

## W. W. Smith (1852-1942): “Second to None in the Dominion as a Field Naturalist”

MICHAEL ROCHE

### Abstract

On his death in 1942, W. W. Smith was described in an obituary as “second to none in the Dominion as a field naturalist.” This phrase had been used some years earlier by scientist-politician George Malcolm Thomson. Today, Smith is largely recalled for his membership of the Scenery Preservation Commission (1904-1906) and work as the domain curator in Ashburton (1894-1904) and Pukekura Park in New Plymouth (1908-1920). This paper revisits Smith’s reputation as a naturalist. In so doing it considers the fields of knowledge he engaged with and identifies some of the scientific networks in which he was embedded.

### W. W. Smith: Natural Historian

William Walter Smith (1852-1942), invariably “W. W.,” was born in Scotland, migrated to New Zealand in the 1870s, and during the course of a long life worked for two decades as a gardener on estates in Canterbury and North Otago and later as curator of the Ashburton Domain and then Pukekura Park in New Plymouth. He was never well remunerated and his home life was difficult, with a son dying at a young age and he parting from his wife.<sup>1</sup> Smith is usually credited with making the last authenticated sighting of a pair of huia (*Heteralocha acutirostris*) at Mount Holdsworth in the Wairapara in 1907.<sup>2</sup> In so much as Smith has commanded any recent attention it tends to be with respect to his membership of the Scenery Preservation Commission (1904-1906), in retrospect a career high point, over native bird preservation, and for his work as a gardener and park curator.<sup>3</sup> He also served as Secretary for the Polynesian Society from 1912-1921.<sup>4</sup>

Yet Galbreath’s entry in the *Dictionary of New Zealand Biography* makes it clear that Smith was first and foremost a passionate naturalist.<sup>5</sup> Obituaries appeared in 1942 in the *Journal of the Royal N.Z. Institute of Horticulture* and in the *Evening Post*, the *Christchurch Press* and *Taranaki Herald*, reflective of a national reputation. In the first of these, H. H. Allen, himself a distinguished botanist, noted Smith’s “correspondence list contained many famous names,” and that “his published accounts of his observations attracted considerable attention.”<sup>6</sup> The *Evening Post* obituary recalled his time as a gardener in Ashburton and New Plymouth as well as the work of the Scenery Preservation Commission. His accomplishments as a naturalist were recalled through the repeating of Thomson’s view that Smith was “second to none in the Dominion as a field naturalist in the accuracy and thoroughness of his observations.”<sup>7</sup> Further, it was stated that Smith’s name was associated with a number of leading national scientific figures of the nineteenth and early-twentieth centuries such as Thomson, Frederick Hutton, Sir Walter Buller, Sir James Hector, Sir Julius von Haast, Professor Charles Chilton, and overseas others such as Professor Newton, a comparative anatomist at Cambridge University, Frank Beddard of the Zoological Society of London, Frederick McCoy (a [paleontologist](#) and [zoologist](#) at the Melbourne Museum), and Sir John Lubbock, the British entomologist and anthropologist. These were only a few of his contacts, for Smith had even sent new ant species for original identification and classification to two leading international authorities, Swiss Professor Auguste-Henri Forel and Italian Carlo Emery, Professor of Zoology at the University of Bologna.<sup>8</sup>

Trained in Scotland as a gardener, Smith was a self-taught naturalist whose careful observations meant that his work was frequently referred to in some of the major books and papers authored by scientists in New Zealand. His range was impressive: from ants, to beetles, to birds, naturalised plants, and ethnology.<sup>9</sup> Hudson lists him as one of seven “local entomologists” whose extensive collections made it possible for Broun to complete his work on New Zealand beetles.<sup>10</sup> Other foundational New Zealand natural history texts acknowledge Smith and draw on his work; for example, Hutton and Drummond’s *The Animals of New Zealand*, Cheeseman’s *Manual of New Zealand Flora*, and Thomson’s *The Naturalisation of Animals and Plants in New Zealand*. Hutton and Drummond in *The Animals of New Zealand* include a dozen or so references to Smith’s published work. They organise the text along Linnean principles into mammalia, aves, reptilia, and amphibians. Species are discussed and scientific names are paired with common names and distinctive features of genera are listed for purposes of field identification. There is no reference list but in Smith’s case considerable information was drawn from his substantial 1888 paper which described in some detail the species and habits of birds of the Lake Brunner District and was published in the *Transactions and Proceedings of the New Zealand Institute*.<sup>11</sup> Other unpublished material was also drawn on, particularly Smith’s descriptions of bird behaviour, and Hutton quoted several paragraphs of Smith’s diary notes about Shining Cuckoo behaviour.<sup>12</sup>

Eleven of Smith’s publications are listed in the bibliography of G. M. Thomson’s magnum opus *The Naturalisation of Animals and Plants in New Zealand*, including overseas publications in *Ibis*, *The Entomologist*, and *Entomologists’ Monthly Magazine*.<sup>13</sup> Smith also features in Thomson’s “index of authorities” along with Armstrong, Cheeseman, Hudson, Kirk, and Miller as too numerous to index for chapters 7 to 12 of a 16 chapter 600-page book. Here, Smith is in lofty company among New Zealand botanists and entomologists. Armstrong was curator of the botanical gardens in Christchurch and did pioneering work on botany in Canterbury; Thomas Cheeseman (1845-1923), also a botanist, was Curator of the Auckland Museum and author of *A Manual of New Zealand Flora*; George Hudson (1867-1946) was a FNZI and author of *New Zealand Moths and Butterflies*<sup>14</sup>; Thomas Kirk (1828-1898) a former university lecturer in natural sciences, and one time chief conservator of forests, was well known for his *Forest Flora of New Zealand* (1898); and David Miller (1890-1973) was a professional entomologist, later with the Cawthron Institute in Nelson. In turn, Miller acknowledged Smith’s “indispensable assistance” in the preparation of his *Forest and Timber Insects of New Zealand*.<sup>15</sup> It is also evident that Smith was in regular correspondence with Thomson who, in *The Naturalisation of Animals and Plants in New Zealand*, typically noted the dates of letters from Smith, for instance over possum numbers and feeding habits in Taranaki (31 July 1918).<sup>16</sup>

A later generation of university trained professions were also ready to acknowledge Smith’s expertise. W. R. B. Oliver, Director of the Dominion Museum, in his second edition of *New Zealand Birds* in 1950 quoted generously from Smith’s Lake Brunner paper with respect to the behaviour of the South Island kiwi and observed that Smith, “more than anyone else, knew the nesting places and habits of the Laughing Owl.”<sup>17</sup>

Smith’s collecting efforts were recognized by his having a number of species named after him; for example, Hutton described *Piophila smithii*, a type of fly [though this is now regarded as a synonym for *P. casei*, originally described by Linneaus himself in 1785].<sup>18</sup> Broun named two species of beetle after him (*Odontria smithii* and *Trichosternus smithii*) and Beddard two worms (*Haplotaxis smithii* and *Acanthrodilus smithii*). Unlike Cheeseman and Miller, for instance, Smith was not professionally employed. But then neither were some other important

late nineteenth- and early twentieth-century naturalists in New Zealand. What further sets Smith apart was that neither was he a “gentleman amateur” scientist, being of working-class background. This tension between his natural history interests and his employment led to the Pukekura Park Board seeking to place limits on the demands on his time, prompting Smith’s resignation in 1920.<sup>19</sup>

Some of Smith’s papers have been deposited in the library of Puke Ariki in New Plymouth, but it is clear that they are only a fragment of a larger collection. These papers do include correspondence, but it dates mainly from 1920 onwards and contains letters from foresters [Sir] David Hutchins and Charles Foweraker (Canterbury University College), along with communications from Thomson and Val Sanderson, President of the Forest and Bird Protection Society. These letters were typically wide ranging in content and conducted on a friendly basis and less focussed on scientific matters than Smith’s earlier correspondence. I have excluded from this paper discussion his correspondence while on the Scenery Preservation Commission, as well as correspondence conducted in his role as Secretary to the Polynesian Society, which was predominately administrative in nature.

Fragments of Smith’s natural history correspondence survive.<sup>20</sup> The earliest letters are from Smith to Sir Walter Buller and relate to the collection of specimens of Laughing Owl (*Sceloglaux albiefacies*) for Buller in 1882.<sup>21</sup> Buller also included some of Smith’s notes in a paper read to the Wellington Philosophical Society.<sup>22</sup> Correspondence with Professor Thomas Parker of the Otago Museum dates from 1884. It was largely concerned with the despatch of collections of New Zealand earthworms to Parker, who identified them definitively for Smith. Some, Smith provisionally identified: for example, “No 3 it is Nova Zealandia two of which I succeeded in killing while copulating.”<sup>23</sup> Parker in return provided him with instructions on how to preserve leeches. The expansiveness of Smith’s collecting is revealed by reference to the stone adzes that he gifted to the Otago Museum, “obtained from farmers who have ploughed them up at different times on the [Canterbury] plains.”<sup>24</sup>

In the late 1890s, Smith also corresponded with zoologist Professor William Benham of Otago University and supplied him with quantities of worms so the zoologist could study their phosphorescent capabilities. In despatching a further batch Smith referred back to his own paper on worms published in the *Transactions and Proceedings of the New Zealand Institute*,<sup>25</sup> with respect to a viral disease with which one of the batches seemed to be afflicted. He also included a detailed description of a dissection carried out on another more diseased specimen.<sup>26</sup>

Other Smith letters include those to Thomas Adams, the leading Canterbury tree planter of the 1890s to 1900s. Here, Smith was mainly interested in more mundane matters such as getting a good up-to-date catalogue of conifers, presumably for his duties at Pukekura Park, and in exchanging seed, although he recorded his support of the government’s initiative in setting up a Royal Commission on Forestry in 1913, on which Adams served. He further noted with satisfaction that he had some 33 varieties of *Phormium tenax* growing in Pukekura Park; a clear sign of his growing commitment to planting and growing indigenous species.<sup>27</sup> These letters overlap temporally with others to Thomas Cheeseman, in which he sought copies of some of Cheeseman’s papers, sent various plants to be identified, and entered into a protracted exchange with him over the classification of wild turnip (now *Brassica rapa*).<sup>28</sup>

In 1882, Smith had written to Buller expressing his delight that “my observations on the Laughing Owl give you satisfaction and although only an amateur I am pleased that you I have been able to throw some light on the habits of this interesting bird.”<sup>29</sup> Initially he was especially

deferential to Buller, but in later years developed a confidence in his own capacities and observations, although he was careful never to overstep the mark in his dealings with trained scientists or “professional” naturalists. Much later, in the 1920s, even Herbert Guthrie-Smith, author of *Tutira* and various books on New Zealand avifauna wrote to Smith for advice about identifying the Laughing Owl as part of his own quest to see if they still survived.<sup>30</sup> In a follow up episode Arini and Randal Woodhouse at Bluecliffs station glimpsed an owl in the limestone cliffs and subsequently forwarded to Smith feather and shell fragments which they considered to be of the (for some time extinct) Laughing Owl.<sup>31</sup>

In his correspondence, Smith was typically respectful in his communications with others and, not out of keeping for the times, continued to write in relatively formal terms to those who he eventually came to know well. As Galbreath notes, this did not stop Smith from disagreeing with some quite senior scientific figures, such as British entomologist Edward Meyrick, when he was sure of his evidence.<sup>32</sup>

### Smith’s Publications

A preliminary bibliography compiled as part of my research on Smith runs to 74 papers, 65 letters to the editor and 25 newspaper articles. There are likely many other newspaper articles and letters to the editor remaining to be itemised. The scientific papers are written in the style of the nineteenth-century naturalist: generally descriptive, inductive, and very discursive. Many of them take the form of short notes based on Smith’s direct observation of a variety of species. In addition, he published a smaller number of more substantial papers in New Zealand and overseas journals.

Thomson established the *New Zealand Journal of Science* in 1884 in order to outflank what was seen as James Hector’s stranglehold over the *Transactions and Proceedings of the New Zealand Institute* and provide an alternative and up to the moment record of scientific work in New Zealand. At the time, while still a gardener for Hon. Edward Richardson at Albury Estate, Smith had submitted his first papers on his discovery of moa remains, about weka, and observations of Laughing Owls near Albury to this new journal.<sup>33</sup> Smith subsequently was employed in Oamaru and worked at Lake Brunner before moving to Ashburton where in 1894 he became Curator of the Domain. This mobility is reflected in some of what Smith wrote about, for he was an acute observer of his local environment. His interest in avifauna was evident in papers now published in the more prestigious *Transactions and Proceedings of the New Zealand Institute*, some being originally based on presentations to local branches of the institute. His major early statement was the 1888 paper “On the Birds of Lake Brunner District,” based on his 14-month residence there.<sup>34</sup> Here, Smith listed over 40 bird species with notes about their frequency and behaviour, and quite consciously set out to describe the bird life of the district, particularly as he envisaged that the coming of the railway would lead to environmental transformation including severe population decline and the extinction of some bird species. The causes of extinction he attributed to clearing of the indigenous vegetation cover and cultivation of land as well as climate change. Anticipating later ecological thinking, he observed that “as many of our plants and insects are wholly dependent on each other, any cause affecting one affects the other.”<sup>35</sup>

He followed this up with a longer paper in *Ibis*.<sup>36</sup> Here, Smith acknowledged Buller’s contributions, but claimed to be reporting new information of bird behaviour. In fact, he devoted a considerable amount of space to his “observations on the causes of the extinction and gradual disappearance of certain native birds.”<sup>37</sup> In the case of the Laughing Owl, he attributed the demise of the populations around Albury to the introduction of ferrets by

landowners trying to reduce the rabbit population. He even disagreed with some of Buller's ideas about the importance of introduced bees, swamp drainage and introduced predators; instead, from a South Island vantage point, he stressed the importance of the removal of the forests of Canterbury and burning of the tussocks during the initial decade of settlement. Some 30 years on, he saw some possibilities for indigenous species to return. Here, Smith linked his comments with the view that the removal of the forest had "a serious effect on the climate."<sup>38</sup> The relationship between forest and rainfall, at least, was much debated in New Zealand and elsewhere from the 1870s.<sup>39</sup> Smith, presumably informed by his interpretation of evidence, was not following the emerging orthodoxy which rejected the deforestation-rainfall link.

Smith also published mainly shorter notes on another of his interests, entomology, in a number of overseas journals, notably *Entomologists' Monthly Magazine* and *The Entomologist*.<sup>40</sup> This later extended to include bumble bees and ants. Smith eventually became a Fellow of the Entomological Society and used FES on some of his publications.

Smith's writings show he accepted Darwin's ideas about evolution. For instance, he wrote in debating moa extinctions with an Oamaru clergyman of "Darwinian principles of the 'survival of the fittest.'"<sup>41</sup> He also seems to have adhered to what eventually became the discredited idea of the displacement of species, though this is arguably Hookerian rather than Darwinian in origin, which interpreted weaker indigenous flora and fauna falling back in the face of stronger invading species.<sup>42</sup> For instance, as late as 1903, he would write "With few exceptions the indigenous plants of New Zealand never attained the development necessary to fit them in the struggle with the strongly developed European plants."<sup>43</sup> The tussocks he considered to be one such exceptional species, which acted as a barrier against the further dispersal of European plants in Canterbury.<sup>44</sup>

### **Letters to the Editor and Newspaper Articles**

Smith must have enjoyed writing, for he was a regular contributor of letters to the editor in newspapers nationally, and a contributor of numerous small articles typically about first sightings of species and animal behaviour, although he sometimes entered into contemporary debates, for instance in a series of letters to the *North Otago Times* that demonstrated a logical mind and dismissed some of the period explanations for the disappearance of the moa.<sup>45</sup> In particular, he rejected the Reverend Christie's view that moa had perished in the Pleistocene glaciation before human arrived; a view that Smith, with a dry sense of humour referred to as the "refrigeration theory" of extinction. On the basis of his own excavations near Albury, Smith considered that the presence of moa bones in Māori ovens, as well as rock paintings seemingly of moa, pointed instead to their more recent extinction, long after people had arrived in New Zealand.<sup>46</sup> What particularly exasperated him was that Christie continually shifted the focus of his argument, and his treatment of evidence riled and exasperated Smith who in an atypical lapse eventually chided him as "a very uncompromising man, and too hasty in his conception of matters to ever become a sound writer on science."

From the 1890s, Smith was a regular, more-or-less nationwide writer of letters to the editor. In the main, these were short notes of a descriptive sort about natural history matters, for instance kiwi and other species, the threats posed by possums, and Māori.<sup>47</sup> Others were more sustained discussions about particular questions; for instance, articles about bird extinction and the huia.<sup>48</sup> He also contributed in educative mode short articles to various newspapers, such as later writing about kiwi, having raised them in captivity.<sup>49</sup> Some of these were to *The Field* in the UK. Smith seems to have been ever-ready to write to the newspapers about any snippet of natural history minutia that he thought may have been of wider public interest. By volume

alone he was an effective disseminator of information about many aspects of New Zealand's natural history, and by the 1920s, with a huge store of accumulated knowledge and awareness of recent and widespread environmental change, had become much more of an advocate for preservation.

### **An Evaluation**

Smith tended to proceed inductively, and there was a strong empirical thread to his work. He was not anti-theoretical, but did maintain that "as a general rule it is much easier to propound a theory than it is to support or maintain it by facts."<sup>50</sup> In some of his more important pieces of writing, after having assembled sufficient information, he was quite ready, for instance, to interpret mechanisms of bird behaviour and extinction. Smith displayed commendable persistence in pursuing some topics over many decades: his interest in birds was life-long. His cumulative knowledge and systematic record-keeping resulted in his becoming something of an authority on the first appearance of various introduced species. This strategy was not without disadvantages, for his material could become out of date: he was still writing in the twentieth century on the basis of nineteenth-century observations from localities now much changed.

Smith developed from being a collector for others and an enthusiast to developing a pool of knowledge mainly from observation but also from dissection, and personal experimentation, for example, in hand-rearing various native birds, eventually also developing an independent viewpoint. His primary observations were related to findings from the appropriate secondary literatures; from textual references, for example to naturalist Henry Bates on Amazonia and Thomas Belt on Nicaragua, it is clear he was reading widely.<sup>51</sup> Much of his work was derivative, but in following up Percy Smith's suggestion that elderly Māori might be able to provide some information on the saddleback, he garnered some useful new (to colonial science) information from Tutu Hihi of Parihaka about their flight patterns.<sup>52</sup>

Smith also displayed some archaeological, historical and ethnographic interest in Māori. He collected adzes while in Canterbury, was interested in rock drawing, and visited old pa sites in Taranaki, but these do not fall within the span of his major natural history interests.<sup>53</sup> Late in his life, Smith moved more towards propaganda pieces, about the threat to the indigenous bird life such as the kea, and the value of natural landscapes.<sup>54</sup> He also encouraged others in their interests, and jointly published on vegetating caterpillars with W. G. Howes, a young and enthusiastic local entomologist.<sup>55</sup>

Smith's connections were originally forged in the role of collector, where he obtained specimens for Buller. He soon moved beyond procuring taxidermy specimens, and readily sought out the appropriate regional as well as overseas authorities to ask taxonomic questions. This tended to develop into solicited and unsolicited exchanges of specimens and seeds, and broadened out further when Smith forwarded summaries of various animal behaviours and plant and animal structures. His connections to some extent seem to be geographically focussed; Parker and Benham when he was in Oamaru and Ashburton, Cheeseman when he was in New Plymouth, but it is the omissions that are not without interest, and these comments are tentative because of gaps in the surviving records, for he appears to have had no contact with Leonard Cockayne, albeit that they both attended the 1901 National Conference of Fruitgrowers in Dunedin. The famous ecologist does, however, cite Smith's 1903 Ashburton paper in his magisterial *The Vegetation of New Zealand*, though nothing else.<sup>56</sup>

Concluding this section, it ought also to be noted that some of his interpretations on matters such as deforestation and climate and the displacement of indigenous species were being

discarded by trained and professional scientists at the time Smith was still championing them. The care and attention as well as sustained work over many years that characterised Smith's published observations ensured, however, that some remain useful to scientists.

### Present Day Importance

Some of Smith's work continues to be drawn on in recent publications by New Zealand scientists of various disciplinary backgrounds, a measure of the soundness of his observations. This is exemplified by Smith's paper on the naturalised plants of Ashburton County, a work listed by Cockayne, which continues to be cited over a century after its publication (Table 1).<sup>57</sup> Here, Smith listed 308 species overwhelmingly from Britain but also from Europe, Australia, North America, and Western Asia, as well as single species from South America and Southern Africa. He provided much more than a species list, painting a quite detailed verbal map of the distribution of various naturalised species in the county, and he suggested various economic and environmental reasons that explained their spread over time and space. The lack of clean seed was pivotal, but Smith also considered how burning off of tussock, land drainage, ploughing, manuring and more intensive farming that came after the introduction of refrigeration all contributed to the naturalization of plants. He also recognized the importance of drought events, and how the wide bed of the braided Ashburton River became a haven for many introduced species. He puzzled over what he regarded as a decline in the vigour of introduced species in previous decades, compared to when they were first arrived.

Of interest is the fact that this paper was not cited until 1922, 19 years after publication, and of note is the number of publications over the last 15 years that still refer back to this paper. Table 1 is based on Google Scholar citations, which omit Cockayne's *Vegetation of New Zealand* and are doubtless more reliable for recent decades and probably underestimate the early citations. It effectively makes the point that this paper has been continuously referenced over many decades. A tentative twofold explanation for the longevity of the paper is that it was an original pioneering piece of work on the topic in that locality and since Smith was a careful and accurate observer it now provides a benchmark paper against which subsequent change can be measured.

**Table 1: Citation of Plants Naturalised in the County of Ashburton**

<b>Date</b>	<b>Journal/book</b>	<b>Author</b>
<b>1922</b>	<i>Naturalisation of Animals and Plants in NZ</i>	Thomson
<b>1935</b>	"Additions to the Alien Flora of New Zealand," <i>Trans RSNZ</i>	Allan
<b>1944</b>	"Some Additions to the Naturalised Flora of New Zealand," <i>Trans RSNZ</i>	Healy
<b>1946</b>	"Contributions to the Knowledge of the Naturalised Flora of NZ," <i>Trans RSNZ</i>	Healy
<b>1958</b>	"Contributions to the Knowledge of the Advective Flora of NZ No. 6," <i>Trans RSNZ</i>	Healy
<b>1978</b>	"Checklist of Dicotyledons Naturalised in New Zealand 2. Lamiales," <i>Journal of Botany</i>	Sykes
<b>1979</b>	"Checklist of Dicotyledons Naturalised in New Zealand 4. Rhoadales," <i>NZ Journal of Botany</i>	Garnock-Jones

1981	“Checklist of Dicotyledons Naturalised in New Zealand 7. Scrophulariales,” <i>NZ Journal of Botany</i>	Sykes
1981	“Checklist of Dicotyledons Naturalised in New Zealand 10. Polemoniales and Boraginaceae,” <i>NZ Journal of Botany</i>	Sykes
1982	“Checklist of Dicotyledons Naturalised in New Zealand 12. Haloragales, Myrtales, Proteales, Theales, Violales (excluding Violaceae),” <i>NZ Journal of Botany</i>	Sykes
2004	“Diversity of <i>Brassica</i> (Brassicaceae) Species Naturalised in Canterbury, New Zealand,” <i>NZ Journal of Botany</i>	Heenan, Fitzjohn & Dawson
2005	<i>Naturalised Birds of the World</i>	
2008	<i>Recreating the Invasion of Exotic Conifers in New Zealand: 12th Australasian Weeds Conference</i>	Howell
2008	“Assessing the Risk of the Natural Regeneration of Introduced Conifers or Wilding Spread,” <i>NZ Plant Protection Society</i>	Legard
2008	“The Impact of Browsing on Wilding Conifers in the South Island High Country,” <i>NZ Journal of Forestry</i>	Ledgard & Norton
2012	“Distribution of Bumble Bees in New Zealand,” <i>NZ Entomologist</i>	Macfarlane & Gurr

Source: Google Scholar, accessed 22 September 2016.

Smith’s earlier paper on the bird life at Lake Brunner similarly has attracted some latter-day attention.<sup>58</sup> His substantial paper to *Ibis* has not survived the passage of time: possibly being in *Ibis*, it has escaped local attention.<sup>59</sup>

## Conclusion

The breadth of Smith’s efforts over several decades, as well as his extensive network of correspondents, some of whom were distinguished national and international figures, suggests his reputation as a naturalist was well deserved, though he is not a pre-eminent figure in New Zealand natural history. But to a degree, his reputation was gained against the backdrop of some historically contingent conditions that applied to the decades on either side of the turn of the twentieth century. Smith was working at an exciting time for naturalists in New Zealand, when there was much taxonomic description of previously unknown indigenous species. He was an assiduous collector of specimens and recorder of sightings of species. The New Zealand environment was being rapidly transformed in the 1890s-1910s: Smith sensed he was writing in an era of considerable environmental transformation, and was particularly sensitised to indigenous extinctions and the naturalisation of new species which he understood as being driven by both economic and what today would be termed ecological factors. Scientific endeavour, furthermore, was both professionalising and specialising from the late-nineteenth century, so that later field naturalists differed from Smith in having narrower interests and formal training, and also were working at a time when it was arguably more difficult to make one’s mark.

Smith’s work stands out because of his breadth of interests, ranging from ethnography and archaeology to zoology, particularly entomology, and to botany. He was uninterested in geology, which in any case was a path well-trodden by Hector, Haast, Hochstetter, and Hutton. Perhaps because his paid work involved daily horticultural endeavour, he tended to favour bird and insects over the plant world. It is somewhat ironic therefore that Smith’s paper on



naturalised plants is his most cited piece of scientific writing.<sup>60</sup> Smith himself would, I suspect, have considered some of his work on birds and insects more important. His breadth of interests perhaps prevented him from achieving a greater reputation than had he focussed on some specific facet of natural history. But his favouring of a wider canvass was established soon after he arrived in New Zealand; he seems to have enjoyed the freedom to range across many areas, and his interests were scientific rather than reputational, though this is not to say that he did not enjoy having his expertise recognised.

Smith's longevity may in part have helped obscure his reputation, in that by the time of his death in 1942, at the age of 90, many of his contemporaries had predeceased him, and memories of him had receded, so obituary accounts had to draw on second-hand material. As a naturalist of the nineteenth and early-twentieth centuries, Smith had a breadth of interests and displayed remarkable energy in collecting and recording observations, in sustaining a network of correspondents, and in forwarding specimens. He was also encouraging of others. In his later years, he devoted considerable time to advocacy for the preservation of New Zealand's indigenous flora and fauna. Some of his work, as pioneering and accurate recording, continues to be cited by New Zealand ecologists, botanists and environmental managers even today. He retains a legitimate place among New Zealand naturalists of his era, though his work has not really "travelled" beyond this country. His duties as part of the Scenery Preservation Commission, curatorship at Pukekura Park, and his lengthy advocacy for bird protection have attracted more recent scholarly attention, particularly from what might be broadly described as an environmental history perspective, so that his natural history writings—his major interest—have remained comparatively under-explored. This paper, although exploring only a few facets of Smith's natural history inquiries, represents a step in redressing this imbalance.

### Acknowledgement

An earlier version of this paper was presented at The Stout Centre's 2016 "The New Zealand Polymath Colenso and his Contemporaries Conference." The comments of two anonymous referees were especially helpful in reshaping the paper for publication.

---

<sup>1</sup> Ross Galbreath, "Smith, William Walter, 1852-1942," *Dictionary of New Zealand Biography, Volume Three 1901-1920* (Wellington: Department of Internal Affairs, 1996) 482.

<sup>2</sup> R. H. D. Stidolph, "Nature Notes Extinct Birds Recent Exterminations," *Evening Post*, 8 June 1929.

<sup>3</sup> Tony Nightingale and Paul Dingwall, *Our Picturesque Heritage: 100 Years of Scenery Preservation in New Zealand* (Wellington: Science & Research Unit, Department of Conservation, 2003); Paul Star, "Native Bird Protection, National identity and the Rise of Preservation in New Zealand to 1914," *New Zealand Journal of History* 36 (2002): 123-36; Michael Roche, "W. W. Smith and the Transformation of the Ashburton Domain 'From a Wilderness into a Beauty Spot,' 1894 to 1904," *Studies in the History of Gardens & Designed Landscapes* 36 (2015): 65-77; and Michael Roche, "Seeing Scenic New Zealand: W. W. Smith's Eye and the Scenery Preservation Commission, 1904-06," *International Review of Environmental History* 3 (forthcoming): 177-97.

<sup>4</sup> M. P. Keith Sorrenson, *Manifest Duty: The Polynesian Society over 100 Years* (Auckland: The Polynesian Society, 1992).

<sup>5</sup> Galbreath, "Smith," 482.

<sup>6</sup> HHA [Harry Howard Allen], "In Memoriam: W. W. Smith," *Journal of the Royal N.Z. Institute of Horticulture* 2 (1942): 86.

<sup>7</sup> "Naturalist's death: Mr W. W. Smith," *Evening Post*, 6 March 1942.

- 
- <sup>8</sup> W. W. Smith “On the Habits of New Zealand Ants,” *Transactions and Proceedings of the New Zealand Institute* 28 (1895): 468-79.
- <sup>9</sup> *Ibid.*; W. W. Smith, “Ants Inhabiting Mount Egmont,” *New Zealand Journal of Science and Technology* 13 (1931): 45-47; W. W. Smith, “Great Destruction of Injurious Beetles,” *The Entomologist* 33 (1900): 11; W. W. Smith, “The Kiwi in Westland,” *Otago Daily Times*, 12 December 1893; W. W. Smith, “Ancient Maori Kite [Note],” *Journal of the Polynesian Society* 10 (1901): 169.
- <sup>10</sup> George Hudson, *New Zealand Beetles and their Larvae* (Wellington: Ferguson and Osborn, 1934), 2.
- <sup>11</sup> W. W. Smith, “On the Birds of Lake Brunner District,” *Transactions and Proceedings of the New Zealand Institute* 21 (1888): 205-24.
- <sup>12</sup> Frederick Hutton and James Drummond, *The Animals of New Zealand* (Christchurch: Whitcomb and Tombs, 1925 [1st ed. 1904]), 124.
- <sup>13</sup> George M. Thomson, *The Naturalisation of Animals and Plants in New Zealand* (Cambridge: Cambridge University Press, 1922).
- <sup>14</sup> G. V. Hudson, *New Zealand Moths and Butterflies* (London: West, Newton and Co., 1898). A much-enlarged version was locally published in 1928 with a supplement in 1939 shortly after Hudson’s death.
- <sup>15</sup> David Miller, *Forest and Timber Insects of New Zealand*. New Zealand State Forest Service Bulletin No. 2. (Wellington: Government Printer, 1925), 4.
- <sup>16</sup> Thomson, *Naturalisation*, 29.
- <sup>17</sup> W. R. B. Oliver, *New Zealand Birds*. (Wellington: Reed, 1950 [1st ed. 1930]), 436.
- <sup>18</sup> Frederick Hutton, “Synopsis of the Diptera brachycera of New Zealand,” *Transactions and Proceedings of the New Zealand Institute* 33 (1900): 1-95. Other species of flies that Hutton named after Smith included *Asilus smithii*, *Coenosia smithii*, *Empis smithii*, *Hilarempis smithii*, *Limnohelina smithii*, *Neoitamus smithii*. Not all of these names remain in use.
- <sup>19</sup> Galbreath, “Smith,” 482.
- <sup>20</sup> Earlier Smith letters can be found in New Zealand at Te Papa, at the Alexander Turnbull Library (ATL), at the Auckland Institute and Museum, at the MacMillan Brown Library in Christchurch, and at the Hocken Library in Dunedin. His papers have been deposited in Puke Ariki in New Plymouth.
- <sup>21</sup> W. W. Smith to Walter Buller, 29 March 1882, Bull 068-605, ATL.
- <sup>22</sup> Walter Buller, “On Some Rare Species of New Zealand Birds,” *Transactions and Proceedings of the New Zealand Institute* 16 (1883): 308-16.
- <sup>23</sup> W. W. Smith to Thomas Parker, 19 September 1893, MS 2785/001, Hocken Library, Dunedin.
- <sup>24</sup> W. W. Smith to Thomas Parker, 19 September 1893, MS 2785/001, Hocken Library, Dunedin.
- <sup>25</sup> W. W. Smith, “Notes on New Zealand Earthworms,” *Transactions and Proceedings of the New Zealand Institute* 19 (1886): 123-39.
- <sup>26</sup> W. W. Smith to William Benham, 19 June 1899, MS 2785/002, Hocken Library, Dunedin.
- <sup>27</sup> W. W. Smith to Thomas Adams, 22 January 1913, T. W. Adams Papers 480, Macmillan Brown Library.
- <sup>28</sup> W. W. Smith to Thomas Cheeseman, 2 November 1919; 12 November 1919; 16 November 1919; TF Cheeseman papers MS58, Auckland Institute and Museum Library.
- <sup>29</sup> W. W. Smith to Walter Buller, 29 March 1882, Bull 068-605, ATL.
- <sup>30</sup> Arini Woodhouse, *Guthrie-Smith of Tutira* (Christchurch: Whitcombe and Tombs, 1959).
- <sup>31</sup> *Ibid.*, 193-200.
- <sup>32</sup> Galbreath, “Smith,” 482.
- <sup>33</sup> W. W. Smith, “On Moa and Other Remains from the Tengawai River Canterbury,” *New Zealand Journal of Science* 2 (1884-85): 293-95; W. W. Smith, “Scelogaux Albiefacies (Laughing Owl),” *New Zealand Journal of Science* 2 (1884-85): 86-88, W. W. Smith, “Wekas Laying in Captivity,” *New Zealand Journal of Science* 2 (1884-85): 577. Puzzlingly, Buick, apart from one reference to

---

Smith's first publication, largely omits him from his book on the moa. See T. Lindsay Buick *The Mystery of the Moa* (New Plymouth: Avery & Sons, 1931).

<sup>34</sup> Smith "On the Birds of Lake Brunner," 217.

<sup>35</sup> *Ibid.*, 206-07.

<sup>36</sup> W. W. Smith, "Notes on Certain Species of New Zealand Birds," *Ibis* 5 (1893): 509-21.

<sup>37</sup> *Ibid.*, 509.

<sup>38</sup> *Ibid.*, 514.

<sup>39</sup> For the forest rainfall debates see for instance James Beattie, "Environmental Anxiety in New Zealand, 1840-1941: Climate Change, Soil Erosion, Sand Drift, Flooding and Forest Conservation," *Environment and History* 9 (2003): 379-92; also see James Beattie "Climate Change, Forest Conservation and Science: A Case Study of New Zealand, 1860s-1920," *History of Meteorology* 5 (2009): 1-18,

<sup>40</sup> E.g. W. W. Smith, "Great Flight of *Culex*, *Tipula*, and *Tetramorium* in New Zealand," *Entomologists' Monthly Magazine* 26 (1890): 320-22, and W. W. Smith, "Abundance of Lepidoptera in New Zealand," *Entomologist* 24 (1891): 211-15.

<sup>41</sup> W. W. Smith, "Moa Extinction," *North Otago Times*, 13 January 1892.

<sup>42</sup> Ross Galbreath, "Displacement, Conservation and Customary Use of Native Plants and Animals in New Zealand," *New Zealand Journal of History* 36 (2002): 36-50.

<sup>43</sup> W. W. Smith, "Plants Naturalised in the County of Ashburton," *Transactions and Proceedings of the New Zealand Institute* 36 (1903): 203-25.

<sup>44</sup> Smith cited *Poa australis*, which is now described as *Poa poiformis*, but the name was then misapplied to a New Zealand species. Smith was more likely to have been referring to *Poa cita*, commonly known as Silver tussock.

<sup>45</sup> W. W. Smith, "The extinction of the Moa," *North Otago Times*, 23 December 1891; Smith, "Moa Extinction," *North Otago Times*, 13 January 1892; W. W. Smith, "Moa Extinction," *North Otago Times*, 27 January 1892; W. W. Smith, "The Land of the Moa," *North Otago Times*, 28 January 1892; W. W. Smith, "Moa Extinction," *North Otago Times*, 10 February 1892.

<sup>46</sup> On this point Smith was at odds with geologists Henry Hill and Julius von Haast, as he later acknowledged. See W. W. Smith, "Mystery of Moa Is Decadence and Extinction," *Evening Post*, 10 October 1931.

<sup>47</sup> W. W. Smith, "The Kiwi in Westland," *Otago Daily Times*, 12 December 1893; W. W. Smith, "Destructive Opossum," *Evening Post*, 16 July 1897; W. W. Smith, "The Prehistoric Maori," *Hawkes Bay Herald*, 13 July 1899.

<sup>48</sup> W. W. Smith, "The Extinction of Native Birds," *The Press*, 26 March 1895, and W. W. Smith, "The Huia," *Marlborough Express*, 27 January 1909 (reprinted from *The Dominion*).

<sup>49</sup> W. W. Smith, "Kiwis in Captivity," *Young Citizen*, 31 July 1923; W. W. Smith, "Kiwis in Captivity II," *Young Citizen*, 31 August 1923; W. W. Smith, "Kiwis in Captivity III," *Young Citizen*, 31 October 1923. See also David Medway, "W. W. Smith and the First Breeding of Kiwis in Captivity," *The Magazine of the Friends of Pukekura Park* 7, no. 1 (2012): 6-9.

<sup>50</sup> W. W. Smith, "The Extinction of the Moa," *North Otago Times*, 23 December 1891.

<sup>51</sup> Smith, "On the Birds of Lake Brunner," 209.

<sup>52</sup> W. W. Smith, "Notes on the Saddleback of New Zealand (*Creadion carunculatus*)," *Transactions and Proceedings of the New Zealand Institute* 43 (1910): 165-67.

<sup>53</sup> W. W. Smith, "Origins of the Canterbury Rock Drawings [Note]," *Journal of the Polynesian Society* 6 (1897): 158-59; W. W. Smith, "The Prehistoric Maori," *Hawkes Bay Herald*, 13 July 1899; W. W. Smith, "On Ancient Maori Relics from Canterbury, New Zealand," *Transactions and Proceedings of the New Zealand Institute* 33 (1900): 426-33; W. W. Smith, "Ancient Maori Kite [Note]," *Journal of the Polynesian Society* 10 (1901): 169; and W. W. Smith, "Motu-Ngaio Pa," *Journal of the Polynesian Society* 21 (1912): 109.

---

<sup>54</sup> W. W. Smith, "The Kea," *Young Citizen*, 29 February 1924, and W. W. Smith, "Taranaki Heritage Value of Mt Egmont," *Taranaki Daily Times* 12 May 1931.

<sup>55</sup> W. G. Howes and W. W. Smith, "Notes on *Sphaeria larvarum*, Westw.," *Entomologist* 31 (1898): 128-39. Vegetable Caterpillars, or more rarely "Vegetable Wasps," were actually a fungus that infested caterpillars leaving behind the mummified body; an interesting puzzle for nineteenth-century naturalists.

<sup>56</sup> Leonard Cockayne, *The Vegetation of New Zealand* (Leipzig: Engelmann, 1928).

<sup>57</sup> Smith, "Plants Naturalised in Ashburton," 203-25.

<sup>58</sup> Smith, "On the Birds of Lake Brunner," 205-24.

<sup>59</sup> Smith, "Notes on Certain Species," 509-21.

<sup>60</sup> Smith, "Plants Naturalised in Ashburton," 203-25.