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## **“Behind folding shutters in Whittingehame House”: Alice Blanche Balfour (1850–1936) and amateur natural history**

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**ABSTRACT:** During the rise of professional biology in the late nineteenth and early twentieth century, individual naturalists continued to develop private collections by modest means and often within their own homes. Despite the increasing opportunities for women to participate in the sciences, the number of women entomologists remained relatively few. The amateur entomological career of Alice Blanche Balfour, the younger sister of Arthur James Balfour, first Earl of Balfour, reveals how a confluence of personal and social factors shaped a gentlewoman’s capacity to pursue her interests in natural history. This paper revises earlier images of Alice Balfour by presenting her as an accomplished amateur naturalist who balanced her avocation with the responsibility of managing the daily domestic affairs of estate.

**KEYWORDS:** amateurs – aristocracy – butterflies – entomology – history of collection – Lepidoptera – moths – scientific illustration – travel

### **INTRODUCTION**

A fine stuffed specimen of the Ruff, and one of the Little Owl, have been lately received, and are now being exhibited at the Whittingehame Museum. Admission Free. <sup>1</sup>

In January 1867, Gerald William Balfour (1853–1945), aged 14, advertised in his family’s holiday newsletter, “The Whittingehame advertiser”, the natural history collection which he and his four brothers and three sisters had assembled at their family’s country house in East Lothian (also known as Haddingtonshire), Scotland: “Specimens of the Greenshank, the Magpie, & of a species of Merganser may be seen in the Museum on Friday.”<sup>1</sup> In his advertisements, Balfour playfully portrayed a museum that was open to the general public, but his mother, Lady Blanche (1825–1872), gave a different impression in a satirical letter to the editor:

But when I come to read about birds and their beautiful colors I was dazed to think of them ... and so this is to ask Mr Editor, if so be as we poor ignorant creatures that hasn’t never seen them birds mightn’t have a sight of them and if those birds as is talked about ... mightn’t never come downstairs to be looked at. <sup>1</sup>

Stimulated by the substantial circulation of popular science books (Lightman, 1997), private natural history collections, like that at Whittingehame<sup>2</sup>, became commonplace in Great Britain by the mid-nineteenth century. Emphasizing the theological lessons and pleasure that could be derived from the study of nature, “manuals”, “catechisms”, “conversations” and “companions” served as primers for the education of middle- and upper-class youth in their own homes (Myers, 1989; Fyfe, 2000; Secord, 2002). While not always their expressed intention, beginners’ textbooks inspired some readers to embark on careers in science; Marcet’s (1809) *Conversations on chemistry*, for example, inaugurated Michael Faraday’s study of chemistry (Fyfe, 2004: 1: xxi). Manuals by Philip Henry Gosse and the Revd John George

Wood brought terrariums, aquaria and museums into vogue at the same time as the Balfours assembled their museum in the early 1860s (Allen, 1876: 132–140).

In the mid-nineteenth century, elementary education remained primarily the province of households (Altick, 1963: 166–167) and the influence of the home upon the upbringing of children was paramount. According to Smiles (1881: 44) “Home [was] the first and most important school of character.” While character-building in the nineteenth century required individual and private effort (Collini, 1991: 108–110), it also depended on the influences of the family. Arthur James Balfour (1848–1930) reflected that “I was fortunate in being born with the germs of many tastes; I was still more fortunate in the wise way in which they were encouraged by my mother. The home influences were thus unusually propitious” (A. J. Balfour, 1930: 10). Particularly for upper-class girls, who were much less likely than their brothers to be sent to boarding school, the home and family determined in large measure the direction of their inclinations (Gerard, 1994: 48–55).

To examine the practice of “country-house science” (de Chadarevian, 1996; Schaffer, 1997; Opitz, in press) by women during a period of marked professionalization, I will consider the natural history career of Alice Blanche Balfour (1850–1936), younger sister of Arthur James Balfour, bearing in mind the environment which had the most influence on her – her home. This investigation revises earlier images of Alice Balfour by presenting her as an accomplished amateur naturalist, and provides a window into the private, scientific work of gentlewomen which is often hidden behind their roles as domestic managers of country estates.

## THE MAKING OF A GENTLEWOMAN NATURALIST

The 10,000-acre Whittingehame estate (Figure 1) provided a rich outdoor classroom for the Balfour children (Figure 2) (Harris, 1989: 16–38). They could collect a variety of natural history specimens: fossils, birds, insects and plants. From the seashores at nearby Dunbar, they gathered shells, fishes and seagulls. Eleanor (Nora) Mildred Balfour (1845–1934) described, in complimentary terms, their individual talents in collaborative ventures:

Two scientific expeditions to Dunbar, have been made by the celebrated geologist & ornithologist Mr. Frank Balfour, in search of rare birds. On the second of these he was accompanied by Messrs. Arthur and Gerald Balfour; – valuable assistants, from the practical knowledge of field sports, possessed by the former, and the deep scientific research of the latter.<sup>3</sup>

The expeditions to Dunbar included dredging, using a hired fisherman’s yacht, along the North Sea coast where other noted Edinburgh naturalists including Robert Jameson and Edward Forbes had dredged (Robertson, 1897: 32; Rehbock, 1979). During a period when the British Association’s dredging expeditions attracted public interest, *The Haddingtonshire courier* found the pursuit of a local young gentleman newsworthy (Anonymous, 1871):

For some time past the harbour has been graced by a smart little yacht belonging to Mr Francis Balfour, of Whittingham. ... It is likely that the community may be favoured at some future time with the result of the investigations, and there is little doubt that a large addition will be made to our knowledge of the treasures of the deep in our own locality.

The Balfours reported a remarkably full range of activities to develop the museum – collecting, labelling, taxidermy and setting specimens for display. In December 1866, Gerald noted that “a new List of Whittinghame birds has been drawn up, under the able



Figure 1. Southwest front of Whittingehame House (reproduced from Robertson, 1926). By courtesy of the University of Georgia Libraries.

management of F. M. Balfour, Esq., and Miss A. B. Balfour.”<sup>3</sup> At this stage, birds formed the most prominent part of their collection, with Francis (Frank) Maitland Balfour (1851–1882) sending home from Harrow School the results of his identification efforts: “Fossils 77. Birds 163. Shells 119”, adding, “but I am afraid that I shall have to take away a few of the species of the shells, as some shells which we found dead on the shore are West India species and of course cannot have lived near us but must have been brought in a ship.”<sup>4</sup> His analysis of the specimens, particularly the fossils and their role in the geology of East Lothian, tied for first prize in a competition adjudicated by Thomas Henry Huxley for Harrow’s School Scientific Society and helped Frank qualify for a natural science scholarship at Trinity College, Cambridge (Griffith, 1882). He and Gerald expanded this account into a brief article (Balfour and Balfour, 1872) challenging the Edinburgh geologist James Geikie’s theory about the formation of the East Lothian coast. For Frank, this work foreshadowed a brilliant professional career in animal morphology (Foster and Sedgwick, 1885: 1: 1–24; Macleod, 1994).

Alice Balfour developed a singular passion for butterfly and moth collecting. Her interests contradicted Kingsley’s (1873: 220) comment that “Entomology ... is the study most fit for boys (as Botany is for girls).” The earliest record of her interest appeared in first number of “The Whittingehame advertiser” (1 February 1864), identifying her by a pseudonym that reversed the spelling of her name: “Natural History will be undertaken by Ecila.”<sup>5</sup> By



Figure 2. The eight Balfour children and their mother, Lady Blanche (centre) in 1865: standing, from left to right, are Cecil Charles, Eleanor Mildred (afterwards Mrs Henry Sidgwick), Gerald William (afterwards second Earl of Balfour) and Eustace James Anthony: seated, from left to right, are Francis Maitland, Arthur James (afterwards first Earl of Balfour), Alice Blanche and Evelyn Georgiana Mary (afterwards Lady Rayleigh) (reproduced from Robertson, 1926). By courtesy of the University of Georgia Libraries.

December 1867, Nora reported that “Materials have been collected for forming a catalogue of the Lepidoptera of this district by A. B. B. ably seconded by E. J. A. B [her brother, Eustace James Anthony Balfour (1854–1911)].”<sup>6</sup> No further notes on Lepidoptera appeared in “The Whittinghame advertiser”, which was not continued after January 1868. Letters between Alice and her brothers, however, reveal her ongoing entomological interests; for example, Cecil Charles Balfour (1849–1881) wrote from Batavia in 1872 stating that “I have succeeded in procuring you a number of very fine butterflies & other insects.”<sup>7</sup>

Lady Blanche Balfour, assisted by various governesses, gave her children general lessons in a range of subjects, including mathematics, while the boys’ tutors provided lessons in botany, chemistry and geology (Robertson, 1897: 32–33). According to Evelyn Balfour (1846–1934) (later Lady Rayleigh) “The boys’ first tutor ... – Mr Probert – was encouraged to show us chemical experiments in a room set apart for the purpose and to help us collect and dry wild flowers. Mr Kitto later on was desired to study and read geology with Frank, when the latter showed interest in a fossil.”<sup>8</sup> James Kitto, afterwards parish minister at Whitnash, Warwickshire, encouraged both practical studies and reading. In 1864, he wrote to Frank: “I am glad you are studying Woodward.<sup>9</sup> You can do very little at geology without a good knowledge of shells. This you have already proved in some measure haven’t you?”<sup>10</sup> Hints in the children’s writings suggest a handsome private library of science books including works by Sowerby (1852), Stainton (1854), Roscoe (1867) and Jukes (1872). A note by Evelyn, responding to Cecil’s description of the argonaut, illustrates the family’s familiarity with the latest published ideas in the sciences:

The argonaut does not move about on the surface of the water by using its arms as oars & sails but propells [*sic.*] itself backwards by ejecting water from its breathing funnel. ... In the supplement to the second number of the Whittinghame Advertiser there was an article signed C. C. B. F. S. A. stating the former idea, but the information must have been drawn from an antiquated authority as that is quite an exploded theory & the paper nautilus is now well known to use the latter mode of progression.<sup>11</sup>

Despite the preponderance of manuals describing the practices and tools for field work (Larsen, 1996), demonstrations by tutors and local amateurs proved more important to the Balfours. Alice credited William Nisbet, a small-holder at the neighbouring village of Lint Mill (and “delightful friend”) as the earliest source of her practical knowledge (A. B. Balfour, 1930: 170): “From him I first learnt anything about collecting and setting insects, but he himself was practically self-taught, and had no books or any means of getting much information or apparatus.” She learned of other Lepidoptera collections in the district, including those of Nisbet, Thomas Marjoribank, Archibald Hepburn, and a Dr Nelson of Pitcox. Observing that Marjoribank’s and Nisbet’s collections were deteriorating, she convinced the owners that she could take better care of the specimens (A. B. Balfour, 1930: 170).

Mites and clothes moths got in and to a large extent destroyed them. Perceiving this to be happening, I made repeated efforts to obtain them from their owners without success, and it was only when it became obvious that they were getting utterly destroyed that they consented to let me have the remains.

Lessons in painting rounded out the children’s skills. “The Whittinghame advertiser” contains fine examples by the three Balfour sisters, indicating their mastery of this standard craft of young gentlewomen (Peterson, 1989: 46–48). Alice showed particular prowess which she applied when assisting in Frank Balfour’s natural history work. She drew many of the unsigned figures for his first embryology book (Foster and Balfour, 1874: ix; see also Geison, 1978: 124–125). During 1875 she sketched in “Mr. Cooper’s studio” in London, before devoting several months to painting in Italy, accompanied by the family’s friend, Emily Faithfull.<sup>12</sup> Alice Balfour also drew the figures for her brother’s papers on *Araneina* (Balfour, 1880) and *Peripatus capensis* (Balfour, 1883). Her illustrations of species that Frank investigated for possible links between taxa required painstaking attention to microscopic detail (Figure 3) (Churchill, 1970; Hall, 2003). During their studies conducted in the Channel Islands, Alice wrote to Evelyn:

Frank & I are enjoying life here, – at least I am, & I believe he is. ... This last week the tides have not been favourable, so we have not collected anything, but they will be good the next few days, so I expect we shall work hard. ... Tomorrow we are going to Bordeaux harbour, which is supposed to be the best place for sea beasts in Guernsey. ... I have not drawn very much for Frank, except an elaborate diagram of the structure of *Haliotis* (Venus’ ear) & *Peripatus*. The last takes a fearful amount of time to do.<sup>13</sup>

Several months later, Frank, a trained mountaineer, fell to his death when attempting to climb Aiguille Blanche de Peuterey (Foster, 1882; Blackman, 2004). His colleagues, Adam Sedgwick and Henry Nottidge Moseley, relied on Alice’s knowledge of *Peripatus* to complete the study and publish it (Balfour, 1883: 214):

Since his death she has spared no pains in studying the structure of *Peripatus* so as to enable us to bring out the first part of the monograph in as complete a state as possible. It is due to her skill that the first really serviceable and accurate representation of the legs of any species of *Peripatus* available for scientific purposes are issued with the present memoir.

After Frank’s death, Alice continued to pursue her natural history interests independently, with assistance from family, friends and the house-staff at Whittinghame, but this often proved difficult given her domestic responsibilities.

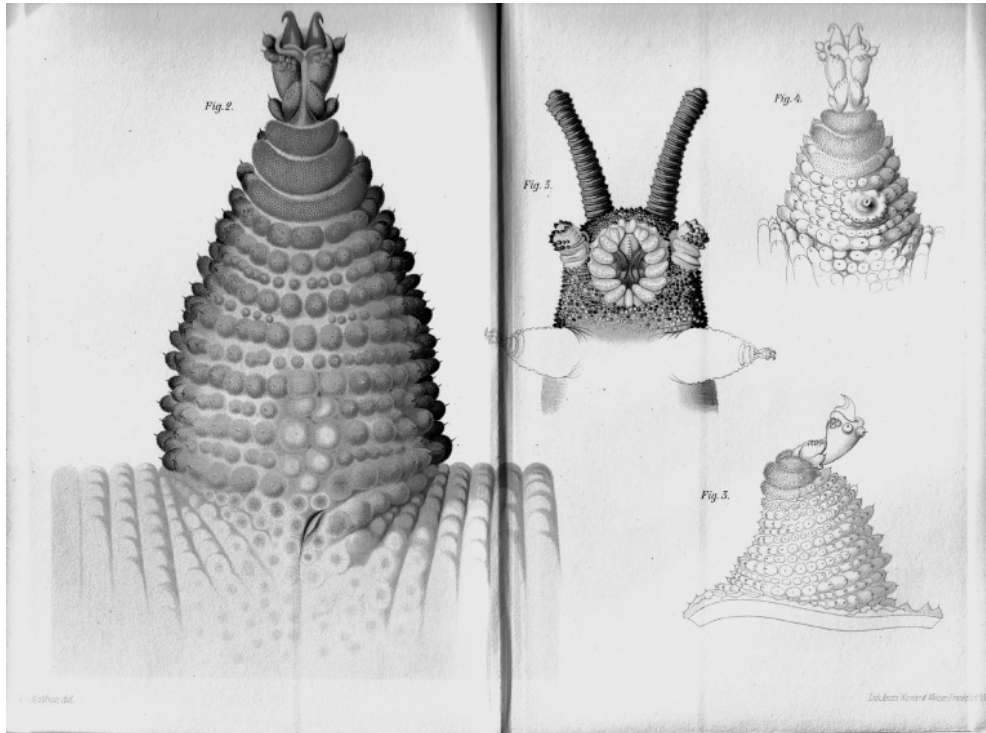


Figure 3. Anatomical details of *Peripatus capensis*, viewed through a microscope and drawn by Alice Balfour (Balfour, 1883). Reproduced by permission of The Company of Biologists, courtesy of the University of Minnesota Libraries.

#### “MISTRESS OF WHITTINGEHAME HOUSE”<sup>14</sup>

The Whittingehame estate, which had been managed solely by Lady Balfour after the death of her husband in 1856, came under Arthur’s proprietorship in 1869 when he entered his majority. As the eldest daughter, Nora shouldered much of the work in managing domestic matters, especially after her mother began to suffer from chronic heart disease. Remaining unmarried, Arthur relied on Nora to supervise the many miscellaneous duties associated with a large country house. In 1870 he bought a London house, 4 Carlton Gardens, adding to her tasks. In 1871 Evelyn married John William Strutt, Arthur’s close Cambridge friend. Strutt inherited the title Baron Rayleigh and his family’s Essex estate in 1873, delegating to Evelyn the management of its domestic affairs. When Nora married Arthur’s Cambridge tutor, Henry Sidgwick, in 1876, Alice, the remaining spinster, assumed command of Arthur’s households (Sidgwick, 1938: 48–54; Young, 1963: 17–26).

Home continued as a centre for scientific study and intellectual stimulation to the family. Family congregations at Whittingehame often included some of Arthur Balfour’s ever-increasing circle of friends, yet the social environment remained distinctly cerebral. He often hosted weekend gatherings of “The Souls,” an elite coterie with mutual interests in new ideas from literature, art, politics, philosophy and science (Young, 1963: 141–145). Seances, held at his London house, offered amusement as well as experimental study prior to the

formation of the Society for Psychical Research, of which Henry Sidgwick was the leading light.<sup>15</sup> During the 1878 Christmas holiday, in a letter to his friend Edward Talbot, Warden of Keble College and later Bishop of Winchester, Balfour characterised Whittingehame as a “Temple of Research” (Young, 1963: 39):

Every man retires for a quarter part of the day to his respective den, emerging at meal times like a giant refreshed and prepared to argue at any length or any side of any question. To enumerate all the subjects which have been exhaustively discussed would be impossible. But I may mention among others, contemporary politics in all its branches, the theory and practice of shaving (this with great minuteness to Alice’s disgust), a large number of mechanical and other scientific problems ... and so forth. ... Gerald and Cecil are not doing much but Frank, though he supposes himself to be taking a holiday, is I believe preparing his book for the press (in the smoking room), Eustace (in the billiard room) is drawing the illustrations for *his* book ... while I, in mine, am working very hard. ... If I add to this that Alice is groaning over the iniquities of the house in her “boudoir” ... I shall have exhausted both the party and the house.

Among the products of this reverent industry was Frank’s monograph on Elasmobranch fishes for which the Royal Society elected him a Fellow in 1878 and awarded him the Royal Medal in 1881 (Balfour, 1878; Moseley, 1882: 571–572). Arthur’s first book about the philosophical foundations of scientific belief followed (Balfour, 1879).<sup>16</sup>

The portrayal of Alice Balfour “groaning ... in her ‘boudoir’ ...” fed a common myth about her as unhappily burdened by her management of Arthur’s households while dependent upon them for her livelihood. A letter from Arthur to Eustace’s wife, Lady Frances, juxtaposed the family’s intellectual pursuits in 1882 with Alice’s implicit housework (F. Balfour, 1930: 1: 323–324):

Henry (Sidgwick) is laboriously and with many groans bringing his forthcoming work on Political Economy to a conclusion. I am doing nothing laboriously ... On the other hand I am meditating on an infinity of schemes, Philosophical and Political. Nora is cheerful and busy: finishing calculations for John [Rayleigh]’s electrical experiment.<sup>17</sup> Alice is not cheerful, neither can she properly be described as busy, but she has no time.

Consistent with the family descriptions, the headline to her obituary in *The Times*, “Miss Alice Balfour: Lord Balfour’s sister and companion” (Anonymous, 1936a), identified her in relation to her brother, and, consistently, Jalland (1986: 268–272) cast Alice as a victim of “chosen bondage” who failed to make “a bolder move towards an independent and happier life.”

Recent studies (for example, Peterson, 1989; Gerard, 1994; Vickery, 1998) offer a view of women of the landed classes as leading active and purposeful lives, instead of the prevalent “Angel of the House” or “redundant gentlewoman” stereotypes of late-Victorian literature and subsequent women’s history. Historians now acknowledge the demands placed on gentlewomen in their stations as domestic managers. Alice Balfour inherited from her father funds sufficient to allow her complete independence (Oppenheim, 1995: 217–218), yet her household duties held back her natural history pursuits. Her lifetime’s study of natural history showed a singular perseverance that mirrors the work of artisan-naturalists like Thomas Edwards, whose “mind had risen above his daily occupation” (Smiles, 1877: 324; Secord, 2003).

Arthur Balfour’s political career (see Young, 1963) created the main contours to his sister’s daily life. He had to live in London, for example, when parliament was sitting, and Alice regularly oversaw the transfer of the house-staff from country to city (Alderson, 1903: 331–339). Burn (1964: 247) suggested that “among the politically-active aristocracy, the home was less a place for cultivating the family affections than a base for action, where



policies could be worked out and influence obtained by means of hospitality.” This was certainly borne out in Balfour’s case. Algernon Cecil, a first cousin, wrote (1937: 45): “The doors of Whittingehame, where autumn after autumn [Arthur] was accustomed to entertain a large family circle with the aid of his devoted sister, Miss Alice Balfour, were thrown open to an assortment of visitors.” Consequently a large part of Alice’s time was taken up with entertaining distinguished guests.<sup>18</sup>

Alice Balfour did attempt to find time for entomology but her efforts often ended in frustration. She complained during 1910 that “The weather has been beautifully fine & sunny, & we had a good many warm evenings, but one can’t have one’s guests & go off mothing!”<sup>19</sup> When nearly aged 80, she reminisced (A. B. Balfour, 1930: 171) that “For about forty years I hardly collected at all.”<sup>20</sup> Dugdale (1940: 77) testified to her aunt’s frustrations:

Aunt Alice occasionally referred to the subject [of Arthur Balfour’s marriage prospects] when conversing with me about the number of things she had to do but did not want to do. ‘If your uncle gets married I shall have more time’, was the usual formula when closing these lamentations.

But Arthur never did marry, nor did Alice. Lady Asquith, a family friend who sometimes joined the nieces and nephews during their annual season-long stays at Whittingehame, provided an apt description of the typical gentlewoman’s life as “châtelaine” (Asquith, 1952: 6): “But what with family, incessant village duties – parochial politics were very complicated – visitors, neighbours and household, how seldom did she have a disengaged hour.” About Alice, “of whom I was very fond”, Asquith wrote (1952: 178): “She took her Martha-like duties most seriously.”

### “MOTHING”

Alice Balfour displayed pride in her role as chatelaine, and within it found opportunities to exercise her skill for natural history. Her sketches embellished place-cards for dinner parties (Dugdale, 1940: 74): “Sometimes she made exquisite little pen-and-ink drawings ... instead of names, of things that paired with one another, such as horses and hounds, lions and tigers, apes and peacocks.” She captured specimens for her moth collection at home, for example *Ochropleura praecox* (= *Agrotis praecox*; A. B. Balfour, 1930: 174): “I had ... the good fortune to capture two specimens at light in Whittingehame House.” This surprised William Evans FRSE, who had doubted the moth’s presence in East Lothian. She caught several specimens of *Spaelotis ravida* (= *Agrotis obscura*), the first in 1870, “always behind folding shutters in Whittingehame House”; decades later she reported (A. B. Balfour, 1930: 175) that it was “very irregular in its appearance” and that she had “never seen them since”. She was well prepared for chance encounters; Dugdale (1940: 84) recounted that “It was a habit of my aunt to carry scissors, pencils, india-rubber, pill-boxes for imprisoning moths, a large pocket-knife and several other tools, always on her person.”

After her brother’s resignation in 1911 as Leader of the Conservative Party (Young, 1963: 313–317), Alice devoted more time to entomological work. As he considered his position, she wrote to her sister: “For Arthur’s own sake I wouldn’t mind, for I think he is longing to be out of it all. For my sake I wouldn’t mind either, as I wd. give up Primrose League & Women’s Unionist Presidentship.”<sup>21</sup> About this time, the professional chemist and ardent lepidopterist, Raphael Meldola, rekindled her enthusiasm for collecting. He was known to the family through the Rayleighs – Lord Rayleigh and Meldola were vice-presidents of the

Essex Field Club (Anonymous, 1892). In the summer of 1910, Meldola and his wife, Emma, stayed at East Linton, a village near Whittingehame. Alice Balfour entertained the couple for lunch, and they went moth collecting on the estate (A. B. Balfour, 1930: 171).

We all set off in the flyer on the mothing expedition: Auntie [Alice] looking like the White Knight with two enormous bags filled with pill-boxes hanging from each hip, and an electric torch suspended from the neck, and a net in one hand and a stick in the other. ... The search was very unproductive at first, and Ral, upon seeing Auntie kneeling before a sugared stump of a tree, was led to remark "I see nothing but flies in the air and Aunts on the ground!" We then turned to the motor to see if its headlights would attract any moths. Mills [the chauffeur] was full of sympathy for us having got so few, and as one flew past him just before we started, he clapped it between his hands, and holding the corpse between his finger & thumb, offered it to Auntie, who regretfully intimated that what value it might once have possessed had been entirely destroyed by this method of capture.<sup>22</sup>

Afterwards Balfour wrote to thank Meldola for a "consignment of moths": "My collection is certainly indebted to you for all the valuable additions you have made to it, – more than I have done myself for years!"<sup>19</sup>

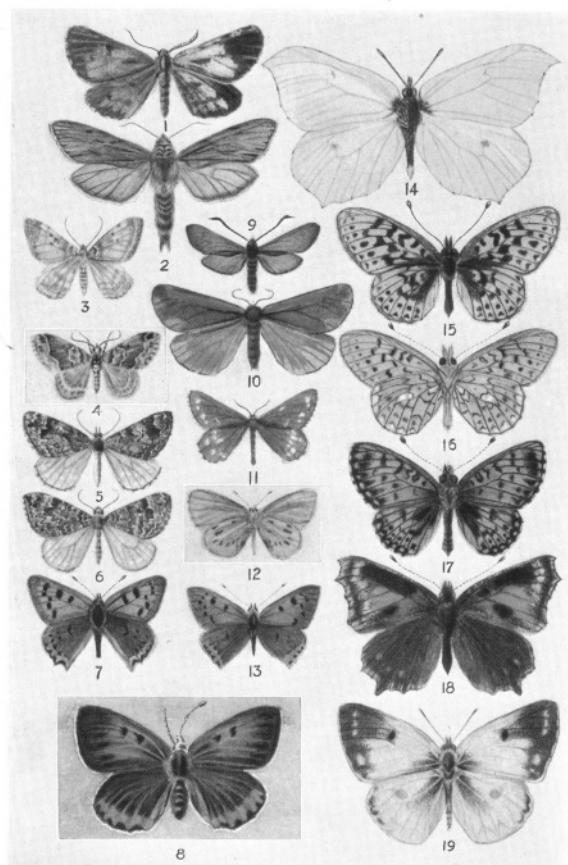
A letter written by her niece Eve Balfour, a pioneer in Britain's organic farming movement, evinced the delight Alice imparted to the younger generation assisting in the collecting jaunts (Brander, 2003: 31–32):

Did I tell you about Mothing with Auntie? ... We did it all up and down the road to Linton! At first we walked in front of the motor. (What people thought! Spies I'm sure) and when a moth appeared Mills blew the horn. Or Auntie examined the hedge for females! After that we walked one on each side just behind the lamps. Once Auntie leant over Mills and said "You know Mills the females of these moths we're trying to catch have no wings. Very curious isn't it". "Yes Miss," said Mills. I love mothing with her it is always such an endless source of amusement.

Alice Balfour assembled a respectable collection of Lepidoptera of the East Lothian region. As early as the late 1890s, Evans (1897: 94–99) noted its significance. In 1913, William Eagle Clarke, Keeper of the Natural History Department, Royal Scottish Museum, Edinburgh, and editor of *The Scottish naturalist* urged: "The Editors of the 'Scottish Naturalist' hope to be favoured with a paper on the rare and interesting specimens in your collection, not forgetting the disappearance of some species, and the scarcity of others during recent years."<sup>23</sup> She sent Clarke brief notes about insects and birds found on the estate (Balfour, 1914a; 1914b; 1917; 1920; 1923; 1931a; 1931b); she was one of the few women contributors to the journal during this period.<sup>24</sup> She reserved publication of a catalogue of her collection for *Transactions of the East Lothian Antiquarian and Field Naturalists' Society* (A. B. Balfour, 1930). Her decision to publish therein helped promote the Society, established in 1924, of which she was a founding member, a life member and first Vice-President (Anonymous, 1924). On 23 May 1936, Alice Balfour was elected Honorary President, only the second individual to hold this office, her brother Arthur having been the first. She died just three week later, on 12 June (Anonymous, 1938)

Her list identified 656 distinct species. She provided descriptions of specimens known to be rare in the region, for instance *Vanessa cardui*, the Painted Lady – "always irregular in its appearance" (A. B. Balfour, 1930: 172) – as well as those that proved a more northerly distribution of species than shown by authorities like Barrett (1893) and Meyrick (1927). She described examples of protective colouration (mimicry), a subject of particular interest to entomologists like Edward Bagnall Poulton, whose research on mimicry contributed to the elaboration of Darwin's theory of natural selection.

In naming her specimens, she acknowledged the assistance of specialists including

*Trans. Ent. Soc. London. Vol. 76.**Plate XXII**Eleanor Stoll-Bailey, pinx.**Vauz & Crampton, Ltd.*

VARIETIES OF BRITISH LEPIDOPTERA IN THE HOPE DEPARTMENT,  
OXFORD UNIVERSITY MUSEUM.

All the figures are of the natural size.

Figure 4. Rare butterflies in the Oxford University Museum Hope Collection (Woodforde *et alii*, 1928). Alice Balfour drew specimens 4 and 8. Reproduced by permission of Blackwell Publishing, courtesy of the University of Minnesota Libraries.

Meldola, John Hartley Durrant (British Museum), Louis Beethoven Prout (British Museum), and Poulton (Oxford) (A. B. Balfour, 1930: 171). Yet the flow of specimens and knowledge between Balfour and these professionals was by no means one way. For example, in 1911 she commented to Meldola: "Your specimen of *P[alusia] festucae* seems to be almost the only good 'macro' that you got. – I have found it, but a son of the keeper at Tynningham has begun to collect, & he got me one specimen this year."<sup>25</sup> At Whittingehame, she raised Lepidoptera specimens for Poulton's genetics experiments at Oxford. She wrote to him in

1919: "I am glad to hear that the [*Biston*] *Betularia* pupae arrived safely & seem in good health. So far as I know only two of the larvae died at any rate after they were old enough to be sleeved."<sup>26</sup> She also used her skill in illustration to complete a plate for an article by Poulton and others on the rarer species in Oxford's Hope Collection (Figure 4) (Woodforde *et alii*, 1928).<sup>27</sup> She was elected a Fellow of the (Royal) Entomological Society of London on 7 June 1916 (Anonymous, 1916).

### TRAVEL, ILLUSTRATION, AND PHILANTHROPY

Among the rare exceptions to the normal pattern of Alice Balfour's domestic life were two short overseas tours. She made the first through North America in March and April 1889 in the company of her friends, Alice Grey and her husband Albert Grey, afterwards the fourth Earl Grey, administrator of Rhodesia (1896–1897) and Governor-General of Canada (1904–1911). Balfour's letters and diary reveal an enthusiastic student of the flora and fauna of North America.<sup>28</sup> This trip prepared her for her more-publicised tour made in the same company and largely by ox-wagon in southern Africa, one year before the violent Jameson Raid of 1895. In addition to pencil sketches of landscapes, flora and native peoples, she painted panoramic scenes in water-colour (Douglas, 1980; Wood, 1978). She published two accounts of her tour (Balfour, 1894; 1895), the second one illustrated with engravings of sketches that she made from her own photographs. The book received positive reviews (Anonymous, 1896a, 1896b) and went to a second edition (Balfour, 1896). Her paintings (now in the National Archives of Zimbabwe) and narrative, like those of many other nineteenth-century European travellers, generally romanticised the African landscapes and villages (Wood, 1978; Pratt, 1992).

Attracted by the adventures of a distinguished lady travelling amid dangers in the colonies, *The wide world magazine*, whose motto was "truth is stranger than fiction", published an edited account of her trip, reproducing several of her photographs (Anonymous, 1898). This publicity reflected the popularity of colonial imagery enabled by the camera (Ryan, 1997). The journalist cast Balfour as a symbol of peaceful, civilised domesticity encountering the hardships of rough terrain (Anonymous, 1898: 245). "She had to make her tea with water so dirty that it was impossible to see the bottom of a cup half-full of it. And yet, notwithstanding these drawbacks, she could appreciate the humour of various incidents."

Although Alice Balfour (unlike her brother Arthur) denounced the Jameson Raid and showed sympathy for African peoples, she was conventional in her acceptance of Britain's imperial, civilising mission (Dugdale, 1936: 1: 224–225). As an example of this, she contributed to a growing social movement to export single women to the colonies (Kranidis, 1999) by lending her support to the Women's Horticultural College at Swanley, Kent, where young, unmarried women were being trained in the arts of household management and gardening. She signed a letter to *The Times* (Balfour *et alii*, 1904) that reviewed this training program, advertised its useful features, and petitioned readers to donate funds. The appeal showed pride in country house management: "Every woman trained in dairy and garden, orchard and poultry-run, still-room and kitchen, plays no small part in developing permanent resources now lying fallow and in basing our colonial Empire on that excellent foundation, the thriving English country home."<sup>29</sup>

Alice Balfour's philanthropic work also provided a means for her to contribute to the development of the biological sciences. While she herself lacked formal education, she

supported scientific education for women at Cambridge, where Nora and Henry Sidgwick played leading roles (Sidgwick, 1938). Balfour provided half the funds required to purchase a building for The Balfour Biological Laboratory for women, dedicated to Frank Balfour's memory (Richmond, 1997: 430–431). In addition, her letters to zoologist James Cossar Ewart, Regius Professor of Natural History at the University of Edinburgh, reveal her enduring interest in questions of inheritance and variation. Ewart, elected to the professorship that Frank declined (in order to remain at Cambridge), carried out important work on telegony in cross-bred zebras and horses at his farm in Penicuik (Ewart, 1899; Ashworth and Marshall, 1935). Alice visited the farm in the late 1890s and contributed funds, as she explained to Ewart, “for the interest of the subject, and for the interest my brother Frank would have taken in your work had he still been here to see it.”<sup>30</sup>

The most detailed obituary of Alice Balfour (Anonymous, 1936b) highlighted her philanthropic work in cottage nursing organizations and the Whittingehame parish but omitted any mention of her support of scientific teaching and research at Cambridge and Edinburgh. Generally, Balfour's travel-writing, paintings and charity work received more public notice than her entomological work, which for most of her life was known to only a select circle.



Figure 5. Cases, with bird specimens from Whittingehame House, formerly in the North Berwick Museum. Reproduced by permission of the East Lothian Council Museum Service.

## CONCLUSION

“The weather occupies much of our thoughts just now ...  
partly because 2 or 3 (counting servants) love moth hunting.”<sup>31</sup>

While she enjoyed limited opportunities to travel abroad, Alice Balfour’s station as “mistress of Whittingehame house”<sup>14</sup> confined her entomological field-work mainly to East Lothian. Even after her eyesight was affected by cataracts, as late as May 1934 she could, according to her sister (Sidgwick, 1938: 295), “name on sight the moths collected by her maid or chauffeur to add to her East Lothian collection.” She bequeathed her collection to the Royal Scottish Museum (National Museums of Scotland, Edinburgh) where her specimens are now integrated with others.<sup>32</sup> On examining her collection in 1936, Andrew Roger Waterston wrote: “This is one of the finest collections of Scottish Lepidoptera I have yet seen. All specimens are beautifully set.”<sup>33</sup> Other zoological specimens from the Whittingehame museum are extant; those in the care of the East Lothian Council Library Service, formerly on display in North Berwick (Figure 5), are now in storage, and there are others in the Zoological Museum, University of Cambridge.<sup>34</sup> Alice Balfour kept a private notebook of her natural history observations, but this record, donated to the East Lothian Antiquarian and Field Naturalists’ Society after her death, cannot be traced.<sup>35</sup>

Alice Balfour felt a deep sense of responsibility to her home, and while often frustrated by her domestic chores, she never forsook them for science. As “mistress” of her brother’s households, she exhibited pride, protectiveness, and complaint. According to her niece (Dugdale, 1940: 78), “she adored her home [and] she might have missed her position as head of his houses in Scotland and London more than she admitted to herself.” A naturalist friend concluded (Ritchie, 1936: 235), “It may be said that the sustained pleasure of her life depended upon her love of Nature.”

Her family’s country house and its estate, where she first developed her scientific interests, was the setting for her entomological work. During the same decades (1860s to 1930s) professional developments in the biological sciences gradually overshadowed private initiative, yet as several historians have argued, the opening of new laboratories did not extinguish traditions of field-work and scientific study in domestic surroundings (Kuklick and Kohler, 1996; Nyhart, 1996; Outram, 1996; Richmond, in press). Given the limited amount of time she could take off from her household responsibilities, Alice Balfour’s study, practice and promotion of natural history resulted in a modest yet noteworthy achievement, acknowledged by contemporaries like Evans, Eagle Clarke, Meldola and Waterston, during a period of gradual decline in private initiative (Allen, 1998).

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## NOTES

Personal names are abbreviated as follows

ABB = A. B. Balfour  
CCB = C. C. Balfour  
EMB = E. M. Balfour  
ER = E. Rayleigh

FMB = F. M. Balfour  
GWB = G. W. Balfour  
RM = R. Meldola

<sup>1</sup> “The Whittinghame advertiser”, second series, volume 2, (1866–1867): original ms. in National Archives of Scotland, Balfour Papers (hereafter NAS, BP) GD433/2/93/8.

<sup>2</sup> “Whittinghame” was the spelling in use until Alice Balfour initiated its change (for pronunciation reasons) in 1894 (F. Balfour, 1930: 1: 237). A still earlier spelling was “Whittingham”. I use the modern spelling “Whittinghame” except where earlier spellings appear in titles or quoted material.

<sup>3</sup> “The Whittinghame advertiser”, second series, volume 1 (1866–1867): NAS, BP GD433/2/93/7.

<sup>4</sup> FMB to Lady Blanche Balfour, 4 June 1868: original ms in private collection.

<sup>5</sup> “The Whittinghame advertiser”, first series., volume 1 (1864): NAS, BP GD 433/2/93/9.

<sup>6</sup> “The Whittinghame advertiser”, third series, volume 1 (1867–1868): NAS, BP GD433/2/93/1.

<sup>7</sup> CCB to ABB, 17 October 1872: NAS, BP GD433/2/103A/117.

<sup>8</sup> E. Rayleigh, “Some Recollections of my mother”, September 1922: NAS, BP GD433/2/145/2.

<sup>9</sup> Probably Woodward (1856).

<sup>10</sup> J. Kitto to FMB, 14 March 1864: NAS, BP GD433/2/103A/112.

<sup>11</sup> “The Whittinghame advertiser”, first series, volume 4 (1864): NAS, BP GD433/2/93/12.

<sup>12</sup> EMB to FMB, 24 April 1875: NAS, BP GD433/2/103A/48; ABB to ER, 1 May 1875: NAS, BP GD433/2/103A/50/1–2; EMB to GWB, 15 January 1876: NAS, BP GD433/2/449/2/5–6.

<sup>13</sup> ABB to ER, 16 April 1882: original ms in private collection.

<sup>14</sup> The epitaph was commonly applied to Alice Balfour, for example by Dugdale (1936: 1: 42).

<sup>15</sup> NOAKES, R., 1998 Cranks and visionaries: science, spiritualism, and transgression in Victorian Britain. Unpublished doctoral thesis, University of Cambridge.

<sup>16</sup> McGEACHIE, J. A., 1995 “Mr. Balfour’s apotheosis”: exorcism and accommodation in the intellectual formation of Arthur James Balfour. Unpublished doctoral thesis, University of Cambridge.

<sup>17</sup> On Eleanor Sidgwick’s assistance in Rayleigh’s electrical standards work, see Howard (1964).

<sup>18</sup> NAS, BP GD433/2/168 and GD433/2/175–182. An anecdote in the published letters of W. H. Page, the United States’ Ambassador to the Court of St James, described Arthur Balfour’s “family” luncheons at his London home, graced by luminaries like the Lords Milner and Landsdowne. Referring to Alice Balfour and Evelyn Rayleigh who were present on one occasion, Page wrote (Hendrick, 1923: 2: 257–258), “Either of those ladies could rule the Empire.”

<sup>19</sup> ABB to RM, 15 October 1910: original ms in Imperial College Archives, Meldola Papers (hereafter ICA, MP), RM111.

<sup>20</sup> The period Balfour referred to was 1870–1910, the four decades preceding her resumed collecting efforts (see next section of this paper). As an illustration of the distribution of her specimens by year, Keith Bland (pers. comm., 20 March 2001) has shown that of 279 Tortricidae and Cochylidae specimens which she collected between 1870 and 1936, only six were dated between 1870 and 1910. Bland’s analysis is based on records of Balfour’s collection at the Royal Scottish Museum, National Museums of Scotland, Edinburgh.

<sup>21</sup> ABB to ER, 15 August 1911: original ms in private collection. As President of the East Lothian Women’s Unionist Association, Alice Balfour supported women’s suffrage (but not militancy) and played leading roles in

several other women's social and political organizations (Opitz, 2004).

<sup>22</sup> "Balfour book of bosh", entry numbered 242: original ms in Whittingehame. "Ral" was the nickname of Alice Balfour's nephew Robert A. L. Balfour, afterwards third Earl of Balfour.

<sup>23</sup> W. E. Clarke to ABB, 2 December 1913: NAS, BP GD433/2/483/2/16.

<sup>24</sup> Less than 6 percent of the authors or co-authors recorded in the entomological index to *The Scottish naturalist* between 1871 and 1938 (Grimshaw, 1939) were women, a statistic consistent with the estimate by Shteir (1996: 251) of less than 8 percent of the authors of nineteenth-century entomological books listed in Freeman (1980) being women.

<sup>25</sup> ABB to RM, 14 October 1911: ICA, MP RM111. The neighbouring estate, Tynningehame, belonging to the Earl of Haddington, was noted for its wildlife (Anonymous, 1879). The keeper at this time was William Thomson (Balfour, 1914a: 263).

<sup>26</sup> ABB to E. B. Poulton, 27 January 1919: original ms in Entomological Archives, Hope and Arkell Libraries, Oxford Museum of Natural History.

<sup>27</sup> As Poulton (Woodforde *et alii*, 1928: 523) explained, the plate was drawn by Miss Eleanor Stoll-Bailey, with the exception of two figures by Alice Balfour and one by Miss M. L. Woodforde.

<sup>28</sup> A. B. Balfour, [American travel journal and letters], 1889: original mss in Whittingehame.

<sup>29</sup> On Alice Balfour's participation in the Victoria League, which also promoted colonial exchange, see Balfour (1930: 2: 379–382).

<sup>30</sup> ABB to J. C. Ewart, 30 May 1898: original ms in University of Edinburgh Library Manuscripts Department, Ewart Papers, Gen. 137.3.

<sup>31</sup> ABB to ER, 6 June [no year]: original ms in private collection.

<sup>32</sup> Registry of the Royal Scottish Museum, Natural History Department, volume 17 (1931–1945): 1936.80: original ms in National Museums of Scotland, Edinburgh (hereafter NMS). Keith Bland kindly showed me dozens of well-preserved specimens set with original labels written by Alice Balfour.

<sup>33</sup> A. R. Waterston to K. J. Morton, 28 October 1936: original ms in NMS.

<sup>34</sup> Minute book of the East Lothian Antiquarian and Field Naturalists' Society (hereafter MB ELAFNS), volume 1, pp 78–79, 155: original ms in East Lothian Council Library Service.

<sup>35</sup> MB ELAFNS, volume 1: pp 84–85.

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