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## **Alexander Cuthbertson (1901 – 1942): from Scotland to Rhodesia, a dipterist’s journey**

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### **Summary**

A biographical account is given of the dipterist Alexander Cuthbertson, who was born in Scotland where his interest in Diptera began and there he concentrated on craneflies (Tipuloidea) and their ecology. He later lived and worked in the former Rhodesia (now Zimbabwe) in southern Africa, where he was employed as an economic entomologist. Accounts are provided of his early years, development of his interest in Diptera, and the impact he had on dipterology in the region. Although he died at an early age his contributions were, nevertheless, substantial.

### **Introduction**

Alexander Cuthbertson (Fig. 1) came from a working-class background in the Clyde shipbuilding industry and presents an example of how a highly intelligent and diligent boy went to college and developed a career in his chosen profession. He had natural talent which, combined with a sympathetic upbringing, resulted in his success as a professional entomologist. His development and career as a dipterist, beginning in Scotland and completed in Africa, is described. An assessment of his impact on the subject is attempted from a consideration of his collecting activities and publications and their use by others. His achievements developed from a deep interest and love for the natural world and retain a strong legacy. This is evidenced by his publications and the insect collections he made. The esteem of colleagues past and present is reflected in many species given his name, and modern studies still utilise the products of his work.

### **Early years**

Alexander Cuthbertson was born on 12 March 1901, in Govan, Glasgow, the sixth of nine children, six boys and three girls. His parents were George Cuthbertson, a journeyman boilermaker and his wife Mary (née McLean) (Fig. 2). The family then lived at 11 Gordon Place, Craigton, Govan. While Alexander was still a boy they moved to Hazelbank, Yoker, further down the River Clyde. Some time later his father, knowing his son’s interest in the natural world, brought home several woodwasps from a ship-building yard in Irvine, Ayrshire; they had emerged from timber of Scandinavian origin. This resulted in his son’s first publication, a short note on the subject (Cuthbertson 1921a; see Appendix 1 for his Scottish publication record). Alexander Cuthbertson lived at the house in Yoker at least until 1925, using this address in correspondence, various membership lists and in articles that he authored.

He attended The High School, Clydebank from 1915 to 1921, and copies of testimonials from there are filed in the archives of Charles Paul Alexander (1889-1981), the prolific American specialist in craneflies (Smithsonian Institution Archives, see Acknowledgements for details; hereinafter referred to as Alexander Papers). These are unequivocal in their praise of his performance. The Rector (the title for a Headmaster in Scottish schools) stated he was “an earnest student with a decided genius for biological sciences” and the Principal Teacher of Science was effusive in his praise: “[Cuthbertson] differed from most pupils in his powers of observation and in his exact methods of recording [and] the accuracy of his deductions ... at the examination he

was specially commended for his great knowledge of natural history obtained from direct observation. This from the H[is] M[ajesty's] I[n]spector of] S[chools] is the highest praise a student can get”.



**Fig. 1. Alexander Cuthbertson (1901-1942), dated 1932. Photo courtesy of the Smithsonian Institute, Washington, DC.**

1901. BIRTHS in the DISTRICT of GOVAN in the COUNTY of LANARK.

No.	Name and Surname.	When and Where Born.	Sex.	Name, Residence, & Rank or Profession of Father, Name, and Maiden Surname of Mother, Date and Place of Marriage.	Signature and Qualification of Licentiate, and Location, if that of the Home in which the Birth occurred.	When and Where Registered, and Signature of Registrar.
553	John McClay.	1801. March 27 <sup>th</sup>	M.	John McClay, Bookbinder, Pennycairn	David Simpson Master Glasgow Father	1801. April 1 <sup>st</sup> at Govan F. B. Macfarland
	(Registered at)	11. 16 <sup>th</sup> m. 11. 20		Rachel Simpson Lace-maker	present	
		14 Fleming Street, Govan				
554	Alexander Cuthbertson	1801. March 2 <sup>nd</sup>	M.	George Cuthbertson Boiler-maker (Glasgow)	George Cuthbertson Father	1801. April 1 <sup>st</sup> at Govan W. MacLaren, Assist. F. B. Macfarland
		11. 15 <sup>th</sup> m. 11. 21		Mary Cuthbertson W. S. M. Leam	(Present)	
		11 Gordon Place Glasgow		1835 March 27 <sup>th</sup> Govan		
555	Margaret Mary Mrs. Crossan	1801. March 2 <sup>nd</sup>	F.	John James McCrossan Marine Clerk	John W. Collier Father	1801. April 1 <sup>st</sup> at Govan F. B. Macfarland
		11. 16 <sup>th</sup> m. 11. 21		Rose Mary McCrossan W. S. Hughes	Present	
		3 George Drive Govan Parish		1898 April 21 <sup>st</sup> Newington Park		

24

F. B. Macfarland Registrar.

Fig. 2. Copy of Alexander Cuthbertson's birth certificate.

Cuthbertson's interest in natural history as a young man began with bird watching (MacDonald 1919; Cuthbertson 1922a, b; Munro 1942). His paper on black-headed gulls (Cuthbertson 1922a) gave a historical overview of their various colonies in the area using literature sources, and incorporating his own field data for several seasons from at least 1914 (when aged 13) to give details of numbers of breeding pairs. He commented on the lack of any useful quantitative observations from earlier dates. The breeding success, or rather lack of it, and constant relocation by the birds to different nesting sites in successive seasons was linked directly to egg collecting (for use as food). The account was written up when he was aged 21 and is a succinct factual account that ended on a personal note in the last paragraph: "If my remarks have shown the need of adequate protection of this economically important Gull [enabling] ornithologists to take a more comprehensive view of the distribution of the species ... my object will have been achieved". This article supports the opinions expressed on his abilities in his school reports. Cuthbertson was to recall later (Alexander Papers, 21 April 1932) that encouragement from Alexander Morrison Stewart (1861–1948) of Paisley, Renfrewshire had led to his interest in birds being replaced by insects. Stewart was a well-regarded local naturalist who had a special interest in insects and donated his collections to Paisley Museum. He was keen to popularise natural history through the Paisley Naturalists Society's lecture programmes and local publications (Moore 2015; in press).

On 17 November 1920, Cuthbertson wrote to Charles Joseph Gahan (1862–1939), Keeper of Entomology at the British Museum (Natural History) [now the Natural History Museum, London]. It is worth quoting extensively from this letter as it explains the early origins of his ambition and provides some detail to support his later recollections:

"Dear Sir, Some of my naturalist friends advised me to get the series of Pamphlets on Economic Ornithology and Entomology ... as I am a young enthusiast in both these

sciences. [...] I intend entering the ‘Varsity in April to study Medicine, but my great ambition is to become an Economic Entomologist – to get to work and do some really good work investigating injurious insects, diseases, etc. But how shall I go about it? Do I require to take a degree B.Sc., and special classes in Botany, Chemistry, Physiology and Entomology? I would be delighted if you can help me in this thing. Prof Lefroy says that the need for young naturalists, who can become trained Entomologists, is urgent, and more than Empire-wide. Is it a sufficiently well paid profession? I am aged 19 and wish to get to work at once ... I am a keen young naturalist who wishes to know how to set about my life-work. At present I am taking classes in Highers [leaving certificates Scots Educ. Department] ... I have studied fairly well by myself Zoology and at school Botany. But I have my birds and my butterflies, and it is in the study of these I delight devoting all my leisure moments ...”

The reference to Harold Maxwell Lefroy (1877-1925) is interesting. Lefroy, the first Imperial Entomologist, based in India from 1903-1910, came back to Britain to become the first Professor of Entomology at Imperial College London. There, his teaching and philosophy emphasised his mission to train economic entomologists for the practical needs they would face in the field, usually in a tropical situation. That a Glaswegian schoolboy was aware of this and was being inspired by the concept says something about both parties. There is no record of any reply to Cuthbertson’s plea to Gahan for career advice. His actual progress is described below.

The exact date that Cuthbertson joined the Glasgow Natural History Society is unrecorded, but, on 25 October 1921, he became its Honorary Secretary, and held the post until 1926 (Fig. 3). Despite involvement with the Society’s activities he never published formally in its journal. One account of local birds was recorded later in some detail in the delayed proceedings of an indoor meeting, having been read in 1921 (Cuthbertson 1930). Perhaps because of his career plan in entomology, he chose to publish in less parochial journals.

### **Developing interests in Diptera**

In 1922 Cuthbertson was appointed as assistant forester at Glasgow Corporation’s Ardgill Estate. He was to recall later that, in the Loch Goil area, he could “search for larvae on the banks of hill burns and in the soil of pine woods. J.R. Malloch a dipterologist of repute in America and Prof C.P.A[lexander] supplied a great deal of literature on the biology of the Tips” (Alexander Papers, 21 April 1932). These two correspondents were ideal sources for him. Alexander (1919, 1920) had just produced his first great work on tipulid biology, the published results of his PhD thesis. The seminal work on higher classification of Diptera by John Russell Malloch (1875-1963), using larval characters had also just appeared (Malloch 1917), just four years after Malloch had emigrated to America from Scotland. These works described their field methodology, and they generously sent him copies. Cuthbertson would have known of the success of Malloch who, without the same advantages of encouragement at home or schooling that Cuthbertson had enjoyed, had emigrated from the Glasgow area to North America. There he had become a professional entomologist, making a profound impact on the world stage (Hancock 1998; [2017]). In fact, from other correspondence it is evident that Cuthbertson knew the family personally (see below).

Among his contacts at this time Percy Hall Grimshaw (1869-1939), who was responsible for the Diptera collections at the Royal Scottish Museum, and James Ritchie (1882-1958), professor of natural history at the University of Edinburgh, were credited by Cuthbertson with their advice to him to concentrate on flies. Selection of the Tipulidae (sensu lato) was his own idea for “special study as several species were pests of considerable importance to local agriculture” (Alexander Papers, 21 April 1932). He developed a relationship with a number of

other biologists, to whom he appealed for advice; these included Dr Robert Stewart McDougall (1862-1947), a forestry specialist at the University of Edinburgh, and Mr J. Rennie of the North of Scotland Agricultural College at Aberdeen, who both also had an interest in craneflies.

Horace Francis Barnes (1902-1960) became a correspondent in connection with craneflies, which he was then studying in Wales. Cuthbertson wrote to Alexander on 10 August 1924: "Barnes has taken up the ecology of our group and seems to be doing well ... his new species *Gonomyia bispinosa* was changed owing to one of yours being so named in Acad. Nat. Sci. Phil. Proc.". The new name *G. conoviensis* Barnes, 1924, was substituted for the preoccupied *bispinosa* of Barnes, 1923. Clearly Cuthbertson was reading the *Entomologists monthly Magazine* where Barnes published some of his results. On 28 March 1925, Cuthbertson told Alexander that "my friend Barnes, in Wales, has published a paper on the ecological distribution (so-called) of the adult flies but has added very little to what we already know ... without reference to the larval stages and natural enemies & associates is of little scientific value". This paper, based on rainfall and altitude (Barnes 1925) and published in an academic journal by an entomologist working in an agricultural laboratory, failed to impress the young Cuthbertson. Barnes later became an authority on Cecidomyiidae (gall midges) and, from 1927 until his death in 1960, he worked at the Rothamsted Experimental Station; from 1946 to 1956 he authored seven volumes of the *Gall midges of economic importance*.

Another contact was John Samuel Dunkerly (1881-1931), who was then at the University of Glasgow, later moving to the University of Manchester. He was a parasitologist, to whom Cuthbertson sent *Tipula* larvae that had died during rearing; they proved to have been parasitised by a variety of Protozoa – "a flagellate *Polymastix*, several large gregarines and others yet unnamed" (Alexander Papers, 7 July 1923).

There were several collector naturalists in the Glasgow area who had already made contributions to the local cranefly species list. The Glasgow area had been the focus for tipulid recording from the turn of the previous century (e.g. Ord 1900; see also Stubbs 1992: 10; Hancock 2014). Cuthbertson gleaned information from their collections and was particularly impressed with that of James Joseph Francis Xavier King (1855-1933), from which Frederick Wallace Edwards (1888-1940) also derived data on several species new to Britain. However, Cuthbertson's general opinion of this coterie of collectors as a source of useful ecological information was minimal "owing to their being only interested in the manner (like postage stamp collectors) elementary, and unscientific, little valuable data or even imaginal [i.e. adult] habitats could be obtained ... they seem to have the old-woman-like jealousy for one who has entered their particular line of effort in 'collecting bugs!' with some success – no thanks to them" (Alexander Papers, 14 September 1925).

By this stage, Cuthbertson had developed a clear idea for his own work, probably inspired by reading the works of Alexander (1919, 1920), which contained his methodology for rearing larvae. Anything other than an investigation that included larval stages and their preferred habitats, together with behavioural observations in the field, was not only of no interest to him but was actively criticised by him. He was even critical of Malloch: following his comments on Barnes (see above) he ended this letter "intensified field work is essential for success in study of an [sic] group. Mr J. Malloch of Biological Survey has this failing if I may say so, but it is professional not personal" (Alexander Papers, 28 March 1925). When he wrote this Cuthbertson clearly had no idea of the terms of Malloch's employment, which was partly at least to advise farmers in Illinois on to how combat armyworm depredations and other insect pests on the plains. Elements of biological control were also investigated by Malloch, using his skill as a field naturalist (Hancock [2017]). These were the very activities that Cuthbertson himself aspired to as a potential career. Some youthful inexperience is evident. In his extensive correspondence with Alexander, he made no comment on him having abandoned his earlier studies on juvenile

stages in favour mainly of describing new species. Possibly he came to appreciate that knowledge of biology and ecology inform taxonomy and systematics.

## Natural History Society of Glasgow

Hon. Secretaries—  
ALEXANDER CUTHBERTSON,  
Hazelbank, Yoker.  
H. STUART GIRVAN, B.L.  
252 West George Street.

Hon. Treasurer—  
ROBERT GRIERSON,  
65 Bath Street.

THE ROOMS, 207 Bath Street,

GLASGOW, 6<sup>th</sup> Dec. 1923

Dear Dr. Alexander,  
I propose completing my notes for your  
Tipulid part of the Vade Museum during the Armas vacation.  
I am going to undertake a detailed account of my  
observations on the Erioptera (s.l.) for Rogers who has  
written me at length, and I am well pleased with his  
already. — a man, like you, after my own heart.

This is a wee note to ask you to send  
on the official sheets to be filled in, if  
you are still thinking of these collecting  
data on the Scottish crane-flies.

With all good wishes for the

Festive Season.

Yours sincerely,

Alexander Cuthbertson.

Kindest regards to Mrs. C.P.A.

Fig. 3. Letter to C.P. Alexander, 1923, using Natural History Society of Glasgow headed notepaper.

In 1923, Cuthbertson became a member of the Royal Scottish Arboricultural Society, evidently resulting from his employment as a forester. One of his earlier published notes (Cuthbertson 1923a) arose from an excursion by that society to Perthshire: this demonstrated his ability to identify beetles and an awareness of relevant literature. He was one of three recipients to receive a bursary to attend that meeting. Despite this apparent progress, it seems that he abandoned any idea of a working specifically in forestry when, in the autumn of 1922, he enrolled as a student at the West of Scotland Agricultural College, which was then in Glasgow at 6 Blythswood Square. This college was established there in 1899 and after 1927 moved to Auchincruive, Ayrshire, becoming one of the Scottish Agricultural Colleges (Martin 1994). The University of Glasgow awarded undergraduate and postgraduate degrees to these colleges (Moss *et al.* 2001). Cuthbertson's work was now focussed on fields, crops and animal stock rather than on forests and timber.

Cuthbertson's published work on craneflies (Appendix 1) began with a short note (Cuthbertson 1923b), but this included observations on ecology and swarming behaviour; he acknowledged Edwards for help with identification. The proceedings of the Glasgow Natural History Society show that he read accounts, or exhibited specimens at meetings, that demonstrated his interest in the juvenile stages. The aquatic larva of *Dicranota guerini* Zetterstedt from West Kilbride, Ayrshire, and those of *Ptychoptera paludosa* Meigen from Westerton Garden Suburb, Glasgow, were shown at meetings in 1923 and 1924. A report on a note he had read at a meeting on 30 October 1923 mentioned eleven additions to the local list of craneflies of which six are based on Edwards (1921) and the other five must have been identified by Cuthbertson, using Edwards' paper with its keys and figures. On 29 December 1926, Cuthbertson read a paper concerning 175 species of Tipulidae that had been recorded from the Clyde area and said that "he had seen five others in local collections. *Adelphomyia* [now *Paradelphomyia*] *nielseni* (Kuntze) from Dunbartonshire, new to Britain, and *Ormosia uncinata* (de Meijere) [i.e. *O. hederæ* (Curtis)] were exhibited". The text for this paper was based on his published article (Cuthbertson 1926d). From this, it is evident that he had been keeping local cranefly records from literature and fieldwork in a numbered list. As new species were added they were simply given a consecutive number and were derived from his own collecting, from the British Museum collection, the J.J.F.X. King collection in Glasgow (later acquired as a bequest by the University of Glasgow) or the Royal Scottish Museum, Edinburgh. The fate of Cuthbertson's own collection from this period is unknown, as is its extent or volume. Correspondence with Alexander indicates that they exchanged specimens of adults, and he also exchanged specimens with James Speed Rogers (1891-1955) in Gainesville, Florida. From the context of the letters these latter at least were probably entirely larvae. When Alexander began to concentrate on adult taxonomy he sent his entire collection of juvenile stages to Rogers.

Cuthbertson recalled that "the summer vacations of 1923-25 were spent on farms in Ayrshire and the Isle of Bute and every occasion was taken of continuing the study of craneflies in the field in spare time" (Alexander Papers, 21 April 1932). His observations resulted in a series of papers (Cuthbertson 1923b; 1926a-h; 1927a-c; 1929a-c), mostly written before he left Scotland although many did not appear until afterwards. It may be noted that some of these have titles that use a numbered sequence that is apparently incomplete. This anomaly could be explained by their appearance in different journals, the editors of which might not have accepted such numbering when they had not been involved with any other part(s) of the sequence. In addition, delays between submission and printing would have meant their appearing out of order. It later appears (Alexander papers, letter 3 February 1930) that some of these papers were written in, or at least sent from, Rhodesia. He also worried that these papers were being ignored: "I sent one on Mating and Oviposition Habits to the EMM about a year ago, but it seems to have gone astray. Out here in African isolation one feels so 'out of it' that I am beginning to despair of competing



in the entomological arena. I feel I do not matter anymore in European entomology!" In fact, this paper was published in June 1929 (Cuthbertson 1929a), so his isolation and the vagaries of the postal system are to blame, not his performance.

Cuthbertson was scheduled to broadcast a talk on BBC radio entitled "Wild birds and insect pests" in February 1926 (Anonymous 1926) and also produced a popularised account of craneflies (Cuthbertson 1925). He obtained his C.D.A. (College Diploma of Agriculture) in 1925 and, as a testimonial from the Head of the College shows, his performance as a student was of remarkable quality (Fig. 4).

**THE WEST OF SCOTLAND AGRICULTURAL COLLEGE.**

**6 BLYTHWOOD SQUARE, GLASGOW.**

**21st. October, 1925.**

**MR. ALEXANDER CUTHBERTSON was a Student during the Winter Session 1923-1924 in my Lectures and Laboratory Classes in Agricultural Ecology (including Entomology). He obtained a First Class Certificate and a College Prize at the close of the Session and subsequently received the highest marks in this subject at the College Diploma Examination.**

**I have long known Mr. Cuthbertson as a keen and intelligent Field Naturalist and as an energetic and capable Secretary of the Glasgow Natural History Society. I have watched his progress as an entomologist and I consider that his work, in particular on the bionomics of Diptera, shows exceptional promise. He has already contributed a considerable bulk of material, derived from original observation in this branch, to various Scientific Journals and to the proceedings - eventually for publication - of the Glasgow Natural History Society.**

**In this work he has taken a line of his own and has shown himself capable of independent investigation of merit.**

**I have always found Mr. Cuthbertson exemplary in conduct, pleasing in personality, and entirely trustworthy.**

**(Signed) L.A.L. KING, M.A., Cantab.  
Professor of Zoology.**

Fig. 4. Copy of Cuthbertson's testimonial from Professor L.A.L. King.

In his earliest letters to Alexander, Cuthbertson exhibited a rather school-boyish phraseology. The earliest letter is undated but addressed from Lochgoilhead, so was written some time in 1922:

“Dear Sir, I thank you very much for your work [Alexander 1920] ... some day I may send you some of my stuff on the Tipulidae; but at present I am sticking at it like a hatter and hope to do some really good work ... [I] find most of we economic students are working in quite different lines. My methods are crude comparatively. What is your general procedure? In concluding this short note may I congratulate you highly upon your work. It makes me almost think nous autres Écossais are not the only good entomologists in this happy little world of ours!”

Alexander was, nevertheless, always supportive and polite, usually confining himself to specific entomological issues. Only in one exchange during their initial sequence of correspondence do views of a personal element occur. This was in relation to the Mallochs. Alexander started work at the Illinois Natural History Survey in 1919, where Malloch had obtained a post in 1913 and remained until 1921, when he went to Washington DC. In 1919, at the end of the First World War, Malloch’s family left Scotland to join him. By the time Alexander left Illinois for a post at Amherst College, Massachusetts, where he spent the rest of his academic career, there had been an overlap with Malloch of over three years.

The second letter from Cuthbertson to Alexander, addressed to Amherst and dated 7 July 1923, begins: “It is quite a long time since I heard from the Mallochs ... I wish to keep in touch with my entomological friends for they are so few that t’would be a pity not to report my progress from time to time in which case you would probably think I had been allowing girls or something to hinder my tipulid study.” Alexander’s reply of 19 July 1923, contains a small paragraph: “I have not heard from the Mallochs since I left Illinois. You know that Mr Malloch is in Washington. Bessie is still with the Natural History Survey. She is an interesting girl”.

Elizabeth “Bessie” Graham Malloch (1902-1976) was the eldest of the Malloch daughters. On 10 August 1923, Cuthbertson inserted a postscript in another letter to Alexander: “Have not heard from Betty for months. I am just thinking that maybe it is my turn to write! These girls. But my motto so far, Garde la femme. But this not Dipterology. Cheerio”. On 27 August 1923 Alexander replied: “Your motto ‘Garde la femme’ is a good one when not carried too far. You want to be sure you get the right girl when you finally settle down. Bessie is a nice girl but I hardly think you would have found her the one”. To this ‘avuncular’ response, Cuthbertson replied on 13 September 1923: “I assure you I will not go too far with my eschewing of girls. I want to be an ordinary mortal in my pleasure moments”. Cuthbertson’s relationship with Bessie is unknown but they may have met through some natural history related event(s) in the Glasgow area. When the Mallochs emigrated Bessie would have been aged 17 and Cuthbertson a year older. The final statement on her comes from Alexander on 24 September 1923: “You may be interested to know she is now Mrs Alfred Pixler, Urbana, Ill. I have heard she and Alfred were hitched up on Sept 1<sup>st</sup>. I know the boy real well, supposed to be hired by a garage, but I am afraid he is not over ambitious ... I can say privately that Bessie was not the girl for you”.

## **African journey**

Many Scots emigrated in the 1920s in search of a better life overseas (Harper 1998). Cuthbertson himself was quite explicit: “Like all young Scotsmen ... I longed for the Colonies, and on May 28, 1926 sailed for Africa, arriving on the 21<sup>st</sup> June.” This statement is contained in a letter in the Alexander Papers, dated 21 April 1932. This was an autobiographical account by Cuthbertson, which he had written in considerable detail in response to a request on 11 November 1931 by Alexander, who said: “Before I forget it, I have an especial favor to ask. Some day when I am

about ready to pass off the picture, as re. Tipulidae, I am hoping and planning to publish a 'History of the Development of Dipterology, with special reference to the Tipulidae'. I believe that such a work, based on Osten Sacken's 'Record of my lifework in Entomology' published in about 1903, near the end of O.S.'s life, would be of great value and interest to all future students of the Order. What I would like now is a rather detailed statement of your life ... I have a lot of personal data from Edwards, Rogers, and many others who have been the great pioneer workers on the Tipulidae. You have carved yourself an enviable place in the galaxy."

This account did not get into print, although Alexander did publish a eulogy to Osten Sacken concerning his role as the earliest contributor to the higher classification of the Tipulidae (Alexander 1969; *vide* also Osten Sacken 1903). Nevertheless, the Alexander Papers preserve all the raw material for his plan, in considerable detail that he had received from a large number of entomologists. It also explains why Cuthbertson sent copies of his testimonials from school and college and an up-to-date photograph (see Figs 1 and 4 above), this being the level of detail that Alexander desired.

It is also tempting to conjecture that Cuthbertson regarded Malloch as a model entomologist who had made the transition from amateur to professional by emigrating, and this gave additional impetus to his plan to leave Scotland. Also, his intention to follow Lefroy's advice on the need for economic entomologists on a world scale, referred to above, was surely not forgotten. Cuthbertson had been considering getting a Ph.D. position in North America but, on 16 June 1926, he wrote: "My Dear Alexander, No doubt you will be astonished to hear that I am en route for tropical Rhodesia where I am to work for the Dept of Agriculture as Junior Entomologist" (Fig. 5). By 9 August 1926 he reported:

"... settling in here. My chief, R.W. Jack [Rupert Wellstood Jack, 1882-1970] is a patient quiet man who lets me pretty well alone in my methods of study. My major studies are to be on Citrus pests, also revising the collections, and generally understanding each of the other entomologists. They are 1. J.K. Chorley engaged on tsetse fly problems, 2. Iogaer [sic] Roberts on cotton & tobacco. The chief has done some work on Tenebrionids and other groups and in his own 'economic' way is a good entomologist. I was disappointed in the collections of Diptera here. Only the culicids have been studied. So, I have a clear field once I get material together. I intend to work solely on the biology & ecology or bionomics of Tips & leave the systematics to you & Edwards for they could not be in better hands".

No record has been located of the recruitment process leading to his appointment. One of his earliest letters to Alexander, on 30 January 1927, describes his situation and includes a declaration of intent that outlined his plan for the future. After giving an account of the small number of craneflies in both the Agricultural Station collection and the Bulawayo Museum (that amounted to about a dozen species), he said he had managed to collect 22 species from marginal stream vegetation and some forest habitat. All of these he was going to send to Alexander for determination. He continues:

"Despite many discouragements as lack of opportunity to do collecting at favourable localities I am going on with the work of finding the habitats of the Tips, of locating their larvae and of finding out the factors which influence this distribution (moisture ← rainfall → humidity is a chief one). I have taken a number at lights including Libnotes. A very fortunate circumstance is the very kindly interest which my chief has evinced in a recent scheme of mine which briefly is : - in conjunction with the other officers of the Dept, in particular the botanist Fred Eyles, I have begun an 'ecological' study of an undisturbed

area in the suburb of Hillside (nr Salisbury) which includes a river, with char. river bank vegetation, a true sedge marsh, a heath, a stretch of Savanna Bush-veld, and a rocky kopje. I am doing the insect part. Thus far among the Tips I have taken in addition to Conostia irrorata (marsh is the habitat) and several undescribed species which I took this weekend in assoc. with a remarkable culicid."

CAPE PENINSULA PUBLICITY ASSOCIATION VISITORS' ROOM, LOWER ADDERLEY STREET, CAPE TOWN.

*Let me know the Ref. to your papers on Ethiopian fauna.*

16<sup>th</sup> June, 1926.

My Dear Alexander,

No doubt you will be astonished to hear that I am en route for tropical Rhodesia where I am to work for the Dept. of Agric. as Junior Entomologist. If I had got a Schol. from Harvard I would not have left my rain country but — c'est la vie!

Marshall or Edwards will send you the *Tipuloides* I collect. I intend to work on the biological side alone, so you can go ahead with the systematic of the adults. I will return the H.Z. ~~separately~~ you so kindly gave me. *There is little else to say* except that I am

Your friend still  
Kind Regards to Mrs Alexander  
Alex Cuthbertson

Fig. 5. Letter to C.P. Alexander, 1926, written as Cuthbertson arrived in Cape Town.

There is a certain irony in his attribution of rainfall and humidity to crane-fly abundance; he may have forgotten his youthful criticism of Barnes (1925) for publishing a paper on that subject (see above). On 6 July 1927, in the next declaration, just over a year since he arrived, he writes to Alexander, after an exchange of more formal letters on sending specimens for naming:

“I am still collecting all the material from the natural piece of veldt, and expect to get all the material dispatched to the various specialists before long – the tipulids will certainly find their way to you. I’m sending the *Styringomyia* to Edwards as he has asked for them .... If possible I want to get ahead with some systematic work – and at J.R. Malloch’s suggestion I have selected for study Tachinidae. Munro and others are going to help me with material tho’ it may be years before I get anything of moment accomplished. Still, there is nothing like getting ahead – standing still is a wearysome proceeding. Bezzi is dead, Villeneuve hors de combat, and the few New World men Curran, Tothill, Allen, etc, have their hands full with work already on the Neotropical fauna.”

On 14 November 1927, he was able to elaborate a little on how some progress was being made:

“Thus far I have been confined in my post as J. Entomologist to economic studies, and as a concession to my enthusiasm promises of help in systematic work in local tachinids but Curran seems to have been before me in the field and doing well, so I am sending my material to him from time to time. The latest news is that I am to proceed to the tsetse belt and study parasites & predators of puparia of Muscids & Sarcophagids, incl the tsetse *Glossina morsitans* West. This at least is slightly of more importance than touring the colony instructing settlers how to bait for Tobacco pests and fumigate bedbugs!”

Cuthbertson’s work address in Southern Rhodesia was ‘The Agriculture Laboratories, P.O. Box 387, Salisbury’, as later recorded in the list of members of the Entomological Society of Southern Africa: his interests were listed as “Economic; biological control” (Pietermaritzburg 1939: 157). This is borne out by his work on the screw-worm fly (*Chrysomya bezziana*), a pest of cattle in Southern Rhodesia (Cuthbertson 1933; 1934b, c; Lawrence and Cuthbertson 1934) (Fig. 6).

He applied his expertise as a field naturalist beyond his immediate official tasks. He was the first to record the roosting behaviour of the flies *Curtonotum quinquevittatum* Curran, 1933 and *C. cuthbertsoni* Duda, 1935 (Curtonotidae) in the burrows made by aardvark (*Orycteropus afer*) and warthog (*Phacochoerus aethiopicus*) (Cuthbertson 1936; Kirk-Spriggs 2012: 254) and observed the swarming in enormous numbers of pentatomid stink-bugs (Cuthbertson 1934a), known locally as Harugwa. Despite their odour, Harugwa were eagerly devoured by Bikita natives in southern Rhodesia (Bodenheimer 1951).

His earlier duties involved working with the major pests of citrus, maize, cotton and tobacco but he then began to take a special interest in flies of medical and veterinary importance, house flies, tsetse and agents of myiasis. “In November 1930, I accompanied a party from the Rhodesia Museum to Chirinda Forest, made famous by Marshall (now Sir Guy) and Swynnerton [sic = Swynnerton] (now in Tanganyika). After having been in Rhodesia five years, I went home in August to Scotland” (Alexander Papers: this refers to a five months visit in 1931-2, see below). Guy Anstruther Knox Marshall (1871-1959), an authority on weevils, had introduced Charles Francis Massy Swynnerton (1877-1938) to that area in 1900 – he remained there until leaving for Tanganyika in 1919, and while there he formed large collections of insects and other natural history specimens; he was also involved in tsetse fly research before and after leaving Rhodesia.

Cuthbertson’s publications produced while in Rhodesia are listed in Appendix 2.

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(Reprinted from "Rhodesia Agricultural Journal.")

ISSUED BY AUTHORITY OF  
The Minister of Agriculture

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# The Life History of the Screw-Worm Fly.

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By ALEXANDER CUTHBERTSON,  
Entomologist.

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SALISBURY:

PRINTED BY THE ART PRINTING WORKS, LTD.

**Fig. 6. Cover of leaflet on the screw worm, 1934.**

## Collecting and collections

Some of Cuthbertson's insect specimens are in the Iziko SA Museum (Cape Town) but most of the results of his work as a curator and prolific field worker in southern Africa from 1926 to 1942 can be seen in the Plant Protection Research Institute, Harare, Zimbabwe (Kirk-Spriggs 2011). According to a list provided by the Institute, Cuthbertson's name is on labels of at least 2000 flies of more than 500 species spread over 15 families. The greatest numbers are in the Tipulidae (sensu lato), Asilidae, Syrphidae, Muscidae, Sarcophagidae, Calliphoridae and Tachinidae.

Cuthbertson sent out many samples from official activities with requests that named examples should be returned to Salisbury but with the offer that duplicates could be kept. His

correspondence in the Alexander Papers is characterised by two strikingly different styles. Pages of handwritten accounts of his work (with some personal chat and notes on collecting) are often signed off with notification that he was about to send specimens for identification. Then follows within a day or two a brief letter, typed on headed laboratory notepaper, itemising insects sent as a batch with their accession number sequences. A typical handwritten letter contained details of collecting trips and of the craneflies that have been obtained, followed by some personal anecdotes and greetings to Alexander and his wife Mabel, whom Cuthbertson usually refers to as Mrs CPA. On 3 February 1930, he had just returned from “Tsetse fly country working on the general bionomics, and parasites. I did a little on the trypanosome infections of the insects and of the buck & antelopes. I also did a little topographical surveying as the country is little mapped. I enclose a photo of me in case you want to see what sort of fellow you have been writing to since 1922!” (Fig. 7). On the reverse of this photograph he has written “Alec Cuthbertson Entomologist on Tsetse investigations, S Rhodesia, tries his hand at a plane-table survey. Chanka Camp, Lomagundi – but even amidst the wonders of sights and sounds on the veldt I think on the Tips of the Clyde.”



**Fig. 7. Cuthbertson in the bush using a plane table for surveying, 1930. Photograph courtesy of the Smithsonian, Washington, DC.**

He also sent flies and a few specimens from other insect orders to London, either to the Imperial Bureau of Entomology or to the British Museum (Natural History), for identification and some as donations. Small batches were addressed to Major Ernest Edward Austen (1867-1938), formerly responsible for the museum’s Diptera collections but by then Keeper of Entomology. Letters are preserved that accompanied at least six of these batches of specimens between 1929 and 1931 (NHM Entomology accession/acquisition record, DF314/1-8). One reply copy letter from Austen is tinged with a faint air of irritability: single specimens of just one sex and rubbed hairs make things rather difficult and he is a very busy man. Another reply by Austen is more cordial because Cuthbertson has added more information on the habits of the muscids,

calliphorids and tachinids, which he observed or reared as predators or parasitoids of potential value as biological control agents, to explain why he would like to know their identity. Both he and Austen were interested in these same kinds of fly (Fig. 8).

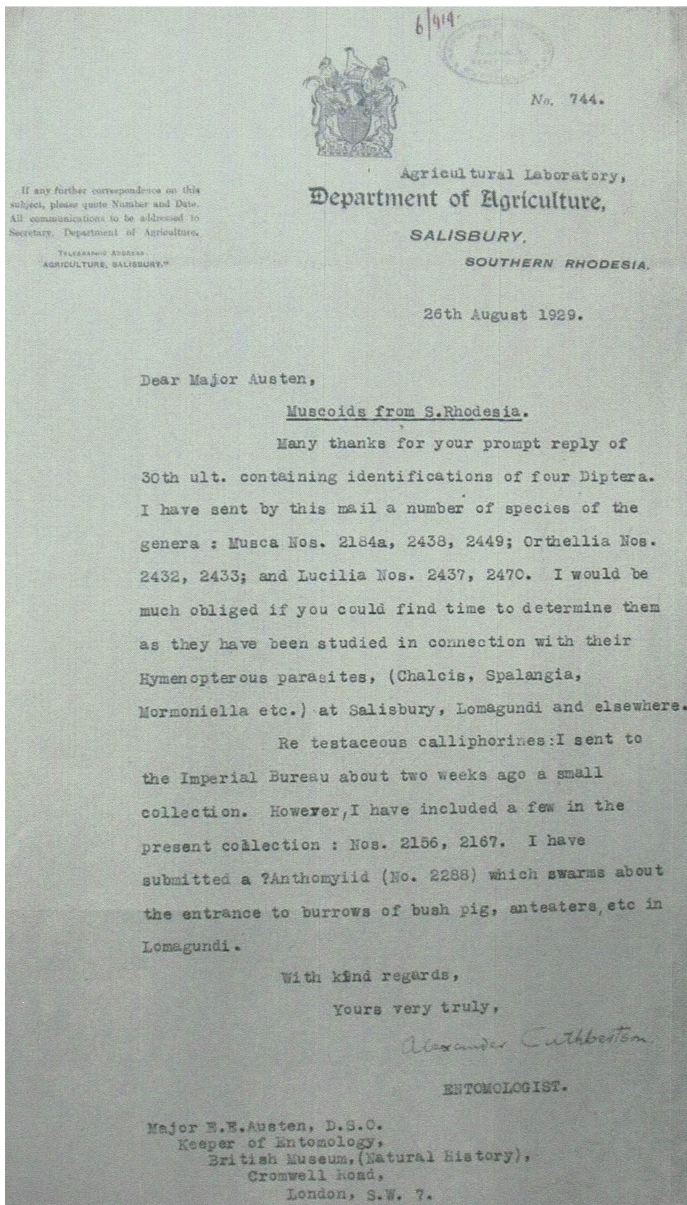


Fig. 8. Letter from Cuthbertson to E.E. Austen, 1929



A few tabanids, asilids and bombyliids were also included in material sent to Austen, but his main correspondent concerning robberflies was Erich Otto Engel (1866-1944), a German specialist in the family Asilidae, who was responsible for the Diptera collections in Munich (at the Zoologische Staatssammlung München), which explains why some of the specimens from Cuthbertson's endeavours will be in that museum. Engel included Cuthbertson as co-author in several of the papers in recognition of his role as collector (Engel and Cuthbertson 1934; 1937; 1938; 1939). In addition to Tipulidae sent to Alexander and Edwards, Cuthbertson also sent material to a wide range of experts, mainly in Washington DC.

Collecting was clearly a passion with Cuthbertson. The kind of rest cure that was prescribed for him was to go to the forest. He wrote to Alexander:

"I have not been at all well recently – gastric 'flu. – and I have been urged by my chief, R.W. Jack, to go away to the Vumba for a week or so. Arnold is coming with me and therefore you should expect a nice lot of forest Limonias – Geranomyias etc. – in envelopes soon. But I urge you not to delay about the final publishing of your report for the B.M. DO IT NOW. What the enemy would like to achieve is the suspension of all scientific work ... Van Emden has wisely put out his parts of the Muscidae without delaying for new material to turn up as there is no end to the numbers of "new species". In the course of the years after your pioneer report on the African Tipulidae has been used other entomologists will arise and fill in the gaps in our data and so science will advance. If you delay much longer the report will be like that of Hesse on Bombyliidae, Pt 1 which has 1053 pages and weighs half a ton. Regarding type material, share all the Rhodesian species with, firstly, the B.M., secondly the National Museum, Bulawayo and thirdly the Dept of Agriculture, Salisbury." (Alexander Papers, 17 October 1940)

Albert John Hesse (1895-1987) was based at the South African Museum from where he produced the monumental work on bee-flies (Hesse 1938), as well as a number of shorter papers; clearly there are rather a lot of bee-flies south of the Sahara. He later described *Anthrax cuthbertsoni* Hesse, 1956 from Cuthbertson specimens. George Arnold (1881-1962), who was to join Cuthbertson on his collecting trip, was a hymenopterist, who had been curator at the national collections in Bulawayo since 1911; he was also editor of the publications produced by the museum. Cuthbertson told Alexander on more than one occasion that if he could send or keep sending manuscripts they would appear promptly, channelled through Arnold and there would be no page charges. However, Alexander ignored Cuthbertson's plea for action on what would seem to refer to the East African Ruwenzori Expedition reports, of which the Muscidae parts to which he refers had just appeared (van Emden 1939-1940). Between 1912 and 1976 Alexander published dozens of papers on the African fauna (e.g. Alexander 1956b) including two monographic treatments, the Ruwenzori (Alexander 1956a) and for South Africa (Alexander 1964). He was not to be deflected from his trajectory by Cuthbertson's youthful tendency to demand instant action.

Walter Scott Patton (1876-1960), professor of entomology at Liverpool University, records receiving large collections (including larvae) from Cuthbertson (Patton 1936). Cuthbertson told Alexander in May 1929 that Patton was receiving his muscids and other flies of medical importance, apart from *Morellia* and some related genera which he sent to Charles Howard Curran (1894-1972), a Canadian dipterist who from 1928 worked at the American Museum of Natural History in New York. Malloch was sent acalyptrates. Cuthbertson was aware of problems with identification of Muscidae partly, at least, due to disagreement between the various specialists. As discussed by Thompson and Pont (1993), Patton's work brought him into conflict with Malloch regarding the systematics of the group; Patton "could not reach any accord with Malloch

and the two remained irreconcilable”. What is interesting to note is how this controversy affected people like Cuthbertson who were working remotely in the field, trying to understand the faunas that were important locally while isolated from the experts and their facilities. He refers to these problems on more than one occasion while writing to Alexander, as on 26 August 1929: “I am still working on the habits, etc., of the *Musca*, *Orthellia*, *Stomoxys*, *Lyperosia* groups and the blowflies *Lucilia*, *Chrysomyia*, etc, but it is slow work. After three years of collecting I have got about 1/10 of them named, mostly doubtfully. I have had more luck with the Hymenopterous parasites owing to the work of Australian entomologists ... the Imperial Bureau cannot keep pace with the demand for names.” On 13 December 1931 (Alexander Papers) he shows that he is clearly aware that the problem is not just one of resources. After some chat about Tipulidae and the positive outcome of their cooperation that also involved Edwards:

“This is more than I can say about past students of the Muscidae and Calliphoridae – even concerning quite common & widely distributed species which one studies in connection with myiasis, transmission of micro-organisms, etc, there is great confusion – chaos everywhere in the systematics due to early meagre descriptions, loss of types, carelessness of early (& several modern) students. Indeed, I will probably spend five years trying to get names for the species studied in the course of five years’ field work. Disagreement as to identity of common species of Austen & Patton, Bezzi & Patton, Malloch & Austen, Malloch & Curran, etc. The medical entomologists haven’t yet come out of the controversy with credit ...”

A number of smaller collections made by Cuthbertson of various Afrotropical insect orders, mainly of agricultural or medically important groups, were sent as donations to other British institutions. These included the Edinburgh School of Agriculture and museums in Leeds and Paisley. Of these only a small number of tsetse flies can be found in Paisley; the insect collections in the Edinburgh School of Agriculture were disposed of some years ago, and it has not been possible to confirm the continued existence of any of Cuthbertson’s specimens in Leeds. There are some in the Hunterian (Glasgow University), which correspond to several accessions totalling a few hundred specimens, many of which are Coleoptera and Heteroptera (Fig. 9).

There is an accompanying letter addressed to Professor John Graham Kerr (1869-1957), professor of zoology at Glasgow University, in which Cuthbertson describes “on one of my trips to the ‘Brachystegia-Berlinia’ bush near Salisbury I took some remarkable coccids identified by our office as *Aspidoproctus maximus*” (a giant scale insect of the family Monophlebidae, Coccoidea, a group that damage food crops). Cuthbertson also stated his intention to respond to Kerr’s request for more insects of value for teaching and various flies and beetles, mainly of economic importance. Kerr had an interest in mimicry and a marginal note by him indicates that he also expressed interest in receiving specimens showing protective resemblance as well as termites, termitophilous species and insects eaten by Africans. Cuthbertson also referred to an intention to send similar insects to Professor Leonard Augustus Lucas King (1879-1950), professor of zoology at the West of Scotland Agricultural College, his alma mater, who had written the testimonial for him in 1925 (Fig. 4).

Cuthbertson described his developing research into parasitoids of flies, and field trips into the bush which he clearly found exciting. On one of the earliest trips he experienced the ‘thrill’ of being bitten for the first time by a tsetse, *Glossina morsitans* (Westwood), an event on which his colleague Chorley commented: “the anticipated glory of working on tsetse would soon wear off” but Cuthbertson went on to say “but after all there is no reason why one should not try to be enthusiastic for as long a time as possible” (letter, Cuthbertson to Kerr, 16 December 1927; The Hunterian/EntomCollnsFile/Cuthbertson). Some of the various donations to Glasgow were

mailed in wooden insect store boxes (Fig. 10) although he did return to Scotland for several months from August 1931 to January 1932, and so may have carried African specimens with him. There was another visit in 1936 when he went to his old home address in Yoker, Glasgow, where Cuthbertson family members still lived.



Fig. 9. Cetoniine beetle and a horsefly, sent as *Tabanus africanus* (now in genus *Ancala*), collected by Cuthbertson and donated to the Hunterian Museum, University of Glasgow.

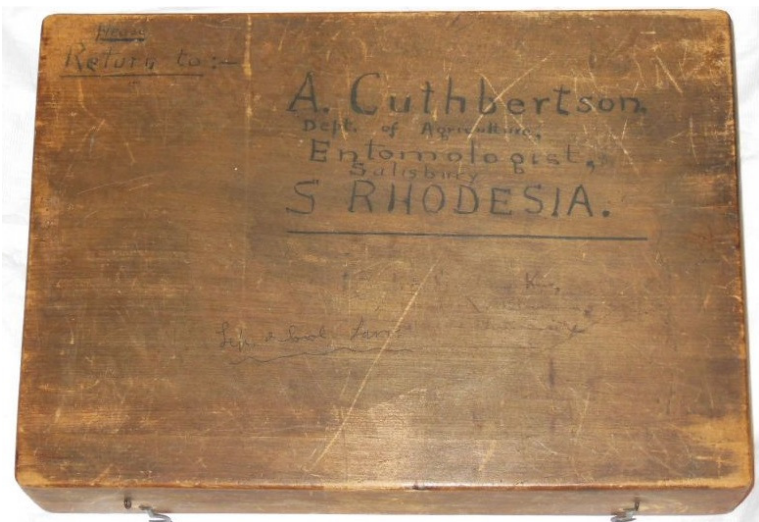


Fig. 10. Insect store box sent from Africa to Glasgow by Cuthbertson.

## Entomological impact

Cuthbertson's early work in Scotland is outlined above. The bulk of his papers published from 1926 to 1929 are striking for their focus on aspects of crane-fly behaviour and ecology, while most contemporary works were taxonomic or faunistic. The content is usually explicit in the titles with discussions of subjects like swarming, larval habitats, spider enemies, food resource for trout, seasonality, etc. Even those which appear essentially faunistic include details on behaviour or habitat that make interesting reading.

The value of his work is evident in some recent overviews. His contribution to forensic entomology, for example, is highlighted by Williams and Villet (2006). They cite his published work with useful illustrations on Calliphoridae, particularly *Chrysomya* species, which proved valuable for identifying the species. They also remark on his extensive correspondence network that included Patton, Curran, Hesse, Malloch and Arnold as well as Daphne Aubertin (1902-1970) who worked on Calliphoridae at the British Museum, alongside Austen. Pearson (1967) summarised the history of economic entomology in Africa:

“The first embryo departments of agriculture were started, and the first entomologists appointed to them, in most of the British dependent territories in tropical Africa between 1908 and 1911. The 1914-18 war interfered seriously with research and development generally, but the period between the middle 1920's and the second world war was one of great activity. During this time the pest fauna of tropical African agriculture was largely recognised and identified, and the life-histories of most of the species and the bionomics of many of them were worked out. This was a remarkable achievement when one considers that in few of the territories concerned, some of them six or seven times the size of England and Wales, would there be more than a couple of agricultural entomologists, who would be responsible not only for advising the administration on insect matters, but also for inspecting plant importations, identifying specimens sent in by agricultural officers and local planters, and organising control measures in all entomological emergencies ... The efforts of departmental entomologists ... were usually prevented by routine or emergency duties from making comprehensive long-term investigations of specific problems.”

This description of the work and duties of a colonial entomologist would have been instantly recognisable to Cuthbertson. However, he did manage to publish, and contribute to the work of others on selected groups, and the esteem in which Cuthbertson has been held by the entomological community is reflected in the number of insect taxa named for him; all but two of them are Diptera. These number 43 taxa in 15 different families (see Appendix 3). Most of the insects, 34 out of 45, were named by taxonomists from material sent directly to them by Cuthbertson and appeared in papers published during or soon after his life-time. The remainder have been described since, the most recent in 2004 (Londt 2004).

It is also worth noting that he did not describe any new species himself; the few that carry his name derive from his co-authorship as the collector (Engel and Cuthbertson 1934, 1937, 1938, 1939; see Appendix 4). Alpha taxonomy was of less interest to him than observing behaviour in the field and collecting and rearing larvae and their parasitoids. He illustrated some of his own papers, for example the figures of the larva and pupa of the therevid *Psilocephala africana* Wiedemann in Engel and Cuthbertson (1938), and the immature stages of the skin maggot fly, or tumbu (*Cordylobia anthropophaga* (Blanchard)), first published in the Rhodesian Agricultural Journal (Cuthbertson 1942), and then as an information leaflet (Fig. 11). He acknowledges his wife's contribution as an artist and her monogram appears on the two plates in Cuthbertson (1938b), showing her skills as an illustrator (Fig. 12).

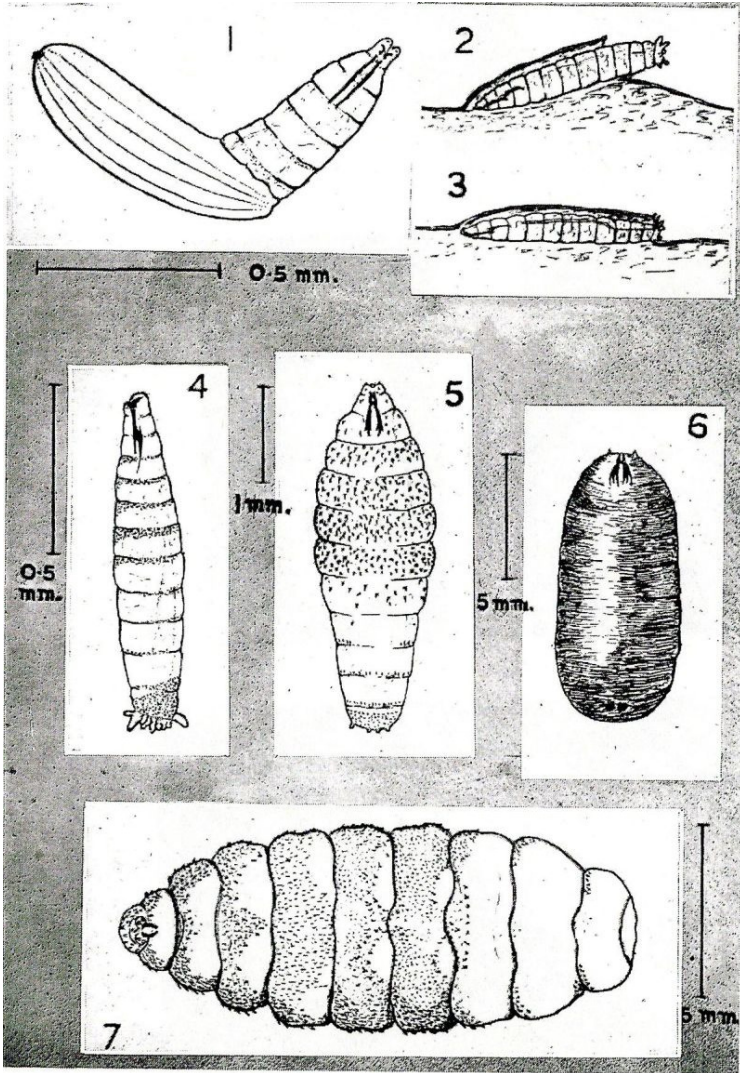
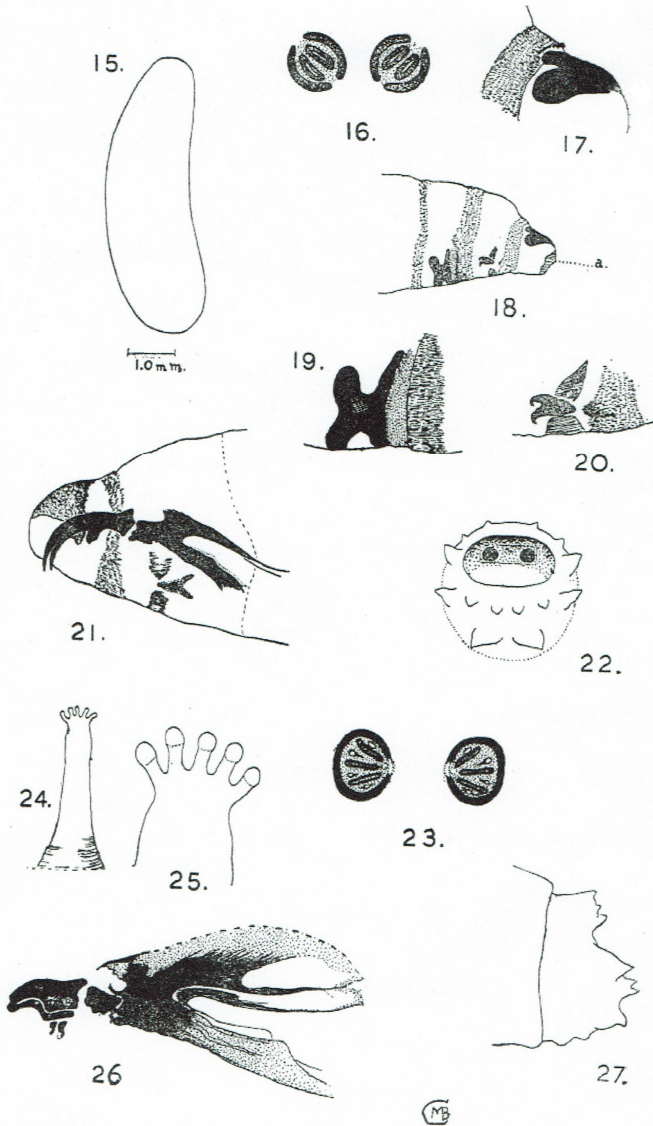


PLATE 1: (All figures highly magnified).

- Fig. 1. Maggot hatching from egg.
- Figs. 2 and 3. Maggot penetrating skin.
- Fig. 4. Immature maggot (soon after hatching).
- Fig. 5. Immature maggot (after first moult).
- Fig. 6. Pupa (or *puparium*) (life size  $\frac{4}{10}$ th inch).
- Fig. 7. Mature maggot (life size  $\frac{1}{2}$  inch).

**Fig. 11.** Plate from information leaflet on the skin maggot fly *Cordylobia anthropophaga* (Blanchard) drawn by Cuthbertson (1942).



**Fig.12. *Calliphora flavicauda* Malloch, 1925 larval characters: Plate 2 from Cuthbertson (1938b), drawn by Margaret Beth Cuthbertson.**

He was elected a Fellow of the Royal Entomological Society of London in 1933, a member of Council of the Rhodesia Scientific Association and a founder member, becoming Vice-President in 1941, of the Entomological Society of Southern Africa (Pietermaritzburg 1939; Munro 1942; Mansell 1993).

## Married life and untimely death

In 1934 he married Margaret Beth Niven (b. 1912), a librarian of Bulawayo: "... a charming old friend of mine, Margaret Niven, and for the first time for many a long year since leaving my native land, I am happy, contented and loving. 'Tis lyrical but true ... so, Doc, you can expect great things from Alex Cuthbertson before many years have passed ... [she] is, by the way, a trained librarian assistant, a clever lassie and a Scots Colonial!" (Alexander Papers, 8 January 1935).

His wife often accompanied him on collecting trips. In her letter to Alexander of 8 March 1943, informing him of her husband's death she says:

"I keep remembering our collecting trips and all the little incidents thereof. While we were in the Union we stayed for a fortnight at a seaside resort near Durban. The winds were so fierce off the sea that at that time of year it became necessary to go fairly far inland to discover any Diptera at all. We walked about four miles inland on one occasion and were repaid with the capture of a small female fly (I don't know the name) of which there was only one specimen in the Pretoria collection and none anywhere else. Every day after that we trekked those four miles inland to another particular locality and after a week we had captured two females and a male. Alec [sic] was greatly elated. We returned to Johannesburg and shortly after were on our way home with our wee adopted baby – who almost made Alex forget how proud he was of his four flies. About a week after our arrival home in Salisbury, Alex came into the house with a cheerful smile, not altogether without irony. 'About how many miles do you think we walked in search of those small flies?' he asked me and before I could answer he chuckled and said 'There are dozens of them on our sweet potato patch!'"

The first news that they had adopted a baby boy, Dugald, sometime between July and October 1940, was in a letter to Alexander dated 17 January 1941 (Fig. 13) in which Cuthbertson also reiterated his continuing difficulty with putting names to species: "Recently my spare time studies have been devoted to Tachinidae, Sarcophagidae, etc, and I find them [an] extremely difficult group. So difficult, in fact, that sometimes I've cursed them roundly and left off until further sendings of specimens sent me to study them anew!" Margaret and Dugald also had tipulids named for them (*Dicranomyia bethae* Alexander, 1945 and *Helius dugaldi* Alexander, 1945), an additional homage to his "long-time friend" (Alexander 1945: 95).

Alexander Cuthbertson died, aged only 41, on 15 July 1942: "of a nervous collapse in his laboratory in Salisbury, Southern Rhodesia while on duty during World War II. It was said that the military training he received the previous day was too intensive" (Evenhuis 2010: 7). Cuthbertson was company quartermaster sergeant to the First Battalion of the Rhodesian Regiment. Brief obituary notices appeared (Munro 1942; Townsend 1942; [Buxton] 1943). More detail is given in the letter (8 March 1943) from his widow to Alexander. She wrote in response to a Christmas card received from Amherst which made her realise the news had not reached there. Her husband had been under some strain, suffered from duodenal ulcers and had felt unwell on and off for almost a decade. After four days of an intensive five-day training manoeuvre he was sent home by the camp doctor as suffering from severe mental and physical breakdown. Despite her attempts to prevent him he insisted that he needed to go to his office the following day as there was much work to be done. "He seemed perturbed at the thought of remaining at home, so I had perforce to let him go to work." In addition to his full-time job he edited the Rhodesia Agricultural Journal and spent all his spare time studying insects. She received a visit at midday from Chorley to say that her husband had been missed from his desk at about 10.00am and found dead in a lavatory. A few days earlier the family had celebrated their adopted son's

birthday. The funeral was conducted with full military honours by his regiment (Alexander Papers).

Any further papers on  
Rhodesian Ticks or the  
Occas. Papers Rhod. Museum?  
P. O. Box 387  
Salisbury, S.R.  
27th Jan. 1941

My dear old C.P.A.,

Just received your  
Xmas greetings - which I heartily re-  
ciprocate! It was nice of you to write  
at this time and I promise not to wait  
years before replying.

Last October I went on holiday with  
my wife and infant son to South Africa  
and I did quite a lot of collecting  
of Diptera in Natal and Zululand.  
Unfortunately, Tipulidae were very scarce  
and I only took a series of two species  
which maybe of interest. Wood hasn't  
written for years, but I suppose he is  
still interested in crane-flies.

I spent quite a lot of time  
with H.K. Munro at Pretoria. He  
is a fine fellow and a very keen  
taxonomist so far as fruit flies  
are concerned. Recently my spare  
time studies have been devoted to  
Tachinidae, Sarcophagidae etc. and  
I find them extremely difficult  
group. So difficult, in fact, that

Fig. 13. Letter to C.P. Alexander, 1941.



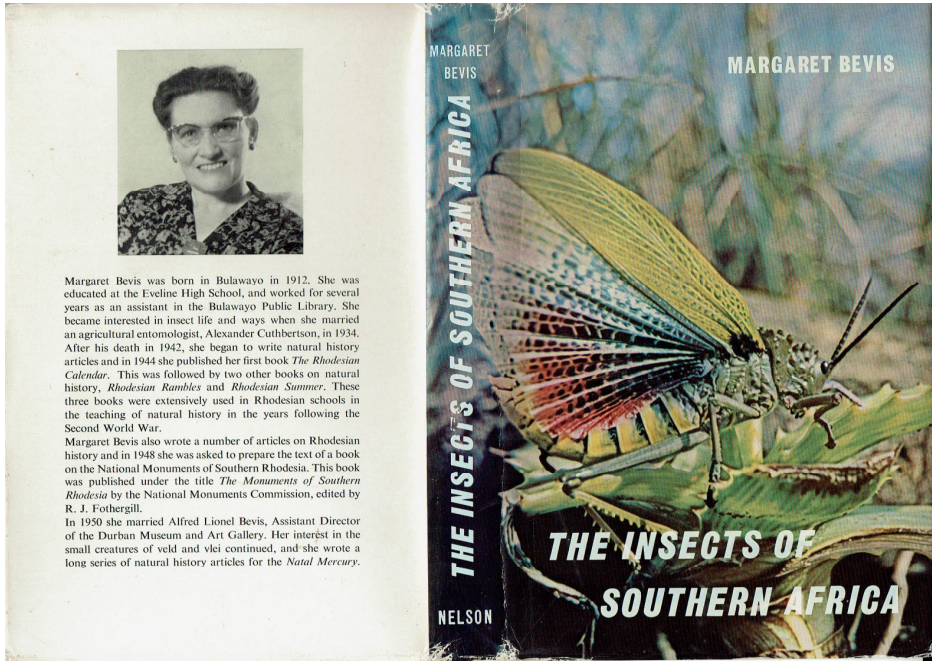
### **Margaret Beth Cuthbertson – subsequent life and remarriage**

In the years following her husband's death Margaret wrote on Rhodesian natural history (Cuthbertson, M.B. 1944, 1946, 1949a). The last of these works (1949a), a soft-covered book, was a compilation of articles she had previously published, with her own illustrations, in the *Bulawayo Chronicle*, *Sunday Mail* and *Young Rhodesia*. She contributed to the Rhodesia Scientific Association on her own professional subject of the importance of libraries (Cuthbertson, M.B. 1949b).



**Fig.14. Margaret Bevis with son Dugald and husband Lionel, at their home in Durban, 1954. Photograph courtesy of the Smithsonian, Washington, DC.**

Margaret remarried in 1950, to Alfred Lionel Bevis (1897-1984), Assistant Director of the Durban Museum and Art Gallery (Fig. 14). Bevis was also an entomologist and a long-standing friend of Cuthbertson, with whom he had been on collecting trips. Margaret and Lionel corresponded for a number of years before deciding to marry and she moved to Durban. She maintained an interest in birds (Cuthbertson, M.B. 1952) and as Bevis (1964) wrote an introduction to the study of entomology (Fig. 15).



**Fig.15. Margaret Bevis (formerly Cuthbertson): book jacket cover of 1964.**

### Acknowledgements

We are most grateful to Tad Bennicoff of the Smithsonian Institution Archives, Washington, DC, for making available copies of the Charles P. Alexander Papers which are housed in Record Unit 7298: Charles P. Alexander Papers, circa 1870-1979, Box 60, Folder: Cuthbertson, Alexander; Biographical information and photographs and Box 13, Folder: Cuthbertson, Alexander correspondence. The photographs in Figs 1, 7 and 14 are reproduced by permission of Smithsonian Institution Archives Images SIA2017-020131a, SIA2017-020132 and SIA2017-020133. We are grateful to a number of curatorial, library and archives staff of the Natural History Museum (London) for help with access and information. The correspondence relating to Cuthbertson is part of the Entomology Accession/Acquisition records (DF314/1-8). Val McAtear (Librarian, The Royal Entomological Society of London) is thanked for information on Cuthbertson's Fellowship dates. Several correspondents supplied useful information: David Happold (in Australia), Jason G.H. Londt (in South Africa). Rebecca Machin, Leeds City Museum and Nicola McIntyre, Paisley Museum helped in the search for specimens.

We thank Ashley Kirk-Spriggs (National Museum, Bloemfontein, South Africa) and curators at the Plant Protection Research Institute, Harare, Zimbabwe, for data on Cuthbertson's African material.

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### **Appendix 3. LIST OF TAXA NAMED FOR ALEXANDER CUTHBERTSON**

These names are mainly taken from Crosskey (1980).

#### COLLEMBOLA

##### PARONELLIDAE

*Cyphoderus cuthbertsoni* Womersley, 1929

#### DIPTERA

##### TIPULIDAE

*Achyrolimonia cuthbertsoni* Alexander, 1934

*Toxorhina cuthbertsoni* Alexander, 1937

*Dolichozeza cuthbertsoniana* Alexander, 1945

*Nephrotoma cuthbertsoni* Alexander, 1956

##### STRATIOMYIDAE

*Odontomyia cuthbertsoni* Lindner, 1937

##### ASILIDAE

*Alcimus cuthbertsoni* Hobby, 1934

*Neolophonotus cuthbertsoni* (Curran, 1934)

*Gonioscelis cuthbertsoni* Londt, 2004

*Scylaticus cuthbertsoni* Londt, 1992

##### BOMBYLIIDAE

*Anthrax cuthbertsoni* Hesse, 1956

*Paratoxophora cuthbertsoni* Engel, 1936

##### EMPIDAE

*Empis cuthbertsoni* Smith, 1971

##### DOLICHOPODIDAE

*Sciapus cuthbertsoni* Parent, 1937

##### SYRPHIDAE

*Allobaccha cuthbertsoni* Curran, 1938

*Merodon cuthbertsoni* Curran, 1939

*Rhingia cuthbertsoni* Curran, 1939

##### TEPHRITIDAE

*Pardalaspis cuthbertsoni* Munro, 1936

##### LAUXANIIDAE

*Cestrotus cuthbertsoni* Curran, 1938

*Homoneura cuthbertsoni* Curran, 1938

##### CURTONOTIDAE

*Curtonotum cuthbertsoni* Duda, 1935

##### DROSOPHILIDAE

*Leucophenga cuthbertsoni* Malloch, 1929

## MUSCIDAE

- Coenosia cuthbertsoni* Curran, 1935  
*Dichaetomya cuthbertsoni* Emden, 1942  
*Helina cuthbertsoni* Curran, 1934 [now synonymised with *Hebecnema semiflava* Stein]  
*Musca domestica cuthbertsoni* Patton, 1936 [now synonymised with *M. domestica calleva* Walker, 1849]  
*Myospila cuthbertsoni* Snyder, 1940  
*Phaonia cuthbertsoni* Curran, 1938

## CALLIPHORIDAE

- Bengalia cuthbertsoni* Zumpt, 1956  
*Isomyia cuthbertsoni* Curran, 1938  
*Ochromelinda cuthbertsoni* Villeneuve, 1939

## SARCOPHAGIDAE

- Phallosarcophaga cuthbertsoni* Zumpt, 1972  
*Phumosia cuthbertsoni* Zumpt, 1953  
*Scotathysia cuthbertsoni* Rohdendorf, 1963 (now synonymised with *Sarcophaga samia* Curran, 1934)  
*Senotainia cuthbertsoni* Zumpt, 1952  
*Miltogramma cuthbertsoni* Curran, 1936

## TACHINIDAE

- Actia cuthbertsoni* Curran, 1933  
*Dexilla cuthbertsoni* Curran, 1941  
*Dolichotachina cuthbertsoni* Rohdendorf, 1935  
*Hyalomya cuthbertsoni* Curran, 1936 [now synonymised with *Alophora nasalis* Bezzi]  
*Linnaemya cuthbertsoni* Curran, 1934 [now synonymised with *L. caffra* Villeneuve]  
*Pales cuthbertsoni* Curran, 1940  
*Platyschineria cuthbertsoni* Villeneuve, 1942  
*Siphona cuthbertsoni* Curran, 1941

## COLEOPTERA

### CURCULIONIDAE

- Analeurops cuthbertsoni* Marshall, 1937

## Appendix 4. SPECIES DESCRIBED BY CUTHBERTSON

### RHAGIONIDAE

- Lampromyia flavida* Engel & Cuthbertson, 1937

### ASILIDAE

- Heteropogon gracilis* Engel & Cuthbertson, 1937  
*Lasiocnemis fascipennis* Engel & Cuthbertson, 1939  
*Microstylum ustulatum* Engel & Cuthbertson, 1938 would appear to be a valid description of a new species and they are credited with authorship in Crosskey (1980). However, Engel had sent the text of the description to Bertram Maurice Hobby (1905-1983), but delayed publication. Hobby used the description verbatim in a publication a few years earlier, and so by the rules of nomenclature it is he who unwittingly should be credited with authorship (Hobby 1935).  
*Oligopogon nigripennis* Engel & Cuthbertson, 1937  
*Proagonistes igniferus* Engel & Cuthbertson, 1937  
*Scylaticus quadrifasciatus* Engel & Cuthbertson, 1934