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On Knowledge Contamination: New Data Challenges Claims of Darwin's and Wallace's Independent Conceptions of Matthew's Prior-Published Hypothesis

Introduction

“Of all crimes, the worst is the theft of glory”, wrote the poet Robert Frost.¹ Since life is short but science-fame immortal, such victimisation is hardly trivial, which means “glory theft” in science is a strangely unexplored topic.² To seek to begin to address the issue, this article focuses upon one such “plagiarism problem”, which has for the past 155 years dogged Charles Darwin's claim to independent discovery of the theory of macroevolution by natural selection. Particular attention is paid in this article to revealing and explaining the reaction of the scientific community to various claims made that Darwin relied heavily on the work and ideas of other naturalists, but concealed, or else played-down, the significance of their influence on what he referred to proprietarily as “my theory” on 43 pages of the **Origin of Species**.³

¹ See Robert FROST, “Kitty Hawk: Christmas Poem”, *Atlantic Monthly* November 1957.

² See Mike SUTTON, “The Hi-Tech Detection of Darwin's and Wallace's Possible Science Fraud: Big Data Criminology Re-Writes the History of Contested Discovery”, *Papers from the British Criminology Conference 2014*, vol. 14, http://britsocrim.org/new/volume14/pbcc_2014_sutton.pdf (07.03.2016).

³ See Charles R. DARWIN, **On the Origin of Species by Means of Natural Selection: Or the Preservation of Favoured Races in the Struggle for Life**, John Murray, London 1859.

This article reveals a number of important fallacies and myths that serve, currently, as the main premises underpinning the orthodox history of the discovery of natural selection. Additionally, it challenges the long-established academic myths that Matthew's original ideas on natural selection were brief and contained solely in the appendix of his book. It challenges the "public truth" that Matthew's book was on an obscure and inappropriately titled topic to contain such ideas. Furthermore, it challenges the claims that Matthew was merely an obscure author on forest trees who never appreciated the importance of his discovery. Based on my original findings,⁴ a number of additional and newly disconfirmed falsehoods are revealed regarding orthodox accounts of the supposed absence of readership of Matthew's book and the original ideas in it. This article reveals several routes of possible and plausible original "Matthew knowledge" influence on the minds and written work of Darwin and Wallace. Exploring the various ways by which prior-published original knowledge might be incorporated into the work of others without citation, the concept of "knowledge contamination" is proposed and presented through a three-fold typology of escalating culpability.

Charles Darwin Did Not Originate Either the Term Or the Concept of Natural Selection

Charles Darwin is described frequently as the originator of both the name and concept of "natural selection". Many websites and scholarly publications disseminate the myth that he first coined the term and originated the concept in his private essay of 1842 and in his **Origin of Species** (1859), e.g.: **The Oxford Library of Words and Phrases**, Smith, Kelly and Kelly and Carey.⁵

⁴ See Mike SUTTON, *Nullius in Verba: Darwin's Greatest Secret*, Thinker Media Inc., Cary, North Carolina 2014.

⁵ See respectively: **The Oxford Library of Words and Phrases**, vol. 1., *The Oxford Dictionary of Quotations*, 2nd ed., Guild Publishing, London 1990, p. 81; A. SMITH, "Address of the President of the Royal Geological Society of Cornwall. Forty Seventh Annual Report of the Council. With the President's Address, and Papers and Notices Read to the Society. Penzance Vibert", in: **Royal Geological Society of Cornwall: Annual Report of the Council, with the President's Address**, volumes 28-50, p. 10, <http://tinyurl.com/jjfw4aa> (05.03.2016); Andrew KELLY and Melanie KELLY, **Darwin for the Love of Science**, Bristol Cultural Development Partnership, Bristol 2009,

By way of further example, at the time of writing, the influential Oxford English Dictionary (OED) website has it that “natural selection” is: “The evolutionary theory, originally proposed by Darwin, of the preferential survival and reproduction of organisms better adapted to their environment”.⁶ The OED claims also that the term “natural selection” was coined by Darwin in his private essay of 1842:

Hence in Biol., used by C. Darwin (**Origin of Species**, 1859) and subsequent writers, to designate any process, whether artificial or natural, which brings about a particular modification of an animal or vegetable type by ensuring that in successive generations the individuals that reproduce their kind shall be those that have transmissible variations from the ancestral form in the direction of this modification.⁷

The OED is wrong to imply or claim that the term and the concept of natural selection is Darwin’s. Leading evolutionary biologists, including Darwin, Wallace, Cock and Forsdyke, Wainwright, Hallpike, Dawkins, Dempster, and Weale,⁸ write that Matthew was the first to publish the full explanation of evolution

p. 153; Toni Vogel CAREY, “The Invisible Hand of Natural Selection, and Vice Versa”, *Biology and Philosophy* 1998, vol. 13, no. 3, pp. 427-442.

⁶ The Oxford English Dictionary (OED), “Natural Selection”, *The Website of the Oxford English Dictionary* 2015, <http://www.oed.com/view/Entry/255846?rskey=xLYDzd&result=1#eid> (05.03.2016).

⁷ The Oxford English Dictionary (OED), “Natural Selection...”.

⁸ See respectively: Charles R. DARWIN, “Natural Selection”, *Gardeners’ Chronicle and Agricultural Gazette* 21 April 1860, no. 16, pp. 362-363; Charles R. DARWIN, **On the Origin of Species by Means of Natural Selection: Or the Preservation of Favoured Races in the Struggle for Life**, 3rd ed., John Murray, London 1861; Alfred R. WALLACE, Letter to Samuel Butler (9 May 1879), *Wallace Letters Online. Natural History Museum*, Unique WCP identifier: WCP1586; Milton WAINWRIGHT, “Natural Selection: It’s Not Darwin’s (Or Wallace’s) Theory”, *Saudi Journal of Biological Sciences* 2008, vol. 15, no. 1, pp. 1-8; Milton WAINWRIGHT, “The Origin of Species Without Darwin and Wallace”, *Wainwrightscience Blog* 24 July 2008, <http://wainwrightscience.blogspot.co.uk/> (05.03.2016); Christopher R. HALLPIKE, **How We Got Here: From Bows and Arrows to the Space Age**, AuthorHouse, Milton Keynes 2008; Richard DAWKINS, “Darwin’s Five Bridges: The Way to Natural Selection”, in: Bill BRYSON (ed.), **Seeing Further: The Story of Science and the Royal Society**, Harper Collins, London 2010, pp. 203-228; William James DEMPSTER, **Patrick Matthew and Natural Selection**, Paul Harris Publishing, Edinburgh 1983; Michael E. WEALE, “Patrick Matthew’s Law of Natural Selection”, *Biological Journal of the Linnean Society* 2015, vol. 115, no. 4, pp. 785-791.

by natural selection.⁹ To be precise, Preston¹⁰ used the term six years before Darwin was born, albeit in a non-science sense. Furthermore, Wainwright¹¹ was the first to discover that the statistician Corbaux (1829) wrote how those who attained 100 years of age did so through a process of selfish competition:

At a certain age, which may vary from the eighty-third to the ninetieth year, according to the description of a whole population or any select portion of it, an anomaly is exhibited in the shape of apparent increase, as to the intensity of life, during a few years. Not that individual lives have actually improved; but considered in the aggregate, such as were originally constituted for outliving their contemporaries, and who continued to exist under the most favourable circumstances, ultimately stand prominent, competing amongst themselves for protracted longevity, to the exclusion of all the rest. Indeed this *natural selection* of particular lives, out of a very considerable mass, repeatedly occurs among centenaries, at later periods and according to their respective degrees of constitutional vigour; so that very little difference may appear in the probabilities of living one more year, between two individuals of whom the ages differed even to the extent of twenty years. By duly attending to this consideration, a law of mortality may be so constructed as to represent with all possible accuracy the progressive expenditure of human life to the utmost attainable age, and without such statement being ever at variance with recorded facts of longevity, however extraordinary.¹²

Two years after Corbaux, in the main body of his book **On Naval Timber and Arboriculture** (1831)¹³ Matthew used the term *natural process of selection*. Matthew used his term in the book that contains the first fully worked out hypothesis of macro organic evolution by natural selection. From a Big Data analysis of the 35 million books that have been scanned, to date, comprising

⁹ See Patrick MATTHEW, **On Naval Timber and Arboriculture: With a Critical Note on Authors Who Have Recently Treated the Subject of Planting**, Adam Black — London, Longman and Co. — Edinburgh 1831.

¹⁰ See William PRESTON, **The Argonautics of Apollonius Rhodius, Translated into English Verse: With Notes Critical, Historical, and Explanatory, and Dissertations**, vol. III, Graisberry and Campbell, Dublin 1803.

¹¹ See WAINWRIGHT, “Natural Selection...”; WAINWRIGHT, “The Origin of Species...”.

¹² Francis CORBAUX, “On the Laws of Mortality, and the Intensity of Human Life”, *The Philosophical Magazine* 1829, vol. 5, p. 201 [198-205].

¹³ See MATTHEW, **On Naval Timber and Arboriculture...**

Google's Library Project,¹⁴ we know that Matthew was apparently first to coin that term. The same analysis reveals that Robert Chambers, author of the best-selling book on evolution, **The Vestiges of Creation**,¹⁵ was, for want of a better phrase, subsequently “first to be second” to go into print with Matthew's original term in his book review of Darwin's **Origin**.¹⁶ Chambers's **Vestiges** hugely influenced both Darwin and Wallace and paved the way for public acceptance of Darwin's **Origin**.¹⁷ Chambers,¹⁸ who met and corresponded with Darwin pre-1858, cited Matthew's book¹⁹ the year after its publication.

Darwin (1859) used the same four words as Matthew to coin the term “process of natural selection” for Matthew's concept. The shorter term “natural selection” occurs only four times before the publication of Darwin's **Origin of Species** (1859).²⁰ Yet Darwin²¹ claimed to have found it in the literature. Unfortunately, he was never able to say exactly where.

Contrary to the myth that Darwin coined the term “natural selection” as the opposite of “artificial selection”, that latter term was, apparently, as rare pre-**Origin** as “natural selection”. In fact, the notion that Darwin got the phrase “natural selection” as a direct analogy from “artificial selection” is flawed on three counts:

¹⁴ See SUTTON, *Nullius in Verba...*

¹⁵ See Robert CHAMBERS (anonymous), *Vestiges of the Natural History of Creation*, Wiley and Putnam, New York 1844.

¹⁶ See Robert CHAMBERS, “Charles Darwin on The Origin of Species”, *Chambers's Journal of Popular Literature Science and Arts* 17 December 1859, no. 311, pp. 388-391, <http://tinyurl.com/zgg5m8o> (05.03.2016).

¹⁷ See James A. SECORD, *Victorian Sensation: The Extraordinary Reception, and Secret Authorship of Vestiges of the Natural History of Creation*, The University of Chicago Press, Chicago and London 2000.

¹⁸ See William CHAMBERS and Robert CHAMBERS, *Chambers' Edinburgh Journal* 1832, vol. 1, pp. 313-314.

¹⁹ See MATTHEW, *On Naval Timber and Arboriculture...*

²⁰ See SUTTON, *Nullius in Verba...*

²¹ See Charles R. DARWIN, Letter to Lyell (30 March 1859), *Darwin Correspondence Database*, <http://www.darwinproject.ac.uk/entry-2439> (05.03.2016).

The phrase “artificial selection” was not common at all before Darwin used it. Secondly, it appears to have been used twice only in the literature on breeding. And thirdly, Darwin himself never actually claimed that he *arrived* at the concept or term “natural selection” as the direct opposite of the term “artificial selection”. For example, we should not forget that in his 1859 letter to Lyell, he claimed to have found the term “natural selection” in the literature on breeding.²²

Research to date reveals, therefore, that it is a myth that the term and the concept of “natural selection” were coined and originated by Darwin as an analogue of “artificial selection”. Moreover, it was, once again, Matthew who was first into print, in the main body of his book, with what we might call the “Artificial versus Natural Selection Analogy of Differences” to explain natural selection:

The consequences are now being developed of our deplorable ignorance of, or inattention to, one of the most evident traits of natural history, that vegetables as well as animals are generally liable to an almost unlimited diversification, regulated by climate, soil, nourishment, and new commixture of already formed varieties. In those with which man is most intimate, and where his agency in throwing them from their natural locality and dispositions has brought out this power of diversification in stronger shades, it has been forced upon his notice, as in man himself, in the dog, horse, cow, sheep, poultry — in the Apple, Pear, Plum, Gooseberry, Potato, Pea, which sport in infinite varieties, differing considerably in size, colour, taste, firmness of texture, period of growth, almost in every recognisable quality. In all these kinds man is influential in preventing deterioration, by careful selection of the largest or most valuable as breeders; but in timber trees the opposite course has been pursued. The large growing varieties being so long of coming to produce seed, that many plantations are cut down before they reach this maturity, the small growing and weakly varieties, known by early and extreme seeding, have been continually selected as reproductive stock, from the ease and conveniency with which their seed could be procured; and the husks of several kinds of these invariably kiln-dried, in order that the seeds might be the more easily extracted. May we, then, wonder that our plantations are occupied by a sickly short-lived puny race, incapable of supporting existence in situations where their own kind had formerly flourished — particularly evinced in the genus *Pinus*, more particularly in the species Scots Fir; so much inferior to those of Nature’s own rearing, where only the stronger, more hardy, soil-suited varieties can struggle forward to maturity and reproduction?

²² SUTTON, *Nullius in Verba...*

We say that the rural economist should pay as much regard to the breed or particular variety of his forest trees, as he does to that of his live stock of horses, cows, and sheep. That nurserymen should attest the variety of their timber plants, sowing no seeds but those gathered from the largest, most healthy, and luxuriant growing trees, abstaining from the seed of the prematurely productive, and also from that of the very aged and over-mature; as they, from animal analogy, may be expected to give an infirm progeny, subject to premature decay.²³

As I reveal,²⁴ Matthew's original explanatory analogy was replicated first by Mudie (1832),²⁵ then Low (1844),²⁶ Darwin (1844),²⁷ Wallace (in Darwin and Wallace 1858)²⁸ and by Darwin again (1859; 1868).²⁹

Most tellingly, analysis of the literature³⁰ reveals that Mudie was apparently the "first to be second" in print with the original "Matthewism"³¹ "rectangular branching". Mudie was both an associate and two times co-author with Darwin's most prolific informant Edward Blyth. Blyth's own work was edited by Loudon,³² who cited Matthew's book in 1832. Loudon and the significance of his

²³ MATTHEW, *On Naval Timber and Arboriculture...*, pp. 106-108.

²⁴ See SUTTON, *Nullius in Verba...*

²⁵ See Robert MUDIE, *The Botanic Annual, Or, Familiar Illustrations of the Structure, Habits, Economy, Geography, Classification, and Principal Uses of Plants: With Notices of the Way in which They are Affected by Climate and Seasons*, J. Cochrane and Company, London 1832, p. 298.

²⁶ See David LOW, *On Landed Property, and the Economy of Estates: Comprehending the Relation of Landlord and Tenant, and the Principles and Forms of Leases — Farm Buildings, Enclosures, Drains, Embankments, Roads, and Other Rural Works — Minerals — and Woods*, Longman, Brown, Green and Longmans, London 1844.

²⁷ See Charles R. DARWIN, Unpublished private essay, 1844.

²⁸ See Charles R. DARWIN and Alfred R. WALLACE, "On the Tendency of Species to Form Varieties; and on the Perpetuation of Varieties and Species by Natural Means of Selection", *Journal of the Proceedings of the Linnaean Society of London. Zoology* 1858, vol. 3, pp. 45-50.

²⁹ See DARWIN, *On the Origin of Species...*; Charles R. DARWIN, *The Variation of Animals and Plants Under Domestication*, vol. 2, John Murray, London 1868.

³⁰ See SUTTON, *Nullius in Verba...*

³¹ See MATTHEW, *On Naval Timber and Arboriculture...*

³² See Edward BLYTH, "An Attempt to Classify the «Varieties» of Animals", *The Magazine of Natural History* 1835, vol. 8, no. 1, Parts 1-2; Edward BLYTH, "Observations on the Various

association with Blyth and others known to Darwin is discussed in-depth later in this article.

David Low's replication of Matthew's artificial analogy of differences is, arguably, unlikely to be purely coincidental. They were schoolmates at Perth Academy. Low was twice "first to be second" with the Matthewisms: "long continued selection" and "overpowering the less". He used each in different publications.³³ Moreover, Low, just four years older than Matthew, was a highly esteemed Professor of Agriculture at the University of Edinburgh. He might, therefore, be the unnamed naturalist professor of a "celebrated university" who Matthew³⁴ claimed was afraid to teach his heretical and original ideas long before 1859. Most importantly, Low was a Fellow of the Royal Society of Edinburgh, as was Darwin's great friend and mentor Charles Lyell. Laird Lyell's manor house was just 20 miles from laird Matthew's country seat. It seems improbable Lyell did not know of him and the heretical ideas in his book.

Clearly, then neither the name nor the concept of macro evolution by natural selection, nor the use of the artificial versus natural selection analogy of differences were originated by Darwin. The latter two were originated by Matthew in 1831!

Darwin (1859) opened the first chapter of the **Origin of Species** with Matthew's original "Artificial versus Natural Selection" explanatory analogy of differences:

When we look to the individuals of the same variety or sub-variety of our older cultivated plants and animals, one of the first points which strikes us, is, that they generally differ much more from each other, than do the individuals of any one species or variety in a state of nature. When we reflect on the vast diversity of the plants and animals

Seasonal and Other External Changes Which Regularly Take Place in Birds More Particularly in Those Which Occur in Britain; with Remarks on Their Great Importance in Indicating the True Affinities of Species; and upon the Natural System of Arrangement", *The Magazine of Natural History* 1836, vol. 9, pp. 393-409.

³³ More details in: SUTTON, *Nullius in Verba...*

³⁴ See Patrick MATTHEW, Letter to *The Gardeners' Chronicle*, "Nature's Law of Selection", *Gardeners' Chronicle and Agricultural Gazette* 7 April 1860, pp. 312-313, <http://darwin-online.org.uk/content/frameset?itemID=A143&viewtype=text&pageseq=1> (05.03.2016).

which have been cultivated, and which have varied during all ages under the most different climates and treatment, I think we are driven to conclude that this greater variability is simply due to our domestic productions having been raised under conditions of life not so uniform as, and somewhat different from, those to which the parent-species have been exposed under nature.³⁵

In the third edition of the **Origin of Species** (1861) Darwin maintained he discovered natural selection independently of Matthew. Wallace never broached directly the topic of whether he had prior knowledge of Matthew's published work. He did very clearly assert, however, that he had no knowledge of the content of Darwin's essays, which were written on the topic in 1842 and 1844.³⁶ Wallace did write that Matthew was the originator of the concept of natural selection and was one of the most original thinkers of the first half of the 19th century.³⁷ Nevertheless, Wallace's lack of candour on the precise issue of when, exactly, he read Matthew's book implied his independent discovery of natural selection. Notably, Darwin could provide no eureka moment account for his discovery. Instead, he would say only that it came from a slow realisation emerging from his synthesis of the literature.³⁸ Wallace, reinforcing the inference that he never got it from Matthew, claimed a personal flash of inspiration occurred during malarial fever.³⁹

Dempster⁴⁰ was first to point out that Matthew's⁴¹ inclusion of meteorological extinction events, as explanations for the fossil record and the emergence

³⁵ DARWIN, **On the Origin of Species...**, p. 7.

³⁶ See Alfred R. WALLACE, **Contributions to the Theory of Natural Selection: A Series of Essays**, Macmillan and Co., New York 1871; Alfred R. WALLACE, **My Life: A Record of Events and Opinions**, vol. 1, Cambridge University Press, Cambridge 1905. Note: taken here from digitally printed version: Cambridge University Press 2011.

³⁷ See Alfred R. WALLACE, Letter to Samuel Butler (9 May 1879), *Wallace Letters Online. Natural History Museum*, Unique WCP identifier: WCP1586.

³⁸ See Adrian DESMOND, James MOORE, and Janet BROWNE, **Charles Darwin**, Oxford University Press, Oxford 2007.

³⁹ See Edward HINDLE, "Darwin's Greatest Work", *The New Scientist* 1958, vol. 4, no. 84, pp. 246-248.

⁴⁰ See DEMPSTER, **Patrick Matthew...**

⁴¹ See MATTHEW, **On Naval Timber and Arboriculture...**

of new species, is more accurate by today's understanding that they did happen than Darwin's rejection of it — indeed Darwin mocked of Matthew by implying he was some kind of naive, Noah's flood biblical catastrophist for writing so.

Dempster⁴² reasoned with a multitude of his own evidence that Matthew should be hailed as the true discoverer of natural selection, simply because he most certainly did more than merely enunciate it, he worked it out and published it in detail as a complex and fully comprehensive law of nature.

From the third edition of the **Origin** onwards, Darwin (1861), a follower of Lyell's erroneous uniformitarianism, jumped at the chance to bolster Lyell's theory and denigrate Matthew by referring to him as a catastrophist. Dempster⁴³ made this injustice abundantly clear.

Punctuated equilibrium — essentially Matthew's discovery — is accepted in science today but, as Dempster noted,⁴⁴ its Darwinist purveyors sought to keep the originator of that theory buried in footnote oblivion. In a more well-known account, Rampino⁴⁵ explains just some of the detail conveyed by Dempster.

Dempster wrote that there is no need to accuse Darwin of plagiarising the work of Patrick Matthew because it is already well established that he acted badly in not citing his influencers in the first edition and other editions of the **Origin of Species**.

Patrick Matthew and Robert Chambers carried out their great tasks single-handed. Without the help on the one hand of his great wealth and on the other of Hooker, Lyell, Lubbock, Blyth, Wallace and many others, it is doubtful whether Darwin, single-handed, could have avoided making a botch of his theory or even whether he could have, had the **Origin** published. Even so, in spite of all the outside help, he retreated more and more towards Lamarckism.

⁴² See DEMPSTER, **Patrick Matthew...**

⁴³ See William James DEMPSTER, **Evolutionary Concepts in the Nineteenth Century**, The Pentland Press, Edinburgh 1996.

⁴⁴ See DEMPSTER, **Evolutionary Concepts...**; William James DEMPSTER, **The Illustrious Hunter and the Darwins**, Book Guild Publishing, Sussex 2005.

⁴⁵ See Michael R. RAMPINO, "Darwin's Error?: Patrick Matthew and the Catastrophic Nature of the Geologic Record", *Historical Biology: An International Journal of Paleobiology* 2011, vol. 23, no. 2-3, pp. 227-230.

There is no need to charge Darwin with plagiarism. His scholarship and integrity were at fault in not providing all his references in the **Origin**: he had after 1859 another twenty years in which to do so. What one can say is that denigration of Patrick Matthew was unwarrantable and inexcusable.⁴⁶

But if those last three sentences do not, in fact, imply that Darwin had seen Matthew's work, replicated it, and then perpetrated a long-running science fraud by never admitting he had prior-knowledge of Matthew's discovery, what do they wish us to think? Nonetheless, as Dempster made clear, Matthew also accepted at face value, in print at least, Darwin's excuse that he had arrived at the theory independently. Consequently, despite Dempster's able championing of Matthew, Darwin scholars retained their solution to the problem of Matthew's prior discovery by affixing him with their mutually approved status of obscure curiosity. Refusing to give the originator of natural selection his due credit for discovering it — no matter how good and complete his hypothesis was — these Darwinists stuck to their guns by claiming that there was no direct evidence whatsoever that Matthew had in any way influenced a single person with his discovery who could have, in turn, influenced Darwin or Wallace.

The Gardeners' Chronicle Correspondence of 1860

In 1860, Matthew wrote the first of two letters to *The Gardeners' Chronicle*, claiming his rightful priority for his prior published hypothesis of natural selection. He wrote that his book had been reviewed by the famous naturalist botanist John Loudon:

In your Number of March 3d I observe a long quotation from the *Times*, stating that Mr. Darwin "professes to have discovered the existence and *modus operandi* of the natural law of selection", that is, "the power in nature which takes the place of man and performs a selection, *sua sponte*", in organic life. This discovery recently published as "the results of 20 years' investigation and reflection" by Mr. Darwin turns out to be what I published very fully and brought to apply practically to forestry in my work **Naval Timber and Arboriculture**, published as far back as January 1, 1831, by Adam & Charles Black, Edinburgh, and Longman & Co., London, and reviewed in numerous periodicals, so as to have full publicity in the *Metropolitan Magazine*, the *Quarterly*

⁴⁶ DEMPSTER, **Patrick Matthew**..., p. 64.

Review, the *Gardener's Magazine*, by Loudon, who spoke of it as the book, and repeatedly in the United Service Magazine for 1831, &c. The following is an extract from this volume, which clearly proves a prior claim [...].⁴⁷

Notably, Loudon's review of Matthew's (1831) book, to which Matthew referred the public, contained the following sentence:

One of the subjects discussed in this appendix is the puzzling one, of the origin of species and varieties; and if the author has hereon originated no original views (and of this we are far from certain), he has certainly exhibited his own in an original manner.⁴⁸

Loudon's book review actually contained the term "origin of species".

Loudon was a famous naturalist, who was personally known to Darwin's friends, the economic botanists William and Joseph Hooker.

William Hooker's friend, and Loudon's friend, Professor John Lindley, wrote considerable sections of Loudon's **Encyclopaedia of Plants**.⁴⁹ Darwin and Wallace were both correspondents of Lindley. Darwin's (1838) private notebook of books read,⁵⁰ along with many items of his private correspondence,⁵¹ proves he was very familiar with Loudon's work and valued it because he heavily annotated it. Darwin's (1838) notebook further reveals that he read five publications, which cited Matthew. Two of those were written by Loudon.⁵² Moreover, Loudon was a great friend of Darwin's associate and correspondent Hugh Strickland.⁵³

⁴⁷ MATTHEW, Letter to *The Gardeners' Chronicle*..., p. 312.

⁴⁸ John C. LOUDON, "Matthew Patrick **On Naval Timber and Arboriculture with Critical Notes on Authors Who Have Recently Treated the Subject of Planting**", *Gardener's Magazine* 1832, vol. VIII, p. 703.

⁴⁹ See John GLOAG, **Mr Loudon's England**, Oriel Press, Newcastle 1970.

⁵⁰ See Charles R. DARWIN, **Books Read and Books to be Read Notebook (1838)**, *Darwin Online*, <http://tinyurl.com/jbkdzry> (05.03.2016).

⁵¹ See e.g. Charles R. DARWIN, Letter to Leonard Jenyns (14 or 21 August 1846), *Darwin Correspondence Project*, Letter 987; Charles R. DARWIN, Letter to Joseph Hooker (1 December 1856), *Darwin Correspondence Project*, Letter 2008.

⁵² See SUTTON, *Nullius in Verba*....

⁵³ See Elisabeth B. MACDOUGAL, **John Claudius Loudon and the Early Nineteenth Century in Great Britain**, Dumbarton Oakes, Washington 1980.

In the 1840's, Darwin was lobbying to change the rules so that more famous naturalists such as he, who came along after a discovery was made and named, would have priority for naming and being attributed with that discovery over any who was lesser known. In reply to Darwin's request, Strickland declined and then lectured Darwin on his responsibilities:

I say that the compilers of monographs or of systematic works are bound in justice to search out the cognate labours of others in every possible direction, and where they have (even unavoidably) overlooked other persons' writings, they must still pay the penalty by having their nomenclature superseded in favour of a prior one. Scientific natural history has now become as much a matter of literary research as of physical observation. I have had this forcibly brought home to me last autumn, when looking through the fine collection of foreign periodicals in the Bodleian Library, when I was astonished at the mass of original memoirs on zoology and other sciences which seem never to have made their way beyond the scientific but limited coterie in whose periodical they are printed. Authors should be encouraged to publish matters of science in standard and accessible periodicals (& the Association code has a clause (D) to that effect, still we cannot prevent them from doing otherwise, and we must (as the law does with libels) regard the act of printing as tantamount to publication, and deal out equal justice accordingly.⁵⁴

Newly discovered "knowledge contamination" routes by which Matthew's original ideas could have passed into Darwin's network of friends and influencers include the possibility that Hugh Strickland, Darwin's mentor and correspondent, might have been made aware of Matthew's book by either his friend Loudon, who we know read it, or else by his friend Sir William Jardine, who we now know purchased a copy of Matthew's book for Selby, who then read it.

Jackson discovered that Selby wrote to Jardine:

[...] look out for me a copy of Matthews [*sic*] treatise on Naval Timber, and a copy of T. Lauder's edition of Gilpins Tree Scenery, as I want both for reference just now. I take it they were both published in Edinburgh and therefore I think you may be able readily to meet with them.⁵⁵

⁵⁴ Hugh E. STRICKLAND, Letter to Darwin (31 January 1849), *Darwin Correspondence Project*, <http://www.darwinproject.ac.uk/entry-1216> (05.03.2016).

⁵⁵ Christine E. JACKSON, *Prideaux John Selby: A Gentleman Naturalist*, Spredden Press, Northumberland 1992, p. 86.

Jardine was a close friend of Loudon⁵⁶ and Jardine knew Strickland. Indeed Jardine's daughter, an excellent ornithological artist, married him. Furthermore, Selby was friends with Jenyns. The Darwin Correspondence Project has 40 of the letters that passed between Jenyns and Darwin.

Selby⁵⁷ cited Matthew's book many times in the same year that Darwin (1842)⁵⁸ penned his first private essay on natural selection. Selby then went on to be editor of the journal that published Wallace's (1855) famous Sarawak paper,⁵⁹ which Darwin, Lyell and Blyth read pre-1858.⁶⁰

Darwin's friend Jenyns⁶¹ wrote a book about Selby in which he recorded visiting him at his home along with none other than Darwin's father.

Perhaps it should come as no surprise that Loudon was interested in Matthew's unique ideas on natural selection, since Millhauser reveals that: "Four academic botanists — E.M. Fries, James E. Smith, J.C. Loudon, and John Lindley — subscribed about 1828, to the opinion that certain plant species might, under environmental stimulus, metamorphose into one another".⁶² In that publication, a book review of Lindley's **Principles of Horticulture** directly followed Loudon's review of Matthew's book,⁶³ which is a fact that would have increased the probability of Matthew's ideas coming to the attention of Lindley, along with his many friends and scientific associates. Surely, it would be rather surprising, therefore, had he seen mention of it, for Lindley not to pay attention to a book

⁵⁶ See GLOAG, **Mr Loudon's England...**

⁵⁷ See Prideaux John SELBY, **A History of British Forest-Trees: Indigenous and Introduced**, Van Voorst, London 1842.

⁵⁸ See Charles R. DARWIN, Unpublished private essay, 1842.

⁵⁹ See Alfred R. WALLACE, "On the Law Which Has Regulated the Introduction of New Species", *The Annals and Magazine of Natural History* 1855, Series 2, vol. 16, pp. 184-196.

⁶⁰ See Charles R. DARWIN, Letter to Alfred Wallace (27 September 1857), *Darwin Correspondence Project*, Letter 2192.

⁶¹ See Leonard JENYNS, **Reminiscences of Prideaux John Selby. (Brief Notices of Some Other North Country Naturalists)**, self-published, private circulation book 1885.

⁶² Milton MILLHAUSER, **Just Before Darwin: Robert Chambers and the Vestiges**, Wesleyan University Press, Middletown, Connecticut 1959, p. 72.

⁶³ See LOUDON, "Matthew Patrick...".

on naval timber, because, as a professor in the field of economic botany, he knew the importance of the issue of timber for naval purposes.

Timber drove the industrial revolution, for merchant shipbuilding, which was essential for British trade, for military ships — essential for command and control of the British Empire, and for chemicals — needed in the woollen industry and for building purposes.⁶⁴ Indeed, Evelyn, a founding member of the Royal Society, presented a major paper before the Society entitled: “Sylva or A Discourse of Forest-Trees and the Propagation of Timber in His Majesty’s Dominions”. Two years later, he published that same paper⁶⁵ as one of the most influential books of all time on the topic of trees. Evelyn’s book even contains an important appendix on apple trees and cider making. The topic of the title of Matthew’s book was evidently suitable for its contents and publicised its patriotic importance.

1831 was a time of great political uprising among the downtrodden working classes in Britain and across Europe. In the USA, it was the year the slave Nat Turner led a violent rebellion against white people. The title of Matthew’s book probably helped ensure that the political reform topics in it reached both a scientific, and wider, audience without it being banned under the 19th century repressive laws and practices for dealing with what might otherwise be deemed obviously dangerous sedition and heresy.

So much, therefore, for the complete absence of critical consideration of the historic, social and political context of the first half of the 19th century in Richard Dawkins’s criticism of Matthew’s choice of book title:

Did he see the explanation for all of life, the destroyer of the argument for design? If he had, wouldn’t he have put it in a more prominent place than the appendix to a manual on silviculture?⁶⁶

⁶⁴ See SUTTON, *Nullius in Verba...*

⁶⁵ See John EVELYN, *Sylva, or a Discourse of Forest-Trees, and the Propagation of Timber: To Which Is Annexed Pomona; or an Appendix Concerning Fruit Trees in Relation to Cider*, Jo. Martyn, and Ja. Allestry, printers to the Royal Society, London 1664.

⁶⁶ DAWKINS, “Darwin’s Five Bridges...”, p. 209.

On several occasions, the noted botanist Lindley wrote on the exact same topic as Evelyn and Matthew.⁶⁷ As said, Lindley was also a correspondent of Darwin's⁶⁸ and of Wallace. Lindley had been given giant redwood seeds, specimens and living plants by the plant collector Lobb. Earlier than the arrival of Lobb's seeds to Lindley, however, Matthew had already planted seeds of the same giant redwood species in Scotland from seeds sent to him by his son John from California.⁶⁹ Lindley, however, attributed the introduction of the trees into Europe to Lobb. Only the fact that Patrick Matthew (1854) had sent a letter to *The Gardeners' Chronicle*,⁷⁰ which proved his son had sent the first giant redwood seeds six months earlier, and that he, Patrick Matthew, not Lindley, first propagated them ensured that Lindley's fallacious claim in support of his own and Lobb's priority was overruled by disconfirming facts:

[...] who first introduced it into Europe? The credit of doing so is generally given to Mr Lobb, and his employer Mr Veitch for whom he was collecting. But if our information be correct, it belongs to Mr John D Matthew, son of Patrick Matthew Esq, of Gourdie Hill near Errol.

Mr Lobb returned from California in December, 1853, bringing his seeds with him, as appears from the following remarks by Dr Lindley in this Journal on December 24 in that year :-

"The other day", says he, we received from Mr Veitch branches and cones of a most remarkable Coniferous tree, also Californian, seeds and a living specimen of which have also been brought him by his excellent collector Mr W Lobb, who we are happy to say has returned loaded with fine things". The extraordinary Conifer referred to was the Wellingtonia and this announcement was the first of several notices by the Doctor regarding it.

Six months before that, however, Mr Matthew's son had written to his father informing him of the discovery of the giant trees and forwarding a sketch of some of them a small branch and some of its seeds. His letter was dated 10th July, 1853, and was re-

⁶⁷ See John LINDLEY, *An Introduction to Botany*, 3rd ed., Longman, Orme, Green, Brown and Longmans, London 1839, p. 383. And later in 1853 at pp. 228 and 279.

⁶⁸ See e.g. Charles R. DARWIN, Letter to John Lindley (8 April 1843), *Darwin Correspondence Project*, Letter 668.

⁶⁹ See *The Gardeners' Chronicle & New Horticulturist* 1866, vol. 26, pp. 1191-1192.

⁷⁰ See Patrick MATTHEW, Published extract of letter, *The Gardeners' Chronicle and Agricultural Gazette* 1854, vol. 14, p. 373.

ceived along with the seeds on the 28th of August following. The letter was published in extenso in this Journal in the following year 10th June 1854. It contains little but details which then fresh and full of interest are now old and well known but it fixes the date of the first envoi of seeds. The seeds all succeeded and 11 of the plants reared from them have been traced and details regarding them given in the “Pinetum Britannicum”.⁷¹

Darwin’s correspondent’s, Lindley’s, great Patrick Matthew suppressing “glory thieving” fallacy robbed Matthew of the fame, praise and glory that was heaped upon Lindley and Lobb for supposedly first introducing and propagating the famous and hugely admired giant redwoods into Britain. The trees were much admired by the Victorians, who were so astounded by their size that one was felled and stripped in California and its bark re-constructed as a mocked-up giant tree for public amazement at the Crystal Palace in 1855 to prove the tales about them were not just a “Yankee trick”.

Lindley’s fallacy was not bust until 1866, five years after Darwin had successfully portrayed Matthew as merely an obscure Scottish writer on forest trees as one of his several fallacious excuses for why he was unaware of Matthew’s prior-published conception of natural selection. By then the trees were old news. But Darwin’s myths about Matthew stuck.

Given his coining and perpetuation of the 13 year long fallacy that robbed Matthew of the right to be celebrated for giant redwood trees, there is good reason for suspicion about Lindley’s motives and suspicion about what he knew about Matthew’s original ideas and who he might have shared that knowledge with.

Darwin’s description of a mere “obscure writer on forest trees”⁷² permeates the literature on the story of Matthew, Wallace and Darwin in the context of impliedly portraying Matthew’s origination of Natural Selection as some kind of lucky fluke. Yet nothing could be further from the truth. Matthew’s book was prominently advertised, including one block advertisement across three quarters of an opening page in the hugely popular and influential **Encyclopaedia Brit-**

⁷¹ *The Gardeners’ Chronicle & New Horticulturist* 1866, vol. 26, pp. 1191.

⁷² Charles R. DARWIN, Letter to Qatrefages de Bréau, J. L. A. De. (25 April 1861), *Darwin Correspondence Project*, <http://www.darwinproject.ac.uk/entry-3127> (05.03.2016).

annica,⁷³ with considerable mention made of his unique ideas on the issue of species and variety. And his book was reviewed by several besides Loudon. In sum, Matthew enjoyed an international reputation as a noted botanist and expert on the topic of hybridizing and cultivating fruit trees.⁷⁴ Quite possibly, Matthew, when aged just 13, met John Loudon. Because in 1803 Loudon, also the son of a farmer, completed his studies at Edinburgh University and began a career as a landscape gardener with proposals for improvements to the grounds of Scone Palace.⁷⁵ Loudon's landscaping plans might have included demolishing Matthew's birthplace and then home — Rome Farm — because today the site of Matthew's demolished birthplace is engulfed by Scone Palace's extended parklands. On which note, the famous botanist, David Douglas, for whom the fir tree is named, served as an apprentice gardener at Scone Palace. Just nine years younger than Matthew, it seems more likely than not that he would have met the nobleman, Matthew, who was born at the farm called Rome in the grounds of that same famous palace. Moreover, it seems likely that after he became a celebrated botanist, famous for his interest in trees and arboriculture, Douglas would have read Matthew's book and then discussed it with William Hooker, who was his botanical mentor⁷⁶ as well as Alfred Wallace's.

By way of just one among many possible examples, which prove Matthew's prolific published output on diverse topics, in the very same edition of the journal that contains Douglas's obituary,⁷⁷ we find Matthew mentioned on page 196 for his experiments on the effect of lightening on the growth of plants.

Loudon was known also to the famous naturalist and eminent surgeon William Lawrence, who, between 1838 and 1839, restored Loudon to health where

⁷³ See **The Encyclopaedia Britannica, Or Dictionary of Arts, Sciences, and General Literature**, vol. 4, 7th ed., Black, Edinburgh 1842, <http://tinyurl.com/zzay631> (05.03.2016).

⁷⁴ More details in: SUTTON, *Nullius in Verba...*

⁷⁵ See MACDOUGAL, **John Claudius Loudon...**

⁷⁶ See David DOUGLAS, **Journal Kept by David Douglas During His Travels in North America 1823-1827**, Cambridge University Press, Cambridge 1914.

⁷⁷ See John LOUDON, **The Gardener's Magazine and Register of Rural and Domestic Improvement**, vol. 9, Longman, Rees, Orme, Brown and Green 1833.

others had completely failed.⁷⁸ Loudon being the social connection between Lawrence and Mathew is most interesting, because Lawrence (1819) also published heretical work on the subject of the origin of species,⁷⁹ which caused such a famous controversy that it was withdrawn from publication.

This is the view of Darlington of Lawrence's most likely influence on Mathew:

An indirect connection between the ideas of Lawrence and of Darwin is to be found in Patrick Mathew. It was Mathew who indignantly claimed the theory of natural selection as his own, and had his original statement of it from 1831 reprinted in *The Gardeners' Chronicle* in 1860. This statement was made in an appendix to a work on the growth of timber for warships. Mathew, in a few brilliant pages irrelevant to his main theme, had expounded a complete theory of evolution. In the same book he had also introduced a few equally irrelevant but equally illuminating views on the evolution of race and class in man and the decay of aristocracies. These opinions as a whole are related to only one source, to the conclusions which Lawrence had recently derived by close reasoning from the evidence.

Evidently Mathew had read Lawrence. Evidently also in his statement of natural selection as a principle governing the origin of species he makes an advance on Lawrence. What is more remarkable is that he expresses himself more rigorously than Darwin was able to express himself in the **Origin of Species** twenty-eight years later. For he attributes evolution to natural selection without reservation. And, like Maupertuis, he adds that, as for Lamarckian adaptation, we may test the possibility of it by experiment. This suggestion again fell by the wayside until after Darwin's death. Mathew was certainly justified in claiming the theory but he in his turn failed to acknowledge his precursor, William Lawrence.⁸⁰

Darlington gives us no page numbers or text in Lawrence to support his claims. Lawrence's work⁸¹ certainly does not contain the hypothesis of natural selection. His book, does, however, contain evidence-led ideas that are essential in its formulation. Darlington claims that Mathew was most likely influenced

⁷⁸ See MACDOUGAL, **John Claudius Loudon...**

⁷⁹ See William LAWRENCE, **Lectures on Physiology, Zoology, and the Natural History of Man: Delivered at the Royal College of Surgeons**, J. Callow, Soho 1819.

⁸⁰ Cyril Dean DARLINGTON, **Darwin's Place in History**, Macmillan, New York 1959.

⁸¹ See LAWRENCE, **Lectures on Physiology...**

by what Lawrence wrote about the decay of aristocracies. However, nothing appears in Lawrence's work on this topic beyond a brief mention of crab apples, ethnicity ("race"), shepherds, rich women and their dogs:

The mountain shepherd and his dog are equally hardy, and form an instructive contrast with a nervous and hysterical fine lady, and her lap dog;- the extreme point of degeneracy and imbecility of which each race is susceptible.⁸²

The disposition to change is exhausted in one generation and the characters of the original stock return unless the variety is kept up by the precaution above mentioned of excluding from the breed all which have not the new characters. Thus when African Albinos intermix with the common race the offspring generally is black. The same circumstance is seen in vegetables the seeds of our fine cultivated apples almost always produce the common crab [...].⁸³

Matthew did touch upon the same related subjects, and so could have been influenced by Lawrence's ideas:

It is an eastern proverb, that no king is many removes from a shepherd. Most conquerors and founders of dynasties have followed the plough or the flock. Nobility, to be in the highest perfection, like the finer varieties of fruits, independent of having its vigour excited by regular married alliance with wilder stocks, would require stated complete renovation, by selection anew from among the purest crab.⁸⁴

All of this evidence certainly reveals and highlights Loudon's intricate and close connections to Darwin's and Wallace's friends, correspondents and influencers. Those, like Loudon, who read Matthew's book were at the epicentre of scientific life in England and were closely networked. This fact is totally ignored in current literature on the history of discovery of natural selection.

Darwin's reply⁸⁵ to Matthew's (1860) letter,⁸⁶ in which Matthew informed

⁸² LAWRENCE, *Lectures on Physiology...*, p. 239.

⁸³ LAWRENCE, *Lectures on Physiology...*, p. 304.

⁸⁴ MATTHEW, *On Naval Timber and Arboriculture...*, p. 366.

⁸⁵ See Charles R. DARWIN, "Natural Selection", *Gardeners' Chronicle and Agricultural Gazette* 1860, no. 16, pp. 362-363.

⁸⁶ See MATTHEW, Letter to *The Gardeners' Chronicle*....

Darwin that Loudon had reviewed his book in 1832, was approved and then sent to *The Gardeners' Chronicle's* editor by Joseph Hooker. Darwin's letter, approved by Hooker, who knew Loudon's work as a naturalist intimately and extensively, was not only wrong, it actually claimed the exact opposite of what Matthew had plainly informed Darwin:

I think that no one will feel surprised that neither I, nor apparently any other naturalist, had heard of Mr Matthew's views [...].⁸⁷

The diabolical inaccuracy of Darwin's "no naturalist had heard of Matthew's views" fallacy being approved by his best friend, the highly influential Joseph Hooker, is all the more astonishing when we know that Hooker, in 1841, reviewed Loudon's book.⁸⁸ That fantastically expensive and important work of Loudon's cited Matthew.⁸⁹ Importantly, Loudon's book was read by Darwin also and then noted in his notebook of books read,⁹⁰ a point first discovered by Dower.⁹¹ What makes that point so important is that in his book Loudon listed Matthew's book as a source, which would have been hard for both Darwin and Hooker to miss.

Hooker wrote most enthusiastically of Loudon's superiority as a naturalist over other naturalists:

We should hardly do justice to our feelings, did we not introduce in our list of botanical publications, and did we not refer to a recent work of Mr London's, as one of the highest importance and of the greatest utility to the arboriculturist; to every nobleman and gentleman of landed estate, who is desirous of improving his property, and enlarging the resources of his country; and to every botanist and cultivator who wishes to become acquainted with the trees and shrubs whether indigenous or exotic, which will bear the climate of Great Britain: we allude to the *Arboretum et Fruticetum Britan-*

⁸⁷ DARWIN, "Natural Selection...", pp. 362-363.

⁸⁸ See John C. LOUDON, *Arboretum et Fruticetum Britannicum; or The Trees and Shrubs of Britain, Native and Foreign*, A Spottiswoode, London 1838.

⁸⁹ See MATTHEW, *On Naval Timber and Arboriculture...*

⁹⁰ See DARWIN, *Books Read...*

⁹¹ See Hugh DOWER, "Darwin's Guilty Secret", *Hughdower.com* 2009, <http://www.hughdower.com/guilty.html> (05.03.2016).

nicum or the Trees and Shrubs of Britain. In this ample and characteristic title, there is nothing promised that is not fully and skilfully performed; so skilfully that we will venture to say there is not a naturalist in Europe who could have executed the task with anything like the talent, and judgment, and accuracy, that are here displayed by Mr London.⁹²

Naturally concerned that Darwin was denying the truth about the fact that his book had been read by other naturalists, and its unique ideas understood, Matthew very forcefully replied:

I notice in your Number of April 21 Mr. Darwin's letter honourably acknowledging my prior claim relative to the origin of species. I have not the least doubt that, in publishing his late work, he believed he was the first discoverer of this law of Nature. He is however wrong in thinking that no naturalist was aware of the previous discovery. I had occasion some 15 years ago to be conversing with a naturalist, a professor of a celebrated university, and he told me he had been reading my work **Naval Timber**, but that he could not bring such views before his class or uphold them publicly from fear of the cutty-stool, a sort of pillory punishment, not in the market-place and not devised for this offence, but generally practised a little more than half a century ago. It was at least in part this spirit of resistance to scientific doctrine that caused my work to be voted unfit for the public library of the fair city itself. The age was not ripe for such ideas, nor do I believe is the present one [...].⁹³

In the teeth of what he had been twice told to the contrary in two letters, Darwin then wrote to the famous French naturalist Quatrefages de Bréau to spread the fallacy that no one at all had ever read Matthew's original ideas!:

I have lately read M. Naudin's paper; but it does not seem to me to anticipate me, as he does not shew how Selection could be applied under nature; but an obscure writer on Forest Trees, in 1830, in Scotland, most expressly & clearly anticipated my views — though he put the case so briefly, that no single person ever noticed the scattered passages in his book.⁹⁴

⁹² Joseph HOOKER, "Works Written Or Edited by Jc Loudon and Published On His Own Account", *The Gardeners' Chronicle* 1841, vol. 1, no. 44, p. 714.

⁹³ Patrick MATTHEW, Letter to *The Gardeners' Chronicle*, "Nature's Law of Selection", *The Gardeners' Chronicle and Agricultural Gazette* 12 May 1860, p. 433, <http://tinyurl.com/za7mpyq> (05.03.2016).

⁹⁴ DARWIN, Letter to Qatrefages de Bréau....

Following that “glory stealing” falsehood that the original ideas in Matthew’s book had not been read by any naturalists and that Matthew’s book had not been cited, in the third edition of the **Origin of Species** (1861) and in every edition thereafter, the eminent and powerfully networked Darwin did no less than corrupt the history of discovery of natural selection. Because, knowing it to be untrue, at least since Matthew’s two letters of 1860, he continued to refer to natural selection as “my theory”, despite admitting elsewhere that Matthew had priority for it. What Darwin never admitted anywhere was the fact that he knew Matthew’s ideas had been cited by a naturalist years before he replicated them. In fact, he claimed the opposite was true. By that dishonesty he concealed the routes of potential “knowledge contamination” from Matthew’s work via London to influential naturalists such as Blyth, Lindley, the Hookers and Wallace:

Unfortunately the view was given by Mr. Matthew very briefly in scattered passages in an Appendix to a work on a different subject, so that it remained unnoticed until Mr. Matthew himself drew attention to it in *The Gardeners’ Chronicle*, on April 7th, 1860.⁹⁵

Here, Darwin wrote two falsehoods, because not only did he know it was untrue that Matthew’s ideas had passed unnoticed, from what Matthew had written to inform him in 1860, he knew also that Matthew’s original ideas on natural selection were not just solely contained in the book’s appendix, because swathes of the text from his book, which Matthew included in his first letter in *The Gardeners’ Chronicle*, were from the main body of his book. Darwin’s letter to Joseph Hooker confirms he knew it:

My dear Hooker

Questions of priority so often lead to odious quarrels, that I shd. esteem it a great favour if you would read enclosed. If you think it proper that I shd. send it (& of this there can hardly be question) & if you think it full & ample enough, please alter date to day on which you post it & let that be soon. — The case in *G. Chronicle* seems a little stronger than in Mr. Matthews book, for the passages are therein scattered in 3 places. But it would be mere hair-splitting to notice that. — If you object to my letter please return it; but I do not expect that you will, but I thought that you would not object to

⁹⁵ DARWIN, **On the Origin of Species...**, 3rd ed., pp. xiv-xv.

run your eye over it. — My dear Hooker it is a great thing for me to have so good, true, & old a friend as you. I owe much to science for my friends.⁹⁶

As an argument that reliable evidence exists to disconfirm evidence that Matthew influenced Darwin, Bowler argues: “Darwin’s notebooks confirm that he drew no inspiration from Matthew or any of the other alleged precursors”.⁹⁷

Bowler’s seemingly compellingly plausible argument is worthy of further examination in light of the independently verifiable facts. And, in light of the New Data about who we newly know did read the ideas in Matthew’s book, and most importantly when they read them, these actual facts confirm that Bowler’s argument is rendered redundant.

To begin with, there is little on natural selection, beyond a mere hint at it, in Darwin’s (1837) private “Zoonomia” notebook.⁹⁸ Not until his private essays (1842, 1844), do we see Darwin’s acknowledgement of evidence for the general process of natural selection. By 1842, Loudon had cited Matthew’s book many times following his 1832 review. And 1842 was the same year in which Selby cited Matthew. But it was not until Darwin’s jointly presented paper with Wallace⁹⁹ that the full hypothesis, which Matthew had prior-published, was written down by Darwin.¹⁰⁰

Following Matthew’s (1860) first priority claiming letter in *The Gardeners’ Chronicle*, of 7th April, Darwin wrote on 10th April to his friend Lyell that he had ordered a copy of Matthew’s book. This might be taken as strong confirmat-

⁹⁶ Charles R. DARWIN, Letter to Hooker (13 April 1860), *Darwin Correspondence Project*, <http://www.darwinproject.ac.uk/entry-2758> (05.03.2016).

⁹⁷ Peter J. BOWLER, *Evolution: The History of an Idea*, 3rd rev. ed., University of California Press, Berkeley, California 2003, p. 158.

⁹⁸ See Charles R. DARWIN, *Private Notebook B: Transmutation of Species (1837-1838) “Zoonomia”*, <http://tinyurl.com/cjzfzx> (05.03.2016). Transcribed by Kees Rookmaaker, Darwin Online, <http://darwin-online.org.uk/>.

⁹⁹ See DARWIN and WALLACE, “On the Tendency of Species...”.

¹⁰⁰ See LOREN EISELEY, *Darwin’s Century: Evolution and the Men Who Discovered It*, The Scientific Book Guild, London 1959; LOREN EISELEY, *Darwin and the Mysterious Mr X: New Light on the Evolutionists*, E.P. Dutton, New York 1979; ROY DAVIES, *The Darwin Conspiracy: Origins of a Scientific Crime*, Golden Square Books, London 2008.

ory evidence that Darwin had never read Matthew's book or been influenced by its original contents. Rationally, it is nothing of the sort. Darwin's letter to Lyell merely proves, and only then if the proven liar Darwin was then telling the truth, that he did not have a copy of Matthew's book in his possession in 1860. Darwin could easily have prior-borrowed a copy from an associate and made extensive notes. Or been supplied by others with such extensive notes. He could just have easily borrowed a copy many years earlier from the London Library, which was founded in 1841, the same year Darwin joined, and the year before he penned his private 1842 essay on natural selection. Or Darwin might have borrowed a copy of Matthew's book years earlier from Mudie's Library — founded in 1842 — because he was a noted keen member of both lending libraries.

There is no mention of Matthew's (1831) book in any of Darwin's (1838) handwritten **Books to Read and Books Read** private notebooks until Matthew's (1860) claim to priority letter was published in *The Gardeners' Chronicle*. However, the old adage that absence of evidence is not evidence of absence, is particularly pertinent in this particular case in light of the new hard evidence unearthed from the publication record of Darwin's bad faith regarding his account of the readership of Matthew's book. Rationally, therefore, we should, as objective scholars, no longer simply assume that Darwin did everything in good faith. The fact of the matter is, and it is facts we must now focus on, that there is no proof, other than the dates he wrote on them in the privacy of his own home, that those dates on Darwin's notebooks and private essays were honestly written and are therefore accurate. Furthermore, it is a fact that Darwin's notebooks are devoid of many pages — due to them having been torn out — and that much of the remaining text in them has been scribbled out so as to deliberately render it completely illegible.

So what do the facts enable us to know for sure about the latest possible date when Darwin's private notebooks and essays were written? The following bullet-point timeline of evidence provides the detailed answers:

- On 25th June 1858, Darwin ¹⁰¹ wrote to Lyell that Wallace's Ternate paper had nothing in it that was not in his 1844 private essay, which he

¹⁰¹ See Charles R. DARWIN, Letter to Charles Lyell (25 June 1858), *Darwin Correspondence Project*, Letter 2294.

claims Hooker read a dozen years earlier. Only if Darwin was telling the truth in this particular case, that would mean Hooker could only have read it as early as 1846.

- 29 June 1858 Darwin ¹⁰² writes to Joseph Hooker: “But you are too generous to sacrifice so much time & kindness. — It is most generous, most kind. I send sketch of 1844 solely that you may see by your own handwriting that you did read it”. This letter, however, *is not* proof of the date Hooker read it and no proof of the date it was given to him, because — as explained below — all we have is a letter of 1845, which is a year after the publication of Chambers’s (1844) **Vestiges**, in which Darwin is claiming he had earlier written some kind of private essay, which he merely claims Hooker had earlier read. The Darwin Correspondence Project tells us what Darwin had written on that essay, known as the “sketch of 1844”: “CD refers to the extensive table of contents prefixed to the fair copy of his essay of 1844 (DAR 113). On the third (unnumbered) page, he wrote in ink: «This was sketched in 1839 & copied out in full, as here written & read by you in 1844». CD probably refers to an occasion in 1845 when he invited Hooker to read his manuscript (Correspondence vol. 3, letter to J.D. Hooker, [5 or 12 November 1845]). See also n. 4, above”. Significantly, what the Darwin Correspondence site does not emphasise is that Hooker could not have read something written by Darwin in 1844 when he only first told Hooker about its existence in 1845! He did so in a letter to Hooker of 5 or 12 November 1845: “I wish I could get you sometime hence to look over a rough sketch (well copied) on this subject, but it is too impudent a request”. ¹⁰³
- There is no evidence Hooker replied to confirm any of this. There is no evidence at all that Darwin subsequently sent Hooker the sketch in the 1840’s. To reiterate: There is no direct evidence at all (other than Dar-

¹⁰² See Charles R. DARWIN, Letter to Joseph Hooker (29 June 1858), *Darwin Correspondence Project*, Letter 2298.

¹⁰³ See Charles R. DARWIN, Letter to Joseph Hooker (5 or 12 November 1845), *Darwin Correspondence Project*, DCP-LETT-924.

win's 1858 letter telling Hooker he did read it a year before Darwin even mentioned it to him!). There is no supporting letter of reply from Hooker. So no evidence exists that Hooker saw the essay earlier than 1858! The earliest solid dated evidence we have that Darwin actually had written any kind of essay is that he sent a mere abstract of one to Gray in 1857!

- On 5th September 1857, Darwin¹⁰⁴ wrote to Gray: “You will, perhaps, think it paltry in me, when I ask you not to mention my doctrine; the reason is, if anyone, like the Author of the **Vestiges**, were to hear of them, he might easily work them in, & then I shd have to quote from a work perhaps despised by naturalists & this would greatly injure any chance of my views being received by those alone whose opinion I value”.

The new knowledge that Loudon¹⁰⁵ had read and noticed the significance of what Matthew had to say on — to use Loudon's own words — “the origin of species”, and then gone on to edit two of Blyth's influential papers on organic evolution,¹⁰⁶ that Darwin had met Blyth at some unknown date before 1848,¹⁰⁷ that Loudon was a friend of, and co-author with, John Lindley — who was a correspondent of both Darwin and Wallace and best friends with William Hooker, father of Darwin's best friend Joseph, mentor of Wallace and correspondent of Jameson — another naturalist who cited Matthew's book in 1853¹⁰⁸ — proves the existence of several clearly potential routes for some kind of knowledge contamination from the original ideas in Matthew's book to Darwin pre-1837, i.e. before the date Darwin supposedly began his “Zoonomia” notebook, through the written and spoken words of others, who knew him to be wor-

¹⁰⁴ See Charles R. DARWIN, Letter to Asa Gray (5 September 1857), *Darwin Correspondence Project*, Letter 2136.

¹⁰⁵ See LOUDON, “Matthew Patrick...”.

¹⁰⁶ See BLYTH, “An Attempt to Classify...”; BLYTH, “Observations on the Various Seasonal and Other External Changes...”.

¹⁰⁷ See Charles R. DARWIN, Letter to Joseph Hooker (10 May 1848), *Darwin Correspondence Project*, Letter 1174.

¹⁰⁸ More details in: SUTTON, *Nullius in Verba...*

king on the exact same topic their associate, Loudon,¹⁰⁹ had written was in Matthew's book.¹¹⁰

Returning from the voyages of the Beagle still believing that species were immutable, it is by way of what Darwin wrote in his 1837-1838 private "Zoonomia" notebook, which leads Darwin scholars to generally agree that 1837 was the year he appears to have first come to terms with the probability of natural selection being the solution to the origin of species.¹¹¹ But, most notably, all those scholars fail to mention that Matthew's expert subject of fruit trees is the very first topic covered in first sentence of that notebook:¹¹²

Two kinds of generation the coeval kind, all individuals absolutely similar, for instance fruit trees, probably polypi, gemmiparous propagation, bisection of Planaria, &c., &c.

Later in the same notebook he wrote about pippin apples:

Never They die, without they change; like Golden Pippens [*sic*] it is a generation of species like generation of individuals.

Most notably, on page one of his introduction to **Origin of Species**,¹¹³ Darwin wrote that after his return from the voyages of the Beagle it was not until 1837 that he began patiently collecting, accumulating and reflecting upon facts about organic evolution.

Two years before the publication of his (1831) book, Matthew¹¹⁴ sent the

¹⁰⁹ See LOUDON, "Matthew Patrick...".

¹¹⁰ See MATTHEW, **On Naval Timber and Arboriculture...**

¹¹¹ See Frank J. SULLOWAY, "Darwin's Conversion: The *Beagle* Voyage and Its Aftermath", *Journal of the History of Biology* 1982, vol. 15, no. 3, pp. 325-396, <http://www.sulloway.org/Conversion.pdf> (07.03.2016); Frank J. SULLOWAY, "Darwin and the Galapagos", *Biological Journal of the Linnean Society* 1984, vol. 21, no. 1-2, pp. 29-59.

¹¹² See DARWIN, **Private Notebook B...**, p. 1.

¹¹³ See DARWIN, **On the Origin of Species...**

¹¹⁴ See Patrick MATTHEW, "Some Account of the Fruits Grown in Gourdie Hill Orchard Carse of Gowrie with Remarks", in a Letter from Patrick Matthew Esq. to the Secretary dated 3rd December 1827, *Memoirs of the Caledonian Horticultural Society*, vol. 4, Maclachlan and Stewart — Edinburgh, Simpkin and Marshall — London 1829.

Caledonian Horticultural Society of Edinburgh an account of the varieties of apples and pears in his famous orchard in the highly fertile Carse of Gowrie in Scotland. Besides extensive information on grafting and hybridizing, here Matthew wrote of the rarity of his own Scarlet Golden Pippin, of which he possessed only one tree, believed to have come from the seed of the common Golden Pippin variety. Most importantly, Darwin more likely than not read Matthew's (1829) account, because his notebook (Darwin 1838 to 1851) records that he read the *Memoirs of the Caledonian Horticultural Society of Edinburgh* for the years 1814-1832. In fact, that same notebook reveals that Darwin held in his hands at least five publications that either advertised or cited Matthew's book — two of which were written by Loudon.¹¹⁵

Darwinist “gate-keeping” against Matthew began in the very year after Darwin published the **Origin of Species**.

Charles Darwin was considered to be “scientific royalty” by many of his fellow members of the Royal Society, Linnean Society and the British Association for Advancement of Science. So much was this so, that several of his fellow “gentlemen of science” formed The X Club for the sole purpose of dominating these institutions in order to promote Darwinism.

The X Club was established in 1864 with nine founding members. They are, starting with Darwin's best friend, Joseph Hooker, Thomas Huxley, Herbert Spencer, John Lubbock (Darwin's neighbour and protégée), George Busk, John Tyndall, Edward Frankland, William Spottiswoode and Thomas Hirst.

Barton writes about their influence — including their control over the British Association for Advancement of Science:

Through mutual support and hard work the X Club became a powerful force in mid-Victorian science. Its members became a revolving directorship in the Royal Society (Hooker, Spottiswoode, and Huxley held the presidency in turn between 1873 and 1885) and the British Association (c. 1865-1874) and exercised considerable power in the Linnean Society, the Royal Institution, and many lesser societies.¹¹⁶

¹¹⁵ See SUTTON, *Nullius in Verba...*

¹¹⁶ Ruth BARTON, “X Club (act. 1864-1892)”, *Oxford Dictionary of National Biography*, Oxford University Press, October 2006; online edition, May 2013, <http://www.oxforddnb.com/view/>

Darwin's best friend, and X Club member, Joseph Hooker, was the incoming president of the British Association for Advancement of Science for 1868, Darwin's other great friend, Charles Lyell, held great sway with the British Association, having served as President in 1864. Even Darwin's son, Francis, by then a professor of Botany, became its president in 1908.

155 years after Matthew wrote to Darwin to claim priority for the discovery of natural selection, and Darwin's replies were first published, ignoring the facts of the matter, the Royal Society Darwin Medal winner of 1958, Sir Gavin de Beer entrenched Darwin's falsehoods by writing the same fallacies:

[...] William Charles Wells and Patrick Matthew were predecessors who had actually published the principle of natural selection in obscure places where their works remained completely unnoticed until Darwin and Wallace reawakened interest in the subject.¹¹⁷

Crucially, the point should be emphasised that Sir Gavin de Beer's fallacious claim was published in the highly specific context of denial of any reasonable possibility that Darwin was made aware of Matthew's ideas. Consequently, de Beer appears to have suffered from what we might call "self-inflicted Loudon naturalist blindness", which is evidenced by his ignoring of the fact that in 1860 Matthew had explained to Darwin in print that the naturalist Loudon, and another unnamed naturalist professor, did read his original ideas on natural selection and then comment upon them.

The eminent Sir Gavin de Beer, therefore, published an instrumental falsehood that was necessary in order for him to deny the existence of any reasonably possible or probable route of potential "knowledge contamination" between Matthew's prior-published work and that of Darwin and Wallace before 1860.

By way of a proposed typology of possibilities of "knowledge contamination", all of which we now know could have occurred in Darwin's case, prior

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¹¹⁷ Gavin DE BEER, "The Wilkins Lecture: The Origins of Darwin's Ideas on Evolution and Natural Selection", *Proceedings of the Royal Society B: Biological Sciences* 1962, vol. 155, no. 960, pp. 321-338.

published unique ideas may contaminate the minds and work of others in three main ways:

1. ***Innocent Knowledge Contamination***: The spread of original ideas in a prior-publication via (a) subsequent published sources on the topic, which failed to cite the Originator as their source, or (b) word of mouth and/or correspondence to the replicator by those who read the Originator's work or communicated with others who did — understood its importance in whole or simply in part — but failed to tell the replicator about its existence.
2. ***Reckless or Negligent Knowledge Contamination***: (a) The replicator reads the original publication, absorbs information such as original ideas and examples and terms, but forgets having read it — and never does remember. (b) The replicator reads the original publication and takes notes, but forgets the source of the notes. (c) The replicator is told about original ideas in a publication by someone — who understands their importance in whole or simply in part — who explains they come from a publication, but the replicator fails to ask the name of the author and title of the publication.
3. ***Deliberate Knowledge Contamination*** (science fraud): The replicator reads the original publication, or is told about its contents, takes notes, or is given notes, remembers this, but pretends otherwise.

de Beer and Darwin are not the only ones to write fallacies that serve to deny the possibility of such knowledge contamination occurring. Ernst Mayr, the Royal Society Darwin Medal recipient of 1984, published a more specific falsehood:

The person who has the soundest claim for priority in establishing a theory of evolution by natural selection is Patrick Matthew (1790-1874). He was a wealthy landowner in Scotland, very well read and well travelled (Wells 1974). His views on evolution and natural selection were published in a number of notes in an appendix to his work **On Naval Timber and Arboriculture** (1831). These notes have virtually no relation to the subject matter of the book, and it is therefore not surprising that neither Darwin

nor any other biologist had ever encountered them until Matthew brought forward his claims in an article in 1860 in *The Gardeners' Chronicle*.¹¹⁸

Besides Mayr, missing the fact that Loudon, a member of the Linnean Society, was both a naturalist and noted botanist, no one else seems to have noticed the multiplied importance of the three linked facts that disconfirm Mayr's claim and show why, like de Beer's, it is nothing less than "nonsense on stilts": (1) Loudon both reviewed Matthew's book and in that review he did mention its aboriginal ideas on the "origin of species"; (2) Loudon then went on to edit two of Blyth's important articles on evolution and (3) Matthew informed Darwin about Loudon's review and about a second naturalist who read his ideas but feared to teach them. This failure by leading Darwinist scholars to see the word "Loudon" in the literature and then follow it up with further research, might be caused by the retardation of motives for questioning Darwin's version of events, simply because he is considered "scientific royalty", albeit from a little known tainted lineage, due to his own grandfather, the much loved Erasmus Darwin (FRS) being eventually exposed for perpetrating the earliest known case of medical plagiarism in a heinous act of dishonest glory theft of the discovery of the powerful heart medicine *Digitalis*.¹¹⁹ Perhaps it would be treasonous for a Darwinist to denigrate Darwin (FRS)? At least, it seems unlikely that a Royal Society Darwin Medal could be won that way. Could that medal, minted to celebrate Darwin, be awarded for the discovery of so much significant new data that underpins this article about Darwin and previous medal winners?

On which note, today, we have significantly more hard evidence, besides that which Matthew supplied in 1860, about who read the original ideas in his book. And it is that newly discovered data¹²⁰ to which the story of Matthew, Darwin and Wallace now turns.

¹¹⁸ Ernst MAYR, **The Growth of Biological Thought: Diversity, Evolution and Inheritance**, Harvard University Press, Cambridge, Massachusetts 1982, p. 499.

¹¹⁹ See Michael NEVINS, **STILL MORE Meanderings in Medical History: The Third of a Trilogy of Meanderings in Medical History**, iUniverse, Bloomington 2013.

¹²⁰ See SUTTON, *Nullius in Verba...*

Whilst the scholarship of de Beer and Mayr, and countless other Darwin scholars who have simply parroted Darwin's lies about the original ideas in Matthew's book going unread before 1860, should be criticised for failing to include the facts about two naturalists who did read them, and for ignoring the fact Matthew¹²¹ informed Darwin the book was banned by the public lending library of Perth in Scotland. Arguably, none could reasonably be blamed for failing to detect what has newly been discovered about who else read Matthew's ideas on natural selection before 1858.

The new technology of Internet facilitated "BigData-IDD analysis" is defined as "big" because the data in question includes 30+ million scanned and then uploaded publications in Google's revolutionary uncategorised and uncatalogued Web based, library project, and the IDD in the name stands for "Internet Date Detection", which is the date of publication of any document found. The method used is discussed in detail in Chapter Two of *Nullius in Verba: Darwin's Greatest Secret*.¹²² The method, at its simplest, enables us to see whether, contrary to prior-claims, any naturalists and biologists did in fact cite Matthew's (1831) book¹²³ pre-1858. The method enables us also to discover whether or not any cited it before Darwin wrote his very first words on the topic in his private "Zoonomia" notebook of 1837-1838. Furthermore, the method allows us to see exactly what other publications those who cited Matthew's book were involved with. For example, BigData-IDD research¹²⁴ uniquely unearthed the fact that, after publishing his review of Matthew's book, Loudon, as Editor of *The Magazine of Natural History*, went on to manage the process of editing two of Blyth's influential papers on organic evolution.¹²⁵ Unfortunately, however, in absence of correspondence between Blyth and the magazine, we cannot know what, if anything, Loudon added to Blyth's ideas and knowledge on the topic of organic evolution. Nonetheless, this social and intellectual influence

¹²¹ See MATTHEW, Letter to *The Gardeners' Chronicle*... (12 May 1860), p. 433.

¹²² See SUTTON, *Nullius in Verba*...

¹²³ See MATTHEW, *On Naval Timber and Arboriculture*...

¹²⁴ See SUTTON, *Nullius in Verba*...

¹²⁵ See BLYTH, "An Attempt to Classify..."; BLYTH, "Observations on the Various Seasonal and Other External Changes...".

link between the two naturalists cannot be ignored, because Blyth was acknowledged by Darwin¹²⁶ as his most prolific and valuable informant on species and varieties. Loudon's role as editor of Blyth's work is a newly discovered fact¹²⁷ that was missed by critical scholars such as Eiseley,¹²⁸ Eisleley and Grote¹²⁹ and Davies,¹³⁰ all of whom claimed that Blyth was the originator of natural selection and that it was he who influenced Darwin.

I reveal¹³¹ also the discovery that besides Loudon,¹³² at least twenty four other individuals cited Matthew's book¹³³ before 1858. Therefore, contrary to what the current orthodox literature in the field claims, other naturalists actually did read Matthew's book and the original ideas in it. Besides Loudon, those naturalists are: Chambers,¹³⁴ Murphy,¹³⁵ Johnson,¹³⁶ Selby,¹³⁷ Norton,¹³⁸ and Jameson.¹³⁹

The botanist William Jameson was, at the time he cited Matthew in 1853, a regular correspondent of William Hooker — and both were in the employ of

¹²⁶ See DARWIN, *On the Origin of Species...*, 3rd ed.

¹²⁷ See SUTTON, *Nullius in Verba...*

¹²⁸ See EISELEY, *Darwin's Century...*; EISELEY, *Darwin and the Mysterious Mr X...*

¹²⁹ See LOREN C. EISELEY and ARTHUR GROTE, "Charles Darwin, Edward Blyth, and the Theory of Natural Selection", *Proceedings of the American Philosophical Society* 1959, vol. 103, no. 1, pp. 94-158.

¹³⁰ See DAVIES, *The Darwin Conspiracy...*

¹³¹ See SUTTON, *Nullius in Verba...*; SUTTON, "The Hi-Tech Detection...".

¹³² See LOUDON, "Matthew Patrick...".

¹³³ See MATTHEW, *On Naval Timber and Arboriculture...*

¹³⁴ See CHAMBERS and ROBERT CHAMBERS, *Chambers' Edinburgh Journal...*

¹³⁵ See EDMUND MURPHY, *Irish Farmer's and Gardeners' Magazine and Register of Rural Affairs* 1834, vol. 1.

¹³⁶ See CUTHBERT W. JOHNSON, "Plantation", *The Farmer's Magazine* 1842, vol. 5, pp. 364-368.

¹³⁷ See SELBY, *A History of British Forest-Trees...*

¹³⁸ See HENRY STEPHENS with assistance from JOHN P. NORTON, *The Book of the Farm*, vol. 2, William Blackwood and Sons, Edinburgh 1851, p. 569.

¹³⁹ See WILLIAM JAMESON, "Contributions to a History of the Relation between Climate and Ve-

the East India Company. William Hooker is the father of Darwin's great friend, Joseph Hooker, and, most notably, it should not pass without repeated emphasis, he was at the time both mentor and correspondent of Wallace.¹⁴⁰

It is notable that, besides being so close to the supposedly "independent discovery of natural selection by Wallace", Selby, in particular, enjoyed a considerable extent of professional involvement with Darwin's best friends and mentors: Lyell, Joseph Hooker, William Hooker, Huxley and Strickland. As noted above, Darwin's father was a guest at Selby's house and Selby and Darwin enjoyed mutual membership of several scientific committees. Therefore, Darwin's punctured-myth excuse, for not reading Matthew's book, that no naturalist read Matthew's original ideas in it, raises the telling question about how other influential naturalists, apart from Darwin and Wallace, yet known to them and their associates, were able to find the one book in the world that Darwin and Wallace most needed to read, and cite it in the literature, when Darwin and Wallace supposedly did not?

Conclusion

Newly discovered data reveals many falsehoods in the story of Matthew, Darwin and Wallace. Charles Darwin never coined the term or originated the concept of natural selection. Matthew originated the latter. However, numerous authors mistakenly believe Darwin has priority for both. Patrick Matthew, not Darwin, was first to use the "artificial versus natural selection analogy of differences" to explain natural selection.

Shabby treatment of Matthew, and the parroting of Darwin's self-serving falsehoods about the readership of the original ideas in Matthew's book by subsequent writers, have corrupted the history of discovery of natural selection.

Matthew's "natural process of selection" hypothesis was not solely published in the appendix of his book. Moreover, Darwin's correspondence with

getation in Various Parts of the Globe: On the Physical Aspect of the Punjab Its Agriculture and Botany. By Dr. Jameson Superintendent of the Botanic Garden Saharunpore", *The Journal of the Horticultural Society of London* 1853, vol. 8, pp. 273-314.

¹⁴⁰ See SUTTON, *Nullius in Verba...*

Hooker proves that he knew this, despite claiming otherwise. Contrary to a second myth started by Darwin, Matthew's unique and comprehensive, yet at the time heretical, ideas and explanatory examples in fact were not contained in an inappropriately titled book. And, contrary to a third myth started by Darwin, those original ideas were read by other naturalists and biologists known to Darwin and Wallace, and known to their known influencers and facilitators on the topic of organic evolution, before Darwin (1842, 1844 and 1859). Wallace (1855) and Darwin and Wallace (1858) replicated them. Moreover, three of the seven naturalists who cited Matthew's book pre-1858 — Loudon, Selby and Chambers — played major roles at the epicentre of influence and facilitation of the work of Darwin and Wallace on macro evolution by natural selection.

The "New Data" disproves the pervasive myth that Matthew's original ideas on natural selection were unread by anyone who could have influenced Darwin or Wallace with them. This is important for a veracious history of scientific discovery, because boldly unequivocal statements, made by the World's leading experts in evolutionary biology, that Matthew's original ideas on natural selection went unread until 1860, have been absolutely relied upon by others as the premise upon which rests the orthodox history of Darwin's discovery of natural selection as being something that absolutely did happen completely independently of Matthew's prior-published discovery. When a paradigm is proven to rely solely upon punctured myths, it is surely time for a new one. Accurate knowledge with regard to this and other scientific discoveries is essential if we are to learn from the past to increase the chances of making other great scientific breakthroughs in the future.

Matthew's book was the one publication in the world that Darwin and Wallace most needed to read before they replicated the original ideas in it without citing Matthew; more so, because Darwin subsequently claimed, by relying upon a series of newly proven fallacious excuses, that those ideas were unread before Matthew brought them to his notice in 1860.

As the dust from the newly discovered hidden books in the library settles, it may become apparent that the time has come for a new paradigm. Any call for a new paradigm on the discovery of natural selection ramifies from the new data's revelations of the increased probability that Matthew's original ideas and

examples influenced Darwin and Wallace through one or more of the newly proposed sub-types of knowledge contamination before they each replicated those ideas, whilst surrounded and influenced by naturalists known to them, who read those ideas and then cited the book containing them.

The facts reveal that in 1860 and from 1861 onwards Darwin self-servingly corrupted the history of discovery of natural selection with statements he knew to be untrue about Matthew's influence on those who influenced him and Wallace many years before 1858, which means from those dates onward he most surely committed a most successful act of what we might term "plagiarising science fraud by glory theft" of Matthew's right to be considered an immortal great thinker and influencer in science for the great idea Darwin (1859) called "my theory". Despite this being an act of multiple victimisation, following as it did the "glory thieving" fallacy perpetrated by Lindley, these facts do not prove that either Darwin or Wallace knowingly plagiarised Matthew's ideas before 1860. By following the data, as all good scholars should, such direct proof of pre-1858 plagiarism, might, however, be awaiting discovery in the archives of those to whom research must now turn if we are to answer the most telling question remaining in this story, which is: "In light of what we now newly know about who Darwin and Wallace did know who read Matthew's ideas, before they were replicated by Darwin and Wallace without citing him, what were Darwin and Wallace? Were they schnooks or crooks?" If it can be found, the history of science most surely deserves an answer to that shockingly simple binary.

One thing, of which we can now be certain, in light of newly discovered facts, is that Matthew was, rather suspiciously, a repeat victim of "glory theft" by Lindley, Darwin and Wallace — three naturalists who all knew one another, corresponded, and shared a profound interest in organic evolution.

Since, ultimately, the main aim of science is to reveal that which is hidden, it is proposed that there is sufficient significant newly discovered evidence in the story of the discovery of natural selection to justify a program of research focusing upon the paper archives in the UK and USA of the many 19th century gentlemen of science who feature in this story, including the diaries, notebooks and correspondence of those naturalists who were apparently "first to be second" in

print,¹⁴¹ and perhaps even first to be third and fourth in print with apparently unique Matthewisms out of the millions of publications in the Google Library Project, and also in other, traditional, publication databases.

Following up these leads, future research should focus on the archives of those naturalists who we now know — contrary to the previously unquestioned myths disseminated by leading scholars in the field — in fact *did* read Matthew's original ideas because they cited his book before 1858; similarly for their friends and correspondents. In the interests of a veracious history of scientific discovery, this proposed way forward for research would enable us to establish whether or not there is any discoverable record of mention being made, either to or from Darwin or Wallace, of Matthew and his original ideas on natural selection, before they each replicated them without citing him. Let us name the testable proposition, that such a note or letter will be found, the: "New Data-Led Hypothesis".



Mike Sutton

On Knowledge Contamination: New Data Challenges Claims of Darwin's and Wallace's Independent Conceptions of Matthew's Prior-Published Hypothesis

Summary

Patrick Matthew's (1831) prior-publication of the complete hypothesis of natural selection "anticipated" Darwin's **Origin of Species** by 28 years and Darwin's and Wallace's (1858) Linnean papers on the same topic by 27. Founded on the premise that no naturalist read it before 1860, Darwin's and Wallace's claims of dual independent discovery of Matthew's hypothesis have been accepted by the scientific community. However, the central premise upon which those claims have been accepted — that no naturalist read Matthew's ideas before 1858 — is a proven fallacy, because the famous and hugely influential naturalist Loudon reviewed Matthew's book in 1832, commenting that it appeared to have something original to say on "the origin of species". The fact that Loudon was a naturalist has been totally ignored until now. Furthermore, it is newly discovered that after reviewing Matthew's book he went on to edit the journal that published two of Blyth's highly influential papers on organic evolution. Blyth was Darwin's most prolific and helpful correspondent on the topic. Further new discoveries reveal that, besides Loudon, whose work was well known to

¹⁴¹ See SUTTON, *Nullius in Verba...*

Darwin and his associates, six other naturalists read Matthew's book and then cited it years before 1858. One, Selby, sat on several scientific committees with Darwin, and was a friend of his father. Selby went on to edit Wallace's famous Sarawak paper on organic evolution. Another, Robert Chambers, a correspondent of Darwin, who met with him, went on to write the influential **Vestiges of Creation**, which both Darwin and Wallace admitted was an influence on their work. Undeniable potential knowledge-transfer routes did exist before 1858, therefore, between those who read Matthew's ideas and commented upon them in the literature, and Darwin and Wallace. In light of the fact that influential naturalists, known to both Darwin and Wallace, did read Matthew's original ideas before 1858, veracity in the history of discovery requires now an investigation into the possibility of cryptomnesia or deliberate pre-1860 plagiarism by Darwin and Wallace. In that regard, the notion of "knowledge contamination" is proposed and presented in a three-fold typology of escalating culpability for replicators of prior published work with citation. Future research in this area should turn to the neglected correspondence and private journal archives of those naturalists known to Darwin and Wallace who read Matthew's ideas before 1860.

Keywords: knowledge contamination, Darwin, Wallace, Matthew, plagiarism, natural selection.