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SECOND HAWAII STATE RECORD OF A GREAT BLUE HERON

by Philip R. Ashman, Peter W.C. Paton and James S. MacIvor

On 19 July 1981 we observed a Great Blue Heron (*Ardea herodias*) at Opae'ula Pond (also known as Makalawena Pond) in the North Kona District of Hawai'i Island. This species has never been recorded on Hawai'i Island and has only been recorded once before in the state. Charles G. Kaigler and Eugene Kridler found an individual at Kealia Pond on Maui Island on 6 April 1970 (Kaigler 1970; no observational details reported). Our observation is the first documented record for the state of Hawai'i.

We first observed the bird at 09:00 circling 30 m above Opae'ula Pond. A Hawaiian Stilt (*Himantopus mexicanus knudseni*) was mobbing the heron, calling and diving at the large bird as it gained altitude over the pond. This interaction was not unexpected because stilts have been observed mobbing the indigenous Black-crowned Night-Heron (*Nycticorax nycticorax hoactli*) and the introduced Cattle Egret (*Bubulcus ibis*) on occasion (Coleman 1981). Additionally, Great Blue Herons have been recorded preying upon stilts: Cottam and Williams (in Palmer 1962) found remains of Black-necked Stilts in the pellets of Great Blue Herons at the Bear River Marshes, Utah. The heron circled the pond twice and then flew south down the coast away from us. We observed it with 7x50 and 7x26 binoculars for approximately one minute in good light.

The field characteristics that we noted were: large size, at least four times larger than the stilt; 2 m wingspan; slow, deep wing beats; overall blue body color with dark blue primaries and secondaries; blue-gray upper wing coverts and whitish-blue on the head and neck; and a typical heron flight silhouette--the head and neck drawn back towards the body in an "S"

We realized the rarity of the sighting and were anxious to get a photograph. We drove to Aimakapa Pond, about 15 km south of Opae'ula, to see if the heron might show up there. At 11:00 we were not able to find the bird at Aimakapa. Trips to Opae'ula and Aimakapa on 26 July and 16 August 1981 also proved to be unsuccessful. Great Blue Herons are known to utilize the coastline as well as ponds, so it is not too surprising that we were unable to find the bird on these occasions.

On 12 September 1981, Paton and three other observers saw the heron again at Opae'ula. The bird was extremely wary and flushed immediately. No additional plumage characteristics were noted, but a photo was taken of the heron in flight. This photograph showing only a large heron in flight is now in the Hawaii Audubon Society Rare Bird Documentary File.

A Great Blue Heron was observed by David Woodside (pers. comm.) at Kii Pond on Oahu Island on 1 October 1981. There is a possibility that this bird is the same individual that we observed on Hawai'i Island.

Great Blue Herons breed along the Pacific Coast from northern British Columbia to southern Mexico as well as throughout southern Canada, the continental United States, most of Mexico, parts of the Caribbean and on the Galapagos Islands (Palmer 1962). The nearest known breeding site to Hawai'i is in central California, a distance of approximately 3800 km. It would require unusual circumstances, shape and long legs trailing behind. We did not see the heron stationary or observe it for a long enough time to determine its age. All of us have observed Great Blue Herons on many occasions on the mainland.

it seems, for a heron to embark on a flight to Hawai'i as well as to survive the flight, since there are so few records for vagrant herons in the Islands (Berger 1972, Pyle 1977).

Whenever a bird is found outside of its normal range, several questions arise: When did it arrive? Where did it come from? How did it get here? Why did it arrive at this time of year? These questions are very hard to answer definitively because there are so many variables involved in the movement of birds. It is interesting to speculate on what factors could have been involved to bring a bird, such as the Great Blue Heron, to Hawai'i.

Hérons are well known for their post breeding dispersal, in all compass directions, which begins soon after the young fledge (Palmer 1962). The breeding season of the Great Blue Heron is not well documented for all localities along the West Coast, but Pratt (1970) reported that in central California Great Blue Herons begin to disperse by the third week in June. Based on banding data, it is known that recently fledged Great Blue Herons have traveled great distances; one traveled from Minnesota to Panama in a three month period (Cooke 1946). These data suggest that a heron has the ability to wander to new areas and to survive the rigors of a long flight.

Some types of weather, especially strong winds, are known to affect bird movements. Thurber (1980) described how hurricane force winds played a major role in moving birds out of their normal range and off their normal migration route during several seasons in El Salvador. In the eastern Pacific, the prevailing tradewinds from the east or northeast blow directly from North America toward Hawai'i (Armstrong 1973). The trades are especially persistent in summer, and vary in strength up to 25 to 30 knots. At this season they can increase to much stronger speeds in small areas under the influence of an occasional tropical storm or hurricane traveling in the storm belt at 10° to 20° N. latitude. These easterly winds can direct a bird away from the mainland, and assist its flight toward Hawai'i if the circumstances are right.

During the week preceding our sighting of the Great Blue Heron at Opae'ula Pond, Hurricane Dora was affecting a large area of the Pacific Ocean off western Mexico. Dora formed on 10 July 1981 near 13° N. latitude and moved about 2400 km in a WNW direction toward Hawai'i (with winds reaching a maximum of 80 knots on 14 July 1981). The storm dissipated on 16 July 1981 near 19° N. latitude, still some 2400 km from the Islands. Cloud

bands from the storm reached Hawai'i around 20 July 1981 (R.L. Pyle, pers. comm.).

Given the assumption that the Great Blue Heron we saw just arrived on the island, it is possible that Dora may have influenced its flight here. Perhaps the bird was a post breeding wanderer and was moving offshore when the winds began to influence its flight path. Even though Dora dissipated a long distance away from Hawai'i it is possible that the heron was assisted by the remnant winds to reach the island. This is one possible hypothesis to explain how a very unusual vagrant could have reached Hawai'i.

ACKNOWLEDGMENTS

We thank Dr. R.L. Pyle for providing weather information on Dora and helpful comments on this manuscript, R.A. Coleman for information on Hawaiian Stilts, and J.M. Scott, C.K. Kepler and C.J. Ralph for commenting on this manuscript.

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NESTING OBSERVATIONS OF THE RED-CRESTED CARDINAL ON OAHU

by Jean Bancroft

While on vacation in Honolulu during February and March 1981, I observed the entire nesting period of the Red-crested or Brazilian Cardinal (*Paroaria coronata*). This species, according to Berger (1972:237), is native not only to Brazil but also to Uruguay, Paraguay, eastern Bolivia and northern Argentina." It was first introduced to Oahu in 1928 by McIverny, according to Long (1981). Red-crested cardinals are reported by Long to have been established in South Africa and Florida.

For the past several years in February, when I have made regular visits to the Zoo park area in Honolulu, I have always given an imitative whistle attracting several of these very friendly birds to me; I then handed out crumbs and seeds to them.

During the early part of February 1981, while renewing my acquaintance, I found that my call was answered; a pair flew down to my feet and ate the scattered seeds. What particularly interested me in this instance was that one of the birds had a metal band on its left leg.

On February 18 I noticed an adult sitting on an open cup-shaped nest, loosely made of fine twigs and some grasses. It was about 15 feet above the ground, in an American Sea Grape tree (*Coccoloba*) approximately 16½ feet high.

I visited the same area every other day between 09:15 and 11:00 and sat about 20 feet away from the nest site. Both adults came quite close to me (within six inches sometimes) and ate various foods, and even some small pieces of banana.

On February 23, I watched as both sexes took turns in incubating. Although both sexes look identical, one was banded, thus I was able to determine that both parents took part in the incubation. I was also interested to notice that the Red-crested Cardinal, like some other members of the Fringillidae family (Berger 1972), sings while incubating.

On March 5 one of the parents was quite restless on the nest. The other parent was poking its beak into the nest, while standing on the brim. This suggested to me that the young had either just hatched or were in the process of hatching.

On the 7th, and again on the 10th, both male and female came to me for crumbs and then flew up to the nest and fed the nest-

lings. Frequently after this both adults flew to the nest and fed the young at the same time. I noticed that if one parent fed a particular nestling, the other parent would sometimes feed the same nestling again.

On one occasion I noticed one of the parents disposed of a dropping by throwing it over the brim of the nest. I do not know if this was the bird's usual practice of disposal. However, from my observations of the nesting habits of many perching birds, I have noticed that generally the parent bird flies away from the nest with the droppings, and afterwards cleans off its bill on a branch or twig.

On March 14 I saw two fairly well developed nestlings on the brim of the nest flapping their wings. After exercising their wings they both settled down once more in the nest.

When I visited again on March 16, the adults came several times to pick up food from me, making numerous trips to the nest to feed their rapidly developing offspring. Several times I observed the adults pecking at bare branches of nearby trees; I presume they were searching for insects.

By the morning of March 18 the young had fledged. At approximately 10:00 I walked close to the sea grape tree to observe the nest, which was deserted. Immediately, both parents came close to my feet and I put some crumbs on the grass. They picked up some and flew about 50 feet away to a Kou haole tree (*Cordia sebestena*) near the caged birds, where they fed their two fledglings. A little later one fledgling flew into a patch of sugarcane approximately 15 feet from the Kou haole tree and stayed for several minutes on a stalk about 3 feet from the ground. The fledgling stayed motionless and never let out a sound; (I could have reached out and touched it.) One of the parents remained close by but kept silent. The other fledgling flew in the opposite direction to a Kukui nut tree (*Aleurites moluccana*) where it was fed by both parents. On March 21 I again visited the same area and gave my usual whistled call. Sure enough, the banded bird came and picked up some crumbs and flew over the cages, where I assume the fledglings were being fed.

In the same area, on the 23rd, both adults came to get food from me, and then flew nearby to a Milo tree (*Thespesia*

populnea) where they fed the two fledglings. This tree was adjacent to the sea grape tree where the nest had been located.

Two days later I saw no sign of this particular family, but on March 28 I noticed both parents flying around in the same area, so I gave the whistled call and they both came and picked up food. They then flew to the sea grape tree where the nest was located. The two stub-tailed young were there and almost fully grown.

On previous visits to Honolulu I have always been delighted to have had Red-crested cardinals come to me for crumbs, and on two occasions I found nests which came to naught. This time, therefore, I was exceedingly happy that the nesting proved to be successful.

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NOTE TO CONTRIBUTORS TO THE 'ELEPAIO

All contributions concerning natural history and conservation are welcomed, especially those pertaining to the Pacific area. The Editorial Committee wishes to encourage especially material from the various Pacific Islands, such as the Trust Territories, Guam, Samoa, and other areas. Articles on all natural history subjects are solicited.

It would facilitate the processing and review of your contribution if it could be submitted typewritten and double spaced, although this is not a requirement. All articles of a scientific nature are sent out for comments to at least two reviewers familiar with the subject.

To insure proper handling and rapid publishing of your contribution, it should be mailed to the Editor: C.J. Ralph, 3467 Alani Drive, Honolulu, Hawaii 96822.

HAS POSTCARD NOW AVAILABLE

A high quality color postcard, shown below, that depicts a Hawaiian monk seal and green sea turtle sleeping in the Hawaiian Islands National Wildlife Refuge can now be purchased from the Society in lots of 50 for only \$6.00 postpaid. Please mail your check to: Hawaii Audubon Society
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BACK ISSUES OF 'ELEPAIO AVAILABLE

Back issues of the 'Elepaio may be ordered from the Society as follows:

Volume 35(July 1974) to present:

50¢ per issue, \$5 per volume

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Volume 1 to present (complete set):

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plus actual postage costs for shipping.

Large orders will be billed at time of shipment. Please indicate if you wish it sent by surface mail or by airmail.

JANUARY CONSERVATION UPDATE

By the Board of Directors
Hawaii Audubon Society

Windfarms EIS Comments Submitted-- On 22 November, the Hawaii Audubon Society submitted comments on the draft EIS for the Kahuku Wind Energy Project. Our comments focused primarily upon the EIS recommendation to survey and construct a transmission line through Conservation District native forest. Although the windmill sites are located in already highly disturbed areas, the transmission line route proposed (the "Midland Corridor" alternative) may result in significant impacts on native wildlife. Thorough biological surveys and assessments for the proposed route are clearly needed. A major problem we encountered in reviewing the draft EIS is the document's paucity of information regarding the methods and extent of biological surveys conducted along the proposed corridor. The surveys included plants, birds and snails (arthropods are notably absent from the surveys done). No maps of survey sites or transect lines are presented, and it is not clear how complete the surveys were. It appears that a significant central portion of the transmission line route was not surveyed for plants or birds. Statements in the document that no rare or endangered organisms were found are difficult to evaluate because the search effort (in time and/or in space, as appropriate) expended during each of the biological surveys is not indicated. Because information in the EIS was not sufficient to evaluate biological survey results, HAS requested copies of supporting documents for review.

The EIS does not adequately list impacts which cannot be avoided. This should include: (1) native plants that will be cut and cleared creating permanently disturbed sites; (2) weeds and grasses will invade these sites; and (3) actual or potential *Achatinella* habitat will be permanently altered (the snail survey showed that *Achatinella* do exist somewhere on or near the proposed line).

The EIS also needs to assess impacts on the Golden Plover, Dark-rumped Petrel, and Newell's Shearwater, all nocturnal flyers which may be affected by the windmills or installation lights.

HAS Testifies on Proposed OEQC Changes--HAS presented the following testimony before the State Environmental Council public meeting on November 12, regarding the proposed changes in the status of the Office of Environmental Quality Control (OEQC) and its Director.

(1) There should continue to be a full time Director of the OEQC who is unaffiliated with any other Department. The Director and his staff should have this degree of independence because it is necessary to do their job effectively.

(2) The OEQC should not be absorbed within the Department of Health. Examination of HRS Title 19, Sec. 321-1, reveals that the "department of health shall have general charge, oversight, and care of the health and lives of the *people* of the state" (emphasis ours). Thus the concerns of that department are with the human environment and matters affecting human health, while the concerns of OEQC must be broader, encompassing all of the non-human world as well (e.g., native forests, endangered species, etc.). It then makes no sense to place OEQC into a more narrowly defined department. If this is done, then it is likely that native wildlife and "non-human" environmental concerns will be "absorbed" over time, and receive lower priority than they deserve.

ALOHA TO NEW MEMBERS

We welcome the following new members and encourage them to join in our activities.

Joint (National and Hawaii): Luva Coulson, Honolulu; Ellen Frear, Kailua-Kona; Greg Hurlock, Honolulu; Venesta James, Aiea; William A. Johnson, APO San Francisco; Shawlinsky and M.E. Kawulok, Honolulu; Bernard K. Lum Hoy and Family, Waipahu; Myles Osterneck and Family, Kula; Nancy Preston, Honolulu; and James F. Steuckert, Honolulu.

REPRINTS OF ARTICLES

Reprints of articles in the '*Elepaio* are available to authors and others at the following rate. For 100 copies, \$10 per page of the article. For each additional 100 copies, add \$3 per page.

PUBLICATIONS OF WAU ECOLOGY INSTITUTE NOW AVAILABLE

Wau Ecology Institute is an organization concerned with research, teaching and conservation in New Guinea. It was started, and mainly backed, by Bishop Museum, but is now nearly self-supporting. Among other activities the institute produces handbooks, pamphlets, leaflets and biennial reports. Seven handbooks have been published. All are available from Bishop Museum Press.

Handbook of common New Guinea frogs. By J.I. Menzies. Describes and illustrates in color 50 species, representing all species-groups and about 1/4 of the total number of species of New Guinea mainland. Includes available ecological information. 74 pp, 12 color pls plus figures. \$4.50.

Handbook of common New Guinea beetles. By J.L. Gressitt and R.W. Hornabrook. Keys, describes or illustrates a number of species, partly in color, representative of nearly 50 families of beetles. 87 pp, 36 figs, 10 pls (4 in color). \$4.50.

Guide to biological terms in Melanesian pidgin. By Martin Simon. Illustrated explanations in pidgin of English biological terms. (unintentionally humorous). 115 pp, 42 figs. \$4.00.

Upland birds of Northeastern New Guinea: A guide to the hill and mountain birds of Morobe Province. By Bruce Beehler. Illustrated by Wm. Adams. A field guide to all the birds occurring above 500 m altitude. This includes over 300 species, two-thirds of all the breeding land birds of New Guinea. Besides recognition characters, voice, range, etc., there are habitat and altitude lists. 156 pp, 16 figs plus 57 family recognition silhouettes, 10 pls (5 in color). \$8.50.

Guide to Mt. Kaindi: Background to montane New Guinea ecology. By J.L. Gressitt & Nalini Nadkarni. Illustrated by Margaret Gressitt. This guide presents various types of information about the Wau region - history, geology, climate, etc., and describes quadrat studies along a transect from top to bottom of Mt. Kaindi. There are maps, photographs, forest profile diagrams, illustrations of common flowering plants of the summit area and lists of plants and animals. Also discussion of biogeography, ecology and diversity; plus guides to nature trails. 135 pp, 48 figs, 4 pls (2 in color). \$5.00.

Handbook of New Guinea rodents. By J.I. Menzies and Elizabeth Dennis. Presents keys and descriptions to all species of mainland New Guinea rodents - about 50 species, with 24 illustrated in color. Also lists of species for Bismarcks, Solomons and Moluccas, etc. Includes available ecological information. 68 pp, 8 figs, 8 color pls. \$5.00.

Reptiles of the Solomon Islands. By Michael McCoy. Mentioned in a recent 'Elepaio. \$5.60.

Contributions are now being solicited for producing a larger field handbook to include all the New Guinea birds (under active preparation by Bruce Beehler and Thane Pratt, with 2 expert artists). (Tax-deductible if to Bishop Museum Ecology Fund).

All these publications are available from Bishop Museum Press, Box 19000-A, Honolulu, Hawaii 96819.

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Junior (18 and under).	3.00
Subscriber (non-Hawaii residents	6.00
Life	150.00
(payable in three equal annual installments)	

New members who send in dues between January and September will receive, if they request them, all back issues of the 'Elepaio for that year. After September, the dues are counted for the following year.

PUBLICATIONS OF THE SOCIETY

HAWAII'S BIRDS by the Society (1981). This is the best field guide to our birds, and includes colored illustrations of all native and well-established exotic species. \$3.95 plus postage: 70¢ (surface mail) or \$1.03 (air). Hawaii residents only: add 16¢ for tax.

FIELD CHECKLIST OF BIRDS OF HAWAII by R. L. Pyle (1976). A pocket-size field card listing 125 species found in Hawaii with space for notes of field trips. (Postpaid) \$.25
(ten or more, 10¢ per copy)

GUIDE TO HAWAIIAN BIRDING by members of the Society and edited by C.J. Ralph (1977). Where to go and some idea of what you are likely to see. For the islands of Kauai, Oahu, Lanai, Molokai, Maui and Hawaii (Postpaid) \$1.50

PRELIMINARY LIST OF THE BIRDS OF HAWAII by R. L. Pyle (1977). An authoritative compilation of all species naturally occurring in Hawaii as well as those introduced by man which are currently established as viable populations. Gives each species' status. (Postpaid) \$1.50

ENDANGERED WATERBIRDS OF THE HAWAIIAN ISLANDS by R. J. Shallenberger (1978). Hawaiian Stilt, Coot, Gallinule and Duck, each described in 2 pages of photos and text. Covers description, ecology, status, and distribution. (Postpaid) \$1.00

'ELEPAIO VIA AIRMAIL

Members and subscribers wishing to have the 'Elepaio sent by airmail to addresses outside Hawaii may now obtain this service by remitting the additional amount needed to cover airmail postage costs. These amounts, for 12 monthly issues, are:

U.S. and Canada	\$4.25
Central America, Caribbean	9.00
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USSR, Asia, Africa, Pacific Area	14.00

JANUARY PROGRAM: THE HAWAIIAN HAWK

Our January speaker will be Mr. Curtis Griffin. He will present "The Hawaiian Hawk, or 'Io". For the past two years Curtis has been working on the life history and ecology of the endangered 'Io. This species is now restricted to the Island of Hawaii, although recent paleontological evidence suggests that it, or close, now-extinct relatives once were more widespread in the Hawaiian Archipelago. Curtis will discuss and illustrate with slides the work in radio telemetry and nest-site monitoring which he has carried out in his efforts to reassess the conservation status of this magnificent bird. Meet at 7:30 p.m., January 18, at the McCully-Moiliili Library, 2211 South King Street. All are welcome to attend.

JANUARY FIELD TRIP TO MANOA CLIFFS

The January field trip will be to the Manoa Cliffs trail, part of the extensive trail system in the Tantalus area. This easy trail offers excellent views of the South Shore of Oahu, of Nuuanu Valley, and of Manoa Valley. Native plants are common on the trail, and native forest birds (especially 'Elepaio and 'Amakihi) may be seen along the way. Meet at the Punchbowl Street side of the State Library downtown at 7:30 a.m. Bring lunch, water, raingear, and appropriate footwear. For further information, contact Maile Stemmermann at 949-3430 (evenings) or leave a message at 948-8617 during the day.

SAVE AN EAGLE: SAVE YOUR STAMPS!

Any stamps (especially commemorative and foreign) can help save the American Bald Eagle. The Florida Audubon Society saves stamps for resale to collectors to help fund the Society's raptor research and rehabilitation program. These stamps are collected through Audubon's bald eagle and birds of prey program which is directed by Doris Mager, the nation's best-known bald eagle advocate.

Readers who want to save their foreign and U.S. stamps to help save the Southern Bald Eagle should write to Florida Audubon Society Stamp Program, P.O. Drawer 7, Maitland, FL 32751 for an informative brochure about the project.

HAWAII AUDUBON SCHEDULE OF EVENTS

(for details, see inside back cover)

Jan. 11 (Mon.). Board meeting at the home of Sheila Conant, 3466 Alani Drive (988-6522), 7:00 p.m. All members welcomed.

Jan. 17 (Sun.). Field trip to Manoa Cliffs Trail. Meet at the Punchbowl Street side of the State Library downtown at 7:30 a.m. For information, call Maile Stemmermann at 949-3430 (evenings) or leave a message at 948-8617 during the day.

Jan. 18 (Mon.). Regular meeting at 7:30 p.m. at the McCully-Moiliili Library, 2211 South King St. *The Hawaiian Hawk, or 'Io*, by Curtis Griffin.

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