on Zoological Nomenclature (1999) International Code of Zoological Nomenclature. Fourth edition adopted by the International Union of Biological Sciences. International Trust for Zoological Nomenclature, London. xxix + 306 pp.
- O'Hara, J.E. (2013) History of tachinid classification (Diptera, Tachinidae). ZooKeys, 316, 1–34.
- O'Hara, J.E., Shima, H. & Zhang, C.-t. (2009) Annotated catalogue of the Tachinidae (Insecta: Diptera) of China. *Zootaxa*, 2190, 1–236.
- O'Hara, J.E. & Wood, D.M. (2004) Catalogue of the Tachinidae (Diptera) of America north of Mexico. *Memoirs on Entomology, International*, 18, 1–410.

## Roger W. Crosskey - Bibliography of Publications on Tachinidae

*Note*: All entries are solo publications except for numbers 18, 31, 33 and 35. The publication date is given at the end of each entry, to day-date level where possible.

1.	1962a	A new species of <i>Actia</i> RD. (Diptera, Tachinidae) parasitic on the coconut leaf moth, <i>Agonox-ena pyragramma</i> Meyrick, in New Britain. <i>Bulletin of Entomological Research</i> <b>53</b> (1): 173-177. [April.]
2.	1962b	The identity of <i>Doddiana mellea</i> (Wiedemann) and a key to the Oriental species of <i>Doddiana</i> Curran and <i>Glaurocara</i> Thomson (Diptera: Tachinidae). <i>Annals and Magazine of Natural History</i> <b>(13) 4</b> : 683-688. [May 22.]
3.	1963a	A systematic review of the Oriental and Australasian species of <i>Argyrophylax</i> Brauer and Bergenstamm, including the description of a new species from New Britain (Diptera: Tachinidae). <i>Annals and Magazine of Natural History</i> <b>(13) 6</b> : 1-16. [October 9: journal issue nominally for January and reprints have this date.]
4.	1963b	A new species of <i>Torocca</i> Walker from New Guinea, and a key to the species of this genus (Diptera: Tachinidae). <i>Proceedings of the Royal Entomological Society of London</i> (B) <b>32</b> (9-10): 129-134. [October 18.]
5.	1963c	The identity of <i>Tachina convergens</i> Wiedemann, 1824 and <i>Tachina munda</i> Wiedemann, 1830 (Diptera: Tachinidae). <i>Annals and Magazine of Natural History</i> (13) <b>6</b> : 77-83. [October 29: journal issue nominally for February and reprints have this date.]
6.	1964a	A new genus and species of Australian Tachinidae (Diptera) parasitic on the sawfly <i>Zenarge turneri</i> Rohwer (Hymenoptera: Argidae). <i>Journal of the Entomological Society of Queensland</i> <b>3</b> : 18-22. [March 9.]
7.	1964b	Generic assignment and synonymy of some Curran types of African Tachinidae in the Division of Entomology, Pretoria. <i>Annals and Magazine of Natural History</i> (13) 7: 75-80. [November 12: journal issue nominally for February and reprints have this date.]
8.	1965	The immature stages and affinities of the tachinid fly <i>Glaurocara flava</i> , a parasite of the African bush-cricket <i>Homorocoryphus nitidulus vicinus</i> . <i>Proceedings of the Zoological Society of London</i> <b>144</b> (2): 203-217. [February 18.]
9.	1966a	Generic assignment and synonymy of Wiedemann's types of Oriental Tachinidae (Diptera). <i>Annals and Magazine of Natural History</i> (13) <b>8</b> (1965): 661-685. [July 6 1966: journal issue nominally for November and December 1965 and reprints dated December 1965.]
10.	1966b	New generic and specific synonymy in Australian Tachinidae (Diptera). <i>Proceedings of the Royal Entomological Society of London</i> (B) <b>35</b> (7-8): 101-110 [printed 95-104 in error]. [August 17.]
11.	1966c	The putative fossil genus <i>Palexorista</i> Townsend and its identity with <i>Prosturmia</i> Townsend (Diptera: Tachinidae). <i>Proceedings of the Royal Entomological Society of London</i> (B) <b>35</b> (9-10): 133-137. [October 25.]

12.	1967a	An index-catalogue of the genus-group names of Oriental and Australasian Tachinidae (Diptera) and their type-species. <i>Bulletin of the British Museum (Natural History)</i> (Entomology) <b>20</b> (1): 1-39. [April 19.]
13.	1967b	Two new genera and species of eryciine Tachinidae (Diptera) from Australia. <i>Journal of the Australian Entomological Society</i> <b>6</b> (1): 27-35. [June 30.]
14.	1967c	A revision of the Oriental species of <i>Palexorista</i> Townsend (Diptera: Tachinidae, Sturmiini). <i>Bulletin of the British Museum (Natural History)</i> (Entomology) <b>21</b> (2): 35-97. [August 25.]
15.	1967d	New generic and specific synonymy in Oriental Tachinidae (Diptera). <i>Proceedings of the Royal Entomological Society of London</i> (B) <b>36</b> (7-8): 95-108. [August 25.]
16.	1968	A new species of <i>Mycteromyiella</i> (Diptera, Tachinidae) parasitic on <i>Ophicrania leveri</i> Gunther (Phasmida: Phasmatidae) in the Solomon Islands. <i>Bulletin of Entomological Research</i> <b>57</b> (4): 525-532. [June.]
17.	1969a	The type-material of Indonesian Tachinidae (Diptera) in the Zoological Museum, Amsterdam. <i>Beaufortia</i> <b>16</b> (213): 87-107. [February 28.]
18.	1969b	The type-material of Tachinidae (Diptera) described by N. Baranov. <i>Bulletin of the British Museum (Natural History)</i> (Entomology) <b>24</b> (2): 27-63. [Joint publication: Sabrosky, C.W. and Crosskey, R.W.] [December 3.]
19.	1970a	The identity of <i>Palexorista quadrizonula</i> (Thomson) (Diptera), a tachinid parasite of lepidopter- ous pests in Africa. <i>Bulletin of Entomological Research</i> <b>59</b> (4): 579-583. [April 30.]
20.	1970b	The identity and synonymy of the New Zealand tachinid genus <i>Bothrophora</i> Schiner and its type- species (Diptera). <i>New Zealand Journal of Science</i> <b>13</b> (3): 505-50 8. [September.]
21.	1971	The type-material of Australasian, Oriental and Ethiopian Tachinidae (Diptera) described by Macquart and Bigot. <i>Bulletin of the British Museum (Natural History)</i> (Entomology) <b>25</b> (6): 251-305. [March 2.]
22.	1973a	A revisionary classification of the Rutiliini (Diptera: Tachinidae), with keys to the described species. <i>Bulletin of the British Museum (Natural History)</i> (Entomology) Supplement <b>19</b> : 1-167. [February 2.]
23.	1973b	A new species of <i>Metacemyia</i> (Dipt., Tachinidae) parasitic on <i>Manowia</i> (Orthopt., Eumastacidae) in Malawi. <i>Bulletin of Entomological Research</i> <b>62</b> (3): 375-382. [February 26.]
24.	1973c	A conspectus of the Tachinidae (Diptera) of Australia, including keys to the supraspecific taxa and taxonomic and host catalogues. <i>Bulletin of the British Museum (Natural History)</i> (Entomology) Supplement <b>21</b> : 1-221. [December 7.]
25.	1974	The British Tachinidae of Walker and Stephens (Diptera). <i>Bulletin of the British Museum (Natural History)</i> (Entomology) <b>30</b> (5): 267-308. [June 12.]

26.	1975	Tachinidae. Pp. 95-105 in Kloet, G.D. & Hincks, W.D. (editors), <i>A checklist of British insects</i> . Second edition (completely revised), Part 5. ix + 139 pp. Royal Entomological Society, London. [December 1. Tachinidae authorship attributed to R.W. Crosskey on page vii.]
27.	1976	A taxonomic conspectus of the Tachinidae (Diptera) of the Oriental region. <i>Bulletin of the British Museum (Natural History)</i> (Entomology) Supplement <b>26</b> : 1-357. [October 28.]
28.	1977a	Fam. Tachinidae. La faune terrestre d l'ile de Sainte Helene. Troisieme partie. 11. Insectes (suite et fin). <i>Annales: Musee Royal de l'Afrique Centrale</i> (Serie 8°) (Sciences zoologiques) <b>215</b> (1976): 144-152. [Published 1 June 1977, information from editor.]
29.	1977b	Family Tachinidae. Pp. 586-697 in Delfinado, M.D. & Hardy, D.E. (editors), <i>A catalog of the Diptera of the Oriental region</i> . Ill. Suborder Cyclorrhapha (excluding Division Aschiza). x + 854 pp., University Press of Hawaii, Honolulu. [November 4.]
30.	1980	Family Tachinidae. Pp. 822-882 in Crosskey, R.W. (editor), <i>Catalogue of the Diptera of the Afro-tropical region</i> . 1437 pp., British Museum (Natural History), London. [July.]
31.	1982	A taxonomic review of the Tachinidae (Insecta, Diptera) of the Philippines. <i>Steenstrupia</i> <b>8</b> (4): 105-155. [Joint publication: Dear, J.P. and Crosskey, R.W. [August 20.]
32.	1984	Annotated keys to the genera of Tachinidae (Diptera) found in tropical and southern Africa. <i>Annals of the Natal Museum</i> <b>26</b> (1): 189-337. [December 31.]
33.	1986	<i>Dexia</i> Meigen, 1826: proposed designation of <i>Musca rustica</i> Fabricius, 1775, as type species. Z.N.(S.) 2252. <i>Bulletin of Zoological Nomenclature</i> <b>43</b> (3): 282-287. [Joint publication: Crosskey, R.W., Herting, B., Mesnil, L P. and Wood, D.M.] [October 6.]
34.	1988	<i>Tachina orbata</i> Wiedemann, 1830 (currently <i>Peribaea orbata</i> ; Insecta, Diptera): proposed confirmation of neotype designation. <i>Bulletin of Zoological Nomenclature</i> <b>45</b> (3): 199-201. [September 23.]
35.	1989	Family Tachinidae. Pp. 733-784 in Evenhuis, N.L. (editor), <i>Catalog of the Diptera of the Austral-asian and Oceanian regions</i> . 1155 pp., Bishop Museum Press, Honolulu and E.J. Brill, Leiden. [Joint publication: Cantrell, B.K. and Crosskey, R.W.J [August 23.]