

The contribution of the voyage of H.M.S. *Blonde* (1825) to Hawaiian ornithology

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The voyage of H.M.S. *Blonde* (1825) was the first after Cook's third voyage (1778–79) to bring back significant new knowledge of the ornithology of the Hawaiian Islands. Twenty-five existing Hawaiian specimens of birds from the voyage are traced and discussed, along with previously unpublished natural history notes by the expedition's naturalist, Andrew Bloxam. The *Blonde* expedition is the only one known to have obtained a thrush (*Phaeornis=Myadestes*) on Oahu, and two specimens probably of Oahu origin, including the type of *Turdus woahensis* Bloxam, are identified. The name *Nectarina flava* Bloxam (1827) is shown to have priority over *Himatione chloris* Cabanis (1850) for the Oahu Amakihi.

INTRODUCTION

After the European discovery of the Hawaiian archipelago in 1778–79, on James Cook's final voyage, which brought back numerous specimens of birds (Medway, 1981), the next expedition to the islands to make a significant contribution to ornithology was that of H.M.S. *Blonde*, in 1825. The ornithological results of this voyage were very poorly documented, however. Although the literature does not well reflect the fact, most of the specimens of Hawaiian birds known to have been preserved on the voyage of the *Blonde* still exist, along with considerable unpublished natural history information compiled by the expedition's naturalist, Andrew Bloxam. Because any information from such an early period in Hawaiian ornithology is of interest, and because lack of sufficient attention to Bloxam's notes has given rise to several errors in identification and provenance of specimens, and in their attendant nomenclature, I have brought together the pertinent data concerning the Hawaiian ornithology of the *Blonde* from published and unpublished sources, along with that derived from examination of the specimens.

HISTORY AND DOCUMENTS OF THE VOYAGE OF H.M.S. *BLONDE*

Purpose and itinerary of the voyage

In 1823, the reigning monarch of the Hawaiian Islands, King Liholiho, also known as Kamehameha II, set out to England with his wife Kamamalu and a party of retainers, with the purpose of learning about European laws and customs so as to establish a new legal and social system in the islands. Unfortunately, both the king and his wife died of measles in July 1824, not long after arriving in England. The British government determined to return their bodies and their surviving retinue to the Hawaiian Islands as a gesture of diplomatic courtesy.

To effect the return of this "dismal freight", as Alfred Newton (1892) termed it, the 46-gun frigate *Blonde* was dispatched. (According to records at the National Maritime

Museum, the keel of the *Blonde* was laid down in 1813 and the ship was launched at Deptford in 1818. The hulk was renamed *Calypso* in 1870 and was sold in 1895—a span of service that few steel ships are likely to equal.) The ship was commanded by George Anson, seventh Lord Byron, first cousin and successor to the renowned poet who had died only five months prior to the departure of the *Blonde*. If that romanticized sybarite was not then at the height of his fame, his death surely inaugurated his apotheosis. That the new Lord Byron must have tanned in the refulgence of the name then most on the lips of European society, as well as in the equatorial suns through which the *Blonde* sailed, is scarcely to be doubted. The *Blonde* expedition was often called “Lord Byron’s voyage”; the account of it issued by the late poet’s gossipy confidant John Murray bore the name Lord Byron as author, doubtless with the publisher’s purse and public in mind, though no Byron wrote a word of it; and all of the specimens from the *Blonde* that were catalogued at the British Museum were obsequiously credited to Lord Byron, who had nothing to do with their actual procurement, preservation, or presentation. With ironic retribution, the *Dictionary of National Biography* ignores the captain of the *Blonde*, who has no entry, whereas the ship’s callow, humble, and none too ardent naturalist, Andrew Bloxam, is there duly memorialized. Bloxam’s shipmates included his eldest brother, Richard Rowland Bloxam,¹ who was ship’s chaplain, James McRae,² plant collector and horticulturist, and Robert Dampier, who joined the expedition in Rio de Janeiro and served as artist and draftsman.

The *Blonde* departed Spithead on 28 September 1824, stopped at Madeira, Rio de Janeiro, Santa Catarina, Valparaiso, Callao, and the Galapagos. Once in Hawaiian waters, the ship anchored briefly at Hilo, island of Hawaii, on 3 May 1825, then at Lahaina, Maui, on 4 May, and finally at Honolulu, Oahu, on 6 May 1825, where the ship remained until 7 June, whereafter it took until 12 June to beat to windward and anchor again at Hilo. There, explorations were made of Mauna Kea and Kilauea until departure on 7 July. The ship stayed once more at Honolulu from 9 July until 18 July before departing for Tahiti.

The *Blonde* discovered and named the island of Malden in the Line Islands on 30 July, bypassed Tahiti because of unfavourable winds, landed at Mauke, Cook Islands, on 8 August, and returned to Chile. After rounding the Horn, the ship proceeded to St Helena for provisions, staying from 23 to 28 January 1826. The voyage ended at Spithead on 15 March 1826 after a duration of seventeen months fifteen days.

The expedition’s naturalist, Andrew Bloxam

Most of what we know of Andrew Bloxam’s life may be found in the memoir of Berkeley (1878), which was the basis for most of Bloxam’s entry in the *Dictionary of National Biography* (Jackson, 1921–1922). His surname has often been incorrectly rendered as “Bloxham”, as indeed it appears in the appendix to the *Voyage* (Byron, 1827), or even “Bloxom”, as sometimes rendered in the published version of McRae’s journal (McRae, 1922). Though he was descended from Bloxhams of the town of that name in Oxfordshire, he and all of his immediate antecedents invariably omitted the “h”.

Andrew Bloxam was born at Rugby on 22 September 1801 and died at Harborough Magna on 2 February 1878. His father was interested in archaeology, and an uncle by marriage followed botanical pursuits, so Andrew was exposed to some elements of natural history. He had just graduated from Oxford at age 23 when he was offered the position of naturalist on the *Blonde*, though he cannot have received much instruction in either

zoology or botany (Jones in Bloxam, 1925:4). Bloxam was ordained not six weeks after returning to England (Appendix 1) and the remainder of his life seems to have been spent rustivating as a country parson³ who engaged mainly in botany, being best known for his works on *Rubus* and on fungi. Although Berkeley (1878:89) includes ornithology, as well as conchology and botany, among the subjects of “numerous” communications of Bloxam “to leading periodicals”, Bloxam is not listed in Mullens and Swann’s *Bibliography of British Ornithology* (1917). His principal contribution to the knowledge of birds will have to be reckoned as the specimens, unpublished notes, and published Appendix from the voyage of the *Blonde*. Bloxam is probably much better known among anthropologists than ornithologists for the importance of the Hawaiian ethnographic materials that he and his brother brought back from the voyage (Kaeppler, 1978), these objects again usually being said to take their origins in “Lord Byron”.

Published and unpublished sources

Not long after the return of the *Blonde* an account of the voyage appeared under Lord Byron’s name (Byron, 1827).⁴ The volume is actually a compilation based primarily upon the diary of the ship’s chaplain, Rowland Bloxam, but it also includes observations from Andrew Bloxam’s diary and notes. The journal of Dampier, the ship’s draughtsman, is acknowledged as well (preface, page vi). This compilation was the work of Maria Graham (later to become Lady Callcott) (Smiles, 1891: 293; Wilson and Evans, 1899: xiii, footnote), whose redactorial skills with regard to the *Blonde* volume were the subject of considerable subsequent deprecation (see remarks quoted in Olson, 1986b: 198). The compiler, in a letter to the publisher John Murray dated 20 February 1827, amiably protested an additional payment for her services on the volume with the now cryptic comment that “there are so many teasing you about it, that I feel uneasy at receiving more” (Smiles, 1891: 293). The teasing may well have been due to Murray’s transparent pandering to an audience panting for anything with the name “Lord Byron” affixed to it, despite the fact that no lord, dead or alive, had penned a title of the *Blonde* tome.

An appendix (pages 248–253) on the natural history of the Sandwich Islands “selected from the papers of A. Bloxham [sic], esq.” was prepared by the compiler in consultation with “the gentlemen connected with that department in the British Museum” (preface, page v). This must refer in large measure to J. E. Gray, who had been made Assistant Keeper in 1824 and who succeeded to Keeper in 1840 (Kluge, 1971). Not long after the appearance of the “Voyage”, J. E. Gray (1831) published a curious little note on a few of the birds “discovered by Edward [sic] Bloxam” on Lord Byron’s voyage, consisting of little more than redescriptions of four of Bloxam’s Hawaiian birds, with descriptions of two supposedly new species from Chile.⁵

Newton (1892: 466) deemed the appendix to the voyage (Bloxam, 1827) to be “utterly unworthy of its reputed author” being “a disgrace to all concerned, since, so far from advancing the knowledge of the subject, it introduced so much confusion as to mislead many subsequent writers”. Rothschild (1893b: vii) concurred in Newton’s opinion of this appendix. Nevertheless, as it is the only part of Bloxam’s natural history observations that was actually published, apart from the description of the Oahu thrush printed long after in Wilson and Evans (1899: xiii), it serves as the original citation for several scientific names of Hawaiian birds, some of which are still in use. Because of the rarity of the original volume,⁶ Bloxam’s appendix is reprinted here in facsimile (Appendix 3) as a service to

taxonomists who might not otherwise be able to consult the original. By comparing this with Bloxam's unpublished manuscript notes, reproduced below, one may judge how much of value was omitted and how the little that remained was confounded in the editorial process.

Bloxam's notes were indispensable for what they revealed about now-extinct birds of Mauke in the Cook Islands (Olson, 1986b), and contain much of significance, though less dramatic, concerning Hawaiian birds as well. The following history concerning them has been pieced together from original correspondence now associated directly with the notes (Appendix 2). In 1890, Alfred Newton of Cambridge University initiated correspondence with the Rev. J. R. Bloxam, another brother of Andrew Bloxam, and was put in touch with Andrew's son, A. Roby Bloxam, in Christchurch, New Zealand. Newton was greatly interested in Hawaiian ornithology and was the driving force behind the *Aves Hawaiienses* (Wilson and Evans, 1890–1899), in which his influence is everywhere apparent. Several mistaken notions concerning some of Bloxam's specimens were introduced into the *Aves Hawaiienses*, apparently as a result of Newton's failure to pay close attention to Bloxam's notes. In 1893, A. R. Bloxam sent Newton some transcribed portions of his father's diary, as opposed to the natural history notes, which latter he brought to England in 1898, when Newton examined them at length. Apart from such little as was incorporated from these notes in Wilson and Evans's work, mainly concerning the Oahu thrush, nothing more was published concerning them.

In 1908, Newton's rival in Hawaiian ornithology, Walter Rothschild, somehow acquired Bloxam's natural history notes and it may not be coincidental that this was relatively shortly after Newton's death on 7 June 1907. Rothschild did not make any use of the notes, however, probably as this was quite some time after the appearance of his *magnum opus* on Hawaiian birds (Rothschild, 1893b–1900). At A. Roby Bloxam's behest, the notes were then forwarded to the British Museum (Natural History) where they are now located in the General Library under "MSS/BLO" (not "M8S BLO" as stated in Olson, 1986b). I have relied on a microfilm copy of these materials, which also includes the aforementioned correspondence summarized in Appendix 2.

A. Roby Bloxam retained his father's diary, however, and after his death in 1922 it passed to his son, Henry, whereafter it was eventually conveyed to the B. P. Bishop Museum in Honolulu. It had been lent to the Bishop Museum in 1904, when the portions pertaining to Hawaii were copied and later edited by Stella M. Jones and published (Bloxam, 1925). This contains information on Bloxam's collecting efforts that is extracted below. Two other journals kept by participants of the *Blonde* expedition were likewise published long after their creators had died. That of the botanist McRae was privately published shortly before Bloxam's diary appeared (McRae, 1922) and provides interesting corroboration of events in the former. Finally, the journal of the artist Dampier was resurrected after a century and a half (Dampier, 1971), but this contains little of relevance to ornithology.

The last archival source drawn upon here is several letters from Andrew Bloxam to the eminent naturalist William Swainson that are preserved in the Linnean Society of London, some of which are reproduced in whole or in part in Appendix 1.

BLOXAM'S ORNITHOLOGICAL EXCURSIONS IN THE HAWAIIAN ISLANDS

Although Bloxam may have spent more time collecting than indicated in his diary, it does not seem to have been an activity that occupied a great deal of his time, most of which was taken up with matters more social than scientific. Because the specimens he obtained

provide some indication of the relative abundance and conspicuousness of certain birds on Oahu in the early nineteenth century, it is important to document such information as is available concerning Bloxam's whereabouts, time afield, and the habitats he encountered. The following passages are from Bloxam's published diary (Bloxam, 1925: 37-43).

May 12. Went on shore with my trunk containing clothes, shooting apparatus, etc., to take up my abode at Kaahumanu's house. In the afternoon I went to look for wild ducks among the ponds towards Whyteete [Waikiki], but saw nothing but some bald coots and a brown owl.

May 13. At daybreak this morning myself, Mr. Macrae, botanist, and a boy to drive a donkey for carrying our knapsacks and provisions, set out on an excursion into the interior. After we had gone a few miles we found the road such that it was impossible for any horse or ass to travel. We therefore left the animal at a hut and walked onwards each carrying his own luggage. We climbed over several stone walls and crossed some gullies and ravines, and then passing over a steep hill came into the beautiful valley of Anu Anu [Nuuanu], which for a space of four or five miles from Honorura [Honolulu] is everywhere cultivated and covered with taro patches, here about three-quarters of a mile wide and rather raised in the middle. Down this several streams of water are led, which running to the right or left, feed the taro ponds with constant moisture . . . After we had gone four or five miles, the huts and cultivated plats became scarcer and we entered into a thick wood, the shade of which was very grateful in keeping off the powerful rays of the sun. Our path was very narrow, and in some parts muddy and bad, in other places very slippery over a reddish clay. We scarcely saw a single bird though we heard several in the thickets around. We found a great variety of ferns and other plants among which the ginger plant was very prominent. We saw several of that beautiful tree the *Eugenia malaccensis*, or Malacca apple, in full bloom with its bright scarlet flowers, the dooe dooe [kukui], or oil nut, (*Aleurites moluccana*) was very common. We could not find one sandalwood tree, all had probably been cut down about here for the purpose of barter.

[They then descended the precipice of the Nuuanu Pali]. The cliffs are the resort of innumerable tropic birds, which form their nests among the several crags. As we proceeded we saw but few land birds. Lizards and some large spiders were the only other animated creatures which we saw. When we had arrived at the bottom of the Parre [=pali] we turned to our left over a delightful path leading through open spaces diversified with shrubs and trees, for about a mile and a half, when we came to a settlement of four or five huts surrounded with taro patches, and melon grounds . . . After dining we took a walk towards the seaside about two miles distant, passing several huts on our way. We found dogs, pigs, and fowls in great abundance in almost all of them. As we approached the sea our further progress was arrested by a number of taro ponds, and as we could not approach the shore without going far round, we gave it up and returned to the hut where we intended to sleep. [Here they spent a "wretched night" amidst mice, fleas, and the noise of babies, dogs, and roosters.]

[14 May] We arose at daybreak heartily tired with our nights reception, and prepared to set off on our return back. The thermometer registered only 62 degrees and there was a heavy dew, but the beauty and sublime grandeur of the scenery compensated for all our troubles. The perpendicular rocks covered on their summits with shrubs and trees and furrowed down for a space as far as we could see. We soon began to ascend the pass, the sun rising at the time, amid the chirpings of small birds and the melodious notes of a brown thrush, the only songster on the islands. We at last gained the summit where the botanist was engaged some time in collecting several curious alpine plants which we found in great abundance. Having rested some time at the summit and made our breakfast of salt beef and taro root, I walked onwards towards Honorura, leaving Macrae collecting plants. I found several varieties of land shells of the pupa species, and passing by a tree of the *Eugenia* species in full blossom, I shot the male and female bird from whence the red feathers are taken for manufacturing the beautiful feathered cloaks and tippets peculiar to these islands. These birds are of a beautiful red or scarlet except their wings and tail, which are black; they [are] about the size of a sparrow, and have a long curved bill and live upon the nectar or honey of the flowers. They are called by the natives "hehiri" [Iiwi, *Vestiaria coccinea*], and are rather scarce in this island as the natives wage continual war against them for the sake of their feathers, and take them in great numbers by bird lime which is made from the breadfruit tree. I arrived at the town about eleven quite tired but much pleased with the excursion and went on board in the evening.

McRae's account of this excursion (McRae, 1922: 25) is somewhat more detailed but otherwise corresponds very closely with Bloxam's. One passage bears quoting:

On entering the woods we met with two trees of the *Eugenia malaccensis*, on which were a number of birds sucking its red blossoms. Mr. Bloxam had the luck to shoot one of them, which he said was a species

of humming bird. My meeting with this kind of rose-apple, apparently growing here indigenous, so far from habitations, rather surprised me in the Sandwich Islands. The other trees seen were common, —aleurites, and a species of acacia, used by the natives for making their canoes and paddles. On the ground below were mixed a variety of handsome ferns in all kind of places, moist and dry. Further towards the centre of the island, the trees became more lofty and the ground below them more shady and damp, where there appeared several species of *Psychotrias* and *Beselarias* with two or three tall-growing *Lobelias* with splendid clusters of flowers. There were also three kinds of *Metrosideros* with rich bunches of scarlet flowers. These were covered with birds, sucking honey from the blossoms, which we shot, but could not afterwards find, owing to the thick growth of ferns, plants, etc.

Again from Bloxam's diary (Bloxam, 1925: 44), we have the following:

Tuesday, May 17. [Went with a party in a launch on the Pearl River to] an island of nearly one mile in length, on this a quantity of rabbits have been turned up and are now become wild and numerous; they are of a black and white color and the island is named from them. There are no trees upon it, but it has a loose soil with a quantity of thick grass throughout the greater part.

Upon reaching Rabbit Island,⁷ where was the only hut, I walked about with my gun in search of rabbits, of these I saw several and also some wild ducks and brown owls flying about, but the mainspring of my gun unfortunately breaking put an end to my sport, we found a nest of young owls in a tuft of long thick grass. They are very numerous here and are constantly flying about all day and not like those in England, which come out only at dusk.

The malfunction of his gun on this occasion may explain why Bloxam seems never to have obtained a specimen of the owl (at least none that he preserved) to which his name has long been appended as describer (see account of *Asio flammeus*).

The last of his collecting excursions on Oahu of which there is a record is as follows (Bloxam, 1925: 46–47)

Friday, May 20. Went early this morning with the botanist on an excursion up the mountains, it rained hard several times, and the abruptness and slipperiness of the path rendered our walk fatiguing. We at last arrived among a quantity of Acacia trees where I shot several birds of different species. The view of the town, sea and shipping from here was very fine, the extent and entrance of the harbor easily distinguished by the color of the water and Punchbowl Hill. The large volcanic crater lay just under us. I returned early, leaving Mr. Macrae botanizing.

Saturday, May 21, 1825. Employed preserving birds; the ants, I find, make sad ravages with them.

Although on other occasions Bloxam writes about visits and picnics in the countryside, there is no further mention in his diary of his collecting birds on Oahu. In his letters to Swainson (Appendix 1), he complains almost querulously about the poverty of birdlife in the islands and the futility of his exertions to secure specimens on Oahu, but this may be read as something of an apologia. He did report birds to be more numerous on Hawaii than Oahu, but was not stimulated by such abundance to prepare more than a couple of skins there.

The single specimen of *Moho* that he brought back was purchased from a native and so were all but three of the "red birds" that he acquired (Appendix 1). If he collected no more than three of the *Vestiaria* and *Himatione* (and perhaps "red birds" would have included *Loxops coccineus* as well) in his series, his personal "take" of Hawaiian land birds that he preserved may amount to no more than fourteen—a poor showing indeed for the amount of time he was in the islands. These fourteen may have been shot mainly on the two excursions of 13–14 May and 20 May 1825. McRae's account suggests that very few specimens were actually recovered on 13 May, so that the majority of whatever portion of Bloxam's Oahu specimens derived from the first excursion, almost certainly including the thrushes, were probably obtained on 14 May. Yet McRae (1922: 28) indicates that Bloxam left the woods to return by ten o'clock on that date. On the second excursion, McRae

(1922: 32) complained rather bluntly about Bloxam's seeming lack of zeal and apparent uncooperativeness: "Mr. Bloxam accompanied me to the woods, but by 8 a.m. he said he had shot enough birds to skin and would go home. I asked him to shoot a few for me, as he had enough for himself, but he refused, saying all his duplicates were for Lord Byron."

That Bloxam may have had other plans for his duplicates is revealed in his letters to Swainson (Appendix 1), wherein he mentions Hawaiian specimens that might be forwarded by his brother, and others that were to be sent by a midshipman Kemp. Whatever became of the tongues and partial specimen of *Moho* that he mentions is not known. Any "duplicate" specimens that may have been distributed privately would have been dispersed surreptitiously, as they were patently considered to be government property. If any still exist they would thus probably be devoid of any association with the *Blonde*.

McRae (1922: 40) also did some ornithological collecting, as on 29 May in the Nuuanu Valley he "managed to shoot some birds, one being particularly handsome. Its feathers were all red, and it is only met with when sucking the red blossoms of the metrosideros." This may be the specimen of *Vestiaria coccinea* attributed to Lord Byron's expedition in the Edinburgh museum (see species accounts).

Such industry as Bloxam was inclined to expend on behalf of natural history appears to have flagged almost entirely by the time the *Blonde* ventured to the island of Hawaii. Here he joined an expedition to climb Mauna Kea, where he certainly examined a Dark-rumped Petrel (*Pterodroma phaeopygia*) in the hand, but his notes indicated that the only specimens of bird preserved from this island were an elepaio and a noddy (see the accounts of *Chasiempis* and *Anous* below).

BLOXAM'S SPECIMENS AND FIELD NOTES

Fortunately, we know precisely how many and what kind of birds Bloxam himself preserved in the Hawaiian islands and turned over to the Lords of the Admiralty, as he supplied a detailed list. The following is a transcription of his letter of conveyance to the Secretary of the Admiralty, taken from a copy in Bloxam's hand included with his original notes in the British Museum. It is undated but was written shortly after the return of the *Blonde* in March 1826.

My Lord,

I beg leave to enclose for the information of the Lords of the Admiralty a report of the objects of Natural History etc collected by me in H.M.S. *Blonde*. They consist of two cases and a barrel, the latter comprising geological specimens procured from the different places & Islands we touched at, together with a few silver and copper ore specimens from Coquimbo, a specimen of Tungsten from New South Shetland, and an interesting series of volcanic rocks, lava & sulphur from the interior of the crater of the volcano Pali [=Kilauea, abode of the goddess Pele] in Owhyhee. The other two cases consist of about one hundred specimens of birds, a great number from Chili, the rest from the Sandwich & other islands in the Pacific. Among the sea birds are the albatross from C. Horn & several species of the Petrel & Tern. Insects, shells & marine subjects from the coast of America & Sandwich Islands constitute the remainder of the collection.

The birds are skinned & carefully preserved with the arsenical soap as recommended by Mr Bullock [see Bullock, 1817] & both these & other parts of the collection are separately [*sic*] labelled with their names & from whence procured.⁸ I had also procured for the acceptation of their Lordships two Condors from Chili, the vulture of the Andes, male & female, both however I regret to state died on the passage.

I beg leave also to send their Lordships a journal of the observations & remarks made during the voyage & at the several places we touched at.

Their Lordships will perceive that the range of the *Blonde* was too limited to have allowed making a larger collection. I regret particularly being obliged on account of the unfavourable winds to pass by Otaheite

& the Society islands, as it would have been interesting to have compared the ornithology of the two groups of islands together, as the Sandwich chain present features very distinct from other known parts of the world.

I beg to return my most sincere thanks to their Lordships for their kindness in appointing me to a situation so congenial to my love of Natural History & shall ever remember it with gratitude.

The cases will be deposited in the Custom House & await their Lordships determination respecting them,

I remain your very obedient servant
(Signed) Andrew Bloxam
Naturalist H.M.S. *Blonde*

Bloxam's list of specimens from the "Sandwich Islands", compressed below, included 25 specimens as follows in his own terminology (note that No. 16 is used twice, an error that was repeated in more than one transcription of his list).

- 1-5. Nectarina coccinea [the last noted as "the first year's bird"].
- 6-11. Nectarina Byronensis
- 12-16. Nectarina flava
- 16 [bis]. Nectarina nigra
- 17. Loxia Psittacea
- 18-20. Muscicapa Sandwichensis
- 21-22. Fringilla rufa
- 23. Turdus Sandwichensis
- 24. Turdus Woahensis

These were not his only Hawaiian birds, however, as at least two terns that he listed among the specimens from "Chili" certainly came from the Sandwich Islands instead. These are:

- 87. Sterna Owhyheensis Stolidia
- 91. Sterna Woahensis

Other seabirds in this list that occur in Hawaiian waters are:

- 92. Phaethon aethereus [= *P. rubricauda*]
- 93. Pelicanus Sula [= *Sula leucogaster*]
- 95. Sterna Stolidia [= *Anous stolidus*]
- 96. Pelicanus Sula

The last four were probably taken at sea in the vicinity of Clipperton Island (see note 15), or elsewhere, such as in the Galapagos. With the exception of two specimens of noddy terns (*Anous*), discussed below, and two Inca Terns (*Larosterna inca*), none of the seabirds from the voyage of the *Blonde*, which also included a penguin, three petrels, and an albatross, seems to have survived.

This list was the basis of Wilson and Evans's (1899: xiii) statement that Bloxam "obtained in the Islands 25 specimens of 9 species of Land-birds." What the history of these specimens may have been between 1826 and the present is somewhat problematical. In an undated fragment of a letter to A. Roby Bloxam, probably written in 1898, Alfred Newton made the following comments: "It is very annoying to find that so few of the specimens collected by your Father should be still in existence. Of the 25 from the Sandwich Islands presented to the British Museum, only 12 were in existence 30 years ago, and only 9 now. Yet I doubt that they were, as he states in his (draught) letter to the Secretary of the Admiralty, all well preserved. Twenty [illegible word] specimens were sent by the Lords of the Admiralty to the Museum at Edinburgh, and a most exhaustive search shows that only 2 of them are to be found!"

There are still two specimens in the Royal Museum of Scotland, Edinburgh, from “Lord Byron’s expedition” that certainly or possibly originated in the Hawaiian Islands—one *Vestiaria coccinea* and one *Anous stolidus*.⁹ The records of that museum indicate that twenty specimens from the voyage of the *Blonde* were presented in 1826. These were from various localities, but only five can now be accounted for (including the two just mentioned). Wilson and Evans (1896: 126) say that Bloxam’s specimens of *Chasiempis* were in the British Museum as late as 1868, yet a decade later Sharpe (1879) listed only a single specimen, and that was from the Sclater collection. The nine Hawaiian specimens from the *Blonde* mentioned by Newton as being in the British Museum at the time he wrote (1898) correspond exactly to the number of Hawaiian land birds attributed to Lord Byron in the *Catalogue of Birds in the British Museum* (Gadow, 1884: 285; Sharpe, 1885: 9, 10, 50, 52).

Where the remainder were at that time is anybody’s guess, but they were probably somewhere in the collections of the British Museum, as all had been entered in the Old Vellum Catalogue in the 1830s. This is a series of 44 volumes, most of which are arranged systematically by species, that was compiled mainly by G. R. Gray in the 1830s, the paper being watermarked 1832 to 1834, with entries ceasing after 1837 (Knox and Walters, 1993). Many of the more venerable specimens in the British Museum were entered under this system and have received no subsequent numerical designation. In the accounts that follow, Bloxam’s specimens are indicated by the abbreviation OVC (Old Vellum Catalogue), followed by the volume number, the number assigned to a given species in that volume, and a letter designation indicating a given individual within that species, viz.: OVC 26: 56d.

Bloxam’s specimens may originally have been preserved as flat skins. At one time they had been mounted and most were subsequently dismounted. Yet despite this, and contrary to Newton’s expectations, they are mainly in quite good condition, as is the specimen of an extinct starling that Bloxam preserved from Mauke, in the Cook Islands (Olson, 1986b). Two specimens of *Vestiaria coccinea* (OVC 26: 54a, c) are noted on their labels as having been presented by the council of the Royal College of Surgeons and were re-registered as 1845.2.21.295 & 297,¹⁰ but the College surely received them from the British Museum in the first place, which suggests that other specimens from the *Blonde* that have gone missing may have been misplaced during similar exchanges.

Bloxam made numerous transcriptions of his field notes, many of which are incomplete. Among those that I examined on microfilm were some half dozen different versions of at least the first few Hawaiian species accounts. Additional partial versions are included along with Bloxam’s diary in the Bishop Museum, some in a schoolboy’s copy book with a polar bear printed on a blue cover. One complete transcript was certainly forwarded to the Admiralty, but I have not attempted to trace it, if it still exists (see Newton’s remarks in Appendix 2), and it was this that was used by Maria Graham and made available to J. E. Gray, upon which the published appendix is based. Another was evidently sent to William Swainson (Appendix 1). The notes reproduced here are from the most complete transcription, in the best hand, of those in the British Museum. What I have called the “rough notes” (Olson, 1986b) in some cases have additional or variant information that is identified in brackets as being from the rough notes.

The natural history publications available to Bloxam during the voyage are mentioned in the Swainson correspondence (Appendix 1). Of these, the only one concerning ornithological nomenclature was Turton’s (1800) English edition of Gmelin’s continu-

ation of Linnaeus's *Systema Naturae*.¹¹ When Bloxam could not identify a specimen with a species in that source he regarded it as new. His lack of familiarity even with British species of birds, however, is evident in his naming the Ruddy Turnstone as a new species, *Tringa oahuensis*. Bloxam once toyed with the idea of working up his collection himself, but nothing came of the notion. He seems to have been too preoccupied even to ride the sixteen miles from Rugby to Warwick to consult Swainson in person, and the end of his correspondence with that gentleman appears to have terminated his involvement with the natural history of the *Blonde* voyage for all time.

SPECIES ACCOUNTS FROM BLOXAM'S NOTES, WITH ANNOTATIONS

In Bloxam's diary, virtually all mention of collecting and preparation of specimens pertains to Oahu. Of the taxa that he obtained whose island of origin can be determined from their plumage, all but one are endemic to Oahu. In one set of his rough notes, the species accounts are headed "Woahoo", whereas the single specimen of Elepaio (*Chasiempis sandwichensis*) that he obtained on Hawaii is clearly identified in his notes as coming from "Hido" (=Hilo). With this exception, and that of a specimen of *Anous tenuirostris* from Hilo Bay, we must assume that Bloxam's entire Hawaiian collection was obtained on the island of Oahu. Apart from *Moho apicalis*, which was also obtained on Dixon's (1789) voyage, Bloxam's specimens appear to be the earliest in existence from Oahu for their respective species.

In the accounts that follow, passages from Bloxam's unpublished field notes are set off in smaller type. Bloxam's order of presentation has been maintained, except as noted for one short passage. This results in one species appearing twice (Oahu Amakihi). For each species account I have inserted a centered heading with the current English and scientific name, underneath which, also centered, is the name as it was published in Bloxam (1827—see Appendix 3). Where Bloxam has given a "native name" I have given the currently accepted Hawaiian name in brackets.

Sandwich Islands

Aves

There are some species of birds probably peculiar to these islands which feed principally upon the nectariferous flowers of the *Eugenia Malaccensis*, or Malacca apple, which is abundant in all the islands. From three different species of these birds the feathers are procured which are used in making those beautiful clokes & helmets for which these islands are celebrated. The yellow feathers are the most rare & are found upon a bird whose color is black excepting a tuft of yellow feathers under each wing—the sail [? word not clear]. These are paid as a tax or tribute by the natives to their superior chiefs or king, & are sometimes so difficult to procure, as to be sold at times among the natives themselves at the rate of a Spanish dollar for five feathers. The bird from which the red feathers are procured is more common & consequently less esteemed.

The following is the method used for procuring these birds, which belongs to a class of men brought up from their infancy to it. An incision is made into the bark of the breadfruit tree from which flows a thick fluid substance, which being collected is boiled & made into a kind of Birdlime. A particular tree is then selected, one generally of the *Eugenia Malaccensis* which produces flowers. The boughs and twigs of this are anointed all over with birdlime & the surrounding trees of the same kind stripped of their flower[s]. This entices the birds to the particular one smeared over with lime & they are caught in great numbers.

Tho' in feeding upon the nectar of flowers they resemble the humming bird, their flight is totally different, resembling more particularly those of the finch tribe. They have no song but merely a chirping of a loud note. They do not bear a resemblance to the family of Creepers, *Certhia*, among which they have been classed & as I believe they come under no known species, I have for their habits termed them the Nectarina class which are now described.

The last paragraph is interesting and revealing, as is the following passage, which in Bloxam's original notes appears after the account of *Moho apicalis*. Both passages were omitted from the published version.

The preceding birds [= *Nectarina coccinea*, *N. byronensis*, *N. flava*, and *N. niger*] evidently from their manners & habits differ from other known species. I have therefore termed them the *Nectarina* genus.

That Bloxam considered the distinctiveness of the Hawaiian nectarivorous birds to be important is also reflected in his correspondence with Swainson where again he mentions that he has "termed them the *Nectarina* class." (Appendix 1).

Most authors who have cited it have rendered Bloxam's spelling as *Nectarinia*, doubtless on the assumption that he was using Illiger's (1811) name *Nectarinia*, now applied to the Old World sunbirds (Nectariniidae). But it is virtually certain that Bloxam would not have known of Illiger's name, his only stated source of ornithological nomenclature being Turton (1800), which contains no such genus. It is clear from the preceding evidence that Bloxam intended to create a new genus containing the species *coccinea*, *byronensis*, *flava*, and *niger*. Therefore the name *Nectarina* Bloxam (1827) is a validly published generic-level taxon with Bloxam as its author,¹² although it has never previously been recognized as such.

Bloxam deserves some credit for recognizing that these Hawaiian nectarivores were wrongly associated with the mainland creepers of the genus *Certhia*, which had long been the prevailing view. And it may also be added to his credit the observation that the flight of some of these birds was finch-like, as it would be over a century before it was first suggested that the Hawaiian Drepanididae were derived from cardueline finches (Sushkin, 1929), and even longer before the suggestion was accepted (e.g. Raikow, 1977). But at the same time he failed to recognize that his genus *Nectarina* included birds of two quite different families (*Moho* belonging to the Meliphagidae), or to recognize that the more finch-like drepanidines such as *Loxops* and *Psittirostra* should also have been associated with his *Nectarina*.

Iwi *Vestiaria coccinea* (Forster)

Nectarina coccinea ("Linnaeus" = Gmelin)

N. 1. Native name Hehivi ['i'iwi]

Turton's Linnaeus *Certhia coccinea*

Nectarina coccinea

L. 5½ Inch. Bill much curved & sharp pointed, yellowish. Nostrils at the base covered with a hard membrane. Length of the curve of the bill 1¼ inch. Tongue long & tubular, divided at the extremity into minute threads or filaments. The whole of the head & body a beautiful scarlet red, except the wings & tail, which are black, & two or three scapula feathers on each side a dull white. Bill & legs yellowish red. Toes 3 forward, 1 backward, middle connected with the outer as far as the first joint. Tail feathers 12. These birds the first year after they have left the egg are of a mottled yellowish green ["which grows into a deep orange yellow as they become older" in rough notes] with dusky bill & legs. They have a simple chirping note. I have preserved several of them alive for some days, feeding them upon sugar & water, but their delicate nature prevented them living long. They build on the tops of trees & generally associate in pairs. The read [*sic*] feathers used in making the cloaks are chiefly procured from these birds. They are become scarce on several of the islands, owing to the numbers annually destroyed by the natives. [In the rough notes this bears the name "*Nectarina flavirostra* AB" with the specific name crossed out and "*coccinea*" substituted.]

This is the Iwi or *Vestiaria coccinea* of authors, a species once widespread in all the main islands. The specimens numbered 1 through 5 on Bloxam's inventory are all still present in the British Museum collections (OVC 26: 54a-e), with 54e being a juvenile and doubtless the "first year's bird" noted in Bloxam's inventory. There is an additional

specimen of this species in the Royal Museum of Scotland that is attributed to "Lord Byron's Expedition," perhaps the bird mentioned as taken by the botanist McRae.

Apapane *Himatione sanguinea* (Gmelin)

Nectarina byronensis Bloxam, 1827

N. 2. Native name Apapanie ['*apapane*]

Turton's Linnaeus *Fringilla coccinea*

Nectarina byronensis

L. 4½ or nearly 5 inches. Bill black, slightly curved, sharp pointed, ¾ inch ["½ inch" in rough notes] long. Nostrils at the base covered with a hard membrane. Tongue long & tubular divided into minute threads at the tip. Legs black; [toes] 3 for[ward], 1 back, the middle connected with the outer as far as the first joint. Head, back, breast, & neck a sanguine red, deeper colored on the head. Belly dull white. Wings & equal tail black, the latter of 12 feathers. Tertiary quills, greater & lesser wing coverts edged with red. Similar in manners, habits, & food with the *N. coccinea*. The feathers of this bird are also used by the natives for making cloke[s]. [In the rough notes this bears the name "*Nectarina nigerrostra* AB" with the specific name crossed out and "*Byronensis*" substituted.]

It is not clear why Bloxam overlooked the species *Certhia sanguinea* in Turton (1800) and confounded his specimens of Apapane with *Fringilla coccinea* Gmelin, 1789 (= *Loxops coccineus*), which is an altogether different bird, examples of the Oahu form of which Bloxam obtained himself. He must, however, have given some thought to the nomenclatural consequences of placing what he thought to be *Fringilla coccinea* in his new genus *Nectarina* along with *Certhia coccinea*, as there would then be two taxa of *Nectarina* with the same specific name. This must explain his coining the new name *byronensis*, which would otherwise seem superfluous.

The description was omitted in the published version, which leads to the problem of the name *Nectarina byronensis* being identified with the earlier name *Fringilla coccinea*, which Bloxam's unpublished description, the published Hawaiian name, and the specimens themselves show to be erroneous. Warren and Harrison (1971) considered *Nectarina byronensis* Bloxam to be a *nomen nudum*. The name was reintroduced by J. E. Gray (1831: 12), however, as *Drepanis byronensis*, with a full description based on the same specimens, which is unquestionably a valid description and just as certainly a junior synonym of *Certhia sanguinea* Gmelin (1789). I now find that *Drepanis byronensis* actually dates from an earlier publication of J. E. Gray (1829), where it was described and illustrated (p. 390 and facing plate), rather than from the 1831 note in *Zoological Miscellany*.) Five of the six specimens in Bloxam's inventory were cataloged as OVC 26: 55a-e and all are still extant. Warren and Harrison (1971) indicate that 55a is the specimen that Sharpe (1885) regarded as the type of *byronensis*, but all five specimens would appear to have equal status as syntypes. If there actually were six specimens originally, the missing one has gone untraced, but I suspect there may have been an error in Bloxam's numbering.

Oahu Amakihi *Loxops flavus* (Bloxam), new combination

Nectarina flava Bloxam, 1827

(see also *Fringilla sandwichensis* Bloxam, 1827, below)

N. 3. Native name Amakee ['*amakihi*]

Nectarina flava

L. 4½ inch. Bill dark brown, slightly curved, sharp pointed, ½ inch long, upper mandible rather longer than the lower. Nostrils at the base covered with a hard membrane. Tongue tubular, divided at the tip into minute filaments. Neck, breast, & belly yellow. Upper parts a yellowish olive green. Quill feathers brown, slightly edged with green. The male bird of a deeper yellow than the female. Legs brown. Toes 3 for[ward], 1 back;

middle connected with the outer as far as the first joint. Tail short, brown, feathers edged with yellowish green. Habits & manners same as preceding [sic]. I found also caterpillars & slugs in its maw. [Said in the rough notes to resemble the "willow wren" or "Motacilla trochilus" which is now the Willow Warbler, *Phylloscopus trochilus*].

This account pertains to the Amakihi of Oahu, which has usually been considered to be a subspecies of *Loxops virens* (Gmelin), the nominate form of which comes from Hawaii. Bloxam's name *flava* was used to some extent in the earlier literature, being applied either to the population of Oahu or that of Hawaii, but it later dropped out of use. The name of the Oahu Amakihi was thereafter always some combination based on *Himatione chloris* Cabanis (1850), a treatment that may be traced back to the erroneous conclusions of Stejneger (1887), followed by Wilson and Evans (1896: 29–30), who stated that "What is said to be the type of *Nectarinia* [sic] *flava* of [Bloxam], and of *Drepanis flava* of J. E. Gray [1831], still exists at the British Museum, and certainly appears to be the form found in Hawaii and not that of Oahu; otherwise the presumption would be that Bloxam's specimens were obtained in Oahu, in which case most of the references to *Nectarinia*, *Drepanis*, or *Himatione flava* would be more properly entered under *H. chloris*." The reverse would actually be the case, as *flava* Bloxam has 23 years priority over *chloris* Cabanis. Rothschild (1900: 133), who also claimed to have examined the type in the British Museum, likewise regarded *flava* as a synonym of *virens*. As a result of these treatments the name *Nectarina flava* has since erroneously been synonymized with *Certhia virens* Gmelin (1789) (e.g. Mathews, 1930: 809).

As established above, all of the Hawaiian land birds that Bloxam forwarded to the Lords of the Admiralty came from Oahu, save for a single *Chasiempis*. The three specimens of Bloxam's *N. flava* are still in the British Museum (OVC 26: 56a–c), two being mislabelled as 55a and 55c. Sharpe (1885) regarded 56b as the type and Warren and Harrison (1971) noted "another syntype, a relaxed mount with broken bill" (=56a), but all three specimens have equal status as syntypes of *Nectarina flava*. Although they are dingy with age, they do not have the decidedly greenish ventral coloration of nominate *virens* and closer examination shows that the less soiled bases of the feathers are quite yellow. Furthermore, there is no sign of yellowish on the forehead as is typical of nominate *virens*. There can be no question that these are examples of the Oahu population. Therefore, *Himatione chloris* Cabanis, 1850, is a junior subjective synonym of *Nectarina flava* Bloxam, 1827.

It has recently been suggested, on the basis of mitochondrial DNA variation, that the Oahu Amakihi is quite distinct from populations of *L. virens* to the east or from the Kauai Amakihi (*L. stejnegeri* Wilson) and may deserve full specific rank (Tarr and Fleischer, 1994). Regardless, Bloxam's name *flavus* has priority, so the Oahu Amakihi should now be known as *Loxops flavus* or *Loxops virens flavus*,¹³ depending on the status accorded to it.

Oahu Oo Moho apicalis Gould

Nectarina niger ("Linnaeus" = Gmelin)

N. 4. Native name Uho ['o'o]

Turton's Linnaeus *Merops niger*

Nectarina niger

L. from 12 to 14 inch. Bill black, slightly curved & sharp pointed, 1¼ long. Nostrils linear, at the base covered with a hard membrane. Tongue very long & tubular, divided half way into two threads, each of which is again divided half way into two more. The extremities of all four are divided into minute filaments. Whole of the bird a deep shining black, except a line of yellow feathers extending on each side from under

the wings to the vent. These are the feathers esteemed so valuable by the natives for their softness and scarcity & the royal clokes are principally made from them. Legs are black. Toes 3 for[ward] 1 back, strong formed for perching, the middle connected with the outer as far as the first joint. Tail very long, wedge shaped; two middle feathers long, also tipped with white & rather pointed at the end. There are two or three varieties of this bird or probably the difference of age may cause a difference of appearance among them. This is, however, very slight. Their note is a harsh chirp of two or three different tones. They feed principally on the nectar of the flowers of the *Eugenia Malaccensis*. I kept some alive which the natives brought me, tho' almost entirely destitute of feathers, for three of four weeks, feeding them principally upon sugar & water. They took flies, however, which came into their cage, with great quickness & adroitness. They are apparently a strong & hardy bird, but the cold would probably besides the nature of their food, hinder them from being taken to England. They are now very scarce in all the islands. I did not see even one in the different excursions I made, & the natives asked a high price for the very few they brought to me & almost the whole of these were destitute of feathers. I preserved only one tolerable specimen the whole time I was upon the islands—& even from that some of the yellow feathers had been plucked out.

Merops niger Gmelin (1789) is a synonym of *Moho nobilis* (Merrem, 1784), the *Moho* of Hawaii. It was not until 1860 that the name *Moho apicalis* Gould (1860) was provided for the species with white apices to the tail feathers, and it was even later that this was determined to have inhabited Oahu. Wilson and Evans (1894: 104) considered that Bloxam's specimen "may well have been obtained" on Oahu, but had his notes been studied and comprehended earlier, the true island of origin of *Moho apicalis* might have been determined much sooner. Bloxam's specimen (OVC 26: 19a) is much larger than a syntype of the species (BMNH 60.11.26.51) and is almost certainly a male.

Although Bloxam did not encounter this species himself, his time afield was evidently so minimal that this is not necessarily an indication of the actual scarcity of the species at the time. J. K. Townsend and F. Deppe obtained several individuals from the Nuuanu Valley in 1837 (Olson and James, 1994), so *M. apicalis* surely was present in that locality when Bloxam was there twelve years earlier. The species was not collected again after 1837, however. Bloxam's notes should serve as a reminder that existing scientific specimens of *M. apicalis* or *M. nobilis* that were obtained from native hunters may have had some of the choicer yellow feathers removed before they were preserved.

Ou *Psittirostra psittacea* (Gmelin)

Loxia psittacea "Linnaeus" = Gmelin

N. 5. Native name Ohu ['o'u]

Turton's Linnaeus *Loxia Psittacea*

Parrot billed Grosbeak

L. 7 inches. Bill strong, upper m[andible] much hooked, longer than the lower, which is straight. Length of the upper m[andible] ½ inch. Color of bill light horn. Nostrils at the base oval, tongue short, entire. Color, head & neck yellow, rest of body ash, lower parts of the back an olive green, wings & tail brown, feathers edged with olive green ["tail coverts greener than back" in rough notes]. Tail short, feathers 12. Belly & vent dirty white. Legs brown, toes strong, the middle connected with the outer as far as the first joint. Feeds on berries, seeds, & slugs.

There are two specimens of *Psittirostra psittacea* in the British Museum that have been attributed to Lord Byron's voyage for more than a century (Sharpe, 1885), one of them erroneously, however. The first (OVC 19: 87a) is an adult male and is surely the specimen listed in Bloxam's inventory. The second (OVC 19: 87c) is a juvenile specimen in very poor condition. Examination of the Old Vellum Catalogue shows that this and 87b, which was exchanged to "Rüppell",¹⁴ had been purchased and did not originate in the voyage of the *Blonde*. A radiograph confirms that the style of preparation is not that of Bloxam. The Ou was once an abundant bird throughout the main Hawaiian Islands, although it is now

nearly extinct. It disappeared first from Oahu, where it must still have been relatively common during the visit of the *Galathea* expedition in 1846 (Olson and James, 1994).

Oahu Elepaio *Chasiempis ibidis* Stejneger
Hawaii Elepaio *Chasiempis sandwichensis* (Gmelin)
Muscicapa sandwichensis "Linnaeus" = Gmelin

N. 6. Native name Erepeio [*'elepaio*]

Turton's Linnaeus *Muscicapa Sandwichensis*

L. 5 ½ inch. Bill straight, slender, ½ inch long, black, bristled at the base. Head & back rufous, belly white, wings & tail dark brown, latter 12 feathers tipped with white. The female ["male bird" in rough notes] is not so ferruginous about the back & head & has the tail coverts a dull white; similar in other respects. Flies & slugs found in its maw.

This entry clearly pertains to the elepaios of the genus *Chasiempis*. Bloxam's inventory lists three specimens, of which one is indicated elsewhere in his notes to have been collected at "Hido" (=Hilo). This is borne out by the fact that one of the three specimens from the voyage of the *Blonde* (OVC 11: 109b) is clearly identifiable by plumage with *Chasiempis sandwichensis ridgwayi* Stejneger, the type locality of which is Hilo, whereas the other two (OVC 11: 109a and 109c) are of the Oahu form, *C. ibidis* Stejneger (= *C. gayi* Wilson auct. [see Olson, 1989b, for the nomenclature of *Chasiempis*]). These were evidently the first specimens of the Oahu Elepaio to be preserved, although 60 years elapsed before the taxon was named (Stejneger, 1887).

Oahu Akepa *Loxops coccineus wolstenholmei* Rothschild
Fringilla rufa Bloxam, 1827

N. 7. Native name Akepakepa [*'akepa*]

Fringilla rufa

Length 4¼ inch. Bill hard, straight, short, conical, ¾ inch long, sharp pointed. Tongue short, tubular, divided into minute filaments at the tip. Whole of the body rufous, deeper on the head & breast ["similar to color of the robin *motacilla rubecula*" in rough notes]. Wings & tail brownish, edges of the feathers tinged with rufous. Toes & legs strong, formed for perching, black colored.

Bloxam's two specimens of Oahu Akepa (OVC 20: 187a and 187b) are syntypes of the bird long known as *Loxops rufa* Bloxam or *Loxops coccinea rufa* Bloxam. Both are labelled 187a, one obviously erroneously. As this was one of Bloxam's most original discoveries, it is unfortunate that his name was preoccupied by *Fringilla rufa* Wilson (1811), so that the name *Loxops wolstenholmei* Rothschild (1895) must be used for this taxon instead (Olson, 1986a).

Akepas are the smallest of Hawaiian birds and dwell mainly at the ends of branches high in treetops. Either the Oahu Akepa was relatively common in 1825 to have been noticed at all by Bloxam, given the little time he devoted to collecting, or these may have been among the red birds that he obtained from native trappers. The Oahu Akepa was still fairly common in 1837 when collected by Townsend and Deppe. The last specimen was obtained in 1893 and the form is now extinct.

Oahu Amakihi *Loxops flavus* Bloxam
Fringilla Sandwichensis Bloxam, 1827

N. 8. *Fringilla Sandwichensis*

A. L. 5 inches. Whole of the back a dull olive green. Greater & lesser wing coverts tipped with a dirty white, wing & tail brown, edged with green. Belly greenish white. Bill straight, sharp pointed, ½ inch long. Tongue at extremity bifid.

B. Head, back, & tail coverts yellowish green. Tail & wings brown. Greater & lesser wing coverts slightly green. Forehead, neck, breast & belly yellow. Vent feathers dirty white. This & the preceding [*sic*] being shot at the same time & in the same tree are probably male & female.

The name *Fringilla sandwichensis* as published in Bloxam (1827), with its detailed description but little altered, has been entirely overlooked. Considering that other Bloxam names are well known and have been long used, it is curious that no one has ever attempted to resolve the identity of *Fringilla sandwichensis* or place it in synonymy. Apparently only G. R. Gray (1859: 28) ever mentioned it again, citing it with a query in the synonymy of *Loxops coccinea*. Even the assiduous Mathews (1930), who seems to have consulted the published volume of the voyage, fails to account for it.

The description of the plumage, in combination with a supposedly straight bill and bifid tongue, as contrasted with the "slightly curved" bill and tubular tongue that Bloxam describes for his *Nectarina flava*, would suggest very strongly that this name might refer to the Oahu Creeper *Paroreomyza maculata* (Cabanis, 1850). Fortunately, both of Bloxam's specimens still exist. Significantly, both appear in Bloxam's inventory under *Nectarina flava*, which is also how they were catalogued at the British Museum (OVC 26: 56d and 56e). The specimens are not Oahu Creepers, but juvenile examples of the Oahu Amakihi, in which the wings are also invariably strongly barred. In the published version, Bloxam's detailed description of specimen "B" is simply rendered as, "Differing, in being of a much lighter colour." As this cannot really be inferred from Bloxam's manuscript description, the implication is that this was written by the compiler, or probably her consultant, J. E. Gray, with reference to the actual specimen. One of the two specimens (56e) is lighter below, so that the published descriptions correspond exactly to the specimens, except that the bills are not really straight. There can be no doubt that these are the syntypes of *Fringilla sandwichensis* Bloxam (1827), though they were not recognized as such in Warren and Harrison (1971). As the names were proposed simultaneously, as first reviser I choose *Nectarina flava* Bloxam (1827) to take precedence over *Fringilla sandwichensis* Bloxam (1827).

**Oahu Thrush *Myadestes lanaiensis woahensis* Bloxam
(in Wilson and Evans)**

Turdus sandwichensis "Linnaeus" = Gmelin

N. 9. Native name Amawee [*amaui*]

Turton's Linnaeus. *Turdus Sandwichensis*.

A. L. 8 inch. Belly light ash. Back, tail, & wings ash brown. Bill slender, straight, ¼ inch long, bristled at the base. A beautiful songster.

B. *Turdus woahensis*

L. 7½ inch. Upper parts olive brown, edges ["extremities" in rough notes] of the feathers much lighter colored. Tail & wings brown. Bill bristled at the base. [In the rough notes this is called "another species" and was assigned number 10, with the remaining species numbered accordingly.]

This is by far the most interesting of Bloxam's Hawaiian discoveries, as no one else ever obtained or reported a thrush on Oahu, where the species must have become extinct, or greatly diminished in number, by 1837, when the collectors J. K. Townsend and F. Deppe visited the island (Olson and James, 1994), where they operated out of a house on the leeward side in the Nuuanu Valley (Townsend, 1839). Bloxam (1925: 43), however, relates that he heard the melodious song of the thrush somewhere on the windward slope before reaching the summit of the pali, though Townsend and Deppe in all likelihood would have ranged this far as well.

In the published version (Bloxam, 1827), Bloxam's manuscript name *woahensis* was suppressed and his thrushes were referred to as a variety of *Turdus sandwichensis* Gmelin (1789). This name has been considered to be of uncertain application, but the description,

based on a lost Cook voyage specimen, best conforms with the immature plumage of the Hawaii Elepaio, *Chasiempis sandwichensis* (Olson, 1989c).

Wilson and Evans (1899: xiii) reprinted Bloxam's descriptions with his manuscript name *Turdus woahensis*. Further on the same page they suggested that the species "may properly be called *Phaeornis oahensis*," which has traditionally been considered to be the original citation for the species, with Wilson and Evans as the authors. The alternate spelling *Phaeornis oahuensis*, also used by numerous subsequent authors, appears in their table on page xxiv, and all three spellings (*woahensis*, *oahensis*, and *oahuensis*) are indexed in the same work (Wilson and Evans, 1899: 255, 257). As the description is taken entirely from Bloxam's notes, to which Wilson and Evans added nothing save two competing emendations of Bloxam's name, I consider that the correct citation of the original description should be *Turdus woahensis* Bloxam in Wilson and Evans.

Wilson and Evans (1899) assumed that the specimen that Bloxam referred in manuscript to *Turdus sandwichensis* was an example of *Myadestes obscurus* (Gmelin) from Hawaii, whereas his notes clearly indicate that both of his specimens of thrush came from Oahu. The whereabouts of these specimens were never determined and it has long been thought that both were lost (e.g. Greenway, 1958). Bloxam's description of *T. woahensis* as "olive-brown, edges of the feathers much lighter color" was a confusing way of saying that the bird was spotted. Thus what he actually had was an adult and a juvenile of the Oahu thrush.

In 1985, Helen James and I discovered what must certainly be the type of Bloxam's *Turdus woahensis* in the general collections of the British Museum. This is a juvenile bird (Figure 1) that had at one time been labelled "*Geocichla*" (= *Zoothera*), amongst which it may have been overlooked for many years. It bears a registry number "150a," which does not correspond with any entry in the Old Vellum Catalogue or any other register now in existence. The label had been annotated "Cannot find any data for this but it appears to be *lanaiensis* —DG [=Derek Goodwin]". I concur with this identification, as the specimen is clearly not referable to *Myadestes obscurus*, which has a shorter tail, *M. myadestina* (Stejneger), which has a wider bill, or *M. palmeri* (Rothschild), which is smaller and has a more slender bill. The specimen is hardly to be distinguished from a comparable specimen of *M. lanaiensis* (Wilson) from Molokai (BM 95.7.20.107) except that the latter is somewhat more buff on the breast and lighter on the rump.

Circumstantial evidence marshalled below would suggest that any very early specimen of *M. lanaiensis* probably came from Oahu. There is further evidence, however, to link the present specimen to the voyage of the *Blonde* and with Bloxam's *woahensis*. In laboriously paging through the entire Old Vellum Catalogue, I discovered in book 12, a specimen 236a entered as "Turdus squamatus, Sandw Isl. or Chili, Lord Byron Capt. R.N.", the underlined portions being in pencil. The name "squamatus" may originally have been intended to be merely descriptive rather than a binomen. The bird in question is certainly squamate in appearance, and I know of no other bird in Bloxam's notes from anywhere in the voyage to which the name Turdus squamatus might reasonably be applied in a descriptive sense. The published binomial *Turdus squamatus* (Boie [*Isis von Oken*, 1835: 251]) is a synonym of a form of the widespread Asian Scaled Thrush, *Zoothera dauma*, which in much of the older literature appears under the name *Geocichla*, hence the name on the label of Bloxam's bird.

If this is the type of *Turdus woahensis*, what then became of Bloxam's adult specimen? It is not now to be found in the British Museum. I have located one other specimen of

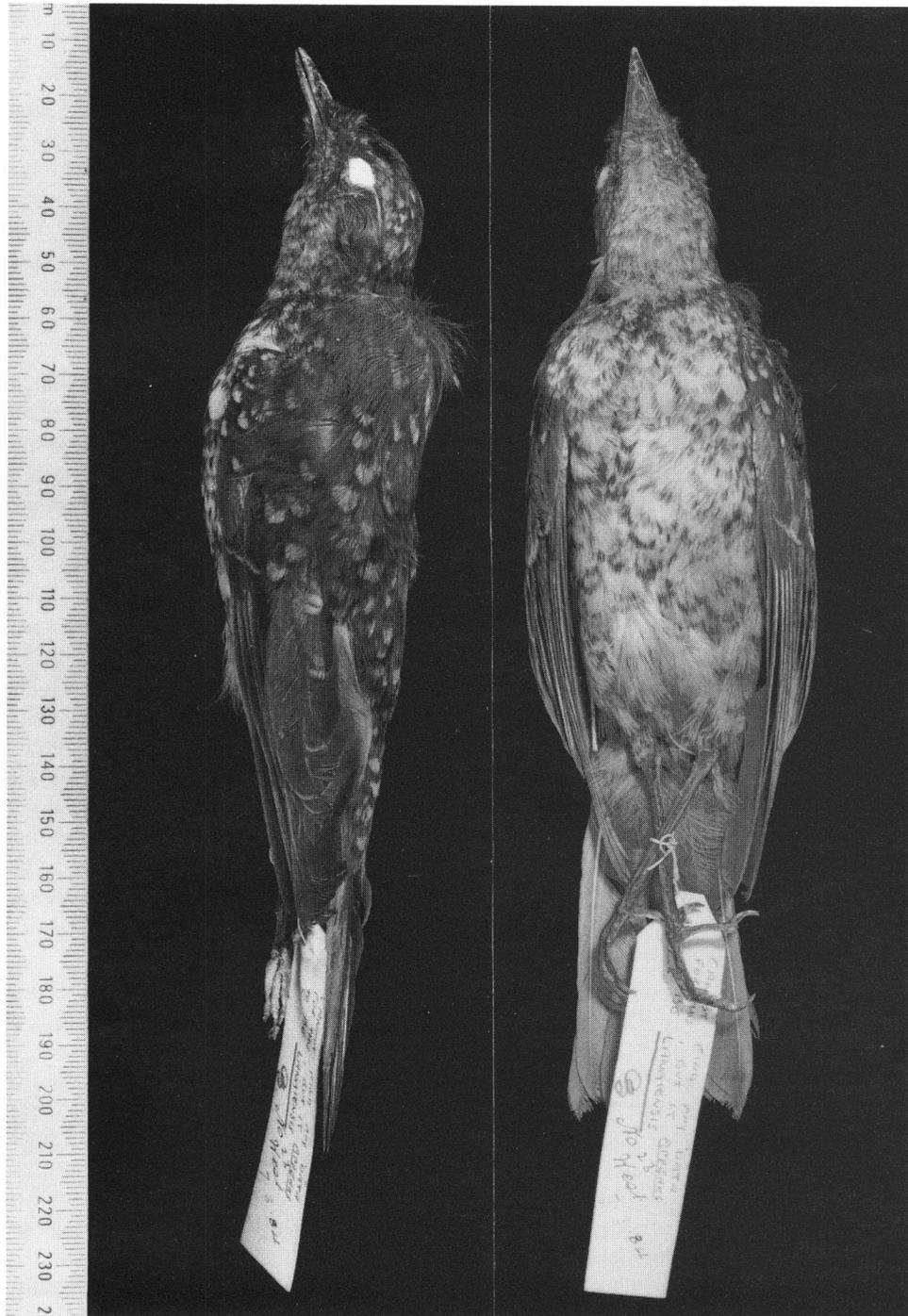


Figure 1. Lateral and ventral views of a juvenile specimen of thrush in the British Museum (Natural History) BMNH "150a" [probably = OVC 12: 236a] that is here considered to be the holotype of *Myadestes lanaiensis woahensis* Bloxam in Wilson and Evans, 1899. This is one of only two known historical specimens of Hawaiian thrushes that may have come from the island of Oahu.

thrush that, although without data, I believe from circumstantial evidence must have come from Oahu. This is an adult bird and could possibly be that collected by Bloxam, as no one else ever recorded the species on Oahu. This specimen is in the collection of the Academy of Natural Sciences of Philadelphia (ANSP 13660) where it was acquired through purchase of the Rivoli collection (original number 2/918), which came to Philadelphia in 1846 (Meyer de Schauensee, 1957), still a very early date in the history of Hawaiian ornithological exploration. Unfortunately, the specimen is not specifically mentioned in the catalog of the Duke's collection (Massena, 1846: 17), where it was probably included among the "16 individus [of thrushes] formant 36 espèces indeterminées ou inédites provenant de diverses localités."

It has no data, and Cassin (1858: 155 and atlas pl. IX, Figure 3) probably did not realize that it was of Hawaiian origin when he described and illustrated the two specimens of Hawaiian thrushes then available to him. One of these was an example of the species that was later named *Phaeornis myadestina* that had been collected by Townsend on Kauai. Cassin believed this to be the female of *Mydestes obscurus* of Hawaii, and compared it at length with an Exploring Expedition specimen of that species in the collection of the Smithsonian Institution that he regarded as the male, these two specimens being "the only ones that have come under our notice."

The label indicates that the Philadelphia specimen had once been identified as *Phaeornis lanaiensis* by Alfred Newton, an identification with which I concur. Neither Newton nor others, however, seem to have considered the possible origins of the specimen in light of its early date of collection. *Phaeornis lanaiensis* is known historically only from the islands of Lanai and Molokai, but these islands were seldom visited by expeditions and no specimens of birds are known to have been taken on either until visited by Scott Wilson in 1888 (Olson and James, 1994). Although thrushes were not certainly known on Maui until abundant fossils were recovered there (Olson and James, unpublished data), they may well have persisted into the historic period without being collected, as there were hearsay reports of their existence in the mid-nineteenth century (Perkins, 1903: 378). Despite the fact that various early naturalists are known at least to have stopped briefly on Maui (usually west Maui, at Lahaina), there is no record of any collection of birds being made on that great island until 1879 (Olson and James, 1994), when Otto Finsch (1880) paid a desultory visit and sent back a few specimens. Thus, for a bird resembling *P. lanaiensis* to have found its way into the collection of the Duc de Rivoli some years prior to 1846, its most probable island of origin would have been Oahu.

Rivoli might well have obtained Townsend specimens when Audubon was peddling them for Townsend to various European collectors (Medway, 1981; Olson and James, 1994). If it had been collected by Townsend, it would still have to have originated in Oahu, the only island where Townsend collected that a thrush of this species might have occurred (Olson and James, 1994).

There is also a possibility that Rivoli may have obtained Hawaiian specimens from one of the early French expeditions. Those with naturalists that visited Oahu in the appropriate period are the *Bonite* in 1836 and the *Venus* in 1837. But there is no mention of a thrush on Oahu in any of the accounts of the natural history of these voyages (Eydoux and Souleyet, 1841; Prévost and Des Murs, 1849) and by the time of their visit the species may already have been extinct there, as judged by the apparent failure of Townsend and Deppe to obtain it on Oahu in January 1837. If the specimen in the Rivoli collection is the adult bird obtained by Bloxam, it would be curious to know why this specimen, of all those brought

back from the Hawaiian Islands by Bloxam, changed hands, although the fact that it is one of the dullest and most nondescript of birds could have played a part.

To attempt to resolve the possible origins of this specimen, I obtained radiographs of it and a series of specimens prepared by Bloxam and by Townsend, as well as a few other Hawaiian birds of unknown origin formerly in the Rivoli collection and presumably from French expeditions. Because these specimens may have been mounted and dismounted more than once after they had been received by their respective museums, methods of stuffing and wiring are not helpful, but the manner in which the original preparator treated the bones that remain in the skin is still evident. Townsend removed large portions of the skull including almost the entire palate. He also must have used a considerably heavier application of arsenic, which is radio-opaque, than the other collectors. Bloxam did relatively little damage to the skull but removed much or all of the humerus and sometimes even the proximal ends of the ulnae and radii. The French collector(s) left the skull almost completely intact, with the palate beautifully preserved.

On the basis of the radiographs, ANSP 13660 is definitely not a Townsend preparation. It would be quite compatible with Bloxam's style, although one could not absolutely rule out a French origin of the specimen based on its manner of preparation. In any case, for the reasons outlined above, I believe BMNH "150a" (=OVC 12: 236a) and ANSP 13660 to be examples of the Oahu thrush. There is no other known source for specimens of Oahu thrush than the voyage of the *Blonde*, and that the juvenile specimen (Figure 1) is the type of Bloxam's *Turdus woahensis* is practically beyond doubt. These birds are very similar to, and probably conspecific with *Myadestes lanaiensis*. The only apparent difference detected so far is that in the adult the tail is apparently longer than in birds from Molokai and Lanai. Further assessment of the validity of the Oahu thrush at the specific or subspecific level awaits analysis of substantial fossil material from Oahu and Maui. I follow Pratt (1982) in considering the Hawaiian thrushes formerly known as *Phaeornis* to be congeneric with the New World genus *Myadestes*, so the Oahu thrush may for now be known as *Myadestes lanaiensis woahensis* Bloxam in Wilson and Evans (1899).

Bloxam's citation of the native name as "*amauee*" is of interest. Perkins (1903) considered that *amaui* was the correct Hawaiian name for all of the thrushes of the archipelago, with others, such as *omao* for the bird of Hawaii, being corruptions of *amaui* or completely misapplied. Perkins, however, probably following Wilson and Evans, believed that Bloxam's "*amauee*" referred to the thrush of Hawaii, whereas in reality it must have been the name known to natives of Oahu.

Short-eared Owl *Asio flammeus flammeus* (Pontoppidan)

Strix Sandwichensis Bloxam, 1827

N.10. Native name Puaho [*pueo*]

Strix Sandwichensis

L. about 13 inches. Mottled all over with a dirty white and reddish brown. Often builds on the ground & flies much abroad in the day time.

The published version (see Appendix 3) has long served as the original description of a purported endemic Hawaiian subspecies of Short-eared Owl, *Asio flammeus sandwichensis* (Bloxam). When this subspecies has been accepted, it has been uncritically so, despite the fact that doubts as to its validity were voiced long ago (Stejneger, 1887). The Short-eared Owl has certainly colonized the islands only since the arrival of Polynesians (Olson and James, 1982) and the birds do not differ from those of Eurasia and North

America. Bloxam never actually had a specimen in hand (see below), and thus there is no holotype, though he encountered owls on at least two occasions (see quotes from diary above).

[Hawaiian Crow *Corvus hawaiiensis* Peale]

Corvus tropicus ("Linnaeus"=Gmelin)

N.11. *Corvus Tropicus*. Turton's Linnaeus

Upper parts shining black. 12½ inch long. Vent dotted with dirty white. Bill 1½ inch long, broad at the base. Wings & tail greenish. Legs & claws black. Tail rounded.

This & the preceding [*sic*] bird [i.e. the owl] I could not procure. I did not even see the latter bird, the description of which is taken from Turton's Linnaeus.

The above probably comprises the whole, or nearly so, of the land birds. The owl is the only bird of prey. There are no hawks or swallows to be seen, & what birds there are are in general scarce & difficult to be procured, particularly at Woahoo, where we anchored the greater part of our stay at the Sandwich islands.

The name *Corvus tropicus* Gmelin, long applied to the Hawaiian Crow (*Corvus hawaiiensis* Peale), is now considered unidentifiable, possibly based on a drongo (Dicuridae) with erroneous locality information obtained on Cook's third voyage (Medway, 1981). As no crows are known in the historic period from Oahu, it is not surprising that Bloxam did not meet with one there. That he did not at least discern hawks while on the island of Hawaii, however, is indication of the insufficiencies either of his opportunities or of his powers of observation.

Sea & Fresh Water Birds

Sandwich Islands

Common Gallinule *Gallinula chloropus* (Linnaeus)

Fulica chloropus Linnaeus

N.12. Native name Alai [*'alae 'ula*]

Turton's Linnaeus *Fulica chloropus*

Common Moorhen

The Hawaiian gallinule was encountered and painted on Cook's voyage in 1789 (Medway, 1981) but neither that expedition nor that of the *Blonde* preserved any specimens. The Hawaiian bird was later described as a distinct species (Streets, 1877) but it is dubiously recognizable even at the subspecies level (Stejneger, 1887).

Hawaiian Coot *Fulica (americana) alai* Peale

Fulica atra Linnaeus

N.13. *Fulica atra*

Common bald coot

Bloxam's diary (1925: 38) also mentions "bald coots" seen on ponds towards Waikiki. Bloxam did not preserve a specimen and he would not have been expected to recognize the closer affinity of the Hawaiian bird with *Fulica americana* than the Old World *F. atra*, which he listed it as (Bloxam, 1827). This was the first reference to a coot in the Hawaiian Islands, though the endemic form was not named until after the visit of the U.S. Exploring Expedition (Peale, 1848).

Anatidae spp.

N.14. Ducks & geese frequent these islands in considerable flocks in the winter season & are caught in great numbers by the natives. They are supposed to come from the NW coast of America. The ducks are of a small size & dusky brown color.

Ducks were also recorded on Cook's voyage (Medway, 1981). The small, dusky brown ducks that Bloxam saw at the time of year of his visit (May-July) doubtless belonged to a

resident population. It is a great pity that no specimens were preserved from these early voyages, as there is some evidence that the duck formerly resident on the main Hawaiian islands may have been more like the so-called Laysan Teal, *A. laysanensis* (see Olson and Ziegler, 1995) rather than the Hawaiian Duck, *Anas wyvilliana*. The earliest specimen of Hawaiian duck that I know of is one purchased by the Berlin Museum from Ferdinand Deppe who obtained it on Oahu in 1837 (catalog records in Berlin examined). I was not able to find this specimen in 1985, but that part of the Berlin collection was difficult to work in at the time and I may simply have overlooked the bird. The next earliest specimens of Hawaiian ducks of which I am aware are a few taken by the *Galathea* expedition in 1846 (Olson and James, 1994) that are also in the Berlin Museum.

The Hawaiian Goose or Nene (*Branta sandvicensis*) is known historically only from the island of Hawaii, where it was first reported on Cook's voyage (Medway, 1981). Bloxam also knew of its existence, as on his excursion up Mauna Kea on 28 June he mentions passing pools "which are often the resort of wild geese which frequent this part of the country and live on the purple berries" (Bloxam, 1925: 62). The first specimens did not reach Europe until 1833, however, having been sent by the illustrious botanical explorer David Douglas (Olson, 1989a).

Tropicbirds *Phaethon* spp.

Phaethon aethereus

N.15. *Phaethon aethereus* Tropic bird

Is common among the islands & the red tail feathers are highly esteemed by the natives for ornament.

Bloxam's appears to be the earliest mention of tropicbirds in the archipelago, though he used the name *P. aethereus* Linnaeus, which applies to the Red-billed Tropicbird, a species that does not occur in Hawaii. In his rough notes he mentions a specimen of tropicbird taken "at the Sandwich Islands" that measured "15 inches to proper tale [*sic*], long white feathers 15 inches beyond." The white tail feathers indicate the White-tailed Tropicbird, *Phaethon lepturus* Daudin. Bloxam's diary (1925: 41) mentions tropicbirds breeding on the Nuuanu Pali, the species there almost certainly being *P. lepturus*. Although Bloxam may not actually have seen a Red-tailed Tropicbird, *P. rubricauda* Boddaert, in Hawaii, he had been aware of its existence there before his arrival, as he had been so informed by the Hawaiian natives aboard the *Blonde* when this species and other seabirds were encountered in the vicinity of Clipperton Island.¹⁵ The tropicbird mentioned in his list of specimens submitted to the Admiralty may well have been taken at that time, though it no longer exists.

Noddy terns *Anous* spp.

Sterna stolidus

N.16. *Sterna Stolidus* or Noddy is also common.

Two species of noddy tern occur in Hawaii, the Brown or Common Noddy, *Anous stolidus* (Linnaeus) and the Black or Lesser Noddy, *A. tenuirostris* (Temminck). There still exists a skin of each species attributed to the voyage of the *Blonde*. The first is a Brown Noddy in the Edinburgh museum with no further data. Although it could have been obtained at any of several stops made by the *Blonde* where this species occurs, definite mention of the capture of a specimen in the vicinity of Clipperton Island makes this provenance a good possibility (see note 15).

The second *Blonde* noddy is a specimen of *Anous tenuirostris* in the British Museum (OVC 43: 88a) that is regarded as the holotype (Warren, 1966: 182) of *Sterna melanogenys*

G. R. Gray (1846, volume 3, plate 182). The specimen had been listed earlier, without specific identification, by G. R. Gray (1844: 181) as having been presented by Lord Byron, but with no locality data. Saunders (1896: 148) referred the *Blonde* specimen of Lesser Noddy to *Anous hawaiiensis* Rothschild (1893a), thus imputing a Hawaiian origin for the specimen, but apparently in ignorance that it was the type of Gray's *A. melanogenys*, which name he considered to be a synonym of *A. leucocapillus* Gould. Among later authors who recognized the apparent origin of *A. melanogenys*, Peters (1934: 347) stated that the type had "no locality, but figure agrees with the Hawaiian form." Consequently, the name *Anous tenuirostris melanogenys* (Gray, 1846) has been applied to the subspecies endemic to the Hawaiian archipelago, with the name *Anous hawaiiensis* Rothschild (1893a) falling in synonymy.

It is now possible to establish a positive connection between the *Blonde*, Hawaii, and the type of *A. melanogenys* whose entry in the Old Vellum Catalogue suggests that it is "*Sterna Owyheensis* Bloxh. MSS". This is presumably the source of Wilson and Evans's (1899: 143) listing of Bloxam's manuscript name in their synonymy. The only place that it appears in Bloxam's notes is in his list of specimens, where it is called "*Sterna Owyheensis* Stolidi", evidently in the apprehension that it was not really distinct from the species *stolidi*. An apparently original note in Bloxam's papers, which appears only once and is not in any of the transcriptions, provides positive evidence of origin of the holotype of *Anous melanogenys*.

Sterna shot in Byron's bay

L 13½ inch

Color very dark brownish ashy on upper parts with grey on top of head. Bill black, legs light colored, claws black. Resembles in every respect the *Sterna stolidi* except in size, this being smaller.

The description matches the Lesser Noddy very well. From the account of the voyage (Byron, 1827) and McRae's (1922) diary we know that Byron's Bay was the expedition's name for Hilo Bay, on the island of Hawaii, which may now be taken as a more specific type locality for *A. melanogenys*.

Sooty Tern *Sterna fuscata* (Linnaeus)

Sterna Oahuensis Bloxam, 1827

N.17. *Sterna* Woahensis

["Name Oho" in rough notes. It is not clear to what this pertains, as the Hawaiian name for the Sooty Tern is 'ewa 'ewa; possibly it is Bloxam's understanding of *noio*, the name for noddies.]

L.12 inches. ["Breadth 26 inch" in rough notes.] Head, neck & breast black. Bill & legs dark colored. Wings black, feathers of the back, greater & lesser wing coverts striated in regular lines with white. Belly and beneath the wing dusky white. Length of bill 1¾ inch, sharp pointed, straight. Nostrils linear. Tail slightly forked.

This and the published description clearly apply to a juvenile Sooty Tern, *Sterna fuscata*, and consequently Bloxam's name has long been synonymized at the species level (Saunders, 1896: 108; Wilson and Evans, 1899), although the name *oahuensis* has seen some use as a subspecies (e.g. Mathews, 1927; Peters, 1934). Bloxam included a specimen of *Sterna Woahensis* in his list to the Admiralty, but as with almost all the seabirds from the voyage, it no longer exists, and the name must therefore be based on the original description.¹⁶

Ruddy Turnstone *Arenaria interpres* (Linnaeus)

Tringa Oahuensis Bloxam, 1827

N.18. *Tringa* Woahensis

Native name Korea [*kolea* is the Hawaiian name for the Pacific Golden Plover, *Pluvialis fulva*, the turnstone being known as 'akekeke].

L.9 inch. Bill $\frac{3}{4}$ inch, strong, straight, sharp-pointed, color black. Nostrils linear, Legs & toes orange red. Back & tail coverts pure white, a few intermediate feathers black. Tail black. Upper surface of wings variegated with black, brown rufous, & white. Crown of head brown, feathers slightly tinged with dusky white. A black line extends across the forehead, which is white & is prolonged on each side a little distance under the eye. Two black lines also pass on each side from the base of the lower mandible down to the neck. The space between is white. The upper part of the neck & back tinged with rufous brown & white. The lower part of neck & upper part of breast black. Lower part of breast, belly & underwings pure white. A band of white feathers at the base of the greater wing coverts & also at the scapulars. These birds are gregarious, assembling in large flocks. At night they return from the excursions made during the day to some particular rock when they roost, completely covering it with their numbers.

This excellent description applies to the Ruddy Turnstone, *Arenaria interpres*, and was the first published record of this regular Palearctic migrant in the Hawaiian Islands. Bloxam's name is a pure synonym (Wilson and Evans, 1892; Sharpe, 1896: 92) and it says little for his knowledge of ornithology (or of the sea coast, being a midlander) that he did not recognize this common British species. Evidently no specimen was preserved, so there is no holotype.

Wandering Tattler *Heteroscelus incanus* (Gmelin)

Scolopax Solitaria Bloxam, 1827

N.19. *Scolopax Solitaria* [*sic*]

Native name Korea [see preceding species; the Hawaiian name for the tattler is 'ulili]

L.11 inch. Bill $1\frac{3}{4}$, black, straight & slender Upper m[andible] slightly toothed at end. Nostrils linear. Tongue subtubular. Whole of upper plumage dark ash. A white line extends on each side from the upper m[andible] to the eye. From the lower m[andible] a short way down the neck a dusky white, from thence to the breast a light ash, from breast to tail dusky white. Wings underneath light ash. Legs yellowish. Tail short. This is a solitary bird, never associating in flocks & inhabits among the rocks of the sea shores.

This description applies to the Wandering Tattler, *Heteroscelus incanus*, another common Palearctic migrant to the Hawaiian Islands. Bloxam's name, for which there is no holotype, is a pure synonym (Wilson and Evans, 1892; Sharpe, 1896: 453), and a virtual homonym of *Scolopax solitaria* Wilson, the Solitary Sandpiper, now *Tringa solitaria*, of North America.

Dark-rumped Petrel *Pterodroma phaeopygia* (Salvin)

Procellaria alba "Linnaeus"=Gmelin

N.20. Native name Uau ['u'au]

Turton's Linnaeus *Procellaria Alba*

L.16 inch. Color, upper parts from crown of the head a light black. Forehead white. Underneath a fine glossy white. One of these birds was caught some miles inland on our journey to the volcano of Pali. They flock at night in great numbers from the sea & roost & build their nests in holes in the lava rocks 8 or 10 miles inland, where they are caught in great numbers by the natives, who also take them in nets. They are esteemed by them good eating. To prevent their biting when caught, they inhumanly [*sic*] thrust the upper mandible thro' the lower at the base.

During his excursions on the island of Hawaii, Bloxam saw a specimen of the Dark-rumped Petrel, *Pterodroma phaeopygia*, upon which to base this description, though he did not preserve it. The numbers of this bird, which once occurred abundantly throughout the main Hawaiian islands, are now greatly depleted from previous human hunting and ongoing predation by introduced mammals.

No gulls & but few sea birds were observed at these islands. The Tropic bird & petrel seemed most numerous. I did not see any of the species of the Pelecanus [=boobies and frigatebirds], tho' I understand they are to be met with among the more western islands of the group.

DISCUSSION

The extent to which Bloxam and other early naturalists missed a great opportunity to extend our knowledge of Hawaiian birds has been lamented previously (Newton, 1892). Had Bloxam been better trained, or even a little more enthusiastic and diligent in his pursuits, much that has been lost might have been recorded about the birds of the Hawaiian Islands and elsewhere in the Pacific. Still we must give proper credit where it is due. When Bloxam did take the time to describe specimens, he often did so in minute detail and with commendable accuracy. Bloxam's methods of preparation, following Bullock (1817) resulted in specimens that have endured in remarkably good condition for the better part of two centuries.

Of the native forest species known to have been on Oahu in 1825, Bloxam failed to obtain the Oahu Creeper, *Paraoreomyza maculata* (Cabanis), the Oahu Akialoa, "*Hemignathus*" *ellisianus* (G. R. Gray) and the Nukupuu, *Hemignathus lucidus* (Lichtenstein). Eleven other species of Drepanidini, and numerous other species of birds have been recorded from Oahu only as fossils (James and Olson, 1991), but whether any of these were still alive in 1825 we will now probably never know. Bloxam could hardly have failed to make observations of significance on the island of Hawaii. That he was not more determined is to be regretted.

Of the nine published names attributable to Bloxam, most are straightforward synonyms of species that had been recognized earlier. His collection and naming of the Oahu Akepa was a genuine contribution but unfortunately the name he chose (*Fringilla rufa*) was preoccupied and had to be replaced. As partial compensation, Bloxam's name *Nectarina flava* is here restored as the rightful name for the Oahu Amakihi (*Loxops flavus*).

Much of ornithology in the Hawaiian Islands consists of documenting human-caused extinctions, both in the prehistoric (Olson and James, 1982, 1984, 1991; James and Olson, 1991) and historic periods (Olson and James, 1994). In this connection, Bloxam's most enduring contribution to Hawaiian ornithology must stand as the collection of two specimens of the Oahu thrush (*Myadestes lanaiensis woahensis*), from which we know not only the appearance of the plumage of this form, which could not have been determined from the fossils of it now available, but also something of the timing of its extinction. This was the first of many populations of Hawaiian birds known to have vanished during the historic period, although this is perhaps not much of a distinction given the number of species that either predeceased it, or followed it, into oblivion.

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NOTES

¹ His full name was as given here. Kaepler (1978) refers to him as Richard, but Newton (1892) as Rowland. According to records kept at Rugby School he was evidently born in January 1797 and died 23 January 1877; (his date of birth was derived indirectly; the National Union Catalogue, 1969, vol. 61, gives the year as 1798). The antiquarian Mathew Holbeche Bloxam (1805–1888) was a younger brother. Rowland married the sister of Sir Thomas Lawrence, the celebrated former president of the Royal Academy (M. H. Bloxam, 1889).

² Although frequently spelled Macrae (as in the published version of his Hawaiian diary, and in Bloxam's diary), materials in the Royal Horticultural Society, including McRae's instructions from the Society, indicate the spelling to be McRae.

³ A typewritten register posted on the wall of ancient All Saints Church in Harborough Magna, just outside Rugby, in Warwickshire, lists previous rectors, some dating back to the eleventh century, and includes Andrew "Bloxham", as incumbent as of 1871. Prior to this he had been rector at Twycross in Leicestershire. Parish records examined at the County Record Office in Warwick indicate that Bloxam was buried at Harborough Magna on 6 February 1878. His grave has since been obliterated: "the part of the cemetery which would have contained his tomb in 1878 was re-arranged about twenty-five years ago and the ground used for burials again," according to parishioner Aileen Wright (in litt. 1 December 1994), although his headstone has recently been discovered (Wright, in litt. 28 August 1995).

⁴ Although the account of the voyage of the *Blonde* was printed with the date 1826, it was not published until 1827. All of the scientific names of birds attributed to Bloxam in the "Richmond Index" (Richmond, 1992) are given the publication date of 20 February 1827, which I have accepted. In Richmond's unpublished card file on dates of publication in the Division of Birds, Smithsonian Institution, are entries quoted from the *Literary Gazette* in 1827 to the effect that the volume would be published "in a few days" (issues of 6 and 13 January), and "on Tuesday [20 February]" (issue of 17 February). It is presented in a list of new books in the issue of 24 February and was reviewed on 17 March 1827. The work is also noticed on page 16 of a publisher's announcement bound, probably as issued, with the last number of the *Philosophical Magazine* for 1827 in the Smithsonian Institution Libraries. This is dated November 1827 and refers to "works published during the last season by Mr. Murray."

⁵ These were named *Sylvia bloxami* and *Psittacus (Aratinga) byroni*. The first is a pure synonym of the Tufted Tit-tyrant *Anairetes parulus* (Kittlitz), whereas the latter has wrongly been considered to be a subspecies of the Patagonian Conure *Cyanoliseus patagonus* (Vieillot), but in fact it is a synonym of the Slender-billed Conure *Enicognathus leptorhynchus* (King) (Olson, in press).

⁶ The original price was two guineas, a handsome sum in 1827, and the volume has long been a rare collector's item. The last copy offered by the antiquarian firm of Wheldon & Wesley (Codicote, Hitchin, Herts) in October 1993 was listed at £700 (Catalogue 203, item 16).

⁷ An island of this size in Pearl Harbor can only refer to what is now called Ford Island. Bloxam's "Rabbit Island" is not to be confused with Manana Island off the southeast tip of Oahu, which is also known as Rabbit Island.

⁸ There is no trace of Bloxam's original labels on any of the specimens that I have examined, although the numbers from his inventory are occasionally mentioned in the Old Vellum Catalogue.

⁹ Information regarding the collections in the Royal Museum of Scotland, Edinburgh, was received from Robert McGowan, Dept of Natural History, in litt. 18 November 1986, 7 January 1987, 7 September 1987, and 7 January 1988.

¹⁰ Registry number 1845.2.21.297 has also been attributed to a specimen of *Vestiaria coccinea* supposedly from Cook's third voyage which was purported to be one of the earliest extant fluid-preserved birds (Burton,

1969). I am quite uncertain of what consequence may attach to the discovery of this duplication of numbers as far as concerns the claim for the specimen in spirits, but it does not appear to affect any attribution of specimens to the voyage of the *Blonde*.

¹¹ This was the so-called "13th edition," in which all of the Hawaiian birds described in English by Latham (1781–1801) based on Cook's voyage specimens were given Latin names (two of these had also received Latin names previous to Gmelin). In Bloxam's day there could have been no other source of names for any endemic Hawaiian bird, as those species that Bloxam himself named were the first to be based on other than Third Voyage specimens.

¹² Bloxam's genus *Nectarina* contained four species, any one of which might now serve as the type. This might have had the potential for some nomenclatural mischief, as the name antedates the well-known genera *Moho* Lesson, 1831, *Loxops* Cabanis, 1847, and *Himatione* Cabanis, 1850. *Nectarina* Bloxam (1827), is, however, a junior homonym of *Nectarina* Hahn, 1819 (emendation of *Nectarinia* Illiger, 1811) and is therefore not available. To make a formal disposition of it, I hereby designate *Certhia coccinea* "Linn." (= Gmelin = *Certhia coccinea* Forster, 1781) as the type species of the genus *Nectarina* Bloxam (1827), which then becomes a junior objective synonym of *Vestiaria* Jarocki (1821).

¹³ The merger of the amakihi with the genus *Hemignathus* Lichtenstein, 1839 (American Ornithologists' Union, 1983, following Pratt, 1979), is not admitted (Olson and James, 1988). I follow Amadon (1950) in regarding the amakihi to be congeneric with the akepas (*Loxops* Cabanis, 1850).

¹⁴ The African explorer and collector W.P.E.S. Rüppell, of Frankfurt am Main.

¹⁵ Bloxam's observations of birds at sea near Clipperton Island on 14 and 15 April 1825, are of sufficient interest to merit separate publication. Although various specimens came directly to hand here, if any were preserved the only possible one remaining is a Brown Noddy, *Anous stolidus*, that "was caught in the evening of this day having settled on the head of one of the look out men." Among the birds he described here was a Red-tailed Tropicbird of which it was said that the "red [tail] feathers are held in high estimation by the Sandwich islanders, who frequently go to certain uninhabitable rocks for the purpose of taking them". He referred all tropicbirds to *Phaethon aethereus* and believed the red-tailed ones to be males and the white-tailed ones females.

¹⁶ Warren (1966: 210) lists a specimen (BMNH 1847.3.4.95) as a syntype of *Sterna oahuensis* that is stated to have been "Collected by Lord Byron and presented by Admiral Sir E. Belcher." Belcher was commander of H.M.S. *Sulphur*, which visited Oahu in 1837 and 1839 (Olson and James, 1994). That he would have had specimens collected fourteen years earlier by the *Blonde* is improbable at the outset. The specimen is one of a lot entered in the museum register as presented by Belcher, which also includes a juvenile *Sterna fuscata* from Oahu. The original label bears the annotation in ink "? Oahi specimen", beneath which has been added in pencil "oahuensis Bloxham!" That this specimen has any status as a type of Bloxam's name is completely vitiated by the fact that there is no demonstrable connection between it (nor the juvenile, which is presumably the other "syntype") and the voyage of the *Blonde*; it is an adult, whereas Bloxam's description is of a juvenile; and most damning of all, the specimen is actually a Bridled Tern, *Sterna anaethetus* Scopoli, a species that does not even occur in the Hawaiian Islands!

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Appendix 1

Correspondence from Andrew Bloxam to William Swainson

The following letters from Andrew Bloxam to William Swainson, are preserved among

the Swainson correspondence in the Linnean Society of London. The first, sent from Chile, was reproduced in its entirety in Rothschild (1893b–1900), along with an extract from the second. Because Rothschild's work is so very rare and valuable, and therefore usually difficult of access, both letters are reproduced here, for they contain much that is pertinent in the present connection. Bracketed portions were obscured by the seal or its tear and are inferred. I have omitted the salutations and valedictions. All correspondence is from Bloxam at Rugby (except the first from Valparaiso) to Swainson, at Warwick.

18 September 1825, Valparaiso

I have just received your kind letter, dated the 27 of last November, & much regret that I did not receive it before. I have been very unsuccessful in my collection—having besides the Sandwich islands only touched at two other small islands in our voyage hither and at both we were not on shore more than two hours. One was tenanted by nothing but land sea birds [Malden I.]. From the other I procured a beautiful small dove, a kingfisher & Starling [Maui in the Cook Is.]. I have well examined into the nature of those birds peculiar to the Sandwich islands, I mean those with curved bills, & can confidently affirm, that they bear no relation to any other species of birds that I am acquainted with. I hope on my return which I expect will be in March or April to furnish you with all my notes relative to them. I am sorry to say that I can hear nothing of the package of books which were sent from Liverpool, for which however I still feel greatly obliged, tho' I have all the books, you have been kind enough to send me, by me. The following comprise my natural history books—Grave's Naturalist's guide [Graves, 1824], Bullock directions Taxidermy [Bullock, 1817], Turton's Linnaei Systema [Turton, 1800] & Mawes collector's pilot and his Linnaean Conchology [Mawe, 1821; 1823]. I regret to say that I was very unsuccessful in procuring shells at the Sandwich island [*sic*] not having a single mitre & but few cones which are well known as the *C. Ebraeus*. I have procured however a good selection of the beautiful little land shells, amounting to about ten varieties some with reversed mouth. They apparently belong to the volutes of Mawes Linnaean System. Insects there are scarcely any, I have found but one butterfly & a beautiful Sphinx moth, no coleopterous insects or any in the water ponds did I observe—these islands are certainly very barren in this respect—with regards to birds I only met with one bird of Prey, a brown owl which I was unable to procure. I have preserved all the tongues of the different birds I procured. Every thing that I collect belongs to the government but my Brother I hope will give you duplicates of most of the Sandwich island birds & also the land shells. On the coast of || Chili particularly in this bay I have met with a great variety of the Chitons, different species of the Patella comprising the *crepidula*, *fissurella* & *infundibulum*, also many turbo's & trochus & two species of land shells. Some of the Chitons grow to an immense size. I have measured some upon the rocks which measure more than 6 inches, among them the *C. spinosus* is common, there are 8 or 9 varieties of them, the *Buccineum Concholepas* also is very common here, & I hope my Brother will present you with a series of them. We are going this week to Conception where I expect to find some more varieties. The opportunities I have had for collecting have been so bad & few that I can hardly call what I have procured a collection. I have not more than 100 birds and few or scarcely any rare shells. The only place when I had some chance of adding to my collection was the small island of Mauti about 400 miles SW of Otaheite. Our stay here however was only two hours. We were unable to touch at Otaheite, on account of the wind being adverse the whole time. I met with no gulls at the Sandwich islands. At the Galapagos where we were for two days under the most burning sun & when I had a narrow escape of my life in consequence of the great heat I procured only one dove. Several birds that I had reserved for stuffing one evening were so bad in the morning that they were obliged to be thrown overboard, the heat preventing our doing any thing there & we were glad to leave them, the sun at the time crossing the line. Sea birds comprising different species of the tern, petrel and pelecanus were very numerous. I met only with one species of the penguin there which was small & nothing remarkable about it. I have procured about a dozen different varieties of land birds from here [i.e. Valparaiso], but || the country is in such a state that it is not safe to go about by oneself, & it is not often that I can find persons to accompany me. I am not allowed even from the ship a boy or sailor to accompany me to carry any thing for me, & in these hot countries I find it sufficient to carry only my gun powder & shot. I have also other difficulties to encounter which have precluded the making the best use of my time. The observations I have made on my return will I hope be not uninteresting to you. I met with no swallows or any species of *Caprimulgus* at the Sandwich Islands. I was quite astonished at the paucity of birds there. One species of bird from which the yellow feathers are procured is so scarce that the whole time I was on the several islands I did not observe one & with great [difficulty procured] a single

tolerable specimen from one of the [natives, he asked] a high price for it. These birds have only [a few yellow feathers under the wings which are paid as tribute to the chiefs & they are so scarce that a dollar is frequently paid by the natives themselves for a pair. They are nearly exterminated. The red birds are more common, tho' scarce. I was obliged to trust to the natives to procure them as in all my excursions I did not shoot more than three of them. I was frequently out the whole day without killing any thing. I have however described accurately & minutely every thing respecting the S Sea birds which I have procured, & all my notes will be at your service when I arrive home

March 1826

I feel much indebted to you for your kindness in sending me some books & the valuable information in your letters, while in the *Blonde*. The package containing the former I am sorry to say never reached me on the coast of Chili, but I have given directions that when the ship which has it touches at Valparaiso again, a person will receive the package, which also contains many letters from my own relations, & send it home again. You are perhaps aware that all the collection that I have made belongs to the public & is now at the Admiralty—but a friend of mine on board ship intends sending me a few specimens—which I hope you will accept of, tho' without mentioning my name or from whom they come. They will be I believe three different species of the birds belonging to the Sandwich islands, & I have enumerated four in my journal which || I have written for the Admiralty. From their peculiar habits I have termed them the *Nectarina* class. It is from these birds that the feathers for ornamenting the chiefs are procured & one species the *Nectarina Nigra* is so scarce, that during the whole time I was in the islands I could only procure one specimen with the tail & other feathers perfect & this was procured me by a native. This of course I sent to the Admiralty but there will be the head & legs of this bird, the former with the tongue well preserved, which I hope to be enabled to send you, it was procured by a friend of mine who did not think the rest of the bird worth preserving as it was bare of feathers. I send you with this my papers where I originally described the birds, & from these wrote out a fair copy for the Admiralty. I am uncertain yet what will be done respecting it, & should therefore wish nothing to be published from my notes, as without doubt there are many inaccuracies in it. I procured a tolerable collection of birds from the coast of Chili, but upon the whole have not succeeded in bringing home more than 100. On the coast of Chili I found 9 or 10 species of the Chitons some of them extremely fine specimens & perhaps unknown heretofore. Of these I hope you will || receive some, some good specimens of each kind, & also some land shells from the Sandwich Islands which I hope will prove interesting to you. Both at the Galapagos & the Brazils I was so much affected with the heat, as to be on the Surgeons books for some time & therefore could not make the observations or collections I wished. Of the Sandwich islands I have described accurately the few birds which inhabit them. At Woahoo I was out with my gun day after day without scarcely seeing or killing one bird, I found them however more numerous in Owhyee.

Of shells I have made but a bad collection, all that I procured at the Sandwich islands are well known, & even many [times?] the natives asked such exorbitant prices, as com[pletely] to prevent my taking them, this was chiefly caused by our common sailors in the ship many of whom were so desirous & eager to procure them as to give a knife for a common cowry not worth sixpence in London & the sailors being numerous in so large a ship as the *Blonde*, quite spoiled my traffic with them. I should much wish to see you and converse upon the subject of the late voyage, but my time is so occupied & engaged at present, as to preclude my riding over to Warwick for some time, & this also has been the cause of my not having written to you to thank you before this. The islands are very barren in affording objects of natural history. I observed only one species of papilio which I hope to send you, there are no Beetles or Coleopterous insects, & nothing remarkable in Entomology [famous last words!]. The owl is the only bird of prey || few sea birds are found on the coast, but at the Galapagos I was very much struck at the vast quantity of different species of tern. I fell in with a curious tern off Valparaiso which you will find described as the *St[erna] Aurita* [the Inca Tern, *Larosterna inca*]. I have not seen it described before & it may probably be a new species. I will send a parcel to you by the Warwick coach next Friday or Monday with my papers for your perusal. I thank you much for your kindness & attention to me & will do all in my power to assist you & as soon as the packet comes from my friend in the *Blonde* will send it to you immediately. I have carefully washed[?] the tongues of the birds.

26 March 1826

I beg leave to send you the accompanying papers if they will prove at all interesting to you. I have not yet heard from my friend on board the *Blonde* who was to send me a few shells, birds, &c for you, but I am daily

expecting a packet from him. [Portion introducing a friend named Walcot omitted here.] || I have been confined at home this week by a severe cold which has prevented me from going out, & my time is also much occupied. But if I possibly can I will ride over to Warwick sometime in the next fortnight, as I should much wish to see you.

18 April 1826 [undated, the date here being that of Swainson's response and whose annotation indicates that this letter accompanied "Sandwich Land Shells"]

I have not yet received the small packet which one of the midshipmen of the *Blonde* was to send me containing a few shells & birds, &c, &c, & tho' I have written to him many days since I have received no answer. I suppose therefore that he is on leave of absence & that my letter is waiting for him at the ship. I have been much disappointed in not having hitherto received them. I proceed to Oxford next week & am sorry that I shall not have the pleasure of seeing you ere that time.

I send with this a small parcel containing some beautiful *Nerita* shells, which the Sandwichers are very fond of using as bracelets. They are not found at the Sandwich islands but are brought principally from Fanning's Island (at 3 degrees N^o of the Line between the Sandwich & Society islands) [illegible word] by the Americans who trade these & sell them to the natives. I procured all the different species I could find, but I lament that all were bored thro' for the admission of the string which binds round the arm. The best of the shells belong to the Sandwich islands, & are land shells. I wish you to choose out as many as you wish of both kinds for your private collection, & I think you will probably meet with some you have not seen before. I trust no accident has happened to the packet which I daily expect from my friend as there are some perfect specimens of the Sandwich Island shells in it—& also 8 or 9 different species of the *Chiton* from the coast of Chili. I have no collection of my own & therefore I desire you will take whatever you wish of the specimens I send you, tho' I hardly think they are worth your acceptance. The moment the other packet arrives I shall take care to send it to you.

19 April 1826

I have received safe this morning the contents of your parcel and letter, & am glad you have selected what you wished for your own collection. You will perhaps make a better & more advantageous use of your duplicates than giving any to me, as I am not forming a collection of the kind, nevertheless I feel much & greatly obliged to you for your kind offer—tho' it is a study I am very fond of tho' but little advanced in it yet I have not the power of being at any expense in procuring specimens of different kinds. I proceed to Oxford on Friday next & will lay before Mr. Duncan the latter part of your letter & sincerely hope we shall be able to add them to the Oxford collection. I shall myself be anxious to subscribe & contribute according to my ability for the procuring of so rich a collection & I will immediately upon my seeing him send you word of his decision expecting them, & I think the price is very moderate. || My time at present is entirely engaged in preparing myself for Holy orders on Trinity Sunday next. But I should much wish, according to your suggestions to describe in the new system [doubtless the discredited Quinarian system of classification, of which Swainson was a vigorous proponent] the various birds I have brought home. I unfortunately was so hurried on the outset of the voyage that I had no other books with me except *Grave's Naturalists Pocketbook* & *Turton's Linné* & therefore could only describe them according to their arrangement.

I hear that the birds were lately unpacked at the Admiralty, & I shall write by to day's post to my Brother in town to ascertain if the birds could be lent to me for two or three months in order to describe them properly & I should then feel greatly obliged to you for any kind assistance you could lend me in so doing. I am totally unable to do anything before Trinity Sunday, for my time has been hitherto so much occupied as to preclude my visiting Warwick. || It is strange that I have not ever yet received a letter from the midshipman on board the *Blonde* a Mr. Kemp who was to have sent me a small packet for you. I can only account for it on his having leave of absence from the ship, & trust no miscarriage has happened to the parcel.

My direction at Oxford is Worcester College.

Bloxam's last letter, dated 26 April 1826, is omitted, as it contains nothing of relevance to Hawaii. Swainson's annotation to the preceding letter of 19 April indicates that the

collection he was trying to dispose of through Bloxam was “Langsdorff’s birds”. Other correspondence in the Swainson files shows that these were South American birds collected by Baron von Langsdorff and forwarded to Swainson by William Burchell (Jane Pickering, Oxford University Museum, pers. comm.). The Mr Duncan referred to is one of two brothers who were Keepers of the Ashmolean Museum at Oxford from 1823 to 1854 (Davies and Hull, 1976). Bloxam’s last letter indicates that Duncan was away from Oxford but was unlikely to purchase the collection (he did not). It ends with a page and a half digression speculating on the foreign origin of a strange bird Bloxam had seen near Rugby, the description of which seems to be nothing more than a Brambling, *Fringilla montifringilla*.

Appendix 2

Synopsis of Correspondence Accompanying Bloxam’s Autograph Natural History Notes

Accompanying Andrew Bloxam’s (AB) manuscript natural history notes in the British Museum is correspondence of certain historical interest, some of which I have cited in the preceding text. This is mainly between Alfred Newton (AN), ornithologist at Magdalene College, Cambridge, and Bloxam’s son, A. Roby Bloxam (ARB) of Christchurch, New Zealand. The letters are principally Newton’s, with notes supplied by ARB in 1908 or 1909 concerning his responses, the originals of which, if they still exist, would presumably be at Cambridge. Deciphering this correspondence is not an easy matter. “Newton wrote with a blunt quill pen a firm and distinctive, but too often illegible, handwriting which frequently baffled the recipients of his letters” (Wollaston, 1921: 237). With some practice and a little ornithological knowledge one can usually make sense of Newton’s writing, but that of ARB was truly execrable and remains all but illegible. I have summarized this correspondence below, and have reproduced some of the more relevant passages.

Undated = 1826. AB’s letter of transmittal of materials to the Secretary of the Lords of the Admiralty [reproduced in the text], with note by ARB dated 10 July 1908, Christchurch, New Zealand, saying this is a copy of a copy in AB’s hand. In the same hand as the original letter is an annotation at the top “Undated but the voyage was ended at Spithead March 15 1826.”.

1890 Oct 25. AN to Rev. J. R. Bloxam inquiring after AB’s notes; with note of ARB dated 9 July 1909 saying that JRB, was a brother of AB and that AN’s letter had been forwarded to ARB in Christchurch.

1892 Oct 29. H. O. Forbes to ARB soliciting AB notes on behalf of AN; with undated note by ARB to the effect that Forbes had formerly been curator at the Canterbury Museum in Christchurch, where he had seen the Bloxam manuscript material.

1893 May 4. AN to ARB acknowledging a letter of 22 March with transcriptions from AB’s diary (not the natural history notes).

I must own that I wish they had contained more information on points in which I am interested. That information I think must have been conveyed in the papers furnished to the Admiralty, and if so, is I fear beyond recovery, for previous experience has assured me that it is useless to enquire there for documents of this kind. I have little doubt that they would have been handed over to the compiler of the ‘Voyage of the Blonde’; and, after the publication of the volume, would have been destroyed. I can well understand your Father’s dissatisfaction with that work, though to judge from the way it is mentioned in Dr. Smile’s ‘Memoir and Correspondence of the late John Murray’ (vol. I. pp 319–321 and ii. p 293) [Smiles, 1891] the compiler and publisher [illegible word] much pleasure with it.

1898 Feb 15. AN to ARB acknowledging the latter's offer to view AB materials during a visit to England.

1898 April [18?]. ARB to AN, an almost completely illegible note.

1898 April 19. AN to ARB acknowledging a letter of 18 April and a packet of papers relating to *Blonde* with regrets that AB's diary had been left in New Zealand.

1898 April 28. AN to ARB with comments on the AB material.

It is stated in the 'Voyage' (Preface, p v) that Mr. Bloxam the chaplain (the Rev. Roland [*sic*] Bloxam) was prevented by his departure for a distant colony "from arranging his own papers and those of his companions." I should, if possible, like to know more of this, and also why his brother Mr. Andrew Bloxam, the naturalist, was not consulted in this matter, as it is evident that much of interest which I find in his papers was neglected by the compiler of the book (Mrs. Graham, afterwards Lady Callcott) and if he had been consulted he would hardly have consented to the omissions.

Undated. Note by ARB saying that the preceding had been answered on 30 April.

Rev RBB [*sic*] was appointed Chaplain to H. M. [illegible] at Bermuda—Father always said Voyage badly compiled feel certain did [illegible] to him.

1898 May 1. AN to ARB acknowledging letter of 30 April.

Unfortunately I know no one in the Admiralty whom I could ask to search for papers; but I feel sure that whatever was sent in by your Father could only contain what is to be found in the notes with which you have favoured me, only it would have doubtless been put in [illegible word] order—whereas the notes are much as they were taken down, being only partially arranged. I think of sending some account of them to 'Nature,' as on a former occasion I made mention of their probable existence in an article I published there [Newton, 1892]—& should I do so I will take care to let you know. [To this is appended a note from ARB saying no such notice was ever received.]

1898 June 2. AN to ARB saying he was about finished with papers and suggesting they be deposited at some institution.

Undated. AN presumably to ARB portion of letter concerning disposition of AB's Hawaiian specimens [quoted in full in text].

1898 June 15. AN to ARB letter to accompany return of papers with further suggestions as to where they could be housed.

I would strongly urge you to leave all somewhere in England where they might be accessible to naturalists. I cannot recommend the British Museum as a place of deposit—for there they would be simply buried [Newton's emphasis]. The Library of either the Linnean Society at Burlington House, or the Zoological Society in Hanover Square I guess would be a far better receptacle—or if it should please you to place them in the Museum of Zoology of this University I will undertake that they shall be properly treated.

It may be that no one may want to look at them for years—but it seems most desirable that their existence should be known to naturalists & their place of deposit accessible. [It is ironic to note that far from being buried at the British Museum, these notes have remained readily available there, whereas when I enquired after Newton's papers at Cambridge in 1985, they were in such a state of disarray that the librarian would not permit them to be examined.]

1909 Jan 13. Rothschild's curator Ernst Hartert conveying AB notes to the Director, British Museum.

1909 Feb 9. From F. Kenyon (Dept of Manuscripts) conveying the materials to a Mr Fagan [presumed to be Charles Edward Fagan at that date Assistant Secretary at the British Museum (Natural History).]

Appendix 3

Facsimile of the appendix to the *Voyage of the Blonde* (Byron, 1827), which is the source of all published scientific names of birds with Andrew Bloxam's authorship.

V O Y A G E

OF

H. M. S. BLONDE

TO THE

SANDWICH ISLANDS,

IN THE YEARS 1824-1825.

CAPTAIN THE RIGHT HON. LORD BYRON, COMMANDER.

LONDON :
JOHN MURRAY, ALBEMARLE-STREET.

MDCCCXXVI.

No. III.

OF THE NATURAL HISTORY OF THE SANDWICH
ISLANDS;

SELECTED FROM THE PAPERS OF A. BLOXHAM, ESQ.

OF BIRDS.

THERE are very few of the hard-billed birds in the Sandwich Islands; but there are some species, probably peculiar to these Islands, which feed principally on the juicy flowers of the *Eugenia Malaccensis*.

From three different species of these birds the feathers are procured which are used in making the war-helmets and cloaks, and the chaplets and other ornaments of the Sandwich Islanders. The yellow feathers are most rare, and are found upon a bird whose general colour is black, excepting a tuft of yellow feathers under each wing and the tail: these are given by the common people as tribute to the chiefs, and are now frequently so scarce, as to be sold at the rate of a dollar for five feathers. The bird from which the red feathers are procured is more common.

These birds are caught with a strong bird-lime, made by boiling the milky juice which exudes from the bark of the bread-fruit tree. The bird-lime is spread on the branches of the *Eugenia*, where the birds come to feed, and they are thus taken without injuring their feathers*.

* In the following list the descriptions of most of the birds which have been described by former naturalists are omitted.

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LIST OF BIRDS.

1. *Nectarina Coccinea*; *native name*, Hehivi.

Certhia Coccinea, *Linn.*

One of the birds which furnishes feathers for cloaks, &c.: they build on the tops of trees.

2. *Nectarina Byronensis*; *native name*, Apapani.

Fringilla Coccinea. *Linn.*

Another of the birds whose feathers are used for cloaks.

3. *Nectarina Flava*; *native name*, Amakee.

Length four and a half inches: bill dark brown, slightly curved, sharp-pointed, half an inch in length; upper mandible rather longer than the lower; nostril at the base covered with a hard membrane; tongue tubular, divided at the extremity into minute threads or filaments; neck, breast, and belly, yellow; upper part a yellowish olive green; quill feathers slightly edged with green; the male bird of a deeper colour than the female; legs brown; toes three forwards and one backwards, the middle connected with the outer one as far as the first joint; tail short, brown, feathers edged with yellowish green. Habits and food the same as 1 and 2.

4. *Nectarina Niger*; *native name*, Uho.

Merops Niger. *Gracula Longirostra*. *Linn.*

This is the bird whose yellow feathers are so highly prized.

5. ; *native name*, Ohu.

Loxia Psittacea. *Linn.*

Parrot-billed Grosbeak.

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6. ; *native name*, Erepeio.Musciapa Sandwichensis. *Linn.*

Sandwich Flycatcher.

7. Fringilla Rufa; *native name*, Akepakepa.

Length four inches and a quarter; bill hard, straight, short, and conical; three-eighths of an inch in length, sharp-pointed; body rufous; tail and wings brownish; toes and legs strong, formed for perching; black coloured tongue, short and tubular, divided into filaments at the end.

8. Fringilla Sandwichensis; *native name*,

A. Length, five inches; whole of the back dull olive green; greater and lesser wing coverts tipped with dirty white; wings and tail brown, edged with green; belly greenish white; bill straight, sharp-pointed, half an inch long; tongue bifid.

B. Differing, in being of a much lighter colour.

9. ; *native name*, Amauii.Turdus Sandwichensis. *Linn.*

Sandwich thrush.

Found chiefly in Hawaii. There is a variety of the same at Oahu.

10. Strix Sandwichensis; *native name*, Puaho.

Length thirteen inches. Mottled all over with dirty white and reddish brown.

11. Corvus Tropicus. *Linnaeus.*12. ; *native name*, Alai.Fulica Chloropus. *Linn.*

Common Moor-hen.

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13. *Fulica Atra.* *Linn.*

Common Bald-coot.

14. } Wild Geese and Ducks of a small size,
 15. }

Frequent the Islands in the winter season; most probably from the north-west coast of America.

16. The Phæton *Æthereus*, or Tropic bird,

Is very common in the Islands: the beautiful rose-coloured tail-feathers are highly esteemed by the natives, who pull them from the birds as they sit on their nests.

17. The *Sterna Stolid*a, or Noddy, is common.18. *Sterna Oahuensis*.

Length twelve inches, spread of the wings twenty-six inches; head, neck, and breast black; bill black, legs dark, wings black. Greater and less wing coverts striped with white; belly, and under the wings, dusky white. Length of the bill one inch and three-quarters; it is sharp-pointed and straight: nostrils linear, tail forked.

19. *Tringa Oahuensis*; *native name*, Koreà.

Length nine inches, bill three-quarters of an inch, strong, straight, and sharp-pointed: colour black, nostrils linear, legs and toes of an orange red. Back and tail coverts pure white, a few feathers black; tail black; upper surface of the wings varied with black, brown, rufous, and white; crown of the head brown; forehead white, with a black line across it, which extends under each eye; a black line runs on each side from the base of the lower mandible down to the neck, the space between being white; part of the neck and breast black, the rest of the breast, the belly, and under

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wings pure white; white feathers at the base of the great wing coverts, and at the scapulars. These birds are gregarious.

20. *Scolopax Solitaria*.

Length 11 inches; bill one inch and three-quarters in length, black, straight, and slender; upper mandible slightly toothed at the end; nostrils linear; tongue tubular. Whole of the upper plumage dark ash; a white line extends on each side from the upper mandible to the eye. From the lower mandible to the neck is dusky white, below that a bright ash-colour; from the breast to the tail a dusky white; wings underneath a light ash; legs yellowish; tail short.

21. ; *native name*, Uan.

Procellaria Alba. *Lim*

These birds are eaten by the natives.

INSECTS.

We met with only one *Papilio*, which Kotzebue has described under the name of *Vanessa Tamehameha*.

We caught one *Sphinx* Moth; brown, with a purple stripe on each side of its body, which glitters in the sun.

There are also several minute moths, several varieties of *Libellula*, one species of *Cicada*, a black earwig, a wood spider, and innumerable fleas.

There are no snakes of any description, and the only reptiles we found were two species of lizard, copper-coloured, and neither exceeding five or six inches in length.

FISH.

Sharks are common in these seas, as are also the boneto and the flying-fish. Both red and grey mullet abound, and there are several curious and beautiful varieties brought to market.

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Of shell fish the pearl oyster is the most valuable, and the pearls are generally good. We found, besides, the *Bulla Anplustra*, *Buccinum Maculatum*, *Volutæ Papalis* and *Episcopalis*, *Conus Ebræus*, *Cypræa Arabica*, *C. Carniola*, *C. Guttata*, *C. Mauritiana*, and *C. Isabella*; also several varieties of *Murex*, *Nerita*, *Patella*, and *Turbo*.

Corals and zoophytes are common on the coast. Of land shells we procured eleven different varieties, four of which had reversed mouths: they belong principally to the first division of the volute of Mawe's Linnaeus.

As to the quadrupeds of the Sandwich Islands, the three natives, i. e. the hog, dog, and rat, need no description; those now introduced are the cow, horse, sheep, goat, rabbit, and mouse.

In a geological point of view, the Sandwich Islands may generally be described as a group of volcanoes, rising amidst coral banks and reefs. The mountains are chiefly composed of lavas and other volcanic substances. The great crater of Peli, which we visited, appears to be situated in a trap rock.

The low flat lands near the sea appear to have been coral reefs become dry; there carbonate of lime is to be found, and calcareous masses of coral and shells, some completely petrified, others in different stages, from the fresh shell towards petrification.

In Oahu, amygdaloid and argillaceous porphyry are found.