

BIOGRAPHY, BIBLIOGRAPHY AND CONTRIBUTIONS



## AARON M. BAUER AND INDRANEIL DAS

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Biography, Bibliography and Contributions to the Herpetology of Borneo



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# Biography, Bibliography and Contributions to the Herpetology of Borneo

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## **EDITOR'S NOTE**

This facsimile of the herpetological works of Edward Bartlett commemorates the Tenth World Congress of Herpetology, held 5-9 August 2024 at Kuching, Sarawak, Malaysia. It is the latest in a series of publications that has been issued by the Society for the Study of Amphibians and Reptiles and distributed gratis to delegates to the World Congress of Herpetology. These publications reflect SSAR's close association with and commitment to the World Congress and to the promotion of herpetology globally. The present volume brings together the collected herpetological works of Edward Bartlett, who served as the curator of the Sarawak Museum in Kuching from 1893 to 1897. Bartlett was primarily an ornithologist, but his work in Borneo covered many areas of zoology. His herpetological output comprised a single substantial paper on lizards and crocodiles and a series of small papers on snakes, chelonians and amphibians initially published in the Sarawak Gazette and subsequently reprinted in book format. Bartlett's life and professional career have remained poorly documented and have been the subject of many contradictory statements in the literature. In this book, a thorough biography of Bartlett and a complete bibliography of his scientific publications are presented for the first time, along with an evaluation of his contributions to the herpetology of Borneo and the development of the Sarawak Museum. Facsimile reprints are provided of all of Bartlett's herpetological papers as well as two short, related notes by other authors. Finally, an up-to-date checklist of the amphibians and reptiles of Borneo is presented and compared with Bartlett's enumeration of the herpetofauna almost 130 years ago. SSAR is grateful to Mary Sears, Ernst Mayr Library of the Museum of Comparative Zoology, Harvard University, who kindly obtained the scans of the Sarawak Gazette used in this publication. Design and formatting for this publication were executed by Melissa G. Olson, Open Door Design, Glenside, Pennsylvania, USA. The cover design was the work of Pui Yong Min, Kuching, Sarawak, Malaysia. Production of this volume was facilitated by funding from the Joseph R. Bailey and Robert E. Gordon endowments to SSAR.

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## Edward Bartlett (1844–1908) Biography, Bibliography and Contributions to the Herpetology of Borneo

Aaron M. Bauer and Indraneil Das

Edward Bartlett (1844-1908) was the second Curator of the Sarawak Museum in Kuching, Sarawak. Bartlett's father and brother were sequential Superintendents of the London Zoo and although Edward also was employed at the Zoo for a short time, his interests were more in field-based studies. Bartlett was an all-around naturalist in the model of his time, but his first love appeared to be ornithology. Nonetheless, he made significant contributions to many areas of vertebrate zoology, as well as to the field of entomology. Bartlett's herpetological contributions were confined to the short period of six years that he spent in Sarawak, based at the fledgling Sarawak Museum in Kuching, the capital of the then Kingdom of Sarawak. His contributions appeared in a small number of papers, most in now difficult to access publications, but they laid the groundwork for future studies of the Bornean herpetofauna. Bartlett's personal life is poorly documented and most of the few brief accounts of his life have lacked detail and/or have reported incorrect information. We here provide a more extensive overview of Edward Bartlett's life and publications, correcting previous errors about his life and giving his complete bibliography. We also present facsimile reprints of his original herpetological contributions and compare the Bornean amphibians and reptiles listed in Bartlett's publications to the current checklists for amphibians and reptiles.

## **FAMILY**

Edward Bartlett (Figure 1) was the eldest of six children of Abraham Dee Bartlett (1812–1897; Figure 2) and Lydia Norvall (dates of birth and death unknown; married 1836). The elder Bartlett began his working life in his own father's London hairdressing and brush-making business as an apprentice in 1826, but in 1834, established himself as a taxidermist (Anonymous 1897; Macaulay 1897; Bartlett 1897g; A.D. Bartlett 1898). He was an early champion of raising funds for the Zoological Society of London by opening its living collections, previously for scientific study only, to the public. This successful plan was realized in 1847, and Bartlett benefitted by receiving specimens for mounting when animals died. His taxidermy was on display at the Great Exhibition in 1851, where he won first prize among the 14 taxidermists exhibiting there. At the close of the Exhibition, the Crystal Palace Company moved the famous glass and cast-iron building to Sydenham Hill, where he was appointed as "Naturalist" and not only displayed his taxidermy, but also took over responsibility for the aviary and aquarium housed in the huge structure.

Because of his earlier involvement with the Zoological Society and his growing experience with the care and exhibition of living animals, in 1859 Abraham Bartlett was appointed as Superintendent at the Zoological Society, a position that included a residence on the grounds of the Zoo itself (Scherren 1905). In his 38-year tenure, he was involved in the commercial trade in animals as well



**Figure 1.** Edward Bartlett (1844–1908), likely shortly after his employment at the Maidstone Museum in Kent. Courtesy of the Maidstone Museum & Bentlif Art Gallery of Horniman Museum and Gardens.



**Figure 2.** Abraham Dee Bartlett (1812–1897), Edward Bartlett's father and long-time Superintendent of the London Zoo, at the age of approximately 59. Photo from *Wild Animals in Captivity* (A. D. Bartlett 1898 [1899 reprint]). Biodiversity Heritage Library.

as in the care of his charges. He was the public face of the London Zoo and his knowledge of animal behavior and reproduction was well-regarded in the zoological community. His professional acquaintances included most of the leading zoologists of the day, among them, John Edward Gray (1800–1875), Richard Owen (1804–1892), and Charles Darwin (1809–1882), and his observations were referenced widely in their publications. He is commemorated in several patronyms proposed by fellows of the Zoological Scoiety of London. The elder Bartlett also published extensively in the Proceedings of the Zoological Society of London himself, with at least 57 papers and notes published between 1839 and 1897 (E. Bartlett in A.D. Bartlett 1898). The vast majority of these were on birds and mammals, but his last two (A.D. Bartlett 1895, 1896) were on snakes and the Surinam Toad, respectively. He described several new vertebrate taxa. Among six birds were the North Island Brown Kiwi, Apteryx mantelli Bartlett, 1852 as well as taxa now regarded as junior synonyms of the Emu and the extinct Rodrigues Solitaire. Among four mammals, one, the Silvery Greater Galago, Otolemur monteiri (A.D. Bartlett 1863), remains valid today. He also published frequent notes, including a regular feature, "Arrivals in the Zoological Gardens," in Land and Water, a periodical about country sporting life, from 1867 to 1871. Abraham Bartlett retained his post for the rest of his life and died on Zoo grounds on 7 May 1897. In 1984, he was commemorated in the foundation of The Bartlett Society, a zoo historical society.

Edward's younger brother Clarence (1848–1903) followed in his father's footsteps working at the Zoo. As a teenager in 1866, he was sent to Suriname to bring back a manatee, although the animal died before reaching London. The following year, he went to Calcutta to bring back a large collection of animals. In 1871, he was appointed as Assistant Superintendent (Scherren 1905) and he continued participating in acquisitions of animals, accompanying the Prince of Wales, later Edward VII (1841–1910), to India. Upon his father's death he assumed the position of Superintendent, but his tenure was short owing to ill-health, and he died on 1 May 1903 (Scherren 1905). Edward also had four sisters, but we have been unable to trace even their names. Clarence appears to have had children, but Edward did not, nor could we find evidence that he ever married.

## **BIOGRAPHY**

London and Palestine. — Edward Bartlett was born on 25 May 1844, in Great Russell Street, Saint Martin-in-the-Fields, London. His birth year has been widely (e.g., Das 2000; Beolens et al. 2011, 2014; Applegarth 2012), but incorrectly, cited as ca. 1836, probably based on his obituary in the Auk (Palmer 1944), which has been one of the standard sources for Bartlett's biographical data. Growing up in a house where taxidermy was practiced and zoological visitors were common, Edward developed an interest in natural history. His experiences abroad began when he accompanied Henry Baker Tristram (1822-1906) on a collecting trip to the Holy Land, visiting Palestine and Syria in 1863-1864. The expedition was Tristram's second to Palestine and it included several other participants, including a botanist and, noteworthy for the time, photographer (Hale 2016). Bartlett was the "Zoological Assistant" and Tristram (1865:viii) referred to him as "a young naturalist of no ordinary promise." The group landed at Beirut and, after a short stay, departed on 28 November 1863 towards Haifa and over a period of 10 months did a circuit of the Holy Land, visiting parts of what are today Lebanon, Syria, Israel, Jordan and the West Bank. Although the young Bartlett did not publish anything related to the trip, his material was cited by Sharpe (1870) and Tristram's biological findings from this and his other expeditions to the region were summarized in The Fauna and Flora of Palestine, published in 1884 (Figure 3).

**The Amazon.** — Bartlett's taste of field biology apparently whetted his appetite for an expedition of his own and in January 1865 he departed for Para, Brazil, whence he took a steamer up the Amazon to Nauta, from where he explored the Ucayali and Huallaga rivers in what is today the Depart-

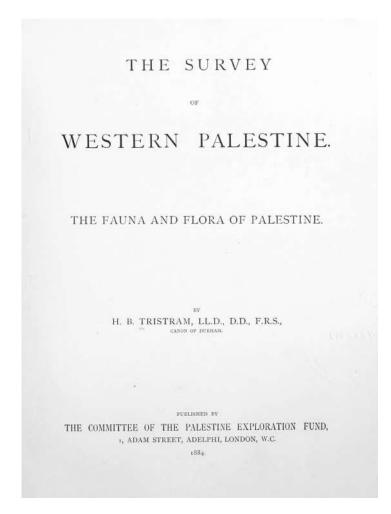
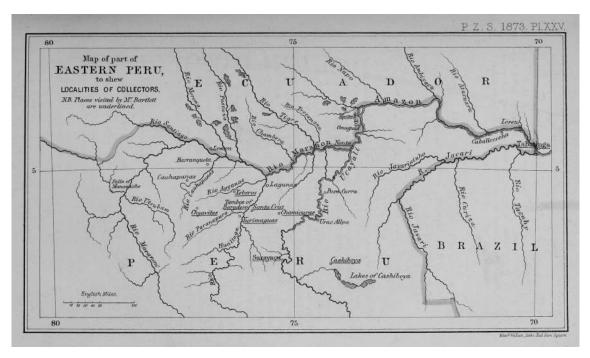


Figure 3. Title page of *The Fauna and Flora of Palestine* (Tristram 1884) which incorporated data from Edward Bartlett's first expedition to the Holy Land. Collection of A.M. Bauer.

ment of Loreto, Peru. On 5 November 1866 he wrote (Bartlett 1867) to the Secretary of the Zoological Society of London that after four months exploring the "Missions of the High Amazons" he was in Xeberos (now Jeberos, Alto Amazonas Province, Peru) on the Huallaga River. He also spent extended periods collecting near Santa Cruz and in Chamicurros (Chamicuros, Peru), passing a full 12 months during 1867-1868 at the latter locality (Moncrieff et al. 2019). He returned to England in February 1869. Bartlett's primary interest was in ornithology and between 1866 and 1870, he sold 259 birds from Peruvian Amazonia to the British Museum (BMNH, now The Natural History Museum, London) (Sharpe 1906). His specimens were used extensively by Philip Lutley Sclater (1829–1913), founder of *The Ibis* and longtime Secretary of the Zoological Society of London (1860– 1902) and his frequent co-author, Osbert Salvin (1835-1898), one of the founding members of the British Ornithologists' Union. They published catalogues of Bartlett's material from the Ucayali River (Sclater and Salvin 1866, 1867, 1869) and the Huallaga River (Sclater and Salvin 1868, 1869), and Bartlett himself provided comments on bird habits in the pair's major work on the birds of Eastern Peru (Sclater and Salvin 1873), which featured a map of his Peruvian collecting sites (Figure 4). His material also provided the holotype of a hummingbird described by another noted ornithologist, John Gould (1804–1881), in 1868. Among this ornithological material, Bartlett was commemorated in a species of hummingbird, Thaumantias bartletti Sclater and Salvin, 1866 (current name Chionomesa lacteal bartletti), a tinamou, Crypturus bartletti Sclater and Salvin, 1873 (current name Crypturellus bartletti) and, posthumously, a woodcreeper, Dendrocincla bartletti Chubb, 1919 (current name Dendrocincla merula bartletti), described on the basis of his material collected half a century earlier.

Bartlett's collections of other animals were also worked-up by experts in London. His terrestrial and freshwater molluscs were published upon by the prominent conchologist Henry Adams (1813–1877) in two contributions to the *Proceedings of the Zoological Society of London* (Adams 1867, 1870). In the former paper Adams described the genus *Bartlettia* and the species *Clausilia* (*Nenia*) *bartletti* (current name *Columbinia bartletti*) and *Otostomus bartletti* (current name *Drymaeus bartletti*), and in the latter *Aperostoma bartletti* (current name *Lagocyclus bartletti*). His Peruvian butterflies were worked on by Herbert Druce (1846–1913), who noted that "Mr. Bartlett's collection had been picked over" by other entomologists before it reached him (Druce 1876:205). Indeed, some of Bartlett's material earlier described by A.G. Butler (1871) came from the collection of William Wilson Saunders (1809–



**Figure 4.** Map of Edward Bartlett's Peruvian collecting sites from his Amazonian expedition (1865–1869) from Sclater and Salvin (1873). Biodiversity Heritage Library.

1879), an underwriter for Lloyd's of London and a serious amateur entomologist, while others had been purchased for the collection of Osbert Salvin and Frederick Du Cane Godman (1834–1919) and served as the basis for some of their descriptions (e.g. Salvin and Godman 1869). Some of his Peruvian beetles were examined by Martin Jacoby (1842–1907). Bartlett was commemorated in the entomological patronyms *Helioconius bartletti* (current name *Helioconius aoede bartletti*) by Druce (1876), *Callithea bartletti* (current name *Asterope degandii bartletti*) by Godman and Salvin (1878) and *Chlamys bartletti* and *Doryphora bartletti* (current name *Platyphora bartletti*) by Jacoby (1877, 1895). Although not the basis of any description, Austen (1895) reported on a larval bot fly (*Dermatobia*) in the collection of the British Museum, which had been removed from Bartlett's arm in 1867 in Chamicuros; surely a testament to his dedication as a collector.

Albert Karl Ludwig Gotthilf Günther (1830–1914) (1866b, 1868b, 1868c, 1869b) described numerous fish, including *Tetragonopterus bartlettii* Günther, 1866 (syn. *Astyanax bimaculatus* [Linnaeus, 1758]) on the basis of Bartlett's collections and his descriptions (Günther 1869a) of the frogs *Hyla rhodoporus* (syn. *Boana punctata* [Schneider, 1799]) and *Cystignathus rhodonotus* (current name *Leptodactylus rhodonotus*) and at least five new snakes (Günther 1866a, 1868a, 1872) were based on Bartlett types from Peru: *Ahætulla nigromarginata* Günther 1866 (current name *Leptophis nigromarginatus*), *Hydrops callostictus* Günther 1868 (syn. *Hydrops martii* [Wagler, 1824]), *Coronella pæcilolæmus* Günther 1872 (syn. *Erythrolamprus miliaris* [Linnaeus, 1758]), *Tachymenis bitorquata* Günther 1872 (syn. *Oxyrhopus melanogenys* [Tschudi, 1845]) and *Dipsas approximans* Günther 1872 (current name *Leptodeira approximans*).

John Edward Gray (1800–1875) also used Edward's collections, describing the Spider Monkey *Ateles bartletti* (syn. *Ateles belzebuth* Geoffroy St. Hilaire, 1806) after Abraham Dee Bartlett and his two sons (Gray 1867a) and a new species of tapir (Gray 1872). Gray (1871a) also named the monotypic turtle genus *Bartlettia* (syn. *Podocnemis* and preoccupied by the unionid mollusc *Bartlettia* Adams, 1867, see above) after the senior Bartlett based on type material collected by Edward Bartlett from the "Lakes of the Upper Amazons." Although his vertebrate specimens went to several different collections, the lion's share came to the British Museum. In 1866 he sold a collection of 66 mammals to the Museum, mainly from his work along the Ucayali River (Thomas 1906). In addition to the eponymous spider monkey, this included the types of at least three other mammals: a squirrel (Gray 1867b), an opossum (Thomas 1888), and a rat (Thomas 1894).

**London and Maidstone.** — Upon his return from South America, Edward worked for a time with his father at the Zoological Society and during this period he published several papers in the *Proceedings of the Zoological Society of London*. One of these (Bartlett 1871) was on the ten species of primates he encountered in eastern Peru and provided details of his efforts to obtain specimens of *Ateles bartletti*, which had by then been synonymized (Gray 1871b). Bartlett (1873) also described a new moth, *Tropæa madagascariensis* (current name *Argema madagascariensis*), collected by Thomas Waters (1840–1904), a British ornithologist and entomologist who spent several years collecting in southeastern Madagascar.

As noted in volume IV of The Ibis, and the Proceedings of the Zoological Society of London for 1875, Edward Bartlett took up the post as Curator of the Museum and Public Library, Maidstone, Kent sometime in the second half of 1874 (not 1875 as frequently reported). At Maidstone he continued (Bartlett 1875, 1877, 1880) to publish on the Madagascan collections of Thomas Waters, describing the birds Cypselus balstoni (current name Apus balstoni) and Zaporina watersi (current name Sarothrura watersi) and the rat species Nesomys betsileoensis (current name Brachyuromys betsileoensis) and commenting on the affinities of the terrestrial Madagascan forest bird Mesites variegata (current name Mesitornis variegatus). He also received other material from Waters at Maidstone and sent these to other experts to be described (e.g., snails; Angas 1880). Specimens from Madagascar, presumably from Waters, were among the material he exchanged with Spencer Fullerton Baird (1823-1887) at the Smithsonian Institution and sold to both the British Museum (mammals; Gray 1875) and the Oxford University Museum of Natural History (butterflies). He also sold Madagascan ethnographic material to the British Museum in 1881. From at least 1876 onwards, he maintained frequent contact with staff at the British Museum, particularly Günther, with whom he had corresponded about his Peruvian material some years earlier (multiple letters in archives of The Natural History Museum).

Bartlett (1882) also published on mammals and birds from regions of eastern Peru familiar to him from his earlier expedition. These were not from his own collections, however, but from those of John Hauxwell (fl. 1854–1886), who was a naturalist, collector, and longtime resident of Pebas in Loreto, Peru, who Bartlett met there during his expedition and whose ornithological material was described along with that of Bartlett and Henry Walter Bates (1825–1892) by Sclater and Salvin (1873). This included two new bird species, Thamnophilus loretoyacuensis (current name Sakesphorus canadensis loretoyacuensis) and Crypturus balstoni (syn. Crypturellus undulatus yapura [Spix, 1825]). Hauxwell's herpetological collections, which were purchased by the Academy of Natural Sciences in Philadelphia, were described by Cope (1870, 1886), as were his ichthyological specimens.

In his final year in Kent, Bartlett (1890) described the Amazonian Grosbeak, *Guiraca rothschildii* (current name *Cyanoloxia rothschildii*) based on material from Henry Whitely (1844–1892) collected in British Guiana (now Guyana). Whitely's butterflies from Peru had earlier been described, along with those from Bartlett, by Druce (1876).

By far the most impressive of Bartlett's outputs from his Maidstone years, were the five parts of his *A Monograph of the Weaver-Birds, Ploceidæ, and Arboreal and Terrestrial Finches, Fringillidæ* (Bartlett 1888a, 1888b, 1889a 1889b, 1889c; Figure 5). These were all that was published of a planned work of 90 to 95 parts on weavers and finches (Zimmer 1926). They were illustrated by 31 magnificent color plates by Frederick William Frowhawk (1861–1946), known for his artwork in many important ornithological works of the late 19<sup>th</sup> century. Complete copies of the monograph have sold for more than US \$20,000. Based on this work, Bartlett was elected to the American Ornithologists' Union in 1889 as a Corresponding Member. The published parts included only one new name, *Munia sumatrensis*, now considered a synonym of *Lonchura atricapilla sinensis* (Blyth, 1852). Bartlett (1889b)

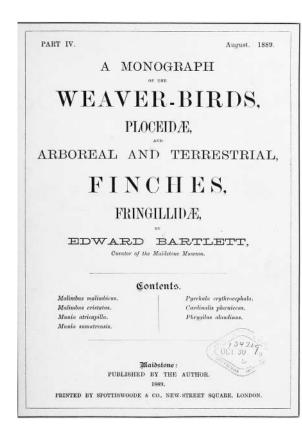
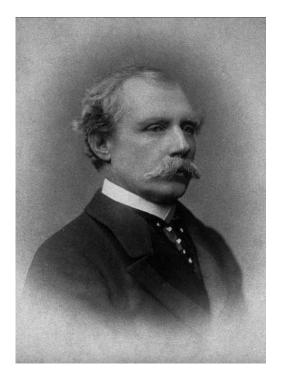




Figure 5. A Monograph of the Weaver-Birds ... Part IV (Bartlett 1889b). One of five published parts of Bartlett's planned monumental work. It was the defining output of his career at Maidstone and established his reputation as an ornithologist. Title page and Plate V (original colored) depicting Munia atricapilla (top and lower left) and M. sumatrensis (lower right). Munia sumatrensis, now considered a synonym of Lonchura atricapilla sinensis (Blyth, 1852) was the only nominal species described in the Monograph. Biodiversity Heritage Library.



**Figure 6.** Rajah Charles Brooke (Charles Anthoni Johnson, 1829–1917), the second ruler of the Brooke dynasty in Sarawak and founder of the Sarawak Museum. Image from A. Bassano - https://wellcomeimages.org/indexplus/image/V0037393.html, CC BY 4.0.

clearly recognized that the species had been described earlier, but considered the epithet *sinensis* inappropriate, as the species was not native to China. Bartlett was honored for this work with the avian patronym *Malimbus bartletti* Sharpe, 1890 (current name *Malimbus rubricollis bartletti*).

Sarawak. — Early in 1891, Bartlett left his post in Maidstone. His change in position was first noted in Nature on March 19, 1891 (Vol. 43, N° 1113:472), which reported that he had been "appointed to be Curator of the new museum at Sarawak" by Rajah Charles Brooke (born Charles Anthoni Johnson, 1829–1917; Figure 6). The Athenæum N° 33083 (March 21, 1891), just days later, noted "Mr. Frederick James, chief assistant to General Pitt-Rivers, has been appointed to the Head-Curatorship of the Maidstone Museum, in succession to Mr. Edward Bartlett, who has received a post in the Government Museum at Sarawak," confirming that Bartlett's resignation, or at least his announcement thereof, had been arranged before April. There seems to have been some confusion, however, regarding Bartlett's new title. Hardwicke's Science-Gossip vol. 27 (317) (May 1891:112) repeated that Bartlett had been appointed as "Curator at the Government Museum at Sarawak." However, physician and botanist George Darby Haviland (1857–1901), had been hired for this position from within the Sarawak civil service and served from 26 February 1891 to 6 February 1893, supplanting John Edgar Anderson Lewis (1863–1938). Lewis had been appointed "Curator protem" of the Museum by Rajah Brooke and directed the museum while it was in temporary quarters from 1886 to 1891 (Morris 2019a), and at various times when the curator was absent or the post vacant, up until 1908, his departure from Sarawak (Cranbrook and Leh 1983).

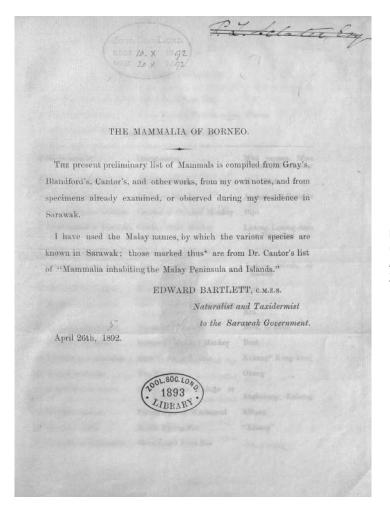
Archival records indicate Bartlett's title on 2 May 1891, his official date of employment (Haviland 1892), was "Taxidermist" (Loh 1971). While his early participation in the family business and his years of field preparation of study skins would have made Bartlett well-suited for the position of taxidermist, explaining his appointment by Rajah Brooke, it seems unlikely that he would, at the age of 46, have accepted a post that was limited to this function. Indeed, Bartlett apparently travelled to Sarawak believing that he had been appointed as Curator (Morris 2019a). It is likely that his offer of a post in Sarawak, as announced in *Nature* and *The Athenæum* in March 1891, was roughly coincident with Haviland's assumption of the curatorship. With the official opening of the dedicated Sarawak Museum building (Figure 7) on 4 August 1891, Rajah Brooke had intended to have two Europeans to work there, the formally educated and socially superior Haviland in a managerial



**Figure 7.** Sarawak Museum in 1896 during the period of Edward Bartlett's curatorship. Image from Wellcome Collection (Public Domain); Library Reference: ICV No 37945; Photo number: V0037397.

position, and the proficient, self-made working-class Bartlett to lead the technical work. Needless to say, Bartlett was not happy to discover that he was not in charge. In his first publication after his arrival in Sarawak, on Bornean rhinoceros, Bartlett (1892a) listed himself as "Naturalist to the Government of Sarawak" and in April 1892 he (Bartlett 1892b) signed himself as "Naturalist and Taxidermist to the Sarawak Government" (Figure 8). If he was not to be curator, it was clear that he preferred the more gentlemanly epithet "naturalist" and that he saw himself in that context. Bartlett's dissatisfaction led to conflict with Haviland and the tense situation, potentially exacerbated by the men's difference in social status, ultimately led to the latter's resignation (Morris 2019a). Based on Rajah Brooke's correspondence with Haviland on 24 May 1892 (The Brooke Heritage Trust CBLB\_4\_277), he had been unaware of Bartlett's aspirations and was troubled by the situation, but nonetheless valued Bartlett's taxidermy work, which he viewed as critical to the growth and success of the museum.

With Haviland's departure, Bartlett took over as Curator (the terminology used for what would have been the Director at other institutions) of the Sarawak Museum (SM). He served for four years in this capacity from 6 February 1893 to 1897 (sometimes incorrectly given as 1891–1897 or 1895–1897). During this time, he carried out field work in western Sarawak (see below), sometimes, he claimed, with the aid of "Dyak" hunters. Such excursions were probably mostly ornithological, although other specimens were collected as well (see below). Many of the specimens he obtained, however, were received from donors to the museum, mostly men in government service, who sent in both zoological and ethnographic material from their outstations and respective hinterlands (Morris 2020). Bartlett followed a pattern typical for the time and, in addition to obtaining material for the Sarawak Museum, also acquired material for his private collection, which could ultimately be sold for a profit upon his return to England. For example, Bartlett obtained both herpetological specimens and diverse Iban artifacts through his connections to Demetrius James Sandford Bailey



**Figure 8.** First page of the apparently unique copy of *The Mammalia of Borneo* (Bartlett 1892b). Courtesy of the Zoological Society of London.

(1860–1909), Resident at Simanggang on the Lupar River in Sarawak's Second Division (Morris 2019a). He corresponded with Albert Günther at the British Museum, sending specimens of fishes, reptiles, and molluscs to be identified and offering specimens for exchange. In a letter dated 4 September 1893 Bartlett mentioned a shipment of reptiles and fishes sent to the British Museum via the taxidermist Edward Gerrard (1810–1910), some of which were a gift of the Rajah and the others from himself personally (Australian Joint Copying Project. Natural History Museum: Letters of the Keeper of Zoology Archive: [M2599-M2610] 1837-1969./Series DF 200/File 200/44/Item). A sense of the function of the Curator in these early days of the Sarawak Museum is provided by Bartlett's successor, Robert Shelford (1872–1912) in his narrative *A Naturalist in Borneo* (1916).

Later Life. —Bartlett was unhappy in his post at the Sarawak Museum and when his government service contract expired in January 1897, it was not renewed (Morris 2019a). By this point, his father's health was in decline and this was perhaps another reason for him to return to England. On 8 September 1896, Rajah Brooke, who took a personal interest in the Museum (Morris 2020), wrote to the Director of the British Museum (Natural History) to ask for a recommendation for a replacement for Bartlett. The position required a knowledge of the branches of natural history as well as skills in taxidermy. The period of contract would be for three to five years and salary was £200 per annum, with passage to and from Kuching paid and an unfurnished house provided (The Brooke Heritage Trust CBLB\_6\_13). Bartlett was replaced in Kuching by the entomologist Robert Walter Campbell Shelford, who occupied the post from 22 July 1897 to 2 February 1905 and later became a curator at the Oxford University Museum.

Bartlett arrived in London before his father passed away on 7 May. On April 27, he wrote to Lt. General Augustus Henry Lane Fox Pitt-Rivers (1827–1900), a noted collector of anthropological and archaeological objects, indicating that he had returned from Borneo with a ethnographical collection that he wished to sell (Salisbury and South Wiltshire Museum Pitt-Rivers Papers L1806; https://web.prm.ox.ac.uk/sswm/sswm\_letters/SSWM\_RPR\_L1806.pdf). On 29 May 1897 he wrote to Arthur Gardiner Butler (1844–1925), lepidopterist and Assistant-Keeper at the British Museum, offering a series of butterflies from Borneo to the British Museum. The letter (Australian Joint Copying Project. Natural History Museum: Letters of the Keeper of Zoology Archive: [M2599-M2610] 1837-1969./Series DF 200/File 200/48/Item 8), like the earlier letter to Pitt-Rivers, was sent from 171 Stanhope Street, London N.W., adjacent to Regent's Park and near to the Superintendent's residence on Zoo grounds, into which his brother Clarence presumably moved when he succeeded his father in this position.

Bartlett seems to have been disappointed in his initial attempts to sell his ethnographic collection from Borneo. A series of letters in the Salisbury and South Wiltshire Museum Pitt-Rivers Papers (https://web.prm.ox.ac.uk/rpr/index.php/article-index/12-articles/827-saswm-letters.html) suggests that his offers of the entire collection to the British Museum and to General Pitt-Rivers were turned down and that only a few individual items were purchased. However, the Pitt-Rivers Museum at the University of Oxford, which had been established in 1884, through the actions of its curator Henry Balfour (1863–1939), eventually obtained about 80 objects, some through Bartlett directly in 1899 and others from J. C. Stevens Auction Rooms in 1900. In the same year, Bartlett also sold other parts of his ethnographic collection from Sarawak to the Horniman Museum (now Horniman Museum and Gardens) and to the British Museum. The Horniman obtained 32 items from both Sarawak and Sabah in the sale from Bartlett (Kerlogue 2008). Bartlett seems to have been more successful in his sale of zoological specimens, as the archives of The Natural History Museum hold several invoices from Bartlett sent to Günther for vertebrate specimens sold in 1897. With regard to insects, Butler (1901a, 1901b) published on some of butterflies that had been bought from Bartlett by both by the British Museum and by Asian lepidopteran specialist, Frederic Moore (1830-1907).

Shortly after he returned from Borneo, still in 1897, Bartlett was elected as a fellow of the Zoological Society of London, an organization he had been associated with his entire life. While trying to sell his personal biological and ethnographic collections, Bartlett also collated and edited his father's notes about his long career at the London Zoo. These were published as *Wild Animals in Captivity* (A. D. Bartlett 1898; Figure 9) and *Bartlett's Wild Beasts at the Zoo* (A.D. Bartlett, 1900). The first book, which provided a biography of the elder Bartlett, was panned in *The Speaker* (Dec. 24, 1898) under the heading "A Lost Opportunity," with the anonymous reviewer feeling that the editor did a poor job of piecing together the story of his father's interesting life.

By 1900, Edward Bartlett was 56. Neither the editing and publishing of his father's collected anecdotes nor the sale of his Bornean collections was especially lucrative. Indeed, Bartlett considered himself financially ruined. He had tried, unsuccessfully, to find employment as a taxidermist and naturalist for the British Museum (letter from E. Bartlett to A. G. Butler, 27 May 1898, NHM, DF/ENT/300/1/19) and as a travelling collector for the wealthy zoologist, banker and politician Lionel Walter Rothschild (1868–1937), whose private museum at Tring had opened in 1892 (letter from E. Bartlett to E. Hartert, 22 May 1900, NHM, TM/1/48/6; Morris 2019a). Ultimately Bartlett returned to Kent, where he had spent the longest period of his adult life while working at the Maidstone Museum. Near the end of his life, he published on local ornithology (Balston et al. 1907), coauthoring Notes on the Birds of Kent with Charles William Shepherd (1838– 1920) and Richard James Balston (1828–1906), after whom he had earlier named two bird species. He died in early 1908 in East Ashford, Kent, less than 30 km from Maidstone. Most sources report his death as occurring on an unspecified date in April but January 21 has also been given (e.g., The Brooke Heritage Trust; Applegarth 2012). However, the England and Wales Civil Registration Death Index, 1837-1915 (Vol. 2a:640) gives his death date as March 1908. After his death, Bartlett's collection of weavers, finches and larks, built in association with his monograph on these groups in the 1880s, along with specimens from the collection of the prolific naturalist, ornithologist and popularizer of science, Sir William Jardine (1800-1874), which he had purchased, passed to the Tring Museum (Hartert 1919). The bulk of his collection of bird eggs was sold posthumously in the

# WILD ANIMALS IN CAPTIVITY

BEING AN ACCOUNT OF THE

HABITS, FOOD, MANAGEMENT AND TREATMENT OF THE BEASTS AND BIRDS AT THE 'ZOO'

WITE

#### Reminiscences and Anecdotes

BY

A. D. BARTLETT

LATE SUPERINTENDENT OF THE ZOOLOGICAL SOCIETY'S GARDENS

COMPILED AND EDITED BY

EDWARD BARTLETT, F.Z.S.

LATE CURATOR OF THE MAIDSTONE MUSEUM, AND OF THE SARAWAK MUSEUM  $\mbox{\ \ ETC.}_{7}$  ETC.

WITH ILLUSTRATIONS

SECOND IMPRESSION

LONDON: CHAPMAN AND HALL, LD.

1899
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**Figure 9.** Cover of *Wild Animals in Captivity* (A.D. Bartlett 1898 [1899 reprint]), compiled and edited by Edward Bartlett upon his return from Borneo. It won him neither financial rewards nor critical acclaim. Biodiversity Heritage Library.

J.C. Stevens Auction House sale of 9 February 1909 that also included ornithological material from William Saville-Kent (1845–1908) and several others, with the remainder being auctioned off on September 21 and November 16 of the same year.

## SARAWAK PUBLICATIONS

Works Not Published in Sarawak. — Edward Bartlett's natural history publications from his time in Sarawak were limited. His paper on Bornean rhinoceroses (Bartlett 1892a) was his only contribution to the *Proceedings of the Zoological Society of London* during this period. His additional publications included his most important herpetological work, on the lizards and crocodiles of Borneo (Bartlett 1895a), based on the collections of the Sarawak Museum and including the description of nine new species of lizards. Immediately following this paper, in the same issue of the *Journal of the Straits Branch of the Royal Asiatic Society* (then published in Singapore), Bartlett (1895b) presented a short paper describing *Philentoma maxwelli* (syn. *Philentoma pyrhoptera pyrhoptera* [Temminck, 1836]), a vangid passerine bird. Another short paper, on the eggs of *Pityriasis gymnocephala* (Bartlett 1896w), was published in the January 1896 issue of *The Ibis*, although this was merely an abbreviated version of a paper (Bartlett 1895o) originally published in November 1895 in the *Sarawak Gazette* (see below).

"The Mammalia of Borneo," (see Figure 8) by Edward Bartlett (1892b) is cited by Waterhouse (1902), Mullens and Swann (1917), and Wood (1931), but is otherwise not mentioned or cited elsewhere in the literature that we could find, including in the WorldCat online database or in The National Union Catalogue of Pre-1956 Imprints. All three of the citations can be traced to a single copy lodged in the library of the Zoological Society of London. This "publication" is a six leaf, quarto format list of the 117 species of mammals that Bartlett recognized based on the literature and his own observations in Sarawak. There is no title page, and the fact that the text is printed on only one side of each leaf suggests that this may have been a proof copy. The work is dated "April 26th, 1892" and was received by the Zoological Society of London on 10 October 1892. It is possible that Bartlett became aware of the forthcoming work on Bornean mammals (Hose 1893) by Charles Hose (1863–1929), then Resident of Baram District, in northeastern Sarawak, and decided not to proceed further with his own publication or was blocked from doing so. Hose was a prolific collector of ethnographic and zoological specimens, but after a significant donation in 1889 (Morris 2019b) sent most of his material to the British Museum rather than to Kuching. He particularly did not like or respect Bartlett, perhaps because of his working-class origins (Morris 2019a).

**The Sarawak Gazette.** — Most of Bartlett's Bornean publications appeared in the form of short papers in the Sarawak Gazette. The Sarawak Gazette was founded in 1870, as one of the first publications of the Government Printing Office of Sarawak. It served as the official outlet for the Rajah's proclamations and for government related news and notices, including regular sections on appointments and notices of leave, inquests, reports of government departments and residents in outlying districts, and shipping reports. As such it was an important record for governmental and legal matters. It also was an outlet for short contributions of those in government service and for more general news, weather and sports. It is still published today and provides an outlet for a diversity of topics of relevance and interest to Sarawak and the broader region, but since 1908, the official matter relating to government has been published in a separate periodical, the Sarawak Government Gazette. Library holdings of complete runs of the Sarawak Gazette are uncommon. Volumes from 1907 onward have been, or are being, digitized (https://www.pustakasarawak.com/gazette/browse.php), but the earlier issues are more difficult to locate, although microfilm copies are present in several major national libraries. A guide to the periodical (Cotter 1967) presents a cumulative index, but this, unfortunately is incomplete, missing many of the natural history papers.

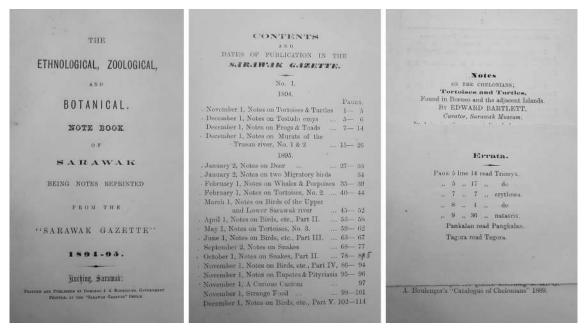
Bartlett's contributions in the Gazette included 43 articles on mammals, birds, reptiles, amphibians, fish and butterflies. At the time that he was publishing there, the Gazette was issued on the first of each month (unless this fell on a Sunday or holiday). Bartlett's contributions appeared from the period 1 November 1894 to 1 March 1897, likely the approximate time of his return to England. With the exception of July and August 1895, he had at least one article in each issue, with a maximum of four in December 1896. In all, he published ten herpetological papers: four on turtles and tortoises (Bartlett 1894a, 1895f, 1895i, 1896i), one on amphibians (Bartlett 1894b) and five on snakes (Bartlett 1895k, 1895l, 1896l, 1896m, 1896t), as well as a published letter in response (Bartlett 1895m) to a comment on his first chelonian paper by George Albert Boulenger (1895). [Wahlgren (1999) noted that there was further direct correspondence between Boulenger (1858– 1937) and Bartlett between 1895 and 1903, but confounded Edward with Abraham Dee Bartlett in describing the recipient as Superintendent of the London Zoo]. Reflecting his other interests, Bartlett also published 12 ornithological papers (Bartlett 1895d, 1895g, 1895h, 1895j, 1895n, 1895o, 1895p, 1896a, 1896b, 1896e, 1896h, 1896s), two mammalogical contributions on the disparate topics of deer (1895c) and cetaceans (1895e), nine ichthyological papers (1896k, 1896o, 1896q, 1896v, 1897a, 1897b, 1897c, 1897d, 1897e) and nine contributions on butterflies (1896c, 1896d, 1896f, 1896g, 1896j, 1896n, 1896p, 1896r, 1896u). In many but not all cases, later parts on a particular topic did not actually mention the author by name. In these cases the authors name is given in square brackets in the reference list below.

**Note Book of Sarawak.** — All of Bartlett's *Sarawak Gazette* papers (except his correspondence responding to Boulenger) were reprinted in book form in *The Ethnological, Zoological, and Botanical Note Book of Sarawak*, printed by Domingo J. J. Rodrigues, the Sarawak Government Printer, who also

printed the *Gazette*. Copies of the book version are even scarcer than the original *Gazette* papers, and there are no digital copies online. No copies are listed in the *National Union Catalogue of Pre-1956 Imprints*, and only five complete copies (California Academy of Sciences, University of Oregon, the Royal Ontario Museum, and the Natural History Museum—both South Kensington and Tring) and two additional copies of part I only (Carnegie Museum of Natural History, Australian National University) are listed in the WorldCat database. The *Catalogue of the Library of the Zoological Society of London* (Waterhouse 1902) also lists a copy, the presence of which we confirmed. This rarity has resulted in a confused bibliographic history.

Dating. — Many sources refer to a single book, and a date of publication of 1896 is often cited (e.g., Brown and Alcala 1994; Das 2000, "2003" 2004). The book was actually issued in two parts (Bartlett 1895q, 1897f). The first containing his contributions from 1894 and 1895 (Figure 10), and the second, with a title page dated 1896, with those from 1896 and 1897 (Figure 11). The exact dates of publication are uncertain. Boulenger (1896) gave an 1895 date for Part I and both he (Boulenger 1897) and Werner (1906) gave 1896 for Part II, despite the fact that it included papers ostensibly originally published in the Sarawak Gazette during first three months of 1897. Werner's information was likely derived from 1896 Zoological Record, the actual publication date of which was December 1897 (Evenhuis 2011). The copies of the two volumes of the *Note Book* in the Zoological Society of London were acquired in 1895 and 1897, respectively. Given that transit by fast passenger ship to London would have taken at least 20 days at the time, each volume of the Note Book was likely printed and dispatched shortly after the last included paper. The latest paper included in Volume I was published in the Sarawak Gazette on 2 December 1895 and the Note Book would just have had enough time to arrive at the Zoological Society before year's end. Of course, since the Note Book did not cite pagination in the Sarawak Gazette, it is possible, or even likely, that it may have been printed once the month of the issue in which the last paper was to have been published was known, and thus even before the "original" paper appeared in the Gazette.

Authorship. — Another source of confusion is authorship. Although authorship of the volumes is sometimes credited to Bartlett alone, whose contributions constitute, by far, its most extensive part, the *Note Book* also included selected contributions from the *Gazette* by others. In addition to two anonymous publications (1895a, 1895b), it includes articles by Oswald Frederic Ricketts (1858–



**Figure 10.** The Ethnological, Zoological, and Botanical Note Book of Sarawak, No. I, title page (left), table of contents (center) and errata sheet partly coving title page of Bartlett's first paper on chelonians (right). Courtesy of Carnegie Museum of Natural History.

