‘ELEPAIO

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Observations of a Peregrine Falcon in Waikīkī, Hawai‘i
July 21, 2022- February 4, 2023

by Michael Walther

The following is an update on Michael Walther’s recent observations of a Peale’s Peregrine Falcon in Waikīkī. He has been sharing his sightings with us since 2021. Michael is a well-known photographer and author of books about Hawaiian nature and of articles in birding and nature publications. He also submitted several articles for the ‘Elepaio over the years (e.g., ‘Elepaio 55:6, ‘Elepaio 66:5, ‘Elepaio 68:6, ‘Elepaio 71:4, ‘Elepaio 81:4, ‘Elepaio 82:4).

His newest book, *Birdwatcher's Guide to O‘ahu*, is available in our online store *https://hiaudubon.org/shop/*. You can also purchase a copy at a discounted price on *https://mutualpublishing.com/product/birdwatchers-guide-to-oahu/* with promo code **HAS25**; this promo is valid until the end of the year and only for the Mutual Publishing online store.

Since writing the second article for the ‘Elepaio about the Waikīkī Peregrine, the designation of this falcon being of the subspecies Peale’s has been refuted by several *ebird* experts.

“…this bird is not confirmable to the subspecies level as Peale’s and is well within variation for *anatum*. Peregrine Falcon subspecies identification is very complex, even when there are good photos or a bird in the hand. I think the way you have it now, as Peregrine Falcon (with no subspecies) is the best that can be done with all these photos.”

On July 21, 2022 I wrote the following *ebird* report.

“The Peregrine is back at the Hilton! I have been checking the Kealia Tower almost daily since April 30 when it was last observed there.

Peregrine Falcon with adult plumage September 2, 2022, Waikīkī, Michael Walther.

It has been absent for two months and 20 days. Not sure if it left Hawai‘i and returned or if it has been present somewhere in Hawai‘i with no one observing it during this period? I first observed the falcon on one of its favorite perches (the end of the rain duct closest towards ocean) at 6:15 AM. At 6:27 AM it flew to the second rain duct end. At 7:05 AM it flew from the tower.

At 6:40 PM the adult plumaged Peregrine was perched on the lower concrete ribbon of Kalia Tower. At 6:45 PM it dropped below the ribbon into a basin for possible water. It then jumped up back onto the ribbon at 6:55 PM.”

This is the second known July observation of a Peregrine Falcon in the Hawaiian Islands. This is also the first known Peregrine to have been resident in Hawai‘i during the majority of the summer. The average summer lasts 93.6 days and the Waikīkī Peregrine was present for a minimum of 62 days during the summer of 2022.

The Waikīkī Peregrine Falcon was observed at the Kalia Tower of the Hilton Hawaiian Village frequently during the Summer and Autumn of 2022 but was only seen December 21, 22, 23 and February 4 during the Winter of 2022-2023.

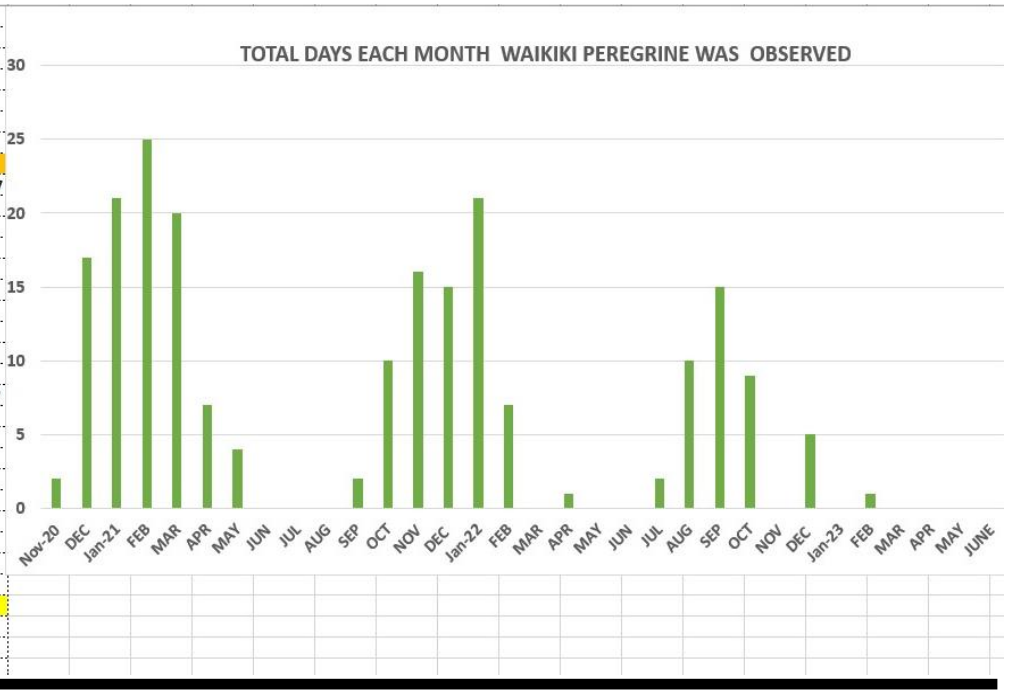
From July 21, 2022 to February 4, 2023, I recorded it present in Waikīkī on 42 days. Almost all of these observations were at the Kalia tower (40) with just two observations over the Ala Wai Canal. The majority of the observations (34) occurred between 5AM and 8AM while the falcon was at its roost or close to it on one of the concrete ribbons. I observed the falcon at the Hilton between 5 PM-8PM on nine days. Types of behavior during observations were: perched (56) flying (29) eating (8) associating with White Terns (2).

This chart below shows the observed presence and absence of the Waikīkī falcon from my first observation on November 23, 2020 to my last sighting of this amazing bird on February 4, 2023. The months highlighted in yellow are the two significant periods when I did not observe the Peregrine in Waikīkī. A juvenile Peregrine Falcon was observed at Ka‘ena Point on June 24, 2021 by a visiting birder. If this was the Waikīkī falcon, the absence of the falcon from O‘ahu during the Summer of 2021 would only be 97 days instead of 121.

The falcon’s absence at the Hilton Hawaiian Village during the late Spring and Summer of 2022 was even less; just 81 days. It is possible this falcon never left O‘ahu or the Hawaiian Islands from, at minimum, November 23, 2020 until perhaps April or May of 2023 if it has left?

If any of the recent *ebird* Peregrine Falcon sightings from O‘ahu; Ka‘ena Point, Nuuli‘i Reservoir, Waianae, Nu‘upia Ponds, Kahuku; Kaua‘i; Kalalau lookout, Kawai‘ele, and Mohihi Trail; Maui; Kealia Pond, Lahaina and Kanaha Pond

Nov-20	2	NOV 23,2020	FIRST OBSERVATION
DEC	17		
Jan-21	21		
FEB	25		
MAR	20		
APR	7		
MAY	4	MAY 31,2021	LAST OBSERVATION SPRING 2021
JUN			IMMATURE PEREGRINE OBSERVED KAENA
JUL			FALCON WAS ABSENT FROM OAHU EITHER 97
AUG			
SEP	2	SEP 30,2021	FIRST OBSERVATION AUTUMN 2021
OCT	10		
NOV	16		
DEC	15		
Jan-22	21		
FEB	7		
MAR	0		
APR	1	APR 30,2022	LAST OBSERVATION SPRING 2022
MAY			FALCON WAS ABSENT FROM OAHU 80 DAYS?
JUN			
JUL	2	JUL 21,2022	FIRST OBSERVATION SUMMER 2022
AUG	10		
SEP	15		
OCT	9		
NOV	0		
DEC	5		
Jan-23	0		
FEB	1	FEB 4,2023	LAST OBSERVATION WINTER 2023
MAR	?	?	I WAS NOT AT OBSERVATION LOCATION
APR	0		RESUMED OBSERVATIONS APR 10
MAY	0		
JUNE			



and Hawai‘i; Pololu Valley, Kohanaiki Beach Park, South Point, Hawai‘i Volcanoes National Park (several) and Kawaihae during the above period were of this falcon, then it is possible the bird has been in the Hawaiian Islands since at least November 2020. Some of the locations are visited infrequently and the falcon could go unnoticed for months. Perhaps, now as an adult, it has gone back to where it hatched? Because it has no bands or GPS device we will never know. I am watching the Kalia tower daily in hopes this remarkable Peregrine might return once again.

MY JOURNEY TO THE PAIKŌ LAGOON WILDLIFE SANCTUARY

By Roger Kobayashi, CGFM - Retired

The author's post is a description of his start at bird-watching. He shares his inspiring and entertaining observations as a beginning birder. Roger is a retired Department of Defense accountant who has enjoyed photography since his college days.

My journey to Paikō Lagoon was a circuitous one, probably similar to the journeys others have taken to reach their respective favorite viewing spots. It started out with photographing the Kōlea which has been visiting our front yard for many years; becoming a member of the Hawai‘i Audubon Society; and joining Manu o Kū walks in Waikīkī, Downtown and the University of Hawai‘i campus.

On my first visit to the Sanctuary, I got neat photos of ‘Alae ‘Ula (Hawaiian Gallinule), left, and Ae‘o (Hawaiian Stilt), right, while standing at the end of Kuli‘ou‘ou Road:

Wow!! Photos of two neat birds before hopping over the wall into the Sanctuary - I was hooked. That led to visits to "see what I could see" at low tide at varying times of the day. After a few fruitless visits, I found that the birds were most visible during the early morning hours. That began my Saturday morning visits. My visits to the Sanctuary have been an introduction to some wonderful native birds. During some of those following visits, I saw several ‘Akekeke (Ruddy Turnstone), top photo and an ‘Ūlili (Wandering Tattler), bottom photo:

When I didn't recognize the ‘Ūlili which has a body that somewhat resembles a Kōlea (to my untrained eye), I asked Alice Roberts for ID help. She immediately replied, "A long straight bill? Tattler. Listen, it will call its name when it flies."

On another Saturday, I got lucky and got a shot of four Ae‘o frolicking around:

When I shared this photo with Alice, she noticed that one of them was banded. Her contact at DLNR confirmed that it was one of four Ae‘o which had been banded in 2018, another band had been lost so more info was not available. In June, I got a bonus photo - two Ae‘o chicks along with the same banded adult that I had photographed earlier.

Adding two chicks into a population which is estimated to be fewer than 2000 breeding adults is a big deal. It was exciting to see chicks which represented the third generation of an Aeʻo family at the Sanctuary:

Between 1985 and 2014, I made many marathon training runs along Kalanianaʻole Highway and Summer Street. During those runs, I never imagined that a tranquil wildlife sanctuary was only a short block or two away. If I had known, I would have made a detour.

I would be remiss not to mention Alice Roberts because she introduced the Sanctuary to me and continues to be a wonderful source of answers for my dumb questions. Based on my training (none) and the limited number of visits, I'm not qualified to make any conclusions. Just take these words to be the observations of a Vietnam veteran with a camera.

ʻAlalā Reintroduction Efforts

The following is a student paper submitted by Hawaiʻi Preparatory Academy Junior, Dorian Seel.

Throughout the 1900s, the population of ʻAlalā, Hawaiian Crows, (*Corvus hawaiiensis*) was decimated, and by 2002 they were declared extinct in the wild. This massive decline was due to a variety of factors including habitat loss, disease, and shooting. The ʻIliahi, Haleakala Sandalwood, (*Santalum haleakalae*) market and feral ungulates destroyed much of the crows' habitat; ʻAlalā rely on native fruit as a large part of their diet, so a damaged ecosystem led to food shortages throughout their population. A study done in 1987 observed very low fledgling rates, about .75-.86 birds per nest, which is a common indicator of low food availability in corvids. In the 1800s ʻAlalā were common in elevations from 300-2,500 feet in mesic and dry forests (Griffin et al., 1987). Populations drastically declined as their habitat was damaged by introduced ungulates and they were threatened by introduced diseases. By 1970, ʻAlalā populations were fragmented and it was estimated that less than a hundred birds remained. At this time a captive breeding program was established to attempt to preserve the species (Sutton et al., 2018). Although the program was a success, the wild populations of ʻAlalā continued to decline until there were no wild birds left.

The captive breeding program has grown since it was started—there are currently 110 ʻAlalā in the program and an average of 15 young are raised annually. Although this program has been a major success in preserving an endangered species, it has a drawback. All ʻAlalā within this program come from nine genetic founders (ʻAlalā Project, 2023). The researchers carefully pick birds for breeding to increase genetic diversity, however the starting population was so small that inbreeding is now unavoidable. Although numerous reintroduction efforts have taken place since the 1970s, the ʻAlalā population has survived solely in captivity since 2002. Researchers have observed the crows genome to be more homozygous than more outbred species, and signs of inbreeding depression have been recorded (Sutton et al., 2018). Inbreeding in any animal can reduce population fitness and leave a population more susceptible to diseases. The pedigree data and observations are very detailed for the Hawaiian Crow, allowing for the effects of inbreeding on this population to be studied. Researchers found that highly inbred embryos have five times reduced chance of survival compared to healthier specimens. Sixty-seven percent of embryos do not make it out of the egg, illustrating the effect inbreeding has had on this population's ability to reproduce (Hoeck et al., 2015). This inbreeding depression observed in ʻAlalā raises the concern that perhaps the population has already reached a threshold where any future birds will be so inbred they will not be able to survive in a capacity required for a wild animal. However, this is all speculation and most scientists agree that if there is a chance to bring a species back, they must use any resource necessary to do so.

As mentioned above, there have been multiple attempts to

reintroduce ʻAlalā back into the wild. The first attempt occurred in the 1990s, ʻAlalā were released into south Kona but failed to become self-sustaining (ʻAlalā Project, 2023). This released population suffered 21 mortalities in all, a third were due to predation by ʻIo, Hawaiian Hawk, (*Buteo solitarius*), and others were from infections of toxoplasmosis (Greggor et al., 2021). The high mortality due to ʻIo predation in this release was unusual since ʻIo were natural predators of ʻAlalā for centuries. Scientists carefully chose the next site for reintroduction, taking into account things such as food availability, understory coverage, and disease prevalence. In 2016, a fenced forest that is free of ungulates was selected and five birds were released into the Puʻu Makaʻala Natural Area Reserve. Of these five birds, two died because of ʻIo-related injuries and a third passed from depleted fat stores, the remaining two birds were recaptured and returned to an aviary (ʻAlalā Project, 2023).

This second failure to reintroduce ʻAlalā into the wild prompted the implementation of anti-predator training. Due to the high mortality from ʻIo attacks, scientists hoped that teaching the crows to be afraid of ʻIo would reduce these numbers. Most anti-predator training is done using defense and evasion techniques a species would naturally use; however there have been no studies of ʻIo predation in wild populations since they have been extinct from the wild for so long. This presented a challenge for researchers because they did not know what to teach the ʻAlalā. Observations from the last wild ʻAlalā suggested that they rarely participated in mobbing, a common defense mechanism for corvids, so scientists focused on more generic predator avoidance. Over three years researchers released 27 juvenile ʻAlalā into the Puʻu Makaʻala Natural Area Reserve; they used a 4-day course of exposing the crows to live ʻIo, alarm calls, and ʻIo calls paired with a taxidermy crow. Once released, the ʻAlalā were tracked and 2-4 researchers monitored the birds daily throughout the study period (2017-2020). Anti-predator response was observed 67 times and mobbing was observed twice; 8 of the 27 birds were predated by ʻIo and the reintroduction effort was stopped. It is unclear what is causing such heightened predation rates from a natural predator. Reduced alleles essential to predator evasion due to the bottleneck effect this species suffered could be one reason but another likely cause could be that defense mechanisms normally taught by adults have been lost as all current birds were reared in captivity (Greggor et al., 2021).

The ʻAlalā Project is currently working towards a new release in the spring of 2024 on the island of Maui. Potential locations that are currently being looked at are the Kipahulu Forest Reserve or Koʻolau Forest Reserve. The release efforts are being moved to Maui because of the ʻIo predation ʻAlalā have faced in past releases. Currently, there are no breeding populations of ʻIo on Maui, although they are occasionally observed there. This will help researchers discern what ʻAlalā require to become a self-sustaining population without the threat of ʻIo, whose relationship with ʻAlalā scientists do not yet understand (ʻAlalā Project pers. Comm., 2023). Although this species faces many threats, such as inbreeding and predation from ʻIo, they may be vital to Hawaiʻi's ecosystems. ʻAlalā are omnivores and are known to predate other birds' eggs and nestlings, however, they primarily eat the fruit from over thirty species of native plants. Before they became extinct in the wild, they were one of the main seed dispersers throughout the archipelago. Only the ʻAlalā and ʻŌmaʻo, Hawaiian Thrush, (*Myadestes obsc*urus) remain as extant primary frugivores on Hawaiʻi and, due to their recent decline on the Big Island, many native plants have been affected. Most seeds are now dispersed by the invasive Red-billed Leiothrix (*Leiothrix lutea*) and Japanese White Eye (*Zosterops japonicus*); both species are much smaller than their endemic predecessors which could be causing selective dispersal of small-seeded plants. In a recent study, captive ʻAlalā were observed eating, carrying, and displaying caching behaviors with all 14 species of native plants presented to them. Of the plants presented to the crows, two were endangered species, ʻālaʻa (*Pouteria hawaiiensis*) and Maua (*Xylosma hawaiiensis*), that currently lack seed dispersers in the wild. This study also found that seeds digested by ʻAlalā had higher germination success than those that did not.

These findings further illustrate the importance of bringing the ʻAlalā back and how beneficial they would be as a part of Hawaiʻi's ecosystems. It furthers the idea that ʻAlalā should be introduced, not only because they have some sort of "intrinsic value", but because they are important in improving plant diversity and abundance (Culliney et al., 2012).

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FALLOUT SEASON

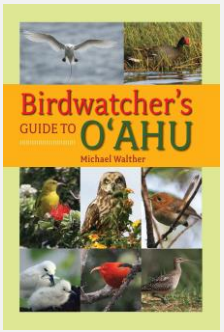
Fallout season started! Between September and December, shearwater and petrel fledglings leave their nests to take their first flight out to sea. They may become disoriented by artificial lights, which they mistake for moonlight. They may collide with buildings or vegetation, or get hit by a car; once on the ground, they become easy prey for predators.

For more info and how you can help, go to *https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/.*

Birdwatcher's Guide to Oʻahu by Michael Walther

Review By Susan Scott

Since 1995, author and wildlife tour guide Michael Walther has been photographing the birds he sees in the main Hawaiian Islands. One island stands out. Michael tells the reader, "Oʻahu is an excellent place for birding," and lists 12 reasons why bird enthusiasts of all levels should visit Oʻahu.



Birdwatcher's Guide to Oʻahu, (Mutual Publishing, 2023) includes Michael's pictures of native and introduced species, migrants, winter visitors, rare vagrants, extremely rare vagrants, and Julian Hume's drawings of Oʻahu's extinct birds.

Also included in the 224-page book are maps and descriptions of where to look for Oʻahu's 218 recorded bird species. Michael has donated photos to the Hawaiʻi Audubon Society's editions of Hawaiʻi's Birds, and contributes articles to the Society's journal, ʻElepaio.

The photos in this guide are excellent, and Michael's maps and location descriptions help even us long-time residents find new places to enjoy our island's birds. Available on *https://hiaudubon.org/product/birdwatchers-guide-to-oahu/* or *https://mutualpublishing.com/product/birdwatchers-guide-to-oahu/*, promo code HAS25 (code is for Mutual Publishing store only, valid until the end of 2023).

Hawai‘i Audubon Society Membership and Donations

The mission of the Hawai‘i Audubon Society (HAS) is to foster community values that result in the protection and restoration of native wildlife and ecosystems, and conservation of natural resources through education, science and advocacy in Hawai‘i and the Pacific. Founded in 1939, HAS is an independent nonprofit 501(c)(3) organization and does not receive dues paid to the National Audubon Society. Thank you for supporting your local Hawai‘i Audubon Society.

All annual memberships end on December 31. See details on *https://hiaudubon.org/membership.*

Please choose your membership level on our website *https://hiaudubon.org/membership*:

$15 Hawai‘i Audubon Society Student Membership

$25 Hawai‘i Audubon Society Regular Membership

$40 Hawai‘i Audubon Society Family Membership

$100 Hawai‘i Audubon Society Supporting Membership

Or, make a tax-deductible donation in any amount *on https://hiaudubon.org/donate/.*

New international membership (‘Elepaio will be sent by email only) is now $25; for international **renewals** requesting a print version, the fee is $38.

All members will receive by email the bimonthly ‘Elepaio journal, with peer-reviewed scientific articles and local environmental news and activities. To request the ‘Elepaio by mail (**not available to new international members**), contact office@hiaudubon.org.

Announcements

For regular updates, check out *hiaudubon.org/events* and/or our social media sites.

Annual Meeting & Members Dinner 2023

Join the Hawai‘i Audubon Society’s Board of Directors for an ono dinner, non-alcoholic beverages, and a presentation by HPR's Manu Minute host UH Hilo Prof. Patrick Hart, titled "How bird song can inform conservation and management of Hawai‘i’s birds".

Sunday, November 5, from 6 to 9 pm

Bishop Museum, 1525 Bernice St, Honolulu, HI 96817

Ticket price: ***$45***

Tickets will be available online only closer to the date. No tickets will be sold at the door. Updates will be announced on our website as they become available. Find parking information on https://www.bishopmuseum.org/directions/. We are aware of a parking fee and priced our dinner tickets accordingly - thank you for your understanding.

Hawai‘i Island Festival of the Birds

On October 21, 2023 at the Grand Naniloa Hotel in Hilo. Visit our table and support native bird hospital care and conservation efforts: *https://birdfesthawaii.org*

Foodland’s Give Aloha Matching Gifts Program

While shopping at any Foodland, Foodland Farms, or Sack N Save in September, please consider a donation to HAS. Tell the cashier our **Organization ID Code: 77189**. A portion (up to $249) will be matched by Foodland.

KEEP CATS SAFE INDOORS

Keep Cats *and* Birds Safe

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NEW MEMBERSHIP MANAGEMENT SYSTEM

We have a new donor/membership management and payment platform (we are now accepting credit cards in addition to PayPal payments) and apologize for any inconvenience this might cause.