# Influenza Pandemic of 1918: Second Update<sup>1</sup>

## John Saul<sup>2</sup> and Charles E. Haines, Jr.<sup>3</sup>

An initial paper (Saul 2018) referred to a proposed "Round trip of the virus: Camp Funston to Haskell County and back to Camp Funston in Riley County". This was incorrect due to an error in a source cited (Barry 2004) in which the word "Haskell" was taken to refer to Haskell County, Kansas, rather than to the Haskell Institute for students from Indian Nations in Lawrence, Douglas County, Kansas, a matter that was subsequently corrected (Saul 2019, see Figure 1, this paper).

The superintendent at Haskell Institute encouraged boys to join the army, which many did and were trained at Camp Funston, approximately 90 miles to the northwest. Many of those who enlisted would come back to the Haskell Institute when on leave to visit with their friends (Adams 2020 and references therein).

Medical and administrative documentation at the Haskell Institute and the correspondence of its then director, Hervey B. Peairs, show the first cases occurring March 15, noting that this was 11 days after the first cases at Funston. Five deaths occurred at the Institute in early 1918 during the first wave of the pandemic:

> March 25, 1918 – age 16, Chickasaw March 28, 1918 – age 17, Wichita March 29, 1918 – age 14, Sac and Fox March 29, 1918 – age 16, Kaw April 5, 1918 – age 15, Potawatomi

The deaths were attributed to "epidemic influenza" (letter from Dr. Charles E. Banks, U.S. Public Health Service, to Peairs, March 30, 1918, reporting on his visit to the Haskell Institute), but by then the outbreak at the Institute had already been understood to be "unusual" and "perplexing" (telegram of March 29 to the Indian Service from Peairs with Dr. Charles F. Ensign, the school's resident physician, and Dr. William Van Cleave, a special physician to the Indian Service; Adams 2020).

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In the corrected historical reconstruction, the cohort of young men and women at the Haskell Institute replace the general population of Haskell County, who are apparently not implicated. This reenforces the original conclusion of Saul (2018): "The influenza pandemic of 1918 emerged from a multi-step natural evolutionary process that selected for an exceptionally fast-acting viral strain in a population [exclusively composed of individuals in the prime of life] in which a slower acting strain would have rapidly died out".

A virus, which at the outset may have had no unusual characteristics, had arrived at an unknown date at Camp Funston and been stranded within a functionally homogenous prime-of-life population. There it had varied until a fastacting mutation arose that was naturally well selected for that particular population. A pandemic of this nature is unlikely to recur.

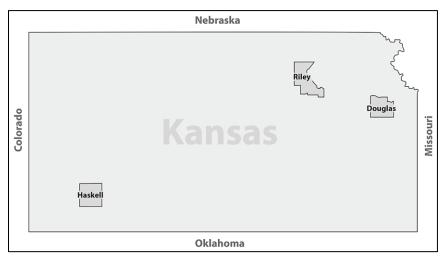


Figure 1. Map of the US state of Kansas showing counties mentioned in this paper.

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# Loss of Vocal Fold Membranes and the Origin of Language<sup>1</sup>

#### John Saul<sup>2</sup>

Nishimura et al. (2022) stated that *H. sapiens* is the only primate among the 43 primate species they examined from which vocal cord membranes are absent. The loss of vocal fold membranes in humans, though not in non-human primates (Nishimura et al. 2022), was preceded by variation. Ancestral humans with less encumbering vocal fold membranes would have been selected for their ability to better adjust their vocal output, thereby facilitating the exchange of complex ideas concerning life and death. Variation precedes selection. Selection of those better able to speak would have led to the loss of vocal fold membranes, not the other way around. Language may have been purposefully invented by individuals – or by a single individual – who first asked others what might be done about death, a hypothesis (Saul 2002, 2019) that is strengthened by the results of Nishimura et al. (2022).

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# Entomo-L: An Early Adventure into Social Media<sup>1</sup>

### Peter G. Kevan<sup>2</sup>

Abstract: Entomo-L is a listsery created in 1991 and hosted at the University of Guelph (Guelph, Ontario, Canada) for the free exchange of ideas pertaining to insect science. As part of the revolution in social media, it aims to be respectful of individual privacy and believes in the need of civilized discourse among its members. Although not without the pitfalls and imperfections of any human endeavor, the contents of Entomo-L from August 1993 to June 2020 are archived in an internet archive known as Wayback Machine. In late June 2020, following postings about the Entomological Society of America's Linnean Games, the University of Guelph ceased to host Entomo-L. Entomo-L has been hosted at The Pennsylvania State University, York campus since the fall 2020.

**Key Words:** Entomo-K, listsery, social media, entomology, University of Guelph,

#### Introduction

On several occasions I have been asked to write up a brief history of Entomo-L, a listsery for entomology which I initiated over 30 years ago and is still up and running as a social media tool open to anyone interested in insect biology. Here it is with some personal anecdotes and experiences.

Entomo-L opened the floodgate for which I initiated electronic exchange of information on Entomology in 1991. How was that done? Why? And some of the adventures along the way.

The initial idea for an entomological listsery was mooted informally at the Entomological Society of Canada and Entomological Society of Alberta meetings held in Banff, Alberta in 1990 (October 1-5). The conversation was by no means formalized with Minutes of the Meetings but was left with the green light on the road of seeing how the idea might evolve. Evolve it did! The idea was simply to engage entomologists world-wide with a means to exchange ideas and information.

The first version of Entomo-L was established at the University of Guelph with help from IT colleagues and various administrative permissions. I think the official launch was about 1st January 1991 with some trial runs with a few friends and colleagues at U of Guelph. After a few days, other entomologists across Canada were invited to join in. Entomo-L seemed quite popular as its existence became more widely known internationally. Our Brazilian counterparts were

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especially active in the very early days. Within the year Entomo-L had hundreds of subscribers world-wide. In 2015, subscribership had risen to over 1000!

#### What is a Listsery? and How did Entomo-L work?

A listsery is an application (yes, we had an "app" 30 years ago!) that distributes messages to subscribers on an electronic mailing list. Many listservs have names ending in "-L" as in "Entomo-L". That seemed an appropriate convention to follow. Because I initiated the idea, I was the designated "listowner".

Listservs have evolved over the years to provide an increasing array of options for subscribers and listowners. One of the options open at the start was whether or not to have Entomo-L moderated. If a listsery is moderated, then the listowner has the responsibility to vet each and every posting for content before it is released to the subscribership. After some brief discussions with friends and colleagues, I decided that Entomo-L should be totally free, democratic, open to anyone interested, and not potentially subject to censorship by me as the listowner.

Entomo-L had only a few rules of conduct and those were based on mutual respect among its subscribers. "Flaming" (i.e., making rude and inflammatory remarks about the postings of other subscribers) was forbidden! Content had to be entomologically relevant. Subscribers were asked to make replies to the postings of other subscribers on Entomo-L useful. Yes, Entomo-L had instances of "flaming" to deal with but over the years I think only 2 or 3 subscribers were excommunicated for "flaming". Occasionally the content of postings would become non-entomological. If memory serves, the main problem stemmed from opinions about politics far removed from entomology sensu stricto. Subscribers were sometimes reminded that what I called "jibber-jabber" was not useful and that comments such as "I agree" were not really useful. Entomo-Lers were encouraged to correspond on specific points with individuals rather than to the whole world.

A response to me from August 1998. "Thank you for your message. I, too, dislike being bombarded by mindless responses. And thanks for hosting the list---helps keep me in touch with a field in which I no longer work".

### **Privacy Concerns**

Issues to do with privacy have become of greater and greater concern on the web. From the beginning, Entomo-L and the University of Guelph had policies of not sharing its subscriber list with anyone, including subscribers. Yes, I was asked on rare occasions to provide our subscriber list to other organizations, but never were those requests granted.

Advertising was technically not permitted, but Entomo-L carried announcements of books, other publications, media releases, employment opportunities and meetings (local to international) as appropriate to general and useful information for subscribers.

### The Infinite Loop Event

I do not remember when it was, nor the exact details. The platforms through which Entomo-L operated have changed over the years. One of the earliest platforms was called NetNorth, linking Canadian academic institutions, and another was BitNet with its main emphasis on linking US institution. NetNorth and BitNet no longer exists as such. When the platform the U of G changed from its platform from NetNorth to BitNet a short-lived catastrophe arose. messages from and to Entomo-L were forwarded from one platform to the other with the effect of creating a what I liken to a "breeder chain reaction". Overnight, tens of thousands of repetitive e-mails were created on our Listserv, overloading the system, and crashing it. One of my graduate students at the time had a complex computer program running and thought that somehow, he had created the problem. Not so, of course! The crisis was averted as IT colleagues soon established the root of the problem and the two-way auto-forwarding of messages was corrected to simple one-way.

## **Lightning Strikes**

Although there were occasional power failures on campus, they rarely caused anything but short interruptions for Entomo-L. On about two occasions Entomo-L became off-line for several days. During an electrical storm on campus, a maple tree just outside my laboratory in the Bovey Complex was blasted by lightning. Power to my lab was disrupted for a couple of days and the old Volker-Craig computer terminal was fried. The terminal was replaced, and power restored to Entomo-L.

On another occasion, Entomo-L went off-line for reasons unknown to me. Enquiries brought back an astonishing answer: a lightning strike in southern Queensland, Australia, had knocked out an electrical pylon and caused a major failure in the internet there. The cascade effect somehow reached Entomo-L in southwestern Ontario.

### Contents

The general content has been of entomologists reaching out to each other for advice and information. Entomo-L carries announcements of books being published, employment opportunities, meetings and so on. Occasionally there has been some debate on the ranges, systematic placement, and nomenclature for particular taxa. Insects in the public press is quite often grist for exchanges on

Entomo-L. News, views, opportunities, and information. Nowadays, with the hugely increased bandwidth (the volume of information that can be sent over a connection in a measured amount of time - calculated in megabits per second (Mbps)) since the inception of Entomo-L, subscribers can readily exchange publications, archives, and images.

## **Respectful Participation**

Most Entomo-Lers have been highly respectful of the protocols we used, and generally tolerant of occasional errors. A short warning, usually with a heading along the lines of "Please read, Listowner speaks" were well received and heeded. Quite early on Entomo-L received a few postings that were of a personal nature. In particular, I remember two subscribers trying to contact each other. The couple did not seem to realize that their apparently amorous exchanges were distributed to the world. No harm done, though. The ensuing private messages I received recognised the faux pas and made light of the event.

#### The Archives

Entomo-L records can be found by accessing the archives (see link below). It would be interesting for someone concerned with anti-science, cancel culture, administrative censorship, etc. to review the content of Entomo-L over the years for racism, sexism, and other evidence of prejudice. The link to the Entomo-L archives from August 1993 to June 2020 by month was compiled by long-term entomo-ler, Ken Bliss:

https://web.archive.org/web/20200708024734/https://listserv.uoguelph.ca/cgibin/wa?A0=ENTOMO-L

### The end at the University of Guelph: How it came about?

In late June 2020 posting was made to Entomo-L to alert subscribers to a petition to the Entomological Society of America (ESA) to change the name of the general and competitive quiz for entomology students termed then "The Linnean Games". The petition pointed out racist problems with some of Linnaeus' The issue had nothing to do with Entomo-L per se, but was of entomological interest, especially to the ESA. As listowner, and within two days, I had already asked subscribers to cease all postings to Entomo-L. Traffic ceased on about 29th June 2020. The University of Guelph administration instituted, without discussion and apparently based on traffic on other social media (such as "Twitter"), its mandate to discontinue hosting Entomo-L.

## **Resurrection and the Continuing Legacy**

Although Entomo-L went off-line from the University of Guelph, good will towards to Entomo-L prevails. We are indeed fortunate that Jorge Santiago-Blay, working with his IT team at Pennsylvania State University in York, Pennsylvania assumed the leadership of Entomo-L in 2020. Entomol-L came back online in the fall of 2020.

Please join the hundreds of entomologists around the world who have continued to support Entomo-L at its new institution and under its generous ownership and moderation by Jorge! Thank you for your willingness to take on this rich heritage.

To join Entomo-L, please send your message to: listserv@lists.psu.edu with the text "subscribe Entomo-l your e-mail address your name". For further questions, please, email Dr. Jorge Santiago-Blay at blayi@psu.edu, our new listowner and moderator. He has been a fantastic help in keeping Entomo-L alive!

## Acknowledgements

I am pleased to thank all subscribers to Entomo-L over the years for their interest and support while the listsery was hosted at the University of Guelph. I thank Jorge for inviting me to explain the how Entomo-L has been a way to communicate on the excitement of biology through its subdiscipline of insect life.





#### **Book Review**

Tales from The Ant Word by Edward O. Wilson [, with illustrations by Kristen Orr]. 2020. Liveright Publishing Corporation. A Division of W. W. Norton & Company. New York, NY, USA. 227 pp.

# Jorge A. Santiago-Blay1

Recently, several master gardeners and master gardeners in training in York County (Pennsylvania, USA) zoomed to discuss Edward Osborne Wilson's Tales from The Ant Word. Wilson (Figure 1), a long-time Harvard University professor, recipient of numerous scholarly awards, and author of numerous publications put together a collection of readable, and often entertaining vignettes about the world of ants.

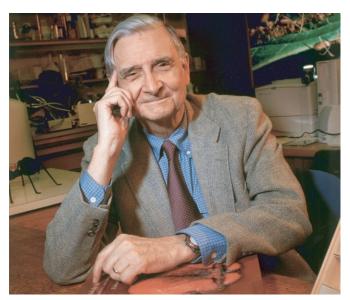


Figure 1. Edward O. Wilson. Source: PLoS. Author: Jim Harrison. https://commons.wikimedia.org/wiki/File:Plos wilson.jpg.

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Wilson, one of the most influential biologists of the second half of the 20<sup>th</sup> century is not only remembered for his contributions to the study of ants, or myrmecology, but also by his contribution (along with Robert MacArthur) to the theory of island biogeography whose influence in conservation biology has been immense (e.g., if given a choice, everything else equal, which rarely is: should one preserve one larger area, SL, or several smaller areas, SS, abbreviated SSoSL?). Also, on the memorable (and, for some, infamous) side, were his contributions to human behavior by extending what happens in insect societies to the human realm, through one chapter in his 1975 book, Sociobiology. Through his career, natural history was a religion of sorts to Wilson. Lateron, Wilson became increasingly interested in biodiversity and its conservation.

Wilson's *Tales* have examples of numerous topics within biology and, along with the ants (e.g., females rule along with the death and violence in ant societies), the stories are also about himself through time (e.g., persistence investigating a topic through time, older people who influenced him, his numerous professional collaborators, and his extraordinary capabilities to observe carefully). Many of the personal stories made us reflect on those who have influenced us.

Another interesting feature of *Tales* is the description of Wilson's simple experiments to try answering specific questions. This intrigued us because we have also performed simple experiments with organisms to try to get answers to our questions and experience the wonders of the natural world.

I wholeheartedly recommend this book to anyone who wants to step into the wonderment by exploring the marvels of natural history.

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### Erratum

# Jorge A. Santiago-Blay<sup>1</sup>

On page 179 of Life: The Excitement of Biology 9(4) volume of 2021 published on June 17, 2022, the copyright statement should read, as follows: "Copyright © 29 May 2022 by Julie Rauer. No part of this fine art painting and details shown in subsequent pages may be reproduced without expressed, written permission of Julie Rauer."

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