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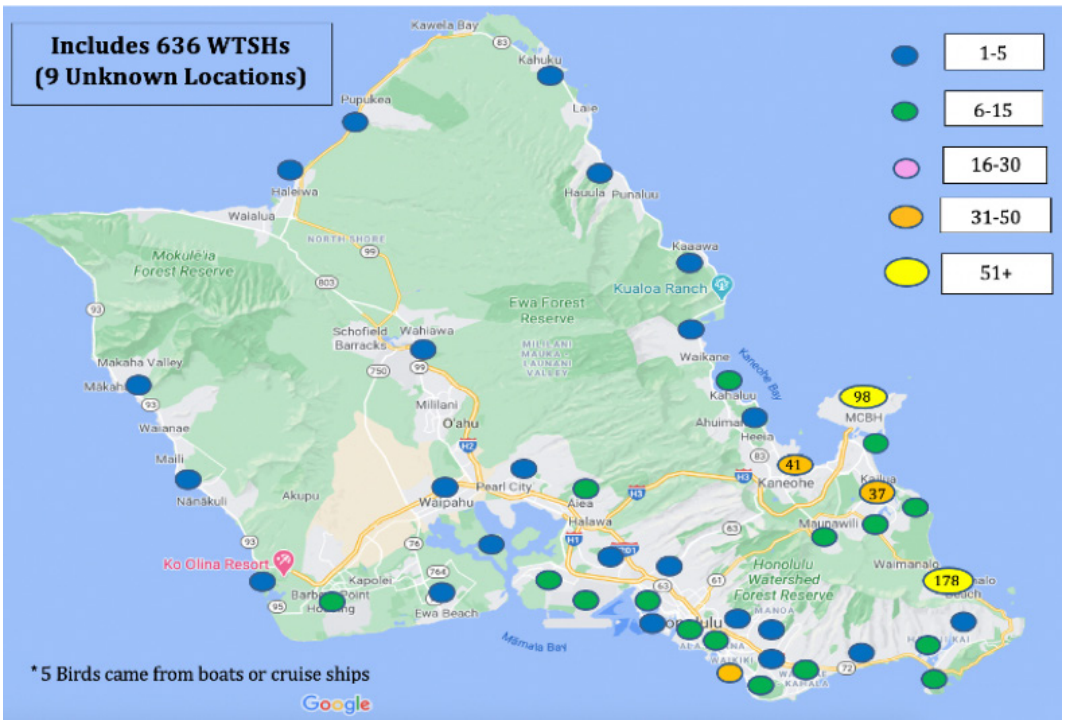

Figure 1. Map of downed 'Ua'u kani (Wedge-tailed Shearwater) locations during the 2024 fallout season. This information was gathered from the intake forms submitted when birds were dropped off at O'ahu Seabird Aid. No locations fell into the 16-30 birds category in the 2024 season.

2024 'Ua'u Kani Fallout Season Summary: Results from O'ahu Seabird Aid Program

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Introduction

Each year from October through December, young 'Ua'u kani (*Ardenna pacifica*, Wedge-tailed Shearwater) taking their first flight out to sea in the evening can get disoriented or led off-course by urban lights. This annual phenomenon is referred to as seabird fallout season. During this time, the Hawai'i Wildlife Center (HWC) enacts a program called O'ahu Seabird Aid (OSA) to provide a coordinated response and care for the hundreds of downed seabirds each year on O'ahu. The OSA program was created by HWC in 2017.

As care and release of native seabirds require state and federal rehabilitation permits, HWC runs the O'ahu Seabird Aid program and all OSA activities of HWC and program partners are conducted under HWC's state and federal permits. Feather and Fur Animal Hospital, HWC's partner on the OSA program, graciously provides a 24-hour drop-off location for downed birds and stabilizes birds in medical distress when needed. For six weeks surrounding the peak of fallout season, Hawai'i Wildlife Center staff move from the HWC satellite clinic at the Honolulu Zoo and work primarily out of Feather and Fur Animal Hospital.

Methods

Hawai‘i Wildlife Center streamlined downed bird acceptance through Feather and Fur Animal Hospital. During operating hours, birds were received either at a tent set up outside the building by HWC staff and volunteers, or by the front desk staff at Feather and Fur when all HWC personnel were occupied with bird care. After hours, Feather and Fur night staff accepted downed birds. Information on the birds was collected using an intake form when they were dropped off, including the location where the bird was found and any notable circumstances related to the rescue. Each bird was assigned a unique number and treatment details were kept in the patient's record in HWC's online database.

Top Five Locations for Downed Birds During the 2024 O‘ahu Seabird Aid Program

	Number of downed ‘Ua‘u kani (percent of total 2024 birds)
WAIMĀNALO	178 (28%)
HONOLULU Joint Base Pearl Harbor Hickam (JBPHH), the Honolulu Airport, Salt Lake/Moanalua, Kalihi Valley/Liliha/ Nu‘uanu, Kalihi, Sand Island, Kaka‘ako/Downtown, Ala Moana, Makiki, Waikīkī, Lē‘ahi (Diamond Head), Kaimukī, Mānoa/St. Louis Heights, Kāhala, Kalani, Hawai‘i Kai, China Walls/Portlock, Kalama Valley	152 (24%)
MARINE CORPS BASE HAWAI‘I (MCBH)	98 (15%)
KAILUA Maunawili/Olomana, Enchanted Lakes/Keolu Hills, Kailua town, Kaimalino, Lanikai	77 (12%)
KĀNE‘OHE Waikāne, Kahalu‘u, He‘eia, Kāne‘ohe town	63 (10%)

Figure 2. Top five locations with the most downed ‘Ua‘u kani in 2024, showing bird counts and each location's percentage of total O‘ahu Seabird Aid intakes.

Upon intake, birds showing signs of injury or abnormalities in behavior were immediately attended to by HWC staff. Birds that did not require immediate medical attention were seen in the order that they were dropped off. Intake exams were performed on each bird by HWC's trained wildlife staff, hydration was provided, and additional nutritional support or medical care was given when needed. Birds requiring additional assessment were also given pool time to assess waterproofing. Birds that were visually dirty, or had background information on their intake form that could indicate possible contamination, were provided with time on water so staff could monitor for any signs of compromised waterproofing. Birds that required longer care for any reason were also provided pool time. To be approved for release, each bird was required to pass a pre-release examination, which included a flap test to gauge general strength and readiness for flight, along with other parameters.

2024 Results

Hawai‘i Wildlife Center personnel, in coordination with program partners, evaluated and cared for a total of 645 downed ‘Ua‘u kani in the 2024 fallout season. In addition to 645 ‘Ua‘u kani evaluated by HWC's OSA program, 27 additional seabirds from 10 additional species were brought in during fallout season. The additional seabird species brought in for care were seven ‘Ou (*Bulweria bulwerii*, Bulwer's Petrel), six ‘Ewa‘ewa (*Onychoprion fuscatus*, Sooty Tern), five Koa‘e kea (*Phaethon lepturus*, White-tailed Tropicbird), two ‘Ā (*Sula leucogaster*, Brown Booby), two Noio kōhā (*Anous stolidus*, Brown Noddy), one Leach's Storm-petrel (*Hydrobates leucorhous*), one ‘Ā (*Sula dactylatra*, Masked Booby), one ‘Iwa (*Fregata minor*, Great Frigatebird), one Noio (*Anous minutus*, Black Noddy), and one ‘Ā (*Sula sula*, Red-footed Booby).

Downed ‘Ua‘u kani were found throughout O‘ahu and in some cases were also found offshore on boats or cruise ships (see Figure 1). Five locations account for the majority of found birds delivered to the O‘ahu Seabird Aid program. This includes the cities of Waimānalo, Honolulu, Kailua, Kāne‘ohe, and the independent territory of Marine Corps Base Hawai‘i (MCBH) (see Figure 2).

About 215 birds were banded during the season. Banding was coordinated by the U.S. Fish and Wildlife Service, and performed under permits held by personnel in the Wildlife Ecology Lab at University of Hawai‘i at Mānoa.

Of the total 645 ‘Ua‘u kani brought to HWC's O‘ahu Seabird Aid program, 575 were released. 534 birds were released on O‘ahu. Birds that were underweight, injured, or required longer-term care were transferred

to the main HWC hospital on Hawai‘i Island. A total of 41 O‘ahu Seabird Aid birds were released from Hawai‘i Island.

70 birds in 2024 were unreleasable. Some of these birds passed away, while others had issues including severe wing or leg injuries or abnormalities, head trauma and neurological impairment, were non-visual, or exhibited severe emaciation. Birds that would not have been able to survive in the wild were humanely euthanized, consistent with animal welfare practices, ethical protocols, and rehabilitation permit requirements. The proportion of unreleasable birds (70 out of 645) was low (10.8%) and consistent with the previous four years of the O‘ahu Seabird Aid Program (mean=10.9%, range = 8.7 – 13%) (see Figure 3).

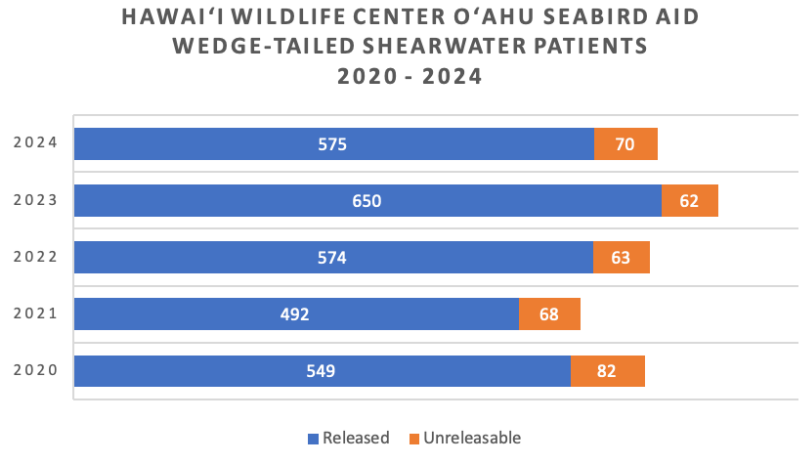

Figure 3. Seabirds collected by the O‘ahu Seabird Aid program from 2020–2024. Blue bars show birds treated and released; orange segments represent unreleasable birds.

It is standard practice in wildlife rehabilitation to subtract wildlife patients that pass before arrival or are euthanized on arrival from the total number of patients received when calculating release percentage, in order to provide a more accurate view of those patients actually treated (Miller, 2012). After removing any Ua‘u kani (Wedge-tailed Shearwater) that passed or required euthanasia within 24 hours and only considering those individuals who received timely assessment and care, the Hawai‘i Wildlife Center’s O‘ahu Seabird Aid 2024 release rate was 95.4% (575 out of 603 ‘Ua‘u kani treated).

Discussion

Timely assessment and care were found to be extremely important for birds. If a bird is downed, it has been found that those that spend a day in rehabilitation had greater apparent survival than those released on the same day (Raine, et al. 2020). A cursory visual inspection (i.e. the bird “looks fine”) is not sufficient to determine releasability as there may internal trauma, neurological issues, or waterproofing issues that are not immediately apparent.

Long-term care became necessary for certain cases. Notably, there were fewer malnourished birds in 2024 compared to 2023. 54 birds examined were found to be underweight (less than 300g) (8.4% of total birds), with 16 of these birds classified as extremely underweight/emaciated (less than 225g) (2.5% of total birds). In 2023 the O‘ahu Seabird Aid Program treated 121 underweight birds (17.0% of total birds) and 41 of those were considered emaciated (5.8% of total birds). HWC staff also considered overall body condition including a keel score (numerical score attributed to a bird’s palpated condition) when judging malnourishment.

Major eye issues presented in some patients. Congenital cataracts showed up in numerous birds. Other issues included trauma-related eye issues like a detached lens or eyelid lacerations. There were also a handful of substantially contaminated birds, one from a pier, one from a loading dock, and another rescued from a pan of motor oil. There was also a bird contaminated with sewage from a wastewater treatment plant. Potential contamination came from some surprising sources as well, including oily curly fries that were found in one bird’s box. Debris and oils from food items contaminates feathers and can prolong a bird’s time in care. This is one reason that HWC staff asks that no food or water is given to birds before drop-off.

There were notable severe cases of avian pox in the 2024 season. Pox is a viral infection that expresses as growths and lesions on the featherless parts of birds. Affected birds and the linens used for their care are isolated from other patients. While severity can vary, pox in these birds resulted in major trauma including severe beak deformities or destroyed webbing on their feet. HWC also saw major impact trauma in birds brought in from windfarms.

One of the goals of the Oʻahu Seabird Aid program is to streamline bird intake and treatment to maximize the chances of survival post-release. Consistent messaging is important as it reduces public confusion, and birds can receive care faster. Community cooperation and ability to transport birds also ensured that birds received care faster. A circumstance that may have impacted the 2024 Oʻahu Seabird Aid program was the detection of avian influenza in Hawaiʻi for the first time, at approximately the same time that seabird fallout season was reaching its peak. While Hawaiʻi Wildlife Center staff was prepared to adjust bird care protocols and adapted to the evolving situation, HWC staff noticed that the messaging around avian influenza shared with the public seemed to create a fear of helping any wild birds. When a bird finder was not able to transport the bird, HWC's Wheels for Wildlife transport volunteers and rescue organizations were extremely helpful.

Also, at least two birds in the 2024 season were sent via Uber. In these cases someone would hire an Uber from the bird's location to Feather and Fur Animal Hospital, the bird was transferred to the Uber, and the Uber driver would drive the bird to Feather and Fur. Both birds that arrived via Uber were transported late at night, one at 9:30PM and the other at 11:00 PM. By using Uber the bird was able to receive care in a timely manner instead of waiting until morning, however limited information outside of general point of origin was able to be collected about the bird as the Uber driver was not the original finder.

Acknowledgements

Mahalo nui loa to Dr. Walsh and Feather and Fur Animal Hospital, who generously allow the HWC team into their space and provide medical support when needed. The program was also made possible by a large hui of volunteers from the community. The 2024 Oʻahu Seabird Aid program was supported by funding from HWC donors, the Hawaiʻi Department of Land Natural Resources Division of Forestry and Wildlife (DLNR DOFAW), and Hawaiian Electric. Mahalo also to Hawaiʻi Wildlife Center Oʻahu partners, the Honolulu Zoo, DLNR DOFAW, and the U.S. Fish and Wildlife Service. Birds were able to get into care thanks to the efforts of all the volunteers in HWC's Wheels for Wildlife transport team as well as staff and volunteers from wildlife response organizations, military bases, and private entities. The U.S. Coast Guard Auxiliary and private pilots also assisted in transporting birds. The Freeman Seabird Preserve, managed by the Hawaiʻi Audubon Society, provided a site for soft release when needed.

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WANT TO HELP IN 2025?

If you'd like to help the Hawaiʻi Wildlife Center's Oʻahu Seabird Aid program, volunteer support and donations are appreciated! Learn more at https://www.hawaiiwildlifecenter.org/oahu-seabird-aid-program.html.

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The only two known museum specimens of ʻĀmaui (Oʻahu Olomaʻo) *Myadestes (lanaiensis) woahensis*

By Roland E. van der Vliet & Justin J. F. J. Jansen

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Abstract

During the stay of the HMS *Blonde* on the island of Oʻahu, Hawaiʻi, in May 1825, English naturalist Andrew Bloxam collected 25 endemic songbird specimens of which two had not formally been described. These were Oʻahu ʻAmakihi (*Nectarina flava* [now *Chlorodrepanis flava*]), and ʻĀmaui, also known as Oʻahu Olomaʻo (*Turdus Woahensis* [now *Myadestes (lanaiensis) woahensis*]). While *Nectarina flava* is described in an appendix of the official travelogue of the journey that appeared in 1827, this did not happen with *Turdus Woahensis*. Official publication of *Nectarina flava* went

unnoticed for a long time, which has contributed to the late recognition and late resurrection of the correct name for *Chlorodrepanis flava* (Bloxam, 1827). For *Myadestes (lanaiensis) woahensis*, Wilson & Evans finally published Bloxam's original description in 1899. Therefore, the authorship of this species is at present commonly referred to as 'Bloxam in Wilson & Evans 1899' or, simply, 'Wilson & Evans 1899'. *Myadestes (lanaiensis) woahensis* is now extinct. Bloxam's two *Myadestes* specimens are the only ones known, so we take the opportunity to publish photographs of both for the first time. We note the anomalous distribution pattern of *Myadestes lanaiensis* compared to the other endemic songbird species of the major Hawaiian Islands, which may merit further study of the taxonomic status and relationships of taxa within presently defined *Myadestes lanaiensis*.

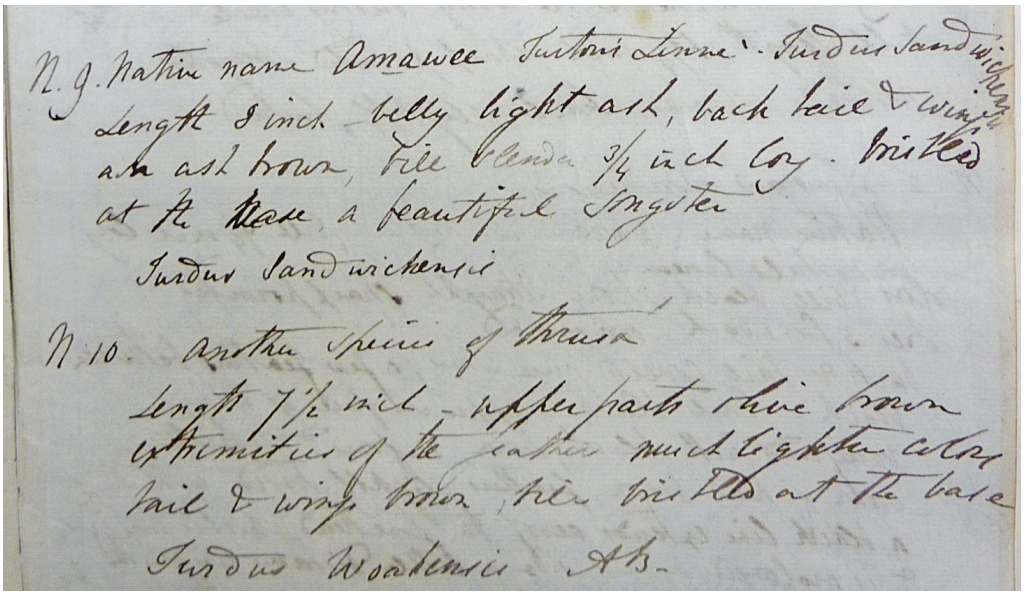
KEYWORDS: extinction, Turdidae, Myadestes, Hawai'i, O'ahu, Bloxam, HMS *Blonde*, Wilson

At departure from Spithead, England, on 28 September 1824, the main task of the HMS *Blonde* was to return the bodies of King Kamehameha II and Queen Kamāmalu to the Kingdom of Hawai'i. The king and queen had travelled to England to learn about European law to perhaps implement at home. Unfortunately, both died due to measles quickly after arrival. After seven months, the HMS *Blonde* arrived in O'ahu on 6 May 1825, where crew members explored the island on several days between 12 and 20 May, notably the Nu'uanu Valley at Honolulu (Olson 1996), but where the vessel remained until 7 June. Among those exploring the island were naturalist Andrew Bloxam and botanist James McRae. Here, 24 songbirds were collected. Apart from the long stop-over in O'ahu, the HMS *Blonde* also made stop-overs on Hawai'i (briefly on 3 May and between 12 June and 7 July) and Maui (briefly on 4 May). It returned to O'ahu between 9 and 18 July, before finally departing for Tahiti and onwards (Olson 1996). In addition to O'ahu, Bloxam also explored Mauna Kea and Kīlauea on Hawai'i Island, but his notes indicated that only one songbird was collected (Table 1).

A travelogue of the voyage was published after the HMS *Blonde* returned to England in 1826, (Byron 1827). Maria Graham, a professional writer who did not have training as a naturalist, compiled the account of the voyage. More specifically, Bloxam and McRae published the results of the explorations on O'ahu in May 1825 as an appendix to the account of the voyage (Bloxam 1827). While compiling the appendix, Graham had to rely on the original notes made by Bloxam. Perhaps, as a consequence, both Alfred Newton and Walter Rothschild, who later both became involved in the natural exploration of the Hawaiian Islands, did not value the material in the appendix highly. This may also be related to Bloxam not being a well-known or well-trained naturalist. After the voyage of

Bloxam specimen	Name Bloxam (Olson 1996: 8)	Current name	Museum	Vellum collection number	Modern collection number
1	*Nectarina coccinea*	*Drepanis coccinea*	NHMUK	OVC 26: 54a	1845.2.21.295
2	*Nectarina coccinea*	*Drepanis coccinea*	NHMUK	OVC 26: 54b	--
3	*Nectarina coccinea*	*Drepanis coccinea*	NHMUK	OVC 26: 54c	1845.2.21.297
4	*Nectarina coccinea*	*Drepanis coccinea*	NHMUK	OVC 26: 54d	--
5	*Nectarina coccinea*	*Drepanis coccinea*	NHMUK	OVC 26: 54e	--
6	*Nectarina Byronensis*	*Himatione sanguinea*	NHMUK	OVC 26: 55a	--
7	*Nectarina Byronensis*	*Himatione sanguinea*	NHMUK	OVC 26: 55b	--
8	*Nectarina Byronensis*	*Himatione sanguinea*	NHMUK	OVC 26: 55c	--
9	*Nectarina Byronensis*	*Himatione sanguinea*	NHMUK	OVC 26: 55d	--
10	*Nectarina Byronensis*	*Himatione sanguinea*	NHMUK	OVC 26: 55e	--
11	*Nectarina Byronensis*	*Himatione sanguinea*	not found	--	--
12	*Nectarina flava*	*Chlorodrepanis flava*	NHMUK	OVC 26: 56a	--
13	*Nectarina flava*	*Chlorodrepanis flava*	NHMUK	OVC 26: 56b	--
14	*Nectarina flava*	*Chlorodrepanis flava*	NHMUK	OVC 26: 56c	--
15	*Nectarina flava*	*Chlorodrepanis flava*	NHMUK	OVC 26: 56d	--
16	*Nectarina flava*	*Chlorodrepanis flava*	NHMUK	OVC 26: 56e	--
16bis	*Nectarina nigra*	*Moho apicalis*	NHMUK	OVC 26: 19a	--
17	*Loxia Psittacea*	*Psittirostra psittacea*	NHMUK	OVC 19: 87a	--
18	*Muscicapa Sandwichensis*	*Chasiempis ibidis*	NHMUK	OVC 11: 109a	--
19	*Muscicapa Sandwichensis*	*Chasiempis sandwichensis ridgwayi*	NHMUK	OVC 11: 109b	--
20	*Muscicapa Sandwichensis*	*Chasiempis ibidis*	NHMUK	OVC 11: 109c	--
21	*Fringilla rufa*	*Loxops wolstenholmei*	NHMUK	OVC 20: 187a	--
22	*Fringilla rufa*	*Loxops wolstenholmei*	NHMUK	OVC 20: 187b	--
23	*Turdus Sandwichensis*	*Myadestes (lanaiensis) woahensis*	NHMUK	OVC 12: 236a (possibly; Olsson 1996)	1988.21.2
24	*Turdus Woahensis*	*Myadestes (lanaiensis) woahensis*	ANSP	--	13660

Table 1. Details for 25 specimens of endemic songbirds from Hawai'i collected by Andrew Bloxam in 1825 according to Olson (1996: 8) including code in the museum's Old Vellum Catalogue (OVC). -- : not available / not applicable. Museum acronym: ANSP = Academy of Natural Sciences of Drexel University, Philadelphia, USA; NHMUK = Natural History Museum, Tring, U.K.. Note that Bloxam used number 16 twice, so, following Olson (1996), we renumbered one as 16bis.



N. 9. Native name Amauee Turdus Linne'. Turdus Sandwichensis
Length 8 inch belly light ash, back hair & wings
ash ash brown, Tile blended 3/4 inch long. bristles
at the base a beautiful Songster
Turdus Sandwichensis

N 10. Another Specie of Thrush
Length 7 1/2 inch upper parts olive brown
extremities of the feathers much lighter color
tail & wings brown, tile bristles at the base
Turdus Woahensis Ab.

Figure 1. Excerpt of Bloxam (n.d.) detailing the descriptions of both specimens of *Myadestes (lanaiensis) woahensis*.

HMS *Blonde*, he disappeared as an established name in ornithology (Berkeley 1878). Bloxam's original, non-edited, notes had therefore long been difficult to access. A. Roby Bloxam, a descendant of Bloxam, donated the non-edited notes to the Natural History Museum Tring, U.K. (NHMUK), so that these original notes can now be studied (Thackray 1995, Olson 1996). We studied them on 5 January 2016, more specifically a text about the natural history of the Sandwich Islands (7 pages), a copy of a letter in Bloxam's diary (2 pages), and a list of birds (3 pages). We refer to these as Bloxam (n.d.). Furthermore, we examined all extant Bloxam Hawaiian songbird specimens in the Academy of Natural Sciences of Drexel University (ANSP), Philadelphia, USA, on 14 November 2022, and in NHMUK on 21-22 March 2023 and 25-26 April 2024 (see table 1).

Bloxam's non-edited notes provided details on 25 specimens of endemic songbirds from Hawai'i, and are much more detailed than the edited version in the appendix (Bloxam n.d., Olson 1996). Bloxam (n.d.) described the species with scientific names attached. Bloxam (n.d.) noted that all his specimens were carefully prepared using arsenic soap and labelled with information on collection locality and species name. This information became subsequently lost, however. Except for a single specimen of Hawai'i 'Elepaio *Chasiempis sandwichensis*, clearly annotated as obtained in Hido [=Hilo] on Hawai'i Island, all endemic songbird specimens originate from O'ahu (Olson 1996). Among the birds Bloxam collected, two refer to species that had not been formally described. These were the O'ahu 'Amakihi (*Nectarina flava* [now *Chlorodrepanis flava*]) and the 'Āmaui, or O'ahu Oloma'o (*Turdus Woahensis* [now *Myadestes (lanaiensis) woahensis*]). *Nectarina flava* received its name in the official appendix (Bloxam 1827). Consequently, Olson (1996) identified the senior name *Chlorodrepanis flava* Bloxam, 1827, as the valid name for the honeycreeper formerly known as *Chlorodrepanis chloris* (Cabanis 1851: i in note on p. 99).

The history of the taxonomic placement of the 'Āmaui thrush (*Turdus*) is more convoluted, however. Bloxam (n.d.) described two thrushes, under different names: *Turdus Woahensis* and *Turdus Sandwichensis* (Fig. 1). Yet, *Turdus Woahensis* was never mentioned in the officially published appendix. Instead, only the following description appears in this appendix, for *Turdus Sandwichensis*: "*9. native name, Amauii. Turdus Sandwichensis. Linn.; Sandwich thrush. Found chiefly in Hawaii. There is a variety of the same at Oahu*." Evidently, as he refers to Linnaeus for this bird, Bloxam did not identify it as something new. It was up to Wilson & Evans (1899), who probably realised the nomenclatural importance of the description of *Turdus Woahensis* in Bloxam (n.d.), to republish Bloxam's description in the introduction of their book (page xiii). Olson (1996) subsequently recommended that the correct spelling, authorship and publication date for this particular species on O'ahu should be *woahensis* by Bloxam in Wilson & Evans (1899). *Turdus Woahensis* is now known as *Myadestes (lanaiensis) woahensis*. Unfortunately, Wilson & Evans (1899) introduced two other synonyms next to *woahensis*, namely *oahensis* and *oahuensis*. This has led to different opinions by subsequent authors on the spelling of the species name. Several authors thus used *oahensis* (e.g. Rothschild 1893-1900, Bryan & Greenway 1944, Ripley 1964, Pratt 1982, AOU 1985), while others used *oahuensis* (e.g. Bryan 1901, Henshaw 1902, Perkins 1903, Munro 1944). However, Gomes

Figures 2-4. Holotype of *Turdus Woahensis* Bloxam, 1827 (now *Myadestes (lanaiensis) woahensis*), juvenile, NHMUK 1988.21.2 (Justin J F J Jansen © NHMUK). Code 150a appears on the label but this is not a modern collection number.

(2020) recently used another incorrect subsequent spelling of (*woahuensis*). Following Olson's (1996) recommendation, all current versions of global checklists of birds use Myadestes (*lanaiensis*) *woahensis* attributing it to Bloxam in Wilson & Evans (1899) (e.g. Dickinson & Christidis 2014, Clements et al. 2023, Gill et al. 2024). The alternative spellings of *woahensis* (i.e. *oahensis*, *oahuensis*, and *woahuensis*) are not allowed (Olson 1996).

In most thrushes, including the *Myadestes*-species occurring in the Hawaiian Islands, juvenile birds differ distinctly in plumage from the adults. The most obvious difference is that juveniles are scaled on the underparts, while the adults are plain coloured. Bloxam (n.d.) described his *Turdus Sandwichensis*, as a bird with a light ash belly while in his account of *Turdus Woahensis* he described the feather edges as much lighter colored (Fig. 1). From these details, it can be discerned that his *Turdus Sandwichensis* referred to a bird in adult plumage, whereas the *Turdus Woahensis* is clearly a bird in juvenile plumage (cf. Olson 1996). Comparing Bloxam's type descriptions with the specimens (Figs. 2–4 versus Figs. 5–6), it is

Figure 5. Holotype of *Turdus Sandwichensis* Bloxam, 1827 (now *Myadestes (lanaiensis) woahensis*), adult, ANSP 13660, (Justin J F J Jansen © ANSP).

Figure 6. Holotype of *Turdus Sandwichensis* Bloxam, 1827 (now *Myadestes (lanaiensis) woahensis*), adult, ANSP 13660, (Justin J F J Jansen © ANSP).

obvious that the juvenile should be considered the type specimen of *Turdus Woahensis* and the adult the type of *Turdus Sandwichensis*. Both specimens are thus holotypes. Type location is the Nu'uanu trail near Honolulu in both instances as this is the only site where Bloxam collected birds (Olson 1996). For many years, both specimens were considered lost until Olson (1996) relocated them. Olson (1996) provided black-and-white photographs of the holotype of *Turdus Woahensis* from the NHMUK. As far as we are aware, photographs of the holotype of *Turdus Sandwichensis* have never been published in a journal. This specimen is in the ANSP. Because of the reasons above, we provide colour photographs of both specimens (Figs. 2–6). Considering the old age of Bloxam's specimens, it is notable that we were able to find 24 of the 25 specimens (Table 1), probably at least partly due to Bloxam using arsenic soap during the preparation of the specimens (Bloxam n.d.). All specimens are in the NHMUK, except for the *Turdus Sandwichensis* in the ANSP (contra Rothschild 1893-1900, Olson 1996).

Nearly all endemic songbird species of the major Hawaiian Islands are single-island species. In this treatment, we consider Kaho'olawe, Lāna'i, Maui and Molokai as one entity, Maui-Nui (Price & Elliott-Fisk 2004). There are only few exceptions to this rule. One group of exceptions are three (formerly) widespread species: 'Ō'ū (*Psittirostra psittacea*), 'I'iwi (*Drepanis coccinea*), and 'Apapane (*Himatione sanguinea*). Presumed as strong fliers, they occasionally strayed to neighbouring islands, resulting in gene flow between islands (Munro 1944). The other exceptions are two species with, in this light, aberrant distributions. These are the Hawai'i 'Amakihi (*Chlorodrepanis virens*), with two distinguishable subspecies on Hawai'i (nominate *virens*) and Maui-Nui (*wilsoni*). The other taxon is the Oloma'o (*Myadestes lanaiensis*) of which subspecies occurred on O'ahu and Maui-Nui (e.g. Dickinson & Christidis 2014, Gill et al. 2024). Considering the anomalous distribution pattern of *Myadestes lanaiensis*, compared to the other endemic songbird species of the major Hawaiian Islands, it may be revealing to investigate the taxonomic status and relationship of the present taxa within *Myadestes lanaiensis* further. Unfortunately, *Myadestes (lanaiensis) woahensis* has never been collected nor observed in the wild after 1825 (Olson 1996, Wakelee & Fancy 2020), leaving little material to do so.

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* * * *END* * * *

Memoriam for Charles van Riper III

September 24, 1943 - February 7, 2025

By Mike Scott

Charles van Riper III, a long-time member of the American Ornithologists' Union (Elected 1982, Fellow 2000) and the Cooper Ornithological Society (Life and Honorary), and a Life Member of the Wilson Ornithology Society, passed away at the age of 81 on February 7, 2025, in Tucson, Arizona. He was born September 24, 1943, in upstate New York to Charles van Riper and Dorothy May Wilson. He roamed the Hudson River Valley area as a youth, observing wildlife. Surrounded by wilderness, Charles found his future as a lover, observer, and student of Nature.

Charles had many talents. In high school he played

Dr. Charles van Riper III (1943–2025), pioneering ornithologist and conservationist, dedicated his life to the study and protection of native birds across Hawai'i and the American Southwest. © Sandy van Riper

Varsity football and basketball, was in the All-State Band, and achieved Eagle Scout. He was tutored in woodwind instruments at the Juilliard School of Music before moving to Colorado State University, where he received a BS degree in Zoology in 1966, and later a Master of Education in Science from their Department of Education in 1967. He was heavily influenced by Paul Baldwin, a pioneering research biologist in Hawai'i and Charles was inspired by Paul's stories of the adaptive radiation of Hawaiian Honey Creeper. Charles went to Hawai'i in 1968 to teach Biology and coach Football and other sports at the Hawai'i Preparatory Academy, where he mentored and touched the lives of many students.

After several years, Charles left teaching to pursue a PhD in Zoology at the University of Hawai'i at Mānoa (UHM). Under the guidance of Dr. Andrew Berger Charles studied the life history and conservation of the Palila and Hawaiian 'Amakihi. Charles completed his Ph.D. in Zoology in 1978.

As a graduate student, Charles was the lead author of the first multi-agency effort to document population size, distribution, and habitat associations of the

endangered Palila in 1975-1976. The same methods and transects used during those first surveys are still used fifty years later. Dr. van Riper authored more than 70 peer-reviewed articles on the biology and natural history of birds and the impacts of diseases on the native birds of Hawai‘i before he left the islands in 1979.

Later, while a postdoctoral student with Clifford Smith in the Department of Botany at UHM, he and fellow graduate student and soon-to-be wife Sandra Jean Guest, worked together unraveling the complex picture of how avian diseases affect population dynamics and distribution of native Hawaiian birds. Together they laid the foundation for current studies of avian disease impact on endangered forest birds on the Big Island.

Shortly after completing his post-doctoral experience in Hawai‘i, in 1979 Charles and Sandy moved to Northern California where Charles established a National Park Service Cooperative Research Unit at the University of California, Davis. While in Davis he worked with National Park managers to identify wildlife management challenges and turn the results of management/policy-relevant research into management actions on the ground.

In 1989, Charles was asked to establish an ecosystem-focused cooperative research unit at Northern Arizona University in Flagstaff that would cover the four-state area of the Colorado Plateau. While there he focused his efforts on bringing research and land managers together in a biannual forum that sought to foster discussions on how to integrate new scientific findings into management of the natural and cultural resources of the Colorado Plateau. The success of those efforts caught the attention of folks and in 2003 Charles was asked to assume leadership of the USGS Sonoran Desert Research Station in Tucson, Arizona, where he was a Professor in the Department of Wildlife and Fisheries at the University of Arizona. He authored hundreds of articles on topics as diverse as avian migration, breeding biology, habitat associations, avian disease, and the behavior of birds.

When he retired in 2014, he was a Senior (ST) Research biologist with the Biology section of the U.S. Geological Survey. He became an Emeritus Professor and ST Research Ecologist at DOI/USGS and the University of Arizona. Charles continued active breeding biology research on the Western Cordilleran Flycatchers in Colorado and Mt. Lemmon in Arizona. His Arizona property was developed into a National Wildlife Federation Certified Habitat. Charles became a Master Gardener and worked tirelessly in his garden, producing wonderful fruits and vegetables. His greatest joys have included tracking deer and elk through the forest.

He and his wife Sandy donated 40 acres to Lone Pine State Park in Montana by conservation easement. They also established endowments to Northern Arizona University, Colorado State University, and the University of Hawai‘i at Mānoa, assisting students to travel to professional meetings.

Charles was a friend and colleague who freely shared his encyclopedic knowledge of the endemic birds of Hawai‘i, their habitats, the threats that faced them, and what could be done to save them. At the end of the day, Charles was a bridge builder between folks with different opinions, goals, and resources. Throughout his career, he worked tirelessly to bring people together in service of conservation. From leading multiagency efforts to better understand Palila populations in Hawai‘i, to collaborating with colleagues in Arizona to turn research findings into practical management and policy actions, he was dedicated to solutions that benefited wildlife and their habitats. He built teams.

He was a teacher, a student, and a mentor to the very end, and those who knew him feel grateful and blessed. Charles is survived by his wife Sandra, son Charles (Kale) van Riper, daughters Jacqueline, Kimberly, and Carena, grandchildren Charles van Riper, Mycah, Camina, Clara and two brothers, Lt. Commander Drew F. van Riper of Manassas, Virginia, and Dr. Gary Van Riper of Morrison, Colorado.

The family asks that people not send flowers, but instead consider giving a gift to the Hakalau Forest Endowment Fund, which Charles helped start: friendsofhakalauforest.org/endowment, or the Hawai‘i Audubon Society hiaudubon.org/donate/.

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‘I‘iwi calling out into the forest. © Nick Kalodimos

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Announcements

New *‘Elepaio* Submission Guidelines Now Available

The *‘Elepaio* recently updated the submission guidelines for both scientific and general manuscripts. These revisions aim to streamline the process and encourage a wide range of contributions focused on the birds and ecosystems of Hawai‘i.

We welcome original research, field observations, educational insights, and creative works from scientists, conservation professionals, educators, students, and community members.

Access the updated guidelines and complete submission instructions linked here:

· Scientific Submissions
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Events

May 3: Manu o Kū Festival at ‘Iolani Palace (O‘ahu). Find more information here: https://hiaudubon.org/events/manu-o-ku-festival-oahu-2025/

May 4: Ka‘ena Point Bird Tour (O‘ahu)

May 10: Global Big Day (Hawai‘i Island)

May 12: Bird Bingo at Kona Brew (Hawai‘i Island)

May 17: Na Mea Hawai‘i Day at Ben Parker Elementary School (O‘ahu)

June events will be posted to our events page as they develop.

For more details and updates visit:
hiaudubon.org/events or email events@hiaudubon.org

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